PUBLIC REVIEW DRAFT

Initial Study/Mitigated Negative Declaration

Olson Foothill Project

APRIL 2023

Prepared for:

CITY OF CLAREMONT
207 Harvard Avenue N.
Claremont, California 91711
Contact: Nikola Hlady

Prepared by:

DUDEK
38 North Marengo Avenue
Pasadena, California 91101
Contact: Alexandra Martini

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
AQMP	Air Quality Management Plan
bgs	below ground surface
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CARB	California Air Resources Board
CBC	California Building Code
CEQA	California Environmental Quality Act
CH_4	methane
CHRIS	California Historical Resources Information System
City	City of Claremont
CNEL	community noise equivalent level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
County	Los Angeles County
CRHR	California Register of Historical Resources
CUSD	Claremont Unified School District
dB	decibel
dBA	A-weighted decibel
du/ac	dwelling units per acre
EO	Executive Order
ESA	Environmental Site Assessment
GHG	greenhouse gas
gpd	gallons per day
GSWC	Golden State Water Company
GWP	global warming potential
HVAC	heating, ventilation, and air conditioning
IS	Initial Study
IWMP	Integrated Waste Management Plan
LACSD	Los Angeles County Sanitation District
L_{dn}	day–night average noise level
L_{eq}	equivalent noise level
LST	localized significance threshold
MBTA	Migratory Bird Treaty Act
mg/kg	milligram per kilogram
MM	mitigation measure
MND	Mitigated Negative Declaration

Acronym/Abbreviation	Definition
MT	metric ton
MU3	Mixed Use 3 Zoning
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NO_2	nitrogen dioxide
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O_3	ozone
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to 10 microns
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
PRC	California Public Resources Code
Project	Olson Foothill Project
Project Applicant	The Olson Company
RCNM	Roadway Construction Noise Model
RTP	Regional Transportation Plan
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SO_X	sulfur oxides
SRA	State Responsibility Area
SWPPP	stormwater pollution prevention plan
TAC	toxic air contaminant
UWMP	Urban Water Management Plan
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
VOC	volatile organic compound
WRP	Water Reclamation Plant

1 Introduction

1.1 Project Overview

The proposed Olson Foothill Project (Project) would involve the construction of a 56-unit townhome development, including 12 live/work units, on a currently vacant 3.05-acre site located at 1030 West Foothill Boulevard, Claremont, California 91711 near the southeast intersection of Towne Avenue and Foothill Boulevard. The Project site was formerly a Marie Callender's restaurant. The Project would require the approval of a Tentative Tract Map, Architectural and Site Plan Review, and a Mixed-Use Development Plan for implementation.

1.2 California Environmental Quality Act Compliance

The California Environmental Quality Act (CEQA) applies to proposed projects initiated by, funded by, or requiring discretionary approvals from state or local government agencies. The proposed Project constitutes a project as defined by CEQA (California Public Resources Code [PRC, Section 21000 et seq.). CEQA Guidelines Section 15367 states that a "Lead Agency" is "the public agency which has the principal responsibility for carrying out or approving a project." Therefore, the City of Claremont (City) is the lead agency responsible for compliance with CEQA for the proposed Project.

As lead agency for the proposed Project, the City must complete an environmental review to determine if implementation of the proposed Project would result in significant adverse environmental impacts. To fulfill the purpose of CEQA, an initial study (IS) has been prepared to assist in making that determination. Based on the nature and scope of the proposed Project and the evaluation contained in the IS environmental checklist (contained herein), the City, as the lead agency, concluded that a mitigated negative declaration (MND) is the proper level of environmental documentation for this proposed Project. The IS shows that impacts caused by the proposed Project are either less than significant or significant but mitigable with incorporation of appropriate mitigation measures as defined herein. This conclusion is supported by CEQA Guidelines Section 15070, which states that an MND can be prepared when "(a) the initial study shows that there is not substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or (b) the initial study identifies potentially significant effects, but (1) revisions in the project plans or proposals made by, or agreed to by the applicant, before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and (2) there is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment."

1.3 Project Location

The Project site is 3.05 acres located at 1030 West Foothill Boulevard near the corner of Foothill Boulevard and Towne Avenue, within the City of Claremont, Los Angeles County (County), California (see Figure 1, Project Location). One parcel is associated with the Project site, identified as Assessor's Parcel Number 8311-001-016.

Regional access to the Project site is provided by State Route 210, approximately 0.9 miles to the north, and Foothill Boulevard (also referred to as Route 66), which creates the northern boundary of the site. Moreover, the Project site is bound by Foothill Boulevard to the north and Towne Avenue to the west. Additionally, the Claremont Metrolink Station, which provides commuter service to the Los Angeles Metropolitan Area, is located approximately 1.31 miles southeast of the Project site.

1.4 Environmental Setting

Existing Conditions

The Project site consists of vacant land, a parking lot, and ruderal vegetation. On site there is also ornamental vegetation consisting of shrubs and mature trees, which line the parking lot of the former restaurant (demolished in 2019).

Existing vehicle access to the Project site is primarily available via Foothill Boulevard from the north, consisting of two driveways (both of which provide right-in and right-out access). In addition, a private alley runs east–west along the southern boundary of the Project site. The private alley is only accessible via Towne Avenue and terminates at the southeastern corner of the Project site into the parking lot of an existing El Ranchero Mexican Food & Margaritas restaurant. The alley provides existing access to El Ranchero and the adjacent dental office and office/commercial buildings to the east of the Project site. Pedestrian access for the Project site includes a landscaped sidewalk along Foothill Boulevard and on Towne Avenue.

Adjacent and Surrounding Land Uses

As shown in Figure 2, Surrounding Land Uses, the Project site is surrounded by commercial, medical office space, and single-family residential land uses.

To the west of the Project site is a 76 gas station at the southeast corner of Towne Avenue and Foothill Boulevard, immediately adjacent to the Project site. Further to the west, across Towne Avenue, is the City of Pomona with land uses including commercial, residential, and vacant land. Northwest of the Project site are corner commercial land uses and parking lots.

Similar land uses surround the Project site to the north, such as Shell gas station, located at the northeast corner of Towne Avenue and Foothill Boulevard; commercial land uses consisting of a Stater Bros. Market and a commercial shopping center; and parking lots. Further north are single-family residential land uses.

To the south of the Project site is a single-family residential neighborhood. Three water tanks are located approximately 0.25 miles from the site. In addition, Temple Beth Israel is located approximately 0.25 miles to the south/southwest on Towne Avenue.

To the east, the Project site is immediately adjacent to a dental medical office and commercial uses, including restaurants. Further to the east, approximately 650 feet, is Mountain View Elementary School.

Existing Views of and Through the Project Site

Photos were taken from seven locations around the perimeter of, and within, the Project site to show representative viewpoints of the Project site and its surroundings. Four viewpoints from the seven locations where the photos were taken were used in the following analysis. Each viewpoint corresponds to one of the photos shown in Figure 3, Site Photos. These viewpoints are further described in the following subsections.

Viewpoint A – Facing North/Northwest

Viewpoint A consists of the view looking north/northwest through the Project site from the private alley along the site's southern boundary. Within this view, the Project site's asphalt-paved surface parking lot and ornamental vegetation, consisting of mature trees and shrubs, are in the background. Beyond the Project site, across Foothill Boulevard, views consist of Stater Bros. Market and neighborhood-serving commercial development along with foothills views of the San Gabriel Mountains.

Viewpoint B – Facing South

Viewpoint B consists of views looking south through the Project site from Foothill Boulevard. Across the Project site, there are views of overhead power lines running east–west along the site's southern boundary. In addition, views include masonry walls, varying trees/hedges, and one-story single-family residences.

Viewpoint C – Facing East

Viewpoint C consists of views looking east through the Project site from Towne Avenue. Across the Project site, views of mature trees are visible. Views of surrounding land uses such as the dental medical office building adjacent to the Project site are not visible due to trees on and off site.

Viewpoint D – Facing Southwest

Viewpoint D consist of public views looking southwest from Foothill Boulevard. Street trees of varying ages (i.e., mature and recently planted trees with plant support) are visible between the Project site, the sidewalk along Foothill Boulevard, and the street curb. In addition, a riparian parkway exists along the Project site's northern boundary, composed of rocks and various shrubs. A Class II bike lane also exists within the right-of-way for Foothill Boulevard. These features were recently improved as part of the Foothill Boulevard Master Plan. Views through the Project site include a masonry wall providing the eastern boundary to the adjacent 76 gas station and the gas station's overhead canopy.

General Plan and Zoning Designations

The Claremont General Plan (General Plan) designates the Project site as West Foothill Boulevard Mixed Use, as shown in Figure 4, General Plan Land Use Map. This land use designation allows for "a mix of residential and compatible office and retail/service uses integrated as a cohesive development, or such uses developed side-by-side in a manner that encourages interaction between uses" (City of Claremont 2009). The City's General Plan allows for a maximum of 15 dwelling units per acre (du/ac), a maximum floor-area-ratio of 1.5, and a projected population density of 40 persons per acre for the West Foothill Boulevard land use designation (City of Claremont 2009).

As shown in Figure 5, Zoning Map, the Project site is zoned Mixed Use 3 (MU3) (City of Claremont 2014). According to Claremont Municipal Code, this zone is intended to provide quality, dynamic, pedestrian-oriented environments by permitting a combination of commercial, office, service, entertainment, and residential uses within these areas. Claremont Municipal Code Section 16.040.010.C further defines the City's intent, stating "mixed uses will include an emphasis on ground floor retail along Foothill Boulevard with residential uses permitted on upper floors and/or as a transition to adjacent single family residential development." Furthermore, the City's Municipal Code establishes development standards for MU3 (West Foothill Boulevard Mixed Use District) to have a maximum floor-area-ratio of 1.5 for commercial development and a maximum density of 15 du/ac for residential development. In addition, under MU3 zoning, a maximum of two stories of 28 feet is allowed (City of Claremont 2022a).

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2 Project Description

The proposed Project would redevelop the 3.05-acre site with a 56-unit townhome development, including 12 live/work units. The proposed development would include 10 buildings consisting of single-family attached residential land uses, landscaping, and internal driveways. The buildings would range between 30 feet, 36 feet and 6 inches, and 37 feet and 6 inches in height. The proposed Project is generally consistent with the site's General Plan land use designation and zoning. The Olson Company (Project Applicant) is requesting the approval of a Tentative Tract Map (see Figure 6, Vesting Tentative Tract Map), Architectural and Site Plan Review, and a Mixed-Use Development Plan. In addition, the Project Applicant is utilizing additional density and height incentives under State Density Bonus law.

2.1 Proposed Project

Project Design

The proposed Project would construct a 56-unit townhome development, including 12 live/work units, across 10 buildings. The proposed residences would be composed of two-, three-, and four-bedroom units and range from approximately 1,213 square feet to 2,233 square feet. Six of the building are proposed to be three stories, reaching a maximum height of 37 feet and 6 inches, while the remaining four buildings would be two-stories high, with a maximum height of 30 feet.[1] The 12 live/work units would be arranged in two six-unit buildings, three stories in height and fronting Foothill Boulevard. Figure 7, Conceptual Site Plan, provides a detailed layout of the Project site and Figures 8a through 8d, Elevations, illustrate the proposed buildings' conceptual architectural styles and proposed heights. As shown, the two live/work buildings would feature a contemporary architectural style, whereas the rest of the buildings would be constructed with a Spanish Monterey influenced architectural style. The following outlines a description of each building as proposed:

- **Building 1 and Building 2** would consist of a total 16 units, be three-stories high, and would front Towne Avenue, south of the existing gas station.
- **Building 3 through Building 6** would consist of three-unit buildings, each two-stories high, located in the southern portion of Project site, just north of the private alley and the single-family residences to the south.
- **Building 7 and Building 8** would consist of 16 units, be three-stories high, and be located in the center of the Project site.
- **Building 9 and Building 10** would support 12 live/work units and each building would be three-stories high and would front Foothill Boulevard.

Table 2-1 explains the proposed Project's general consistency with the City's General Plan and zoning for the Project site.

[1] Height is measured from grade to the roof's ridge.

Table 2-1. General Development Standards

	Standard	Proposed	Complies	Comments
General Plan	Mixed Use	No change	Yes	Live/work component satisfies General Plan requirement for ground-floor commercial component for West Foothill Boulevard Mixed-Use
Zoning	MU3	No change	Yes	NA
Lot Size	Maximum 15 du/ac	Approximately 18.3 du/ac	Yes	With 20% density bonus
Setback (Street)	10 feet	10 feet (Foothill Boulevard); 15 feet (Towne Avenue)	Yes	NA
Setback (Residential)	10 feet	36 to 63 feet (rear setback at southern property line)	Yes	NA
Setback (Non-Residential)	0 feet	10 feet	Yes	NA
Height	Two stories/28 feet	Three stories/33 feet and 7 inches	Yes	With approval of density bonus waiver
Parking (Residential Only)	2 spaces per unit with greater than 600 square feet; 0.5 uncovered or covered visitor parking spaces per unit Total required: 112 covered; 28 covered/uncovered	112 total covered spaces in garages, 18 uncovered spaces throughout site, 24 uncovered spaces on driveways of Buildings 3–6	Yes	Per State Density Bonus law, 0/1-bedroom units required one covered space; 2/3-bedroom units provided 1.5 spaces; 4+ bedrooms require 2.5 spaces; Parking spaces may be covered, uncovered, or provided in tandem. Note: 42 covered parking spaces provided in tandem configuration.
Parking (Live/Work)	2 covered spaces per unit with greater than 600 square feet of living area; 1 covered or uncovered space per 350 square feet of work/office space Total required: 24 covered; 12 covered/uncovered	24 total covered spaces in garages (2/unit), 10 of 18 uncovered spaces are located in proximity of live/work units.	Yes	Per State Density Bonus law, 3-bedroom units require 1.5 parking spaces. Parking spaces may be covered, uncovered, or provided in tandem. Note: 10 uncovered parking spaces provided in proximity to live/work units. Each live/work unit has 2 covered parking spaces in garage.

Table 2-1. General Development Standards

	Standard	Proposed	Complies	Comments
Open Space	120 square feet per unit for projects with more than 5 units. Usable open space may be any combination of private and common open space. Private open space shall have a minimum dimension of 6 feet while common open space shall have a minimum dimension of 15 feet. 56 units × 120 square feet = 6,720 square feet of usable open space	Common open space is 14,001 square feet, private open space is 4,569 square feet, other landscaped open space is 14,003 square feet	Yes	NA

Source: City of Claremont
Notes: du/ac = dwelling unit/acre; NA = not applicable.

Density Bonus and Height Waiver

The Project Applicant is proposing a 20% density bonus incentive (as shown in Table 2-1) with the inclusion of 10% affordable (low-income) units pursuant to State Density Bonus law. An incentive or concession is defined as a reduction in site development standards or a modification of zoning code or architectural design requirements. In addition, the State Density Bonus law specifies that a project is entitled to a waiver from "any development standard that will have the effect of physically precluding the construction of a development at the densities or with the concessions or incentives permitted." Waivers are separate from the additional concessions/incentives and their approval is mandatory, as specified. As such, Table 2-2 outlines the applicable provisions.

Table 2-2. Density Bonus Calculations

Standard	Calculation
Maximum Permitted Density under MU3 zoning	15 du/ac
Base Maximum Density	3.054-acre site × 15 du/ac = 46 units
10% Low-Income Units required for State Density Bonus law	10% of 46 units = 4.6 units
20% Density Bonus for providing 10% Low-Income Units	46 units × 20% = 9.2 units
Maximum Units Allowed/Permitted	46 units + 9.2 units = Maximum of 56 units permitted (or 18.3 du/ac)

Source: City of Claremont 2022b.
Notes: du/ac = dwelling unit/acre
State Density Bonus law requires that a fractional unit be rounded up to the nearest whole number.

In addition, the proposed Project is subject to the City's Inclusionary Housing Ordinance. However, the Project's application was submitted prior to the effective date of recent updates to the City's ordinance. As such, the Project is subject to the prior provisions of the Inclusionary Housing Ordinance, which requires 15% moderate-income units. Moreover, per the prior ordinance, the Project Applicant may receive a 1.5:1 credit for providing low-income units in lieu of moderate-income units. Therefore, by providing 10% low-income inclusionary units per the State Density Bonus law, the proposed Project also satisfies the City's Inclusionary Housing Ordinance requirement.

The Project Applicant is claiming a waiver for the City's height requirements, as shown in Table 2-1. Approval of the waiver would permit the Project's three-story buildings having a maximum height of 33 feet and 7 inches[2] in lieu of the maximum height of two stories as permitted by the MU3 zone.

Circulation and Parking

The Project site's existing circulation would continue to provide vehicular access for the proposed Project to and from Foothill Boulevard and the alley via Towne Avenue. However, circulation patterns would include design modifications along Foothill Boulevard by providing one driveway instead of two driveways. Moreover, internal circulation would be supported by a 26-foot-wide internal drive aisle between Buildings 9 and 10 and Buildings 7 and 8, which would connect to the 27-foot-wide driveway between Buildings 9 and 10 onto Foothill Boulevard. A secondary entry onto Towne Avenue would support a new 26-foot-wide street (formerly the private alley) that would serve Buildings 1 through 6. These two internal streets would not connect within the Project site. Once constructed and operational, the southern street would continue to provide access to the several other commercial properties to the east of the Project site. No gate is proposed at the eastern end of the alley.

Pedestrian access and circulation to the Project site would not change with Project implementation. Sidewalk access via Foothill Boulevard and Towne Avenue would continue to provide direct connections to the Project site. On site, a pedestrian path is proposed adjacent to a passive lawn area along the common open space (further detailed below). Additionally, as mentioned above, the Project as proposed is oriented to provide direct pedestrian access to the 12 live/work units along the frontage of Foothill Boulevard, consistent with the City's General Plan and zoning intent for the Project site.

As detailed in Table 2-1, a total of 112 covered parking spaces (i.e., garages) and 18 uncovered spaces are proposed for a total 130 parking spaces. An additional 24 spaces can be provided in the driveways of Buildings 3, 4, and 6.

Landscaping, Setbacks, and Open Space

The proposed Project would feature a central landscaped open space area. As shown in Figure 9, Conceptual Landscaping Plan, the Project would include green space with a shade structure, barbeque island, fire pits, and seating areas. Furthermore, as shown in Figure 10, Conceptual Planting Plan, a total of 167 new trees would be planted on site, including coast live oak (*Quercus agrifolia*), California sycamore (*Platanus racemose*), crape myrtle (*Lagerstroemia indica*), Marina strawberry (*Arbutus marina*), Brisbane box (*Lophostemon confertus*), and Australian willow (*Geijera parviflora*). Trees are proposed to line the open space area and provide buffer/shade to the adjacent buildings. Landscaping would be used to screen transformers, back-flow preventers, and other aboveground utilities. According to the Conceptual Planting Plan, irrigation would be provided on site and subject to California water regulations. In addition, landscape lighting would be installed throughout the site while pole-mounted lighting fixtures would be installed along the Project's drive aisles and near uncovered parking spaces.

[2] Measured from grade to midpoint between roof's ridge and eaves as required in Claremont Municipal Code Section 16.900.175.

Figure 11, Conceptual Wall and Fence Plan, details the Project site's existing and proposed walls, fences, and gates. Under existing conditions and under Project implementation, the Project site's 6-foot-high southern property line wall would remain in place. The Project proposes new walls throughout the site including, but not limited to, 6-foot-high stucco over concrete masonry unit walls along the eastern property line and in select units' patios. An 8-foot-high stucco over concrete masonry unit wall would be built along the property lines shared with the adjacent gas station. Other private outdoor space for select units would include a 3-foot-and-6-inch-high stucco over concrete masonry unit patio wall. Additionally, a new 2-foot-high retaining wall is proposed along Foothill Boulevard.

As demonstrated above in Table 2-1, setbacks are required per the City's Municipal Code. Thus, a 62-foot setback is proposed to separate Buildings 3 through 6 from the southern property line (and the single-family residences). In addition, a 36-foot setback is proposed to separate Buildings 1 and 2 from the southern property line.

The proposed Project would also include 14,001 square feet of common open space on site along with 4,569 square feet of private outdoor space, as shown in Figure 12, Conceptual Open Space Plan. Private outdoor open space would include ground-level courtyards and second-floor balconies for certain units. Other landscaped open space would total 14,003 square feet.[3] As such, the Project proposes a total of 18,570 square feet of private and public open space, while the City requires 6,720 square feet.

Infrastructure and Utility Improvements

The Project would connect to existing utilities serving the surrounding area. Water services would be provided by Golden State Water Company, sewer services by the City, electronic services by Southern California Edison (SCE), gas services by the Southern California Gas Company, and telephone and cable services by Frontier and Charter Communications. Two transformers are proposed on site: one is proposed south of Building 3 along the southern perimeter of the site and another is proposed west of Building 7, adjacent to the western boundary with the gas station. The portion of the alley that runs along the Project site's southern boundary would be widened and may be repaved as part of Project construction, if deemed necessary.

2.2 Project Construction

Construction activities are anticipated to commence in May 2023 and be completed in May 2026.[4] A total of 28 months is assumed as the duration of the construction period. The Project is planned to be operational by 2026. Construction would involve demolition of the asphalt-paved parking lot of approximately 40,000 square feet and export of 7,000 cubic yards of dirt during grading. Construction activities would include demolition, site preparation, building construction, paving, and architectural coating.

Construction Design Features

These construction measures would be included in the building plans as project design features. The following recommended project design features include standard rules and requirements, best practices, and recognized design guidelines for reducing air quality and greenhouse gas (GHG) emissions (Appendix A, Air Quality and

[3] This area does not meet the requirements to be counted as either usable common open space or private open space.

[4] The analysis in this IS/MND assumes a construction start date of May 2023. In practice, construction is anticipated to begin at a later date. However, using an earlier start date for construction represents the worst-case scenario construction impacts because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Greenhouse Gas Impact Analysis). Design features are assumed to be part of the conditions of approval for the Project and integrated into its design.

- The Project must follow the standard South Coast Air Quality Management District (SCAQMD) rules and requirements with regards to fugitive dust control, which includes, but are not limited to the following:
  - All active construction areas shall be watered two times daily.
  - Speed on unpaved roads shall be reduced to less than 15 mph.
  - Any visible dirt deposition on any public roadway shall be swept or washed at the site access points within 30 minutes.
  - Any on-site stockpiles of debris, dirt, or other dusty material shall be covered or watered twice daily.
  - All operations on any unpaved surface shall be suspended if winds exceed 15 mph.
  - Access points shall be washed or swept daily.
  - Construction sites shall be sandbagged for erosion control.
  - Nontoxic chemical soil stabilizers shall be applied according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
  - All trucks hauling dirt, sand, soil, or other loose materials shall be covered and maintain at least 2 feet of freeboard space in accordance with the requirements of California Vehicle Code Section 23114.
  - Construction access roads shall be paved or covered by gravel at least 100 feet onto the site from the main road and use gravel aprons at truck exits.
  - The ground cover of disturbed areas shall be replaced as quickly possible.
- All diesel construction equipment would be low emission "clean diesel" equipment with new or modified engines (Tier 4 or better) that include diesel oxidation catalysts and diesel particulate filters that meet the latest California Air Resources Board (CARB) best available control technology.
- Construction equipment shall be maintained in proper tune.
- All construction vehicles shall be prohibited from excessive idling. Excessive idling is defined as 5 minutes or longer.
- Simultaneous operation of multiple construction equipment units shall be minimized to the maximum extent feasible.
- The use of heavy construction equipment and earthmoving activity shall be suspended during Air Alerts when the Air Quality Index reaches the "Unhealthy" level.
- An electricity supply to the construction site shall be established and electric powered equipment shall be used instead of diesel-powered equipment or generators, where feasible.
- Staging areas for the construction equipment shall be established as far from adjacent residential homes as feasible.
- Haul trucks with on-road engines shall be used instead of off-road engines for on-site hauling.

2.3 Project Operation

Operational Design Features

The proposed Project is required to comply with Title 24 of the California Code of Regulations established by California Energy Commission regarding energy conservation and green-building standards. The proposed Project shall also comply with the City's applicable goals and policies of the GHG reduction measures for residential development.

Green Buildings and Energy Efficiency Measures

All Project buildings shall be designed to meet the California Building Code (CBC) Title 24 energy standard, including, but not limited to, any combination of the following:

- Increase insulation such that heat transfer and thermal bridging are minimized.
- Limit air leakage through the structure or within the heating and cooling distribution system to minimize energy consumption.
- Install energy-efficient lighting (e.g., LEDs and lighting control systems).
- Install photovoltaic systems to convert solar energy into electricity. Providing power locally will decrease electricity use for 15% of the energy made by SCE.

The applicable California Department of Resources Recycling and Recovery Sustainable (Green) Building Program Measures are as follows:

- Recycle/reuse at least 50% of the construction material (including, but not limited to, soil, mulch, vegetation, concrete, lumber, metal, and cardboard)
- Use "green building materials" such as those materials that are rapidly renewable or resource efficient, and recycled and manufactured in an environmentally friendly way, for at least 10% of the Project.

Water Conservation

- Install water-efficient fixtures and appliances such as low-flow fixtures, dual-flush toilets, and other water-efficient appliances in accordance with Title 24 codes.
- Install water-efficient irrigation systems and devices, such as soil-moisture-based irrigation controls, and use water-efficient irrigation methods in accordance with Title 24 codes.

2.4 Required Permits and Approvals

City Permits and Approvals

The proposed Project would require a number of discretionary permits and approvals from the City, listed below. These permits are subject to CEQA.

- Vesting Tentative Tract Map Review and Approval
- Mixed-Use Development Plan
- Architectural and Site Plan Review
- Inclusionary Housing Agreement
- Building Permits, Grading Permits, Encroachment Permits, and Demolition Permits, etc.

Approvals and Review from Other Agencies

Approvals from other agencies may also be required and are listed below. These permits would be administrative in nature and are not expected to be subject to CEQA. As such, no responsible or trustee agencies have been identified for this Project.

- Encroachment permits
- California Department of Transportation (District 7)
- City of Pomona
- Los Angeles County Fire Department – Plan approval
- Los Angeles County Sanitation Districts – Sewer Connection Permit
- Southern California Air Quality Management District – Demolition Permits
- Utility providers – Utility connection permits

3 Initial Study Checklist

The following discussion of potential environmental effects was completed in accordance with Section 15063(d)(3) of the CEQA Guidelines (14 CCR 15000 et seq.) to determine if the proposed Project may have a significant effect on the environment.

1. **Project title:**

   Olson Foothill Project

2. **Lead agency name and address:**

   City of Claremont
   207 Harvard Avenue N.
   Claremont, California 91711

3. **Contact person and phone number:**

   Nikola Hlady, Senior Planner
   City of Claremont
   207 Harvard Avenue N.
   Claremont, California 91711
   909.399.5322
   nhlady@ci.claremont.ca.us

4. **Project location:**

   1030 West Foothill Boulevard
   Claremont, California 91711

5. **Project sponsor's name and address:**

   Olson Urban Housing LLC (The Olson Company)
   3010 Old Ranch Parkway Suite 100
   Seal Beach, California 90740-2751

6. **General Plan designation:**

   Mixed Use

7. **Zoning:**

   Mixed Use 3 (MU3)

8. **Description of project. (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary):**

   The proposed Olson Foothill Project (Project) would involve the construction of a 56-unit townhome development, including 12 live/work units, on a currently vacant 3.05-acre site. The Project site, located at 1030 West Foothill Boulevard, Claremont, California 91711 near the southeast intersection of Towne Avenue

and Foothill Boulevard, was formerly a Marie Callender's restaurant. The Project would require the approval of a Tentative Tract Map, Architectural and Site Plan Review, and a Mixed-Use Development Plan for implementation. In addition, the Project Applicant is utilizing additional density and height incentives under State Density Bonus law. Refer to Chapter 2, Project Description, of this document for more details.

9. **Surrounding land uses and setting (Briefly describe the project's surroundings):**

   The Project site is surrounded by commercial, medical office space, and single-family residential land uses (see Figure 2). See also Section 1.4, Environmental Setting, of this IS/MND for more details.

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**

    - California Department of Transportation (District 7) – Encroachment Permit (if determined to be necessary)
    - City of Pomona – Encroachment Permit (if determined to be necessary)
    - Los Angeles County Fire Department – Plan approval
    - Los Angeles County Sanitation Districts – Sewer Connection Permit
    - Southern California Air Quality Management District – Demolition Permits
    - Utility providers – Utility connection permits

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

    Yes; refer to Section 3.18, Tribal Cultural Resources, of this IS/MND for details.

    Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and Project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process (PRC Section 21080.3.2.). Information may also be available from the California Native American Heritage Commission (NAHC) Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. PRC Section 21082.3(c) contains provisions specific to confidentiality.

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 and Forestry Resources	☐ Air Quality
☐ Biological Resources	☒ Cultural Resources	☐ Energy
☒ Geology and Soils	☐ Greenhouse Gas Emissions	☒ Hazards and Hazardous Materials
☐ Hydrology and Water Quality	☐ Land Use and Planning	☐ Mineral Resources
☒ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation	☒ Tribal Cultural Resources
☐ Utilities and 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 impact" 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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Signature

4/26/23
Date

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a. Earlier Analysis Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a. The significance criteria or threshold, if any, used to evaluate each question; and
    b. The mitigation measure identified, if any, to reduce the impact to less than significance

3.1 Aesthetics

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**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 non-urbanized 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) Would the project have a substantial adverse effect on a scenic vista?

Less-Than-Significant Impact. Scenic vistas generally refer to views of expansive open space areas or other natural features, such as mountains, undeveloped hillsides, large natural water bodies, or coastlines. Less commonly, certain urban settings or features, such as a striking or renowned skyline, may also represent a scenic vista. Scenic vistas generally refer to views that are accessible from public vantage points, such as public roadways and parks.

Scenic vistas near the Project site are dominated by the hillsides and slopes of the San Gabriel Mountains. Views of this resource are primarily observed from roadways that lead up to the hills or from the northbound travel lanes of major north–south roadways. Due to the size and height of the San Gabriel Mountains, views of this resource are prominent throughout the City. However, many views of the San Gabriel Mountains have been compromised, either partially or entirely, by existing development, landscaping, and urban infrastructure. Complete views of the San Gabriel Mountains are generally limited to the City's north–south roadway corridors. The City regulates impacts to scenic vistas through development standards in the Municipal Code, such as those for the City's Hillside District zone. However, the Project site is not designated nor adjacent to land zoned Hillside. In addition, according to the City's General Plan, there are no officially designated scenic vistas within the City (City of Claremont 2009).

The Project site contains existing but obstructed views of the San Gabriel Mountains, as shown on Figure 3 and further detailed in Section 1.4, Environmental Setting, of this IS/MND. Public views of this resource are only visible facing northwest on Towne Avenue. These views are obstructed by the existing gas station, mature trees within the Foothill Boulevard right-of-way, and the commercial shopping center (i.e., Stater Bros. Market) to the north of the Project site. Implementation of the proposed Project would introduce 10 residential buildings, walls/fences, and landscaping features that would further obstruct this public vantage point of the San Gabriel Mountains. However, this would not represent a substantial adverse effect when compared to existing conditions.

Given the above, scenic vistas are not available from public vantage points surrounding the Project site, as existing views of scenic resources have already been substantially blocked by existing development, vegetation, and/or the topography of the surrounding landscape. As such, the proposed Project would not have the potential to adversely affect any scenic vistas that are currently available in and around Project site. Impacts would be less than significant. No mitigation is required.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The nearest officially designated state scenic highway is a portion of State Route 2 that extends through the San Gabriel Mountains, beginning just north of the City of La Cañada Flintridge (County of Los Angeles 2014). The portion of State Route 2 that is officially designated as a state scenic highway is located approximately 18 miles northwest of the Project site, within the San Gabriel Mountains. Due to this distance, the City is not within the viewshed of this state scenic highway. Similarly, the Project site is approximately 10 miles east of the State Highway 39, the nearest eligible scenic highway, and not within the viewshed of this state scenic highway. As such, the proposed Project would not substantially affect any scenic resources within a state scenic highway. Therefore, no impact on scenic resources within a state scenic highway would occur as a result of the proposed Project.

c) In non-urbanized areas, would the project 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?

Less-Than-Significant Impact. The Project site is located within an urbanized area surrounded by residential and commercial land uses. PRC Section 21071 defines an "urbanized area" as "(a) an incorporated city that meets either of the following criteria: (1) Has a population of at least 100,000 persons, or (2) Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons." As further discussed in Section 3.14, Population and Housing, of this IS/MND, the U.S. Census Bureau recorded 37,266 residents in April 2020 (Census 2022). As described in Section 1.4 of this IS/MND, the City of Pomona, which had a population of 151,554 residents in 2020, is located adjacent to the Project site across Towne Avenue. As such, per PRC Section 21071(a)(2), the Project site is located within an area where two contiguous incorporated cities combined equals at least 100,000 persons.[5] Therefore, the Project site is located within an urbanized area and the following discussion is based on the Project's ability to not conflict with applicable zoning and other regulations governing scenic quality.

[5] City of Claremont 2020 population of 37,266 + City of Pomona 2002 population of 151,713 = 188,979 residents

Applicable zoning and other regulations governing scenic quality would include the City's development standards related to setbacks, open space, and height. As shown in Table 2-1, the Project would meet the City's requirements for a 10-foot street setback and exceed the City's residential and non-residential setback requirements. In addition, the Project would provide more private and public open space beyond the City's requirements. As shown in Table 2-1, the City requires a total of 6,720 square feet of open space. The Project would include a total of 18,914 square feet: 14,001 square feet of public open space on site along with 4,569 square feet of private outdoor space (see Figure 12 for details).

The Project would exceed the City's height requirement of two stories or 28 feet. As discussed in Chapter 2, the Project is utilizing State Density Bonus law to increase density on the site and claiming a height waiver to permit the Project's proposed maximum height of three stories or 33 feet and 7 inches. Furthermore, State Density Bonus law specifies that a project is entitled to a waiver from "any development standard that will have the effect of physically precluding the construction of a development at the densities or with the concessions or incentives permitted." Waivers are separate from the additional concessions/incentives and their approval is mandatory. Therefore, the Project would not conflict with the City's local regulations given state law.

As demonstrated above, the Project site is located within an urbanized area and is not anticipated to conflict with applicable zoning and other regulations governing scenic quality. Furthermore, as a part of the City's development and design review process, Project plans are reviewed with the intent of scenic quality and compliance with the Architectural and Site Plan Review Criteria set forth in the City's Municipal Code. For example, this Project has had a preliminary review by the City's Architectural Commission on June 15, 2022 (City of Claremont 2022b). Moreover, prior to approval, the Project would need to satisfy all of the design review criteria set forth in the Municipal Code as part of the City's design review process to ensure consistency with the site's zoning designation and the applicable regulations for scenic quality. Therefore, impacts associated with existing visual character and quality would be less than significant. No mitigation is required.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less-Than-Significant Impact. The Project site is located within a developed area. As such, much of the Project area is currently exposed to numerous sources of nighttime lighting and nighttime glare, such as nighttime lighting from streetlights, windows, and headlights from vehicles. Additional lighting or lighting in new locations could result in potential effects if new sources of light trespass are introduced and if the light trespass affects light-sensitive receptors such that daytime and nighttime views would become adversely affected. Light-sensitive receptors are generally considered to be residential properties and also may include hotel, hospital, or nursing home uses, where excessive light at night may impact the use of the property. As described in Section 1.4 of this IS/MND, single-family residences exist to the south of the Project site. No other light-sensitive receptors are located within the Project site's vicinity.

The Project proposes a lighting plan to illuminate internal streets and pedestrian pathway with light poles, as well as downlight lighting for shade structures and uplight lighting for select trees and landscaped areas. Five light poles would be installed along the Project site's southern boundary, adjacent to existing single-family residences. These poles would be approximately 10 feet in height with lighting directed downwards. In addition to downward lighting, the Project includes design features to help reduce light trespass. As described in Section 2.1 of this IS/MND, the site would maintain an existing 6-foot-high property line wall and the Project

would plant approximately street trees along the same property boundary. Inclusion of these features would shield Project-related lighting and reduce the amount of light trespass onto the nearby single-family residences. Moreover, the Project proposes residential uses and live/work units on site, which are not considered light-intensive land uses. As such, the amount of lighting expected to be generated by the Project would be minimal and would be compatible with the adjacent residential uses.

Additionally, all lighting installations proposed by the Project would be required to comply with existing regulations governing lighting. For example, the City regulates outdoor lighting and glare in order to limit the amount of light spillover. Claremont Municipal Code Section 16.154.030, Outdoor Lighting and Glare, requires that outdoor light fixtures be designed, installed, and maintained so as to direct light only onto the property on which the light source is located. The City also requires that all outdoor lighting fixtures have prismatic diffusing lens and/or appropriate shielding so the light source is not directly visible from the public right-of-way or abutting residential properties. As mentioned in Section 3.1(c), the Project is subject to review by the Architectural Commission per Municipal Code Chapter 16.300. This includes review of all exterior light fixtures and a photometric plan for all outdoor lighting to ensure that the Project complies with the Municipal Code. These measures would ensure that adverse nighttime lighting effects do not occur at nearby residential uses as a result of the proposed Project.

Glare is typically associated with reflective building materials, such as glass, stainless steel, aluminum, and photovoltaic panels. Daytime glare is considered significant if it adversely affects daytime views in the area. With respect to daytime glare, building materials and light fixtures would have non-glare finishes that would not cause reflective daytime glare. As described in Section 2.1 of this IS/MND, building materials would consist of stucco, brick veneer, and wood paneling. These materials would not introduce large amounts of reflective materials on site. While there would be windows and light color stucco that could produce glare, the windows would be relatively small and recessed and buildings would be surrounded by trees and landscaping features that would minimize the potential for unwanted glare to the street or adjacent uses.

For these reasons, the proposed Project is not anticipated to produce new sources of substantial nighttime or daytime lighting and glare such that views are substantially affected. Therefore, impacts relative to light and glare would be less than significant. No mitigation is required.

3.2 Agriculture and Forestry Resources

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II.	**AGRICULTURE 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 Dept. 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 (Farmland), 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) ***Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?***

No Impact. The Project site is located in an area defined as Urban and Built-Up Land according to the California Department of Conservation's California Important Farmland Finder (DOC 2022a). Urban and Built-Up Land is defined as "land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel" (DOC 2022a). Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures, such as the Project site and the

immediate vicinity. Given the designation for the Project site, the proposed Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to a non-agricultural use. No impact would occur.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project site is currently zoned MU3, as described in Section 1.4 of this IS/MND. The MU3 zone does not permit agricultural uses according to Table 16.051.A, Permitted Use Chart, of the City's Municipal Code under existing conditions. In addition, according to the Williamson Act Contract Land Map, the Project site is designated as Urban and Built-Up Land; thus, no Williamson Act contract currently exists on site (DOC 2017). Therefore, the Project would not conflict with an existing Williamson Act contract. No impact to existing Williamson Act contracts or land zoned for agricultural use would occur as a result of the Project.

c) Would the project 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))?

No Impact. As detailed in Section 3.2(b), the Project site is currently zoned MU3 and the City does not permit agricultural uses within this zoning designation. Similarly, the Project site's existing zoning does not permit forest land, timberland, or Timberland Production uses per Table 16.051.A of the City's Municipal Code. Therefore, the Project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned for Timberland Production. No impact would occur.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. Section 1.4 of this IS/MND describes the Project site as vacant land, a parking lot, and ruderal vegetation, including shrubs and mature trees. PRC Section 12220(g) defines Forest land as land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Timberland is defined under PRC Section 4526 as land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis. Given the existing conditions of the Project site, no forest land exists on site. Therefore, the Project would not result in the loss of forest land or the conversion of forest land to a non-forest use. No impact would occur.

e) Would the project 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?

No Impact. No agricultural resources or forest land resources exist on site or within the Project site's vicinity. The Project would result in the redevelopment of the Project site into residential and live/work land uses. Implementation of the proposed Project would not result in the conversion of Farmland to a non-agricultural use or the conversion of forest land to a non-forest use. No impact would occur.

3.3 Air Quality

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
III.	**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 is non-attainment 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?	☐	☐	☒	☐

An Air Quality and Greenhouse Gas Impact Analysis (Appendix A) was prepared by MAT Engineering Inc. in September 2022 and is used in the following section to determine potential impacts.

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less-Than-Significant Impact. The Project site is located within the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County, and is within the jurisdictional boundaries of SCAQMD.

SCAQMD administers the Air Quality Management Plan (AQMP) for SCAB, which is a comprehensive document outlining an air pollution control program for attaining all California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). The most recent adopted AQMP is the 2016 AQMP (SCAQMD 2017), which was adopted by the SCAQMD Governing Board in March 2017.[6] The 2016 AQMP represents a new approach, focusing on available, proven, and cost-effective alternatives to traditional strategies while seeking to achieve multiple goals in partnership with other entities promoting reductions in GHGs and toxic risk, as well as efficiencies in energy use, transportation, and goods movement (SCAQMD 2017).

The purpose of a consistency finding is to determine if a project is inconsistent with the assumptions and objectives of the regional air quality plans, and thus, if it would interfere with the region's ability to comply with federal and state air quality standards. SCAQMD has established criteria for determining consistency

[6] SCAQMD is currently in the process of updating the AQMP. The 2022 AQMP is in draft form and accessible here: http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan.

with the currently applicable AQMP in Chapter 12, Sections 12.2 and 12.3, in the SCAQMD CEQA Air Quality Handbook. The criteria are as follows (SCAQMD 1993):

- Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP
- Whether the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase

To address the first criterion regarding the proposed Project's potential to result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP, Project-generated criteria air pollutant emissions were estimated and analyzed for significance and are addressed under Section 3.3(b). Detailed results of this analysis are included in Appendix A. As presented in Section 3.3(b), construction and operation of the proposed Project would not generate criteria air pollutant emissions that would exceed the SCAQMD threshold.

The second criterion regarding the proposed Project's potential to exceed the assumptions in the AQMP is primarily assessed by determining consistency between the proposed Project's land use designations and potential to generate population growth. In general, projects are considered consistent with, and would not conflict with or obstruct implementation of, the AQMP if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the AQMP (per Consistency Criterion No. 2 of the SCAQMD CEQA Air Quality Handbook). SCAQMD primarily uses demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) developed by the Southern California Association of Governments (SCAG) for its 2016–2040 Regional Transportation Plan (RTP)/ Sustainable Communities Strategy (SCS) (SCAG 2016).[7] SCAQMD uses this document, which is based on general plans for cities and counties in the SCAB, to develop the AQMP emissions inventory (SCAQMD 2017).[8] The SCAG RTP/SCS and associated Regional Growth Forecast are generally consistent with the local plans; therefore, the 2016 AQMP is generally consistent with local government plans.

As discussed in Section 3.11, Land Use and Planning, of this IS/MND, the proposed Project would be consistent with the General Plan and zoning designation associated with the Project site. The Project would include new residential development on site, which would result in an increase in population and housing consistent with local and regional growth projections found in the SCAG RTP/SCS (see Section 3.14 of this IS/MND). Given this, the proposed Project is not anticipated to conflict with or exceed the assumptions in the 2016 AQMP. Therefore, the Project would be consistent with the assumptions used in the SCAQMD AQMP development.

7 The SCAG has a more recently adopted RTP/SCS, the 2020–2045 RTP/SCS Connect SoCal Plan. However, the 2016 AQMP relies on land use and demographic data from the 2016-2040 RTP/SCS. Therefore, for the purpose of assessing consistency with the 2016 AQMP, land use information and demographic data from the 2016 RTP/SCS were utilized in this analysis.

8 Information necessary to produce the emission inventory for the SCAB is obtained from the SCAQMD and other governmental agencies, including CARB, the California Department of Transportation, and SCAG. Each of these agencies is responsible for collecting data (e.g., industry growth factors, socioeconomic projections, travel activity levels, emission factors, emission speciation profile, and emissions) and developing methodologies (e.g., model and demographic forecast improvements) required to generate a comprehensive emissions inventory. SCAG incorporates these data into its Travel Demand Model for estimating/projecting vehicle miles traveled and driving speeds. SCAG's socioeconomic and transportation activities projections in their 2016 RTP/SCS are integrated in the 2016 AQMP (SCAQMD 2017).

In summary, based on the considerations presented for the two criteria, impacts relating to the Project's potential to conflict with, or obstruct implementation of, the applicable AQMP would be less than significant. No mitigation is required.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less-Than-Significant Impact. Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used in the determination of whether a project's individual emissions would have a cumulatively considerable contribution on air quality. If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003a).

A quantitative analysis was conducted to determine whether the proposed Project would result in a cumulatively considerable net increase in emissions of criteria air pollutants for which the SCAB is designated as nonattainment under the NAAQS or CAAQS. Criteria air pollutants include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide, particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}; course particulate matter), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$; fine particulate matter), and lead. Pollutants that are evaluated herein include volatile organic compounds (VOCs) and oxides of nitrogen (NO_X), which are important because they are precursors to O_3, as well as CO, sulfur oxides (SO_X), PM_{10}, and $PM_{2.5}$.

Regarding NAAQS and CAAQS attainment status,[9] the SCAB is designated as a nonattainment area for federal and state O_3 and $PM_{2.5}$ standards (CARB 2017a; EPA 2022). The SCAB is also designated as a nonattainment area for state PM_{10} standards; however, it is designated as an attainment area for federal PM_{10} standards. The nonattainment status is the result of cumulative emissions from various sources of air pollutants and their precursors within the SCAB, including motor vehicles, off-road equipment, and commercial and industrial facilities. SCAB is designated as an attainment area for federal and state CO and NO_2 standards, as well as for state sulfur dioxide standards. Although the SCAB has been designated as nonattainment for the federal rolling 3-month average lead standard, it is designated attainment for the state lead standard.[10]

The proposed Project would result in emissions of criteria air pollutants for which CARB and the U.S. Environmental Protection Agency have adopted ambient air quality standards (i.e., the NAAQS and CAAQS). Projects that emit these pollutants have the potential to cause, or contribute to, violations of these standards. The SCAQMD CEQA Air Quality Significance Thresholds, as revised in April 2019, set forth quantitative emission significance thresholds for criteria air pollutants, which, if exceeded, would indicate the potential for a project to contribute to violations of the NAAQS or CAAQS. Table 3.3-1 lists the revised SCAQMD Air Quality Significance Thresholds (SCAQMD 2019).

9 An area is designated as in attainment when it is in compliance with the NAAQS and/or the CAAQS. These standards for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare are set by the U.S. Environmental Protection Agency and CARB, respectively. Attainment = meets the standards; attainment/maintenance = achieves the standards after a nonattainment designation; nonattainment = does not meet the standards.

10 The phase-out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

Table 3.3-1. SCAQMD Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	**Construction (in pounds/day)**	**Operation (in pounds/day)**
NO_X	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_X	150	150
CO	550	550
Lead[a]	3	3
Toxic Air Contaminants and Odor Thresholds		
TACs[b]	Maximum incremental cancer risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic and Acute Hazard index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	

Source: SCAQMD 2019.
Notes: SCAQMD = South Coast Air Quality Management District; NO_X = oxides of nitrogen; VOC = volatile organic compound; PM_{10} = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); SO_X = sulfur oxides; CO = carbon monoxide; TAC = toxic air contaminant.
[a] The phase-out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the proposed Project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.
[b] TACs include carcinogens and noncarcinogens.

The Project would result in a substantial contribution to an existing air quality violation of the NAAQS or CAAQS for O_3, which is a nonattainment pollutant, if the proposed Project's construction or operational emissions exceed the SCAQMD VOC or NO_X thresholds shown in Table 3.3-1. These emission-based thresholds for O_3 precursors are intended to serve as surrogates for an "ozone significance threshold" (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly, and the effects of an individual project's emissions of O_3 precursors (i.e., VOCs and NO_X) on O_3 levels in ambient air cannot be reliably or meaningfully determined through air quality models or other quantitative methods.

The California Emissions Estimator Model (CalEEMod), Version 2020.4.0, was used to estimate emissions from construction and operation of the proposed Project (Appendix A). The following discussion quantitatively evaluates Project-generated construction and operational emissions and impacts that would result from implementation of the proposed Project.

Construction Emissions

Construction of the proposed Project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (e.g., off-road construction equipment, soil disturbance, and VOC off-gassing from architectural coatings and asphalt pavement application) and off-site sources (e.g., vendor trucks, haul trucks, and worker vehicle trips). Specifically, the exposure of earth surfaces to wind from the direct disturbance and movement of soil can result in entrained dust and PM_{10} and $PM_{2.5}$ emissions. Internal combustion engines used by construction equipment, haul trucks, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Application of architectural coatings, such as exterior paint and other finishes, and application of asphalt pavement would also produce

VOC emissions. 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.

For purposes of estimating proposed Project emissions, and based on information provided by the Project Applicant, it is assumed that construction of the Project would commence in May 2023[11] and would last approximately 28 months, to be completed in 2026. The first full year of operations would be 2026. The analysis contained herein is based on the following schedule assumptions (duration of phases is approximate):

- Demolition: 3 weeks
- Site preparation: 1 week
- Grading: 4 weeks
- Building construction: 26 months (phased)
- Paving: 3.5 weeks
- Architectural coating: 6 weeks (phased)

General construction equipment modeling assumptions are provided in Table 3.3-2. The equipment mix was generated by CalEEMod. For the analysis, it was generally assumed that heavy-duty construction equipment would be operating at the site 5 days per week, up to a maximum of 8 hours per day. Detailed construction equipment modeling assumptions are provided in Appendix A.

Table 3.3-2. Construction Workers, Haul Trucks, Vendor Trips, and Equipment Use

	One-Way Vehicle Trips			Equipment		
Construction Phase	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Daily Usage Hours
Demolition	15	0	182	Concrete/Industrial Saws	1	8
				Excavators	3	8
				Rubber Tired Dozers	2	8
Site Preparation	18	2	0	Rubber Tired Dozers	3	8
				Tractors/Loaders/ Backhoes	4	8
Grading	15	2	875	Excavators	1	8
				Graders	1	8
				Rubber Tired Dozers	1	8
				Tractors/Loaders/ Backhoes	3	8

[11] The analysis in this IS/MND assumes a construction start date of May 2023. In practice, construction is anticipated to begin at a later date. However, using an earlier start date for construction represents the worst-case scenario construction impacts, because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Table 3.3-2. Construction Workers, Haul Trucks, Vendor Trips, and Equipment Use

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Daily Usage Hours
Building Construction	40	6	0	Cranes	1	7
				Forklifts	3	8
				Generator Sets	1	8
				Tractors/Loaders/ Backhoes	3	7
				Welders	1	8
Paving	20	0	0	Cement and Mortar Mixers	2	6
				Pavers	1	8
				Paving Equipment	2	6
				Rollers	2	6
				Tractors/Loaders/ Backhoes	1	8
Architectural Coating	8	0	0	Air Compressors	1	6

Notes: See Appendix A for additional details.

The proposed Project would be required to comply with SCAQMD Rule 403 to control dust emissions generated during any dust-generating activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the actively disturbed areas, depending on weather conditions.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings such as in paints and primers used during construction of the Project. CalEEMod calculates the VOC evaporative emissions from application of surface coatings based on the VOC emissions factor, the building square footage, and the assumed fraction of surface area. VOC rates of 50 grams per liter for interior and exterior coatings were assumed in lieu of CalEEMod default values, consistent with low-VOC paint requirements per California Green Building Standards Code (CALGreen) regulations. Table 3.3-3 shows the estimated maximum daily construction emissions associated with proposed Project construction.

Table 3.3-3. Regional Maximum Daily Construction Criteria Air Pollutant Emissions

Year	VOCs	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
	pounds per day					
Maximum Regional Daily Emissions	11.73	7.65	24.24	0.06	8.68	4.44
SCAQMD threshold	*75*	*100*	*550*	*150*	*150*	*55*
Threshold exceeded?	No	No	No	No	No	No

Source: SCAQMD 2019.
Notes: VOC = volatile organic compound; NO_X = oxides of nitrogen; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); SCAQMD = South Coast Air Quality Management District.

See Appendix A for detailed results. The values shown are the maximum summer or winter daily emissions results from CalEEMod and reflect control of fugitive dust (watering two times daily) required by SCAQMD Rule 403. In addition, the Project would use low emission "clean diesel" equipment with new or modified engines (Tier 4 or better) as a standard design feature.

As shown in Table 3.3-3, the proposed Project's maximum daily construction emissions would not exceed the SCAQMD thresholds for any criteria air pollutant.

Operational Emissions

Operation of the proposed Project would generate VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ emissions associated with vehicular traffic, area sources (consumer products, architectural coatings, landscaping equipment), and energy sources (natural gas, appliances, and space and water heating). CalEEMod was used to estimate daily emissions from operational sources for the proposed Project.

On-road vehicular trip generation data provided in the transportation analysis for the proposed Project was incorporated into CalEEMod. CalEEMod default data, including trip characteristics, emissions factors, and trip distances, were conservatively used for the model inputs. Emission factors representing the vehicle mix and emissions for 2025 were used to estimate emissions associated with vehicular sources for the proposed Project.

CalEEMod was also used to estimate emissions associated with area and energy sources. Area sources include landscape maintenance equipment, consumer products, and architectural coatings for maintenance of buildings. Energy sources include emissions associated with building electricity and natural gas usage (non-hearth). Default assumptions in CalEEMod were used for natural gas consumption. Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for GHGs in CalEEMod, since criteria pollutant emissions occur at the location of power generation, which is typically off site.

Table 3.3-4 presents the maximum daily emissions associated with operation of the proposed Project. The values shown are the maximum summer or winter daily emissions results from CalEEMod. Complete details of the emissions calculations are provided in Appendix A.

Table 3.3-4. Maximum Daily Operational Criteria Air Pollutant Emissions

Emission Source	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
	Pounds per day					
Mobile	1.00	1.08	10.03	0.02	2.60	0.70
Energy	0.03	0.23	0.10	0.00	0.02	0.02
Area	1.45	0.98	5.01	0.01	0.10	0.10
Total	**2.53**	**2.34**	**15.68**	**0.03**	**2.71**	**0.82**
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: SCAQMD 2019.
Notes: VOC = volatile organic compound; NO_X = oxides of nitrogen; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); SCAQMD = South Coast Air Quality Management District.
See Appendix A for complete results.
The values shown are the maximum summer or winter daily emissions results from CalEEMod. The total values may not add up exactly due to rounding.

As shown in Table 3.3-4, the maximum increase in daily operational emissions of VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ generated by the proposed Project would not exceed the SCAQMD's significance thresholds.

As discussed previously, the SCAB has been designated as a federal nonattainment area for O_3 and $PM_{2.5}$ and a state nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. Construction and operational activities of the proposed Project would generate VOC and NO_X emissions (precursors to O_3) and emissions of PM_{10} and $PM_{2.5}$. However, as indicated in Tables 3.3-3 and 3.3-4, Project-generated emissions would be minimal and would not exceed the SCAQMD emission-based significance thresholds for VOCs, NO_X, PM_{10}, or $PM_{2.5}$.

Cumulative localized impacts would potentially occur if construction of a project were to occur concurrently with another off-site project. Schedules for potential future projects near the Project area are currently unknown; therefore, potential impacts associated with two or more simultaneous projects would be considered speculative.[12] However, future projects would be subject to CEQA and would require air quality analysis and, where necessary, mitigation. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by SCAQMD. Cumulative PM_{10}, $PM_{2.5}$, and VOC emissions would be reduced because all future projects would be subject to SCAQMD Rule 403, Fugitive Dust, which sets forth general and specific requirements for all sites in the SCAQMD, and SCAQMD Rule 1113, which regulates VOC emissions in architectural coatings.

Based on the preceding considerations, the proposed Project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants, and impacts would be less than significant during construction and operation. No mitigation is required.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less-Than-Significant Impact. Localized Project impacts associated with construction criteria air pollutant emissions are assessed below.

Sensitive Receptors

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993). The closest sensitive receptor land uses are residential land uses directly to the north, east, west, and south of the Project site.

Localized Significance Thresholds

The SCAQMD recommends a localized significance threshold (LST) analysis to evaluate localized air quality impacts to sensitive receptors in the immediate vicinity of a project site as a result of construction activities. The impacts of the proposed Project were analyzed using methods consistent with those in the SCAQMD's Final Localized Significance Threshold Methodology (SCAQMD 2009). According to the Final Localized Significance Threshold Methodology, "off-site mobile emissions from the project should not be included in the emissions compared to the LSTs" (SCAQMD 2009). Hauling of soils and construction materials

[12] The CEQA Guidelines state that if a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact (14 CCR 15145).

associated with Project construction are not expected to cause substantial air quality impacts to sensitive receptors along off-site roadways because emissions from the trucks would be relatively brief in nature and would cease once the trucks pass through the main streets.

The Project site is located in Source-Receptor Area 10 (Pomona/Walnut Valley). The SCAQMD provides guidance for applying CalEEMod to the LSTs. LST pollutant screening level concentration data is currently published for 1-, 2-, and 5-acre sites at varying distances from the nearest receptor. The maximum number of acres disturbed on the peak day of construction was estimated using the Fact Sheet for Applying CalEEMod to Localized Significance Thresholds (SCAQMD 2011), which provides estimated acres of disturbance per 8-hour workday for construction equipment such as graders and dozers. Based on the SCAQMD guidance, it was estimated that the maximum acres on the Project site that would be disturbed by off-road equipment would be 3.5 acres per day. The shortest receptor distance available in the SCAQMD LST Methodology, and what is assumed for this analysis, is 25 meters (82 feet) since the closest sensitive receptors (single-family residences) are adjacent to the Project site boundary.[13]

Construction activities associated with the proposed Project would result in temporary sources of on-site fugitive dust and construction equipment emissions. Off-site emissions from vendor trucks, haul trucks, and worker vehicle trips are not included in the LST analysis. The maximum allowable daily emissions for Source-Receptor Area 10 are presented in Table 3.3-5 and are compared to the maximum daily on-site construction emissions generated during Project construction.

Table 3.3-5. Construction Localized Significance Thresholds Analysis

Year	NO_x	CO	PM_{10}	$PM_{2.5}$
	pounds per day (on site)*			
Maximum On-site Emissions	2.23	23.28	8.47	4.38
SCAQMD LST Criteria	*189.6*	*1,217.5*	*9.0*	*5.5*
Threshold Exceeded?	**No**	**No**	**No**	**No**

Source: SCAQMD 2009.
Notes: NO_x = oxides of nitrogen; CO = carbon monoxide; PM_{10} = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold.
See Appendix A for detailed results. These estimates reflect control of fugitive dust (watering two times daily) required by SCAQMD Rule 403.
* Localized significance thresholds are shown for a 1-acre disturbed area corresponding to a distance to a sensitive receptor of 25 meters in Source-Receptor Area 10, Pomona/Walnut Valley.

As shown in Table 3.3-5, proposed construction activities associated with the proposed Project would not generate emissions in excess of site-specific LSTs; therefore, localized Project construction impacts would be less than significant. No mitigation is required.

[13] Although receptors would be potentially 120 feet from the Project boundary, the SCAQMD recommends that projects with boundaries closer than 25 meters (82 feet) to the nearest receptors should use the LSTs for receptors located at 25 meters (SCAQMD 2009).

CO Hotspots

Regionally, proposed Project-related travel would add to regional trip generation and increase the vehicle miles traveled (VMT) within the local airshed and SCAB. Locally, traffic generated by the proposed Project would be added to the City's roadway system near the Project site. If such traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles cold-started and operating at pollution-inefficient speeds, and is operating on roadways already crowded with non-proposed Project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic. Because of continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SCAB is steadily decreasing.

At the time that the SCAQMD 1993 Handbook was published, the SCAB was designated nonattainment under the CAAQS and NAAQS for CO. In 2007, the SCAQMD was designated in attainment for CO under both the CAAQS and NAAQS as a result of the steady decline in CO concentrations in the SCAB due to turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities. The SCAQMD conducted CO modeling for the 2003 AQMP (Appendix V, Modeling and Attainment Demonstrations, in SCAQMD 2003b) for the four worst-case intersections in the SCAB: (1) Wilshire Boulevard and Veteran Avenue, (2) Sunset Boulevard and Highland Avenue, (3) La Cienega Boulevard and Century Boulevard, and (4) Long Beach Boulevard and Imperial Highway. At the time the 2003 AQMP was prepared, the intersection of Wilshire Boulevard and Veteran Avenue was the most congested intersection in Los Angeles County, with an average daily traffic volume of about 100,000 vehicles per day.

Therefore, CO concentrations at congested intersections would not exceed the 1-hour or 8-hour CO CAAQS unless projected daily traffic would be at least over 100,000 vehicles per day. The proposed Project would not increase daily traffic volumes at any study intersection to more than 100,000 vehicles per day as presented in the Section 3.17, Transportation. The proposed Project would result in approximately 358 daily trips. Therefore, a CO hotspot is not anticipated to occur and associated impacts would be less than significant. No mitigation is required.

Toxic Air Contaminants

Incremental cancer risk is the net increased likelihood that a person continuously exposed to concentrations of toxic air contaminants (TACs) resulting from a project over a 9-, 30-, and 70-year exposure period would contract cancer based on the use of standard California Office of Environmental Health Hazard Assessment risk-assessment methodology (OEHHA 2015). In addition, some TACs have non-carcinogenic effects. TACs that would potentially be emitted during construction activities would be diesel particulate matter emitted from heavy-duty construction equipment and heavy-duty trucks. Heavy-duty construction equipment and diesel trucks are subject to a CARB Airborne Toxics Control Measure to reduce diesel particulate matter emissions. In addition, as specified in Section 2.2, Project Construction, of this IS/MND, all diesel construction equipment shall have low emission "clean diesel" engines (Tier 4 or better) that include diesel oxidation catalysts and diesel particulate filters that meet the latest CARB best available control technology, which would reduce potential diesel exhaust to the extent feasible.

Further, according to the California Office of Environmental Health Hazard Assessment, health risk assessments (which determine the exposure of sensitive receptors to toxic emissions) should be based on a 30-year exposure duration for the maximally exposed individual resident; however, such assessments

should also be limited to the period/duration of activities associated with the Project (OEHHA 2015). The duration of the proposed construction activities would constitute a small percentage of the total 30-year exposure period. The construction period for the proposed Project would be approximately 28 months, after which construction-related TAC emissions would cease. Due to this relatively short period of exposure and minimal particulate emissions on site, TACs generated during construction would not be expected to result in concentrations causing significant health risks.

Following completion of on-site construction activities, the proposed Project would not involve routine operational activities that would generate TAC emissions, such as operation of large boilers or emergency generators. As such, the proposed Project would not result in a substantial increase in TAC generation from on-site sources during long-term operations and would not result in significant health risk at nearby sensitive receptors.

For the reasons described above, the Project would not result in substantial TAC exposure to sensitive receptors in the vicinity of the proposed Project, and impacts would be less than significant. No mitigation is required.

Health Impacts of Criteria Air Pollutants

Operation of the proposed Project would generate criteria air pollutant emissions; however, the proposed Project would not exceed the SCAQMD mass-emission thresholds, as shown in Tables 3.3-3 and 3.3-4. Health effects of the criteria air pollutants and the proposed Project's potential to cause or exacerbate such effects are discussed in the following paragraphs.

VOCs would be associated with operation of motor vehicles, construction equipment, and architectural coatings; however, Project-generated VOC emissions would not result in exceedances of the SCAQMD thresholds. Generally, the VOCs in architectural coatings are of relatively low toxicity. Additionally, SCAQMD Rule 1113 restricts the VOC content of coatings for both construction and operational applications. VOCs and NO_x are precursors to O_3, for which the SCAB is designated as nonattainment with respect to the NAAQS and CAAQS. The health effects associated with O_3 are generally associated with reduced lung function. The contribution of VOCs and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SCAB due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur because exceedances of the O_3 NAAQS and CAAQS tend to occur between May and October when solar radiation is highest. The holistic effect of a single project's emissions of O_3 precursors is speculative due to the lack of meaningful quantitative methods to assess this impact. Nonetheless, because VOC and NO_x emissions associated with construction and/or operation would not exceed the SCAQMD daily thresholds (as depicted in Tables 3.3-3 and 3.3-4), it is not anticipated that the proposed Project would contribute substantially to regional O_3 concentrations and the associated health effects. Impacts would be less than significant. No mitigation is required.

As shown in Tables 3.3-3 through 3.3-5, construction and operation of the proposed Project would not exceed thresholds for PM_{10} or $PM_{2.5}$ and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter or obstruct the SCAB from coming into attainment for these pollutants. Additionally, dust control strategies would be implemented during construction, and the Project would be required to comply with SCAQMD Rule 403, which limits the amount of fugitive dust generated during construction. Due to the minimal contribution of particulate matter during construction and operation, health impacts would be less than significant. No mitigation is required.

Construction and operation of the proposed Project would not contribute to exceedances of the NAAQS and CAAQS for NO_2. Health impacts that result from NO_2 include respiratory irritation, which could be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. However, proposed Project construction would be relatively short term. In addition, existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards. As indicated in Table 3.3-5, construction of the proposed Project would result in a minimal increase in localized NO_2 emissions and would not contribute to exceedances of the NAAQS and CAAQS for NO_2. Therefore, the proposed Project is not anticipated to result in substantial NO_2 emissions or the potential health effects associated with NO_2. Impacts would be less than significant. No mitigation is required.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, thereby reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. CO hotspots were discussed previously as a less-than-significant impact. Thus, the proposed Project's CO emissions would not contribute to the health effects associated with this pollutant. Impacts would be less than significant, and no mitigation is required.

Based on the preceding considerations, health impacts associated with criteria air pollutants would be less than significant. No mitigation is required.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less-Than-Significant Impact. The occurrence and severity of potential odor impacts depend on numerous factors. The nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying, cause distress among the public, and generate citizen complaints.

During construction of the proposed Project, exhaust from equipment may produce discernible odors typical of most construction sites. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment. However, such odors would disperse rapidly from the Project site and generally occur at magnitudes that would not affect substantial numbers of people.

SCAQMD provides a list of land uses associated with odor concerns, which include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The proposed Project includes development of residential uses, which are not anticipated to generate odors and would not result in operation of the types of land uses listed in SCAQMD's screening criteria. Additionally, the Project would comply with applicable building code requirements related to exhaust ventilation, as well as with SCAQMD Rule 402. Rule 402 requires that a person may not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Project-related odors are not expected to meet the criteria of being a nuisance.

For the reasons described above, Project construction and operation would result in a less-than-significant odor impact. No mitigation is required.

3.4 Biological Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. 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 U.S. 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 a 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) Would the project 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?

Less-Than-Significant Impact. A significant impact would occur of a project were to remove or modify habitat for any species identified or designated as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the state or federal regulatory agencies (i.e., California Department of Fish and Wildlife or U.S. Fish and Wildlife Service). The Project site is located in a developed

area of the City and currently consists of vacant land, a parking lot, and ruderal vegetation, including shrubs and mature trees. The site is surrounded by development primarily consisting of a residential and commercial land uses. Due to the built environment, it is unlikely that special-status plants or animals would occur on or near the Project site.

Based on desktop research of the Project site and area, which included a review of the latest aerial and street view imagery (Google Earth 2022) and expertise in the Project vicinity, no native habitat is located on the Project site or on the adjacent properties. As such, no special-status species, including listed or rare species, are expected to occur on the Project site, due to the absence of suitable habitat. However, the Project site supports ornamental non-native trees and shrubs that could provide nesting habitat for common birds and raptors protected under the Migratory Bird Treaty Act (MBTA) (16 USC 703–712) and California Fish and Game Code Sections 3503, 3503.5, and 3513. Vegetation removal and other construction activities could negatively affect individual birds or raptors that are nesting on or within the vicinity of the Project site. Vegetation removal could adversely affect or kill a nesting bird or raptor, and construction activities would also elevate noise levels and could cause disturbance to protected bird/raptor species nesting on site or adjacent to the construction areas. Construction could potentially occur during breeding, reproduction, and juvenile rearing periods for nesting birds and raptors (i.e., between February 15 and August 31). Thus, there is potential for construction activities and construction noise to negatively affect breeding or reproduction of bird and/or raptor species on or adjacent to Project site. Compliance with the MBTA and California Fish and Game Code would reduce this impact. Once the proposed Project has been constructed, construction-related disturbances would not occur, and landscaping trees would be planted throughout the Project site. As such, the Project site would continue to provide potential nesting sites in an urban environment, consistent with existing conditions. Therefore, long-term impacts to nesting and migratory birds would not be significant.

Given the above, no permanent, temporary, direct, or indirect, impacts are expected to occur to special-status plants or wildlife as a result of the proposed Project. Impacts would be less than significant. No mitigation is required.

b) Would the project 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 U.S. Fish and Wildlife Service?

No Impact. A significant impact would occur if riparian habitat or any other sensitive natural community identified locally, regionally, or by state and federal regulatory agencies would be adversely modified by a project. The Project site is located in a developed area and consists of vacant land, a parking lot, and ruderal vegetation. There are no riparian or wetland areas on or near the Project site. Given this, the proposed Project would not adversely affect any riparian habitat or other sensitive natural communities, since no such resources are present on the Project site or in the vicinity of the Project site. No impact would occur.

c) Would the project 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?

No Impact. A significant impact would occur if federally protected wetlands, as defined by Section 404 of the Clean Water Act, were to be modified or removed by a project. The Project site is located in a developed area and consists of vacant land, a parking lot, and ruderal vegetation. Because of the developed nature of the Project site, there are no federally protected wetlands within or adjacent to the site. No impact would occur.

d) Would the project 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?

Less-Than-Significant Impact. A significant impact would occur if a project were to interfere or remove access to a migratory wildlife corridor or impede the use of native wildlife nursery sites. The Project site is located in a developed area and consists of vacant land, a parking lot, and ruderal vegetation. As described in Section 1.4 of this IS/MND, the Project site's vicinity consists of similar land uses, including residential and commercial development, as well as roadways. There are no migratory wildlife corridors or native wildlife nursery sites on or near the Project site to support wildlife species. As mentioned in Section 3.4(a), there are several mature trees on and adjacent to the Project site that would have the potential to provide potential nesting sites for birds and raptors that are protected under the MBTA (16 USC 703–712) and California Fish and Game Code Sections 3503, 3503.5, and 3513. Construction could potentially occur during breeding, reproduction, and juvenile rearing periods for nesting birds and raptors (i.e., between February 15 and August 31). Thus, there is potential for construction activities and construction noise to negatively affect breeding or reproduction of bird and/or raptor species on or adjacent to Project site. Compliance with the MBTA and California Fish and Game Code would reduce this impact. Once the proposed Project has been constructed, construction-related disturbances would not occur, and landscaping trees would be planted throughout the Project site. As such, the Project site would continue to provide potential nesting sites in an urban environment, consistent with existing conditions. Therefore, long-term impacts to nesting and migratory birds would not be significant. Less-than-significant impacts would occur. No mitigation is required.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less-Than-Significant Impact. A project-related significant adverse effect could occur if a project were to cause an impact that is inconsistent with local regulations pertaining to biological resources, such as the provisions outlined in Chapter 12.26 of the Claremont Municipal Code. The City regulates the relocation and replacement of public trees. In addition, as mentioned previously, the Project site contains existing trees on site, which would be removed for the development of the proposed Project. Prior to the removal of on-site trees, the Project would be required to comply with the City's design review criteria outlined in Chapter 16.300.060 of the City's Municipal Code, which states that proposed development shall be designed to preserve and/or retain on-site significant mature trees to the greatest extent possible. Removal of significant trees shall be avoided, except where such trees have been determined to be of poor health or where retention is economically infeasible. The Project would meet this criterion upon approval by the City's Architectural Commission. Given the above, the proposed Project would result in less-than-significant impact related to consistency with local policies or ordinances protecting biological resources. No mitigation is required.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. A significant impact would occur if a project were inconsistent with policies in any draft or adopted conservation plan. The Project site is located in an urbanized area of the City. The City's General Plan does not designate the Project site as being within a habitat conservation plan (City of Claremont 2009). Furthermore, the Project area is not within any of the regional conservation plans designated by the state (CDFW 2022). Therefore, no impact related to conflicts with an adopted plan would result with implementation of the Project.

3.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

The evaluation of potential impacts to cultural resources is based, in part, on background research, including the results of a California Historical Resources Information System (CHRIS) records search conducted at the South Central Coastal Information Center (SCCIC), a review of archival literature and historical maps and aerial photographs, a review of a geotechnical report prepared for the proposed Project (Appendix B), and a pedestrian survey, all of which are provided in this section.

Regulatory Context

Work for this proposed Project was conducted in compliance with CEQA. The regulatory framework as it pertains to cultural resources under CEQA is detailed below.

Under the provisions of CEQA, including the CEQA Statutes (PRC Sections 21083.2 and 21084.1), the CEQA Guidelines (14 CCR 15064.5), and PRC Section 5024.1 (14 CCR 4850 et seq.), properties expected to be directly or indirectly affected by a Project must be evaluated for California Register of Historical Resources (CRHR) eligibility (PRC Section 5024.1).

The purpose of the CRHR is to maintain listings of the state's historical resources and to indicate which properties are to be protected, to the extent prudent and feasible, from material impairment and substantial adverse change. The term historical resources includes a resource listed in or determined to be eligible for listing in the CRHR; a resource included in a local register of historical resources; and any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (14 CCR 15064.5[a]). The criteria for listing properties in the CRHR were developed in accordance with previously established criteria developed for listing in the National Register of Historic Places (NRHP). The California Office of Historic Preservation regards "any physical evidence of human activities over 45 years old" as meriting recordation and evaluation (OHP 1995).

State

The California Register of Historical Resources

A cultural resource is considered "historically significant" under CEQA if the resource meets one or more of the criteria for listing on the CRHR. The CRHR was designed to be used by state and local agencies, private groups, and citizens to identify existing cultural resources within the state and to indicate which of those resources should be protected, to the extent prudent and feasible, from substantial adverse change. The following criteria have been established for the CRHR. A resource is considered significant if it:

1. is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. is associated with the lives of persons important in our past;
3. embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. has yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the above criteria, historical resources eligible for listing in the CRHR must retain enough of their historic character or appearance to be able to convey the reasons for their significance. Such integrity is evaluated in regard to the retention of location, design, setting, materials, workmanship, feeling, and association.

Under CEQA, if an archeological site is not a historical resource but meets the definition of a "unique archeological resource" as defined in PRC Section 21083.2, then it should be treated in accordance with the provisions of that section. A unique archaeological resource is defined as follows:

- An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
  - Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
  - Has a special and particular quality, such as being the oldest of its type or the best available example of its type
  - Is directly associated with a scientifically recognized important prehistoric or historic event or person

Resources that neither meet any of these criteria for listing in the CRHR nor qualify as a "unique archaeological resource" under CEQA (PRC Section 21083.2) are viewed as not significant. Under CEQA, "A non-unique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects" (PRC Section 21083.2[h]).

Impacts that adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. Impacts to historical resources from a project are thus considered significant if the project (1) physically destroys or damages all or part of a resource; (2) changes the character of the use of the resource or physical feature within the setting of the resource, which contributes to its significance; or (3) introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

California Environmental Quality Act

As described further, the following CEQA Statutes (PRC Section 21000 et seq.) and CEQA Guidelines Sections (14 CCR 15000 et seq.) are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

- PRC Section 21083.2(g) defines "unique archaeological resource."
- PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a) defines "historical resources." In addition, CEQA Guidelines Section 15064.5(b) defines the phrase "substantial adverse change in the significance of an historical resource;" it also defines the circumstances when a project would materially impair the significance of a historical resource.
- PRC Section 21074(a) defines "tribal cultural resources."
- PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
- PRC Sections 21083.2(b) and 21083.2(c) and CEQA Guidelines Section 15126.4 provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures. Preservation in place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context and may also help avoid conflict with religious or cultural values of groups associated with the archaeological site(s).

More specifically, under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (PRC Section 21084.1; 14 CCR 15064.5[b]). If a site is listed or eligible for listing in the CRHR, or included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of PRC Section 5024.1[q]), it is an "historical resource" and is presumed to be historically or culturally significant for purposes of CEQA (PRC Section 21084.1; 14 CCR 15064.5[a]). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (PRC Section 21084.1; 14 CCR 15064.5[a]).

A "substantial adverse change in the significance of an historical resource" reflecting a significant effect under CEQA means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (14 CCR 15064.5[b][1]; PRC Section 5020.1[q]). In turn, the significance of a historical resource is materially impaired when a project does any of the following (14 CCR 15064.5[b][2]):

(1) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or

(2) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

(3) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA.

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a project site contains any "historical resources," then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (PRC Sections 21083.2[a]–[c]).

Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

(1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
(2) Has a special and particular quality such as being the oldest of its type or the best available example of its type
(3) Is directly associated with a scientifically recognized important prehistoric or historic event or person

Impacts on nonunique archaeological resources are generally not considered a significant environmental impact (PRC Section 21083.2(a); 14 CCR 15064.5[c][4]). However, if a nonunique archaeological resource qualifies as a tribal cultural resource (PRC Sections 21074[c] and 21083.2[h]), further consideration of significant impacts is required.

CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are detailed in California Health and Safety Code Section 7050.5 and PRC Section 5097.98.

California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the county coroner has examined the remains (California Health and Safety Code Section 7050.5[b]). PRC Section 5097.98 also outlines the process to be followed in the event that remains are discovered. If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the NAHC within 24 hours (California Health and Safety Code Section 7050.5[c]). NAHC will notify the most likely descendant. With the permission of the landowner, the most likely descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the most likely descendant by the NAHC. The most likely descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

Local

City of Claremont General Plan

The City of Claremont General Plan's Land Use, Community Character, and Heritage Preservation Element contains the following goals and policies that address cultural resources (City of Claremont [uploaded] 2020):

Goal 2-14 Retain and celebrate Claremont's rich history and heritage, as evidence through its development patterns, buildings and building materials, landscaping, street treatments, parks and open space, and civic architecture.

Policy 2-14.1 Continue to protect architectural, historical, open space, environmental, and archaeological resources throughout the City.

Policy 2-14.2 Continue to heighten community awareness of Claremont's history and the City's physical development, and educate the public to the significance of historic areas, sites, and structures and the social events associated with them.

Policy 2-14.3 Continue to encourage pride in the quality and character of historic areas.

Policy 2-14.4 Continue to recognize the fragile nature of historic residential areas, and work to ensure the harmonious appearance of each historic area. Address the transitional areas between residential and commercial areas, residential and industrial areas, and residential areas and The Claremont Colleges.

Policy 2-14 Continue to support retention and/or adaptive reuse of existing residential, commercial, and industrial buildings where possible, particularly structures listed on the Register of Structures of Historical and Architectural Merit of the City of Claremont.

Policy 2-14.6 Strive to prevent the demolition of structures listed on the Register of Historical and Architectural Merit of the City.

Policy 2-14.7 Add to the Register of Structure of Historical and Architectural Merit of the City of Claremont sites and structures that have special historic or community value as historic resources and are worthy of preservation.

Policy 2-14.8 Continue to offer historic preservation tools such as the Mill Act.

Policy 2-14.9 Explore and evaluate different approaches to protect and enhance historic resources throughout the community.

Policy 2-14.10 Consider establishment of new historic districts where appropriate to help protect neighborhoods from incompatible development.

Environmental Setting

The Project site is situated within the Pomona Valley, at the foothills of the San Gabriel Mountains, which are located approximately 1.25 miles to the north of the Project site. The Project site is within the Santa Ana River Watershed

and is approximately 0.86 miles directly east of the Thompson Creek Channel, over 1 mile southeast of the Live Oak Creek Channel, and over 2 miles directly west of the San Antonio Creek Channel. The Project site is relatively flat with elevations ranging from approximately 1192 to 1206 feet above mean sea level, with overall slope descending gently to the southwest (Appendix B, Geotechnical Due Diligence Report).

According to the to the Natural Resources Conservation Service Web Soil Survey (USDA 2022), soils within the Project site consist of urban land-Palmview-Tujunga gravelly complex at 2% to 9% slopes, are characterized as discontinuous human-transported material over alluvium derived from granite, and are found on alluvial fans. The dominant soil series within the Project site, urban land, refers to soils in areas of high population density in a largely built environment and can include human-transported or human-altered materials, minimally altered materials, or intact native soils (USDA 2019). The horizontal or slope data for this series are associated with soils that have been significantly altered by human activities and are therefore associated with nearly level or low slopes (USDA 2022).

A review of the U.S. Geological Survey mineral resources (USGS 2022) online spatial data for geology indicates that native soils within the Project site are comprised of Older Quaternary alluvium and marine deposits from the Pleistocene epoch. The terminal Pleistocene-era alluvial formations do have the potential to support the presence of buried archaeological resources. These soils are associated with the period of prehistoric human use that have potential to preserve cultural material in context, depending on area-specific topographical setting.

The Project site consists of vacant land, a parking lot, and ruderal vegetation. On site there is also ornamental vegetation consisting of shrubs and mature trees. According to the Los Angeles County Assessor's website, the vacant parcel was once occupied by a restaurant that was constructed in 1972; however, this building has since been demolished.

Background Research

South Central Coastal Information Center Records Search

On October 31, 2022, a search of CHRIS was completed at the SCCIC, located on the campus of California State University, Fullerton. The search included any previously recorded cultural resources and investigations within a 0.5-mile radius of the Project site. The CHRIS search also included a review of the NRHP, the CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, and the Archaeological Determinations of Eligibility list.

Previously Conducted Cultural Resource Studies

Results of the cultural resources records search indicate that one previous cultural resource study has been conducted within the records search area of the Project site in 2010. The previous study was completed immediately north and outside of the Project site and does not address the Project site, which suggests that the entirety of the Project site has not been subject to any previous cultural studies. Table 3.5-1 details the one previous cultural resources study and is followed by a brief summary of the report.

Table 3.5-1. Previous Technical Studies Within 0.5 Miles of the Project Site

SCCIC Report No.	Authors	Year	Title	Proximity to Proposed Project Site
LA-12023	Stewart, Noah	2010	Relinquishment to the City of Claremont state-owned right of way, State Route 66 (Foothill Blvd) between Towne Avenue and the Los Angeles/ San Bernardino County Line	Adjacent to the north

Report LA-12023

Relinquishment to the City of Claremont state-owned right of way, State Route 66 (Foothill Blvd) between Towne Avenue and the Los Angeles/San Bernardino County Line is a historical resources compliance report prepared by the California Department of Transportation for proposed road construction activities. The study area consists of a 2.1-mile segment of State Route 66 (Foothill Boulevard), which is an east to west traveling road immediately north of the present Project site. As noted in the title of the report, the State of California was proposing to relinquish to the City of Claremont a 2.1-mile segment of roadway identified as State Route 66 (Foothill Boulevard) between Towne Avenue (postmile 3.2) and the Los Angeles/San Bernardino County Line (postmile 5.3), within the City of Claremont (resource P-19-19011). The historical resources compliance report was prepared to determine whether historical resources pursuant to CEQA were identified within the area of study. The 2.1-mile segment was evaluated and was not found to be a historical resource under CEQA. No recommendations were included in the report.

Previously Recorded Cultural Resources

The SCCIC records indicate that one cultural resource has been previously recorded within 0.5 miles of the Project site. Resource P-19-190111 is a segment of historic State Route 66, located immediately north and outside of the Project site. No cultural resources were identified within the Project site. A summary of the resource identified within the records search area is provided below in Table 3.5-2.

Table 3.5-2. Previously Recorded Cultural Resources Within 0.5 Miles of the Project Site

Primary (P-19-)	Trinomial (CA-LAN-)	Resource Age and Type	Resource Description	NRHP/CRHR Eligibility	Recording Events	Proximity to Proposed Project Site
190111	NA	Built Environment: Road	Segment of historic State Route 66; Foothill Boulevard	6Z: Ineligible for NRHP, CRHR, or CHL	2010 (Noah M. Stewart, California Department of Transportation)	Adjacent

Note: NRHP = National Register of Historic Places; CRHR = California Register of Historical Resources; NA = not applicable; CHL = California Historical Landmarks.

Review of Historical Topographical Maps and Aerial Photographs

Dudek consulted historical topographic maps and aerial photographs through the Nationwide Environmental Title Research LLC to better understand any natural or human-made changes to the Project site and surrounding properties over time.

Historical Topographic Maps

Topographic maps depict the elevation of the Project site and the areas surrounding it and illustrate the location of roads and some buildings. Although topographic maps are not comprehensive, they are another tool in determining whether a study area has been disturbed and at times to what approximate depth. A review of available topographic maps was conducted and includes the following years: 1987, 1900, 1903, 1906, 1908, 1911, 1912, 1917, 1927, 1928, 1929, 1932, 1933, 1939, 1940, 1942, 1947, 1955, 1960, 1962, 1963, 1965, 1969, 1973, 1975, 1982, 2012, 2015, and 2018 (NETR 2022a). Table 3.5-3 summarizes the results of the topographic map review of the Project site and surrounding properties for all available years.

Table 3.5-3. Historical Topographic Map Review

Year	Description
1897	The Project site is vacant and located southeast of an area labeled “Indian Hill.” There are roads depicted to the west, north, and south of the Project site; however, these roadways are not named.
1900–1927	There are no significant changes to the Project site.
1928	The configuration and condition of the roadways that once bordered the Project site has changed as follows: ▪ Foothill Boulevard, which borders the Project site to the north, is labeled and is depicted as a primary highway. ▪ The mapped roadway to the west of the Project site is labeled San Antonio Avenue and is depicted as a light duty road.
1929 and 1932	Maps depict images represented in the 1900–1927 maps.
1933	The roadways observed in the 1928 map are no longer depicted.
1939	Map depicts images represented in the 1900–1927 maps.
1940	There are no significant changes to the Project site; however, there is development immediately north of Foothill Boulevard and west of San Antonio Avenue.
1942	The Project site is not captured within this map year.
1947	Map depicts images represented in the 1940 map.
1955–1965	There is a structure depicted within a parcel (AIN 8311-001-017) located immediately northwest and outside of the Project site. This structure appears to be located within the area of the present-day 76 gas station. Bordering the Project site to the south are a series of structures lined east to west and immediately south of that development is a subdivision with numerous structures. San Antonio Drive is depicted as a secondary highway. There are no significant changes to the Project site.
1969	San Antonio Drive has been changed to Towne Avenue and remains a secondary highway. The developments to the northwest and south of the Project site are no longer depicted. There are no significant changes to the Project site.
1973	Map depicts images represented in the 1955–1965 maps.

Table 3.5-3. Historical Topographic Map Review

Year	Description
1975 and 1982	There is a structure within AIN 8311-001-017 that is larger in size than the first structure observed within the parcel in the maps between 1955 and 1965. Moreover, this structure overlaps the western half portion of the Project site. A secondary rectangular structure is deicted within the eastern half portion of the Project site. While the outline of the subdivision to the south and outside of the Project site is depicted, none of the structures observed in the maps from 1955 and 1965 are represented.
2012–2018	Roadways are depicted; however, they are not labeled. The structures observed in the 1975 and 1982 maps are not depicted.

Note: AIN = Assessor's Identification Number.

While topographic maps are informative, they do not illustrate the minute changes that can occur to a landscape over time and, at times, are inconsistent with what is depicted year to year. Most often, structures depicted in topographical maps are limited to those with community or social significance (e.g., firehouses or hospitals), including additions or changes to roads and/or waterways. Nonetheless, the information gathered contributes to the understanding of the chronological development of a study area.

Historical Aerial Photographs

A review of historical aerial photographs was conducted as part of the archival research effort from the following years: 1938, 1948, 1953, 1959, 1964, 1965, 1966, 1972, 1979, 1980, 1985, 1988, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2002, 2003, 2005, 2009, 2010, 2012, 2014, 2016, 2018, and 2022 (NETR 2022b). Through careful comparative review of historical aerials, changes to the landscape of a study area may be revealed. Disturbance to the study area is specifically important as it helps determine if soils within the study area are capable of sustaining intact archaeological deposits. Additionally, historical aerials have the potential to reveal whether a study area was subjected to alluvial deposits by way of flooding, debris flows or mudslides, as well as placement of artificial or foreign fill soils that may have buried intact archaeological deposits. Table 3.5-4 summarizes the results of the aerial photograph review of the Project site and surrounding properties for all available years.

Table 3.5-4. Historical Aerial Photograph Review of Proposed Project site

Photograph Year	Observations and Findings
1938 and 1948	The Project site appears to be used for agricultural purposes, such as an orchard. The roadways bordering the Project site to the north and south appear to be unimproved dirt roads. The areas immediately surrounding the Project site are also shown to be used for agricultural purposes. There is a wash depicted to the northwest and well outside of the Project site, within the area of present-day Thomas Creek Channel.
1953	The Project site appears to have been subjected to substantial ground disturbance as evidenced by the following: ▪ the removal of the former orchard ▪ presence of an informal dirt road that bisects the site east–west ▪ the presence of structures within the southern half portion of the Project site Residential development immediately south of the Project site is also observed.

Table 3.5-4. Historical Aerial Photograph Review of Proposed Project site

Photograph Year	Observations and Findings
1959	The Project site appears to be completely graded and devoid of development. The parcel to the northwest of the Project site, AIN 8311-001-017, is shown to consist of a roughly triangular structure within a possibly paved lot. The residential development to the south and outside of the Project site is more refined. The roadways to the north and west of the Project site, which follow the footprint of the present-day Foothill Boulevard and Towne Avenue, respectively, appear to be formal paved roadways.
1964–1966	No significant changes to the Project site.
1972	Development within the parcel to the northwest of the Project site, within AIN 8311-001-017, has expanded and consists of three adjoining rectangular-shaped buildings. There is one structure within the eastern half portion of the Project site, though this structure does not appear to be a building, but rather walls of an unknown development. This photograph likely captures the construction of the restaurant that once occupied the Project site. There is one small square-shaped structure in between the two developments mentioned above.
1979	Due to the quality of the photograph, images captured are not clear; however, there appears to be development bordering the structure observed within the Project site in the 1972 aerial. The development appears to be walls on the west and east sides of the structure. Additionally, the structure appears to be transforming into a building.
1980	This photograph is a clearer image of the 1979 aerial. This photograph clearly shows that there is a large rectangular-shaped building within the eastern half of the Project site within a paved parking lot with painted stalls and ornamental trees.
1985–2018	No discernable changes to the Project site. In 2009, the development within the parcel to the northwest and outside of the Project site, AIN 8311-001-017, transformed in layout and decreased in size and is shown to be a rectangular-shaped building, oriented east–west, consistent with the present-day site conditions of the 76 gas station.
2000	The large building within the Project site is no longer present; however, the paved parking lot is. This is consistent with present-day site conditions.

Note: AIN = Assessor's Identification Number.

Geotechnical Report Review

Geotechnical Due-Diligence Investigation, Proposed Multi-Family Residential Development, 1030 West Foothill Boulevard, Claremont, California (Appendix B), was completed to determine the subsurface geological conditions of an approximately 3.1-acre property encompassing the footprint of the present Project site. The report details the results of 10 subsurface exploratory investigations consisting of 9 backhoe trenching explorations (TP-1 through TP-9) and 1 exploratory boring (B-1) using a truck-mounted, continuous-flight, hollow-stem-auger drill rig. These 10 subsurface investigations were placed at accessible locations throughout the Project site, including 9 placed within the western half portion of the Project site (B-1, TP-1 through TP-5, and TP-7 through TP-9) and 1 within the footprint of the former restaurant within the eastern half portion (TP-6).

Subsurface exploratory investigations extended to a maximum depth ranging from 9 to 46.5 feet below ground surface (bgs) and were completed on November 11, 2021. According to the geotechnical report, the soils encountered included artificial/compacted fill soils (Qaf) at locations TP-6 and TP-7 characterized as silty sand, light

brown or brown, dry, loose, scattered gravel, encountered from surface to between 1.5 and 3 feet bgs, and alluvium (Qal; native soils) underlying the artificial/compacted fill soils at locations TP-6 and TP-7 and from surface to maximum depths explored at the remaining investigated locations characterized as sand with varying amounts of silt and gravels, brown, dry to moist, medium dense to very dense. A summary of the subsurface exploratory boring results is provided in Table 3.5-5.

Table 3.5-5. Summary of Subsurface Boring Results

Boring	Test Pit	Artificial/Compacted Fill Soils (Qaf) (feet bgs)	Native Soil (Qal) (feet bgs)	Terminated Depth (feet bgs)
B-1	TP-1	NA	0 to 46.5	46.5
NA	TP-2	NA	0 to 10	10
NA	TP-3	NA	0 to 9.5	9.5
NA	TP-4	NA	0 to 9	9
NA	TP-5	NA	0 to 10	10
NA	TP-6	0 to 3	3 to 10	10
NA	TP-7	0 to 1.5	1.5 to 10	10
NA	TP-8	NA	0 to 10	10
NA	TP-9	NA	0 to 10	10

Source: Appendix B.
Note: bgs = below ground surface; NA = not applicable.

Field Survey

Methods

An intensive-level archaeological pedestrian survey of the Project site was completed on November 4, 2022. The intensive-level survey methods consisted of a pedestrian survey conducted in parallel transects spaced no greater than 10 meters apart (approximately 32 feet), where feasible. In areas of limited or no ground surface visibility due to the presence of dense vegetation or pavement, formal transects were not utilized. Instead, a mixed approach (opportunistic survey) and reconnaissance survey (visual inspection) were utilized, selectively examining areas of exposed ground surfaces, where possible.

The survey area encompassed the entirety of the approximately 3.05-acre Project site within Assessor's Parcel Number 8311-001-016. The ground surface was inspected for prehistoric artifacts (e.g., flaked stone tools, tool-making debris, ground stone tools, ceramics, fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions, features indicative of structures and/or buildings (e.g., standing exterior walls, post holes, foundations), and historic artifacts (e.g., metal, glass, ceramics, building materials). Careful attention was given to all barren ground, including at the base of trees and bushes, and any subsurface soils exposed by burrowing animals. In areas where soil was partially exposed or covered by gravel, sand, or grass, surface boot scrapes were implemented, when necessary, to enhance detection of archaeological materials that may have been obscured on the surface.

Results

At the time the survey was conducted, approximately 70% of the Project site was vacant and undeveloped; this was primarily limited to the western half of the site. Exposed ground soils were also observed within the footprint of the

former restaurant within the northeastern corner of the Project site and landscape medians within the paved parking lot. The remaining approximately 30% consisted of a paved parking lot surrounding the footprint of the former restaurant within the eastern half and a paved driveway along the southern perimeter of the Project site.

Given current site conditions, ground surface visibility within the Project site was variable and ranged from non-existent to poor (0% to 10%) within the areas where the ground surface was obscured by ornamental trees, paved parking lot, and driveway and very good to excellent (90% to 100%) within the vacant and/or undeveloped areas and landscape medians.

Overall, soils observed on site were consistent with the Tujunga series of the urban land-Palmview-Tujunga complex and accounted for approximately 95% of the Project site. However, as previously mentioned in the geotechnical report (Appendix B), subsurface exploratory investigations identified fill soils at depths from the surface to between 1.5 and 3 feet bgs at trenching locations TP-6 and TP-7, which are within or adjacent to the footprint of the former restaurant, respectively. The presence of the fill soil is an indication that any potential cultural materials from the surface to between 1.5 and 3 feet bgs at or near these locations have been previously displaced from the primary depositional location, buried, or destroyed. Additionally, the presence of fill soils demonstrates that the native soils upon and within which cultural deposits would exist in context at or near these investigated locations were not observed during the survey. No cultural materials were observed within the Project site as a result of the survey.

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Less-Than-Significant Impact with Mitigation Incorporated. As defined by the CEQA Guidelines, a historical resource is considered to be a resource that is listed in or eligible for listing in the NRHP or CRHR, has been identified as significant in a historical resource survey, or is listed on a local register of historical resources. Under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (PRC Section 21084.1; 14 CCR 15064.5[b]). If a site is listed or eligible for listing in the CRHR, included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of PRC Section 5024.1[q]), it is a historical resource and is presumed to be historically or culturally significant for the purposes of CEQA (PRC Section 21084.1; 14 CCR 15064.5[a]).

According to the historical topographic maps and aerial photographs review, the Project site was depicted as undeveloped as early as 1896. By 1938, the Project site was in use for agricultural purposes and roadways were present. Development within the Project site began as early as the 1940s with the presence of structures scattered throughout the Project site, including the establishment of the formal roadways that border the Project site, including Valley Boulevard, Cypress Road, and Juniper Road. Development and removal of structures/buildings within the Project site continued through to the early 2010s, including the establishment of Washington Drive and a trailer park within the northeastern quadrant of the Project site in 1969. By 2014, the Project site had been subjected to substantial ground disturbance through grading activities and the removal of all buildings/structures, consistent with present-day site conditions.

A review of the CHRIS database records search for the Project site identified 19 resources within the records search area. All 19 resources are historic built environment resources; none of these resources are located within or adjacent to the Project site. No archaeological resources have been previously recorded within the Project site or 1-mile records search area. It is important to note that the entirety of the Project site has not been subject to any previous archaeological investigations. An archaeological pedestrian survey of the Project site did not identify any archaeological resources within the Project site.

Therefore, the Project would not cause a substantial adverse change in the significance of a known historical resource pursuant to CEQA Guidelines Section 15064.5. However, the potential for intact cultural deposits to exist within native soils to the depths of proposed ground disturbance is unknown. In the event that unanticipated cultural resources are encountered during project implementation, an assessment and evaluation of the resource would be conducted, potentially resulting in the determination that the resource is historical in accordance with the definition outlined in CEQA Guidelines Section 15064.5. As a result, the Project has a potential to impact and thus cause a substantial adverse change in the significance of a yet unknown historical resource.

Thus, mitigation is required to address impacts related to the inadvertent discovery of yet unknown historical resources, as outlined in Mitigation Measure (MM) CUL-1, MM-CUL-2, and MM-CUL-3. MM-CUL-1 requires that all project construction personnel participate in a Workers Environmental Awareness Program training for the proper identification and treatment of inadvertent discoveries. MM-CUL-2 requires the retention of an on-call qualified archaeologist and a survey of the Project site after the removal of fill soils. MM-CUL-3 requires construction work occurring within 100 feet of a cultural resource discovery and 100 feet of a human remains discovery be immediately halted until the qualified archaeologist, meeting the Secretary of Interior's Professional Qualification Standards for Archaeology, can assess and evaluate the discovery pursuant to CEQA. Additionally, MM-CUL-3 requires the inadvertent discovery clause be included on all construction plans. With implementation of MM-CUL-1, MM-CUL-2, and MM-CUL-3, significant impacts to historical resources would be reduced to less than significant with mitigation incorporated.

MM-CUL-1 Workers Environmental Awareness Program. Prior to the start of construction activities, all construction personnel and monitors shall be trained regarding identification and treatment protocol for inadvertent discoveries of cultural resources (archaeological and tribal) and human remains. A basic presentation and handout or pamphlet shall be prepared in order to ensure proper identification and treatment of inadvertent discoveries of cultural resources and human remains. The purpose of the Workers Environmental Awareness Program training is to provide specific details on the kinds of materials that may be identified during ground disturbing activities and explain the importance of and legal basis for the protection of human remains and significant cultural resources. Each worker shall also be trained in the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground disturbing activities. These procedures include but are not limited to work curtailment or redirection, and the immediate contact of the site supervisor and archaeological monitoring staff.

MM-CUL-2 Retention of an On-Call Qualified Archaeologist. A qualified archaeologist shall be retained and on call to respond and address any inadvertent discoveries identified project implementation. Additionally, in consideration of the potential to encounter intact cultural deposits beneath fill soils, the qualified archaeologist shall survey the Project site once fill soils have been removed to ensure no cultural deposits underly the fill layer. If is determined, based on the aforementioned survey, that cultural resources are present or may be present and may be impacted during Project construction, monitoring may be warranted. Additionally, any identified cultural resources shall be assessed and evaluated pursuant to the California Environmental Quality Act. If it is determined that monitoring is warranted, a qualified archaeological principal investigator, meeting the Secretary of the Interior's Professional Qualification Standards, shall oversee and adjust monitoring efforts

as needed (increase, decrease, or discontinue monitoring frequency) based on the observed potential for construction activities to encounter cultural deposits or material. The archaeological monitor will be responsible for maintaining daily monitoring logs.

MM-CUL-3 Inadvertent Discovery Clause. In the event that potential archaeological resources (sites, features, or artifacts) are exposed during ground disturbing, all construction work occurring not less than 100 feet of the find shall immediately stop and the qualified archaeologist that has been retained on call must be notified immediately to assess the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under the California Environmental Quality Act (CEQA), the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work (e.g., preparation of an archaeological treatment plan, testing, data recovery, or monitoring) may be warranted if the resource cannot be feasibly avoided.

In the event that human remains are inadvertently encountered during construction activities, the remains and associated resources shall be treated in accordance with state and local regulations that provide requirements with regard to the discovery of human remains, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and CEQA Guidelines Section 15064.5(e). In accordance with these regulations, if human remains are found, the County Coroner must be immediately notified of the discovery. No further excavation or disturbance of the Project site or any nearby (no less than 100 feet) area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined if the remains are potentially human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to notify the Native American Heritage Commission (NAHC). The NAHC shall notify those persons believed to be the most likely descendant. The most likely descendant shall determine, in consultation with the property owner, the disposition of the human remains.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less-Than-Significant Impact with Mitigation Incorporated. A CHRIS database records search; background research, including a review of a geotechnical report; and an archaeological pedestrian survey were conducted as part of a Phase I archaeological assessment completed to address potential impacts to archaeological resources.

A review of the CHRIS records search (completed October 31, 2022) indicates that one cultural resource study has been conducted within the records search area of the Project site between in 2010. The previous study was completed immediately north and outside of the Project site and does not address the Project site, which suggests that the entirety of the Project site has not been subject to any previous archaeological investigations, including pedestrian survey, prior to the placement of fill soils or development of the Project site. SCCIC records also indicate that one cultural resource, consisting of a segment of the historic State Route 66, was previously recorded within 0.5 miles of the Project site, but does not overlap and is not adjacent to the Project site. No record of previously recorded historic-period or prehistoric archaeological resources are on file with the SCCIC as being present within Project site.

A review of aerial photographs for all available years indicates that in general the Project site has been subjected to consistent ground disturbance, from agricultural use in 1938 followed by substantial ground disturbance in the 1950s as evidenced by the removal of the former orchard and the presence of structures within the southern half of the Project site. By 1959, the entire Project site is completely graded and devoid of structures. Development continues in the early 1970s and continues steadily through the succeeding years until 2000, when the Project site is shown to be consistent with the present site conditions.

Review of the geotechnical report prepared for the Project site (Appendix B) revealed that the fill soils were encountered from the surface to depths between 1.5 and 3 feet bgs within the footprint of the former restaurant and immediately west of the associated paved parking lot. A review of the U.S. Geological Survey mineral resources (USGS 2022) online spatial data for geology indicates that native soils underlie the remainder of the Project site and are composed of Older Quaternary alluvium and marine deposits from the Pleistocene epoch. The terminal Pleistocene-era alluvial formations do have the potential to support the presence of buried archaeological resources. These soils are associated with the period of prehistoric human use that have potential to preserve cultural material in context, depending on area-specific topographical setting. No cultural materials were observed within the Project site as a result of the pedestrian survey (completed November 4, 2022) under generally reliable conditions.

Current project design indicates that the minimum depth of ground disturbance for the Project site is between 3 and 4 feet bgs with a maximum depth of 16 feet bgs for the installation of the infiltration basin within the western portion of the Project site. In consideration of all these factors, the potential to encounter intact deposits containing archaeological resources within soils from the current grade and between 1.5 and 3 feet bgs at the locations where fill soils were encountered and where existing development and paved parking is present is low. However, the potential for intact cultural deposits to exist within native soils to the depths of proposed ground disturbance is unknown. For these reasons, the Project site should be treated as potentially sensitive for archaeological resources. In the event that unanticipated archaeological resources are encountered during project implementation, impacts to these resources would be potentially significant.

Thus, mitigation is required to address impacts related to the inadvertent discovery of archaeological resources during construction, as outlined in MM-CUL-1, MM-CUL-2, and MM-CUL-3. MM-CUL-1 requires that all project construction personnel participate in a Workers Environmental Awareness Program training for the proper identification and treatment of inadvertent discoveries. MM-CUL-2 requires the retention of an on-call qualified archaeologist and a survey of the Project site after the removal of fill soils. MM-CUL-3 requires construction work occurring within 100 feet of a cultural resource discovery and 100 feet of a human remains discovery be immediately halted until the qualified archaeologist, meeting the Secretary of Interior's Professional Qualification Standards for Archaeology, can assess and evaluate the discovery pursuant to CEQA. Additionally, MM-CUL-3 requires the inadvertent discovery clause be included on all construction plans. With implementation of MM-CUL-1, MM-CUL-2, and MM-CUL-3, potentially significant impacts to unknown archaeological resources would be reduced to less than significant with mitigation incorporated.

c) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less-Than-Significant Impact. No prehistoric or historic period burials, including those interred outside of formal cemeteries, were identified within the Project site as a result of the CHRIS records search or pedestrian survey. In the event that human remains are inadvertently encountered during ground disturbing activities, they shall be treated consistent with state and local regulations including California Health and Safety Code Section 7050.5, PRC Section 5097.98, and the California Code of Regulations Section 15064.5(e). In

accordance with these regulations, if human remains are found, the County Coroner must be immediately notified of the discovery. No further excavation or disturbance of the Project site or any nearby (no less than 100 feet) area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined if the remains are potentially human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to notify the NAHC. The NAHC shall notify those persons believed to be the most likely descendant. The most likely descendant shall determine, in consultation with the property owner, the disposition of the human remains. Compliance with these regulations would ensure that impacts to human remains resulting from the proposed Project would be less than significant.

3.6 Energy

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. 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) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less-Than-Significant Impact.

Construction

Electricity. Temporary electric power for as-necessary lighting and electronic equipment would be provided by SCE. The amount of electricity used during construction would be minimal because typical demand would be generated by electrically powered hand tools. The electricity used for construction activities would be temporary and minimal; therefore, Project construction would not result in wasteful, inefficient, or unnecessary consumption of electricity.

Natural Gas. Natural gas is not anticipated to be required during construction of the Project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below. Any minor amounts of natural gas that may be consumed as a result of Project construction would be temporary and negligible and would not have an adverse effect; therefore, Project construction would not result in wasteful, inefficient, or unnecessary consumption of natural gas.

Petroleum. The primary energy consumed during construction would be associated with petroleum usage. Potential impacts were assessed for off-road equipment and on-road vehicle trips during construction, as

provided by the CalEEMod outputs (see Appendix A). Fuel consumption from construction equipment and vehicle trips was estimated by converting the total carbon dioxide (CO_2) emissions anticipated to be generated by the construction of the proposed Project to gallons using conversion factors for CO_2 to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton (MT) CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per MT CO_2 per gallon (The Climate Registry 2021). Heavy-duty construction equipment associated with construction activities, vendor trucks, and haul trucks are assumed to use diesel fuel. Worker vehicles are assumed to be gasoline fueled. All details for construction criteria air pollutant emissions modeling discussed in Appendix A are also applicable for the estimation of construction-related energy consumption.

The estimated diesel fuel usage from construction equipment, haul trucks, and vendor trucks, as well as estimated gasoline fuel usage from worker vehicles, is shown in Table 3.6-1.

Table 3.6-1. Project Construction Petroleum Demand

Phase	Off-Road Equipment (diesel)	Haul Trucks (diesel)	Vendor Trucks (diesel)	Worker Vehicles (gasoline)
	Gallons			
Construction	32,949.44	3,019.18	1,244.87	5,017.02
Total Petroleum Consumed for Project Construction				**42,230.50**

Notes: See Appendix A for details.

As shown in Table 3.6-1, the Project is estimated to consume approximately 42,231 gallons of petroleum during the construction phase.[14] Notably, the Project will be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate or that the fleet has met the Best Achievable Control Technology requirements. Overall, because the Project would not be unusual as compared to overall local and regional demand for energy resources and would not involve characteristics that require equipment that would be less energy-efficient than that required at comparable construction sites in the region or state, the Project construction would not result in wasteful, inefficient, or unnecessary consumption of petroleum.

[14] For context, in 2019, California consumed about 662 million barrels of oil (EIA 2022). There are 42 U.S. gallons in a barrel, so California consumes approximately 76.2 million gallons of petroleum per day, adding up to an annual consumption of 7.8 billion gallons of petroleum.

Operations

Electricity. The operational phase would require electricity for multiple purposes including building heating and cooling, lighting, appliances, electronics, and water and wastewater treatment and conveyance. The estimation of operational building energy and water and wastewater for the Project was based on the CalEEMod assumptions, which account for compliance with 2019 Title 24 standards. Table 3.6-2 presents the electricity demand for the Project.

Table 3.6-2. Project Operations – Electricity Demand

Electricity Use Category	kWh/year
Condo/Townhouse Electricity Use	271,449.00
Water/Wastewater Electricity Use	73,064.26
Total	344,513.26

Source: Appendix A.
Notes: kWh = kilowatt-hour.

According to these estimations, the Project would consume approximately 344,513 kilowatt-hours per year. The Project would be required to comply with the efficiency standards of the CBC (Title 24 Part 6 and Part 11), and the electricity demand for the proposed Project would not be unusual or wasteful as compared to overall local and regional demand for energy resources. For these reasons, electricity consumption of the Project would not be considered inefficient or wasteful, and impacts would be less than significant.

Natural Gas. Natural gas consumption during operation would be required for building heating and cooling. For building consumption, natural gas generation rates in CalEEMod for the Project land use and climate zone were used. Table 3.6-3 presents the natural gas demand for the Project.

Table 3.6-3. Project Operations – Natural Gas Demand

Project	kBtu/year
Condo/Townhouse	905,075.00

Source: Appendix A.
Notes: kBtu = thousand British thermal units.

According to these estimations, the Project would consume approximately 905,075 thousand British thermal units per year. The Project would be required to comply with the efficiency standards of the CBC (Title 24 Part 6 and Part 11), and the natural gas demand for the Project would not be unusual or wasteful as compared to other residential uses and the overall local and regional demand for energy resources. For these reasons, natural gas consumption of the Project would not be considered inefficient or wasteful, and impacts would be less than significant.

Petroleum. During operations, the majority of fuel consumption resulting from the Project would involve the use of motor vehicles traveling to and from the Project site. Petroleum fuel consumption associated with motor vehicles is a function of the VMT as a result of Project operation. The annual VMT attributable to the Project is expected to be 1,222,794 VMT (Appendix A). Fuel estimates for the Project are provided in Table 3.6-4.

Table 3.6-4. Project Operations – Petroleum Consumption

Fuel	Vehicle MT CO_2	kg CO_2/Gallon	Gallons
Gasoline	371.38	8.78	42,297.96
Diesel	17.41	10.21	1,704.81
		Total Project Petroleum Use	**44,002.76**

Source: Appendix A
Notes: MT = metric ton; CO_2 = carbon dioxide; kg = kilogram.

As depicted in Table 3.6-4, the Project would consume approximately 44,003 gallons of petroleum per year during operation. Over the lifetime of the Project, the fuel efficiency of the vehicles being used by the residents at the Project is expected to increase. As such, the amount of petroleum consumed as a result of vehicular trips to and from the Project site during operation would decrease over time. There are numerous regulations in place that require and encourage increased fuel efficiency. For example, CARB has adopted the Advanced Clean Cars program to accelerate the market for zero-emission vehicles in the passenger car sector. As such, operation of the Project is expected to use decreasing amounts of petroleum over time, due to advances in fuel economy.

In summary, although Project implementation would result in an increase in petroleum use during operation, over time vehicles would use less petroleum due to advances in fuel economy and the petroleum demand for the Project would not be unusual or wasteful as compared to other residential uses and the overall local and regional demand for petroleum resources. Given these considerations, the petroleum consumption associated with the proposed Project would not be considered inefficient or wasteful, and impacts would be less than significant.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less-Than-Significant Impact. The Project would be subject to and would comply with, at a minimum, the California Building Energy Efficiency Standards (24 CCR 6). Part 6 of Title 24 establishes energy efficiency standards for residential and non-residential buildings constructed in California to reduce energy demand and consumption. As such, the Project would comply with the California code requirements for energy efficiency.

Part 11 of Title 24 sets forth voluntary and mandatory energy measures that are applicable to the Project under the California Green Building Standards, also known as CALGreen. CALGreen institutes mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, high-rise residential, state-owned buildings, schools, and hospitals, as well as certain residential and non-residential additions and alterations. On this basis, the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, impacts would be less than significant.

3.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. 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 Geotechnical Due Diligence Investigation (Appendix B) was prepared by Albus & Associates Inc. in November 2021 and is used in the following section to determine potential impacts.

a) Would the project 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.

Less-Than-Significant Impact. The Project site is located in tectonically active Southern California. However, no Alquist-Priolo Fault Hazard Zones or other known active faults run through the Project site. Based on the lack of active or potentially active faults underlying the Project area, the potential for surface rupture is low and the Project site would not be subject to a greater seismic risk than other locations within the region. Additionally, per the Alquist-Priolo Earthquake Fault Zoning Act, because the Project site is not located in an Alquist Priolo Fault Zone, the Project would not place any prohibited uses (e.g., uses containing structures with a capacity of 300 people or more; uses with the potential to severely damage the environment or cause major loss of life; or specific civic uses including police and fire stations, schools, hospitals, rest homes, nursing homes, and emergency communication facilities) within an Alquist–Priolo Fault Zone. Thus, the potential for loss, injury, or death involving rupture of a known earthquake fault is considered low.

The Project would be required to comply with applicable CBC requirements, as well as implement any recommendations from the Geotechnical Investigation (Appendix B), and proposed plans would be subject to City review. For these reasons, impacts are determined to be less than significant.

ii) Strong seismic ground shaking?

Less-Than-Significant Impact. There are no known active faults that run through the Project site, although there are several active faults in the vicinity of the Project site. The closest one is the Sierra Madre Fault, located 1.18 miles from the Project site. The Project would be designed in accordance with applicable CBC criteria, including those specific to resistance to seismic shaking. Furthermore, the Project would be constructed in accordance with other applicable regulations, current seismic design specifications of the Structural Engineers Association of California, and applicable requirements of the State of California Occupational Safety and Health Administration. These required seismic design considerations are used to minimize structural damage in the event of ground shaking.

Additionally, the Project would implement all recommendations from any Project-specific recommendations or any supplemental geotechnical evaluations in compliance with the City's Municipal Code. The Development Services Department shall review and approve Project design and construction to verify that the recommendations of the geotechnical evaluation have been incorporated. With adherence to all regulations and geotechnical recommendations, impacts related to seismic ground shaking would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less-Than-Significant Impact. Liquefaction occurs when site conditions include shallow groundwater, low density non-cohesive (granular) soils, and high-intensity ground motion. Based on the geotechnical evaluation mapping, subsurface exploration, and laboratory testing, the Project site is not identified as being susceptible to liquefaction. Per the Geotechnical Investigation, the site is not located within a state-designated zone of potentially liquefiable soils (Appendix B). Additionally, groundwater was not encountered during site reconnaissance and is estimated to be approximately 150 feet bgs.

Furthermore, there are no active faults mapped on the Project site and the site is not located within a mapped Alquist-Priolo Earthquake Fault Zone. For these reasons, implementation of the Project would not result in seismic-related ground failure, including liquefaction, and impacts would be less than significant.

iv) Landslides?

Less-Than-Significant Impact. The Project site is flat and does not have large slopes or bluffs that have the potential to landslide. The Project site is identified by the California Department of Conservation's Earthquake Hazards Zone Application as not being within a Landslide Zone (DOC 2022b). Therefore, the Project site is not considered susceptible to landslides and Project impacts would be less than significant.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less-Than-Significant Impact. During construction, soils could temporarily be subject to erosion, particularly during site preparation and grading phases. As such, soils would be exposed and disturbed while the site is graded. Wind and/or storm events during this period could result in potential erosion and/or loss of topsoil on the Project site. However, erosion-control measures would be implemented during construction as part of the stormwater pollution prevention plan (SWPPP) for the Project. Prior to the start of construction activities, the Contractor is required to file a Permit Registration Document with the State Water Resources Control Board in order to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities (Order No. 2009-009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ, NPDES No. CAS000002) or the latest approved general permit. This permit is required for earthwork that result in the disturbance of 1 acre or more of total land area. The required SWPPP will mandate the implementation of best management practices (BMPs) to reduce or eliminate construction-related pollutants in the runoff, including sediment.

Upon buildout of the Project, the site would be covered with residences, pavement, flood control facilities, and landscaping, which would preclude or minimize erosion potential. The stormwater drainage system for the development would be designed to capture rainfall from storm events and direct it to the proposed on-site sewer system. Additionally, the Project would be subject to applicable regulations governing water quality during operations, such as Order No. R4-2021-0105 (see Section 3.10, Hydrology and Water Quality, for more discussion).

Further, the Project would be required to comply with the City's Grading Ordinance, which contains design standards and performance requirements that must be met to avoid or reduce, to an acceptable level, excessive erosion. For these reasons, implementation of the Project would not result in substantial soil erosion or the loss of topsoil, and impacts would be less than significant.

c) Would the project 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?

Less-Than-Significant Impact. As previously described under Section 3.7(a), landslides and/or liquefaction on site is not considered to be a potential risk. Subsidence occurs when an earthquake causes loose soil to depress or consolidate, causing the land surface to break or sink. As noted in the Geotechnical Investigation (Appendix B), removal and recompacting soil on site could result in some moderate shrinkage

and subsidence. The grading design for the Project would require consideration for this loss when evaluating earthwork balance on site. Site preparation, removals, and excavation would be performed consistent with the Geotechnical Investigation prepared for the Project and any supplemental geotechnical evaluations to be required. In addition, grading would be accomplished under the observation and testing of the Project geotechnical engineer and engineering geologist, in accordance with the requirements of the CBC and the City. Therefore, impacts associated with unstable soils would be less than significant.

d) Would the project 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?

Less-Than-Significant Impact. The Geotechnical Investigation prepared for the Project (Appendix B) noted that the near-surface sandy soils within the site are generally anticipated to possess a "very low" expansion potential. However, additional testing for soil expansion would be required subsequent to rough grading and prior to construction of foundations and other concrete work to confirm these conditions. Construction of the proposed Project would be required to implement CBC guidelines, regulations, and further geotechnical recommendations to ensure that such soils are fully remediated and/or the Project is designed appropriately to minimize impacts of expansive soils. It is anticipated that potentially expansive soils would be identified and remediated and impacts related to expansive soils would be less than significant.

e) Would the project 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?

Less-Than-Significant Impact. The Project does not include septic tanks or alternative wastewater disposal systems. Sewer services would be provided by the City and the Project would tie into existing infrastructure already in place surrounding the Project site. Therefore, impacts would be less than significant.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less-Than-Significant Impact with Mitigation Incorporated. Paleontological sensitivity refers to the potential for a geologic unit to produce scientifically significant fossils. Direct impacts to paleontological resources occur when earthwork activities, such as grading or trenching, cut into the geologic deposits (formations) within which fossils are buried and physically destroy the fossils. Since fossils are the remains of prehistoric animal and plant life, they are considered to be nonrenewable. The geologic features in Claremont include Pre-Mesozoic to Cretaceous plutonic igneous rocks of the Peninsular Ranges Batholith; Paleozoic metamorphic rocks; Late Cenozoic terrestrial, marine, and volcanic deposits; and widespread Quaternary alluvial fan and valley deposits. While the Quaternary alluvial fan and valley deposits are not old enough to contain paleontological resources or unique geological features, other geological features in Claremont may support paleontological resources (City of Claremont 2022c). More specifically, the Project site contains surface deposits of Holocene (<11,700 years ago) (Cohen et al. 2022) alluvium (Appendix B; Dibblee and Minch 2002). These deposits are too young to contain paleontological resources on the surface and the uppermost layers, but with depth can become old enough to preserve fossils. Holocene alluvium has low paleontological sensitivity that increases with depth below the surface.

A portion of the Project site has previously been developed and disturbed and the site is surrounded by existing development. Nonetheless, there is the potential for paleontological resources to exist below the ground surface. Ground-disturbing activities in subsurface geologic units with moderate to high paleontological sensitivity have the potential to damage or destroy paleontological resources that may be

present. Such resources could be disturbed by grading and excavation activities associated with the proposed Project; however, planned excavations for the Project are not anticipated to extend to a depth where these resources could be encountered (approximate depths of excavation are 4 to 5 feet). Even so, MM-GEO-1 is required to ensure that the proposed Project would preserve paleontological resources if encountered. Therefore, impacts to paleontological resources would be less than significant with mitigation.

MM-GEO-1 Unanticipated Paleontological Resources. If an inadvertent discovery of paleontological resources (e.g., fossilized plant, shell, or animal bone) is made during project-related construction activities, ground disturbance in the area of the find shall be halted, the discovered resource shall be roped off, and the City of Claremont and a qualified professional paleontologist shall be contacted. The qualified paleontologist shall be assigned to determine whether the resource is potentially significant as per the Society of Vertebrate Paleontology's 2010 guidelines and that person shall develop appropriate treatment measures.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. 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) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-Than-Significant Impact. Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system, and many factors (natural and human) can cause changes in Earth's energy balance. The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature, and it creates a livable environment on Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise. Global climate change is a cumulative impact; a project contributes to this impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. Thus, GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008).

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include CO_2, methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride (14 CCR 15364.5). The three GHGs evaluated herein are CO_2, CH_4, and N_2O, because these are the only GHG gases that would be emitted during Project construction and/or operations.

Gases in the atmosphere can contribute to climate change both directly and indirectly. The Intergovernmental Panel on Climate Change developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The reference gas used is CO_2; therefore, GWP-weighted emissions are measured in MT of CO_2 equivalent (CO_2e). Consistent with CalEEMod version 2020.4.0, this GHG emissions analysis assumes the GWP for CH_4 is 25 (emissions of 1 MT of CH_4 are equivalent to emissions of 25 MT of CO_2), and the GWP for N_2O is 298, based on the Intergovernmental Panel on Climate Change's Fourth Assessment Report (IPCC 2007).

As discussed in Section 3.3, Air Quality, of this IS/MND, the Project is located within the jurisdictional boundaries of the SCAQMD. In October 2008, SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects as presented in its Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold (SCAQMD 2008). This document, which builds on the previous guidance prepared by the California Air Pollution Control Officers Association, explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. However, in December 2008, the SCAQMD adopted an interim 10,000 MT CO_2e per-year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency (see SCAQMD Resolution No. 08-35, December 5, 2008).

The SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. From December 2008 to September 2010, the SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. The SCAQMD has continued to consider adoption of significance thresholds for residential and general land use development projects. The most recent proposal, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

Tier 1 Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

Tier 2 Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

Tier 3 Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT CO_2e per-year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO_2e per year), commercial projects (1,400 MT CO_2e per year), and mixed-use projects (3,000 MT CO_2e per year). Under option 2, a single numerical screening threshold of 3,000 MT CO_2e per year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.

Tier 4 Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of Assembly Bill (AB) 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT CO_2e per-service population for project-level analyses and 6.6 MT CO_2e per-service population for plan-level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.

Tier 5 Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

Section 15064.7(c) of the CEQA Guidelines specifies that "when adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence." The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, establish specific thresholds of significance, or mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine appropriate methodologies and thresholds of significance that are consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009).

To determine the proposed Project's potential to generate GHG emissions that would have a significant impact on the environment, the Project's GHG emissions were compared to the quantitative threshold of 3,000 MT CO_2e per year. Per the SCAQMD guidance, construction emissions should be amortized over the operational life of the Project, which is assumed to be 30 years (SCAQMD 2008).

Construction

Construction of the proposed Project would result in GHG emissions primarily associated with the use of off-road construction equipment, on-road trucks, and worker vehicles. A depiction of expected construction schedules (including information regarding phasing, equipment used during each phase, truck trips, and worker vehicle trips) assumed for the purposes of emissions estimation is provided in Table 3.8-1 and in Appendix A. On-site sources of GHG emissions include off-road equipment; off-site sources include trucks and worker vehicles. Table 3.8-1 presents construction GHG emissions for the proposed Project from on-site and off-site emissions sources.

Table 3.8-1. Estimated Annual Construction GHG Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
2023	281.26	0.06	<0.01	284.71
2024	362.21	0.07	<0.01	364.98
2025	193.04	0.04	<0.01	194.48
			Total	**844.17**
			Amortized Emissions (over 30 years)	**28.14**

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.
See Appendix A for complete results.

As shown in Table 3.8-1, the estimated total GHG emissions in 2023, 2024, and 2025 would be approximately 285 MT CO_2e, 365 MT CO_2e, and 195 MT CO_2e respectively. Amortized over 30 years, construction GHG emissions would be approximately 28 MT CO_2e per year. In addition, as with Project-generated construction criteria air pollutant emissions, GHG emissions generated during proposed construction activities would be short term, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions.

Because there is no separate GHG threshold for construction, the evaluation of significance is discussed in the operational emissions analysis in the following text.

Operation

CalEEMod was used to estimate potential Project-generated operational GHG emissions from area sources (landscape maintenance), energy sources (natural gas and electricity), mobile sources, solid waste, and water supply and wastewater treatment. For additional details, see Section 3.3 for a discussion of operational emission calculation methodology and assumptions, specifically for area and energy (natural gas) sources. Year 2026 was assumed as the first full year of operations after Project construction.

Table 3.8-2 presents the annual GHG emissions associated with operation of the proposed Project. Additional details are included in Appendix A.

Table 3.8-2. Estimated Annual Operational GHG Emissions

Emission Source	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
Area	14.39	<0.01	<0.01	14.49
Energy	96.44	<0.01	<0.01	96.97
Mobile	378.41	0.03	0.02	383.93
Waste	5.23	0.31	0.00	12.95
Water	14.12	0.12	<0.01	17.99
Total	**518.96**	**0.46**	**0.02**	**526.34**
			Amortized Construction Emissions	**28.14**
			Operation + Amortized Construction Total	**554.47**

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent
See Appendix A for detailed results.
Values of "<0.01" indicate that the estimated emissions are less than two decimals. Totals may not sum due to rounding.

As shown in Table 3.8-2, the estimated annual Project-generated GHG emissions would be approximately 526 MT CO_2e per year as a result of Project operation. When summed with the amortized Project construction emissions, the total annual GHGs would be approximately 554 MT CO_2e per year. Annual operational GHG emissions with amortized construction emissions would not exceed the SCAQMD threshold of 3,000 MT CO_2e per year. Therefore, the proposed Project's GHG contribution would be less than significant. No mitigation is required.

b) Would the project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less-Than-Significant Impact. Several plans and policies have been adopted to reduce GHG emissions in the Southern California region, including the state's 2017 Scoping Plan, SCAG's 2020–2045 RTP/SCS (Connect SoCal), and local policies contained in the City's 2006 General Plan. The proposed Project's consistency with these plans is discussed in the following subsections.

Consistency with the Scoping Plan

The CARB Scoping Plan, approved by CARB in 2008 and updated in 2014 and 2017, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations.[15] Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among others. The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of Assembly Bill (AB) 32 and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions.[16] To the extent that these regulations are applicable to the Project or its uses, the Project would comply with all regulations adopted in furtherance of the Scoping Plan to the extent required by law.

Consistency with Senate Bill 32 and Executive Order S-3-05

The Project would also not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in Senate Bill (SB) 32 and Executive Order (EO) S-3-05, respectively. EO S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050. SB 32 establishes a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030. While there are no established protocols or thresholds of significance for that future year analysis, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014).

CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32"

15 The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "the Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009).

16 AB 32 is referred to as the California Global Warming Solutions Act of 2006 (September 27, 2006). AB 32 provided initial direction on creating a comprehensive multiyear program to limit California's GHG emissions at 1990 levels by 2020 and initiate the transformations required to achieve the state's long-range climate objectives.

(CARB 2014). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the First Update states the following (CARB 2014):

> This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and EO S-3-05. This is confirmed in the Second Update, which states (CARB 2017b):

> The Proposed Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while also identifying new, technologically feasibility and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Proposed Plan is developed to be consistent with requirements set forth in AB 32, SB 32, and AB 197.

As discussed previously, the proposed Project would be consistent with the applicable strategies and measures in the Scoping Plan, as well as SCAG's Connect SoCal, and would therefore not conflict with the state's trajectory toward the above-described statewide GHG reduction goals for 2030 or 2050. In addition, the specific path to compliance for the state in regard to the long-term goals will likely require development of technology or other changes that are not currently known or available. As such, identifying ways that the Project would be consistent with future goals would be speculative and cannot be meaningfully discussed at this time. However, the proposed Project's consistency with current goals, policies, and regulations would assist in meeting the City's contribution to GHG emission reduction targets in California. With respect to future GHG targets under SB 32 and EO S-3-05, CARB has also made clear its legal interpretation that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet SB 32's 40% reduction target by 2030 and EO S-3-05's 80% reduction target by 2050. This legal interpretation by an expert agency provides evidence that future regulations will be adopted to continue the state on its trajectory toward meeting these future GHG targets.

Consistency with the Southern California Association of Governments' Connect SoCal

SCAG's Connect SoCal is a regional growth-management strategy that targets per capita GHG reduction from passenger vehicles and light-duty trucks in the Southern California region. In addition to demonstrating the region's ability to attain and exceed the GHG emission-reduction targets set forth by CARB, Connect SoCal outlines a series of actions and strategies for integrating the transportation network with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands (SCAG 2020). Thus, successful implementation of Connect SoCal would result in more complete communities with a variety of transportation and housing choices, while reducing automobile use. The proposed Project would redevelop the Project site with a 56-unit townhome

development, including 12 live/work units, and would be consistent with the goals of Connect SoCal. As discussed in Section 3.3, the proposed Project is consistent with the underlying residential zoning assumed for the site in SCAG's RTP/SCS. In addition, the proposed Project would also incorporate energy efficient features and would comply with CALGreen standards.

Based on the analysis above, the proposed Project would be consistent with Connect SoCal.

Consistency with Local Policies

The City's General Plan includes several policies related to reducing GHG emissions. The City also adopted the Sustainable City Plan in October 2008, with updates made in October 2013 and in April 2021 (City of Claremont 2021a). The Sustainable City Plan outlines several energy efficient goals that directly relate to GHG emission reduction goals. For example, the City's goal is to apply sustainable design standards to all new facilities community wide and promote sustainable design practices in homes and commercial buildings (i.e., CalGreen). The proposed Project would be required to meet the applicable Building Energy Efficiency Standards. The proposed Project would comply with performance-based standards included in 2019 Title 24 Building Energy Efficiency Standards. Buildings whose permit applications are applied for on or after January 1, 2023, would be required to comply with the 2022 Energy Code.

Based on the above considerations, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be less than significant, and no mitigation is required.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. 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?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site that 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 Phase I and II Environmental Site Assessment (ESA) (Appendix C) was prepared by Stantec in November 2021 and information provided therein is used in the following section to determine potential impacts.

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-Than-Significant Impact with Mitigation Incorporated. During construction, hazardous substances and wastes would be stored, used, and generated on the Project site, including fuels for machinery and vehicles, new and used motor oils, cleaning solvents, paints, and storage containers. Accidental spills, leaks, fires, explosions, or pressure releases involving hazardous materials represent a potential threat to human health and the environment if not properly treated, which would result in a significant impact. Provisions to properly manage hazardous substances and wastes during construction are typically included in construction specifications and are under the responsibility of the construction contractors. Adherence to the construction specifications and applicable regulations regarding hazardous materials and hazardous waste, including disposal, would ensure that construction of the proposed Project would not create a significant hazard to the public or the environment during the construction phase of the proposed Project.

The Project site was historically used for agricultural activities (orchards) until circa 1970. Pesticides and herbicides containing heavy metals are commonly used in agricultural settings, sometimes resulting in the accumulation of the chemicals and metals in shallow soils. Based on the exploratory borings that were performed as part of the Phase I and II ESA, concentrations of organochlorine pesticides and arsenic were determined to be below the screening thresholds. However, lead was reported in nine soil samples with

concentrations ranging from 15 to 160 milligrams per kilogram (mg/kg) and two of the samples were determined to be above the residential screening threshold of 80 mg/kg (110 and 160 mg/kg). The lead impacts appear to be localized to the upper 2 feet of soil on site and the subsurface investigation data indicates that approximately 1,500 cubic yards would need to be removed prior to construction.

During operation of the Project, the only hazardous materials anticipated for transport, use, or disposal associated would be routinely used household products such as cleaners, paint, solvents, motor oil/automotive products, batteries, and garden maintenance products, typical of residential uses. The use, handling, and disposal of these products is addressed by household hazardous waste programs that are part of the Integrated Waste Management Plan (IWMP) of the County of Los Angeles. The Household Hazardous Waste Element of the IWMP specifies the means by which hazardous wastes generated by households shall be collected, recycled, treated, and disposed of safely (County of Los Angeles 2018).

Significant impacts associated with construction or operation of the site are not expected. However, based on the levels of lead concentration found at the site, remedial excavations would be required in order to remove the soil that is impacted by lead at concentrations exceeding the residential screening threshold of 80 mg/kg. Therefore, impacts from any potentially significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during construction or operation of the proposed Project would be less than significant with mitigation (MM-HAZ-1).

MM-HAZ-1 Prior to the issuance of building permits, the Project Applicant shall retain a qualified contractor to remove and dispose of contaminated soil found anywhere on the Project site and specifically in the vicinity of soil sample SB-1 and SB-2, as identified in the Phase I and II Environmental Site Assessment. The following information shall be provided in a memorandum to the City of Claremont prior to issuance of a building permit:

- Identification of known and suspected areas with hazardous waste and/or hazardous materials of concern
- Procedures for identifying suspect materials
- A summary of the soil removal and disposal activities
- Proof that the removal, transport, and disposal of refuse shall be done in accordance with all applicable local, state, and federal guidelines related to hazardous materials handling
- Health and safety measures for excavation of contaminated soil
- Procedures for restricting access to the contaminated area except for properly trained personnel
- The excavation, loading, and transportation of the lead-impacted soil will be completed with appropriate and protective measures in place, by the environmental contractor, to prevent migration of lead-impacted dust

b) Would the project 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?

Less-Than-Significant Impact with Mitigation Incorporated. As discussed above, a variety of hazardous substances and wastes would be stored, used, and generated on the Project site during construction. Accidental spills, leaks, fires, explosions, or pressure releases involving hazardous materials represent a potential threat to human health and the environment if not properly treated. Accident prevention and

containment would be the responsibility of the demolition contractors, and provisions to properly manage hazardous substances and wastes are typically included in contract specifications.

The Project would be limited to multifamily residences, residential amenities, and some recreational areas, which do not typically generate, release, or use large amounts of hazardous materials. During operations of the Project, the only hazardous materials anticipated for transport, use, or disposal are routinely used household products such as cleaners, paint, solvents, motor oil/automotive products, batteries, and garden maintenance products. The use, handling, and disposal of these products are addressed by household hazardous waste programs that are part of the IWMP of the County of Los Angeles, and therefore the Project is not expected to create a significant hazard to the public or environment through hazardous upsets or accidents. For these reasons, the Project is not expected to result in potential upset and accident conditions involving release of hazardous materials in the environment. Nonetheless, due to the need to remediate lead contaminated soils on site, impacts from a foreseeable upset or accidental release would be less than significant with mitigation (MM-HAZ-1).

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less-Than-Significant Impact with Mitigation Incorporated. The closest school to the Project site is Mountain View Elementary School located 0.3 miles east of the Project site at 851 Santa Clara Avenue West. As previously discussed, construction and operation of the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or create a significant hazard to the public or the environment involving the release of hazardous materials into the environment. The Project is not expected to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste beyond routinely used household products such as cleaners, paint, solvents, motor oil/automotive products, batteries, and garden maintenance products. Uses of these materials are typical of such residential land uses. Considering the Project is surrounded by existing development, including residential and commercial uses between the Project site and Mountain View Elementary School, Project impacts related to exposing an existing or proposed school to hazardous materials is not anticipated. Nonetheless, due to the need to remediate lead contaminated soils on site, impacts from emitting or handling hazardous or acutely hazardous materials within proximity to a school would be less than significant with mitigation (MM-HAZ-1).

d) Would the project be located on a site that 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?

Less-Than-Significant Impact with Mitigation Incorporated. As part of the Phase I and II ESA prepared for the Project site (Appendix C) a database search report was completed, which documents various federal, state, and local regulatory database searches regarding properties with known or suspected releases of hazardous materials, chemical handlers, and/or polluters. The Phase I and II ESA determined that the Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

However, lead was reported in nine soil samples with concentrations ranging from 15 to 160 mg/kg and two of the samples were determined to be above the residential screening threshold of 80 mg/kg (110 and 160 mg/kg). The lead impacts appear to be localized to the upper 2 feet of soil on site and additional

evaluation is recommended in order to estimate the quantity of lead impacted soil that would need to be removed prior to construction. With implementation of MM-HAZ-1, impacts would be reduced to less than significant with mitigation.

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?

Less-Than-Significant Impact. Cable Airport is located 3.5 miles east of the Project site at 1749 West 13th Street, Upland, California. Cable Airport is a family owned public use airport. According to the Cable Airport Land Use Compatibility Plan, the Project site is located outside the existing airspace protection surface zone, outside the allowable object heights zone, and outside the noise impact area (City of Upland 2015). Therefore, impacts associated with a public-use airport would be less than significant.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less-Than-Significant Impact. The City's Emergency Operations Plan governs the operations of the City during a disaster. This plan addresses response to moderate evacuation scenarios, including the identification of evacuation points and general routes. The City also has a Local Hazards Mitigation Plan that provides a framework for planning for natural disasters/hazards and cyber threats (City of Claremont 2022d). Implementation of the Project is not expected to impact any major roadways or arterials that are identified in any emergency planning documents and would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. As required under the California Fire Code, the Project would present development plans that afford fire and emergency responders suitable fire access road dimensions and surfaces (Chapter 5, Sections 503.1–503.4 of the California Fire Code) and an adequate number of emergency rated entrances to the community (Appendix D, Section D106 of the California Fire Code). The proposed points of entry and private driveways will be reviewed by the Los Angeles County Fire Department and would be required to meet the qualifications for emergency access to and from the Project site. Therefore, impacts related to emergency response or emergency evacuation as a result of the Project would be less than significant.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less-Than-Significant Impact. According to Figure 6-5, Wildfire Risk Map for the City of Claremont, of the Public Safety and Noise Element of the City's General Plan, the Project site is not located within a Fire Hazard Severity Zone (City of Claremont 2021b). The Project site is located in a highly urbanized area of the City and no wildlands are in proximity to the Project site. Therefore, the risk of loss, injury, or death involving wildfires would be less than significant.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. 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 offsite;	☐	☐	☒	☐
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 Preliminary Hydrology Study (Appendix D) and a Development Planning Document (LID Plan) (Appendix E) were prepared by Alan R. Short, PE, in July 2022 and they are used in the following section to determine potential impacts.

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less-Than-Significant Impact. Construction of the Project would include earthwork activities that could potentially result in erosion and sedimentation, which could subsequently degrade downstream receiving waters and violate water quality standards. Stormwater runoff during the construction phase may contain silt and debris, resulting in a short-term increase in the sediment load of the municipal storm drain system. Substances such as oils, fuels, paints, and solvents may be inadvertently spilled on the Project site and subsequently conveyed via stormwater to nearby drainages, watersheds, and groundwater.

Because the Project would result in more than 1 acre of ground disturbance, the Project would be subject to the NPDES stormwater program, which includes obtaining coverage under the State Water Resources Control Board's General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit). Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground such as stockpiling or excavation. The Construction General Permit requires development and implementation of a SWPPP. Among the required items that must be included within a SWPPP are project design features intended to protect against substantial soil erosion as a result of water and wind erosion, commonly known as BMPs. The implementation of a Construction General Permit, including preparation of a SWPPP and implementation of BMPs, would reduce impacts of stormwater runoff during Project construction to acceptable levels.

Upon completion of construction, development of the Project would add impervious surfaces to the site through associated residential building footprints, parking areas, and walkways. By increasing the impervious surfaces on site, less water would percolate into the ground and more surface runoff would be generated. The proposed Project would maintain existing drainage patters. Runoff from the site would drain via curb and gutter to catch basins and drains where it would enter the private storm drain that would convey it in a southwesterly direction. Prior to discharge onto the public right-of-way, flows would be conveyed east to a drywell with an underground 48-inch high-density polyethylene detention pipe. The drywell would be used for infiltration and water quality purposes. In addition, the Project-specific LID Plan outlines inspection and maintenance responsibilities for all proposed BMPs on site.

BMPs required by the NPDES General Construction Permit would include spill prevention and cleanup guidelines, dewatering operations guidelines, and stormwater runoff prevention. These BMPs would protect the groundwater from contamination by Project construction and operational activities. Implementation of proposed BMPs, the SWPPP, and compliance with applicable regulations would ensure impacts to water quality as a result of Project construction and operation would be less than significant.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less-Than-Significant Impact. While the Project would increase the amount of impervious surface area on site in comparison to existing conditions, the proposed 13,494 square feet of landscaping on site would allow for percolation. Due to the proposed Project's small size of 3.05 acres in relationship to the size of the Pomona Groundwater Basin, there will not be a substantial effect upon groundwater recharge within the groundwater basin. Furthermore, the Project would have a low water demand and would not use local groundwater sources for potable water supply. Therefore, the Project is not expected to directly cause a decrease in groundwater supplies or interfere substantially with groundwater recharge, and impacts are determined to be less than significant.

c) Would the project 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?

Less-Than-Significant Impact. There are no existing streams or rivers on site that would be substantially altered as a result of Project implementation. As previously described under Section 3.10(a), a SWPPP will be required and implemented as part of Project compliance with the NPDES Permit to ensure that water quality standards are met and that stormwater runoff from the construction work areas does not cause degradation of water quality in receiving water bodies. The SWPPP consists of BMPs designed to reduce and capture soil erosion or siltation during Project construction and operation. Sediment control BMPs may include stabilized construction entrances, sediment filters on existing inlets, or the equivalent to reduce erosion impacts. Implementation of the SWPPP and incorporation of BMPs would ensure proper measures are in place to prevent, to the extent feasible, stormwater runoff conveying sediments to downstream receiving waters.

Upon completion of construction, development of the Project would add impervious surfaces to the site through associated residential building footprints, parking areas, and walkways. By increasing the impervious surfaces on site, less erosion and/or siltation would be generated. The proposed Project would maintain existing drainage patterns. Runoff from the site would drain via curb and gutter to catch basins and drains where it would enter the private storm drain for infiltration and water quality control purposes. Therefore, the Project is not expected to directly result in substantial erosion or siltation on or off site, and impacts would be less than significant.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Less-Than-Significant Impact. Implementation of the Project would increase the area of impervious surface on the Project site, which could increase runoff flow rates and volumes. However, the Project would include implementation of BMPs during construction and proposed storm drain and biofiltration basins during operation as recommended by the Project-specific LID Plan. Drainage facilities such as curb inlets, storm drains, water quality, flow control, and the proposed drywell would assist in reducing the amount and improving the quality of runoff from the Project site. This would ensure that the runoff quantities generated by the Project do not significantly alter the existing drainage pattern of the site resulting in flooding. Therefore, impacts would be less than significant.

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?

Less-Than-Significant Impact. The Project site does not currently have infiltration basins or capture systems in place to control stormwater runoff. Although the proposed Project would increase the amount of impervious surfaces on the Project site, the proposed drainage system would be designed to conform to all applicable federal, state, and local requirements, including the current Municipal Separate Storm Sewer System Permit adopted by the Regional Water Quality Control Board. Compliance with these requirements would ensure the new drainage system is designed to have adequate capacity to capture stormwater flow to prevent the conveyance of sediment, debris, and other constituents potentially contained in on-site

stormwater from leaving the site and impacting off-site and downstream receiving waters. Implementation of the Project would not exceed the capacity of the existing stormwater drainage system, and implementation of the SWPPP would ensure the Project would not result in substantial additional sources of polluted runoff. Therefore, impacts would be less than significant.

iv) Impede or redirect flood flows?

Less-Than-Significant Impact. As shown on Federal Emergency Management Agency Panel No. 06037C1750F, the Project site is located within Zone X; therefore, the Project site is located outside of the 1% Annual Chance Flood Hazard Zone (100-year floodplain) and 0.2% Annual Chance Flood Hazard Zone (500-year floodplain). The Project's on-site storm drain systems would adequately convey flows and provide flood protection for a 10-year and 50-year storm event. Implementation of the Project would not substantially impede or redirect flood flows and impacts would be less than significant.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Less-Than-Significant Impact. The Project site is not located near an ocean, so there is no potential for the site to be impacted by a tsunami. However, according to Figure 6-4, Dam Inundation Hazard Areas in the City of Claremont, of the Public Safety and Noise Element of the City's General Plan, the Project site is located in the 45-minute San Antonio Dam Flood Water Arrival Time Area (City of Claremont 2021b). The San Antonio Dam is located in the northeast corner of Claremont, within the Santa Ana River Watershed, and extends east into San Bernardino County. As noted in the General Plan, since the rivers are rarely full, the chance of dam failure coinciding with heavy rainfall is unlikely. The General Plan also states that the probability of dam failure is low and the inundation zone is far reaching under the scenario of failure.

Dams are continually monitored by various government agencies (such as the State of California Division of Safety of Dams and the U.S. Army Corps of Engineers) to guard against the threat of dam failure. The Division of Safety of Dams requires annual inspection of dam facilities to detect and repair any identified deficiencies. The proposed Project would not directly or indirectly affect a dam's propensity to fail and the existing level of hazard from dam failure would not change upon Project implementation. In the unlikely event of a dam failure, the emergency response plans applicable to the Project area would go into effect and evacuation and emergency response procedures would be implemented. Therefore, impacts would be less than significant.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less-Than-Significant Impact. The proposed Project would comply with the requirements of the City of Claremont's respective NPDES Municipal Separate Storm Sewer System Permit and all applicable federal, state, and local laws. Pursuant to the Groundwater Management Act, the Six Basins Judgment defines adjudication for the Pomona Basin underlying the Project site. The Watermaster calculates the operating safe yield based on fluctuating hydrologic conditions to ensure safe operating yield and avoidance of groundwater over-extraction (GSWC 2016). Development of the proposed Project would not conflict with the stated purpose or provisions of the Sustainable Groundwater Management Act. The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan and impacts would be less than significant.

3.11 Land Use and Planning

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI.	**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) Would the project physically divide an established community?

No Impact. The Project site consists of vacant lots, surface parking, and ruderal vegetation, including mature trees. The site is located southeast of the intersection of Towne Avenue and Foothill Boulevard. As shown in Figure 1 and Figure 2, the Project site and surrounding area is composed of residential and commercial land uses, as well as existing established roadways serving the local vicinity. The proposed Project would result in the construction of a 56-unit townhome development, which includes 12 live/work units. Redevelopment of the 3.05-acre Project site would not divide the local vicinity in any way. Project implementation would convert an existing private alley into an internal street, which would serve as one of two access points to the Project site. However, although private, the Project would not result in the construction of a wall, fence, or gate at the eastern terminus of the alley. As such, existing throughput to the adjacent office and commercial uses to the east would remain. Overall, this Project would constitute an infill residential project of an underutilized property zoned for residential uses. Therefore, the Project would not have the potential to create physical divisions in an established community. No impact would occur.

b) Would the project 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?

Less-Than-Significant Impact. Land use plans, policies, and regulations are established by state and local government. As described in Section 1.4, the City's General Plan designates the Project site as West Foothill Boulevard Mixed Use and zones the site as MU3. The Project as proposed would not conflict with the City's intent to allow for "a mix of residential and compatible office and retail/service uses integrated as a cohesive development," as the live/work component of the Project would satisfy this General Plan requirement with ground-floor commercial. In addition, Section 2.1 details the Project's proposed utilization of State Density Bonus law. As shown in Table 2-2, the MU3 zone allows for a maximum of 15 du/ac; however, with State Density Bonus law, the maximum units allowed on the Project site would be 56 units (or 18.3 du/ac). Therefore, the proposed Project would not conflict with local regulations governing land use density.

As discussed in Section 3.1(c), the proposed Project would not conflict with applicable zoning and other regulations governing scenic quality such as setbacks, open space requirements, and height (see Table 2-1 for more details). In addition, the analysis within Section 3.1(c) determined the proposed Project would

exceed the City's height requirement; however, with the utilization of State Density Bonus law, the Project would increase density on the site and claim a height waiver to permit the proposed maximum height of three stories or 33 feet and 7 inches. Moreover, State Density Bonus law specifies that a project is entitled to a waiver from "any development standard that will have the effect of physically precluding the construction of a development at the densities or with the concessions or incentives permitted." Waivers are separate from the additional concessions/incentives and their approval is mandatory. Therefore, the Project would not conflict with the City's local regulations given state law.

Given the above, implementation of the proposed Project would not require a general plan amendment or zone change. Prior to construction, the Project Applicant would be required to obtain a building permit from the City, and the City's plan check process would ensure that Project plans and specifications are in compliance with land use plans, policies, and regulations. Furthermore, as demonstrated throughout this IS/MND, the proposed Project would not result in significant, unavoidable effects on the environment. Therefore, impacts would be less than significant. No mitigation is required.

3.12 Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. 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) Would the project 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?

No Impact. According to the California Geologic Energy Management Division, there are no oil, gas, geothermal, or other known wells located on the Project site; maps indicate that the Project site's vicinity includes one idle well approximately 0.5 miles northwest of the site (DOC 2022c). Given the distance, the development of the proposed Project would not have the potential to interfere with extraction of oil, gas, or geothermal resources.

The California Surface Mining and Reclamation Act of 1975 requires that all cities identify significant aggregate resources classified by the State Geologist and designated by the State Mining and Geology Board. The law was enacted to promote conservation and protection of significant mineral deposits. In addition, the law ensures that significant aggregate resources are recognized and considered before land use decisions are made that may compromise the availability of these resources. As such, according to General Plan Figure 5-3, Mineral Resource Zones, the Project site is mapped as Mineral Resource Zone 2,

which is defined as "adequate information indicates that significant mineral deposits are present or there is a high likelihood for their presence" (City of Claremont 2009). Although the Project site is located within an area identified as having the potential availability of mineral resources, the Project site does not maintain or propose mineral resource extraction activities on site. Moreover, the State Mining and Geology Board designates specific areas in the City as "areas of regional significance," shown on General Plan Figure 5-3, which are identified as having deposits that are of prime importance in meeting the future needs of the region and remain available from a land use perspective (City of Claremont 2009). Per the City's General Plan Figure 5-3, the Project site is not located in a regionally significant mineral resource area zoned as open space or regionally significant mineral resource area committed or zoned for urban development (City of Claremont 2009). Due to the Project site's location and existing conditions, the proposed Project would not have the potential to cause a loss in availability of a known mineral resource that would be of value to the region and the residents of the state. Therefore, no impact would occur.

b) ***Would the project 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?***

No Impact. As previously discussed in Section 3.12(a), although the Project site is located within an area identified as having the potential availability of locally important mineral resources, the Project site does not maintain or propose mineral resource extraction activities on site. Moreover, activities and land uses such as a mineral resource recovery site are not permitted by the City's land use and zoning designations for the Project site. As such, Project implementation would not result in the loss of availability of such resources. For these reasons, no impact would occur.

3.13 Noise

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. 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?	☐	☐	☐	☒

Noise Characteristics

Sound may be described in terms of level or amplitude (measured in decibels [dB]), frequency or pitch (measured in hertz or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the amplitude of sound is the decibel. Because the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale is used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against low and very high frequencies in a manner approximating the sensitivity of the human ear. Several descriptors of noise (noise metrics) exist to help predict average community reactions to the adverse effects of environmental noise, including traffic-generated noise, on a community. These descriptors include the equivalent noise level over a given period (L_{eq}), the statistical sound level, the day–night average noise level (L_{dn}), and the community noise equivalent level (CNEL). Each of these descriptors uses units of dBA.

L_{eq} is a sound energy level averaged over a specified time period (typically no less than 15 minutes for environmental studies). L_{eq} is a single numerical value that represents the amount of variable sound energy received by a receptor during a time interval. For example, a 1-hour L_{eq} measurement would represent the average amount of energy contained in all the noise that occurred in that hour. L_{eq} is an effective noise descriptor because of its ability to assess the total time-varying effects of noise on sensitive receptors.

Unlike the L_{eq} metrics, L_{dn} and CNEL metrics always represent 24-hour periods, usually on an annualized basis. L_{dn} and CNEL also differ from L_{eq} because they apply a time-weighted factor designed to emphasize noise events that occur during the evening and nighttime hours (when speech and sleep disturbance is of more concern). “Time weighted” refers to the fact that L_{dn} and CNEL penalize noise that occurs during certain sensitive periods. In the case of CNEL, noise occurring during the daytime (7:00 a.m.–7:00 p.m.) receives no penalty. Noise during the evening (7:00 p.m.–10:00 p.m.) is penalized by adding 5 dB, while nighttime (10:00 p.m.–7:00 a.m.) noise is penalized by adding 10 dB. L_{dn} differs from CNEL in that the daytime period is defined as 7:00 a.m.–10:00 p.m., thus eliminating the evening period. L_{dn} and CNEL are the predominant criteria used to measure roadway noise affecting residential receptors. These two metrics generally differ from one another by no more than 0.5 to 1 dB.

Existing Noise Conditions

The Project site consists of vacant lots, surface parking, and ruderal vegetation, including mature trees. The existing parking lots and on-site vegetation would be removed in order to accommodate the proposed Project. The Project site and the surrounding area are primarily subject to traffic noise associated with adjacent roadways including Foothill Boulevard and Towne Avenue.

Noise measurements were conducted on and near the Project site in July 2022 to characterize the existing noise levels. Table 3.13-1 provides the location, date, and time the noise measurements were taken. The noise measurements were taken using a Larson Davis (Model LxT) sound level meter (Appendix F). The sound level meter meets American National Standards Institute specifications for sound level meters (S1.4-1983). The sound level meter was calibrated before and the measurements were conducted with the microphone positioned approximately 5 feet above the ground and equipped with a windscreen during all measurements.

Two noise measurement locations that represent key existing or proposed sensitive receivers were selected adjacent to or near the Project site. These locations are depicted as Location-1 and Location-2. Location-1 was located along the northern portion of the Project site approximately 95 feet from the centerline of Foothill Boulevard and 350 feet from the centerline of Towne Avenue. Location-2 was located along the western portion of the Project

site approximately 80 feet from the centerline of Towne Avenue and along the southern alleyway. The measured energy-averaged (L_{eq}) and measurement locations are provided in Table 3.13-1. The primary noise source at these locations was the traffic along the adjacent roadways. As shown in Table 3.13-1, the measured sound levels ranged from approximately 64.3 dBA L_{eq} at Location-1 to 62.9 dBA L_{eq} at Location-2.

Table 3.13-1. Measured Noise Levels

Receptor	Location	Date	Time	24 hour CNEL (dBA L_{eq})
Location-1	North portion of Project site, along Foothill Boulevard	July 28, 2022	12:00 a.m.–11:59 p.m.	64.3
Location-2	West side of Project site, along Towne Avenue	July 28, 2022	12:00 a.m.–11:59 p.m.	62.9

Source: Appendix F.
Notes: CNEL = community noise equivalent level; dBA = A-weighted decibels; L_{eq} = equivalent continuous sound level (time-averaged sound level)

Sensitive Receptors

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 would be considered noise- and vibration-sensitive and may warrant unique measures for protection from intruding noise. Sensitive receptors near the Project site include the single-family residences to the east, west, south, and north of the proposed Project.

The above sensitive receptors represent the nearest land uses with the potential to be impacted by construction and operation of the proposed Project. Additional sensitive receptors are located farther from the Project site in the surrounding community and would be less impacted by noise and vibration levels than the above-listed sensitive receptors.

a) ***Would the project result in 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?***

Less-Than-Significant Impact With Mitigation Incorporated. On-site noise-generating activities associated with the proposed Project would include short-term construction and the long-term operational noise of the proposed Project. The proposed Project would also generate off-site traffic noise along various roadways in the area. In addition, the proposed uses on the Project site would be subject to traffic noise from surrounding roadways. These potential effects are analyzed below.

Construction Noise (Short-Term Impacts)

Construction noise and vibration are temporary phenomena. Construction noise and vibration levels vary from hour to hour and day to day, depending on the equipment in use, the operations being performed, and the distance between the source and receptor.

Construction of the overall proposed Project is anticipated to take approximately 28 months. Construction of the proposed Project would include demolition, site preparation, building construction, paving, and architectural coating. Additional construction details are provided in Table 3.3-2 in Section 3.3 of this IS/MND.

Equipment that would be in operation during construction would include graders, backhoes, loaders, forklifts, compressors, welders, and paving equipment. The typical maximum noise levels for various pieces of construction equipment at a distance of 50 feet are presented in Table 3.13-2. Note that the equipment noise levels presented in Table 3.13-2 are maximum noise levels. Typically, construction equipment operates in alternating cycles of full power and low power, producing average noise levels less than the maximum noise level. The average sound level of construction activity also depends on the amount of time that the equipment operates and the intensity of construction activities during that time.

Table 3.13-2. Construction Equipment Noise Emission Levels

Equipment	Maximum Sound Level (dBA) 50 Feet from Source
Roller	74
Concrete vibrator	76
Pump	76
Saw	76
Backhoe	80
Air compressor	81
Generator	81
Compactor	82
Concrete pump	82
Crane, mobile	83
Concrete mixer	85
Dozer	85
Grader	85
Impact wrench	85
Loader	85
Pneumatic tool	85
Jackhammer	88
Truck	88
Paver	89

Source: FTA 2018.

The maximum noise levels at 50 feet for typical construction equipment would be 89 dB for the equipment typically used for this type of development project, although the hourly noise levels would vary. Construction noise in a well-defined area typically attenuates at approximately 6 dB per doubling of distance. Project construction would take place both near and far from adjacent existing noise-sensitive uses. For example, construction within some portions of the Project site would take place within approximately 25 feet from the nearest existing residences, but during construction of other Project components, construction would be approximately 60 feet away from the nearest existing residences.[17] Construction activities would occur throughout the Project site and would not be concentrated at the point closest to the nearest structure.

The Federal Highway Administration's Roadway Construction Noise Model (RCNM) (FHWA 2008) was used to estimate construction noise levels at the nearest occupied noise-sensitive land use (although the model was funded and promulgated by the Federal Highway Administration, the RCNM is often used for non-

[17] The nearest existing sensitive receptor is a single-family residence located to the south of the Project site. A 6-foot-high masonry wall exists along the southern project boundary. This wall would be protected in-place during Project construction.

roadway projects, because the same types of construction equipment used for roadway projects are often used for other types of construction). Input variables for the RCNM consist of the receiver/land use types, the equipment type and number of each (e.g., two graders, a loader, a tractor), the duty cycle for each piece of equipment (e.g., percentage of hours the equipment typically works per day), and the distance from the noise-sensitive receiver. With the exception of the nearest receiver located to the south of the Project site, no topographical or structural shielding was assumed in the modeling. The RCNM has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty-cycle values were used for this noise analysis.

Using the Federal Highway Administration's RCNM construction noise model and construction information (types and number of construction equipment by phase), the estimated noise levels from construction were calculated for a representative range of distances, as presented in Table 3.13-3. The RCNM inputs and outputs are provided in Appendix F.

Table 3.13-3. Construction Noise Model Results Summary

Construction Phase	Equipment	Quantity	Equipment Noise Level from the center of the site (dBA L_{eq})	Combined Noise Level (dBA L_{eq})
Demolition	Excavator	3	67.8	73.4
	Concrete Mixer Truck	1	65.9	
Site Preparation	Rubber Tired Dozers	3	69.4	78.7
	Tractors/ Loaders/ Backhoes	4	71.7	
Grading	Excavators	1	67.8	78.3
	Grader	1	72.1	
	Dozer	1	68.7	
	Tractor	3	71.1	
Building Construction	Crane	1	63.6	77.2
	Forklift	3	62.1	
	Generator	1	68.7	
	Tractor	3	71.1	
Paving	Concrete Mixer Truck	2	65.9	73.3
	Paver	1	65.3	
	Roller	2	64.1	
	Paving Equipment	2	64.1	
Architectural Coating	Compressor (air)	1	64.7	64.7
Claremont Baseline Exterior Noise Standard Criteria				65.0
Noise Level Exceedance?				Yes

Source: Appendix F, Table 7.
Notes: dBA = A-weighted decibel; L_{eq} = equivalent continuous sound level.
This table shows the typical Project construction noise level from the center of the site at 140 feet.

As presented in Table 3.13-3, the highest noise levels are predicted to occur during grading activities, when noise levels from construction activities would be as high as 78.7 dBA L_{eq} from the center of the site at 140 feet. Thus, the construction noise levels would exceed the City's exterior noise standard criteria of 65.0 dBA and a potentially significant impact could occur.

Section 16.154.020(F) of the City's Municipal Code prohibits noise and vibration activities between the hours of 7:00 a.m. and 8:00 p.m. on weekdays and Saturdays, excluding national holidays, and limits noise levels as measured on residential properties to not exceed 65 dBA for a cumulative period of more than 15 minutes in any 1 hour, 70 dBA for a cumulative period of more than 10 minutes in any hour, and 79 dBA for a cumulative period of more than 5 minutes in any 1 hour or 80 dBA at any time. Although nearby off-site residences would be exposed to elevated construction noise levels, the exposure would be short-term and would cease upon completion of Project construction. Construction activities associated with the proposed Project would take place between 7:00 a.m. and 8:00 p.m. and would not take place on Sundays or public holidays. However, construction noise levels would be substantially higher than existing ambient daytime noise levels even with an existing noise barrier wall along the residential homes to the south. Therefore, noise impacts from construction are considered to be potentially significant. The implementation of MM-NOI-1 (Construction Noise Reduction) would substantially reduce construction noise, reducing the effects to below a level of significance.[18] Therefore, temporary construction-related noise impacts would be less than significant with mitigation incorporated.

MM-NOI-1 Construction Noise Reduction. In order to further reduce construction noise levels, prior to the issuance of grading permits, the Project Applicant or their designee shall agree to minimize construction noise at nearby noise sensitive receptors. Construction noise reduction measures shall include, but is not limited to, the following actions:

- The construction contractor shall limit construction activities to between the hours of 7:00 a.m. and 8:00 p.m. on weekdays and Saturdays, excluding national holidays. In addition, noise levels on residential properties shall not exceed 65 dBA for a cumulative period of more than 15 minutes in any 1 hour, 70 dBA for a cumulative period of more than 10 minutes in any 1 hour, 79 dBA for a cumulative period of more than 5 minutes in any 1 hour, or 80 dBA at any time.
- During all Project site excavation and grading on site, construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturer standards.
- The contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the Project site.
- Equipment shall be shut off and not left to idle when not in use.
- The contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise/vibration sources and sensitive receptors nearest the Project site during all Project construction. Ideally, this shall be along the northern property line, away from the residential homes to the south and west.
- The Project proponent shall mandate that the construction contractor prohibit the use of music or sound amplification on the Project site during construction.

[18] Effectiveness of these mitigation measures would vary from several decibels (which in general is a relatively small change) to ten or more decibels (which subjectively would be perceived as a substantial change), depending upon the specific equipment and the original condition of that equipment, the specific locations of the noise sources and the receivers, etc. Installation of more effective silencers could range from several decibels to well over 10 decibels. Reduction of idling equipment could reduce overall noise levels from barely any reduction to several decibels. Cumulatively, however, these measures would result in substantial decreases in construction noise.

- The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment.
- Limit the use of heavy equipment or vibratory rollers and soil compressors along the Project boundaries to the greatest degree possible. It is acknowledged that some soil compression may be necessary along the Project boundaries.
- Jackhammers, pneumatic equipment, and all other portable stationary noise sources shall be shielded, and noise shall be directed away from sensitive receptors.
- For the duration of construction activities, the construction manager shall serve as the contact person should noise levels become disruptive to local residents. A sign should be posted at the Project site with the contact phone number.

Operational Noise (Long-Term Impacts)

Long-term operational noise associated with the proposed Project would include noise from the proposed residential units. Long-term operational noise also includes Project-generated traffic and overall traffic noise that would be experienced at the Project site itself. Each of these is addressed below, following a description of the City's regulations for noise-generating sources and noise exposure limits for noise-sensitive land uses.

Noise-generating sources in the City are regulated under Section 16.154.020 of the City's Municipal Code. The noise limits apply to noise generation from one property to an adjacent property. The noise level limits depend on time of day, duration of the noise, and land use. The exterior noise level limits set forth in the Municipal Code are depicted in Table 3.13-4. The noise levels in this table are used to determine long-term operational noise impacts associated with on-site activities.

Table 3.13-4. Exterior Noise Level Limits (Stationary Noise Sources)

Noise Zone	Receiving Land Use Category	Time	Sound Level (A-Weighted Decibels)
I	Single, double, or multiple family residential (RS, HC, RR, AV, H or RM)	10:00 p.m. to 7:00 a.m. 7:00 a.m. to 10:00 p.m.	55 60
II	Commercial (CP, CN, CL, CH, CV, CF)	10:00 p.m. to 7:00 a.m. 7:00 a.m. to 10:00 p.m.	60 65
III	Industrial (B/IP)	Anytime	70

Source: City of Claremont Municipal Code Section 16.154.020(D)(1). Noise and Vibration Standards.

On-Site Stationary Noise

The Project site would be developed with a total of 56 residential homes, including 12 live/work units. These uses would be in keeping with the residential character of the neighboring land uses and no external noise sources are planned or proposed, save for heating, ventilation, and air conditioning (HVAC) equipment suitably sized for the Project.

All HVAC equipment would be located on the ground floor. The specific details (size, manufacturer, and model) of the equipment have not yet been determined. Outdoor noise levels generated by split-system HVAC equipment vary, but typically result in noise levels that average 55 dBA at 50 feet from the source.

Based upon a review of the Project site plans, the nearest HVAC unit would be located approximately 60 feet from the nearest noise sensitive receptor to the south, immediately adjacent to the alleyway. At this distance of 60 feet, HVAC noise would attenuate to 53 dBA (Appendix F). Therefore, HVAC noise levels would not exceed the City's exterior noise standards for residential uses during daytime (60 dBA) and nighttime (55 dBA). In addition, it should be noted that there is an existing 6-foot noise barrier wall located between the Project site and the residential uses to the south that is expected to provide additional noise shielding from the on-site operational activities. Thus, the proposed Project would result in less than significant on-site stationary operational impacts onto nearby sensitive receptors from HVAC units. No mitigation is required.

Off-Site Traffic Noise

Based on the ITE Trip Generation Manual 11th Edition, the Project is expected to generate approximately 358 daily trips. The surrounding roadways, both Foothill Boulevard and Towne Avenue, are designated as "Arterial Highways" in the City's General Plan Roadway Classification. Traffic volumes from the proposed Project would represent a nominal increase in the daily traffic when compared to the existing traffic conditions on the surrounding roadways. According to the California Department of Transportation, a doubling of traffic (100% increase) on a roadway would result in a perceptible increase in traffic noise levels (3 dBA) (Appendix F). As a result, Project-related increase in traffic volume would be nominal compared to the existing traffic volumes along the surrounding roadways and the Project would not significantly increase the existing traffic noise levels. Thus, Project's operational noise levels are not expected to be significant. Less than significant impacts would occur. No mitigation is required.

Conclusion

For the reasons described above, the overall proposed Project is not expected to generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards after implementation of MM-NOI-1. As such, impacts would be less than significant with mitigation incorporated.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less-Than-Significant Impact. Project construction can generate varying degrees of groundborne 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 in the vicinity of a construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver buildings. This IS/MND utilizes the California Department of Transportation's recommended standard of 0.2 inches per second peak particle velocity with respect to the prevention of structural damage for normal buildings. Table 3.13-5 displays vibration levels for typical construction equipment.

Based on the site plans, demolition, site preparation, grading, and paving would likely take place as near as approximately 25 feet from the nearest residential uses, and building construction would take place as near as approximately 60 feet from the nearest residential uses. However, construction activities would occur throughout the Project site and would not be concentrated at the point closest to the nearest structure.

Table 3.13-5. Project Typical Construction Equipment Vibration Levels

Equipment	Approximate PPV at 25 feet (inches/second)
Large Bulldozer	0.089
Loaded Trucks	0.076
Small Bulldozers	0.003

Source: Appendix F.
Note: PPV = peak particle velocity.

Based on the vibration levels presented in Table 3.13-5, ground vibration generated by heavy-duty equipment would range from approximately 0.003 to 0.089 inches per second peak particle velocity at 25 feet from the source of activity. As such, the residence located 25 feet south of the Project site would not be exposed to vibration levels exceeding the FTA's 0.2 inches per second peak particle velocity significance threshold for vibration. Additionally, groundborne vibration during construction would be a temporary impact and would cease completely when construction ends. Once operational, the Project would not be a source of groundborne vibration. Impacts would be less than significant. No mitigation is required.

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?***

No Impact. The nearest airports are Ontario International Airport located approximately 7.25 miles to the southeast, Cable Airport Hanger located approximately 2.3 miles to the east, and Brackett Field Airport located approximately 2.3 miles to the southwest of the Project site (Appendix F). The Project site falls well outside the 65 dBA noise contour for all the above airports' land use plans; thus, these airports are not considered as sources that contribute to the ambient noise levels on the Project site (Appendix F). As such, the Project would not expose people residing or working in the Project area to excessive noise related to airports. No impact would occur.

3.14 Population and Housing

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. 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) Would the project 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)?

Less-Than-Significant Impact. The proposed Project would result in the development of 56-unit residential development and, as demonstrated above in Section 2.2 of this IS/MND, the Project is anticipated to be operational by 2026. Using the City's average persons per household of 2.62 (Census 2022), the Project would have the potential to conservatively result in 147 new residents.[19] This residential generation assumes all residents of the Project would relocate to the City.

The City had a residential population of 37,266 in 2020 (Census 2022). The addition of 147 new residents anticipated to result from the proposed Project would represent a nominal 0.39% of the City's total population.[20] SCAG estimates the City's population to grow to 39,800 residents by 2045 (SCAG 2020). With this estimate, approximately 2,534 new residents are anticipated to be added to the City between 2020 and 2045.[21] The population growth that would be caused by the Project would fall well within SCAG growth projections for the City, equating to approximately 5.8% of the total growth that is anticipated to occur between 2020 and 2045.[22]

The City's General Plan anticipates more robust population growth relative to SCAG's growth forecast. As shown in General Plan Table 2-2, Development and Population Projections Pursuant to Land Use Policy, the City is expected to grow to a population of 42,584 people, 13,422 dwelling units, and 13,852,000 square feet by 2025 (City of Claremont 2009). Given this, the City has planned for approximately 5,318 new residents between 2020 and 2025.[23] According to the City's Housing Element, approximately 11,729 households were estimated within the City in 2019. Moreover, in compliance with State Housing Element law, the regional housing need allocation for the City is 1,711 new housing units between 2021 and 2029 (City of Claremont 2022e). Thus, if the Project is approved, the 56 new housing units proposed would account for 3.3% of the City's planned housing growth by 2029.[24]

The Project would include 12 live/work units, which would not only result in population growth, but also employment growth. Utilizing SCAG's Employment Density Study, the Project's proposed ground-floor commercial uses would most closely align with "Other Retail/Services," which has an employment generation factor of 424 square feet per employee (SCAG 2001). The Project would include approximately 240 square feet per live/work unit fronting Foothill Boulevard for a total of 2,880 square feet of commercial space. As such, a total of seven employees would be generated as a result of the Project.[25] Thus, the employees generated for the proposed Project would represent a nominal increase in employment growth.

For these reasons, the proposed Project would not result in substantial population growth within the City. Therefore, the Project would not induce substantial population growth in the area, either directly or indirectly, and impacts would be less than significant. No mitigation is required.

19 56 × 2.62 = 146.72 (147)
20 147/37,266 = 0.003944 × 100 = 0.39%
21 39,800–37,266 = 2,534
22 147/2,534 = 0.058011 × 100 = 5.8%
23 42,584–37,266 = 5,318
24 56/1,711 = 0.032 × 100 = 3.27%
25 12 live/work units with 240 square feet (2,880 square feet) divided by 424 square feet per live/work unit = 6.79 (rounded to 7) employees in total.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project site is located on a vacant lot. As described in Section 1.4, the site previously included a restaurant; however, the structure was demolished in 2019. There are no other structures on site and no people would be displaced as a result. Thus, no impacts from displacement of people that would necessitate the construction of replacement housing elsewhere would occur as a result of the proposed Project.

3.15 Public Services

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES				
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:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

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:

Fire protection?

Less-Than-Significant Impact. Fire protection and emergency services in the City are provided by the Los Angeles County Fire Department. Three fire stations are within the City boundaries: Station 102 located approximately 0.98 miles northwest of the Project site at 2040 North Sumner Avenue, Station 101 located approximately 0.91 miles southeast of the Project site at 606 West Bonita Avenue, and Station 62 located approximately 2.5 miles northeast of the Project site at 3701 North Mills Avenue.

New or physically altered fire protection facilities are usually required when the population in a localized area increases substantially such that existing facilities and services cannot meet the increase in demand. As determined in Section 3.14, the Project is anticipated to result in nominal increases in population and employment growth relative to existing conditions and planned projections. Given the proximity between these existing fire stations and the Project site, it is likely the existing fire protection facilities and personnel would be able to serve the Project site. In the event that the station cannot meet the immediate needs of

a call for services independently or does not have capability to address the full extent of a larger incident, the other fire stations within the City or the closest available Los Angeles County Fire Department resources could respond or provide support.

Additionally, the proposed Project would be subject to current Los Angeles County Fire Department requirements for fire sprinkler systems, fire alarm systems, fire flow, and equipment and firefighter access, as applicable. Compliance with fire code standards would be ensured through the plan check process prior to the issuance of building permits and compliance would reduce the potential demand for fire services by decreasing the likelihood and/or severity of a fire emergency at the site. Furthermore, during the City's development review process, the Project Applicant would be required to comply with the requirements in effect at the time building permits are issued, including payment of the required Fire Facilities Impact Fee, as outlined in Section 16.203, Fire Protection Facilities and Services, of the City's Municipal Code. As stated in the City's Municipal Code, the fee pays new developments' fair share of the costs of constructing and equipping new fire protection facilities in order to meet the fire protection service needs of new development and to maintain adequate fire service levels within the City.

Due to the limited increase in demand that would be attributable to the proposed Project, the availability of fire services within proximity to the site, and required compliance with fire code standards, the construction or expansion of existing fire facilities would not be required as a result of developing the proposed Project. Therefore, substantial adverse physical impacts associated with the provision of new or physically altered facilities would not result. Impacts would be less than significant. No mitigation is required.

Police protection?

Less-Than-Significant Impact. Police services in the City are provided by the Claremont Police Department, located at 570 West Bonita Avenue, approximately 0.97 miles southeast of the Project site. Similar to fire protection services, new or physically altered police protection facilities are usually required when the population in a localized area increases substantially such that existing facilities and services cannot meet the increase in demand. As discussed above, the Project is not anticipated to result in substantial unplanned population growth. Moreover, given the proximity between the City's Police Department and the Project site, it is likely the existing police protection facilities and personnel would be able to serve the Project site. In the event that the station cannot meet the immediate needs of a call for services independently or does not have capability to address the full extent of a larger incident, the closest available police resources could respond or provide support; police units are continuously mobile and service calls are responded to by the nearest available mobile unit.

Additionally, the proposed Project would employ defensible design (i.e., wall, fences, and gates), lighting, and landscaping, and site design would minimize dead spaces hidden from public view to prevent loitering and crime. Furthermore, the Project involves redevelopment of a currently vacant site, which would improve the overall appearance of the site and reduce vacant/secluded areas in the City. These aspects of the Project could lessen the demand for police protection services at the Project site.

New development would place increased demand on police protection services. The payment of development fees and local taxes would incrementally support any expansion of police protection services that may be warranted based on overall growth in the Project area. While new development may place increased demand on police protection services, the proposed Project would not warrant the construction or expansion of police facilities, as the Project is not anticipated to result in substantial unplanned

population growth. The proposed Project would not, therefore, result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities. Impacts would be less than significant. No mitigation is required.

Schools?

Less-Than-Significant Impact. The Project site is served by Claremont Unified School District (CUSD) with Mountain View Elementary School, El Roble Intermediate School, and Claremont High School being the closest schools per school type to the Project site.

The need for new school facilities is typically associated with a population increase that generates an increase in enrollment large enough to cause new schools to be constructed. As described in Section 3.14, the proposed Project would involve construction of 56 new residential units in the City. Using the state's Student Yield Factor for Unified School Districts of 0.7 students per dwelling unit (DGS 2008), the proposed Project would result in approximately 39 new students.[26] According to the California Department of Education, CUSD had a total enrollment of 6,616 students district-wide in the 2021–2022 school year (CDE 2022). As such, the Project's potential student generation would represent 0.59% of CUSD's total enrollment. Therefore, the Project is not anticipated to result in a substantial student generation when compared to existing conditions.

Additionally, pursuant to SB 50, the Leroy F. Greene School Facilities Act of 1998, the Project Applicant would be required to pay development fees for schools to CUSD prior to the issuance of the Project's building permit. The funding program established by SB 50 has been found by the State Legislature to constitute "full and complete mitigation of the impacts by any legislative of adjudicative act on the provision of adequate school facilities" (Government Code Section 65995[h]). As a result, the payment of fees authorized for collection under SB 50 to the CUSD are conclusively considered full mitigation for Project impacts. Therefore, with the payment of the applicable school fees, Project operations would not result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts to maintain acceptable service ratios, or other performance objectives for schools. Such impacts on schools would be less than significant. No mitigation is required.

Parks?

Less-Than-Significant Impact. Future residents of the proposed Project could use nearby park facilities during Project operation. The closest park to the Project site is Lewis Park (881 Syracuse Drive), which is located within 0.5 miles to the north of the site and provides 4.7 acres of parkland for public use. Larkin Park (660 North Mountain Avenue) is approximately 0.5 miles to the southeast of the Project site and contains 9 acres of parkland, according to the City's General Plan (City of Claremont 2009). According to the City's General Plan, there were a total of 137.7 acres of parkland in 2005 and 29.2 acres of parkland planned within the City. In addition, the City includes natural/wilderness parks like Claremont Hills Wilderness Park and Sycamore Canyon, totaling 1,773 acres.

The City has adopted a standard of 4.0 acres of parkland per 1,000 residents (City of Claremont 2009). At the time of adopting the General Plan, the City did not meet this ratio; however, the City identified future

[26] 56 × 0.7 = 39.2 (rounded to 39)

parkland, such as Padua Avenue Park and others, that would allow the City to reach the desired ratio by 2025 (City of Claremont 2009). Under existing conditions, the Padua Avenue Park is operational and is comprised of 24 acres, per the City's General Plan. As such, with a population of 37,266 in 2020 and 161.7 acres of parkland,[27] the City currently maintains 4.33 acres of parkland per 1,000 residents.[28] Implementation of the proposed Project would add approximately 147 new residents. As demonstrated in Section 3.14, above, this increase of residents would be nominal to the City's total population (approximately 0.39% of the City's 2020 population) and would not represent a substantial increase. Similarly, the Project's anticipated population growth would result in a nominal change to the City's parkland ratio to 4.32 acres per 1,000 residents.[29]

Additionally, the Project Applicant would be required to pay development fees that would help support park facilities in the City. Payment of fees would help address any incremental increase in demand for park facilities that may be caused by the Project. Additionally, the design of the Project includes open space areas that may serve to alleviate any potential minor increases in the use of nearby park facilities. Specifically, the proposed Project would include private patio areas for units and landscaped areas throughout the site. For these reasons, impacts to park facilities from implementation of the proposed Project would be less than significant. No mitigation is required.

Other public facilities?

Less-Than-Significant Impact. Other public facilities and services provided within the City include library services such as those provided by the Los Angeles County Library system. Claremont Helen Renwick Library, located at 208 North Harvard Avenue, is located 1.26 miles from the Project site. The future residents of the proposed Project could use this library, but the increase in use would not be significant relative to citywide demand. As described in Section 3.14, the proposed Project would not be expected to generate substantial population growth within the City. Population growth attributable to the Project would be minor (approximately 0.39% of the City's 2020 population). Thus, it is anticipated that existing library services would accommodate any negligible increase in demand due to implementation of the proposed Project. As such, impacts to other public facilities in the area would be less than significant. No mitigation is required.

[27] 137.7 + 24 = 161.7
[28] 161.7/(37,266/1,000) = 4.33
[29] 161.7/[(37,266 + 147)/1,000] = 4.32

3.16 Recreation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION				
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) 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?

Less-Than-Significant Impact. As discussed in Section 3.15, Public Services, future residents of the proposed Project could use nearby park and recreational facilities during Project operation. The parks closest to the Project site are Lewis Park and Larkin Park, both within 0.5 miles of the site. Therefore, the Project has the potential to increase the use of existing parks.

The City has adopted a standard of 4.0 acres of parkland per 1,000 residents (City of Claremont 2009). Under existing conditions, with a population of 37,266 in 2020 and 161.7 acres of parkland,[30] the City currently maintains a ratio of 4.33 acres of parkland per 1,000 residents.[31] Implementation of the proposed Project would add approximately 147 new residents. As demonstrated in Section 3.14, this increase of residents would be nominal to the City's total population (approximately 0.39% of the City's 2020 population) and would not represent a substantial increase. As described in Section 3.15, the Project's anticipated population growth would result in a nominal change to the City's parkland ratio to 4.32 acres per 1,000 residents.[32] Therefore, the Project would not significantly increase the use of existing parks and recreational facilities.

Additionally, the Project Applicant would be required to pay development fees that would help support park and recreational facilities in the City. Payment of fees would help address any incremental increase in demand for park facilities that may be caused by the Project. Additionally, the design of the Project includes open space areas that may serve to alleviate any potential minor increases in the use of nearby park facilities. Specifically, the proposed Project would include private patio areas for units and landscaped areas throughout the site. For these reasons, impacts to park and recreational facilities from implementation of the proposed Project would be less than significant. No mitigation is required.

30 137.7 + 24 = 161.7
31 161.7/(37,266/1,000) = 4.33
32 161.7/[(37,266 + 147)/1,000] = 4.32

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?

No Impact. The proposed Project involves development of residential structures on a site that is currently developed with surface parking and vacant land. The proposed development includes some open space areas, such as private residential patios. The effects of constructing these open space areas are included as part of the Project and, therefore, have been analyzed for their potential environmental effects in this IS/MND. As substantiated throughout this document, no significant, adverse environmental effects would occur as a result of the proposed Project. As described in Section 3.16(a), the proposed Project would not require construction or expansion of recreational facilities. As such, no impact would occur.

3.17 Transportation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. 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) 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 Traffic Impact Analysis (Appendix G) was prepared by RK Engineering Group (April 2023) and is used in the following section to determine potential impacts.

a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less-Than-Significant Impact with Mitigation. For additional information on the analysis provided below, see Appendix G, Traffic Impact Analysis.

Transit, Bicycle and Pedestrian Facilities

Regarding transit, bicycle and pedestrian facilities, Foothill Transit bus routes 188 & 292 operate in the vicinity of the project site at the intersection of Towne Avenue at Foothill Boulevard. A review of these bus routes' schedules indicates service intervals that exceed 15 minutes during peak commute periods.

There is no bicycle lane along Towne Avenue fronting the Project site, but there is a Class II bicycle lane along Foothill Boulevard in both directions. According to the City of Claremont General Plan, community Mobility Element, Figure 4-3, Bike Plan, a Class II bicycle lane is proposed along Towne Avenue, but as it exists today, no bicycle lane has been built. The definition of a Class II bicycle lane per the General Plan are facilities marked "bike lane" on the pavement adjacent to traffic. The Project does not propose to add new bicycle lanes or remove access to any bicycle lanes.

Pedestrian access for the Project site includes a landscaped sidewalk along Foothill Boulevard and on Towne Avenue. Pedestrian access and circulation to the Project site would not change with Project implementation. Sidewalk access via Foothill Boulevard and Towne Avenue would continue to provide direct connections to the Project site. On site, a pedestrian path is proposed adjacent to a passive lawn area along the common open space. Additionally, the Project as proposed is oriented to provide direct pedestrian access to the 12 live/work units along the frontage of Foothill Boulevard, consistent with the City's General Plan and zoning intent for the Project site.

Site Access

Access to the Project site is proposed via one existing right-in/right-out only unsignalized driveway along W. Foothill Boulevard (i.e., Project Access No. 1), and via one existing right-in/right-out only unsignalized driveway located along Towne Avenue (i.e., Project Access No. 2).

Trip Generation

The proposed Project is estimated to generate approximately 358 daily trips which includes 27 AM peak hour trips and 29 PM peak hour trips.

Traffic Study Area

The study area consists of the following eight intersections listed below. The jurisdiction(s) where each study intersection is located is also identified.

1. Towne Avenue (NS) at Base Line Road (EW) [City of Claremont]
2. Mountain Avenue (NS) at Base Line Road (EW) [City of Claremont]
3. Towne Avenue (NS) at Foothill Boulevard (EW) [City of Claremont/City of Pomona]
4. Regis Avenue (NS) at Foothill Boulevard (EW) [City of Claremont]
5. Mountain Avenue (NS) at Foothill Boulevard (EW) [City of Claremont]
6. Towne Avenue (NS) at Richbrook Drive / Amador Street (EW) [City of Claremont/City of Pomona]
7. Project Access No.1 (North Units) (NS) at Foothill Boulevard (EW) [City of Claremont]
8. Towne Avenue (NS) at Project Access No.2 (South Units) (EW) [City of Claremont/City of Pomona]

Analysis Scenarios

Appendix G evaluated traffic conditions of the study area under the following scenarios during the weekday AM (7:00 AM to 9:00 AM) and weekday PM (4:00 PM to 6:00 PM) peak hour conditions:

- Existing Conditions;
- Project Opening Year (2025) With Cumulative Projects Without Project Conditions;

- Project Opening Year (2025) With Cumulative Projects With Project Conditions;
- Horizon Year (2040) Without Project Conditions; and
- Horizon Year (2040) With Project Conditions.

Intersection LOS Analysis Summary

The following study area intersection has been identified to operate deficiently under all analysis scenarios.

1. Towne Avenue (NS) at Base Line Road (EW)

    - Existing Conditions: AM Peak Hour LOS F (122.5 seconds per vehicle).
    - Project Opening Year (2025) With Cumulative Projects Without Project Conditions: AM Peak Hour LOS F (134.7 seconds per vehicle).
    - Project Opening Year (2025) With Cumulative Projects With Project Conditions: AM Peak Hour LOS F (134.7 seconds per vehicle).
    - Horizon Year (2040) Without Project Conditions: AM Peak Hour LOS F (138.9 seconds per vehicle).
    - Horizon Year (2040) With Project Conditions: AM Peak Hour LOS F (138.9 seconds per vehicle).

Although this intersection is operating deficiently, the addition of project traffic does not increase the overall intersection delay at the study intersection of Towne Avenue (NS) at Base Line Road (EW) (i.e., Int. #1) during the analysis scenario with project conditions. The proposed project is expected to generate at most 1 trip at this study intersection during the AM and PM peak hours. As such, study intersection #1 is not considered to be impacted by the proposed project and as a result, no improvements are required.

Intersection Queuing Analysis Summary

The queue analysis has been performed utilizing the HCM 6 95th percentile queue evaluation methodology. Queue lengths have been reported for the following six turning movements:

Intersection #3 – Towne Avenue (NS) at Foothill Boulevard (EW)

- Northbound Left-Turn
- Northbound Through
- Northbound Right-Turn
- Westbound Left-Turn

Intersection #4 – Regis Avenue (NS) at Foothill Boulevard (EW)

- Eastbound Left-Turn

Intersection #6 – Towne Avenue (NS) at Richbrook Drive/Amador Street (EW)

- Southbound Left-Turn

Based on the results of the queue evaluation, the following turning movements at the key study intersection of Towne Avenue (NS) at Foothill Boulevard (EW) (i.e., Int. #3) do not provide adequate storage capacity:

Intersection #3 – Towne Avenue (NS) at Foothill Boulevard (EW)

- Northbound Left-Turn (AM & PM Peak Hour)
- Northbound Through (AM & PM Peak Hour)
- Northbound Right-Turn (AM & PM Peak Hour)
- Westbound Left-Turn (AM & PM Peak Hour)

These deficiencies occur in "Without Project" Conditions and the proposed Project is estimated to only contribute at most 1 vehicle (i.e., 25 ft) of queuing to any of these four turning movements. Therefore, this increase in queue length by the proposed project is considered to be nominal and thus the Project's impact is less than significant.

Although the proposed Project's impact on queuing is considered less than significant, mitigation measures MM-TRA-1 and MM-TRA-2 have been included to help facilitate ingress/egress to/from the proposed Project:

MM-TRA-1 Roadway Striping. Install/stripe a "KEEP CLEAR" marking along Towne Avenue at the entrance to Project Access No. 2. Based on existing lane geometrics along Towne Avenue, no additional capacity can be provided to alleviate these existing and background queuing issues. As such, this "KEEP CLEAR" marking will provide a buffer (South Units) to help facilitate adequate egress.

MM-TRA-2 Stop Sign. Install a stop sign and limit line for outbound traffic Project Access No. 2 (Alleyway/Towne Avenue).

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less-Than-Significant Impact. As shown in the analysis below, based on City's recommended thresholds, the Project generated VMT and the project's effect on VMT would result in a less than significant impact.

On September 27, 2013, SB 743 was signed into law, which created a process to change the way that transportation impacts are analyzed under CEQA. SB 743 required the Governor's Office of Planning and Research to amend the CEQA Guidelines to provide an alternative to LOS for evaluating transportation impacts. Under the transportation guidelines, LOS, or vehicle delay, will no longer be considered an environmental impact under CEQA. The updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. These guidelines identify VMT as the most appropriate measure of transportation impacts under CEQA as of July 1, 2020.

The proposed project is subject to a VMT analysis and will adhere to the methodologies and practices described in the *City of Claremont Draft Transportation Study Guidelines for Vehicles Miles Traveled and Level of Service Assessment*, dated August 2020. As per the City of Claremont traffic study guidelines, three (3) types of screening criteria may be applied to effectively screen projects from project-level assessment:

1. Transit Priority Area (TPA) Screening
2. Low VMT Area Screening
3. Project Type Screening

After utilizing the SGVCOG VMT assessment tool, the proposed project does not satisfy any of the three VMT screening criteria. However, the project includes several project design features that will help reduce its VMT compared to the baseline traffic analysis zone (TAZ) VMT shown in the SGVCOG tool. In particular, the project will be designed with a higher density than the average residential density surrounding the site, and the increased density has been shown to significantly reduce VMT.

The *California Air Pollution Control Officers Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, Designed for Local Governments, Communities, and Project Developers, Final Draft, December 2021* (CAPCOA Handbook) has been used to calculate the VMT reduction achieved by the project design.

The following CAPCOA VMT reduction measures are applicable to the project.

T-1 **Increase Residential Density.** This measure accounts for the VMT reduction achieved by a project that is designed with a higher density of dwelling units (du) compared to the average residential density in the U.S. Increased densities affect the distance people travel and provide greater options for the mode of travel they choose. Increasing residential density results in shorter and fewer trips by single-occupancy vehicles and thus a reduction in GHG emissions. This measure is best quantified when applied to larger developments and developments where the density is somewhat similar to the surrounding area due to the underlying research being founded in data from the neighborhood level.

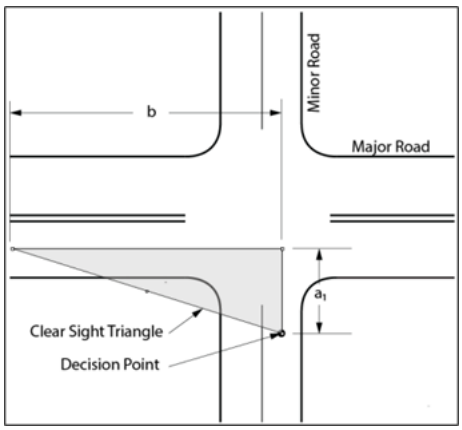
The proposed project's TAZ VMT is calculated to be 16.4 Home-Based VMT per Capita. The City of Claremont's threshold of significance is 15.3 Home-Based VMT per Capita. In order to reduce the project VMT to levels considered less than significant, the project would require a 6.7% decrease in overall VMT. With the VMT reduction achieved from the increased density, the project would reduce its VMT by 22.2% compared to the TAZ average, and the project generated VMT would be 12.8 Home-Based VMT per capita, which is below the City of Claremont threshold of significance. Therefore, impacts would be less than significant.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less-Than-Significant Impact. For on-site construction and any improvements required within the public ROW, the proposed project would be required to comply with standards set forth by the City to ensure that the project does not introduce an incompatible design feature that would impede traffic flow on roadway facilities.

A corner sight distance analysis was conducted for the existing project access driveway along Towne Avenue. The purpose of this analysis is to ensure that the intersection provides adequate sight distance for drivers to safely turn onto the major road (i.e., Towne Avenue). The corner sight distance was conducted following the procedures specified in the Caltrans Highway Design Manual.

As per the corner sight distance equation, a clear line of sight of 385 feet should be maintained between the driver on the minor road and the approaching driver on the major road. The following illustration depicts the clear sight triangle required for vehicles performing a right turn maneuver from the project access driveway along Towne Avenue. This analysis utilizes the following dimensions: "a_1"=20 feet; "b"=385 feet.



The shaded region refers to the limited-use area of the clear sight triangle. This limited-use area is bounded by the sight lines and centerlines of the nearest approaching traffic lanes. It is recommended that the limited-use area should be clear of all obstructions more than 18 inches above the road surface including vegetation. Selected plant materials shall have a mature height of less than 12" without trimming. It should be noted that within the limited use area several vertical obstructions are present. This includes the adjacent residential wall, power poles, and trees.

Overall, there would be no incompatible or hazardous uses associated with the proposed project and impacts would be less than significant.

d) Would the project result in inadequate emergency access?

Less-Than-Significant Impact. The proposed points of entry and private driveways will be reviewed by the Los Angeles County Fire Department and would be required to meet the qualifications for emergency access to and from the Project site. Compliance with fire code standards would be ensured through the plan check process prior to the issuance of building permits and compliance would ensure adequate emergency access to the site is provided. Therefore, impacts related to emergency access as a result of the Project would be less than significant.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. 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:				

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

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)?

No Impact. The Project site currently consists of vacant land, a parking lot, and ruderal vegetation, including shrubs and mature trees. A portion of the Project site previously supported a restaurant, which is now demolished. The site's history includes former agricultural uses (i.e., orchards) and adjacent commercial and residential land uses. As discussed in Section 3.5 of this IS/MND, the site does not contain or have the potential to contain historical resources. Therefore, the Project site is not listed or eligible for listing in the CRHR or in a local register of historical resources. No impact would occur.

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.

Less-Than-Significant Impact with Mitigation. AB 52 requires that lead agencies evaluate a project's potential to impact tribal cultural resources. Such resources include "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources." AB 52 also gives lead agencies the discretion to determine, supported by substantial evidence, whether a resource qualifies as a tribal cultural resource. Also, per AB 52 (specifically

PRC Section 21080.3.1), Native American consultation is required upon request by a California Native American tribe that has previously requested that the City provide it with notice of such projects.

On July 7, 2022, the City issued letters to the following 12 tribes in accordance with AB 52.

- Serrano Nation of Mission Indians
- Gabrielino/Tongva Nation
- Soboba Band of Luiseno Indians
- Morongo Band of Mission Indians
- Gabrieleño/Tongva San Gabriel Band of Mission Indians
- Gabrielino-Tongva Tribe
- Gabrielino Tongva Indians of California Tribal Council
- Gabrieleño Band of Mission Indians - Kizh Nation
- San Manuel Band of Mission Indians
- Quechan Tribe of the Fort Yuma Reservation
- Santa Rosa Band of Cahuilla Indians
- Morongo Band of Mission Indians

One tribe, the Gabrieleño Band of Mission Indians - Kizh Nation, requested formal consultation regarding the proposed Project. On September 27, 2022, the City held a consultation meeting with the tribe and determined that due to the potential for impacts to tribal cultural resources, mitigation would be required. Because AB 52 is a government-to-government process, all records of correspondence related to AB 52 notification and any subsequent consultation are on file with the City. With implementation of MM-TCR-1 through MM-TRC-3, impacts would be less than significant.

As discussed in Section 3.5 of this IS/MND, it is not anticipated that the Project would result in the disturbance of human remains. In the unlikely event that excavation activities during construction inadvertently uncover buried human remains, impacts would be potentially significant. The discovery of human remains would require handling in accordance with existing regulations. In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, the County Coroner shall notify the NAHC in Sacramento within 24 hours. In accordance with PRC Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendent from the deceased Native American. The most likely descendent shall complete their inspection within 48 hours of being granted access to the site. The most likely descendent would then determine, in consultation with the property owner, the disposition of the human remains. Compliance with regulations would ensure that potential disturbance of any human remains, including those interred outside of dedicated cemeteries, would be less than significant.

MM-TCR-1 Native American Monitoring. Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities The project applicant/lead agency shall contact the

Gabrieleño Band of Mission Indians – Kizh Nation (Kizh) to retain a Native American monitor. The applicant shall make arrangements with the Native American tribal entity to enter into a contract to secure a total of one Native American monitor to be present during initial ground disturbance. The monitor shall be retained prior to the commencement of any ground-disturbing activity for the Project at all Project locations (i.e., on-site and at any off-site locations that are included in the Project description/definition and/or required in connection with the Project, such as public improvement work). "Ground-disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching. Ground-disturbing activity does not include Project construction-related movement of sediments after they have been initially disturbed or displaced by current Project-related construction.

A copy of the executed monitoring agreement shall be submitted to the lead agency prior to either the commencement of any ground-disturbing activity or the issuance of any permit necessary to commence a ground-disturbing activity, whichever is earlier.

The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Kizh. Monitor logs will identify and describe any discovered tribal cultural resources (TCRs), including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., as well as any discovered Native American (ancestral) human remains and burial goods.

Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Kizh.

On-site tribal monitoring shall conclude upon the earlier of the following: (1) project applicant or lead agency consultation with the Kizh followed by written confirmation to the Kizh from a designated point of contact for the Project applicant/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the Project site or in connection with the Project are complete or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.

Upon discovery of a TCR, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and the Kizh Nation, in consultation with the qualified archeologist retained for the project, shall be contacted to determine the appropriate next steps. Ground-disturbing activities shall not resume until the discovered TCRs have been recovered and retained in the form and/or manner the Kizh deem appropriate, in the Kizh's sole discretion, and for any purpose the Kizh deems appropriate, including for educational, cultural, and/or historic purposes. The Kizh shall have up to 48 hours to recover and retain any discovered Kizh TCRs, after which time construction activities in the immediate vicinity of the discovery may continue. If the Kizh determine that the discovered resources are not TCRs, a qualified archeologist shall be contacted to determine the appropriate next steps.

MM-TCR-2 Unanticipated Discovery of Human Remains and Associated Funerary Objects. Native American human remains are defined in California Public Resources Code (PRC) Section 5097.98 (d)(1) as an inhumation or cremation in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in PRC Section 5097.98, are also to be treated according to this statute.

In accordance with California Health and Safety Code Section 7050.5 any discoveries of human skeletal material shall be immediately reported to the County Coroner and all ground-disturbing activities shall immediately halt and shall remain halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission, and PRC Section 5097.98 shall be followed.

Construction activities may resume in other parts of the project site at a minimum of 50 feet away from discovered human remains and any items associated with the human remains that are placed or buried with the Native American human remains, if the Kizh determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination. The Kizh shall have up to 24 hours to provide the determination, after which time construction activities in the immediate vicinity of the remains may continue. This measure shall not supersede the role of the most likely descendent (MLD) as assigned by the NAHC.

Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods.

Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

MM-TCR-3 Native American Most Likely Descendent. MM-TCR-3 is only to be adhered to if the Native American Heritage Commission (NAHC) determines the Kizh Nation as the Most Likely Descendent (MLD). If the Kizh Nation is designated by the NAHC as the MLD, the Koo-nas-gna Burial Policy shall be implemented. To the Kizh Nation, the term “human remains” encompasses more than human bones. In ancient as well as historic times, tribal traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains. Accordingly, if the Kizh Nation is designed as the MLD for discovered human remains, the prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects. Cremations will either be removed in bulk or by means as necessary to ensure complete recovery of all sacred materials.

Accordingly, if the Kizh Nation is designated by the NAHC as the MLD, the following conditions will apply:

- If the discovery of human remains includes four or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created.
- In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment shall be placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Kizh Nation will make every effort to recommend diverting the Project and keeping the remains in situ and protected. If the Project cannot be diverted, it may be determined that burials will be removed.
- In the event preservation in place is not possible despite good faith efforts by the Project applicant/developer and/or landowner, before ground-disturbing activities may resume on the Project site, the landowner shall arrange a designated site location within the footprint of the Project for the respectful reburial of the human remains and/or ceremonial objects.
- Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects, and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within 6 months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Kizh Nation and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.
- The Kizh Nation will work closely with the Project's qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Kizh Nation, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery-related forms of documentation shall be approved in advance by the Kizh Nation. If any data recovery is performed, once complete, a final report shall be submitted to the Kizh Nation and the NAHC. The Kizh Nation does not authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. 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) Would the project 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?

Less-Than-Significant Impact. Water service would be provided by the Golden State Water Company (GSWC). It is estimated that the proposed Project would generate demand for approximately 14,000 gallons per day (gpd) (Ventura Water 2020).[33] This forecasted demand is within the expected growth in demand captured in GSWC 2020 Urban Water Management Plan (UWMP). The proposed Project would involve the connection of new water lines with surrounding existing infrastructure. Construction of new connections would not have significant effects beyond those already assumed and analyzed in this document. New or expanded water facilities would not be necessary in order to service the proposed Project.

[33] 56 units × 250 gpd = 11,760 gpd

Wastewater in the Claremont System is transported through Los Angeles County Sanitation District (LACSD) owned trunk sewers to LACSD's Pomona Water Reclamation Plant (WRP). The Pomona WRP provides primary, secondary, and tertiary treatment with a design capacity of 15 million gpd. The estimated daily wastewater generation rates for the proposed Project would be approximately 13,725 gpd (VWD 2010).[34] This increase in demand for wastewater treatment would not result in the direct need for additional wastewater treatment facilities. The proposed Project would require construction of additional utility infrastructure (e.g., sewer pipelines and connections) on site. These facilities are considered part of the proposed Project and have been analyzed throughout this document. The proposed Project is not expected to require construction of domestic wastewater treatment facilities.

Stormwater is managed by a combination of City and County drainage systems that drain stormwater to the San Antonio Creek Channel. The Project site is in a developed area currently served by existing stormwater infrastructure. The proposed Project would be required to comply with the low impact development requirements that would better manage stormflow compared to existing conditions. Specifically, the proposed Project would be required to implement BMPs that would be designed to capture and retain the stormwater on site. As a result, impacts on stormwater infrastructure would be less than significant.

SCE is responsible for electrical power in the City. Telecommunication services would be provided by Frontier Communications, and cable television services by Charter Communications. Gas services would be provided by the Southern California Gas Company. The Project would be required to connect to existing electrical, cable, and gas facilities on or off site; however, no new distribution infrastructure is anticipated. Furthermore, the Project would be required to implement green building techniques that would reduce demand on utility systems.

As such, the proposed Project would not require relocation or construction of facilities that would result in significant environmental effects. Impacts would be less than significant.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less-Than-Significant Impact. GSWC obtains the water supply for Claremont through purchases from Three Valleys Municipal Water District and the City of Upland, as well as local groundwater from the Six Basins Area and the Chino Basin. Three Valleys Municipal Water District and the City of Upland both obtain imported water supply from the Metropolitan Water District of Southern California and pump local groundwater. GSWC's 2020 UWMP for Claremont demonstrates the reliability of water supplies to meet projected annual water demands for the Claremont System during a normal year, a single dry year, and multiple dry years through 2045 (GSWC 2020). The methodology used in the UWMP was, in part, based on SCAG data based on the populations in each of these areas using land use information from approved City and County general plans. Thus, if a project is consistent with the General Plan land use designation that was assumed in the UWMP, then the findings in the UWMP would apply. In this case, the Project is consistent with the Project site's General Plan land use designation (MU3) and would not require any type of general plan amendment or zone change. Therefore, the Project is consistent with what was assumed in the UWMP and there would be sufficient water supplies to serve the Project during normal, dry, and multiple dry years. Impacts would be less than significant.

[34] 4,500 gpd/acre × 3.05 acres = 13,725

c) Would the project 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?

Less-Than-Significant Impact. Wastewater would be transported through LACSD-owned trunk sewers to LACSD's Pomona WRP. The Pomona WRP provides primary, secondary, and tertiary treatment with a design capacity of 15 million gpd. The estimated daily wastewater generation rates for the proposed Project would be approximately 13,725 gpd. The Pomona WRP has a capacity to treat 15 million gpd of wastewater and currently treats an average of approximately 8 million gpd. Thus, the proposed Project's anticipated wastewater generation rate represents approximately 0.2% of the WRP's remaining daily treatment capacity. This increase in wastewater generation would be minor and would be well within the remaining treatment capacity of the WRP. Therefore, capacity to treat the wastewater generated the proposed Project exists, and impacts would be less than significant.

d) Would the project 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?

Less-Than-Significant Impact. The proposed Project is estimated to generate approximately 285.7 lbs of solid waste per day (CalRecycle 2023).[35] Solid waste generated by the proposed Project would be transported to regional landfills such as the Mid-Valley Landfill, which is permitted to accept up to 7,500 tons of solid waste per day and has a remaining capacity of 61,219,377 cubic yards (CalRecycle 2022). The landfill is anticipated to have adequate capacity to accommodate regional waste disposal needs through 2045. Therefore, it is anticipated that the landfill used would have sufficient permitted capacity to accommodate the Project's solid waste disposal needs.

In addition, the County will continue to address landfill capacity through the preparation of annual IWMP reports. The Project is within the growth forecasts for the City of Claremont. As stated within the IWMP 2019 Annual Report, the County is not anticipating a solid waste disposal capacity shortfall within the next 15 years under forecasted growth conditions (County of Los Angeles 2019). As such, less-than-significant impacts would occur.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less-Than-Significant Impact. The proposed Project would be required to comply with all local, state, and federal requirements for integrated waste management (e.g., recycling, green waste) and solid waste disposal. The Project would not obstruct the City's compliance with the California Integrated Waste Management Act of 1989 (AB 939), which requires each city's source reduction and recycling element to include an implementation schedule showing that the city must divert 50% of solid waste from landfill disposal. Furthermore, SB 1016 requires the 50% diversion requirement to be calculated in a per capita disposal rate equivalent. In addition, CALGreen requires new development to meet recycling minimums. As a result, compliance with applicable laws for recycling and disposal of solid waste would result in less-than-significant impacts as it relates to the proposed Project.

[35] 5.102 lbs/day × 56 units = 285.7 lbs/day

3.20 Wildfire

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. 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) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less-Than-Significant Impact. The Project site is not located within a State Responsibility Area (SRA) or Very High Fire Hazard Severity Zone (VHFHSZ), as mapped by the California Department of Forestry and Fire Protection. In the event of a nearby wildfire, embers typically have the potential to travel up to 2 miles depending on the fuel type, terrain, and wind conditions. The nearest land within an SRA is less than 2 miles and land mapped as a VHFHSZ is approximately 1 mile to the northwest of the Project site (CAL FIRE 2022). As such, the Project site would be considered near an SRA or near land classified as a VHFHSZ.

As discussed in Section 3.9(f), the City's Emergency Operations Plan governs the operations of the City during a disaster. This plan addresses response to moderate evacuation scenarios, including the identification of evacuation points and general routes. The City also has a Local Hazards Mitigation Plan that provides a framework for planning for natural disasters/hazards and cyber threats (City of Claremont 2022d). Implementation of the Project is not expected to impact any major roadways or arterials that are identified in any emergency planning documents and would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. As required under the California Fire Code, the Project would be required to present development plans that afford fire and emergency responders suitable fire access roads dimensions and surfaces (Chapter 5, Sections 503.1– 503.4 of the California Fire

Code) and an adequate number of emergency rated entrances to the community (Appendix D, Section D106 of the California Fire Code). The proposed points of entry and private driveways will be reviewed by the Los Angeles County Fire Department and would be required to meet the qualifications for emergency access to and from the Project site. Therefore, it is determined that impacts related to emergency response or emergency evacuation as a result of the Project would be less than significant. No mitigation is required.

b) Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less-Than-Significant Impact. As discussed in Section 3.7(a)(iv), the Project site is located on a relatively flat surface that descends slightly to the southwest (Appendix B). The Project site is not located within or adjacent to geographical features that would result in prevailing winds that may exacerbate wildfire risks (i.e., a canyon). As determined above, the site is not within an SRA or an VHFHSZ but is considered to be near land with both designations. These areas are located on the foothills of northern Claremont, less than 2 miles to the northwest. In addition, the areas in between are urbanized, consisting of residential and commercial land uses, as well as infrastructure such as roadways, freeways, and channels. As such, the aforementioned existing conditions limit the potential for wildfire risk.

In addition to existing conditions, the Project would be required to be reviewed and approved by the Los Angeles County Fire Department during the department's plan check review process prior to construction. This regulatory process would ensure compliance with the applicable building and fire code requirements and guarantee the Project is developed with adequate access, water mains, fire flows, and fire hydrants to serve the site. In addition, as detailed in Section 3.15, the Los Angeles County Fire Department would provide fire protection services in the unlikely event of a wildfire emergency. During operations, and in the event of an emergency, the Project would be supported by two ingress/egress points on site as discussed in Section 3.20(a). Given compliance with applicable fire code provisions and design features, it is not likely that the Project would exacerbate wildfire risks, thereby exposing Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impacts would be less than significant. No mitigation is required.

c) Would the project 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?

Less-Than-Significant Impact. The Project site is adequate served by existing infrastructure, utilities, and service systems, as detailed in Section 3.19, Utilities and Service Systems, of this IS/MND. Prior to operation, the Project would connect to existing underground utility infrastructure, including existing sewer lines and water mains. During the installation of new underground utility connections, minor interruptions to public utilities may occur as a result; however, these interruptions would be brief and intermittent. Construction of these connections is analyzed as part of the proposed Project, and potential impacts to the environment are shown to be less than significant throughout this IS/MND. Moreover, the Project site's existing conditions are served by fire protection services within an urbanized area of the City. The Project's temporary construction activities would not exacerbate fire risk. Impacts would be less than significant. No mitigation is required.

d) Would the project 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?

Less-Than-Significant Impact. As described in Section 3.20(b), the Project site is located on a relatively flat surface and within an urbanized area of the City. Under existing conditions, the Project site is not located near or adjacent to geologic conditions with significant slopes or waterway channels. Moreover, the Project site is located within highly urbanized area of the City and not within a flood or landslide hazard zone (see Sections 3.7 and 3.10 of this IS/MND).

Although construction of the proposed Project would result in ground surface disruption during grading, temporarily altering the drainage pattern of the Project site during construction, compliance with the Project-specific SWPPP would ensure that the risk of flooding on or off site is minimized during construction to the extent practicable. During operations, the Project-specific LID Report (Appendix E) would be implemented, which would ensure that all runoff is retained on site to the extent practicable, thereby reducing the risk of downslope or downstream flooding and associated landslides as a result of runoff, post-fire slope instability, or drainage changes.

Given the relatively flat topography of the Project site, the distance of the Project site from flood and dormant landslide areas, and the sufficiency of the proposed Project's on-site drainage, impacts related to downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes would be less than significant. Impacts would be less than significant. No mitigation is required.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. 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.)	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

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?***

Less-Than-Significant with Mitigation Incorporated. As discussed in Section 3.4 of this IS/MND, the Project area is located on a developed site surrounded by existing residential and commercial development and is not expected to support sensitive vegetation, sensitive wildlife species, or sensitive habitat. However, the Project area contains trees and other vegetation that have the potential to support nesting birds and raptors that are protected under the California Fish and Game Code and the MBTA. In the event that any such nesting birds or raptors are present during construction activities associated with the proposed Project, the birds and/or raptors would be protected in accordance existing regulations, which would reduce this impact. Once the proposed Project has been constructed, construction-related disturbances would not occur and landscaping trees would be planted throughout the Project site. As such, the Project site would continue to provide potential nesting sites in an urban environment, consistent with existing conditions. Therefore, long-term impacts to nesting and migratory birds would not be significant. Less than significant impacts would occur. No mitigation is required.

As described in Section 3.5 of this IS/MND, the proposed Project would have no impact on historical resources. However, the proposed Project would include ground disturbing activities that could result in the inadvertent discovery of sub-surface cultural resources. In the unlikely event that sub-surface cultural resources were to be discovered during construction activities associated with the proposed Project, the resources would be protected in accordance with MM-CUL-1. Therefore, the proposed Project would not eliminate important examples of the major periods of California history or prehistory. For these reasons, impacts to cultural resources resulting from the proposed Project would be less than significant with mitigation incorporated. No further mitigation is required.

As such, with the implementation of MM-CUL-1, effects to cultural resources are expected to be less than significant with mitigation incorporated and less than significant for biological resources. No further mitigation is required.

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.)

Less-Than-Significant with Mitigation Incorporated. As described throughout this IS/MND, the proposed Project would result in potentially significant impacts involving cultural resources, geology and soils, hazards and hazardous materials, and noise. However, mitigation measures have been identified that would reduce these impacts to less-than-significant levels. Furthermore, the air quality and transportation analyses presented in Section 3.3 and Section 3.17, respectively, of this IS/MND consider cumulative impacts and have determined that cumulative air and traffic impacts would be less than significant. All reasonably foreseeable future development in the City would be subject to the same land use and environmental regulations that have been described throughout this document. Furthermore, all development projects are guided by the policies identified in the City's General Plan and by the regulations established in the Municipal Code. Therefore, compliance with applicable land use and environmental regulations would ensure that environmental effects associated with the proposed Project would not combine with effects from reasonably foreseeable future development in the City to cause cumulatively considerable significant impacts. For these reasons, cumulative impacts would be less than significant with mitigation incorporated. No further mitigation is required.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less-Than-Significant with Mitigation Incorporated. As detailed throughout this IS/MND, the proposed Project would not exceed any significance thresholds or result in significant impacts in the environmental categories typically associated with indirect or direct effects to human beings, such as aesthetics, air quality, or public services. However, the proposed Project could result in potentially significant impacts in the categories of Cultural Resources; Geology and Soils; Hazards and Hazardous Materials; Noise; Transportation; and Tribal Cultural Resources. With implementation of mitigation measures identified in Sections 3.5, 3.7, 3.9, 3.13, 3.17, and 3.18 of this IS/MND, these impacts would be reduced to a less-than-significant level. As such, impacts would be less than significant with mitigation incorporated. No further mitigation is required.

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4.2 List of Preparers

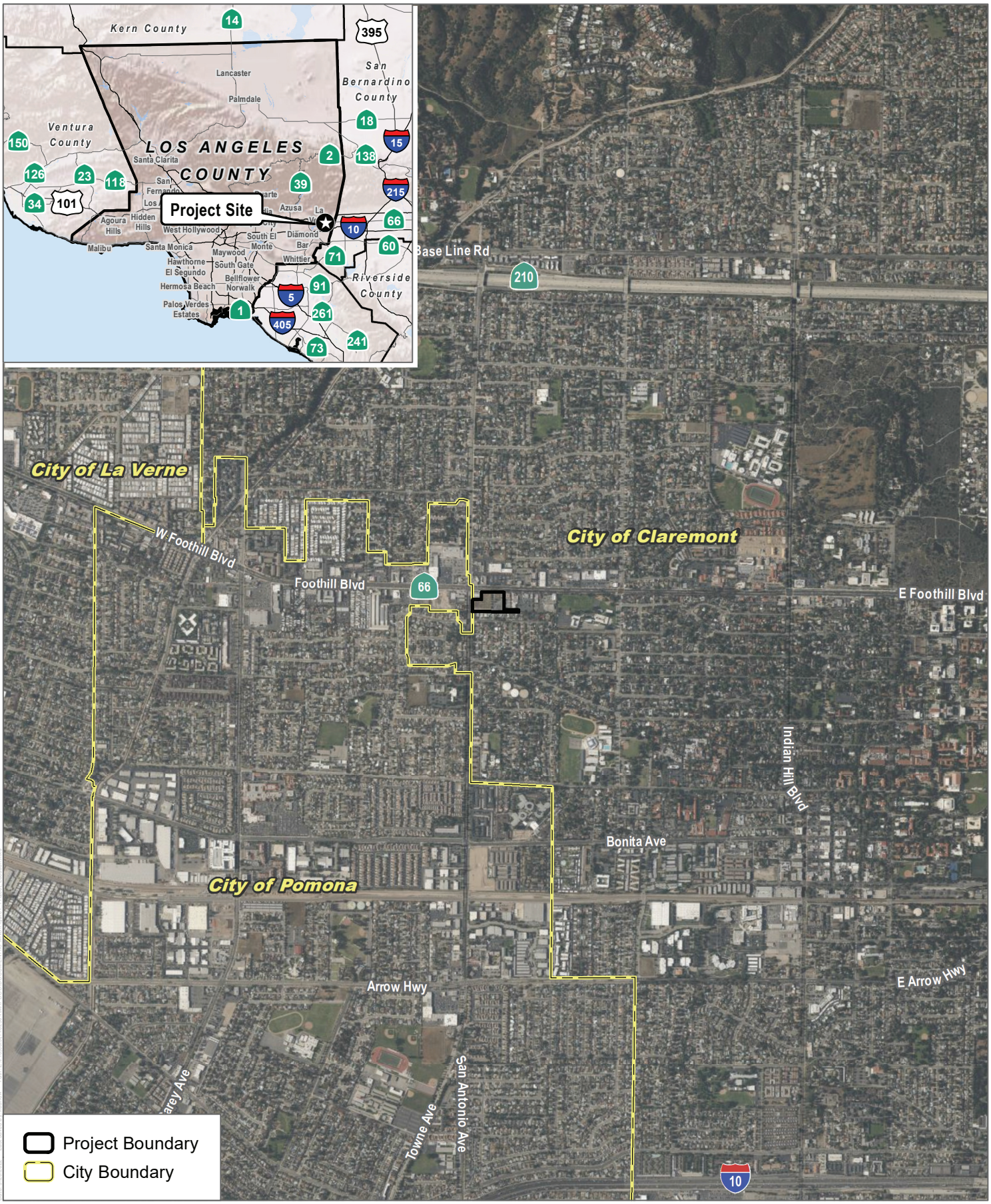
City of Claremont

Nikola Hlady, Senior Planner

Dudek

Alexandra Martini, Project Manager
Brandon Whalen-Castellanos, Environmental Planner
Heather McDevitt, Archaeologist
Linda Kry, Archaeologist
Kelsey Bacon, GIS Analyst
Hannah Wertheimer-Roberts, Technical Editor

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SOURCE: Bing Aerial Map, Open Street Map 2019

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Olson Foothill Project

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SOURCE: Bing Aerial Map, Open Street Map 2019

DUDEK

0 230 460 Feet

FIGURE 2

Surrounding Land Uses

Olson Foothill Project

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Viewpoint A (North-Northwest)



Viewpoint B (South)



Viewpoint C (East)



Viewpoint D (Southwest)

SOURCE: Google Earth 2022

Path: Z:\Projects\14629\MAP\DOCS\DOCUMENTS.MXD\PDF

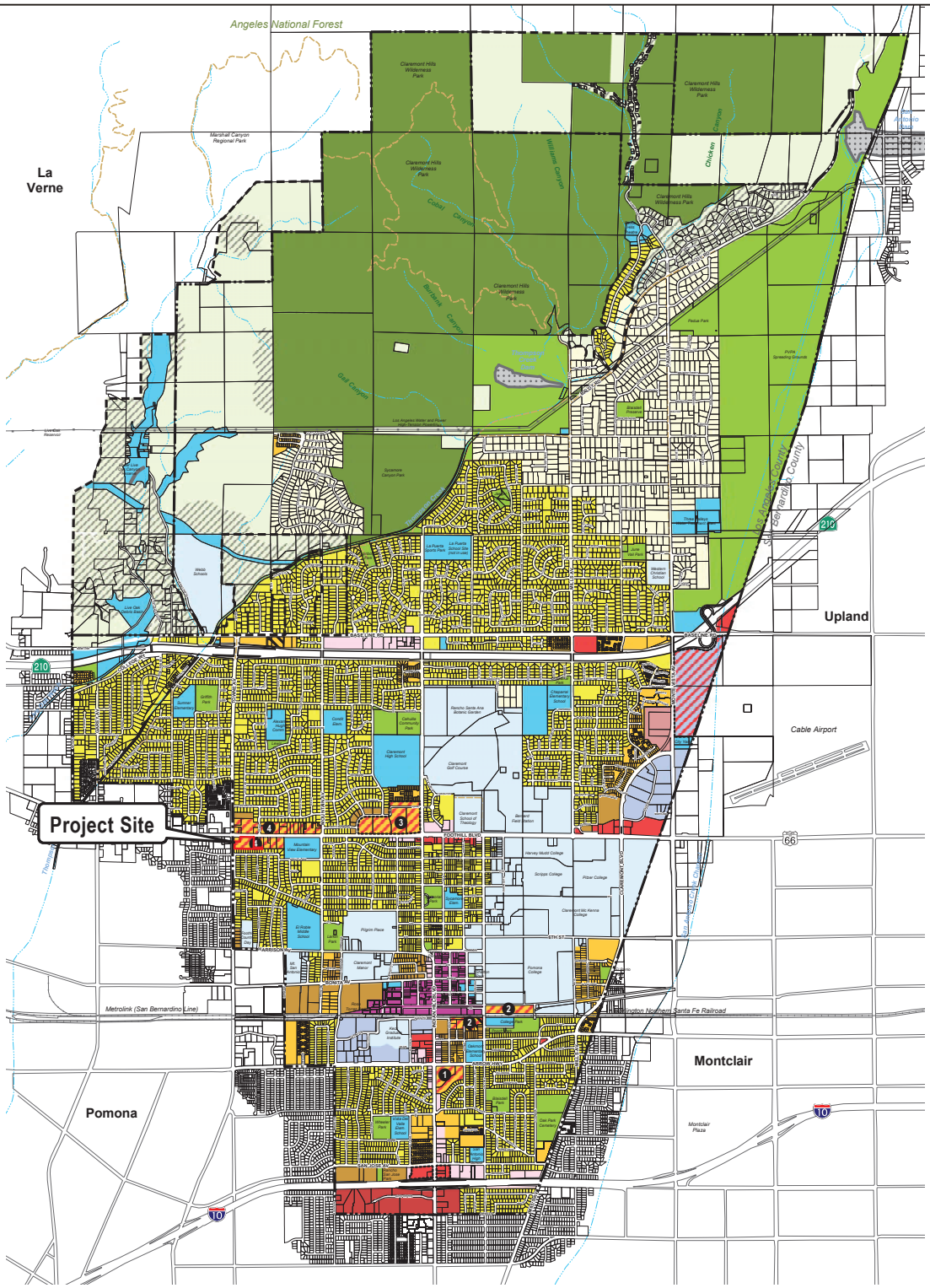
DUDEK

FIGURE 3

Site Photos

Olson Foothill Project

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SOURCE: City of Claremont 2014

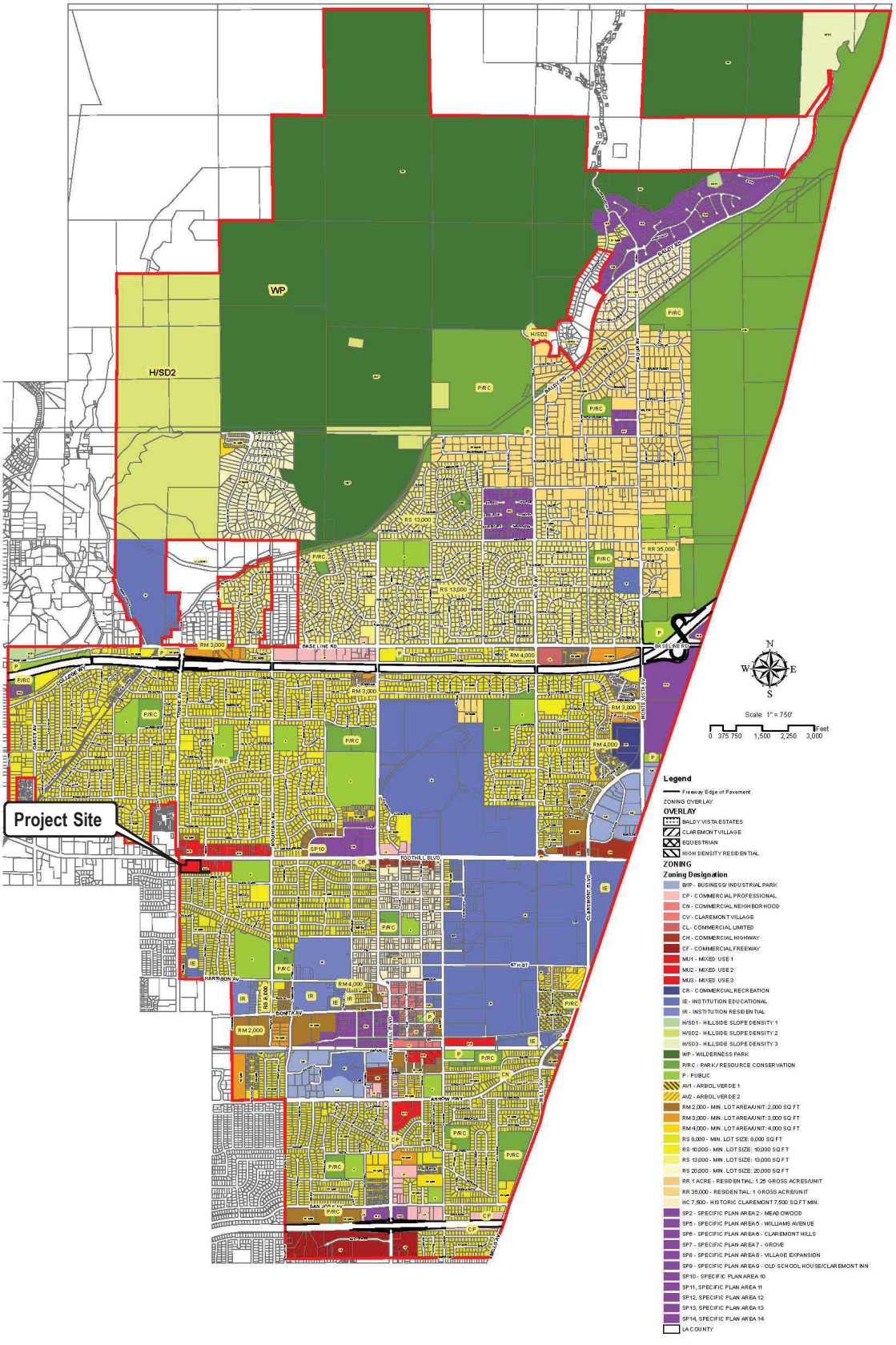
FIGURE 4

General Plan Land Use Map

Olson Foothill Project

DUDEK

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SOURCE: City of Claremont 2014

FIGURE 5

Zoning Map

Olson Foothill Project

DUDEK

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VESTING TENTATIVE TRACT NO. 83751

FOR CONDOMINIUM PURPOSES

IN THE CITY OF CLAREMONT, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BEING A PORTION OF LOT 3 OF SECTION 8, TOWNSHIP 1 SOUTH, RANGE 8 WEST, SAN BERNARDINO MERIDIAN, ACCORDING TO THE OFFIOAL PLAT OF THE SURVEY OF SAID LAND ON FILE IN THE BUREAU OF LAND MANAGEMENT, ON MARCH 13, 1876.

LEGAL DESCRIPTION:

Real property in the City of Claremont, County of Los Angeles, State of California, described as follows:

THAT PORTION OF LOT 3 OF SECTION 8, TOWNSHIP 1 SOUTH, RANGE 8 WEST, SAN BERNARDINO MERIDIAN, ACCORDING TO THE OFFIOAL PLAT OF THE SURVEY OF SAID LAND ON FILE IN THE BUREAU OF LAND MANAGEMENT, ON MARCH 13, 1876, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 1 OF TRACT 17431, AS PER MAP RECORDED IN BOOK 443 PAGES 47 AND 48 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY; THENCE NORTHERLY ALONG SAN ANTONIO AVENUE AS SHOWN ON SAID MAP, TO THE SOUTHERLY LINE OF THE LAND DESCRIBED IN THE LEASE RECORDED ON MARCH 6, 1953 AS INSTRUMENT NO. 3216, IN BOOK 41150 PAGE 439, OFFICIAL RECORDS; THENCE EASTERLY AND NORTHERLY ALONG THE SOUTHERLY AND EASTERLY LINE OF SAID LAND DESCRIBED IN SAID LEASE, TO THE SOUTHERLY LINE OF FOOTHILL BOULEVARD, 100 FEET WIDE; THENCE EASTERLY ALONG SAID FOOTHILL BOULEVARD, TO THE WESTERLY LINE OF THE LAND DESCRIBED IN PARCEL 1 OF THE DEED TO EVERETT J. GRAY AND WIFE, RECORDED JULY 22, 1954 AS INSTRUMENT NO. 1296, IN BOOK 45129 PAGE 45, OFFICIAL RECORDS; THENCE SOUTHERLY AND EASTERLY ALONG THE WESTERLY AND SOUTHERLY LINES OF SAID LAND OF GRAY TO THE SOUTHEASTERLY CORNER OF SAID LAND OF GRAY; THENCE SOUTHERLY ALONG THE SOUTHERLY PROLONGATION OF THE EASTERLY LINE OF SAID LAND OF GRAY, TO THE NORTHERLY LINE OF SAID TRACT; THENCE WESTERLY ALONG SAID NORTHERLY LINE TO THE POINT OF BEGINNING.

APN: 8311-001-016

EXISTING EASEMENTS:

FIRST AMERICAN TITLE
Order Number: OSA-6711284 (RA)

[3] An easement for INGRESS AND EGRESS and incidental purposes in the document recorded JULY 22, 1954 as INSTRUMENT NO. 1296 IN BOOK 45129 PAGE 45 of Official Records.

[4] An easement for CROSS-ARMS and incidental purposes in the document recorded AUGUST 2, 1956 as BOOK 51921 PAGE 365 of Official Records.

[5] An easement for AN AERIAL OVERHANG OF TELEPHONE FACILmES and incidental purposes in the document recorded MARCH 24, 1965 as INSTRUMENT NO. 3399 IN BOOK D-2843 PAGE 409 of Official Records.

[6] An easement for SEWER PURPOSES, and incidental purposes in the document recorded JUNE 24, 1970 as INSTRUMENT NO. 2231 IN BOOK D-4750 PAGE 375 of Official Records.

[7] An easement for UNDERGROUND ELECTRICAL SUPPLY SYSTEMS AND COMMUNICATION SYSTEMS and incidental purposes in the document recorded SEPTEMBER 20, 1972 as INSTRUMENT NO. 2754 of Official Records.

[8] An easement for INGRESS AND EGRESS and incidental purposes, recorded SEPTEMBER 15, 2015 as INSTRUMENT NO. 20151141150 of Official Records.
In Favor of: JM LEPE PROPERTIES, LLC
Affects: AS DESCRIBED THEREIN
The location of the easement cannot be determined from record information.

GENERAL NOTES

1. EXISTING LAND USE: VACANT
2. EXISTING ZONING: MU3 – MIXED USE 3
3. PROPOSED ZONING: MU3 – MIXED USE 3
4. PROPOSED LAND USE: 56 RESIDENTIAL CONDOMINIUMS.
5. WATER SERVICE PROVIDED BY: GOLDEN STATE WATER COMPANY.
6. SEWER SERVICE PROVIDED BY: CITY OF CLAREMONT.
7. ELECTRIC SERVICE PROVIDED BY: SOUTHERN CALIFORNIA EDISON
8. GAS SERVICE PROVIDED BY: SOCAL GAS CO.
9. TELEPHONE SERVICE PROVIDED BY: FRONTIER COMMUNICATIONS
10. CABLE TELEVISION PROVIDED BY: CHARTER COMMUNICATIONS
11. PROJECT IS WITHIN THE CLAREMONT UNIFIED SCHOOL DISTRICT,
12. ALL LOTS SHALL BE HOMEOWNER OR HOMEOWNER ASSOCIATION MAINTAINED.
13. STREET IMPROVEMENTS SHOWN HEREON SHALL MEET THE REQUIREMENTS OF THE CITY OF CLAREMONT.
14. PROPERTY IS LOCATED WITHIN FLOOD ZONE "X", (AREAS OF 0.2 PCT ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS THAN 1 SQUARE MILE, AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD) PER FIRM PANEL 06037C1750F, DATED SEPTEMBER 26, 2008.
15. ASSESSOR'S PARCEL NUMBER: 8311-001-016
16. PARKING PROVIDED: 112 ENCLOSED (IN GARAGES)
1 GUEST (ACCESSIBLE)
20 GUEST

LEGEND:

— — —	TENTATIVE TRACT MAP BOUNDARY
FF= 207.50	FINISHED FLOOR ELEVATION
PAD= 206.8	PROPOSED PAD ELEVATION
— —S— —	EXISTING SEWER
— —W— —	EXISTING WATER
	EXISTING STREET LIGHT
——S——	PROPOSED SEWER LINE
——W——	PROPOSED WATER LINE
FH	PROPOSED FIRE HYDRANT
TC	TOP OF CURB ELEVATION
FL	FLOW LINE ELEVATION
FS	FINISHED SURFACE ELEVATION
1	PROPOSED LOT NUMBER

PROPOSED LOT AREA:

LOT	GROSS AREA	NET AREA
1		
(SF)	132,885	132,885
(AC)	3.05	3.05

DENSITY CALCULATIONS:

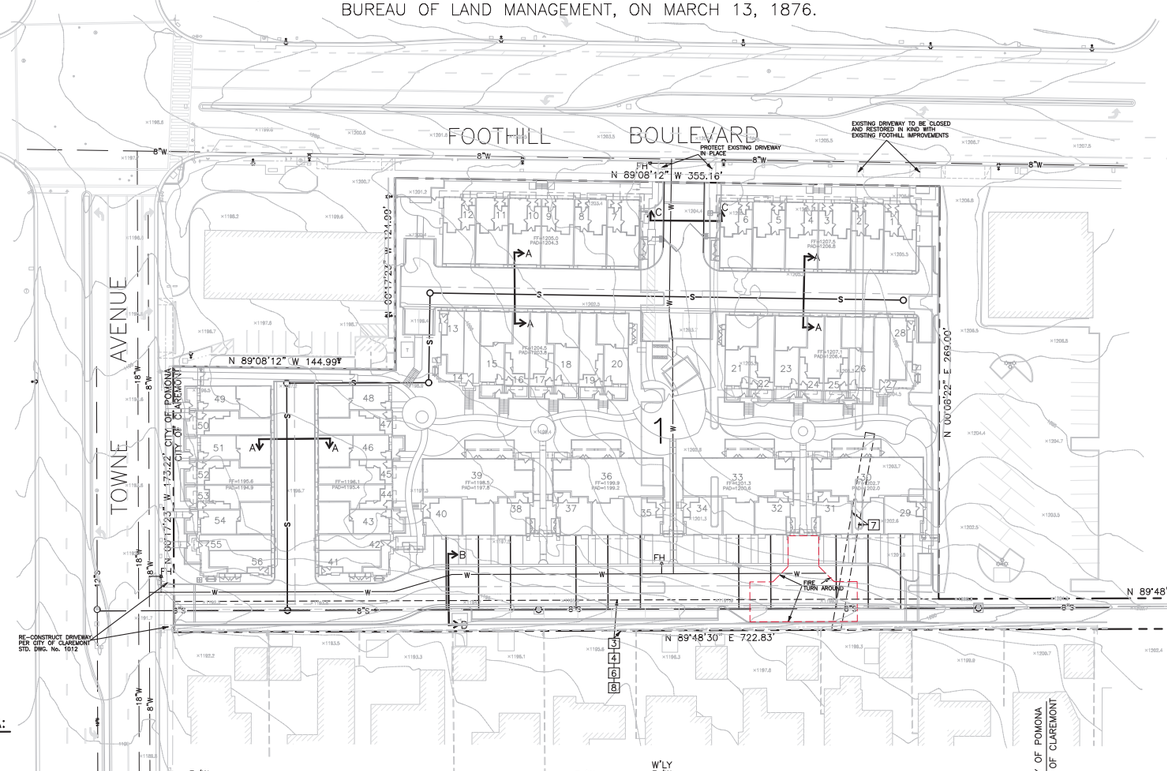
PROPOSED CONDMINIUMS: 56 UNITS
3.05 AC
PROPOSED DENSITY: 18.4 DU/AC

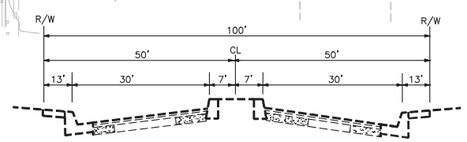
ZONING:

CURRENT ZONING: MU3 – MIXED USE 3
PROPOSED ZONING: MU3 – MIXED USE 3

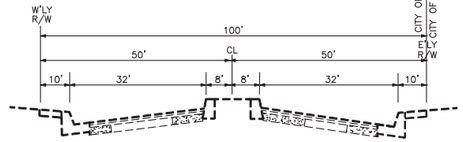
PROPERTY ADDRESS:

1030 WEST FOOTHILL BOULEVARD
CLAREMONT, CA 91711

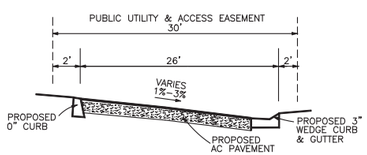




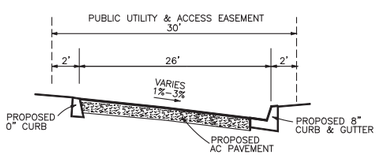
FOOTHILL BOULEVARD
TYPICAL STREET SECTION
N.T.S.



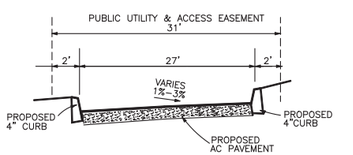
TOWNE AVENUE
TYPICAL STREET SECTION
N.T.S.



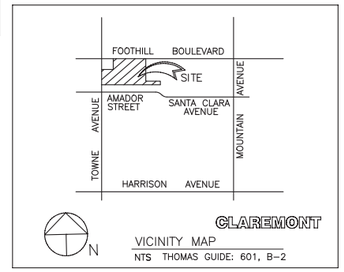
TYPICAL PRIVATE DRIVEWAY SECTION SECTION A-A
N.T.S.



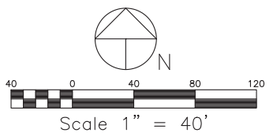
TYPICAL PRIVATE DRIVEWAY SECTION SECTION B-B
N.T.S.



TYPICAL PRIVATE DRIVEWAY SECTION SECTION C-C
N.T.S.



VICINITY MAP
NTS THOMAS GUIDE: 601, B-2



Scale 1" = 40'

DEVELOPER:

OLSON URBAN HOUSING, LLC
3010 OLD RANCH PARKWAY, SUITE 100
SEAL BEACH, CALIFORNIA 90740-2750
(562) 596-4770
ATTENTION: MR. STEVE ARMANINO

PREPARED BY:

REGISTERED PROFESSIONAL ENGINEER ALAN R. SHORT No. 30873 EXP. 3/31/24 CIVIL STATE OF CALIFORNIA

7263 W Galen Drive
Herriman, UT 84096
(949) 586-5200
ALANSHORTPE@GMAIL.COM

ALAN R. SHORT, P.E.

DATE: 2/3/23

ALAN R. SHORT, P.E.
R.C.E. 30873, EXPIRES 3/31/24

STATEMENT OF OWNERSHIP:

WE, THE UNDERSIGNED, DO HEREBY STATE THAT WE ARE THE RECORD OWNERS OF THE PROPERTY COMPRISING THIS TENTATIVE PARCEL MAP AND THAT WE HAVE CONSENTED TO THE FILING OF SAID MAP.

THE FERN P. CAUFFMAN TRUST DATED OCTOBER 26, 1966
1600 GRANT STREET
CALISTOGA, CA 94515
FPTRUST95@GMAIL.COM

BY: _____ DATE: _____
JEFFREY ALLEN CAUFFMAN

EXISTING ASSESSOR'S PARCEL NUMBER: 8311-001-016

SCALE:	1" = 40'
DATE:	2/3/23
GROSS AREA:	±3.05 AC
CONTOUR:	1'
TOTAL LOTS:	1 NUMBERED

VESTING TENTATIVE TRACT NO. 83751

SHEET 1 OF 2

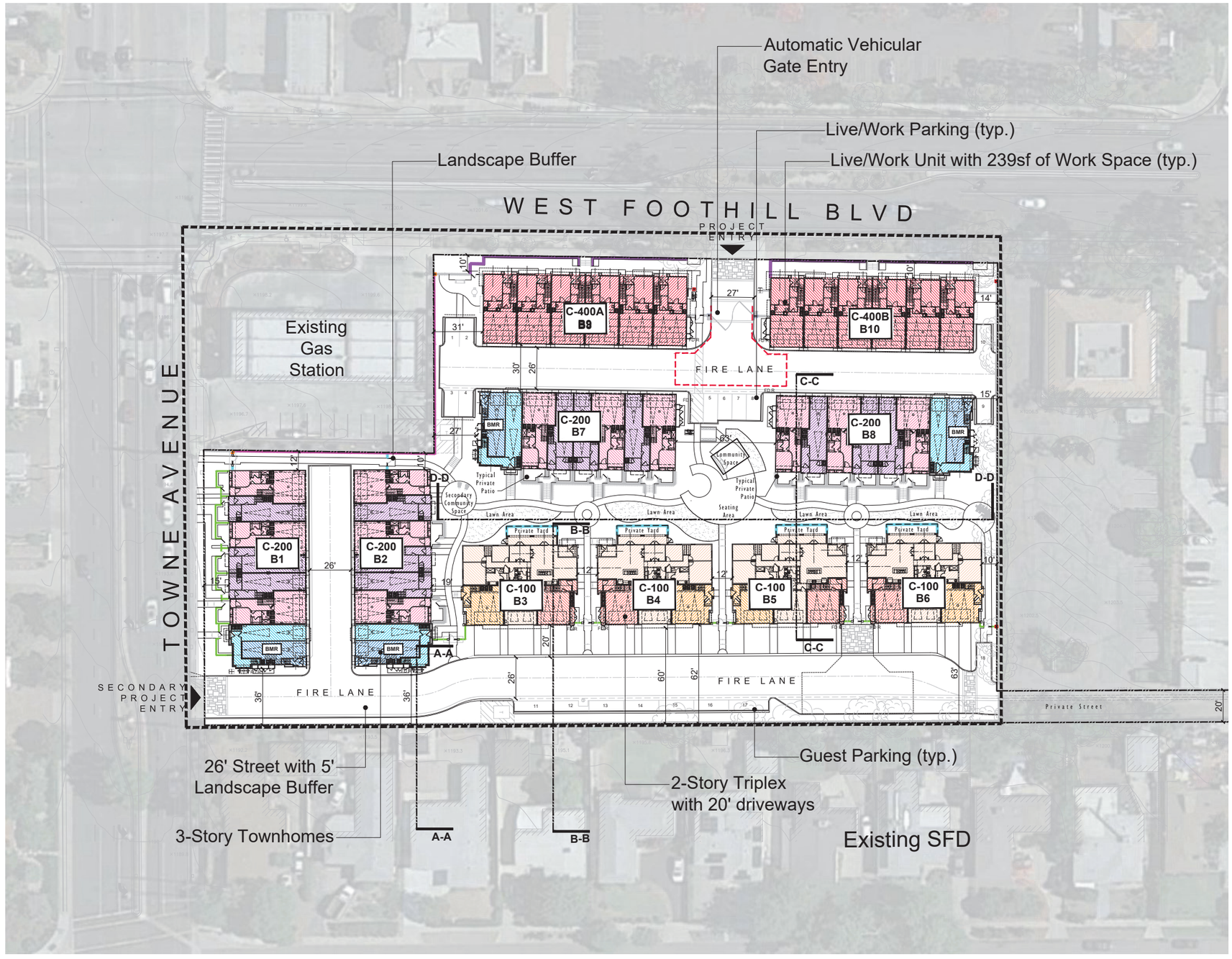
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SOURCE: Alan R. Short P.E. 2023

FIGURE 6
Vesting Tentative Tract Map
Olson Foothill Project

DUDEK

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SITE INFORMATION
Address:1030 W. Foothill Blvd.
APN: 8311-001-016
Zoning: MU-3

MU-3
Commercial FAR: 1.5:1
Density: 15 du/ac
Building Height: 2 stories or 28'
Street Setback: 10'
Setback to Residential: 10'
Open Space: 120sf/unit
Retail Parking: 1sp per 350sf

The following SB 1818 parking requirements apply to an entire project that contains set-aside affordable units, if requested by the developer:
0 – 1 bedroom unit = 1 onsite space
2 – 3 bedroom unit = 2 onsite spaces
4+ bedroom unit = 2½ onsite spaces
Tandem parking and uncovered parking is permitted
Any fractional space is rounded up to 1 whole space
No requirement for guest parking

SITE SUMMARY

Development Area: ±3.054 ac

Unit Mix:
4 units - P1 – 1213gsf – 2bed/2.5ba – 3-story, tandem
4 units - P1x – 1268gsf – 2bed/2.5ba – 3-story, tandem
12 units - P2 – 1600gsf – 3bed/3ba – 3-story, tandem
4 units - P3 – 1654gsf – 3bed/2ba – 2-story, sxs
12 units - P4 – 1811gsf – 3bed+den/3.5ba, 3-story, sxs
4 units - P5 – 1823gsf – 3bed/2.5ba – 2-story, sxs
4 units - P6 – 1855gsf – 4bed/2.5ba – 2-story, sxs
12 units - P7 – 2233gsf (includes 350sf LW) – 3bed+LW / 3ba, sxs
56 units - Total

Density: ±18.337 du/ac
Lot Coverage: 98,980sf (74.4%)

Residential Parking Required:
2/3bd - 40 units x 2 sp/unit = 80 spaces
4bd - 4 units x 2.5 sp/unit = 10 spaces
Commercial L/W required = 12 spaces
L/W - 12 units x 2 sp/unit = 24 spaces
Total Required: 126 spaces

Parking Provided:
112 spaces - Garages
20 spaces - Open
132 spaces - Total Provided*
**total does not include additional 24 spaces on driveways*

For Open Space refer to Landscape Drawings

0 15 30 60

SOURCE: KTGY 2023

FIGURE 7
Conceptual Site Plan
Olson Foothill Project

DUDEK

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TRIPLEX MATERIAL LEGEND

1 Stucco
2 Concrete "S" Profile Roof Tile
3 Stucco Decorative Finial
4 8x Faux Wood Corbels
5 Recessed Faux Wood Trim/Beam
6 Windows
7 Decorative Metal Railing
9 Decorative Gable End Detail
10 Exposed Truss Tails
11 Wing Wall
13 Simulated Wood Panel
14 Sliding Patio Door
15 Decorative Shutters
16 Light Fixture / Address Numbers
17 Utility Cabinet Door



LEFT ELEVATION



FRONT ELEVATION



RIGHT ELEVATION



REAR ELEVATION

SOURCE: KTGY 2023

DUDEK

FIGURE 8a
Elevations
Olson Foothill Project

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TOWNHOME MATERIAL LEGEND

1. Stucco
2. Concrete "S" Profile Roof Tile
3. Stucco Arched Soffit
4. 8x Faux Wood Corbels
5. Recessed Faux Wood Trim/Beam
6. Windows
7. Decorative Metal Railing
9. Decorative Gable End Detail
10. Exposed Truss Tails
11. Wing Wall
13. Simulated Wood Panel
14. French Patio Door
15. Sliding Patio Door
16. Stucco Decorative Finial
17. Decorative Shutters
18. Light Fixture / Address Numbers
19. Utility Cabinet Door



LEFT ELEVATION



FRONT ELEVATION



RIGHT ELEVATION



REAR ELEVATION

SOURCE: KTGY 2023

FIGURE 8b
Elevations
Olson Foothill Project

DUDEK

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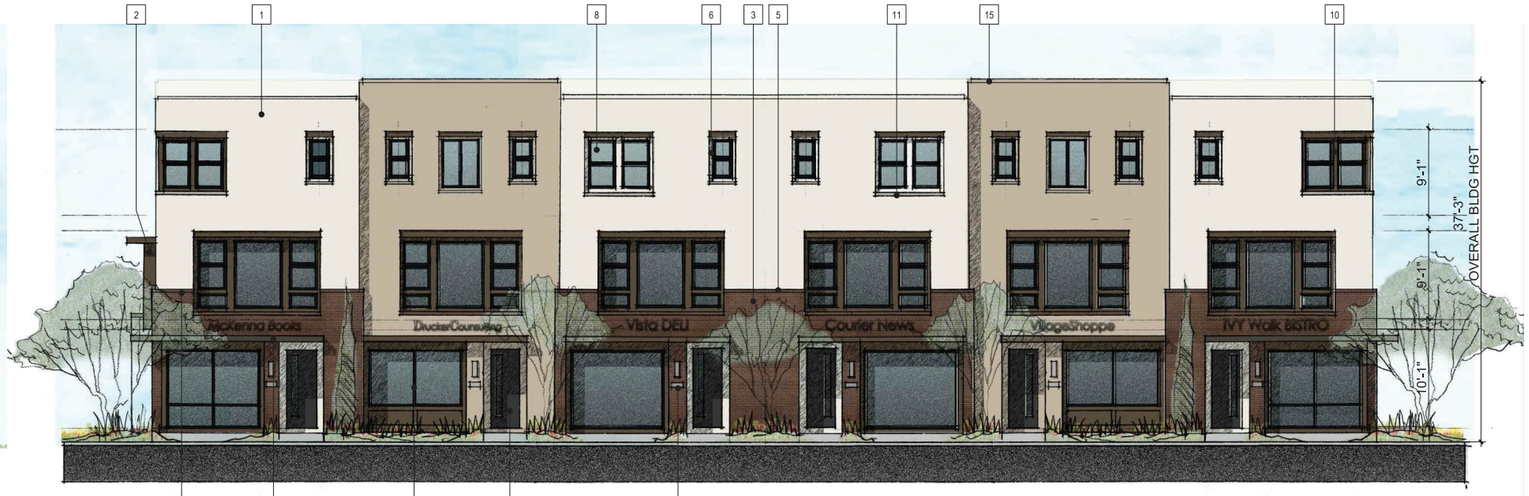
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LIVE-WORK MATERIAL LEGEND

1. Stucco
2. Sim.Wood Trim and Panel (where occurs)
3. Brick Veneer
4. Metal Awning
5. Brick Cap
6. Recessed Windows with tight jambs (W.O.)
7. Horiz. Metal Railing Color
8. Color Vinyl Windows
9. Specialty Store Front Frame/Glass System
10. Fiber Trim Board (Window)
11. Stucco Trim Sill
12. Decorative Stucco/Metal Scupper
13. Accent Front Door
14. Accent Sectional Metal Garage Doors.
15. Stucco Parapet Wall with Stucco Detail
16. Light Fixture / Address
17. Utility Cabinet



LEFT ELEVATION



FRONT ELEVATION



RIGHT ELEVATION



REAR ELEVATION

Path: Z:\Projects\14629\MXD\DOCS\DOCUMENTS\MXD.PDF

SOURCE: KTGY 2023

DUDEK

FIGURE 8c
Elevations
Olson Foothill Project

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LIVE-WORK MATERIAL LEGEND

1. Stucco
2. Sim.Wood Trim and Panel (where occurs)
3. Brick Veneer
4. Metal Awning
5. Brick Cap
6. Recessed Windows with tight jambs (W.O.)
7. Horiz. Metal Railing Color
8. Color Vinyl Windows
9. Specialty Store Front Frame/Glass System
10. Fiber Trim Board (Window)
11. Stucco Trim Sill
12. Decorative Stucco/Metal Scupper
13. Accent Front Door
14. Accent Sectional Metal Garage Doors.
15. Stucco Parapet Wall with Stucco Detail
16. Light Fixture / Address
17. Utility Cabinet



LEFT ELEVATION



FRONT ELEVATION



RIGHT ELEVATION



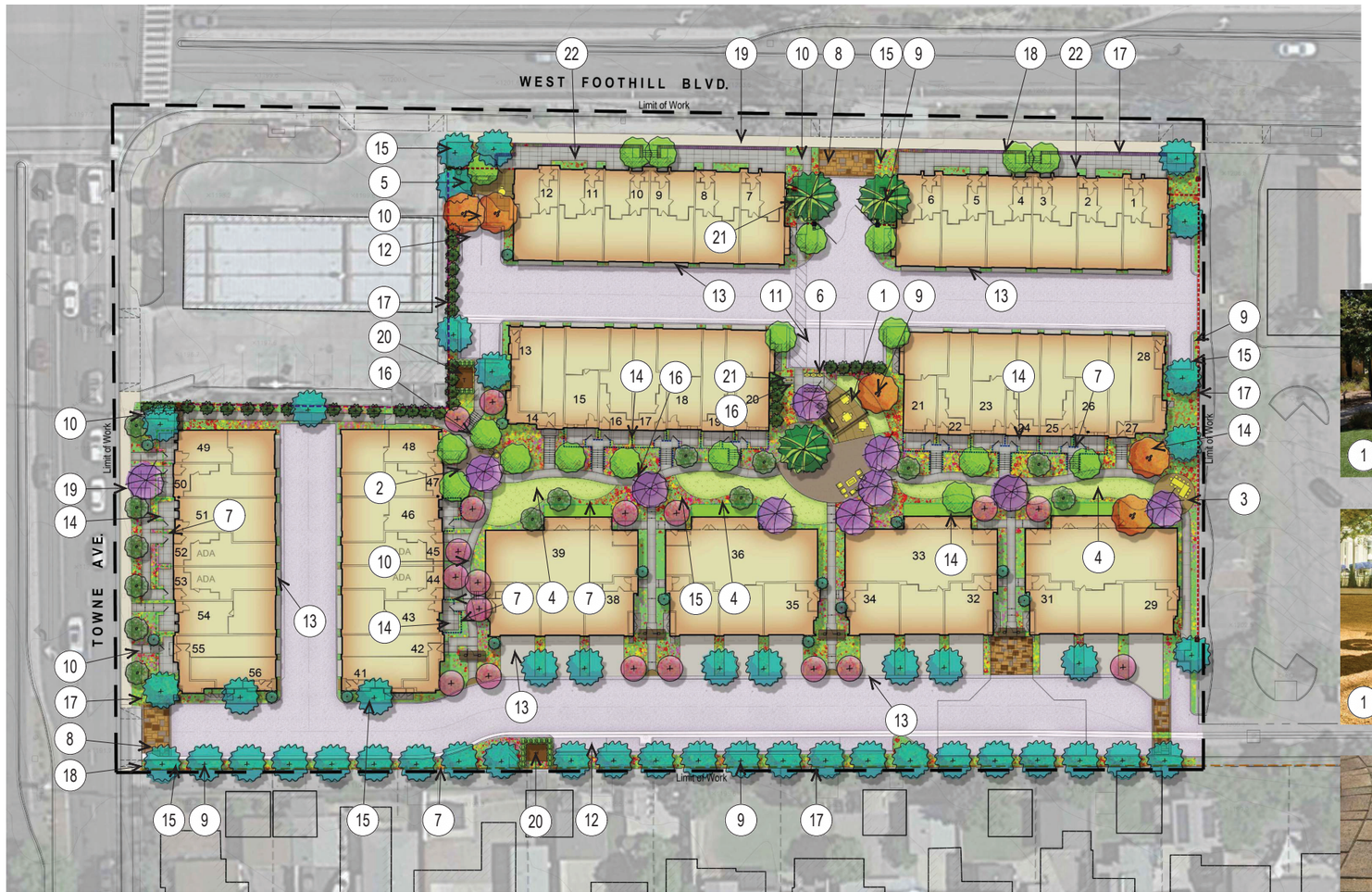
REAR ELEVATION

SOURCE: KTGY 2023

DUDEK

FIGURE 8d
Elevations
Olson Foothill Project

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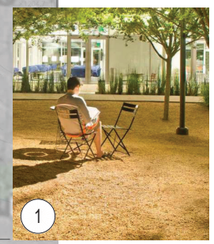


LEGEND

1. Central community open space area with shade structure, BBQ Island, Furniture, Fire-pit and seating area for large gathering.
2. Secondary open space area with adirondacks for small gatherings.
3. Work from Home area for small gathering.
4. Passive Lawn area.
5. Small Pocket with table and chairs.
6. Six community cluster mailboxes, per USPS review and approval.
7. Proposed wall, pilaster, gate or fence, per Wall & Fence Plan.
8. Enhanced paving at project entries.
9. Proposed tree, per Planting Plan.
10. 4' wide community natural colored concrete sidewalk, with light top-cast finish and saw-cut joints.
11. Accessible parking stall and striping, per Civil plans.
12. Guest parking stall.
13. Natural colored concrete driveway, with light broom finish and tooled joints.
14. Private patio / yard area, homeowner maintained.
15. Common area landscape, builder installed and HOA maintained.
16. Community dog bag station (black in color), for pet owners.
17. Property line.
18. Public street R.O.W.
19. Proposed public street sidewalk, per Civil plans.
20. Transformer to be screened with landscape, quantity and final locations to be determined.
21. Short term bike parking (2 bike racks to accommodate 4 bike stalls).
22. Proposed live/work space with natural colored concrete sidewalk, with light top-cast finish and saw-cut joints. See sheet L-4A (Wall & Fence Plan) and L-4B (Wall & Fence Details and Imagery) for more wall information.

















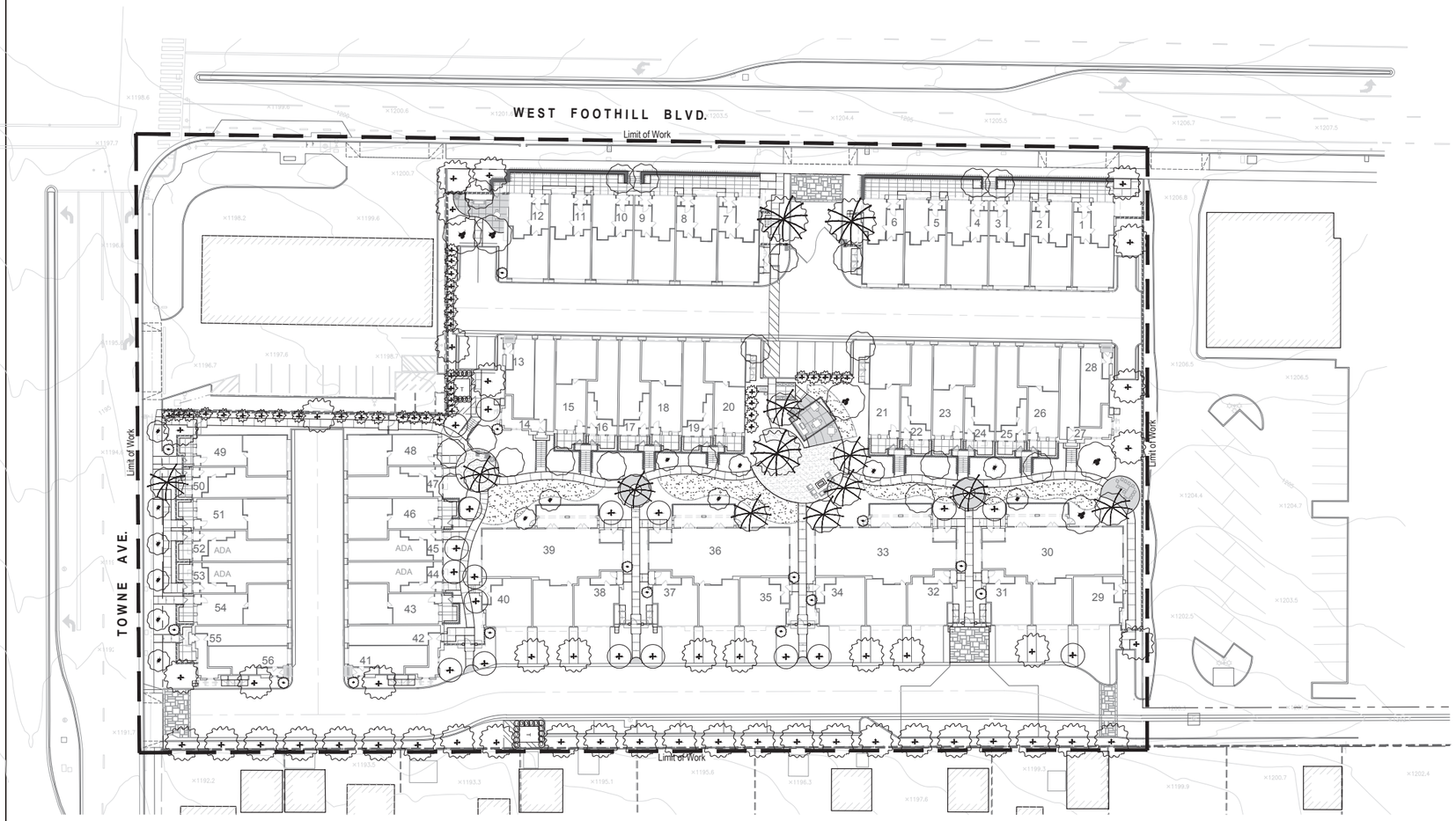
*Conceptual images (provided herein are conceptual and subject to change)

SOURCE: The Olson Company 2023

FIGURE 9
Conceptual Landscape Plan
Olson Foothill Project

DUDEK

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PLANTING LEGEND

Symbol	Type/Form	Suggestions Botanical Name (Common Name)	Trunk	Size	WUCOLS (R4)	Qty.
	TREES					
	Specimen	Magnolia g. 'Monlia' (Majestic Beauty S. Magnolia)	Natural	36" Box	Mod.	3
	Canopy	Platanus racemosa (California Sycamore)	Single	24" Box	Mod.	5
	Focal	Quercus agrifolia (Coast Live Oak)	Multi	24" Box	Low	10
	Street	Tristania conferta (Brisbane Box)	Single	24" Box	Mod.	46
	Deciduous Flowering	Lagerstroemia ixf 'Tuscarora' (Crape Myrtle)	Single	15 Gal.	Mod.	18
	Evergreen Flowering	Arbutus u. 'Marina' (Marina Strawberry Tree)	Single / Multi	15 Gal.	Low	14
	Medium	Rhus lancea (African Sumac) Geijera parvilflora (Australian Willow)	Single	24" Box	Low Mod.	19
	Columnar	Cupressus sempervirens (Italian Cypress) Laurus nobilis (Sweet Bay)	Single	15 Gal.	Low	15
	Buffer Screen	Prunus ilicifolia lyonii (Catalina Cherry) Laurus nobilis (Sweet Bay)	Single	15 Gal.	Low Low	37
					Total =	167
	SHRUBS					
	Utility Screen	Westringia fruticosa 'Wynabbie Gem' (Coast Rosemary)	Single	15 Gal.	Low	22

SHRUBS and GROUND COVER		WUCOLS (R4)
Anigozanthos	Kangaroo Paw	Low
Agave sp.	Agave	Low
Aloe sp.	Aloe	Low
Bougainvillea sp.	Bougainvillea	Low
Carex divulsa	Berkeley Sedges	Low
Carissa m. 'Green Carpet'	Dwarf Natal Plum	Low
Chamaerops humilis	Mediterranean Fan Palm	Low
Dasylirion longissimum	Mexican Grass Tree	Low
Delosperma cooperi	Trailing Ice Plant	Low
Dianella revoluta 'Little Rev'	Little Rev™ Flax Lily	Low
Lavandula sp.	Lavender	Low
Nassella pulchra	Purple Needlegrass	Low
Muhlenbergia rigens	Deer Grass	Low
Rosmarinus p. 'Huntington Carpet'	Groundcover Rosemary	Low
Salvia gregii sp.	Red / Purple Sage	Low
Westringia sp.	Westringia	Low
Xylosma congestum 'Compact'	Compact Xylosma	Low
Yucca gloriosa	Spanish Dagger	Low

VINES & ESPALIERS		WUCOLS (R4)
Bougainvillea 'Monka' (Oo-La-La® Bougainvillea)	Bougainvillea	Low
Macfadyena unguis-cati	Cat's Claw Vine	Low



Utility Screen Hedge - Westringia 'Wynabbie Gem' (Coast Rosemary)
15 gallon - Plant Leaf to Leaf

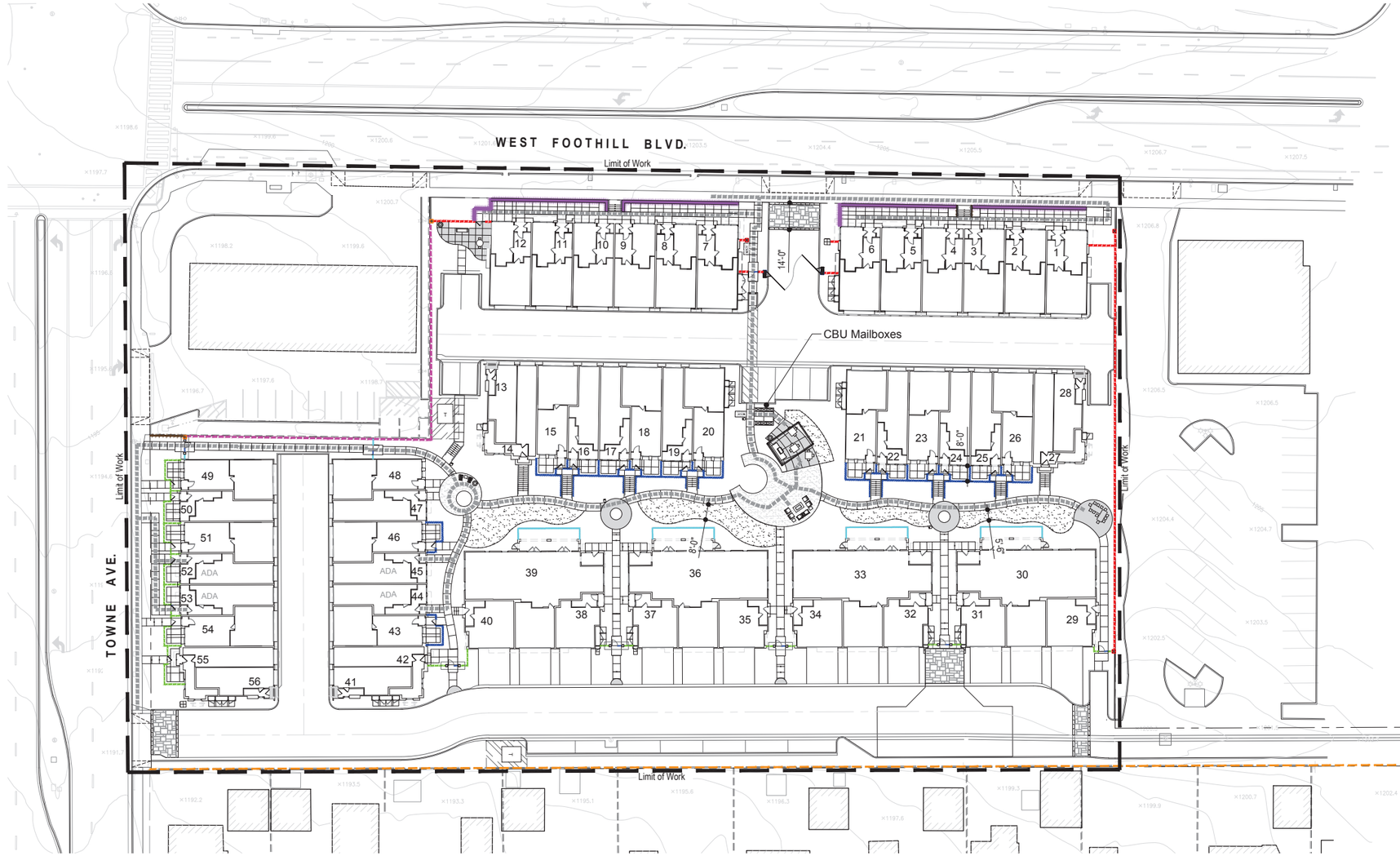
NOTES:
1. Irrigation (including spray and/or drip) will be provided, in the Construction Document phase, and to be installed per local California water regulations (AB1881) .
2. Vehicular Swinging Gates to be installed per local Fire Codes & Regulations.
3. Transformers, back-flow preventers & other above-ground utilities to be screened with landscape as permitted per local codes & regulations.
4. Landscape lighting (landscape up-lights, path lights/bollards, etc.) to be coordinated with Electrical Engineer in future phase.
5. The plant palette listed provides a list of plant material to select from when preparing final landscape construction documents for this project. However, substitutions may be required due to availability, soils tests, or other conditions.
6. All trees within 5' of hardscape to be installed with deep root barriers.

SOURCE: The Olson Company 2023

DUDEK

FIGURE 10
Conceptual Planting Plan
Olson Foothill Project

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0 15' 30' 60'

Scale: 1" = 30'

WALL, FENCE & GATE LEGEND

- Existing +-6'-0" High property line wall, protect in place, paint or stucco interior side.
- 1 — 6'-0" High stucco over CMU wall, with flat stucco cap.
- 2 — 8'-0" High stucco over CMU wall, with flat stucco cap.
- 3 — 5'-0" High stucco over CMU patio wall (along Towne Ave.), with flat stucco cap.
- 4 — Stucco over CMU retaining wall, with flat stucco cap.
- 5 — 2'-0" High (18" thick) stucco over CMU seat wall on top of retaining wall, with brick cap to match architecture (retaining conditions along West Foothill Blvd., per Civil Engineer's Plans).
- 6 — 3'-6" High stucco over CMU patio wall, with flat stucco cap.
- 7 — 5'-0" High vinyl fence.
- 8 — 8'-6" High (18" sq.) stucco (over CMU) pilaster, with 20" sq. (4" H) CMU cap (tan color).
- 9 — 6'-6" High (18" sq.) stucco (over CMU) pilaster, with 20" sq. (4" H) CMU cap (tan color).
- 10 — 6'-6" High (18" sq.) stucco (over CMU) pilaster, with brick cap to match architecture.
- 11 — 8'-0" High wood pedestrian arbor (painted, dark brown).
- 12 — 8'-6" High (36" sq.) stucco (over CMU) monument pilaster, with enhanced cap (tan color).
- 13 — ±6'-0" High metal (automatic open) vehicular swing gate.
- 14 — 5'-6" High metal pedestrian (ADA accessible) gate.
- 15 — 5'-0" & 3'-6" High metal patio gate.
- 16 — 5'-0" High vinyl yard gate.
- ADA accessible path of travel.

SOURCE: The Olson Company 2023

FIGURE 11

Conceptual Wall and Fence Plan

Olson Foothill Project

DUDEK

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OPEN SPACE LEGEND		
SYMBOL	NOTES	QTY
	PROGRAMMED PUBLIC OPEN SPACE (MIN. 15`X15`)	14,001 sf
	PRIVATE OPEN SPACE (MIN 6`X6`)	4,569 sf
	OTHER LANDSCAPE OPEN SPACE	14,003 sf

	Provided	Required
Open Space (Private + Public)	18,572 sf	6,720 sf

SOURCE: The Olson Company 2023

FIGURE 12

Conceptual Open Space Plan

Olson Foothill Project

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Appendix A

Air Quality and Greenhouse Gas Impact Analysis

1030 WEST FOOTHILL BOULEVARD RESIDENTIAL PROJECT AIR QUALITY & GREENHOUSE GAS (GHG) IMPACT ANALYSIS

City of Claremont

Prepared for

THE OLSON COMPANY

3010 OLD RANCH PARKWAY, SUITE 100

SEAL BEACH, CA 90740-2751

Prepared by

MAT ENGINEERING INC.

17192 MURPHY AVENUE, IRVINE, CALIFORNIA 92623

CONTACT: ALEX TABRIZI, PE, TE ▪ 949.344.1828 ▪ at@matengineering.com

Alex Tabrizi, PE, TE

April 13, 2023

Project & Doc No. 0012-2022-01.04

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GLOSSARY

AQMP	Air Quality Management Plan
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH4	Methane
CNG	Compressed natural gas
CO	Carbon monoxide
CO2	Carbon dioxide
CO2e	Carbon dioxide equivalent
DPM	Diesel particulate matter
GHG	Greenhouse gas
HFCs	Hydrofluorocarbons
LST	Localized Significant Thresholds
$MTCO_2e$	Metric tons of carbon dioxide equivalent
$MMTCO_2e$	Million metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NOx	Nitrogen Oxides
NO2	Nitrogen dioxide
N2O	Nitrous oxide
O3	Ozone
PFCs	Perfluorocarbons
PM	Particle matter
PM10	Particles that are less than 10 micrometers in diameter
PM2.5	Particles that are less than 2.5 micrometers in diameter
PMI	Point of maximum impact
PPM	Parts per million
PPB	Parts per billion
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SF6	Sulfur hexafluoride
SIP	State Implementation Plan
SOx	Sulfur Oxides
SRA	Source/Receptor Area
TAC	Toxic air contaminants
VOC	Volatile organic compounds
WRCC	Western Regional Climate Center

1.0 INTRODUCTION & PROJECT DECSRIPTION

1.1 Purpose of Report & Study Objectives

This air quality, greenhouse gas (GHG), and energy analysis was prepared to evaluate whether the estimated criteria pollutants and GHG emissions generated from the proposed 1030 West Foothill Boulevard Residential Project (Project) would cause a significant impact to the air resources in the project area. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The assessment is consistent with the methodology and emission factors endorsed by South Coast Air Quality Management District (SCAQMD), California Air Resource Board (CARB), and the United States Environmental Protection Agency (US EPA).

1.2 Site Location & Project Description

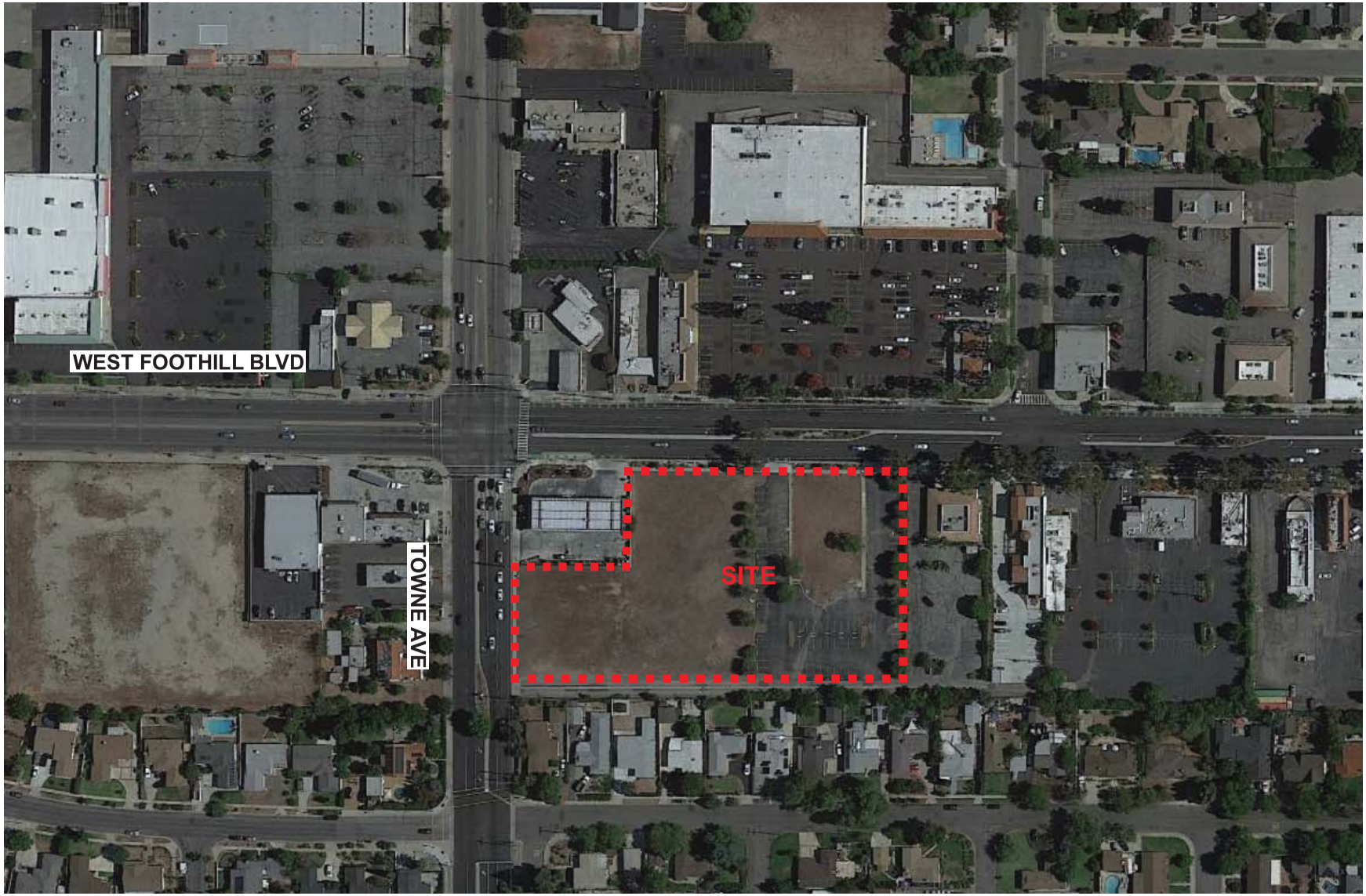
The project site located at 1030 West Foothill Boulevard, in the City of Claremont and is partially vacant and consists of approximately 40,000 square feet of existing asphalt surface parking lot. The proposed project consists of construction and operation of 56 dwelling units of residential condominium units.

Exhibit A shows the project site location. Exhibit B shows the proposed site plan.

1.3 Sensitive Receptors

Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution than others due to their exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. For CEQA purposes, a sensitive receptor would be a location where a sensitive individual could remain for 24-hours or longer, such as residencies, hospitals, and schools (etc.).

The closest existing sensitive receptors (to the site area) are residential uses located along Amador Street, adjacent to the south of the project site, across alley way and residential uses located across Towne Avenue, approximately 120 feet away to the west of the project site.



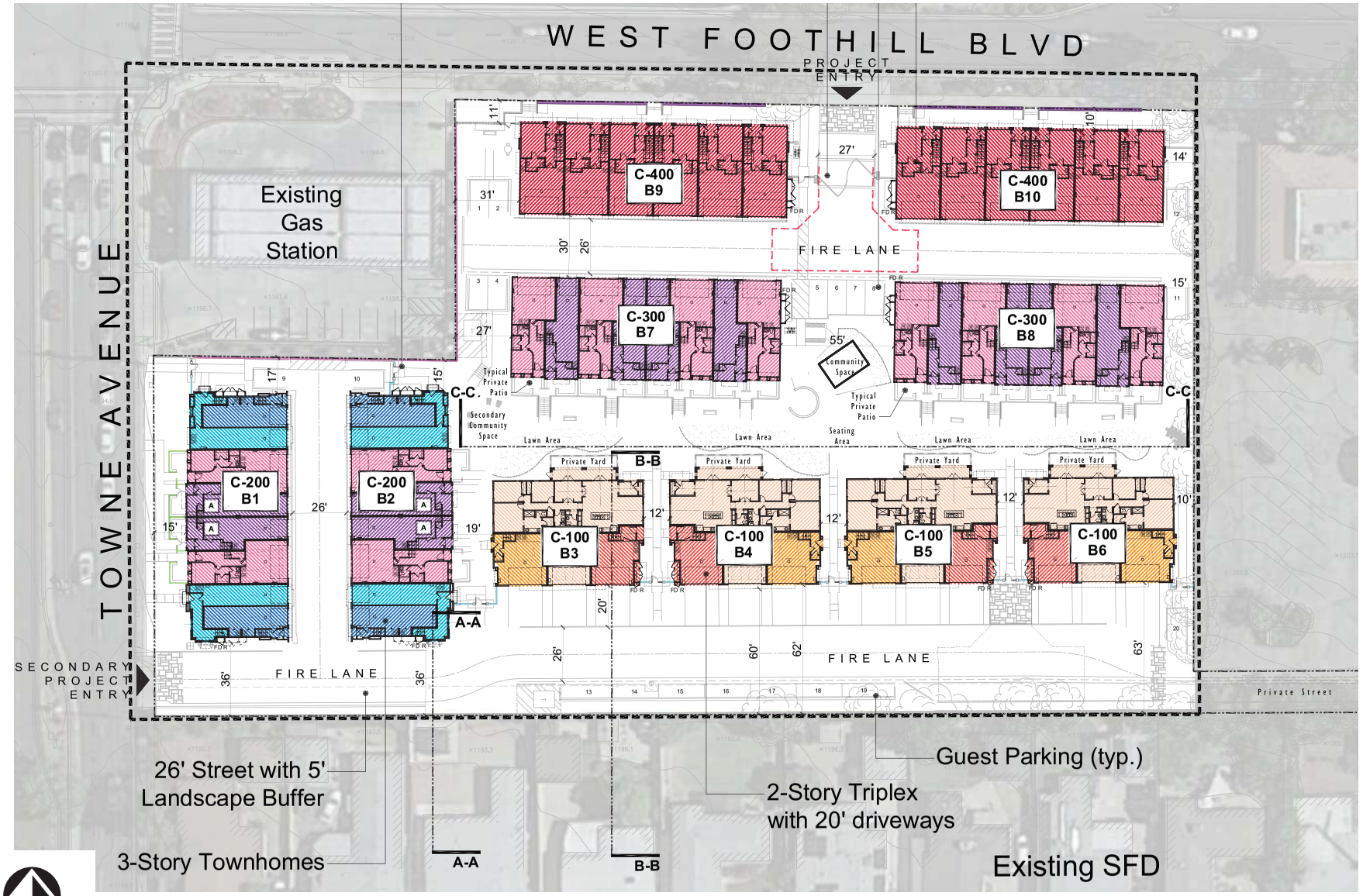
Not to Scale

ENGINEERING, INC.

1030 WEST FOOTHILL BOULEVARD RESIDENTIAL PROJECT, City of Claremont, California / 0012-2022-01 JUL/2022

Site Location

Exhibit A



Not to Scale

ENGINEERING, INC.

1030 WEST FOOTHILL BOULEVARD RESIDENTIAL PROJECT, City of Claremont, California / 0012-2022-01 JUL/2022

Site Plan

Exhibit B

2.0 ATMOSPHERIC SETTINGS

2.1 Existing Physical Setting

The project site is located in the City of Claremont which is part of the South Coast Air Basin (SCAB) that includes all of Los Angeles, Orange, Riverside, and San Bernardino Counties. The South Coast Air Basin is located on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the South Coast Air Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east forming the inland perimeter.

2.2 Local Climate & Methodology

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the region form natural horizontal barriers to the dispersion of air contaminants. Air pollution created in the coastal areas and around the Los Angeles area is transported inland until it reaches the mountains where the combination of mountains and inversion layers generally prevent further dispersion. This poor ventilation results in a gradual degradation of air quality from the coastal areas to inland areas. region also experiences periods of hot, dry winds from the desert, known as Santa Ana winds. If the Santa Ana winds are strong, they can surpass the sea breeze, which blows from the ocean to the land, and carry the suspended dust and pollutants out to the ocean. If the winds are weak, they are opposed by the sea breeze and cause stagnation, resulting in high pollution events.

The annual average temperature varies little throughout much of the basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas where the project site is located. The majority of the annual rainfall in the basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thunderstorms in the coastal regions and slightly heavier showers in the eastern portion of the basin along the coastal side of the mountains. Year-to-year patterns in rainfall are unpredictable because of fluctuations in the weather.

Summers are often periods of hazy visibility and occasionally unhealthful air. Strong temperature inversions may occur that limit the vertical depth through which air pollution can be dispersed. Air pollutants concentrate because they cannot rise through the inversion layer and disperse. These inversions are more common and persistent during the summer months. Over time, sunlight produces photochemical reactions within this inversion layer that creates ozone, a particularly harmful air pollutant. Occasionally, strong thermal convections occur which allows the air pollutants to rise high enough to pass over the mountains and ultimately dilute the smog cloudtrap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution “hot spots” in heavily developed coastal areas of the basin, there is not enough traffic in inland valleys to cause any winter air pollution problems. Despite light wind conditions, especially

at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

In the winter, light nocturnal winds result mainly from the drainage of cool air off the mountains toward the valley floor while the air aloft over the valley remains warm. This forms a type of inversion known as a radiation inversion. Such winds are characterized by stagnation and poor local mixing and trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution "hot spots" in heavily developed coastal areas of the basin, there is not enough traffic to cause any winter air pollution problems. The temperature and precipitation levels for the Claremont Pomona College Station (041779), the closest monitoring station to the project site, are in Table 1.

Table 1
Regional Climatological Data

Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	63.7	65.7	67.8	71.6	75.6	82.9	90.4	90.3	87.1	79.8	72.9	65.8	76.1
Average Min. Temperature (F)	38.6	40.5	42.1	44.9	48.6	52.5	57.3	57.7	55.6	50.2	44	39.8	47.7
Average Total Precipitation (in.)	3.48	3.4	2.89	1.32	0.5	0.06	0.03	0.11	0.28	0.72	1.44	2.72	16.95

1=Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca1779, Claremont Pomona Col, CA (041779)

3.0 AIR QUALITY SETTING

Pollutants are generally classified as either criteria pollutants or non-criteria pollutants. Federal ambient air quality standards have been established for criteria pollutants, whereas no ambient standards have been established for non-criteria pollutants. For some criteria pollutants, separate standards have been set for different periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). A summary of federal and state ambient air quality standards is provided in the Regulatory Framework section.

3.1 Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and State governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone (O3), course particulate matter (PM10), and fine particulate matter (PM2.5) are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO2), and sulfur dioxide (SO2) are considered to be local pollutants because they tend to accumulate in the air locally. PM is also considered a local pollutant. Health effects commonly associated with criteria pollutants are summarized in Table 2.

Table 2
Health Effects of Major Criteria Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter.	• Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions.	• Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	• Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	• Contaminated soil.	• Impairment of blood function and nerve construction.

Pollutants	Sources	Primary Effects
		• Behavioral and hearing problems in children.
Respirable Particulate Matter (PM-10)	• Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions.	• Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardiorespiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Fine Particulate Matter (PM-2.5)	• Fuel combustion in motor vehicles, equipment, and industrial sources. • Residential and agricultural burning. • Industrial processes. • Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.	• Increases respiratory disease. • Lung damage. • Cancer and premature death. • Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

3.2 Other Pollutants of Concern

3.2.1 Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is

believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

According to CARB's California Almanac of Emissions and Air Quality (2005), the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important being PM from diesel-fueled engines (DPM). DPM has been identified as a human carcinogen and contains hundreds of different gaseous and particulate components, many of which are toxic. Diesel particles are so small that they penetrate deep into the lungs. Studies show that DPM concentrations are much higher near heavily traveled highways and intersections. Off-road construction equipment and heavy-duty trucks are considered major sources of diesel-related emissions.

3.2.2 Asbestos

Asbestos is listed as a TAC by the ARB and as a Hazardous Air Pollutant by the EPA. Asbestos occurs naturally in mineral formations and crushing or breaking these rocks, through construction or other means, can release asbestiform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. Naturally occurring asbestos is not present in Los Angeles County. The nearest likely locations of naturally occurring asbestos, as identified in the General Location Guide for Ultramafic Rocks in California prepared by the California Division of Mines and Geology, is located in Santa Barbara County. Due to the distance to the nearest natural occurrences of asbestos, the project site is not likely to contain asbestos.

3.3 Greenhouse Gases

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHG), play a critical role in the Earth's radiation amount by trapping infrared radiation emitted from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO2), methane (CH4), ozone, water vapor, nitrous oxide (N2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land

uses. Transportation is responsible for 41 percent of the State's greenhouse gas emissions, followed by electricity generation. Emissions of CO2 and nitrous oxide (NO2) are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO2, where CO2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean.

Table 3 provides a description of each of the greenhouse gases and their global warming potential.

Additional information is available: https://www.arb.ca.gov/cc/inventory/data/data.htm

Table 3
Greenhouse Gasses

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (N_20), also known as laughing gas is a colorless gas.	Microbial processes in soil and water, fuel combustion, and industrial processes. In addition to agricultural sources, some industrial processes (nylon production, nitric acid production) also emit N_20.
Methane	Methane (CH_4) is a flammable gas and is the main component of natural gas.	A natural source of CH_4 is from the decay of organic matter. Methane is extracted from geological deposits (natural gas fields). Other sources are from the decay of organic material in landfills, fermentation of manure, and cattle farming.
Carbon dioxide	Carbon dioxide (CO_2) is an odorless, colorless, natural greenhouse gas. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.

Greenhouse Gas	Description and Physical Properties	Sources
Chlorofluorocarbons	CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). They are gases formed synthetically by replacing all hydrogen atoms in methane or methane with chlorine and/or fluorine atoms.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone, therefore their production was stopped as required by the Montreal Protocol.
Hydrofluorocarbons	Hydrofluorocarbons (HFCs) are a group of greenhouse gases containing carbon, chlorine, and at least one hydrogen atom.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons	Perfluorocarbons (PFCs) have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above the Earth's surface. They have a lifetime 10,000 to 50,000 years.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, and nontoxic, nonflammable gas	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Source: https://www.ipcc.ch/report/ar5/syr/

3.3.1 Global Warming Potential

The Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of carbon dioxide (CO2). The larger the GWP, the more that a given gas warms the Earth compared to CO2 over that time period. The time period usually used for GWPs is 100 years. GWPs provide a common unit of measure, which allows analysts to add up emissions estimates of different gases (e.g., to compile a national GHG inventory), and allows policymakers to compare emissions reduction opportunities across sectors and gases.

A summary of the atmospheric lifetime and the global warming potential of selected gases are summarized in Table 4.

Table 4
Global Warming Potential of Greenhouse Gases

Gas Name (Formula)	Atmospheric Lifetime (years)	GWP[1]
Carbon Dioxide (CO_2)	--	1
Methane (CH_4)	12	28-36
Nitrous Oxide (N_2O)	114	265
Hydrofluorocarbons (HFCs)	1-270	12-12,400
Sulphur Hexafluoride (SF_6)	3,200	23,500
Nitrogen Trifluoride (NF_3)	740	16,100

Source: IPCC Fifth Assessment Report (AR5)
https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf
1 = Global Warming Potential. Compared to the same quantity of CO_2 emissions.

3.4 Ambient Air Quality

The SCAQMD has divided the South Coast Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The project site is located in San Gabriel Valley General Forecast Area and Pamona/Walnut Valley Air Monitoring Area (Source Receptor Area (SRA) 10); and the ambient air quality data was utilized from the Pamona/Walnut and for data not available at SRA 10, ambient air quality data from East San Gabriel Valley Air Monitoring area station is utilized. Table 5 presents the monitored pollutant levels within the vicinity.

Table 5
Ambient Air Quality Monitoring Data

Air Pollutant Location	Monitoring Station	Item	2018	2019	2020
Carbon Monoxide	Pomona/Walnut Valley	Max 1-Hour (ppm)	2.1	1.7	1.5
		Exceeded State Standard (20 ppm)	No	No	No
		Exceeded National Standard (35 ppm)	No	No	No
		Max 8 Hour (ppm)	1.8	1.3	1.1
		Days > State Standard (9 ppm)	No	No	No
		Days >National Standard (9 ppm)	No	No	No
Ozone	Pomona/Walnut Valley	Maximum 1-Hour Concentration (ppm)	0.112	0.096	0.180
		Days > CAAQS (0.09 ppm)	7.0	1.0	51.0
		Maximum 8-Hour Concentration (ppm)	0.092	0.083	0.124
		Days > CAAQS/NAAQS (0.07 ppm)	10	12	84
Nitrogen Dioxide	Pomona/Walnut Valley	Max 1-Hour (ppm)	0.068	0.064	0.068
		Exceeded State Standard (0.18 ppm)	No	No	No
		Annual Average (ppm)	0.019	0.018	0.018
		Exceeded State Standard (0.030 ppm)	No	No	No
		Exceeded National Standard (0.053 ppm)	No	No	No
Sulfur Dioxide	Pomona/Walnut Valley	Max 1 Hour (ppm)	--	--	--
		Exceeded State Standard (0.25 ppm)	--	--	--
		Exceeded National Standard (0.075 ppm)	--	--	--
Inhalable Particulates (PM10)	East San Gabriel Valley 1	Max 24-Hour (µg/m³)	78	82	95
		Days > State Standard (50 µg/m³)	10	4	8
		Days >National Standard (150 µg/m³)	0	0	0
		Annual Average (µg/m³)	32.20	28.10	37.70
		Exceeded State Standard (20 µg/m³)	Yes	Yes	Yes
Ultra-Fine Particulates (PM2.5)	East San Gabriel Valley 1	Max 24-Hour (µg/m³)	30.20	28.30	33.00
		Days >National Standard (35 µg/m³)	0	0	0
		Annual Average (µg/m³)	10.35	9.18	11.13
		Exceeded State Standard (12 µg/m³)	No	No	No
		Exceeded National Standard (15 µg/m³)	No	No	No

Source: http://www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year
(--) =No data available.

3.5 Attainment Status

The EPA and the ARB designate air basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or 'form' of what constitutes attainment, based on specific air quality statistics. For example, the Federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual PM2.5 standard is met if the three-year average of the annual average PM2.5 concentration is less than or equal to the standard.

Table 6 lists the attainment status for the criteria pollutants in the basin.

Table 6
Attainment Status

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment (Extreme)
Carbon monoxide	Attainment	Maintenance (Serious)
Nitrogen dioxide	Attainment	Maintenance (Primary)
Sulfur dioxide	Attainment	Attainment/Unclassified
PM10	Nonattainment	Maintenance (Serious)
PM2.5	Nonattainment	Nonattainment (Moderate)

Source (Federal and State Status): California Air Resources Board (2020).
https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations

4.0 AIR QUALITY STANDARDS

4.1 Air Quality Regulatory Standards

Air pollutants are regulated at the national, state, and air basin level; each agency has a different level of regulatory responsibility. The United States Environmental Protection Agency (EPA) regulates at the national level. The California Air Resources Board (ARB) regulates at the state level. The South Coast Air Quality Management District (SCAQMD) regulates at the air basin level.

4.1.1 Ambient Air Quality Standards (AAQS)

In order to gauge the significance of the air quality impacts of the proposed Project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise, called "sensitive receptors." Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard. National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended several times in air quality problem areas like Southern California. In 2003, the Environmental Protection Agency (EPA) adopted a rule, which extended and established a new attainment deadline for ozone for the year 2021. Because the State of California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table 1. Sources and health effects of various pollutants are shown in Table 2.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of currently known health effects. EPA was charged with modifying existing standards or promulgating new ones where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter (called "PM-2.5"). New national AAQS were adopted in 1997 for these pollutants.

Planning and enforcement of the federal standards for PM-2.5 and for ozone (8-hour) were challenged by trucking and manufacturing organizations. In a unanimous decision, the U.S.

Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court also ruled that health-based standards did not require preparation of a cost-benefit analysis. The Court did find, however, that there was some inconsistency between existing and "new" standards in their required attainment schedules. Such attainment-planning schedule inconsistencies centered mainly on the 8-hour ozone standard. EPA subsequently agreed to downgrade the attainment designation for a large number of communities to “non-attainment” for the 8-hour ozone standard.

The federal and state ambient air quality standards are summarized in Table 7 and can also be found at http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

Table 7
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentrations[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O3)	1-Hour	0.09 ppm	Ultraviolet Photometry	- -	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm		0.070 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM10)[8]	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µ/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		- -		
Fine Particulate Matter (PM2.5)[8]	24-Hour	- -	- -	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1-Hour	20 ppm (23 µg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 µg/m^3)	- -	Non-Dispersive Infrared Photometry (NDIR)
	8-Hour	9.0 ppm (10 µg/m^3)		9 ppm (10 µg/m^3)	- -	
	8-Hour (Lake Tahoe)	6 ppm (7 µg/m^3)		- -	- -	
Nitrogen Dioxide (NO2)[9]	1-Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	- -	Gas Phase Chemiluminescence

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentrations[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
	Annual Arithmetic Mean	0.030 ppm (357 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO2)[10]	1-Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	- -	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3-Hour	- -		- -	0.5 ppm (1300 mg/m^3)	
	24-Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[10]	- -	
	Annual Arithmetic Mean	- -		0.130ppm (for certain areas)[10]	- -	
Lead[11,12]	30 Day Average	1.5 µg/m^3	Atomic Absorption	- -		
	Calendar Qrtr	- -		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	- -		0.15 µg/m^3		
Visibility Reducing Particles[13]	8-Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[11]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

9. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

10. On June 2, 2010, a new 1-hour SO2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1- hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

11. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

12. The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

13. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Several pollutants listed in Table 7 are not addressed in this analysis. Analysis of lead is not included in this report because the project is not anticipated to emit lead. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed. The project is not expected to generate or be exposed to vinyl chloride because proposed project uses do not utilize the chemical processes that create this pollutant and there are no such uses in the project vicinity. The proposed project is not expected to cause exposure to hydrogen sulfide because it would not generate hydrogen sulfide in any substantial quantity.

4.1.2 South Coast Air Quality Management District

The agency for air pollution control for the South Coast Air Basin (basin) is the South Coast Air Quality Management District (SCAQMD). SCAQMD is responsible for controlling emissions primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the basin. SCAQMD, in coordination with the Southern California Association of Governments, is also responsible for developing, updating, and implementing the Air Quality Management Plan (AQMP) for the basin. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as nonattainment of the federal and/or California ambient air quality standards. The term nonattainment area is used to refer to an air basin where one or more ambient air quality standards are exceeded.

Every three (3) years the SCAQMD prepares a new AQMP, updating the previous plan and having a 20- year horizon.

On March 23, 2017 CARB approved the 2016 AQMP. The 2016 AQMP is a regional blueprint for achieving the federal air quality standards and healthful air.

The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approaching attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the Plan is not approved or if the NAAQS are not met on time. As with every AQMP, a comprehensive analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures is updated with the latest data and methods. The most significant air quality challenge in the Basin is to reduce nitrogen oxide (NOx) emissions sufficiently to meet the upcoming ozone standard deadlines. The primary goal of this Air Quality Management Plan is to meet clean air standards and protect public health, including ensuring benefits to environmental justice and disadvantaged communities. Now that the plan has been approved by CARB, it has been forwarded to the U.S. Environmental Protection Agency for its review. If approved by EPA, the plan becomes federally enforceable

The 2016 AQMP represents a thorough analysis of existing and potential regulatory control options, includes available, proven, and cost-effective strategies, and seeks to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gases and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. These strategies are to be implemented in partnership with the California Air Resources Board (CARB) and U.S. EPA. In addition, the Southern California Association of Governments (SCAG) recently approved their 2016 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS) that include transportation programs, measures, and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained within baseline emissions inventory in the Plan. The on-road emissions are calculated using CARB's EMFAC 2014 model and the travel activity data provided by the Southern California Association of Governments (SCAG) from their adopted 2016 Regional

Transportation Plan / Sustainable Communities Strategy (RTP/SCS). The 2016 AQMP also includes analysis of several additional sources of GHG emissions such as landfills and could also assist in reaching the GHG target goals in the AB32 Scoping Plan.[1]

South Coast Air Quality Management District Rules

The AQMP for the basin establishes a program of rules and regulations administered by SCAQMD to obtain attainment of the state and federal standards. Some of the rules and regulations that apply to this Project include, but are not limited to, the following:

SCAQMD Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403 governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable suppression techniques are indicated below and include but are not limited to the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas in active for 10 days or more).

- Water active sites at least two times daily.

- Cover all trucks hauling dirt, san, soil, or other loose materials, or maintain at least 2 feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) section 23114.

- Pave construction access roads at least 100 feet onto the site from the main road.

[1] http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15

- Reduce traffic speeds on all unpaved roads to 15 mph or less.

- Suspension of all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.

- Bumper strips or similar best management practices shall be provided where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.

- Replanting disturbed areas as soon as practical.

- During all construction activities, construction contractors shall sweep on-site and off-site streets if silt is carried to adjacent public thoroughfares, to reduce the amount of particulate matter on public streets.

SCAQMD Rule 1113 governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of project must comply with Rule 1113.

Idling Diesel Vehicle Trucks – Idling for more than 5 minutes in any one location is prohibited within California borders.

Rule 2702. The SCAQMD adopted Rule 2702 on February 6, 2009, which establishes a voluntary air quality investment program from which SCAQMD can collect funds from parties that desire certified GHG emission reductions, pool those funds, and use them to purchase or fund GHG emission reduction projects within two years, unless extended by the Governing Board. Priority will be given to projects that result in co-benefit emission reductions of GHG emissions and criteria or toxic air pollutants within environmental justice areas. Further, this voluntary program may compete with the cap-and-trade program identified for implementation in CARB's Scoping Plan, or a Federal cap and trade program.

4.2 Greenhouse Gas Regulatory Settings

4.2.1 International

Many countries around the globe have made an effort to reduce GHGs since climate change is a global issue.

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human- induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations. The United States participates in the United Nations Framework Convention on Climate Change (UNFCCC) (signed on March 21, 1994). Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

The 2014 UN Climate Change Conference in Lima Peru provided a unique opportunity to engage all countries to assess how developed countries are implementing actions to reduce emissions.

Kyoto Protocol. The Kyoto Protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. It has been estimated that if the commitments outlined in the Kyoto Protocol are met, global GHG emissions could be reduced by an estimated 5 percent from 1990 levels during the first commitment period of 2008 – 2012 (UNFCCC 1997). On December 8, 2012, the Doha Amendment to the Kyoto Protocol was adopted. The amendment includes: New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from 2013 – 2020; a revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period; and Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period.

4.2.2 National

Greenhouse Gas Endangerment. On December 2, 2009, the EPA announced that GHGs threaten the public health and welfare of the American people. The EPA also states that GHG emissions from on-road vehicles contribute to that threat. The decision was based on *Massachusetts v. EPA* (Supreme Court Case 05-1120) which argued that GHGs are air pollutants covered by the Clean Air Act and that the EPA has authority to regulate those emissions.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Safety Administration announced a

joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program would apply to passenger cars, light-duty trucks, and medium- duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to

35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). The second phase of the national program would involve proposing new fuel economy and greenhouse gas standards for model years 2017 – 2025 by September 1, 2011.

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and 15 percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the agencies are proposing engine and vehicle standards starting in the 2014 model year which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by 2018 model year.

Mandatory Reporting of Greenhouse Gases. On January 1, 2010, the EPA started requiring large emitters of heat-trapping emissions to begin collecting GHG data under a new reporting system. Under the rule, suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of greenhouse gas emissions are required to submit annual reports to the EPA.

Climate Adaption Plan. The EPA Plan identifies priority actions the Agency will take to incorporate considerations of climate change into its programs, policies, rules and operations to ensure they are effective under future climatic conditions. https://www.epa.gov/arc-x/planning-climate-change-adaptation

4.2.3 California

California Code of Regulations (CCR) Title 24, Part 6. CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

The Energy Commission adopted 2008 Standards on April 23, 2008 and Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. 2013 and 2016 standards have been approved and became effective July 1, 2014 and January 1, 2016, respectively. 2019 standards were published July 1, 2019 and became effective January 1, 2020.

California Code of Regulations (CCR) Title 24, Part 11. All buildings for which an application for a building permit is submitted on or after January 1, 2022 must follow the 2022 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions

California Green Building Standards. On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011. The Housing and Community Development (HCD) updated CALGreen through the 2015 Triennial Code Adoption Cycle, during the 2016 to 2017 fiscal year. During the 2019-2020 fiscal year, the Department of Housing and Community Development (HCD) updated CALGreen through the 2019 Triennial Code Adoption Cycle.

The Code is a comprehensive and uniform regulatory code for all residential, commercial and school buildings. CCR Title 24, Part 11: California Green Building Standards (Title 24) became effective in 2001 in response to continued efforts to reduce GHG emissions associated with energy consumption. CCR Title 24, Part 11 now require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials. One focus of CCR Title 24, Part 11 is water conservation measures, which reduce GHG emissions by reducing electrical consumption associated with pumping and treating water. CCR Title 24, Part 11 has approximately 52 nonresidential mandatory measures and an additional 130 provisions for optional use. Some key mandatory measures for commercial occupancies include specified parking for clean air vehicles, a 20 percent reduction of potable water use within buildings, a 50 percent construction waste diversion from landfills, use of building finish materials

that emit low levels of volatile organic compounds, and commissioning for new, nonresidential buildings over 10,000 square feet.

Executive Order S-3-05. California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following targets:

- By 2010, California shall reduce greenhouse gas emissions to 2000 levels.
- By 2020, California shall reduce greenhouse gas emissions to 1990 levels.
- By 2050, California shall reduce greenhouse gas emissions to 80 percent below 1990 levels.

The executive order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs.

Executive Order S-01-07. Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the low carbon fuel standard. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The low carbon fuel standard is designed to provide a framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are "back-loaded", with more reductions required in the last five years, than the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles are also considered as low carbon fuels for the low carbon fuel standard.

SB 97. Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Resource Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Pursuant to the requirements of SB 97 as stated above, on December 30, 2009 the Natural Resources Agency adopted amendments to the state CEQA guidelines that address GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporate GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance are provided and no specific mitigation measures are identified. The GHG emission reduction amendments went into effect on March 18, 2010 and are summarized below:

- Climate action plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.

- Local governments are encouraged to quantify the greenhouse gas emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.

- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.

- New amendments include guidelines for determining methods to mitigate the effects of greenhouse gas emissions in Appendix F of the CEQA Guidelines.

- OPR is clear to state that “to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation.”

- OPR’s emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.

- Environmental impact reports (EIRs) must specifically consider a project's energy use and energy efficiency potential.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that greenhouse gases emitted in California be reduced to 1990 levels by the year2020. “Greenhouse gases” as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. ARB is the state agency charged with monitoring and regulating sources of greenhouse gases. AB 32 states the following:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The ARB Board approved the 1990 greenhouse gas emissions level of 427 million metric tons of carbon dioxide equivalent (MMTCO2e) on December 6, 2007 (California Air Resources Board 2007). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO2e. Emissions in 2020 in a “business as usual” scenario are estimated to be 596 MMTCO2e.

Under AB 32, the ARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California. Discrete early action measures are currently underway or are enforceable by January 1, 2010. The ARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of these early action measures, nine are considered discrete early action measures, as they are regulatory and enforceable by January 1, 2010. The ARB estimates that the 44 recommendations are expected to result in reductions of at least 42 MMTCO2e by 2020, representing approximately 25 percent of the 2020 target.

The ARB's Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 (California Air Resources Board 2008). The Scoping Plan identifies recommended measures for multiple greenhouse gas emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 greenhouse gas target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, Including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. "Capped" strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the cap-and trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. "Uncapped" strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional greenhouse gas emission reductions.[4]

Senate Bill 100. Senate Bill 100 (SB 100) requires 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. SB 100 was adopted September 2018.

The interim thresholds from prior Senate Bills and Executive Orders would also remain in effect. These include Senate Bill 1078 (SB 1078), which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) which changed the target date to 2010. Executive Order S-14- 08, which was signed on November 2008 and expanded the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed the CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

SB 375. Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The proposed project is located within the Southern California Association of Governments (SCAG), which has authority to develop the SCS or APS. On September 3, 2020, the Southern California Association of Governments (SCAG) adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal or "Plan" herein) for the six-county region including Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties. Connect SoCal reflects the region's commitment to improve the region's mobility, sustainability and economy. To achieve these goals, the Plan demonstrates how the region will reduce greenhouse gas (GHG) emissions from transportation sources to comply with Senate Bill 375 (SB 375) and meet Federal Transportation Conformity Requirements pursuant to the Federal Clean Air Act.[2]

City and County land use policies, including General Plans, are not required to be consistent with the RTP and associated SCS or APS. However, new provisions of CEQA would incentivize, through streamlining and other provisions, qualified projects that are consistent with an approved SCS or APS and categorized as "transit priority projects."

Assembly Bill 939 and Senate Bill 1374. Assembly Bill 939 (AB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004

[2] https://scag.ca.gov/read-plan-adopted-final-plan

suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills.

Executive Order S-13-08. Executive Order S-13-08 indicates that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy (California Natural Resource Agency 2009) was adopted, which is the "… first statewide, multi-sector, region-specific, and information-based climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order B-30-15. Executive Order B-30-15, establishing a new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030, was signed by Governor Brown in April 2015.

Executive Order B-29-15. Executive Order B-29-15, mandates a statewide 25% reduction in potable water usage and was signed into law on April 1, 2015.

Executive Order B-37-16. Executive Order B-37-16, continuing the State's adopted water reduction, was signed into law on May 9, 2016. The water reduction builds off the mandatory 25% reduction called for in EO B-29-15.

4.3 South Coast Air Quality Management District

The Project is within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD Regulation XXVII currently includes three rules:

- The purpose of Rule 2700 is to define terms and post global warming potentials.

- The purpose of Rule 2701, SoCal Climate Solutions Exchange, is to establish a voluntary program to encourage, quantify, and certify voluntary, high quality certified greenhouse gas emission reductions in the SCAQMD.

- Rule 2702, Greenhouse Gas Reduction Program, was adopted on February 6, 2009. The purpose of this rule is to create a Greenhouse Gas Reduction Program for greenhouse gas emission reductions in the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

SCAQMD Threshold Development

The SCAQMD has established recommended significance thresholds for greenhouse gases for local lead agency consideration ("SCAQMD draft local agency threshold"). SCAQMD has published a five-tiered draft GHG threshold which includes a 10,000 metric ton of CO2e per year for stationary/industrial sources and 3,000 metric tons of CO2e per year significance threshold for residential/commercial projects (South Coast Air Quality Management District 2010c). Tier 3 is anticipated to be the primary tier by which the SCAQMD will determine significance for projects. The Tier 3 screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects. A 90-precent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to CEQA analysis. The 90-percent capture rate GHG significance screening level in Tier 3 for stationary sources was derived using the SCAQMD's annual Emissions Reporting Program.

The current draft thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.

- Tier 2 consists of determining whether or not the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.

- Tier 3 consists of screening values, which the lead agency can choose but must be consistent. A project's construction emissions are averaged over 30 years and are added to a project's operational emissions. If a project's emissions are under one of the following screening thresholds, then the project is less than significant:

    - All land use types: 3,000 MTCO2e per year

    - Based on land use types: residential is 3,500 MTCO2e per year; commercial is 1,400 MTCO2e per year; and mixed use is 3,000 MTCO2e per year

4.4 City of Claremont General Plan 2025

The Open Space, Parkland, Conservation and Air Quality Element of the City of Claremont General Plan 2009 (City of Claremont 2009) include air quality policies intended to limit sources of air pollution and sensitive receptor exposure. The following policies are applicable to the project:

• **Goal 5-18: Reduce the amount of air pollution emissions from mobile and stationary sources and enhance the airshed.**

Policy 5-18.1: Enhance pedestrian and bike facilities within the City and encourage alternative modes of transportation.

Policy 5-18.2: Encourage the use of clean fuel vehicles.

Policy 5-18.3: Promote the use of fuel-efficient heating and cooling equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, and boiler units.

Policy 5-18.4: Promote the use of clean air technologies such as fuel cell technologies, renewable energy sources. UV coatings, and alternative, non-fossil fuels.

Policy 5-18.5: Continue to require the planting of street trees along City streets and inclusion of trees and landscaping for all development projects to help improve airshed and minimize urban heat island effects.

Policy 5-18.6: Encourage small businesses to utilize clean, innovative technologies to reduce air pollution.

Policy 5-18.7: Implement principles of green building.

Policy 5-18.8: Support jobs/housing balance within the community so more people can both live and work within the community. To reduce vehicle trips. encourage people to telecommute or work out of home or in local satellite offices.

• **Goal 5-19: Reduce the amount of fugitive dust released into the atmosphere.**

Policy 5-19.1: Support programs and policies of the South Coast Air Quality Management District regarding restrictions on grading operations at construction projects.

Policy 5-19.2: Cooperate with local, regional, state, and federal jurisdictions to control fugitive dust from stationary, mobile. and area sources.

Policy 5-19.3: Enforce regulations that do not allow vehicles to transport aggregate or similar material upon a roadway unless the material is stabilized or

covered, in accordance with state law and South Coast Air Quality Management District regulations.

5.0 MODELING PARAMETERS & ASSUMPTIONS

Typical emission rates from construction activities were obtained from CalEEMod Version 2020.4.0 CalEEMod is a computer model published by the SCAQMD for estimating air pollutant emissions. Using CalEEMod, the peak daily air pollutant emissions were calculated, and these emissions represent the highest level of emissions for each of the construction phases in terms of air pollutant emissions.

5.1 Construction Assumptions

The proposed project is to be operational in 2026 and construction is estimated to start in the year 2023 and last approximately 28 months. The project is proposing to demolish surface asphalt paving of approximately 40,000 square feet. The project will also export approximately 7,000 cubic yards (CY) of dirt during grading. The phases of the construction activities include demolition, site preparation, building construction, paving, and architectural coating. For details on construction modeling and construction equipment for each phase, please see Appendix A.

The project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. SCAQMD's Rule 403 minimum requirements require that the application of the best available dust control measures is used for all grading operations and include the application of water or other soil stabilizers in sufficient quantity to prevent the generation of visible dust plumes. Compliance with Rule403 would require the use of water trucks during all phases where earth moving operations would occur. Compliance with Rule 403 is required.

5.1.1 Localized Construction Assumptions

The SCAQMD has published a "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds" (South Coast Air Quality Management District 2011b). CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. In order to compare CalEEMod reported emissions against the localized significance threshold lookup tables, the CEQA document should contain in its project design features or its mitigation measures the following parameters:

1. The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.

2. The maximum number of acres disturbed on the peak day.

3. Any emission control devices added onto off-road equipment.

4. Specific dust suppression techniques used on the day of construction activity with maximum emissions.

The construction equipment showing the equipment associated with the maximum area of disturbance is shown in Table 8.

Table 8
Construction Equipment Assumptions

Phase	Equipment	Number	Soil Disturbance Rate (Acres/ 8hr-Day)	Total Daily Disturbance Footprint (Acres)
Site Preparation	Rubber Tired Dozers	3	0.5	3.5
	Tractors/Loaders/Backhoes	4	0.5	

Source: South Coast AQMD, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2

As shown in Table 8, the maximum number of acres disturbed in a day would be 3.5 acres.

The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in Localized Significance Threshold Methodology, prepared by SCAQMD, revised July 2008. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. The emission thresholds were based on the Pomona/Walnut Valley Source Receptor Area (SRA 10) and a disturbance of 3.5 acres per day, to be conservative, at a distance of 25 meters (82 feet). According to LST methodology, any receptor located closer than 25 meters should be based on the 25-meter threshold. The closest receptors are adjacent to the south of the site.

5.2 Operational Assumptions

Operational or long-term emissions occur over the life of the Project. Both mobile and area sources generate operational emissions. Area source emissions arise from consumer product usage, heaters that consume natural gas, gasoline-powered landscape equipment, and architectural coatings (painting). Mobile source emissions from motor vehicles are the largest single long-term source of air pollutants from the operation of the Project. Small amounts of emissions would also occur from area sources such as the consumption of natural gas for heating,

hearths, from landscaping emissions, and consumer product usage. The operational emissions were estimated using the latest version of CalEEMod.

Mobile Source:

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The proposed project would generate approximately 358 average daily trips and are based on the Foothill and Towne Residential Development Traffic Impact Study, City of Claremont, by RK Engineering Group, INC., dated September 7, 2022 (Traffic Study).

The program then applies the emission factors for each trip which is provided by the EMFAC2017 model is used to determine the vehicular traffic pollutant emissions. The CalEEMod default trip lengths were used in this analysis. Please see CalEEMod output comments sections in Appendix A for details.

Area Source:

Area sources include emissions from consumer products, landscape equipment and architectural coatings. Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers, as well as air compressors, generators, and pumps. As specifics were not known about the landscaping equipment fleet, CalEEMod defaults were used to estimate emissions from landscaping equipment.

Per SCAQMD Rule 445, wood burning stoves and/or devices are not allowed in new developments as a result no wood burning devices are modeled as a part of the project.

Energy Source:

2020.4.0 CalEEMod defaults were utilized.

5.2.1 Localized Operational Assumptions

For operational emissions, the screening tables for a disturbance area of 3.5 acres and a distance of 25 meters were used to determine significance. The tables were compared to the project's onsite operational emissions.

6.0 THRESHOLDS OF SIGNIFICANCE

6.1 Air Quality Standards of Significance

Air quality impacts are considered "significant" if they cause clean air standards to be violated where they are currently met, or if they "substantially" contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following four tests of air quality impact significance. A Project would have a potentially significant impact if it:

a) Conflicts with or obstructs implementation of the applicable air quality plan.

b) Results in a cumulatively considerable net increase of any criteria pollutants for which the Project region is non-attainment under an applicable federal or state ambient air quality standard.

c) Exposes sensitive receptors to substantial pollutant concentrations.

d) Creates objectionable odors affecting a substantial number of people.

6.1.1 Regional Significance Thresholds

The significance criteria established by the applicable air quality management or air pollution control district (SCAQMD) may be relied upon to make the above determinations. According to the SCAQMD, an air quality impact is considered significant if a proposed project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations.

The SCAQMD has established thresholds of significance or air quality for construction and operational activities of land use development projects such as that proposed, as shown in Table 9.

Table 9
SCAQMD Regional Significance Thresholds

Emissions Thresholds of Significance		
Pollutants	**Construction Pounds/day**	**Operation Pounds/day**
Nitrous Oxides (NOx)	100	55
Volatile Organic Compounds (VOC)	75	55
Particulate Matter <10 µg (PM10)	150	150
Particulate Matter <2.5 µg (PM2.5)	55	55
Sulfur Oxides (SOx)	150	150
Carbon Monoxide (CO)	550	550
Lead (Pb)	3	3

Local Microscale Concentration Standards The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20.0 ppm
- California State 8-hour CO standard of 9.0 ppm

6.1.2 Localized Significance Thresholds

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significant Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. The SCAQMD has also provided Final Localized Significant Threshold Methodology (LST Methodology), June 2003, which details the methodology to analyze local air emission impacts. The Localized Significant

Threshold Methodology found that the primary emissions of concern are NO2, CO, PM10, and PM2.5.

The emission thresholds were calculated based on the Pomona/Walnut Valley source receptor area (SRA 10) and a disturbance of 3.5 acres per day at a distance of 25 meters and are shown in Table 10.

The nearest existing sensitive receptors are located along the property lines surrounding the project site, less than 25 meters from potential areas of on-site construction and operational activity. Although receptors are located closer than 25 meters to the site, SCAQMD LST methodology states that projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters.

The daily disturbance area is calculated to be 3.5 acres, however LST thresholds are only based on 1, 2 and 5-acre sites. Therefore, a linear trend line was used to estimate the threshold for a 3.5-acre site based on the established LST thresholds.

Table 10
SCAQMD Localized Significance Thresholds (LST)

Pollutant	Construction (lbs/day)	Operation (lbs/day)
NO_X	189.6	189.6
CO	1,217.5	1,217.5
PM_{10}	9.0	2.4
$PM_{2.5}$	5.5	1.6

Source: SCAQMD Mass Rate Localized Significance Thresholds for 3.5-acre site in SRA-10 at 25 meters

6.2 Greenhouse Gas Thresholds of Significance

6.2.1 CEQA Guidelines for Greenhouse Gas

CEQA Guidelines define a significant effect on the environment as “a substantial, or potentially substantial, adverse change in the environment.” To determine if a project would have a significant impact on greenhouse gases, the type, level, and impact of emissions generated by the project must be evaluated.

The following greenhouse gas significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97. A significant impact would occur if the project would:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

However, despite this, currently neither the CEQA statutes, OPR guidelines, nor the draft proposed changes to the CEQA Guidelines prescribe thresholds of significance or a particular methodology for performing an impact analysis; as with most environmental topics, significance criteria are left to the judgment and discretion of the Lead Agency.

The City of Claremont has not yet adopted any GHG reduction plans. For the purpose of this analysis, the SCAQMD interim screening level Tier 3 numerical screening threshold of 3,000 MT CO_2e/yr for residential mixed-use development such as the proposed project. If it is determined that the proposed project is estimated to exceed this screening threshold under Tier 3, it will then be compared to the SCAQMD-recommended Tier 4 efficiency-based threshold of 4.8 metric tons of CO_2e per service population per year in 2020, and 3.0 metric tons of CO_2e per service population per year in 2035.

7.0 AIR QULAITY IMPACT ANALYSIS

The latest version of CalEEMod Model Version 2020.4.0 was used to estimate the onsite and offsite construction emissions. The model quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from off-site energy generation, solid waste disposal, vegetation planting and/or removal, and water use. The model also identifies design features to reduce criteria pollutant and GHG emissions. The model was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air districts.

Air quality impacts are considered "significant" if they cause clean air standards to be violated where they are currently met, or if they "substantially" contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following four tests of air quality impact significance. A Project would have a potentially significant impact if it:

a) Conflicts with or obstructs implementation of the applicable air quality plan.

b) Results in a cumulatively considerable net increase of any criteria pollutants for which the Project region is non-attainment under an applicable federal or state ambient air quality standard.

c) Exposes sensitive receptors to substantial pollutant concentrations.

d) Creates objectionable odors affecting a substantial number of people.

7.1 Construction Air Quality Emissions Impact

7.1.1 Regional Construction Emissions

The construction emissions for the project would not exceed the SCAQMD's daily emission thresholds at the regional level as demonstrated in Table 11, and therefore would be considered less than significant.

Table 11
Regional Significance - Construction Emissions (pounds / day)

Analysis	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Regional Emissions						
Maximum Regional Daily Emissions[1]	11.73	7.65	24.24	0.06	8.68	4.44
SCAQMD Significance Threshold	75	100	550	150	150	55
Exceeds SCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod 2020.4.0. See Appendix A.
1= Maximum daily emissions during summer or winter for both on-site and off-site emissions.

7.1.2 Localized Construction Emissions

As shown in Table 12 none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptors. Therefore, a less than significant local air quality impact would occur from construction of the proposed project.

Table 12
Local Significance - Construction Emissions (pounds / day)

Criteria Pollutants	NOx	CO	PM_{10}	$PM_{2.5}$
Maximum On-site Emissions	2.23	23.28	8.47	4.38
SCAQMD Localized Significance Threshold	189.6	1,217.5	9.0	5.5
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: CalEEMod 2020.4.0 and SCAQMD's Mass Rate Look-up Tables for 3.5 acres in SRA 10 at 25 meters.
1= Maximum daily summer or Winter on-site emissions.

7.1.3 Construction - Odor

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement. The objectionable odors that may be produced during the construction process are of short-term in nature and the odor emissions are expected cease upon the drying or hardening of the odor producing materials. Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors. Due to the short-term nature and limited amounts of odor producing materials being utilized, no significant impact related to odors would occur during construction of the proposed project.

The SCAQMD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall determine whether the project would result in excessive nuisance odors, as defined under the California Code of Regulations and Section 41700 of the California Health and Safety Code, and thus would constitute a public nuisance related to air quality.

Through compliance with SCAQMD's Rule 402 no significant impact related to odors would occur during the on-going operations of the proposed project.

7.1.4 Construction – Toxic Air Contaminants

The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. The Office of Environmental Health Hazard Assessment (OEHHA) has issued the Air Toxic Hot Spots Program Risk Assessment Guidelines and Guidance Manual for the Preparation of Health Risk Assessments, February 2015 to provide a description of the algorithms, recommended exposure variates, cancer and noncancer health values, and the air modeling protocols needed to perform a health risk assessment (HRA) under the Air Toxics Hot Spots Information and Assessment Act of 1987. Hazard identification includes identifying all substances that are evaluated for cancer risk and/or non-cancer acute, 8-hour, and chronic health impacts. In addition, identifying any multi-pathway substances that present a cancer risk or chronic non-cancer hazard via non-inhalation routes of exposure.

Given the short-term construction schedule, the proposed project's construction activity is not expected to be a long-term (i.e., 30 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. It should be noted, however, that a quantified health risk assessment has not been performed for this project.

In order to ensure the level of Diesel Particular Matter (DPM) exposure is reduced as much as possible, the project is expected to implement the best available pollution control strategies to minimize potential health risks. The follow DPM control measures include:

- Utilize low emission "clean diesel" equipment with new or modified engines (Tier 4 or better) that include diesel oxidation catalysts, diesel particulate filters or Moyer Program retrofits that meet CARB best available control technology.

- Establish staging areas for the construction equipment that are as distant as possible from adjacent sensitive receptors;

- Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible;

- Use haul trucks with on-road engines instead of off-road engines for on-site hauling.

Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the proposed project.

7.2 Operational Air Quality Emissions Impact

7.2.1 Regional Operational Emissions

The operations-related criteria air quality impacts created by the proposed project have been analyzed through the use of CalEEMod model. The summer and winter emissions created by the proposed project's long-term operations were calculated and the highest emissions from either summer or winter are summarized in Table 13.

Table 13 provides the project's unmitigated operational emissions. Table 13 shows that the project does not exceed the SCAQMD daily emission threshold and regional operational emissions are considered to be less than significant.

Table 13
Regional Significance – Construction Emissions (pounds / day)

Activity	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Mobile Sources[1]	1.00	1.08	10.03	0.02	2.60	0.70
Energy Sources[2]	0.03	0.23	0.10	<0.01	0.02	0.02
Area Sources[3]	1.45	0.98	5.01	0.01	0.10	0.10
Total Emissions	2.53	2.34	15.68	0.03	2.71	0.82
SCAQMD Thresholds	55	55	550	150	150	55
Exceeds Thresholds?	No	No	No	No	No	No

Source: CalEEMod 2020.4.0
1=Mobile sources consist of emissions from vehicles and road dust.
2=Energy usage consists of emissions from on-site natural gas usage.
3=Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.

7.2.2 Localized Operational Emissions

As stated previously, according to SCAQMD LST methodology, LSTs would apply to the operational phase of a project, if the project includes stationary sources, or attracts mobile sources (such as heavy-duty trucks) that may spend long periods queuing and idling at the site; such as industrial warehouse/transfer facilities. The proposed project consists of a condominiums/multifamily residential use and does not include such uses. Thus, due to the lack

of such emissions, no long-term localized significance thresholds analysis is necessary. Operational LST impacts would be less than significant.

7.2.3 CO Hot Spot Emissions

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards which were previously discussed.

To determine if the proposed project could cause emission levels in excess of the CO standards, a sensitivity analysis is typically conducted to determine the potential for CO "hot spots" at a number of intersections in the general project vicinity. Because of reduced speeds and vehicle queuing, "hot spots" potentially can occur at high traffic volume intersections with a Level of Service E or worse.

Micro-scale air quality emissions have traditionally been analyzed in environmental documents where the air basin was a non-attainment area for CO. However, the SCAQMD has demonstrated in the CO attainment redesignation request to EPA that there are no "hot spots" anywhere in the air basin, even at intersections with much higher volumes, much worse congestion, and much higher background CO levels than anywhere else. If the worst-case intersections in the air basin have no "hot spot" potential, any local impacts will be below thresholds.

According to the Traffic Study, the project would generate a total of 358 daily vehicle trips. The 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan) showed that an intersection which has a daily traffic volume of approximately 100,000 vehicles per day would not violate the CO standard. The volume of traffic at project buildout with cumulative projects would be well below 100,000 vehicles and below the necessary volume to even get close to causing a violation of the CO standard. Therefore, no CO "hot spot" modeling was performed, and no significant long-term air quality impact is anticipated to local air quality with the on-going use of the proposed project.

7.2.4 Operations – Odor

The project will be required to comply with standard building code requirements related to exhaust ventilation, as well as comply with SCAQMD Rule 402. Rule 402 requires that a person may not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Project related odors are not expected to meet the criteria of being a nuisance. The project's operation would result in less than significant odor impacts.

7.2.5 Operations – Toxic Air Contaminants

The project would consist of mixed use consisting of residential land uses. These types of projects do not include major sources of toxic air contaminants (TAC) emissions that would result in significant exposure of sensitive receptors to substantial pollutant concentrations. Therefore, the project impact is considered less than significant.

8.0 GREENHOUSE GAS (GHG) EMISSIONS ANALYSIS

8.1 Construction GHG Emissions Impact

CalEEMod assumes the proposed project to requires approximately 28 months for construction. During project construction, the CalEEMod2020.4.0 computer model predicts that the construction activities will generate the annual CO_2e emissions identified in Table 14.

Table 14
Construction Emissions (Metric Tons CO_2e)

Conditions	CO_2e
Total Emissions Year 2023	284.71
Total Emissions Year 2024	364.98
Total Emissions Year 2025	194.48
Amortized over 30 years	**28.14**

Source: CalEEMod Output contained in Appendix A

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. As shown in Table 14, the amortized level is also provided. GHG impacts from construction are considered individually less-than-significant.

8.2 Operational GHG Emissions Impact

The input assumptions for operational GHG emissions calculations, and the GHG conversion from consumption to annual regional CO_2e emissions are summarized in the CalEEMod 2020.4.0 output files found in Appendix A of this report. The total operational and annualized construction emissions for the proposed Project are identified in Table 15.

Table 15
Operational Emissions (Metric Tons CO_2e)

Source Category	Greenhouse Gas Emissions (Metric Tons CO_2e /Year)
Area Sources[1]	14.49
Energy Usage[2]	96.97
Mobile Sources[3]	383.93
Solid Waste[4]	12.95
Water[5]	17.99
Construction[6]	28.14
Total Emissions	**554.47**
SCAQMD Tier 3 Thresholds	3,000
Exceeds Thresholds	No

Source: CalEEMod 2020.4.0. See Appendix A.
1= Area sources consist of GHG emissions from consumer products, architectural coatings, and landscape equipment.
2= Energy usage consist of GHG emissions from electricity and natural gas usage.
3= Mobile sources consist of GHG emissions from vehicles.
4= Solid waste includes the CO2 and CH4 emissions created from the solid waste placed in landfills.
5= Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
6= Construction GHG emissions based on a 30-year amortization rate.

As shown in Table 15, the proposed project would generate approximately 551.15 MT CO_2e/yr. The project's emissions are less than SCAQMD Tier 3 threshold of 3,000 MT CO_2e/yr for residential use projects. Based on the GHG analysis, the proposed project impacts would be less than significant.

8.3 Consistency with GHG Plans, Programs & Policy

The SCAG region was home to about 18.3 million people in 2012 and currently includes approximately 5.9 million homes and 7.4 million jobs. By 2040, the integrated growth forecast projects that these figures will increase by 3.8 million people, with nearly 1.5 million more homes and 2.4 million more jobs. The proposed project is located within the Southern California Association of Governments (SCAG), which has authority to develop the sustainable communities strategy (SCS) or alternate planning strategy (APS). On September 3, 2020, the Southern

California Association of Governments (SCAG) adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal or "Plan" herein) for the six-county region including Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties. Connect SoCal reflects the region's commitment to improve the region's mobility, sustainability and economy. At the regional level, the Connect SoCal is an applicable plan adopted for the purpose of reducing GHGs. Generally, projects are consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as SCAG's Connect SoCal, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. Therefore, the proposed project would be consistent with the GHG reduction-related actions and strategies contained in the Connect SoCal.

In addition, the project will comply with all the applicable goals and policies of the City of Claremont. The City of Claremont has drafted a Sustainable City Plan that outlines several energy efficient goals that directly relate to GHG emission reduction goals. For example, the City's goal is to apply sustainable design standards to all new facilities community wide and promote sustainable design practices in homes and commercial buildings (i.e., CALGREEN Building Standards). The proposed project would be required to meet the applicable Building Energy Efficient Standards. As a result, the project would be consistent with GHG Emission Reduction Strategies and applicable State and local regulations. To facilitate implementation of the Green Building Code, the City of Claremont Cities mandated all new discretionary development projects to incorporate by reference the mandatory requirements of the 2022 California Green Building Standards Code. The proposed project would comply with performance-based standards included in 2022 Title 24 Building Energy Efficiency Standards. It should be noted that, buildings whose permit applications are applied for on or after January 1, 2023, would be required to comply with 2022 Energy Code.

9.0 PROJECT DESIGN FEATURES

9.1 Construction Design Features

These construction measures would be included in the building plans as a project design feature. The following recommended project design features include standard rules and requirements, best practices and recognized design guidelines for reducing air quality and GHG emissions. Design features are assumed to be part of the conditions of approval for the project and integrated into its design.

- The project must follow the standard SCAQMD rules and requirements with regards to fugitive dust control, which includes, but are not limited to the following:
    - All active construction areas shall be watered two (2) times daily.
    - Speed on unpaved roads shall be reduced to less than 15 mph.
    - Any visible dirt deposition on any public roadway shall be swept or washed at the site access points within 30 minutes.
    - Any on-site stockpiles of debris, dirt or other dusty material shall be covered or watered twice daily.
    - All operations on any unpaved surface shall be suspended if winds exceed 15 mph.
    - Access points shall be washed or swept daily.
    - Construction sites shall be sandbagged for erosion control.
    - Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
    - Cover all trucks hauling dirt, sand, soil, or other loose materials, and maintain at least 2 feet of freeboard space in accordance with the requirements of California Vehicle Code (CVC) section 23114.

- Pave or gravel construction access roads at least 100 feet onto the site from the main road and use gravel aprons at truck exits.

- Replace the ground cover of disturbed areas as quickly possible.

- All diesel construction equipment shall have Tier 4 low emission “clean diesel” engines (OEM or retrofit) that include diesel oxidation catalysts and diesel particulate filters that meet the latest CARB best available control technology.

- Construction equipment should be maintained in proper tune.

- All construction vehicles should be prohibited from excessive idling. Excessive idling is defined as five (5) minutes or longer.

- Minimize the simultaneous operation of multiple construction equipment units, to the maximum extent feasible.

- The use of heavy construction equipment and earthmoving activity should be suspended during Air Alerts when the Air Quality Index reaches the “Unhealthy” level.

- Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible.

- Establish staging areas for the construction equipment that as far from adjacent residential homes, as feasible.

- Use haul trucks with on-road engines instead of off-road engines for on-site hauling.

9.2 Operational Design Features

The proposed project is required to comply with Title 24 of the CCR established by CEC regarding energy conservation and green-building standards. The proposed project shall also comply with the City of Claremont applicable goals and policies of the GHG reduction measures for residential development.

Green Buildings and Energy Efficiency Measures

- Design all project buildings to meet the California Building Code (CBC) Title 24 energy standard, including, but not limited to, any combination of the following:

- Increase insulation such that heat transfer and thermal bridging are minimized.

- Limit air leakage through the structure or within the heating and cooling distribution system to minimize energy consumption.

- Incorporate Title 24 or better rated windows, space heating and cooling equipment, light fixtures, appliances, or other applicable electrical equipment.

- Install energy-efficient lighting (e.g., light-emitting diodes [LEDs] and lighting control systems).

- Install photovoltaic systems to convert solar energy into electricity. Providing power locally will decrease electricity use for 15 percent of the energy made by Southern California Edison.

The applicable CalRecycle Sustainable (Green) Building Program Measures are as follows:

- Recycle/reuse at least 50 percent of the construction material (including, but not limited to, soil, mulch, vegetation, concrete, lumber, metal, and cardboard) (CalRecycle 2019).

- Use “green building materials” such as those materials that are rapidly renewable or resource efficient, and recycled and manufactured in an environmentally friendly way, for at least 10 percent of the project.

Water Conservation:

- Install water-efficient fixtures and appliances such as low-flow fixtures, dual-flush toilets, and other water-efficient appliances in accordance with Title 24 codes.

- Install water-efficient irrigation systems and devices, such as soil-moisture-based irrigation controls, and use water-efficient irrigation methods in accordance with Title 24 codes.

Appendix B

Geotechnical Due-Diligence Investigation

November 15, 2021
J.N.: 3029.00

Mr. Steve Armanino
The Olson Company
3010 Old Ranch Parkway, Suite 100
Seal Beach, California 90740

Subject: Geotechnical Due-Diligence Investigation, Proposed Multi-Family Residential Development, 1030 West Foothill Boulevard, Claremont, California

Dear Mr. Armanino,

Albus & Associates, Inc. is pleased to present to you our geotechnical due-diligence report for the proposed multi-family residential development at the subject site. This report presents a summary of our literature review, subsurface exploration, laboratory testing, and engineering analyses. Conclusions relevant to the feasibility of the proposed site development are also presented herein based on the findings of our work.

We appreciate this opportunity to be of service to you. If you should have any questions regarding the contents of this report, please do not hesitate to call our office.

Sincerely,

ALBUS & ASSOCIATES, INC.



Paul Kim
Associate Engineer

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1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

The purpose of our work was to evaluate the feasibility of proposed site development in order to assist you in your land acquisition evaluation and due-diligence review. The scope of our work for this investigation was focused primarily on the geotechnical issues that we expect could have significant fiscal impacts on future site development. While this report is comprehensive for feasibility purposes, it is not intended for final design purposes. As such, additional geotechnical studies may be warranted based on our review of future rough grading plans and foundation plans. The scope of our work for this investigation included the following:

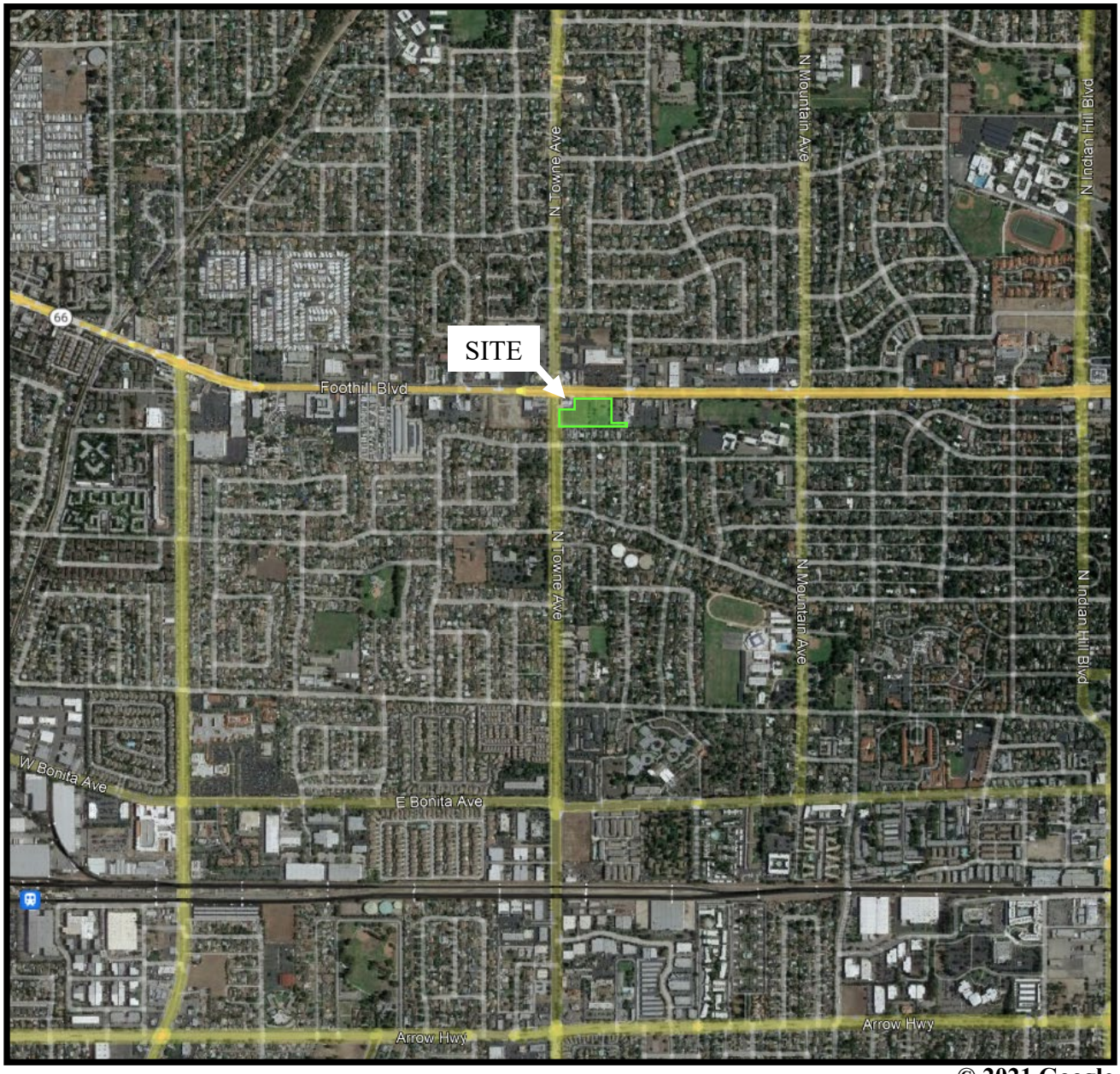
- Review of published geologic and seismic data for the site and surrounding area
- Exploratory drilling and soil sampling
- Laboratory testing of select soil samples
- Engineering analyses of data obtained from our review, exploration, and laboratory testing
- Evaluate site seismicity, liquefaction potential, and settlement potential
- Preparation of this report

1.2 SITE LOCATION AND DESCRIPTION

The site is located at 1030 West Foothill Boulevard, within the city of Claremont, California. The west half of the site is currently undeveloped and the east half of the site is vacant. The site is bordered by single-family homes to the south, North Towne Avenue to the west, a gas station the northwest, Foothill Boulevard to the north, and a commercial building to the east. The location of the site and its relationship to the surrounding area is shown on Figure 1, Site Location Map.

The project site and overall property is relatively flat with elevation ranging from 1192 to 1206 feet above mean sea level (based on Google Earth) descending gently to the southwest.

The site consists of 3.1 acres of land. The eastern half of the site was previously occupied by a restaurant. However, the building has been demolished and wasted from the site and only the asphalt and hardscape improvements remain. The parking lot is in poor condition due to the numerous asphalt cracks. The western portion of the site is undeveloped. An alley, likely used also as a utility easement is present along the south property line. The south and northeast property lines are bordered by a masonry block wall. Vegetation consists of medium to large trees mostly within the eastern half of the site.



© 2021 Google

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SITE LOCATION MAP

The Olson Company
Proposed Multi-Family Residential Development
1030 West Foothill Boulevard
Carson, California

NOT TO SCALE

FIGURE 1

1.3 PROPOSED DEVELOPMENT

We understand that the site will be redeveloped for residential use. We anticipate the proposed site development will consist of attached three-story townhomes. The structures are expected to be wood-framed and developed with concrete slabs on grade yielding relatively light foundation loads. We anticipate the proposed site will also consist of associated interior driveways, perimeter/retaining walls, underground utilities, and a storm water infiltration system.

2.0 INVESTIGATION

2.1 RESEARCH

We have reviewed the referenced geologic publications, maps, and historical aerial photos of the vicinity. Data from these sources were utilized to the development of some of our findings and conclusions presented in this report.

We have also reviewed historical aerial photographs for the site and surrounding area. Research of aerial photographs indicate that as early as 1938, the site was used for agricultural purposes. Between 1948 to 1953 the site continues to be vacant land but may have been mass graded as part of the development of the residential units to the south. During this time, a structure is present at the southeast corner of the undeveloped portion of the site. By 1959, the gas station to the northwest has been constructed and the structure that was previously visible is no longer present. By 1972, construction has begun on the eastern portion of the site. Between 2018 to 2021, the restaurant was demolished. The site appears to represent the current site configuration since then.

2.2 SUBSURFACE EXPLORATION

Subsurface explorations for this investigation were conducted on November 11, 2021 and consisted of drilling one soil boring and nine test pits. The soil boring was drilled to a maximum depth of approximately 46.5 feet below the existing ground surface (bgs). The boring was drilled using a truck-mounted, continuous-flight, hollow-stem-auger drill rig. The test pits were excavated to the maximum depth of 10 feet below the existing ground surface utilizing a backhoe. Representatives of *Albus & Associates, Inc*. logged the exploratory borings and test pits. Visual and tactile identifications were made of the materials encountered, and their descriptions are presented on the Exploration Logs in Appendix A. The approximate locations of the borings are shown on the enclosed Geotechnical Map, Plate 1.

Bulk, relatively undisturbed and Standard Penetration Test (SPT) samples were obtained at selected depths for subsequent laboratory testing. Relatively undisturbed samples were obtained using a 3-inch O.D., 2.5-inch I.D., California split-spoon soil sampler lined with brass rings. SPT samples were obtained using a standard SPT soil sampler. During each sampling interval, the samplers were driven 18 inches with successive drops of a 140-pound automatic hammer falling 30 inches. The number of blows required to advance the sampler was recorded for each six inches of advancement. The total blow count for the lower 12 inches of advancement per soil sample is recorded on the exploration log.

Samples were placed in sealed containers or plastic bags and transported to our laboratory for analyses and testing. The borings were backfilled with soil cuttings upon completion of drilling.

Two percolation test wells (P-1 and P-2) were drilled adjacent to exploratory boring B-1 for subsequent percolation testing. The percolation test wells should be completely removed and backfilled with compacted fill.

2.3 LABORATORY TESTING

Selected samples of representative earth materials from the borings were tested in our laboratory. Tests consisted of in-situ moisture and dry density, maximum dry density and optimum moisture content, soluble sulfate content, grain size analysis, direct shear, and corrosivity. Descriptions of laboratory testing and a summary of the test results are presented in Appendix B and on the exploration log in Appendix A.

3.0 SUBSURFACE CONDITIONS

3.1 SOIL CONDITIONS

Artificial fill materials were generally encountered up to about 3 feet below the existing ground surface within the existing building pad located at the east half of the site and within test pit TP-7. Artificial fill was not encountered within the remaining portion of the site.

Alluvial deposits were encountered below the fill materials or at ground surface to the maximum depths explored of 46.5 feet. The alluvial materials consist of sand with varying amounts of silt and gravels, brown, dry to moist, medium dense to very dense.

A more detailed description of the interpreted soil profile at each of the boring locations, based upon the borehole cuttings and soil samples, are presented in Appendix A. The stratigraphic descriptions in the logs represent the predominant materials encountered and relatively thin, often discontinuous layers of different material may occur within the major divisions.

3.2 GROUNDWATER

Groundwater was not encountered during this firm’s subsurface exploration to a maximum depth of 46.5 feet below the existing ground surface. The CDMG Seismic Hazard Zone Report 040 indicates historic groundwater is estimated to be 150 feet below the existing ground surface.

3.3 ACTIVE FAULTS

Based on our review of the referenced publications and seismic data, no active faults are known to project through or immediately adjacent the subject sites and the sites do not lie within an "Earthquake Fault Zone" as defined by the State of California in Earthquake Fault Zoning Act. Table 3.1 presents

a summary of known seismically active faults within 10 miles of the sites based on the 2008 USGS National Seismic Hazard Maps.

TABLE 3.1
Summary of Active Faults

Name	Distance (miles)	Slip Rate (mm/yr.)	Preferred Dip (degrees)	Slip Sense	Rupture Top (km)	Fault Length (km)
Sierra Madre Connected	1.18	2	51	reverse	0	76
Sierra Madre	1.18	2	53	reverse	0	57
San Jose	1.29	0.5	74	strike slip	0	20
Cucamonga	1.32	5	45	thrust	0	28
Chino, alt 2	5.1	1	65	strike slip	0	29
Chino, alt 1	5.22	1	50	strike slip	0	24

4.0 ANALYSES

4.1 SEISMICITY

Following ASCE7-16, Section 21.5.3, we have estimated mapped Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration PGA_M = 0.884g. Per Section 11.2 (Page 79), this value should be used for evaluation of liquefaction, lateral spreading, seismic settlements, and other soil-related issues. Based on the results of deaggregation analysis performed using USGS Unified Hazard Tool, the mean event associated with a probability of exceedance equal to 2% over 50 years has a moment magnitude of 7.0 and the mean distance to the seismic source is 6.92 miles.

4.2 STATIC SETTLEMENT

Analyses were performed to estimate settlement of footings for the anticipated loading conditions and configurations. Based on the anticipated foundation loads and provided the existing near-surface materials are removed and recompacted to provide a uniform layer of engineered compacted fill, the total and differential static settlements are not anticipated to exceed 1 inch and ½-inch over 30 feet, respectively, for the proposed 3-story residential structures.

5.0 CONCLUSIONS

5.1 FEASIBILITY OF PROPOSED DEVELOPMENT

From a geotechnical point of view, the proposed site development is considered feasible. Furthermore, it is also our opinion that the proposed development will not adversely impact the stability of adjoining properties. The adequacy and sufficiency of the preliminary findings and conclusions provided herein

should be assessed based upon the final grading and structural plans. A supplemental geotechnical investigation report will be required for design, permitting and construction.

5.2 GEOLOGIC HAZARDS

5.2.1 Ground Rupture

From a geotechnical point of view, the proposed site development is considered feasible. Furthermore, it is also our opinion that the proposed development will not adversely impact the stability of adjoining properties. The adequacy and sufficiency of the preliminary findings and conclusions provided herein should be assessed based upon the final grading and structural plans. A supplemental geotechnical investigation report will be required for design, permitting and construction.

5.2.2 Ground Shaking

The site is situated in a seismically active area that has historically been affected by generally moderate to occasionally high levels of ground motion. The site lies in relatively close proximity to several seismically active faults; therefore, during the life of the proposed structures, the property will probably experience similar moderate to occasionally high ground shaking from these fault zones, as well as some background shaking from other seismically active areas of the Southern California region. Potential ground accelerations have been estimated for the site and are presented in Section 4.1 of this report. Design and construction in accordance with the current California Building Code (C.B.C.) requirements is anticipated to adequately address potential ground shaking.

5.2.3 Liquefaction

Engineering research of soil liquefaction potential (Youd, et al., 2001) indicates that generally three basic factors must exist concurrently in order for liquefaction to occur. These factors include:

- A source of ground shaking, such as an earthquake, capable of generating soil mass distortions.
- A relatively loose silty and/or sandy soil.
- A relative shallow groundwater table (within approximately 50 feet below ground surface) or completely saturated soil conditions that will allow positive pore pressure generation.

The site is not located within a State-designated zone of potentially liquefiable soils. Additionally, groundwater was not encountered during our investigation and historic groundwater is estimated be at 150 feet. As a result, the potential of liquefaction occurring during a seismic event is considered to be very low.

5.3 STATIC SETTLEMENT

The earth materials at the site are generally very medium dense to very dense and are anticipated to result in minor settlement due to the weight of new foundations. Provided the existing artificial fill soils and near-surface earth materials are removed and recompacted, total and differential static settlement can likely be limited to a maximum of 1 inch and ½-inch over 30 feet, respectively. These estimated magnitudes of static settlements are considered within tolerable limits for the proposed residential structures.

5.4 EARTHWORK AND MATERIAL CHARACTERISTICS

In general, the existing fill materials and near-surface earth materials are considered unsuitable in their existing condition to support proposed structural fills and site development. This condition can be mitigated by removal and recompaction of unsuitable soils. The existing upper 3 feet of artificial fill encountered within the existing building pad should be removed and recompacted to support proposed structural fills and site development. Depending on proposed grade conditions, a minimum of 2 feet of engineered fill should be provided below the proposed foundations.

Based on anticipated grading to be completed at the site, oversized materials are expected to be generated. Oversize rocks greater than 6 inches in diameter are expected to be encountered during earthwork operations. Results of our two large-sample gradation tests indicate that up to 35% of the materials (by dry weight) within the upper 2 to 5 feet consist of particles that are greater than 6 inches in diameter. The results in an overall weighted average of approximately 20% of these materials are over 6 inches in diameter within the upper 5 feet of earth materials. To facilitate trenching for the residential buildings, the upper 2 feet of materials will need to limit rock to less than 6 inches in diameter. Rocks larger than 12 inches will require disposal offsite or special handling for onsite disposal. Limited engineered fill depths are anticipated, hence there will be relatively little area to dispose of the oversized material on site. Therefore, oversized materials would primarily require export from the site and import of finer-grained soils as a replacement, if necessary for earthwork balance.

Vertical excavations exposing the sandy materials will likely have no tolerance for a vertical cut and require laybacks at a 1.5:1 gradient (H:V). Site materials may be prone to sloughing and caving.

Due to the existing foundation slab and pavement, significant portions of concrete and asphalt debris can likely be reduced in size to less than 4 inches and incorporated within fill soils during earthwork operations.

Onsite disposal systems, clarifiers, and other underground improvements are likely to be present on site. If encountered during future rough grading, these improvements will require proper abandonment or removal.

Off-site improvements exist near and along the property lines. The presence of the existing offsite improvements will limit removals of unsuitable materials adjacent the property lines. Special grading techniques, such as slot cutting, will be required adjacent to the property lines were offsite structures are nearby. Additionally, grading along public right-of-ways will require special grading techniques, especially if construction fences are placed inside of the property lines which limit removals. Construction of perimeter site walls will require special consideration so as not to disturb the existing property line walls.

Subsurface soils are anticipated to be relatively easy to excavate with conventional heavy earthmoving equipment. Removal and recompaction of the site materials will result in some moderate shrinkage and subsidence. Design of site grading will require consideration of this loss when evaluating earthwork balance issues.

The sandy soils are below optimum moisture content. Some minor addition of water will likely be required to elevate the moisture content to achieve proper compaction.

5.5 SOIL EXPANSION

Based on USCS visual manual classification, the near-surface sandy soils within the site are generally anticipated to possess a **Very Low** expansion potential. Additional testing for soil expansion will be required subsequent to rough grading and prior to construction of foundations and other concrete work to confirm these conditions.

5.6 FOUNDATIONS

Conventional shallow spread and continuous footings may be utilized to support the proposed residential buildings and wall structures at the site. Considering the **Very Low** expansion potential, the foundations for the proposed structures and other site improvements, such as retaining walls, screen walls, and flatwork, will likely require only nominal reinforcement and depths.

5.7 CONCRETE MIX DESIGN

Laboratory testing of onsite soil indicates negligible soluble sulfate content. Concrete designed to follow the procedures provided in ACI 318, Section 4.3, Table 4.3.1 for **negligible** sulfate exposure are anticipated to be adequate for mitigation of sulfate attack on concrete. Upon completion of rough grading, an evaluation of as-graded conditions and further laboratory testing will be required for the site to confirm or modify the conclusions provided in this section.

5.8 CORROSION POTENTIAL

Laboratory testing of onsite soil indicates indicate a minimum resistivity of 11,000 ohm-cm, chloride content of 25 ppm, and a pH of 7.41. Based on laboratory test results, site soils are **Slightly Corrosive** to metals. Structures fabricated from metals should have appropriate corrosion protection if they will be in direct contact with site soils. Under such conditions, a corrosion specialist should provide specific recommendations.

5.9 PAVEMENT SECTIONS

Existing near-surface sandy soils are anticipated to have a high R-value. Based on the assumed R-value of 40 and a traffic index of 5, a preliminary pavement structural section of 3 inches asphaltic concrete over 4 inches of aggregate base, may be used for planning and estimating purpose. R-value testing will be required subsequent to rough grading and prior to construction of interior driveways to confirm these conditions.

5.10 PERCOLATION CHARACTERISTICS

Groundwater was not encountered to the maximum depth explored of 46.5 feet at the time of our investigation and historical levels suggest groundwater may be below 150 feet.

6.0 LIMITATIONS

This report is based on the proposed development and geotechnical data as described herein. The materials described herein and in other literature are believed representative of the total project area, and the conclusions contained in this report are presented on that basis. However, soil materials can vary in characteristics between points of exploration, both laterally and vertically, and those variations could affect the conclusions and recommendations contained herein. As such, observation and testing by a geotechnical consultant prior to and during the grading and construction phases of the project are essential to confirming the basis of this report.

This report summarizes several geotechnical topics that should be beneficial for project planning and budgetary evaluations. *The information presented herein is intended only for a preliminary feasibility evaluation and **is not** intended to satisfy the requirements of a site specific and detailed geotechnical investigation required for further planning and permitting.*

This report has been prepared consistent with that level of care being provided by other professionals providing similar services at the same locale and time period. The contents of this report are professional opinions and as such, are not to be considered a guaranty or warranty.

This report should be reviewed and updated after a period of one year or if the site ownership or project concept changes from that described herein.

This report has been prepared for the exclusive use of **The Olson Company** to assist the project consultants in determining the feasibility of the proposed development. This report has not been prepared for use by parties or projects other than those named or described herein. This report may not contain sufficient information for other parties or other purposes.

Respectfully submitted,

ALBUS & ASSOCIATES, INC





Paul Hyun Jin Kim
Associate Engineer
GE 3106

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Appendix C

Phase I and II Environmental Site Assessment

Phase I and II Environmental Site Assessment

1030 West Foothill Boulevard
Claremont, California 91711

November 19, 2021

Prepared for:

The Olson Company
3010 Old Ranch Parkway, Suite 100
Seal Beach, California

Prepared by:

Stantec Consulting Services Inc.
735 East Carnegie Drive, Suite 280
San Bernardino, California 92408

Project No.: 185805394

Sign-off Sheet and Signatures of Environmental Professionals

This Phase I and II Environmental Site Assessment was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of The Olson Company (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the Master Services Agreement ("MSA") between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes.

All information, conclusions, and recommendations provided by Stantec in this document regarding the Phase I ESA have been prepared under the supervision of and reviewed by the professionals whose signatures appear below.

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in § 312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Property. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Author: _____

Debbie Hernandez
Staff Geologist

Reviewer: _____

Alicia Jansen
Associate Scientist

Independent Reviewer: _____

Kyle Emerson, CEG
Managing Principal Geologist

Table of Contents

ABBREVIATIONS 1.1

1.0 SUMMARY 1.2

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Abbreviations

AAI	All Appropriate Inquiries
ACM	Asbestos-containing material
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulation
CREC	Controlled Recognized Environmental Conditions
EP	Environmental Professional
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
ft msl	Feet above mean sea level
HREC	Historical Recognized Environmental Conditions
LBP	Lead-based paint
LUST	Leaking Underground Storage Tank
NESHAP	National Emissions Standard for Hazardous Air Pollutants
PCBs	Polychlorinated Biphenyls
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Conditions
USGS	United States Geological Survey
UST	Underground Storage Tank
VEC	Vapor Encroachment Condition
VOCs	Volatile Organic Compounds

1.0 SUMMARY

Stantec Consulting Services Inc. (Stantec) has completed a Phase I and II Environmental Site Assessment (ESA) report of the property addressed as 1030 West Foothill Boulevard, City of Claremont, County of Los Angeles, California 91740 (the "Property"), on behalf of The Olson Company (Olson, the "Client"). The work was performed in accordance with terms and conditions of the master environment consulting services agreement between Olson and Stantec (the "MSA"). The Olson Company (the "User") has been designated as the User of this report.

The Phase I ESA was conducted in conformance with the requirements of American Society for Testing and Materials (ASTM) Designation E 1527-13, and All Appropriate Inquiries (AAI) as defined by the US-EPA in Title 40 of the Code of Federal Regulations, Part 312, except as may have been modified by the scope of work, and the MSA. Any exceptions to, or deletions from, the ASTM or AAI practice are described in Section 2.3.

The Property consists of approximately 3.28 acres of vacant land. The eastern portion of the Property was formerly developed with a Marie Callender's restaurant building and associated asphalt parking lot. The restaurant building was demolished in 2019. An improved asphalt alley is located along the southern perimeter. A gasoline service station station is located off-site but adjacent to the Property's northeast corner. A dental office building is located adjacent to the east. Residential structures appear to the south. Multi- and single-family residences are located in the immediate surrounding area. A Property location map is illustrated on Figure 1. A Property map illustrating the main features of the Property is provided as Figure 2. Photographs taken during the site reconnaissance visit are provided in Appendix A.

The Property was historically used for agricultural activities (orchards) until circa 1970. Application of pesticides and herbicides containing heavy metals are commonly used in agricultural settings, sometimes resulting in the accumulation of the chemicals and metals in shallow soils. As a result, Stantec recommended evaluating shallow soil across the former orchard areas of the Property to determine if residual organochlorine pesticides and/or heavy metals (arsenic and lead) are present at concentrations of concern for the residential development of the Property, or that would represent a Recognized Environmental Condition (REC) under ASTM E1527-13.

Accordingly, Stantec advanced nine (9) soil borings to a maximum depth of 3-feet below ground surface (bgs) on November 9, 2021. Soil samples were collected from 1-foot, 2-feet, and/or 3-feet bgs and submitted for potential laboratory analysis of organochlorine pesticides (OCPs) by EPA Method 8081A and arsenic/lead by EPA Method 6010B. The deeper soil samples were placed on hold pending the analysis of the 1-foot sample.

The laboratory reported only minor detections of the organochlorine pesticides (OCPs), 4,4'-DDE; 4,4'-DDT; and dieldrin, which were present in 4 of the 9 soil samples collected from the 1-foot interval across the Property. These reported concentrations are well below the current published residential screening levels for these compounds. No other OCPS were reported at concentrations above the laboratory reporting limits (i.e., the results were "non-detect").

Arsenic was reported in all 9 soil samples at concentrations ranging from 3.1 to 9.1 milligrams per kilogram (mg/kg). The reported arsenic concentrations were above the residential screening level of 0.41 mg/kg (as is soil throughout much of the State of California due to naturally-occurring arsenic in soil); however, the reported concentrations were within typical naturally-occurring southern California Background levels for arsenic used as a cleanup level for this metal in California (Table 1).

Lead was reported in all 9 soil samples at concentrations ranging from 15 to 160 mg/kg (Table 1). Two of these samples (SB-1-1 and SB-2-1) had detections of lead at 110 and 160 mg/kg, which are above the DTSC HERO Note 3 residential screening level of 80 mg/kg. The deeper soil samples from these two locations (SB-1-2 and SB-2-3) were analyzed and reported concentrations of 47 mg/kg and 45 mg/kg, respectively. The lateral limits of this elevated lead impacted soil at SB-1 and SB-2, was not clearly defined by the completed assessment, but the impacts appear to be localized to the upper two feet of soil.

According to the environmental database report, the adjacent gasoline service station received regulatory closure from the Los Angeles Department of Public Works on May 13, 2013. However, given no soil vapor data was available, which is considered the industry standard for evaluating sites like this. Acc, Stantec recommended performing a subsurface assessment to determine if there were elevated concentrations of contaminants in soil vapor beneath the Property that would require further assessment or remedial action prior to development, or that would represent a REC.

On November 12, 2021, Stantec performed soil vapor sampling at three locations (SV-1, SV-2, and SV-3) to depths of approximately 5.5-feet bgs, and soil vapor probes were installed at 5-feet bgs on the Property adjacent to the location of the off-site gasoline service station to assess this REC. A hollow-stem auger rig was utilized for borehole advancement due to difficult drilling conditions (i.e. large cobbles). Soil vapor samples were collected and analyzed with a mobile laboratory on November 15, 2021. No detections of total petroleum hydrocarbons as gasoline (TPHg) or volatile organic compounds (VOCs) were detected above laboratory reporting limits (i.e., the results were “non-detect”). Therefore, the adjacent gasoline station is not considered a REC to the Property and Stantec recommends no further investigation regarding this issue.

Additionally, Stantec cored three locations within the existing asphalt parking lot associated with the former restaurant building in the eastern portion of the Property to determine whether a stress-absorbing material known as “Petromat” was present, because Petromat sometimes contains asbestos. Petromat was observed in all three locations, however, laboratory analysis determined that there was no detection of asbestos in any of the three locations (i.e., the results were “non-detect”). Therefore, Petromat appears unlikely to represent an environmental concern and Stantec recommends no further investigation regarding this issue.

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of the property addressed 1030 West Foothill Boulevard, City of Claremont, County of Los Angeles, California 91740, collectively the “Property”. Any exceptions to, or deletions from, this practice are described in the Data Gaps section of this report. This assessment has revealed the following evidence of the following REC in connection with the Property:

- **Elevated Lead Impacts to Soil.** The elevated lead detected in soil samples collected from the 1-foot interval at borings SB-1 and SB-2 should be further characterized to determine the lateral extent of the impact. Based on the are considered a REC, given they exceed the residential screening levels for this metal. The lead impacts appearing to be localized to the upper 2 feet of soil. Further delineation around SB-1 and SB-2 is recommended to estimate the quantity of lead impacted soil to be removed.

The preceding summary is intended for informational purposes only. Reading of the full body of this report is recommended.

2.0 INTRODUCTION

The objective of this Phase I ESA was to perform All Appropriate Inquiries (AAI) into the past ownership and uses of the Property consistent with good commercial or customary practice as outlined by the ASTM in "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", Designation E1527-13. "All Appropriate Inquiries" (AAI) is the process for evaluating a property's environmental conditions for the purpose of qualifying for landowner liability protections under CERCLA. following final rule of Part 312 of Title 40, Code of Federal Regulations (40 CFR Part 312). The purpose of this Phase I ESA was to identify, to the extent feasible, adverse environmental conditions including recognized environmental conditions ("RECs") of the Property.

The ASTM E1527-13 standard indicates that the purpose of the Phase I ESA is to identify RECs, including historical recognized environmental conditions ("HRECs"), and controlled recognized environmental conditions ("CRECs") that may exist at a property. The term "recognized environmental conditions" means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property:

1. Due to any release to the environment.
2. Under conditions indicative of a release to the environment; or
3. Under conditions that pose a material threat of a future release to the environment.

ASTM defines a "HREC" as a REC that has occurred in connection with a property, but has been addressed to the satisfaction of the applicable regulatory authority and meets current unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (e.g., property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a HREC, the environmental professional (EP) must determine whether the past release is a REC when the current Phase I ESA is conducted (e.g., if there has been a change in the regulations). If the EP considers the past release to be a REC at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a REC.

ASTM defines a "CREC" as a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (e.g., as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), but with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (e.g., property use restrictions, activity and use limitations, institutional controls, or engineering controls).

As defined by ASTM, RECs can include hazardous substances or petroleum products present under conditions in compliance with laws if that presence represents a material threat of future release. The presence of hazardous substances or petroleum products is, however, not a REC if that presence is a *de minimis* condition. De minimis conditions are minor occurrences of contamination that generally do not present a material risk to human health and would not likely be subject to enforcement action if brought to the attention of governmental agencies.

The work was performed in accordance with terms and conditions master environment consulting service agreement between The Olson Company Homes and Stantec. The scope of work conducted during this Phase I ESA consisted of a visual reconnaissance of the Property, interviews with key individuals, and review of reasonably ascertainable documents. The scope of work did not include an assessment for environmental regulatory compliance of any facility ever operated at the Property (past or present), or sampling and analyzing of environmental media. Stantec was not contracted to perform an independent evaluation of the purchase or lease price of the Property and its relationship to current fair market value. The conclusions presented in this Phase I ESA report are professional opinions based on data described herein. The opinions are subject to the limitations described in Section 2.3.

ASTM E1527-13 notes that the availability of record information varies from source to source. The User or Environmental Professional is not obligated to identify, obtain, or review every possible source that might exist with respect to a property. Instead, ASTM identifies record information that is reasonably ascertainable from standard sources. “Reasonably ascertainable” means:

1. Information that is publicly available.
2. Information that is obtainable from its source within reasonable time and cost constraints; and
3. Information that is practicably reviewable.

2.1 PROPERTY DESCRIPTION

The Property consists of approximately 3.28 acres of vacant land. The eastern portion of the Property was formerly developed with a Marie Callender’s restaurant building and associated asphalt parking lot. The restaurant building was demolished in 2019. An improved asphalt alley is located along the southern perimeter. A gas station is located adjacent to the northeast corner. A dental office building is located adjacent to the east. Residential structures appear to the south. Multi- and single-family residences are located in the immediate surrounding area. A Property location map is illustrated on Figure 1. A Property map illustrating the main features of the Property is provided as Figure 2. Photographs taken during the site reconnaissance visit are provided in Appendix A.

The Property owner is identified as John Cauffman.

2.2 SPECIAL TERMS, CONDITIONS, AND SIGNIFICANT ASSUMPTIONS

There were no special terms, conditions, or significant assumptions associated with this Phase I ESA.

2.3 EXCEPTIONS AND LIMITING CONDITIONS

This report documents work that was performed in accordance with the MSA. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report.

This report provides an evaluation of specified environmental conditions associated with the identified property that was assessed at the time the work was conducted and is based on information obtained by

and/or provided to Stantec at that time. 40 CFR 312.20(f)(2) requires that the Environmental Professional evaluate the thoroughness and reliability of provided information. Stantec can neither warrant nor guarantee such thoroughness or reliability, however.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the preparation of this report, and are based solely on the scope of work described in the report, the limited data available and the results of the work. They are not a certification of the property's environmental condition.

Project Specific limiting conditions are provided in Section 2.2.

The conclusions are based on the site conditions encountered by Stantec at the time of the work. Accordingly, additional studies and actions may be required. The identification of non-environmental risks to structures or people on the Property is beyond the scope of this assessment.

Stantec specifically disclaims any responsibility to update the conclusions in this report if new or different information later becomes available or if the conditions or activities on the property subsequently change.

In the event of any conflict between the terms and conditions of this report and the terms and conditions of the MSA, the MSA shall control.

2.4 PERSONNEL QUALIFICATIONS

This Phase I ESA was conducted by, or under the supervision of, an individual that meets the ASTM definition of an Environmental Professional (EP). The credentials of the EP and other key Stantec personnel involved in conducting this Phase I ESA are provided in Appendix B.

3.0 USER-PROVIDED INFORMATION

ASTM E1527-13 describes responsibilities of the User to complete certain tasks in connection with the performance of "All Appropriate Inquiries" into the Property. The ASTM standard requires that the Environmental Professional request information from the User on the results of those tasks because that information can assist in the identification of RECs, CRECs, HRECs, or de minimis conditions in connection with the Property. Towards that end, Stantec requested that the User provide the following documents and information:

Description of Information	Provided (Yes / No)	Description and/or Key Findings
User Questionnaire and/or Interview	Yes	The User is not aware of any environmental concerns regarding the Property.
Environmental Liens or Activity Use Limitations	N/A	No environmental liens and/or activity use limitations are known by the User.
Previous Environmental Permits or Reports Provided by User	Yes	Previous reports are summarized in Section 4.4.6.
Purpose of the Phase I ESA	Yes	Due diligence.

Stantec forwarded the ASTM recommended User Questionnaire to Mr. Steve Armanino of The Olson Company. The completed User Questionnaire returned to us by Mr. Armanino is included in Appendix C. The significant information provided by Mr. Armanino is summarized below.

1. Information on Environmental Cleanup Liens on the Property? – The Client is not aware of any environmental cleanup liens on the Property.

2. Information on Property Activity or Use Limitations (including Institutional and Engineering Controls)? – The Client is not aware of any activity and land use limitations on the Property.

3. Specialized knowledge or experience of the User - The Client does not have any specialize knowledge or experience regarding the Property.

4. Commonly known or reasonably ascertainable information about the Property? - The User provided previous reports for the Property. These reports are summarized in Section 4.4.6.

5. The degree of obviousness or the presence or likely presence of contamination at the Property, and the ability to detect the contamination by appropriate investigation? - The Client provided no information indicating any obvious or likely present contamination.

4.0 RECORDS REVIEW

The objective of consulting historical sources of information is to develop the history of the Property and surrounding area and evaluate if past uses may have resulted in RECs. Physical setting records are evaluated to determine if the physical setting may have contributed to adverse environmental conditions in connection with the Property. During the review of historical records, Stantec attempted to identify uses of the Property from the present to the first developed use of the Property. Stantec's research included the reasonably ascertainable and useful records described in this section.

4.1 PHYSICAL SETTING

A summary of the physical setting of the Property is provided in the table below with additional details in the following subsections:

Topography:	The Property is relatively flat with an elevation of approximately 120 feet above mean sea level (amsl). The regional topographic gradient to the southwest (EDR, 2021).
Soil/Bedrock Data:	According to the Additional Site Assessment Report and Case Closure Request for the adjacent gasoline station, the stratigraphy underlying the Property vicinity consists primarily of coarse-grained sand to sandy gravels to a maximum depth of 50 feet below ground surface (bgs).
Estimated Depth to Groundwater/ Estimated Direction of Gradient:	According to the Fourth Quarter 2007 Site Status Report for the adjacent gasoline station, a LACDPW Well #4479E which is located approximately 2,000 feet to the east of the Property, reported the depth to groundwater at approximately 293.2 feet bgs on October 21, 2005. The groundwater flow direction was not reported.
NOTE: Site-specific groundwater flow direction and depth can only be determined by conducting site-specific testing, which Stantec has not conducted.	

4.1.1 Property Topography and Surface Water Flow

The Property is relatively flat with an elevation of approximately 120 feet above mean sea level (amsl). The regional topographic gradient is to the southwest (EDR, 2021). Based on the topography, surface water on the Property infiltrates the ground surface or flows overland into the curb and gutter stormwater system along West Foothill Boulevard.

4.1.2 Regional and Property Geology

According to the Additional Site Assessment Report and Case Closure Request for the adjacent gasoline station, the stratigraphy underlying the Property vicinity consists primarily of coarse-grained sand to sandy gravels to a maximum depth of 50 feet below ground surface (bgs).

The closest mapped active fault zones are the Sierra Madre Fault Zone located less than 5 kilometers northeast of the Property, respectively (CDMG, 1997). According to official maps of California, the Site is not located within an Alquist-Priolo (AP) Earthquake Fault Zone boundary (CDMG, 2000).

4.1.3 Regional and Property Hydrogeology

The Property is located within the San Gabriel Valley groundwater basin (4-013). This basin is bounded on the north by the Raymond fault and the contact between Quaternary sediments and consolidated basement rocks of the San Gabriel Mountains. Exposed consolidated rocks of the Repetto, Merced, and Puente Hills bound the basin on the south and west, and the Chino fault and the San Jose fault form the eastern boundary (Department of Water Resources [DWR], 1966). The Rio Hondo and San Gabriel drainages have their headwaters in the San Gabriel Mountains, then surface water flows southwest across the San Gabriel Valley and exit through the Whittier Narrows, a gap between the Merced and Puente Hills.

According to the Fourth Quarter 2007 Site Status Report for the adjacent gasoline station, a LACDPW Well #4479E which is located approximately 2,000 feet to the east of the Property, reported the depth to groundwater at approximately 293.2 feet bgs on October 21, 2005. The groundwater flow direction was not reported.

4.2 FEDERAL, STATE AND TRIBAL ENVIRONMENTAL RECORDS

A regulatory agency database search report was obtained from Environmental Data Resources (EDR), a third-party environmental database search firm. A complete copy of the database search report, including the date the report was prepared, the date the information was last updated, and the definition of databases searched, is provided in Appendix D.

Stantec evaluated the information listed within the database relative to potential impact to the Property, assessing the potential for impacts based in part on the physical setting. As part of this process, inferences have been made regarding the likely groundwater flow direction at or near the Property. As described in 4.1.3, the inferred shallow groundwater flow direction is likely to be in the southwest direction following topography. Observations about the Property and surrounding properties made during the Property reconnaissance are provided in more detail in Section 5.

4.2.1 Listings for Property

The Property addresses were not identified in the environmental databases report.

4.2.2 Listings for Nearby Sites with Potential to Impact Property

Stantec assessed data presented in the environmental agency database search report to evaluate the potential for conditions on adjacent and nearby sites to pose a REC, CREC, or HREC for the Property. The evaluation included an opinion of the potential for contamination by hazardous substances or petroleum products to migrate to the Property from a nearby property, including by vapor migration or encroachment (i.e., potential for a vapor encroachment condition [VEC].

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
Union Oil Service Station #360 Golden State Enterprises Site #2705788; Al Sal Oil Co Inc #37; La Barbera Vincent J; APRO LLC DBA United Pacific 0642 1092 W. Foothill Blvd Claremont, CA 91711	LUST; HIST UST; Cortese; Los Angeles Co. HMS; CERS; HIST UST; HAZNET; HWTS; RCRA NonGen/NLR; CERS HAZ WASTE; CERS TANKS; LA BARBERA VICENT J	Adjacent to the west-northwest	No
The Facility is listed as various gasoline service stations between 1969 and 2008. This facility received closure from the Los Angeles County Department of Public Works (LACDPW) on May 13, 2013 for a gasoline release to soil only. According to the Fourth Quarter 2007 Site Status Report dated January 29, 2008 prepared by Delta Consultants (Delta), between March and April 1988 two 10,000-gallon underground storage tanks (USTs), one 280-gallon waste oil UST, and associated product and vapor recovery lines were removed. Analysis of the soil sample collected from the base of the gasoline UST showed 1,100 milligrams per kilogram (mg/kg) of total petroleum hydrocarbons as gasoline (TPHg). Analysis of the soil sample collected beneath the waste oil UST showed 96 mg/kg of total recoverable hydrocarbons (TRPH). Additional subsurface assessments were performed between 1999 and 2007 and only reported minor detections in soil of TPHg, benzene, methyl tert butyl ether (MTBE), xylenes, and ethanol. According to the Underground Storage Tank Removal Report prepared by Delta dated August 24, 2007, two 12,000-gallon gasoline USTs, one 500-gallon waste oil UST, dispenser islands, hoists, clarifiers, and product lines were removed under the oversight of LACDPW. Soil samples were collected from the UST excavation pit, waste oil UST pit, production lines, and dispenser islands. There were no detections above the laboratory reporting limits in any of the soil samples collected and analyzed. The soil samples collected from the former waste oil UST had a concentration of 3.7 mg/kg of total lead. On November 15, 2021, Stantec collected three soil vapor samples along the adjoining property boundary with the gasoline station from 5-feet bgs. No detections of TPHg or fuel oxygenates were reported in the soil vapor samples above the laboratory reporting limit. Further details regarding this investigation are provided in Section 6.0. Given the facility received regulatory closure, depth to groundwater is greater than 50 feet bgs, and no detections were reported in the soil vapor samples collected in November 2021, this facility is not considered a REC to the Property and Stantec recommends no further investigation regarding this issue.			
Stater Bros Markets #49 Towne Avenue 1055 W Foothill Blvd Claremont, CA 91711	RCRA NonGen / NLR; CERS HAZ WASTE; HAZNET; CERS; HWTS	Approximately 78 feet to the north	No
The facility is listed as a warehouser club and supercenter. Minor violations were issued for improper labeling of hazardous waste; however, this violation was corrected. Given there is no indication of a release this facility is not considered a REC to the Property and Stantec recommends no further investigation regarding this issue.			
Cosmo Cleaners / Comet 1 Hour Cleaner 1019 W Foothill Blvd	CERS HAZ WASTE; DRYCLEANERS; EDR Hist Cleaner;	Approximately 84 feet to the northeast	No

Listed Facility Name/Address	Database Listing	Distance/Direction from Property	REC? (YES / NO)
Claremont, CA 91711	HAZNET; CERS; HWTS; RCRA NonGen/ NLR		
The facility is listed as a hazardous waste generator and utilized equipment with petroleum solvent in 2017. Previous waste records indicate that halogenated solvents (including perchloroethylene) were disposed of off-site between 1983 and 1996. Minor administrative violations were issued and corrected within a timely manner. The facility is located beyond West Foothill Boulevard. Given there is no indication of a release and groundwater is greater than 50-feet bgs, and the absence of VOCs in soil vapor reported on the Property by the completed assessment, this facility is not considered a REC to the Property and Stantec recommends no further investigation regarding this issue.			
Shell Service Station Wright & Sullivan Shell Claremont Shell Claremont Gas Daves Shell Service Patricks Auto Repair 1092 W Foothill Blvd Claremont, CA 91711	RCRA-SQG; LUST; CERS HAZ WASTE; HIST UST; CERS TANKS; FINDS; ECHO; Cortese; Los Angeles Co. HMS; CERS; HWTS; UST; RCRA NonGen/NLR; EDR HIST Auto; SWEEPS UST	Approximately 196 feet to the north-northwest	No
The facility is listed as various gasoline service stations between 1988 and 2014. The facility received closure from LACDPW on July 1, 2004 for a gasoline release to soil. Given the distance to the Property, the facility received regulatory closure, and depth to groundwater is greater than 50 feet bgs, this facility is not considered a REC to the Property and Stantec recommends no further investigation regarding this issue.			

The remaining listings in the database search report provided in Appendix D do not constitute a REC for the Property.

4.3 LOCAL/REGIONAL ENVIRONMENTAL RECORDS

Stantec checked the following sources to obtain information pertaining to Property use and/or indications of RECs in connection with the Property:

4.3.1 California Geologic Energy Management (CalGEM)

Agency Name Contact Information	Finding
California Geologic Energy Management (CalGEM) Division 5816 Corporate Avenue, Suite 200 Cypress, CA 90630 Online database: https://maps.conservation.ca.gov/doggr/wellfinder/ Date of contact: November 15, 2021	According to the Well Finder map located on the CalGEM website, there are no oil wells within the Property boundaries. The nearest well is an idle oil & gas well located approximately 0.5 miles to the northwest (API 0403705460).

4.3.2 Department of Toxic Substances Control

Agency Name Contact Information	Finding
Department of Toxic Substances Control (DTSC) 5796 Corporate Avenue Cypress, CA 90630 Online database: https://www.envirostor.dtsc.ca.gov/public/ Date of contact: October 29, 2021	According to a letter dated October 28, 2021, the DTSC does not have any records for the Property address. Additionally, Stantec researched the online database Envirostor managed by this agency. No records were found on the database website for the Property address or adjacent properties.

4.3.3 California Regional Water Quality Control Board (CRWQCB)

Agency Name, Contact Information	Findings
California State Water Resources Control Board, Los Angeles (RWQCB) 320 West 4th Street, Suite 200 Los Angeles, CA 90013 (213) 576-6600 Online database: https://www.envirostor.dtsc.ca.gov/public/ Date of contact: November 15, 2021	Stantec searched the RWQCB's online database Geotracker for available documents for the Property address. No records were found for the Property address.

4.3.4 Los Angeles County Department of Public Works

Agency Name Contact Information	Finding
Los Angeles County Department of Public Works (DPW), Solid Waste Information Management System (SWIMS) Online database: https://dpw.lacounty.gov/epd/swims/OnlineServices/search-methane-hazards-esri.aspx Date of contact: November 17, 2021	According to the Los Angeles County Department of Public Works, Solid Waste Information Management System online database, the Property is not located within 300 feet of an oil well or 1,000-feet of a methane producing site.

4.3.5 Local Building and/or Planning Department Records

Agency Name Contact Information	Finding
City of Claremont 207 Harvard Avenue Claremont, CA 91711 Date of contact: November 16, 2021	Records provided by the City of Claremont included demolition permits and commercial alteration permits. No records of environmental significance were observed.

4.3.6 Fire Department

Agency Name Contact Information	Finding
Los Angeles County Fire Department Hazardous Materials Division 1320 N. Eastern Avenue Los Angeles, CA 90063 (323) 881-2411 Date of contact: November 9, 2021	According to an email dated November 9, 2021, from the Los Angeles County Fire Department, there are no records for the Property address. Inspection records for the adjoining gasoline station dated March 2016, April 2019, and August 2021 identified no violations.

4.4 HISTORICAL RECORDS REVIEW

4.4.1 Land Title Records/Deeds

Stantec identified no evidence of environmental liens, activity and use limitations, institutional controls, land use restrictions or engineering control requirements in its review of the EDR Radius Map Report, information obtained from the User and other EDR-provided information.

4.4.2 Aerial Photographs

Stantec reviewed historical aerial photographs provided by EDR. The general type of activity on a property and land use changes can often be discerned from the type and layout of structures visible in the

photographs. However, specific elements of a facility's operation usually cannot be discerned from aerial photographs alone. The following table summarizes Stantec's observations of the reviewed historical aerial photographs.

Year	Scale	Observations, Property and Adjoining Properties
1928 1938 1948	1" = 500'	The Property and surrounding area show hat it was used for agricultural activities (orchards). Roadways appear adjacent to the north and west.
1953	1" = 500'	The Property appears to have been cleared of orchards and is used as a laydown area of the recent residential construction to the south. Commercial structures appears to the north beyond Foothill Boulevard, west beyond Towne, and to the east.
1959 1964 1966	1" = 500'	The Property appears to be vacant land. A gas station appears adjacent to the northwest. Additional residential development appears to the south.
1972 1975	1" = 500'	The northeastern portion of the Property is developed with a small structure and parking lot. Additional gasoline stations appear to the north beyond Foothill Boulevard. Additional commercial development appears to the north and east.
1981 1989 1994	1" = 500'	The western portion of the Property remains vacant land. A restaurant and asphalt parking lot are located in the eastern portion of the Property. The surrounding area is densely developed with commercial and residential structures.
2002 2005 2009 2012 2016	1" = 500'	The Property appears similar to the previous photograph. The surrounding areas are densely developed with residential and commercial structures.

Name of aerial photograph source: EDR, 2021

4.4.3 City Directories

Stantec retained a third party vendor (EDR) to research available reverse city directories for the Property, in approximately five-year intervals. The following is a summary of Stantec's review of the city directory listings:

Subject/Adjoining Property	Year	Listed Occupants
Subject Property: 1030 West Foothill Blvd	1990 – 2009	Marie Callenders Restaurant
Adjacent to the Northwest: 1092 West Foothill Blvd	1970-2009	Various gasoline stations
Adjacent North: 1055 West Foothill Blvd	1990-2014	Grocery Store

Subject/Adjoining Property	Year	Listed Occupants
Adjacent East: 1020 West Foothill Blvd	2014	Various dental offices
Adjacent East: 1020 West Foothill Blvd	1985 – 2004	Escrow and real estate offices
Adjacent South: Amador Street	1965-2014	Various residential listings

Name of city directories and source: EDR, 2021

4.4.4 Historical Fire Insurance Maps

Fire insurance maps were developed for use by insurance companies to depict facilities, properties, and their uses for many locations throughout the United States. These maps provide information on the history of prior land use and are useful in assessing whether there may be potential environmental contamination on or near the Property. These maps, which have been periodically updated since the late 19th century, often provide valuable insight into historical Property uses.

Stantec contracted with a third party to search for copies of historical fire insurance maps covering the subject and immediately adjacent properties. No maps were available for the Property.

The Sanborn® Map Search Report is presented in Appendix E.

4.4.5 Historical Topographic Maps

Stantec reviewed historical USGS 7.5-minute Topographic Maps of the Glendora, Mount Baldy, Ontario, La Verne, and San Dimas, California, Quadrangles (scale 1:24,000, 1:20,000, 1:62,500) to help identify past Property usage and areas of potential environmental concern. Copies of the historical maps are provided in Appendix E. The following table summarizes the maps reviewed and our observations.

Year	Scale	Observations, Property and Adjoining Properties
1897; 1898/1900; 1903/1904	1:62,500	No site details are depicted on the Property. No development appears in the surrounding area.
1928	1:24,000	No site details are depicted on the Property. No development appears in the surrounding area. Foothill Boulevard appears adjacent to the north. San Antonio Avenue appears to the west.
1933 1942	1:24,000 1:31,680	The Property is not depicted on the map.
1940	1:20,000	The Property appears similar to the previous map. Minimal development has occurred in the immediate surrounding area.
1944	1:50,000	The Property and surrounding area are depicted as agricultural use. The city of North Pomona appears to the west. Buildings are depicted north of Foothill Boulevard.

Year	Scale	Observations, Property and Adjoining Properties
1953/1954 1954	1:24,000 1:62,500	The Property and surrounding area remain depicted as orchards. A residential development appears to the south.
1966/1967 1972/1973	1:24,000	No site details are depicted on the Property. Dense development appears to the south. Commercial structures appear along Foothill Boulevard.
1976 1981	1:50,000 1:24,000	The Property and surrounding area are depicted as urban development with no site details.
2012	1:24,000	Only road improvements being depicted. Roads appear in the current configuration.

Name of maps and source: EDR, 2021

4.4.6 Other Historical Sources

The user provided Stantec with copies of a Limited Asbestos Containing Material & Lead-Based Paint Survey Report for the former Marie Callender's dated January 29, 2019, prepared by Independent Environmental Consulting LLC. The user also provided waste receipts for the off-site disposal of asbestos waste.

5.0 SITE RECONNAISSANCE

A visit to the Property and its vicinity was conducted by Ms. Alicia Jansen, Associate with Stantec on November 9, 2021. Stantec was unaccompanied during the site reconnaissance. Figure 2 provides information about the Property and adjoining properties and the location of potential areas of environmental concern. Photographs collected during the Property visit are included in Appendix A.

5.1 SITE RECONNAISSANCE METHODOLOGY

The site reconnaissance focused on observation of current conditions and observable indications of past uses and conditions of the Property that may indicate the presence of RECs. The reconnaissance of the Property was conducted on foot and Stantec utilized the following methodology to observe the Property:

- Traverse the outer Property boundary.
- Traverse transects across the Property.

Weather conditions during the visit to the Property were cool and cloudy. There were no weather-related Property access restrictions encountered during the reconnaissance visit.

5.2 GENERAL DESCRIPTION

Property and Area Description:	The Property is located southeast of the intersection of Foothill Boulevard and North Towne Avenue in the City of Claremont, County of Los Angeles, California. The surrounding area consists of residential and commercial properties. A gas station is located adjacent to the northwest.
Property Operations.	Vacant land.
Structures, Roads, Other Improvements:	The Property consists of primarily vacant land. Asphalt parking and a former restaurant were located in the eastern portion of the Property. An asphalt alley is located along the southern perimeter.
Property Size (acres):	Approximately 3.28 acres.
Estimated % of Property Covered by Buildings and/or Pavement:	40%
Observed Current Property Use/Operations:	Vacant land.
Observed Evidence of Past Property Use(s):	Former restaurant.
Sewage Disposal Method (and age):	City of Claremont.
Potable Water Source:	City of Claremont.
Electric Utility:	Southern California Edison

5.3 HAZARDOUS SUBSTANCES AND PETROLEUM PRODUCTS

The following table summarizes Stantec's observations during the Property reconnaissance.

Observations	Description/Location
Hazardous Substances and Petroleum Products as Defined by CERCLA 42 U.S.C. § 9601(14):	None observed.
Drums (≥ 5 gallons):	None observed.
Strong, Pungent, or Noxious Odors:	None detected.
Pools of Liquid:	None observed.
Unidentified Substance Containers:	None observed.
PCB-Containing Equipment:	None observed.
Other Observed Evidence of Hazardous Substances or Petroleum Products:	None observed.

5.4 INTERIOR OBSERVATIONS

Given there are no structures on the Property this section is not applicable.

5.5 EXTERIOR OBSERVATIONS

Stantec made the following observations during the site reconnaissance of exterior areas of the Property and/or identified the following information during the interview or records review portions of the assessment:

Observations	Description
On-site Pits, Ponds, or Lagoons:	None observed.
Stained Soil or Pavement:	None observed.
Stressed Vegetation:	None observed.
Waste Streams and Waste Collection Areas:	None observed.
Solid Waste Disposal:	No areas indicative of solid waste disposal was observed.
Potential Areas of Fill Placement:	No mounds, piles, or depressions suggesting the placement of fill material were observed on the Property.
Wastewater:	No exterior wastewater discharge was observed.
Stormwater:	No evidence of illegal disposal was observed associated with the storm drains.
Wells:	No wells were observed.
Septic Systems:	None observed.

Observations	Description
Other Exterior Observations:	No observed.

5.6 UNDERGROUND STORAGE TANKS/STRUCTURES

Existing USTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface patches), reports, or other evidence of the presence of underground storage tanks (USTs) was discovered during this Phase I ESA.
Former USTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface stains), reports, or other evidence of the former presence of USTs was discovered during this Phase I ESA.
Other Underground Structures:	None observed.

5.7 ABOVEGROUND STORAGE TANKS

Existing ASTs:	No visible evidence reports, or other evidence of the presence of aboveground storage tanks (ASTs) was discovered during this Phase I ESA.
Former ASTs:	No visible evidence (fill pipes, vent pipes, dispensers, surface stains), reports, or other evidence of the former presence of ASTs was discovered during this Phase I ESA.

5.8 ADJOINING PROPERTIES

5.8.1 Current Uses of Adjoining Properties

As viewed from the Property and/or from public rights-of-way, Stantec made the following observations about use and activities on adjoining properties:

NORTH	West Foothill Boulevard beyond which is a gas station, commercial buildings, and a multi-tenant shopping plaza with a grocery store.
EAST	Dental office.
SOUTH	Residential.
WEST	North Towne Avenue beyond which is a 7-11, car wash, and residential.

5.8.2 Observed Evidence of Past Uses of Adjoining Properties

Observations of adjoining properties providing indications of past use and activities, if any, are described below.

NORTH	None observed.
EAST	None observed.
SOUTH	None observed.

WEST	None observed.

5.8.3 Pits, Ponds or Lagoons on Adjoining Properties

As viewed from the Property and/or from public rights-of-way, Stantec made the following observations about the presence of pits, ponds and lagoons on adjoining properties:

NORTH	None observed.
EAST	None observed.
SOUTH	None observed.
WEST	None observed.

5.9 OBSERVED PHYSICAL SETTING

Topography of the Property and Surrounding Area:	The Property was relatively flat.

6.0 INTERVIEW

Mr. Steve Cauffman provided the User with a completed Owner Questionnaire for Phase I Environmental Assessment. Mr. Cauffman has been associated with the Property for approximately 56 years. According to this questionnaire, the Property Owner representative is not aware of any environmental liens, activity and land use limitations, or any RECs associated with the Property. The Property Owner representative is not aware of any AST or USTs or current/former petroleum products or hazardous substances associated with the Property.

7.0 PHASE II ENVIROMENTAL SITE ASSESSMENT

7.1 FIELD INVESTIGATION

The Phase I ESA identified two RECs in connection with the subject Property. These included the historic agricultural use of the property and an adjacent gasoline station where a reported release of gasoline was noted. To assess these two RECs, Stantec completed a Phase II ESA as noted below:

Prior to the commencement of fieldwork activities, Stantec made the following preparations.

7.1.1 Pre-Drilling Activities

- Stantec visited the Property to mark the proposed boring locations. Subsequent to the marking, underground Service Alert (USA) was notified at least 72-hours prior to the commencement of drilling activities; and,
- In accordance with federal Occupational Safety and Health Administration (OSHA) regulations (29 CFR, Section 1910.120), Stantec generated a site-specific Health and Safety Plan (HASP) for the Property. All Stantec personnel and subcontractors associated with the project were required to be familiar with and comply with all provisions of the HASP.

7.1.2 Investigation

To address the RECs listed above, Stantec completed a Phase II ESA in October 2021. Each of the identified RECs, including the historical agricultural use, adjacent gasoline Station, and the potential presence of petromat in the asphalt, were assessed as discussed below.

Stantec provided the services of a field geologist to supervise and direct the advancement of multiple soil and soil vapor borings at the Property. Stantec believes the scope of work was sufficient for purposes of evaluating the environmental issues identified by the Phase I Environmental Site Assessment. All work was conducted under the direct oversight of a State of California professional and included the following:

- A total of 15 soil samples were collected from nine (9) soil borings drilled to a maximum depth of 3 feet below ground surface (bgs) for potential laboratory analysis for organochlorine pesticides (OCPs) by USEPA Method 8010, and arsenic and lead by USEPA Test Method 6010B; and
- Three (3) soil vapor probes were installed adjacent to the adjoining gasoline station at depths of five (5) feet bgs for laboratory analysis of total petroleum hydrocarbons as gasoline (TPHg) and volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Test Method 8260B.

7.1.3 Soil Boring and Sampling Procedures

On November 9, 2021, a hand auger was used to drill the soil borings to a maximum depth of 3 feet bgs. Due to difficult drilling conditions Stantec had to remobilize on November 12, 2021 with a hollow stem auger drilling rig to further advance the borings to the required depth of 5.5 feet bgs. Soil samples collected within the upper three (3) feet were collected by discharging the hand auger contents directly into pre-cleaned laboratory-provided eight-ounce glass jars with Teflon®-lined lids.

The soils from each of the direct push borings were visually examined by Stantec field personnel who classified the soils in accordance with the Unified Soil Classification System (USCS). A photo-ionization detector (PID) was used to monitor/field screen the soils collected. Field screening for VOCs was achieved by removing the soil from the auger and placing it in a zip-lock type baggie. A PID probe was inserted into the baggie to monitor the headspace for VOC vapors.

Following classification and VOC vapor evaluation, the soil samples were carefully packaged for chemical analysis by sealing the glass jars. All sample containers were labeled with the appropriate identification information (boring number, sample depth, sample collection date, and sample collection time).

7.1.4 Soil Vapor Probe Installation

At the completion of drilling to target depth, three soil borings (SV-1, SV-2, and SV-3) were converted to soil vapor monitoring probes at a depth of five (5) feet bgs. Subsurface soil vapor probe installation was performed in accordance with the July 2015 DTSC “Advisory - Active Soil Gas Investigations” (DTSC Advisory).

Each sample probe was constructed with a 1-inch-long Airstone sampling screen set at the prescribed sampling intervals. Each of the sampling screens was constructed with a permeable Airstone vapor tip connected to ¼-inch outer diameter Nylaflow tubing that was lowered to the bottom of the borehole and backfilled with filter sand, until approximately 6-inches of filter pack was placed. A transition seal consisting of approximately 6-inches of dry bentonite was then placed above the filter pack, followed by an annular seal consisting of hydrated bentonite. At the surface, the exposed nylon tubing was capped with tight fitting plastic endcaps and labeled to indicate sampling depth.

7.1.5 Soil Vapor Sampling

Soil vapor samples were collected on November 15, 2021, in accordance with the methods and procedures outlined by the DTSC Advisory, a minimum of 48-hours after installation in order to allow for equilibration.

Prior to sampling, a shut-in test was conducted on the sampling train to ensure all connections and fittings were airtight. The shut-in test was performed on the sampling train by applying a vacuum of 100 inches of water to the sampling train and monitoring magnehelic gauges for a pressure drop for one minute. If loss of vacuum was observed, the fittings were adjusted as needed until no vacuum loss was observed during subsequent shut-in tests.

After the sampling equipment passed the shut-in test, the probes were purged using glass syringes to remove internal air from the sample train (calculated from the internal volume of the tubing and probe tip); the void space of the sand pack around the probe tip; and the void space of the dry bentonite (in the annular space). Three internal volumes were purged from each sampling location at a rate less than 200 milliliters per minute (ml/min).

Immediately following purging the internal volumes, the soil vapor samples were collected by the laboratory technician by connecting a glass syringe to the sampling port with Teflon® or Nylaflow® tubing. A tracer compound of Isopropanol (IPA) was placed above the surface seal and along the sampling train to evaluate the integrity of the seal. No tracer compound was detected in any other soil vapor samples collected during this investigation. One soil vapor sample was collected from each soil vapor probe, and one replicate sample was collected from location SV-3.

7.1.6 Field Equipment Cleaning Procedures

To maintain quality control during drilling operations, all drill rods and reusable soil sampling equipment was decontaminated using a triple bucket rinse. Prior to drilling at a given location or sampling interval, all equipment coming in direct contact with soil samples was scrubbed with an Alconox scrub solution followed by a clean tap water rinse and then a final distilled water rinse. The disposable acetate soil sample liners were used for one sampling interval and then discarded.

7.1.7 Quality Control Sampling

A single (1) replicate soil vapor sample was collected during this investigation. The sample was logged on a chain-of-custody form and delivered to a state certified laboratory for analysis consistent with other primary samples collected during the continued investigation.

7.2 LABORATORY TESTING

All chemical analysis was performed at State of California Certified Laboratories. Collected soil samples were analyzed at Advanced Technology Laboratories (ATL) located in Signal Hill, California. Soil gas samples were analyzed by A&R Laboratories using an on-Site mobile laboratory. All samples were managed under strict chain-of-custody. The results are discussed below and presented on Tables 1 and 2**.** Complete laboratory reports, including QA/QC documentation is included in Appendix F.

7.3 INVESTIGATION RESULTS

7.3.1 Field Observations

On November 9, 2021, Stantec personnel oversaw the advancement of 8 soil borings at the Property (SB-1 through SB-8) to a maximum depth of 3 feet bgs. Soils encountered during this round of assessment primarily consisted of sand with gravel and large cobbles. No staining or odor was observed in any of the borings advanced during this assessment. All boring locations are depicted on Figure 2. Due to the difficult

drilling conditions, Stantec had to remobilize to the Property on November 12, 2021, with a hollow stem auger rig to further advance three borings to 5.5 feet bgs.

7.3.2 Petromat

Additionally, Stantec cored three locations within the existing asphalt parking lot associated with the former restaurant building in the eastern portion of the Property. Petromat was observed in all three locations, however, laboratory analysis determined that there was no detection of asbestos in any of the three locations. Therefore, no further assessment regarding the Petromat appears to be warranted.

7.3.3 Analytical Results

Laboratory analytical test results from this assessment are attached as Appendix F. A summary of the analytical data from this assessment is provided in Tables 1-2. The laboratory test results from this phase of investigation are discussed below and soil vapor results were compared to the more conservative value between the DTSC HERO Note 3 screening level for commercial sites (DTSC, 2020), and the USEPA RSLs for commercial sites (USEPA, 2021), using both the official AF of 0.001 and the screening AF of 0.03, which has not been adopted but which is sometimes used for screening possession. All soil boring locations and soil vapor data from this assessment is summarized on Figure 2.

Soil Results

Historical Agricultural Use

The laboratory reported that only minor detections of the organochlorine pesticides (OCPs), 4,4'-DDE; 4,4'-DDT; and dieldrin, which were present in 4 of the 9 soil samples collected from the 1-foot interval across the Property. These reported concentrations are well below the residential screening levels for these compounds. No other OCPS were reported at concentrations above the laboratory reporting limits.

Arsenic was reported in all 9 soil samples at concentrations ranging from 3.1 to 9.1 milligrams per kilogram (mg/kg). The reported arsenic concentrations were above the residential screening level of 0.41 mg/kg; however, the reported concentrations were within typical naturally occurring southern California Background levels (Table 1).

Lead was reported in all 9 soil samples at concentrations ranging from 15 to 160 mg/kg (Table 1). Two of these samples (SB-1-1 and SB-2-1) had detections of 110 and 160 mg/kg which are above the DTSC HERO Note 3 residential screening level of 80 mg/kg. The deeper soil samples from these two locations (SB-1-2 and SB-2-3) were analyzed and reported concentrations of 47 mg/kg and 45 mg/kg, respectively.

7.3.3.1 Soil Vapor Results

No detections of TPHg or VOCs above the laboratory reporting limit were reported.

7.3.3.2 Quality Control Results

The leak check compound Isopropanol was not detected in any of the soil vapor samples.

8.0 EVALUATION

This section provides a summary overview of or Findings, Opinions, and Conclusions.

8.1 FINDINGS AND OPINIONS

Information gathered from interviews, reviews of existing data, and a Property inspection was evaluated to determine if RECs are present in connection with the Property. Based on this information, Stantec made the following findings and developed the following opinions.

- The Property was historically used for agricultural activities (orchards) until circa 1970. Application of pesticides and herbicides containing heavy metals are commonly used in at these facilities, sometimes resulting in the accumulation of chemicals in shallow soils. Therefore, Stantec recommended evaluating shallow soil across the former orchard areas of the Property to determine if residual organochlorine pesticides and/or heavy metals (arsenic and lead) are present at concentrations of concern for development.

  To evaluate historical agricultural activities, Stantec advanced nine (9) soil borings to a maximum depth of 3-feet bgs on November 9, 2021. Soil samples were collected from 1-foot, 2-feet, and/or 3-feet bgs and submitted for potential laboratory analysis of OCPs by EPA Method 8081A and arsenic/lead by EPA Method 6010B. Stantec believes the scope of work was sufficient for purposes of evaluating the historical agricultural use of the Property. The deeper soil samples were placed on hold pending the analysis of the 1-foot sample.

  The laboratory reported that only minor detections of the pesticides 4,4'-DDE; 4,4'-DDT; and dieldrin which were present in 4 of the 9 soil samples collected from the 1-foot interval across the Property. These reported concentrations are well below the residential screening levels for these compounds. No other OCPS were reported at concentrations above the laboratory reporting limits. As a result of this data, OCPs are no longer considered a REC to the Site.

  Arsenic was reported in all 9 soil samples at concentrations ranging from 3.1 to 9.1 milligrams per kilogram (mg/kg). The reported arsenic concentrations were above the residential screening level of 0.41 mg/kg; however, the reported concentrations were within typical naturally occurring southern California Background levels (Table 1). As a result of this data, arsenic is no longer considered a REC to the Site.

  Lead was reported in all 9 soil samples at concentrations ranging from 15 to 160 mg/kg (Table 1). Two of these samples (SB-1-1 and SB-2-1) had detections of 110 and 160 mg/kg which are above the DTSC HERO Note 3 residential screening level of 80 mg/kg. The deeper soil samples from these two locations (SB-1-2 and SB-2-3) were analyzed and reported concentrations of 47 mg/kg and 45 mg/kg, respectively. The elevated lead concentrations are considered a REC. Further delineation

around SB-1 and SB-2 is recommended to estimate the quantity of lead impacted soil to be removed; however, the lead impacts appear to be localized to the upper 2 feet of soil

- An environmental records search was performed and identified sites within their respective ASTM E 1527-13 search radii of the Property that may represent RECs, HRECs, or *de minimis* conditions.

  According to the environmental database report, the adjacent gasoline service station received closure from the Los Angeles Department of Public Works on May 13, 2013. However, given no soil vapor data was available, which is now industry standard for sites like this, Stantec recommended performing a subsurface assessment to determine if there are elevated concentrations in soil vapor beneath the Property that would require further assessment or remedial action prior to development.

  On November 12, 2021, Stantec advanced three locations (SV-1, SV-2, and SV-3) to approximately 5.5-feet bgs and soil vapor probes were installed at 5-feet bgs. A hollow-stem auger rig was utilized for borehole advancement due to difficult drilling conditions (i.e. large cobbles). Soil vapor samples were collected and analyzed with a mobile laboratory on November 15, 2021. No detections of total petroleum hydrocarbons as gasoline (TPHg) or volatile organic compounds (VOCs) were detected above laboratory reporting limits. Therefore, the adjacent gasoline station is not considered a REC to the Property.

- An asphalt parking lot associated with a former restaurant is located in the eastern portion of the Property. Stantec cored three locations within the existing asphalt parking lot associated with the former restaurant building in the eastern portion of the Property. Petromat was observed in all three locations, however, laboratory analysis determined that there was no detection of asbestos in any of the three locations. Therefore, no further assessment regarding the Petromat appears to be warranted.

8.2 DATA GAPS

The federal AAI final rule [40 CFR 312.10(a)] and ASTM E1527-13 identify a “data gap” as the lack or inability to obtain information required by the standards and practices of the rule despite good faith efforts by the Environmental Professional or the User.

Any data gaps resulting from the Phase I ESA described in this report are listed and discussed below.

Gap	Discussion
Deletions or Exceptions from Scope of Work Referenced in Section 1.4:	None.
Weather-Related Restrictions to Site Reconnaissance:	None.
Facility Access Restrictions to Site Reconnaissance:	None.

Gap	Discussion
Other Site Reconnaissance Restrictions:	None.
Data Gaps from Environmental Records Review:	None.
Data Gaps from Historical Records Review:	None.
Data Gaps from Interviews:	None.
Other Data Gaps:	None.

8.3 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of the property addressed 1030 West Foothill Boulevard, City of Claremont, County of Los Angeles, California 91740, collectively the "Property". Any exceptions to, or deletions from, this practice are described in the Data Gaps section of this report. This assessment has revealed the following evidence of the following REC in connection with the Property:

- **Elevated Lead Impacts to Soil.** The elevated lead detected in soil samples collected from the 1-foot interval at borings SB-1 and SB-2 should be further characterized to determine the lateral extent of the impact. Based on the are considered a REC, given they exceed the residential screening levels for this metal. The lead impacts appearing to be localized to the upper 2 feet of soil. Further delineation around SB-1 and SB-2 is recommended to estimate the quantity of lead impacted soil to be removed.

9.0 NON-SCOPE CONSIDERATIONS

The scope of work completed was limited solely to those items in the ASTM E1527-13 standard. No ASTM E1527-13 non-scope services were performed as part of this Phase I ESA.

9.1 LEAD-BASED PAINT

Concern for lead-based paint (LBP) is primarily related to residential structures. The EPA's Final Rule on Disclosure of Lead-Based Paint in Housing (40 CFR Part 745) defines LBP as paint or other surface coatings that contain lead equal to or in excess of 1.0 milligram per square centimeter or 0.5 percent by weight.

The risk of lead toxicity in LBP varies based upon the condition of the paint and the year of its application. The U.S. Department of Housing and Urban Development (HUD) has identified the following risk factors:

- The age of the dwelling as follows: maximum risk is from paint applied before 1950.
- There is severe risk from paint applied before 1960.
- There is moderate risk from deteriorated paint applied before 1970.
- There is slight risk from the paint that is intact but applied before 1977.
- The condition of the painted surfaces.
- The presence of children and certain types of households in the building.
- Previously reported cases of lead poisoning in the building or area.

Given there are no structures present, LBP is not considered an environmental concern to the Property.

9.2 ASBESTOS

Asbestos can be found in many applications, including sprayed-on or blanket-type insulation, pipe wraps, mastics, floor and ceiling tiles, wallboard, mortar, roofing materials, and a variety of other materials commonly used in construction. The greatest asbestos-related human health risks are associated with friable asbestos, which is ACM that can be reduced to powder by hand pressure. Friable asbestos can become airborne and inhaled, which has been associated with specific types of respiratory disease. The manufacturing and use of asbestos in most building products was curtailed during the late 1970s.

Stantec makes no warranty as to the possible existence or absence of inaccessible materials or to their evaluation with respect to asbestos content. Samples of suspect ACM should be collected for laboratory analysis of asbestos prior to any renovation or building demolition to be compliant with, EPA National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations.

Given there are no structures present, ACMs are not considered an environmental concern to the Property. Stantec cored through the asphalt to see of Petromat, which sometimes contains asbestos, was present – but the results were "non-detect" for asbestos and Stantec recommends no further action or investigation regarding this issue.

9.3 RADON

Radon is a colorless, tasteless radioactive gas with an EPA-specified action level of 4.0 PicoCuries per liter of air (pCi/L) for residential properties. Radon gas has a very short half-life of 3.8 days. The health risk potential of radon is primarily associated with its rate of accumulation within confined areas near or in the ground, such as basements, where vapors can readily transfer to indoor air from the ground through foundation cracks or other pathways. Large, adequately ventilated rooms generally present limited risk for radon exposure. The radon concentrations in buildings and homes depend on many factors, including soil types, temperature, barometric pressure, and building construction (EPA, 1993).

Stantec reviewed regional data published by the EPA on average indoor radon concentrations in the vicinity of the Property (http://www.epa.gov/radon/zonemap.html).

EPA Radon Zones (w/Average Measured Indoor Radon concentrations)		
Zone 1 – High (>4.0 pCi/L)	Zone 2 – Moderate (2 to 4 pCi/L)	Zone 3 – Low (<2 pCi/L)
	X	
Normally occupied sub grade areas present? (i.e., basement apartments, offices, stores, etc.)		
No subgrade areas are located within the Property boundaries.		

The Property is located in Zone 2 and is considered to have moderate potential for radon. None of the 36 tests within Zip code 91711 (the Zip code of the Property) had a detection above 4 pCi/L. To determine Property-specific radon levels, a radon survey would have to be conducted. However, because no subgrade areas are located within the Property boundary, further investigation of indoor radon issues does not appear to be warranted.

9.4 FLOOD ZONES

According to the Physical Setting summary portion of the EDR report, the Property is not located within a Floor Hazard Area.

10.0 REFERENCES

American Society for Testing and Materials, 2015, Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, Designation E 2600-15.

American Society for Testing and Materials, 2013, Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process, Designation: E 1527-13.

Department of Toxic Substances and Control, 2021, website http://www.envirostor.dtsc.ca.gov/public/

Environmental Data Resources, Inc. (EDR), EDR Radius Map with Geocheck, Inquiries Number 6725947.2s, dated October 28, 2021.

_____, Certified Sanborn Map Report, Inquiries Number 6725947.3, dated October 28, 2021.

_____, Historical Topographic Map Report, Inquiries Number 6725947.4, dated October 28, 2021.

_____, Aerial Photo Decade Package, Inquiries Number 6725947.8, dated October 29, 2021.

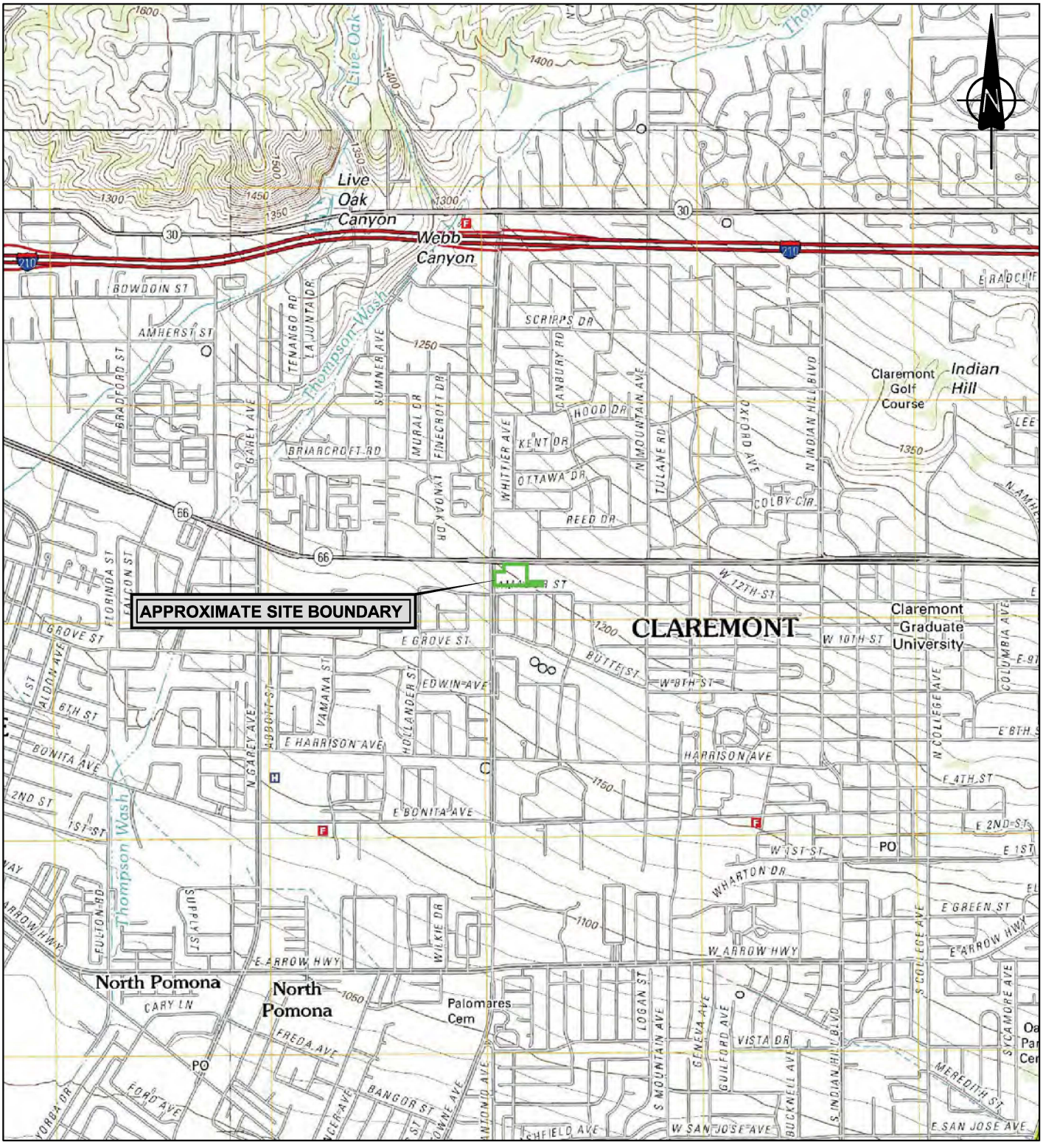
_____, City Directory Abstract, Inquiries Number 6725947.5, dated October 29, 2021.

State Water Resource Control Board's Geotracker, 2021, website https://geotracker.waterboards.ca.gov/

United States Geological Survey (USGS), 2012, Glendora Quadrangle, 7.5 Minute Topographic Map, Scale 1 inch = 2,000 feet.

United States Geological Survey, 2020, U.S. Quaternary Faults, https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf

FIGURES



NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC SERVICES INC. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

PROPERTY LOCATION MAP

PHASE I ENVIRONMENTAL SITE ASSESSMENT

1030 WEST FOOTHILL BOULEVARD, CLAREMONT, CA 91711

Client:	THE OLSON COMPANY
Project No.:	185805394
Scale:	AS SHOWN
Date:	21/11/18
Dwn. By:	CD DM SC2021110025
App'd By:	KE
Fig. No.:	1

Stantec

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Stantec Consulting Ltd. © 2021





LEGEND

- ● BORING LOCATIONS
- APPROXIMATE PROPERTY BOUNDARY

0 50 100 150 200 FT

SCALE : AS SHOWN

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

PROPERTY DETAILS

PHASE I ENVIRONMENTAL SITE ASSESSMENT

1030 WEST FOOTHILL BOULEVARD, CLAREMONT, CA 91711

Client:	THE OLSON COMPANY
Project No.:	185805394
Scale:	AS SHOWN
Date:	21/11/18
Dwn. By:	CD DM SC2021110026
App'd By:	KE
Fig. No.:	2

Stantec

TABLES

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS - Arsenic, Lead, and OCPs
1030 West Foothill Bouelvard,
Claremont, CA 91711

Sample ID	Sample Depth (feet)	Sample Date	Arsenic and Lead by 6010B		OCPs by 8081A			
			Arsenic	Lead	4,4'-DDD	4,4'-DDE	4,4'-DDT	Various
DTSC HERO Note 3 (Residential)			***0.41***	***80***	***1.9***	***23***	***37***	**Various**
California Background Levels [2]			***0.6 - 11.0***	***12.4 - 97.1***	***NE***	***NE***	***NE***	**Various**
SB-1-1	1	11/9/21	**5.4**	**160**	<0.0020	<0.0020	**0.0028**	<various
SB-1-2	2	11/9/21	NA	**47**	NA	NA	NA	NA
SB-2-1	1	11/9/21	**5.0**	**110**	<0.0020	**0.026**	**0.0091**	<various
SB-2-3	3	11/9/21	NA	**45**	NA	NA	NA	NA
SB-3-1	1	11/9/21	**6.1**	**69**	<0.0020	<0.0020	<0.0020	<various
SB-4-1	1	11/9/21	**4.9**	**45**	<0.0020	<0.0020	<0.0020	<various
SB-5-1	1	11/9/21	**4.5**	**50**	<0.0040	**0.072**	**0.011**	**dieldrin = 0.027**
SB-6-1	1	11/9/21	**9.1**	**56**	<0.0040	<0.0040	<0.0040	<various
SB-7-1	1	11/9/21	**4.3**	**37**	<0.0040	<0.0040	<0.0040	<various
SB-8-1	1	11/9/21	**3.1**	**15**	<0.010	<0.010	<0.010	<various
SB-9-1	1	11/9/21	**3.7**	**64**	<0.0020	**0.0034**	**0.0021**	<various

Notes:

All concentrations reported in miligrams per kilogram (mg/kg).

(1) - More conservative screening level between SFRWQCB ESLs (2019) and DTSC HERO Note 3 (June, 2020).

SFRWQCB ESL - San Francisco Bay Regional Water Quality Control Board Environmental Screening Level Tier 1 for Residential Land Use

DTSC - Department of Toxic Substance Control

HERO HHRA - Human and Ecological Risk Office Human Health Risk Assessment

NA - Not Analyzed

NE - Not Established

RSL - Regional Screening Level

OCPs - Organochlorine Pesticides

TABLE 2
SUMMARY OF SOIL VAPOR ANALYTICAL RESULTS
1030 West Foothill Bouelvard,
Claremont, CA 91711

Sample ID	Sample Depth Below Original Grade (feet)	Sample Volume[1]	Sample Date	Tracer Compounds (LCC)	TPH-GRO	Benzene	PCE	TCE	Toluene	Other VOCs
Residential Screening Level for Soil Vapor using RSL or HERO NOTE 3 and Attenuation Factor of 0.03 [2] [3]				*NE*	***3,300***	***3.2***	***15.3***	***16***	***10,333***	***various***
Residential Screening Level for Soil Vapor using RSL or HERO NOTE 3 and Attenuation Factor of 0.001 [2] [3]				*NE*	***--***	***97***	***460***	***480***	***310,000***	***various***
SV-1	5	3	11/15/2021	<65.0	<625	<3.1	<6.5	<6.5	<6.5	<various
SV-2	5	3	11/15/2021	<65.0	<625	<3.1	<6.5	<6.5	<6.5	<various
SV-3	5	3	11/15/2021	<65.0	<625	<3.1	<6.5	<6.5	<6.5	<various

Notes:

All concentrations reprted in microgramper cubic meter ($\mu g/m^3$)

(1) - Sample analyzed by on-site mobile lab.

(2) - More conservative screening level between USEPA Region 9 RSL (May, 2020) and DTSC HERO Note 3 (June, 2020); San Francisco Bay Regional Water Quality Control Board ESLs (January 2019) used for TPH screening with AF of 0.03.

(3) - Most conservative screening level between USEPA Region 9 RSL (May, 2020) and DTSC HERO Note 3 (June, 2020); San Francisco Bay Regional Water Quality Control Board ESLs (January 2019) with AF of 0.001.
(DTSC CAL EPA, October 2011 Final Guidance for the Evaluation and Mitigation of Substance Vapor Intrusion to Indoor Air).

"<" - Results reported below Laboratory Reporting Limit.

CA EPA - California Environmental Protection Agency

DTSC - Department of Toxic Substance Control

EPA - United States Environmental Protection Agency

HERO - Human and Ecological Risk Office

NE - Not Established

PCE - Tetrachloroethene

TCE - Trichloroethene

VOCs - Volatile Organic Compounds

Green shading indicates value above the RSLs or HERO Note 3 (0.03 attenuation factor) commercial screening level.

Orange shading indicates value at or above the RSLs or HERO Note 3 (0.001 attenuation factor) commercial screening level.

Appendix D
Preliminary Hydrology Study

ALAN R. SHORT, P.E.

PRELININARY HYDROLOGY STUDY

FOR

CITY OF CLAREMONT

TENTATIVE TRACT NO. 83751
1830 West Foothill Blvd.

PREPARED FOR:

THE OLSON COMPANY
3010 OLD RANCH PARKWAY, SUITE 100
SEAL BEACH, CA. 92740

PREPARED BY:

Alan R Short

ALAN R. SHORT, P.E.
RCE 30873, EXPIRES 3/31/24



Latest Revision: July 5, 2022

7263 W. GALEN DR.
HERRIMAN, UT 84096
(949) 586-5200
ALANSHORTPE@GMAIL.COM

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1. Introduction / Summary

2. Existing Hydrology Calculations

- **10-Year Storm Event**
- **50-Year Storm Event**

3. Proposed Condition Hydrology Calculations

- **10-Year Storm Event**
- **50-Year Storm Event**
- **85th Percentile SUSMP**

Appendices:

- **Existing Hydrology Map**
- **Proposed Hydrology Map**
- **FEMA Flood Map**

1. Introduction / Summary

This is a preliminary drainage and Standard Urban Stormwater Mitigation Plan (SUSMP) study for the proposed multifamily development, Tentative Tract No. 83751, a 3.05 acre property located in the southeast corner of the Foothill Boulevard and Town Avenue intersection, in the City of Claremont, Los Angeles County, California, as shown on the following Vicinity Map.

The existing site (Area "A") comprises of a vacant lot in the westerly portion, and an asphalt parking lot with a dirt pad in the location of a previously demolished commercial structure. There is also an off-site adjacent area on the East that drains into the site (Area "B"). This off-site area and existing site generally drain in a southwesterly direction, via an alley gutter along the South of the property, and surface flows into into Town Avenue, as shown on the Existing Hydrology and Off-site Hydrology Maps.

In the proposed condition, the majority of the storm runoff will be collected using a private area drain system consisting of PVC pipes and area drain inlets (Area "C"). The drainage pattern in the existing and proposed conditions are consistent. Since the site is in a flow-by condition, the on-site storm drain system will be designed for the 10-Year Storm Event.

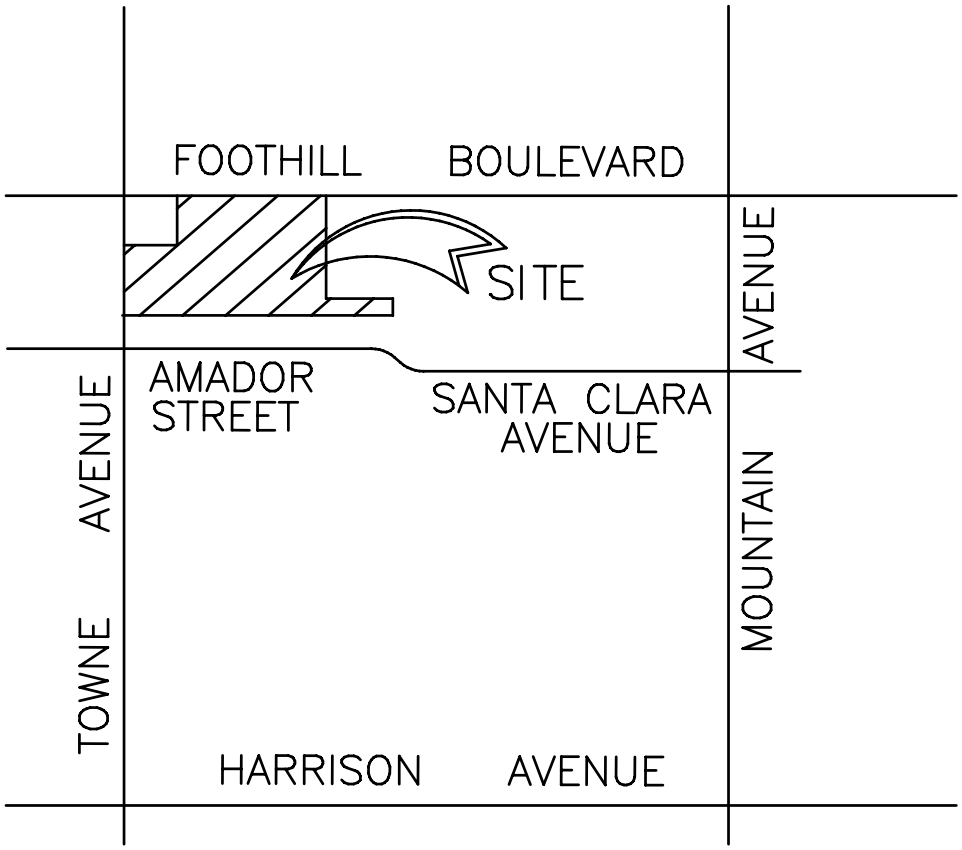
Proposed storm flows collected in the pipe system will be combined in the southwesterly corner of the property using a proposed bubble up catch basin. Initial flows will be diverted to a proposed drywell system and storge pipe that will infiltrate the required 85th percentile storm and the remaining flows will bubble up and surface flow into Town Avenue matching the existing flow pattern. For storms exceeding the 10-Year event, the site will continue to surface drain to Towne Ave., and all Pads and Finished Floors of the proposed buildings will be protected.

Currently, the site does not have any water quality features, however, in the developed condition, the proposed drywells will be used for infiltration for water quality purposes. The 85th percentile flow calculations are provided in this report.

Utilizing the County of Los Angeles' *HydroCals* software, Rational Method Hydrology was performed to calculate the 10- and 50-Year Storm Event flow rates. Using the same software, the Standard Urban Stormwater Mitigation Plan (SUSMP) flow rate was also computed based on the 85th percentile rainfalls as shown on the exhibit from the http://ladpw.org/wrd/hydrologygis/ Website. The results are as follows:

	Pre-Development (Area "A")	Post-Development (Area "C")	Off-Site (Area "B")
10-Year	3.7 cfs	5.4 cfs	5.7 cfs
50-Year	7.5 cfs	9.3 cfs	9.2 cfs
85th Percentile		0.55 cfs	

Per the National Flood Hazard Layer FIRMette (copy attached), the property is located within Flood Zone "X", as defined, *"0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with discharge areas of less than one square mile".*



N

CLAREMONT

VICINITY MAP

NTS THOMAS GUIDE: 601, B–2

2. Existing Hydrology Calculations

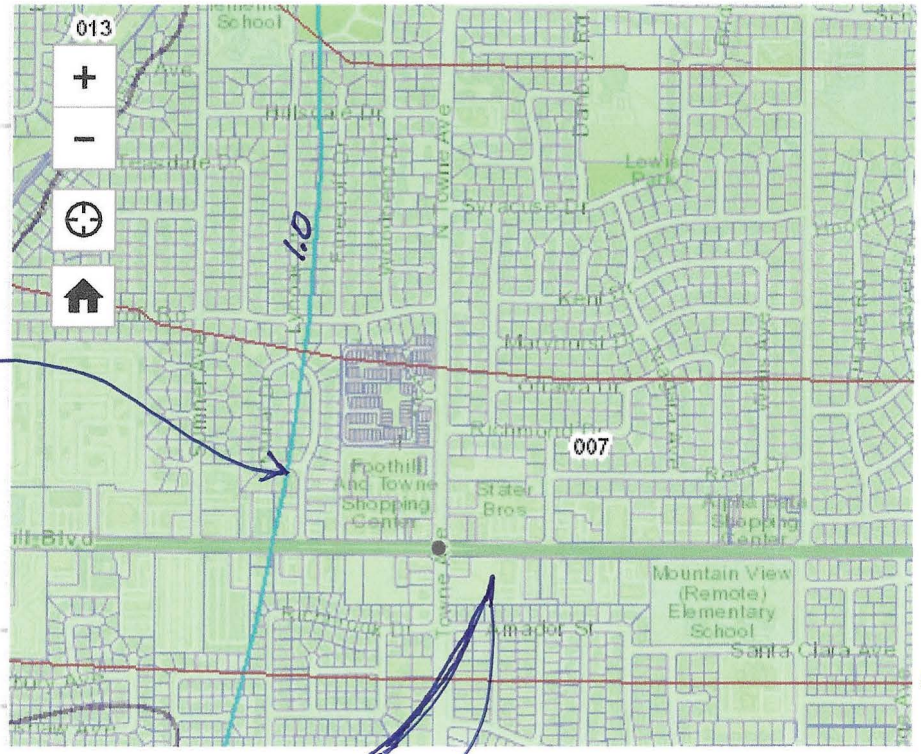
10-Year Storm Event
50-Year Storm Event

About | Legend | Layers

LA County Hydrology Map

Layers

- [x] Hydrology GIS
  - [x] 50yr Two Tenths (Rainfall)
  - [ ] DPA Zones
  - [x] Soils 2004
  - [x] Final 85th Percentile, 24-hr Rainfall
  - [ ] 1-year, 1-hour Rainfall Intensity
  - [ ] Final 95th Percentile, 24-hr Rainfall
- [x] LA County Parcels





	TOTAL AREA	3.05 AC
	PERVIOUS AREA	2.33 AC
	% PERVIOUS	76.4 %
	% IMPERVIOUS	23.6 %

PERVIOUS AREA
EXISTING CONDITION
TENTATIVE TRACT NO. 83751
CLAREMONT

LATEST REVISION: 4/4/22

Peak Flow Hydrologic Analysis

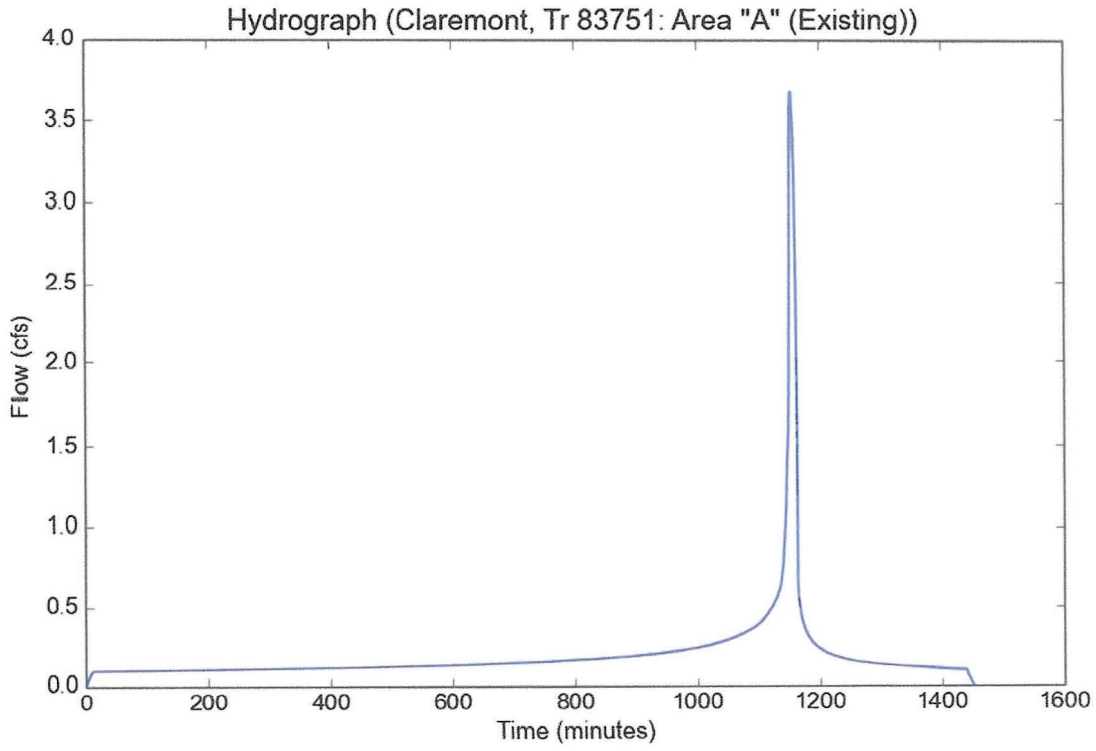
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Version: HydroCalc 1.0.2

Input Parameters

Project Name	Claremont, Tr 83751
Subarea ID	Area "A" (Existing)
Area (ac)	3.05
Flow Path Length (ft)	750.0
Flow Path Slope (vft/hft)	0.0197
50-yr Rainfall Depth (in)	6.93
Percent Impervious	0.236
Soil Type	7
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	4.948
Peak Intensity (in/hr)	1.9563
Undeveloped Runoff Coefficient (Cu)	0.5276
Developed Runoff Coefficient (Cd)	0.6155
Time of Concentration (min)	12.0
Clear Peak Flow Rate (cfs)	3.6726
Burned Peak Flow Rate (cfs)	3.6726
24-Hr Clear Runoff Volume (ac-ft)	0.3935
24-Hr Clear Runoff Volume (cu-ft)	17139.5692



Peak Flow Hydrologic Analysis

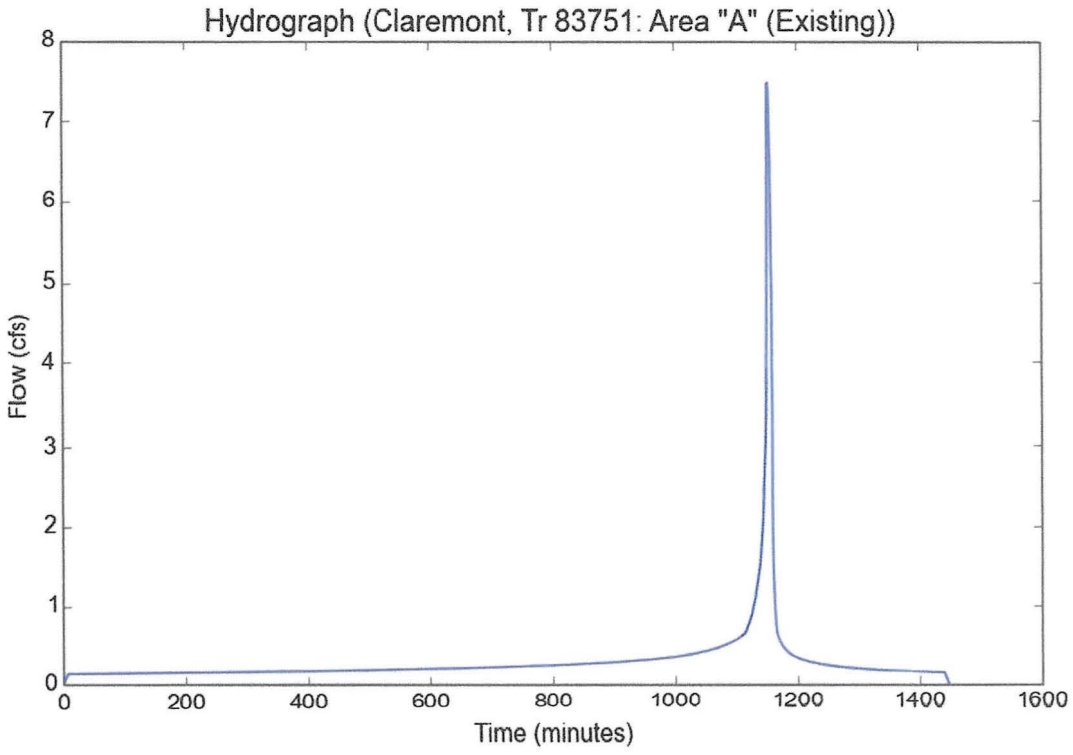
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Version: HydroCalc 1.0.2

Input Parameters

Project Name	Claremont, Tr 83751
Subarea ID	Area "A" (Existing)
Area (ac)	3.05
Flow Path Length (ft)	750.0
Flow Path Slope (vft/hft)	0.0197
50-yr Rainfall Depth (in)	6.93
Percent Impervious	0.236
Soil Type	7
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	6.93
Peak Intensity (in/hr)	3.3151
Undeveloped Runoff Coefficient (Cu)	0.6892
Developed Runoff Coefficient (Cd)	0.739
Time of Concentration (min)	8.0
Clear Peak Flow Rate (cfs)	7.4718
Burned Peak Flow Rate (cfs)	7.4718
24-Hr Clear Runoff Volume (ac-ft)	0.5786
24-Hr Clear Runoff Volume (cu-ft)	25203.5584



Peak Flow Hydrologic Analysis

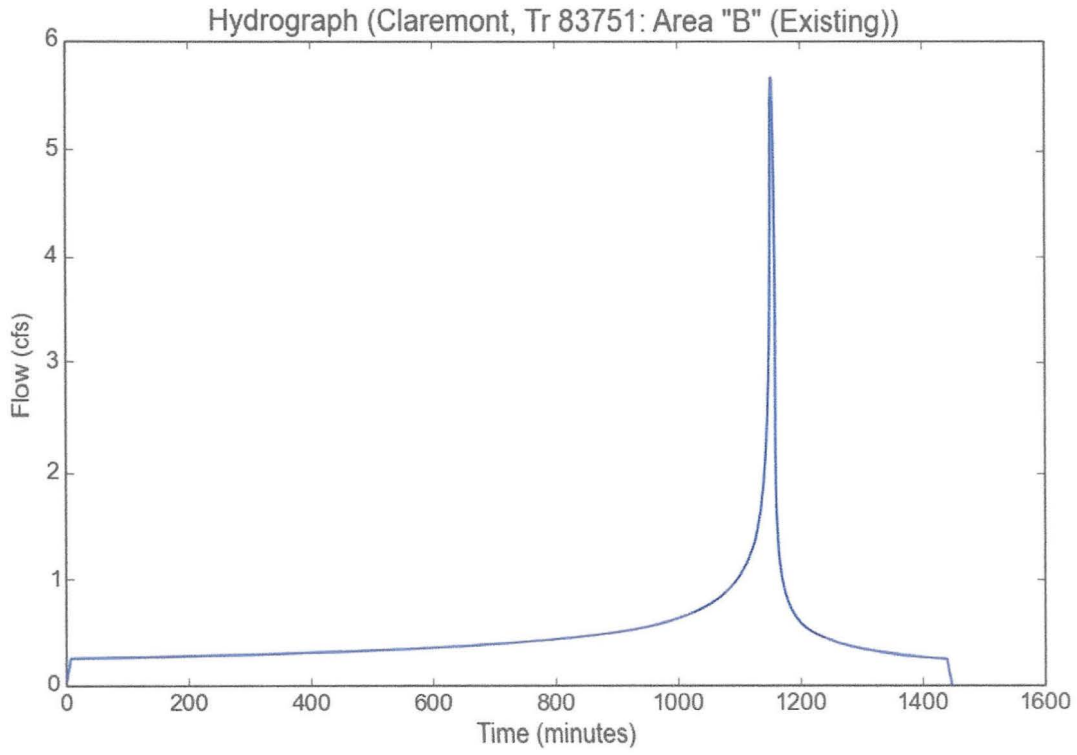
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Version: HydroCalc 1.0.2

Input Parameters

Project Name	Claremont, Tr 83751
Subarea ID	Area "B" (Existing)
Area (ac)	2.75
Flow Path Length (ft)	600.0
Flow Path Slope (vft/hft)	0.0245
50-yr Rainfall Depth (in)	6.93
Percent Impervious	0.9
Soil Type	7
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	4.948
Peak Intensity (in/hr)	2.367
Undeveloped Runoff Coefficient (Cu)	0.5883
Developed Runoff Coefficient (Cd)	0.8688
Time of Concentration (min)	8.0
Clear Peak Flow Rate (cfs)	5.6554
Burned Peak Flow Rate (cfs)	5.6554
24-Hr Clear Runoff Volume (ac-ft)	0.9262
24-Hr Clear Runoff Volume (cu-ft)	40346.1325



Peak Flow Hydrologic Analysis

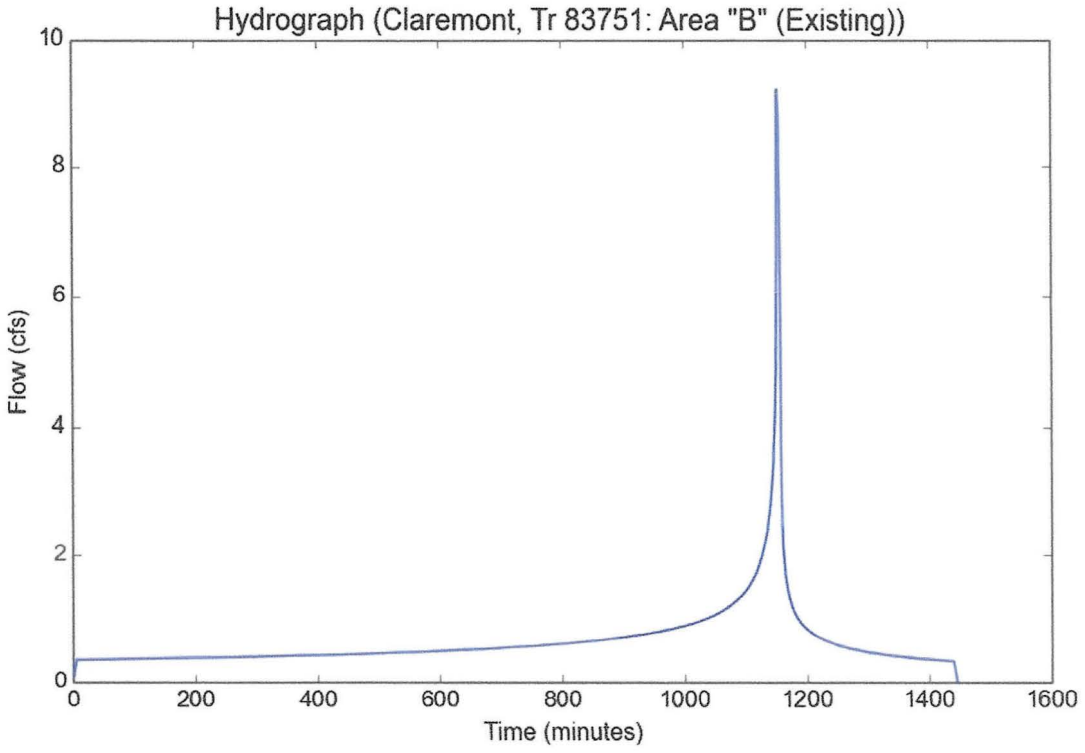
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Version: HydroCalc 1.0.2

Input Parameters

Project Name	Claremont, Tr 83751
Subarea ID	Area "B" (Existing)
Area (ac)	2.75
Flow Path Length (ft)	600.0
Flow Path Slope (vft/hft)	0.0245
50-yr Rainfall Depth (in)	6.93
Percent Impervious	0.9
Soil Type	7
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	6.93
Peak Intensity (in/hr)	3.7951
Undeveloped Runoff Coefficient (Cu)	0.7289
Developed Runoff Coefficient (Cd)	0.8829
Time of Concentration (min)	6.0
Clear Peak Flow Rate (cfs)	9.2143
Burned Peak Flow Rate (cfs)	9.2143
24-Hr Clear Runoff Volume (ac-ft)	1.3004
24-Hr Clear Runoff Volume (cu-ft)	56643.2714



3. Proposed Condition Hydrology Calculations

10-Year Storm Event
50-Year Storm Event
85th Percentile SUSMP

FOOTHILL BLVD.

TOWNE AVENUE

N

1"=40'

	TOTAL AREA	3.05 AC
	PERVIOUS AREA	0.60 AC
	% PERVIOUS	19.7 %
	% IMPERVIOUS	80.3 %

PERVIOUS AREA
PROPOSED CONDITION
TENTATIVE TRACT NO. 83751
CLAREMONT

LATEST REVISION: 4/4/22

Peak Flow Hydrologic Analysis

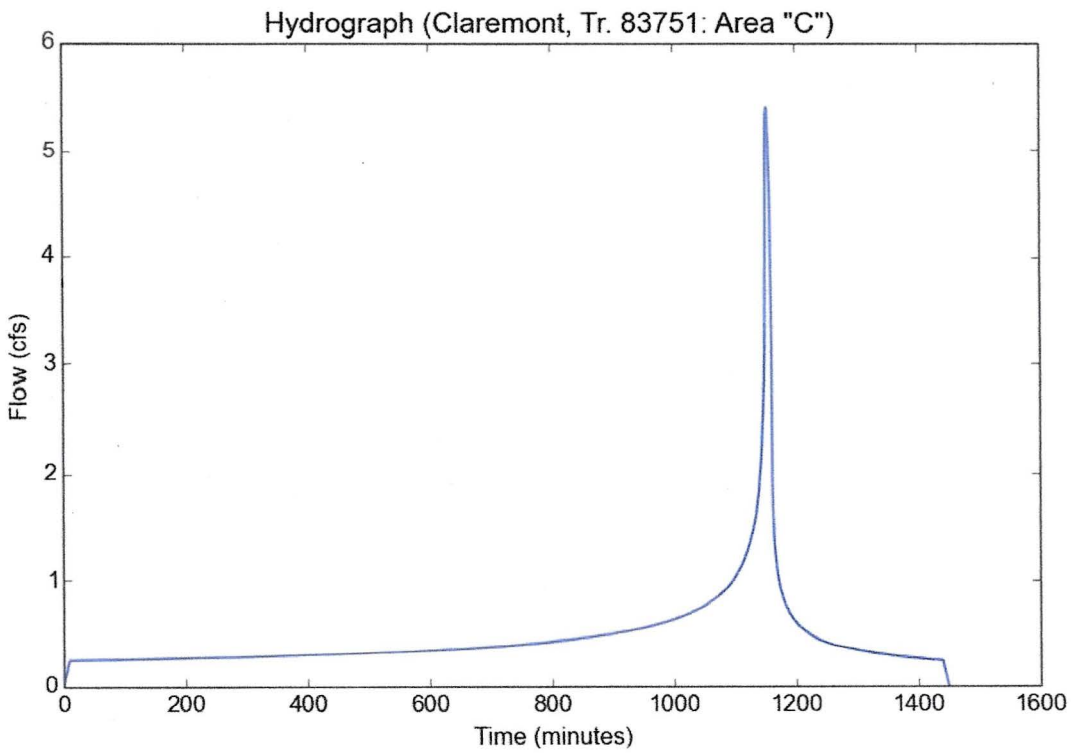
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Version: HydroCalc 1.0.2

Input Parameters

Project Name	Claremont, Tr. 83751
Subarea ID	Area "C"
Area (ac)	3.05
Flow Path Length (ft)	760.0
Flow Path Slope (vft/hft)	0.0188
50-yr Rainfall Depth (in)	6.93
Percent Impervious	0.803
Soil Type	7
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	4.948
Peak Intensity (in/hr)	2.1313
Undeveloped Runoff Coefficient (Cu)	0.5549
Developed Runoff Coefficient (Cd)	0.832
Time of Concentration (min)	10.0
Clear Peak Flow Rate (cfs)	5.4085
Burned Peak Flow Rate (cfs)	5.4085
24-Hr Clear Runoff Volume (ac-ft)	0.9347
24-Hr Clear Runoff Volume (cu-ft)	40715.8249



Peak Flow Hydrologic Analysis

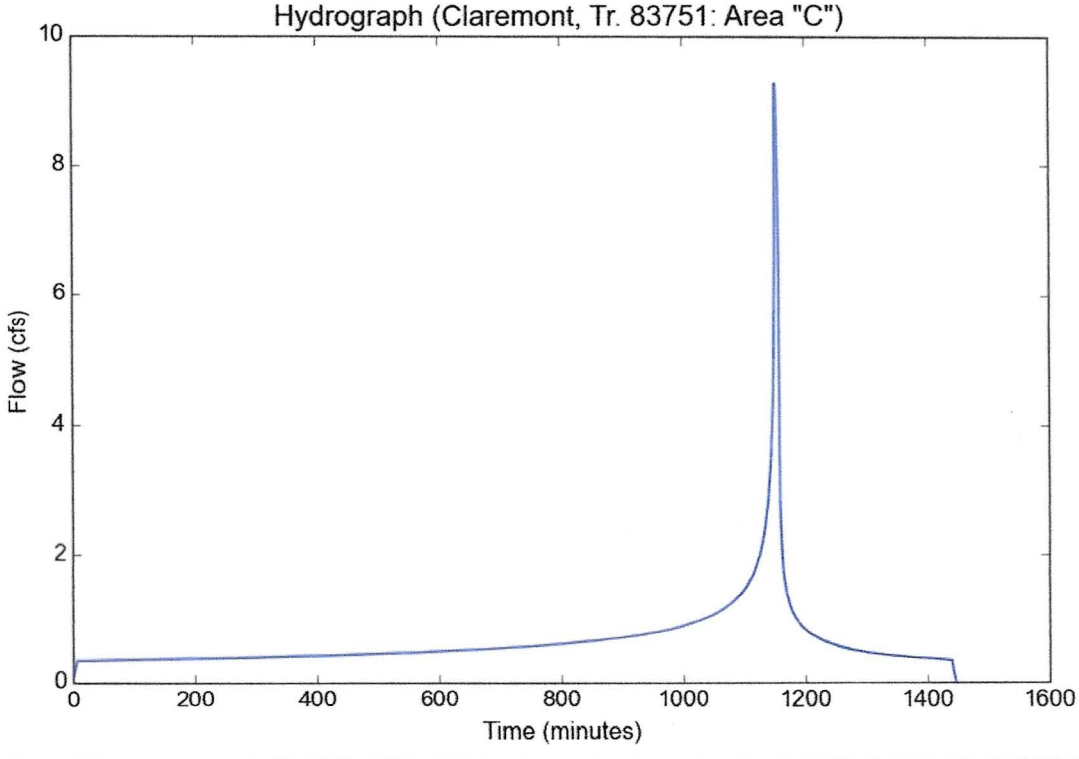
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Version: HydroCalc 1.0.2

Input Parameters

Project Name	Claremont, Tr. 83751
Subarea ID	Area "C"
Area (ac)	3.05
Flow Path Length (ft)	760.0
Flow Path Slope (vft/hft)	0.0188
50-yr Rainfall Depth (in)	6.93
Percent Impervious	0.803
Soil Type	7
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	6.93
Peak Intensity (in/hr)	3.5299
Undeveloped Runoff Coefficient (Cu)	0.707
Developed Runoff Coefficient (Cd)	0.862
Time of Concentration (min)	7.0
Clear Peak Flow Rate (cfs)	9.2801
Burned Peak Flow Rate (cfs)	9.2801
24-Hr Clear Runoff Volume (ac-ft)	1.316
24-Hr Clear Runoff Volume (cu-ft)	57327.1268



Peak Flow Hydrologic Analysis

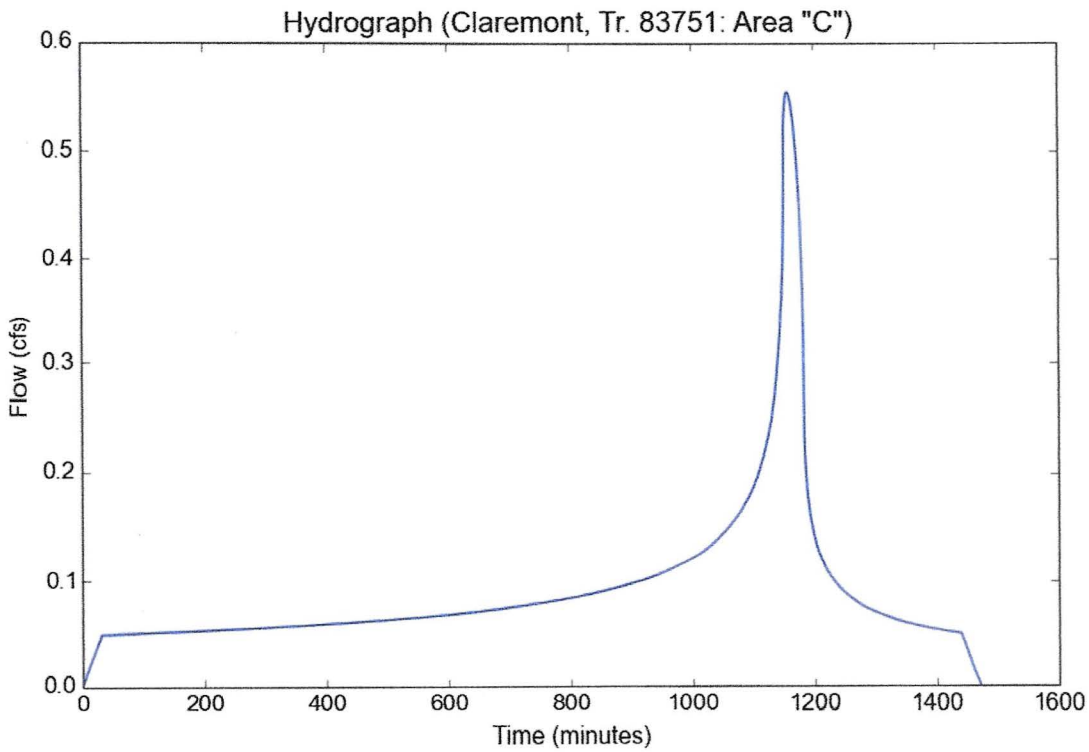
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Version: HydroCalc 1.0.2

Input Parameters

Project Name	Claremont, Tr. 83751
Subarea ID	Area "C"
Area (ac)	3.05
Flow Path Length (ft)	760.0
Flow Path Slope (vft/hft)	0.0188
85th Percentile Rainfall Depth (in)	0.98
Percent Impervious	0.803
Soil Type	7
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	0.98
Peak Intensity (in/hr)	0.2444
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.7424
Time of Concentration (min)	32.0
Clear Peak Flow Rate (cfs)	0.5533
Burned Peak Flow Rate (cfs)	0.5533
24-Hr Clear Runoff Volume (ac-ft)	0.1834
24-Hr Clear Runoff Volume (cu-ft)	7988.6255



Appendix E

Development Planning Document (LID Plan)

PLANNING DEVELOPMENT DOCUMENT

CLAREMONT TENTATIVE TRACT NO. 83751

1030 W. Foothill Blvd.
Claremont, CA 91711
APN: 8311-001-016

Single-Family Residential

Prepared for:
THE OLSON COMPANY
3010 Old Ranch Parkway, Suite 100
Seal Beach, CA 90740
(562) 596-4770

Prepared by:
ALAN R. SHORT, P.E.
7263 W. Galen Drive
Herriman, UT 84096
(949) 586-5200

Date Prepared: July 1, 2022

OWNER'S CERTIFICATION PLANNING DEVELOPMENT DOCUMENT			
Permit/Application No.	TBD in Final	Grading Permit No.	TBD in Final
Tract/Parcel Map No.	83751	Building Permit No.	TBD in Final
CUP, SUP, and/or APN (Specify Lot Numbers if Portions of Tract)	APN 8311-001-016		

I certify that this document has been prepared for The Olson Company by Alan R. Short, P.E. This Planning Development Document is intended to comply with the requirements of the Los Angeles County Municipal Storm Water Permit, Order NO. R4-2012-0175, Planning and Development Program, for Tract/Parcel Map No. Tract/Parcel Map number, Condition Number(s) Condition Numbers, and/or Site Development Permit/Application Number Enter number, Condition Number(s) Condition Numbers requiring the preparation of a Development Planning Document (DPD).

The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan and will ensure that this plan is amended as appropriate to reflect up-to-date conditions on the site consistent with the current Los Angeles County Municipal Storm Water Permit Order No. R4-2012-0175. Once the undersigned transfers its interest in the property, its successors-in-interest shall bear the aforementioned responsibility to implement and amend the DPD. An appropriate number of approved and signed copies of this document shall be available on the subject site in perpetuity.

Signed:	Tom Moore
Name	Tom Moore
Title	VP, Operational Planning
Company	The Olson Company
Address	3010 Old Ranch Parkway, Suite 100 Seal Beach, CA 90740
Telephone #	(562) 596-4770
Date	

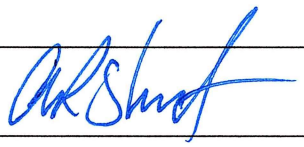
PREPARER (ENGINEER): Alan R. Short, P.E.			
Title		PE Registration #	30873
Company	Alan R. Short, P.E.		
Address	7263 W Galen Drive Herriman, UT 84096		
Email	alanshortpe@gmail.com		
Telephone #	(949) 586-5200		
I hereby certify that this Planning Development Document is in compliance with, and meets the requirements set forth in, Order No. R4-2012-0175, of the Los Angeles Regional Water Quality Control Board.			
Preparer Signature		Date	7/7/22
Place Stamp Here			

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Attachment F ..... City of Claremont Forms

SECTION I DISCRETIONARY PERMIT(S) AND PROJECT CONDITIONS

PROJECT INFORMATION		
Proposed Project Is:		
1. 1 acre or greater of disturbed area and adding more than 10,000 square feet of impervious surface area.	☒Yes	☐No
2. Industrial parks 10,000 square feet or more of surface area.	☐Yes	☒No
3. Commercial malls 10,000 square feet or more surface area.	☐Yes	☒No
4. Retail gasoline outlets outlet, 5,000 square feet or more surface area.	☐Yes	☒No
5. Restaurant (SIC code 5812) 5,000 square feet or more surface area.	☐Yes	☒No
6. Parking lots 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces.	☐Yes	☒No
7. Street and road construction of 10,000 square feet or more of impervious surface area.	☐Yes	☒No
8. Automotive service facilities (SIC 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) 5,000 square feet or more of surface area.	☐Yes	☒No
9. Redevelopment project in subject categories that meet the Redevelopment thresholds.	☒Yes	☐No
10. Projects located in or directly adjacent to, or discharging to a Significant Ecological Area(SEA).	☐Yes	☒No
11. Single-family Hillside Home.	☐Yes	☒No
Discretionary Permits (if applicable)	TBD	
Water Quality Conditions (list verbatim)	To be provided in Final.	

SECTION II PROJECT DESCRIPTION

II.1 PROJECT DESCRIPTION

The proposed Tentative Tract No. 83751 project site encompasses approximately 3.05 acres in the City of Claremont. The site is a mostly rectangular-shaped parcel and bordered by West Foothill Blvd. to the north, a commercial parcel and parking lot to the east, single-family detached residences to the south, and a gas station and Town Avenue to the west. A Vicinity Map is included in Section VI.

The site is currently undeveloped except for a parking lot that occupies the east third of the site. The vacant lot that the parking lot encompasses used to be occupied by a commercial building, but has since 2019 been removed. The west two thirds of the site has been undeveloped for at least 30 years, based on past aerial photography.

<table>
<tr><th colspan="5">DESCRIPTION OF PROPOSED PROJECT</th></tr>
<tr><td>Project Area: 3.05 acres</td><td colspan="2">Number of Dwelling Units: 56</td><td colspan="2">SIC Code: Not applicable</td></tr>
<tr><td>Narrative Project Description:</td><td colspan="4">Under proposed conditions, the site will be developed for residential use and plans to consist of 56 attached residential condominiums, 12 units of which will be live work residences. Associated interior driveways, common area landscaping, surface parking spaces, perimeter walls, and underground utilities are proposed.

There will be 112 garage parking spaces and 21 street parking spaces along the property's drive aisles.

Landscaped areas totaling 0.60 acres are common, open space passive areas maintained by HOA.

There will not be any residential features that are of particular water quality concern proposed for the project. The project will not include swimming pools, outdoor storage areas, trash enclosures or recreational facilities of note. There are seating areas and tables in the common areas for residents to lounge.</td></tr>
<tr><td></td><td colspan="2">Pervious</td><td colspan="2">Impervious</td></tr>
<tr><td></td><td>Area (ac or ft^2)</td><td>Percentage</td><td>Area (ac or ft^2)</td><td>Percentage</td></tr>
<tr><td>Post-Project Conditions:</td><td>0.60 ac</td><td>19.7%</td><td>2.45 ac</td><td>80.3%</td></tr>
<tr><td>Drainage Patterns/ Connections:</td><td colspan="4">The site is relatively flat with elevations ranging from EL 1204 to EL 1192 above Mean Sea Level (based on Google Earth). Drainage is directed as sheet flow southwest to the alley south of the property. From the alley, a ribbon gutter conveys runoff west to N. Towne Avenue.</td></tr>
</table>

	Once offsite, the project runoff drains south on Towne Ave. to a catch basin at the northeast corner of Towne Ave. and Harrison Ave. The runoff then enters County Storm Drain BI 0566 – Line A and is conveyed west to Thompson Creek. The creek drains south and confluences with San Jose Creek and continues to drain southwest to the San Gabriel River. From there, San Gabriel River drains south and eventually outlets at the Pacific Ocean at Seal Beach. The site's drainage through the San Gabriel River Watershed is illustrated in the figures below.

FOOTHILL BLVD.

TOWNE AVENUE

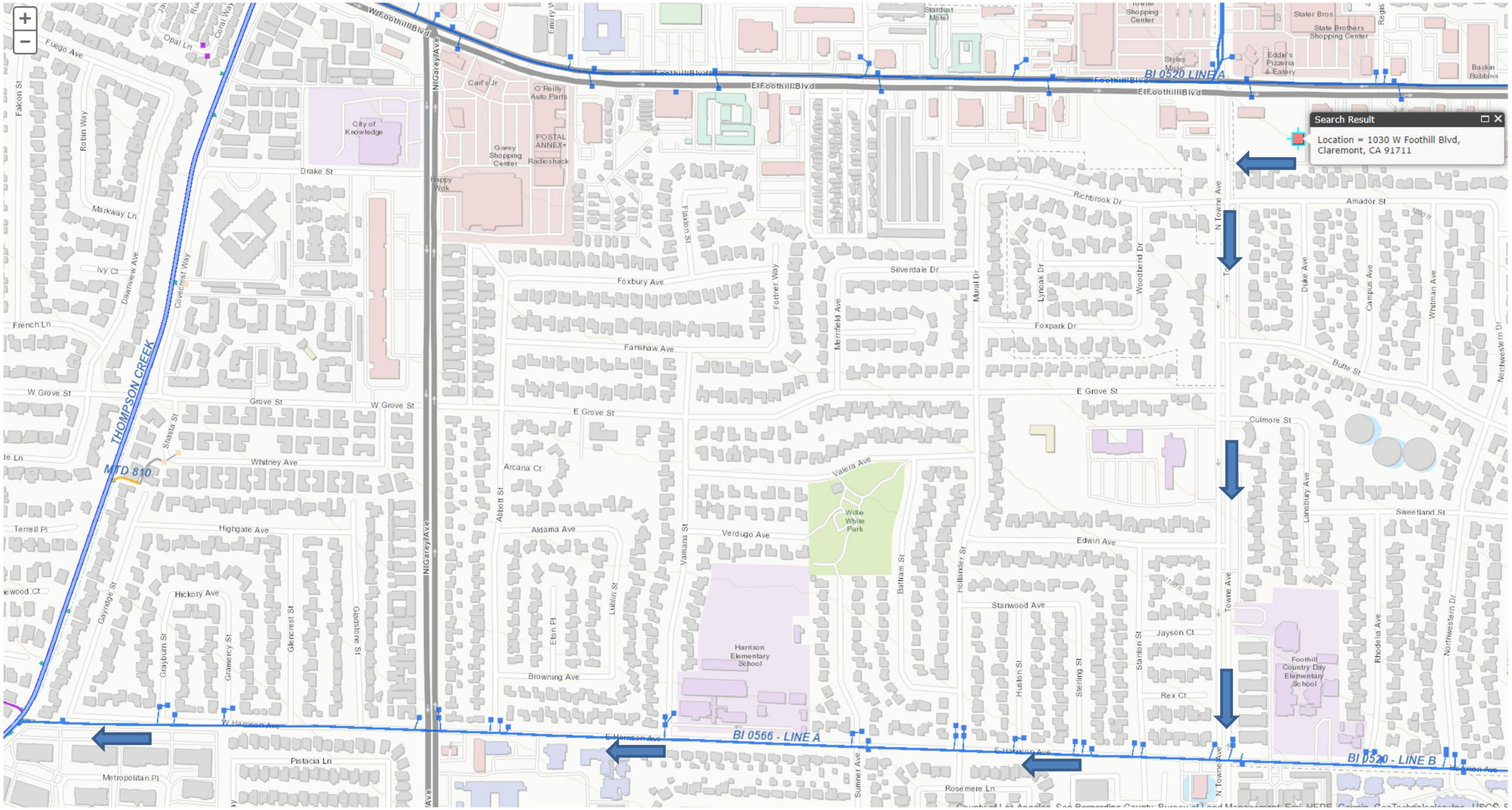
N

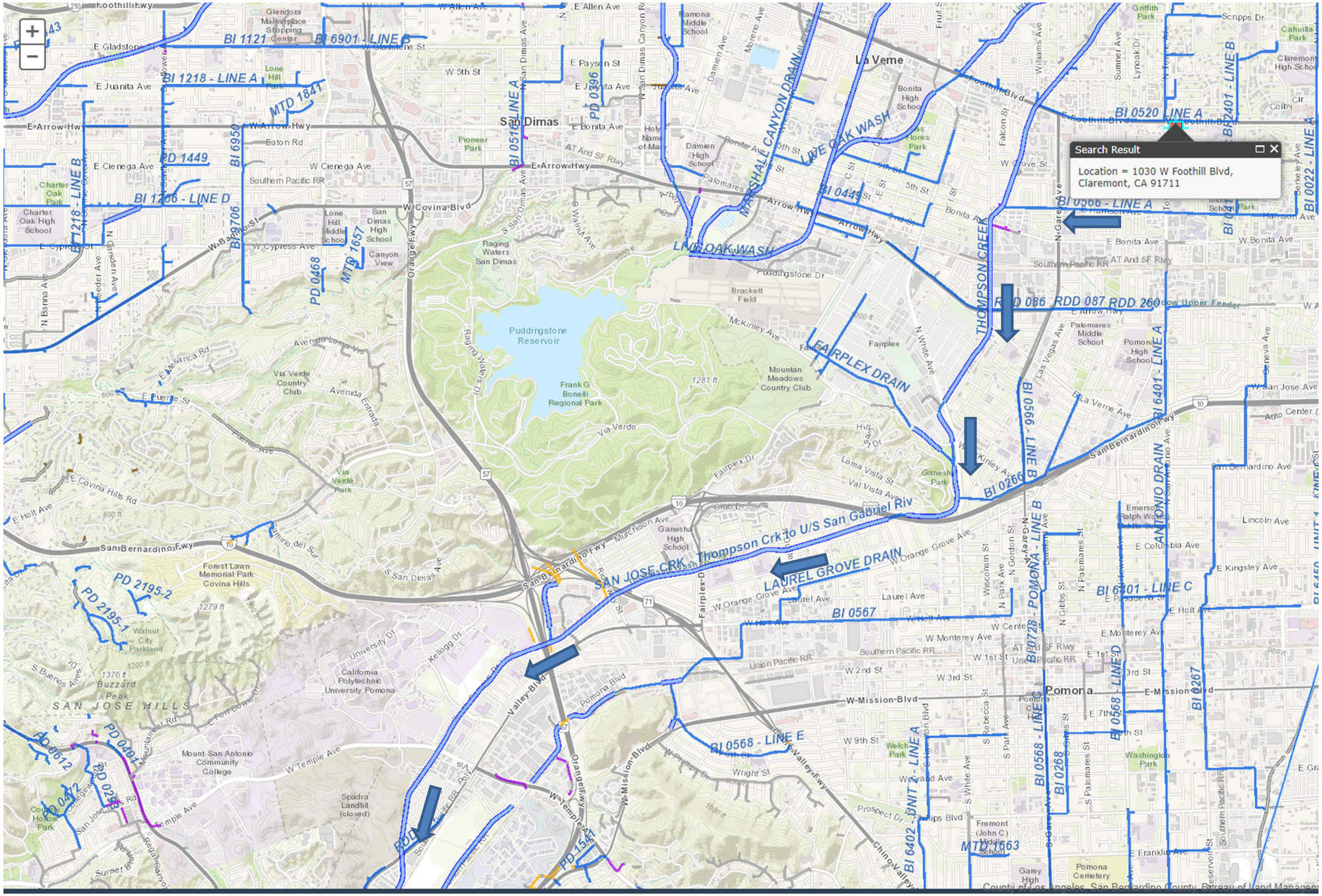
1"=40'

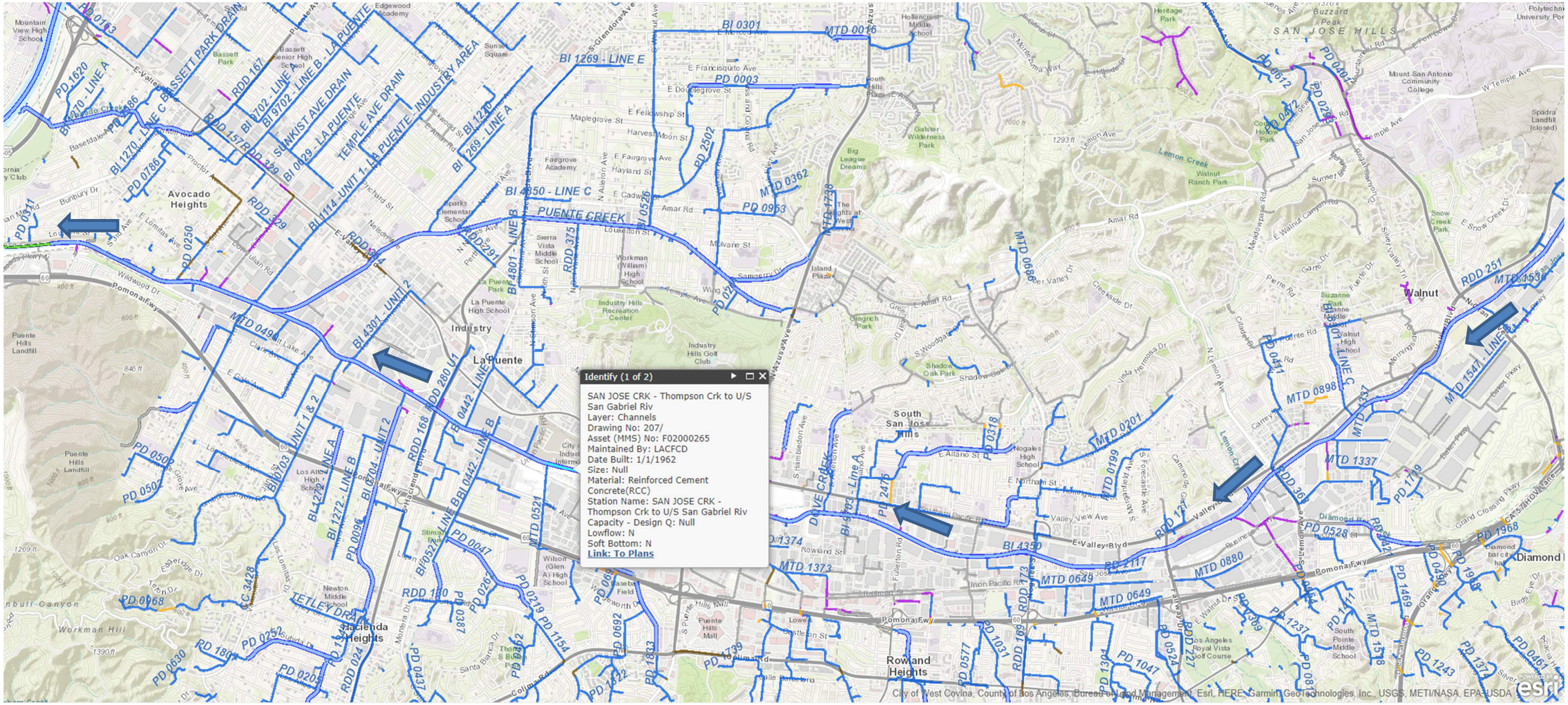
	TOTAL AREA	3.05 AC
	PERVIOUS AREA	0.60 AC
	% PERVIOUS	19.7 %
	% IMPERVIOUS	80.3 %

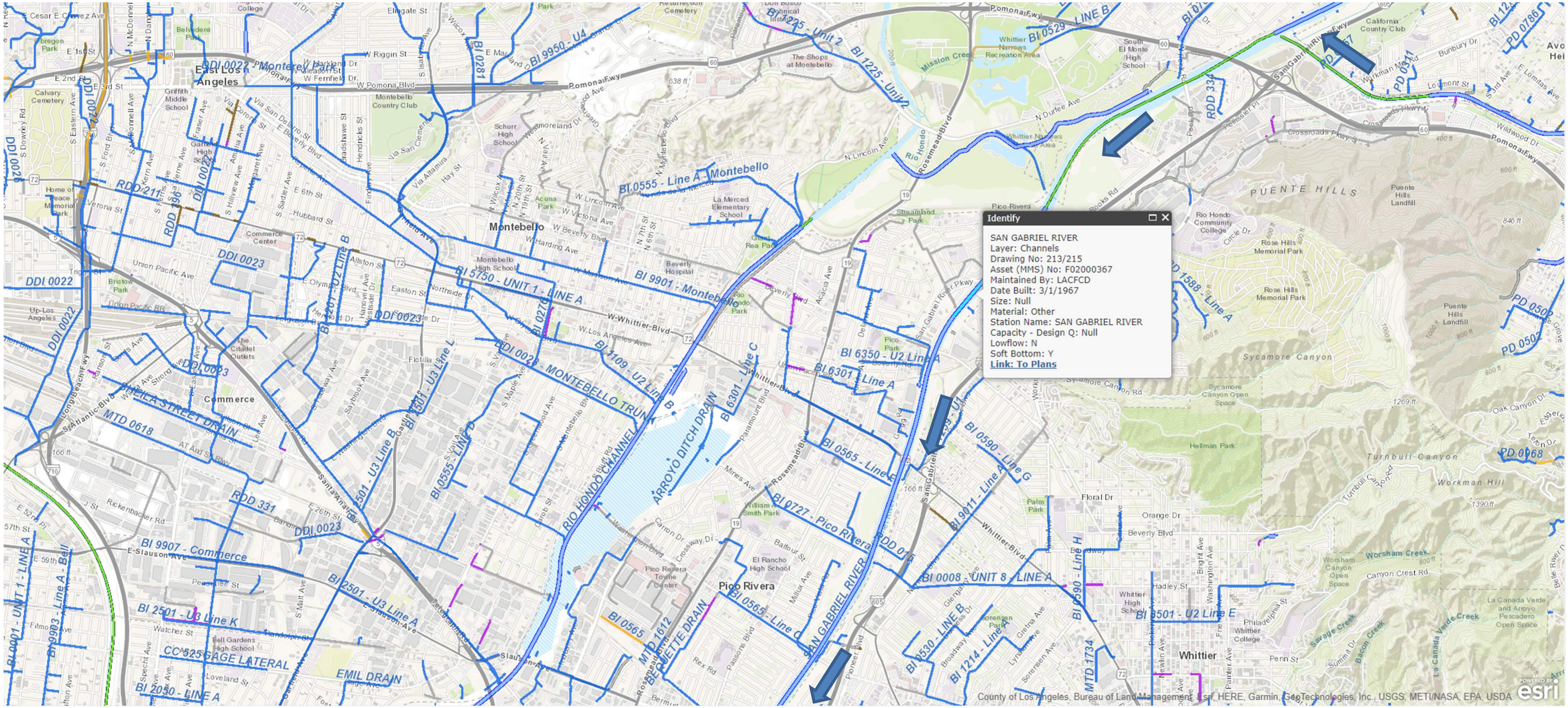
PERVIOUS AREA
PROPOSED CONDITION
TENTATIVE TRACT NO. 83751
CLAREMONT

LATEST REVISION: 4/4/22

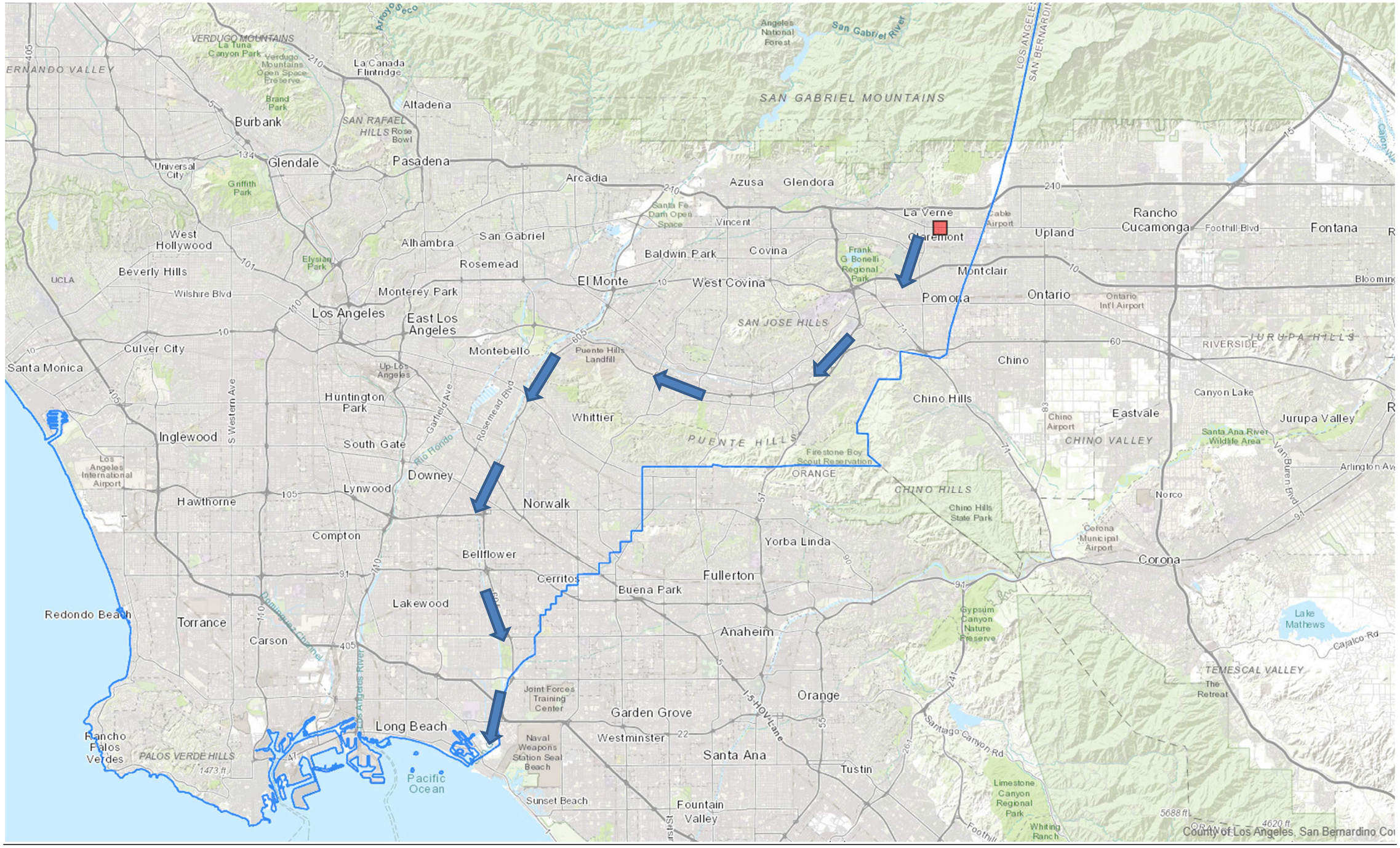

Search Result
Location = 1030 W Foothill Blvd, Claremont, CA 91711
BI 0520 LINE A
BI 0566 - LINE A
BI 0520 - LINE B
MTD 810
W Foothill Blvd
E Foothill Blvd
N Garey Ave
N Towne Ave
Fuego Ave
Opal Ln
Falcon St
Robin Way
Markway Ln
Ivy Ct
Dawnview Ave
Covenant Way
French Ln
Drake St
City of Knowledge
Carl's Jr
O'Reilly Auto Parts
POSTAL ANNEX+
Radioshack
Garey Shopping Center
Happy Wok
Emory Ave
Stardust Motel
Irwin Shopping Center
Styles Music
Stater Bros
State Brothers Shopping Center
Eddie's Pizzeria & Eatery
Baskin Robbins
Richbrook Dr
Amador St
Flaxton St
Foxbury Ave
Fortner Way
Silverdale Dr
Merrifield Ave
Murial Dr
Lyncak Dr
Woodbend Dr
Foxpark Dr
Farnshaw Ave
Duke Ave
Campus Ave
Whitman Ave
Butte St
Northwestern Dr
E Grove St
W Grove St
Grove St
Culmore St
Lansbury Ave
Sweetland St
Arcana Ct
Valera Ave
Willie White Park
Abbott St
Aldama Ave
Verdugo Ave
Edwin Ave
Vamana St
Battram St
Hollander St
Towne Ave
Stanwood Ave
Jayson Ct
Rex Ct
Stanton St
Huston St
Sterling St
Foothill Country Day Elementary School
Rhodelia Ave
Northwestern Dr
Sweetland St
Whitney Ave
Highgate Ave
Hickory Ave
Terrell Pl
Shasta St
Gayridge St
Grayburn St
Gramercy St
Glencrest St
Glidestone St
Elon Pl
Lublin St
Harrison Elementary School
Browning Ave
W Harrison Ave
E Harrison Ave
Pistacia Ln
Metropolitan Pl
Rosemere Ln
Summer Ave
Culmore St
THOMPSON CREEK


Search Result
Location = 1030 W Foothill Blvd, Claremont, CA 91711
BI 1121
BI 6901 - LINE B
BI 1218 - LINE A
BI 1218 - LINE B
BI 1206 - LINE D
BI 0520 - LINE A
BI 2401 - LINE A
BI 0022 - LINE A
BI 0506 - LINE A
BI 0415
BI 0566 - LINE B
BI 6401 - LINE B
BI 6401 - LINE C
BI 0568 - LINE C
BI 0568 - LINE D
BI 0568 - LINE E
BI 0267
BI 0268
BI 6402 - UNIT 2 - LINE A
BI 0567
BI 0266
BI 6950
BI 6970
BI 0518 - LINE A
PD 0396
PD 1449
PD 0468
MTD 1657
MTD 1841
RDD 086
RDD 087
RDD 260
LIVE OAK WASH
MARSHALL CANYON DRAIN
THOMPSON CREEK
FAIRPLEX DRAIN
LAUREL GROVE DRAIN
SAN JOSE CRK, Thompson Crk to U/S San Gabriel Riv
San Dimas
La Verne
Pomona
Puddingstone Reservoir
Frank G Bonelli Regional Park
SAN JOSE HILLS
Foothill Fwy
San Bernardino Fwy
Orange Fwy
Valley Blvd
Arrow Hwy
W Covina Blvd
E Bonita Ave
W Bonita Ave
Foothill Blvd
E Allen Ave
E Gladstone St
W 5th St
E Payson St
E Juanita Ave
W Arrow Hwy
E Arrow Hwy
Eaton Rd
E Cienega Ave
W Cienega Ave
Southern Pacific RR
AT And SF Rlwy
W Cypress Ave
E Cypress St
Puddingstone Dr
Brackett Field
McKinley Ave
Fairplex
Mountain Meadows Country Club
Via Verde Country Club
Via Verde
Via Verde Park
Avenida Entrada
Avenida Loma Vis
E Mesarica Rd
E Puente St
Puente Ave
E Covina Hills Rd
E Holt Ave
Glendora Marketplace Shopping Center
Lone Hill Park
Pioneer Park
Charter Oak Park
Charter Oak High School
Lone Hill Middle School
San Dimas High School
Canyon View
Raging Waters San Dimas
Ramona Middle School
Bonita High School
Damien High School
Holy Name of Mary
Los Flores Park
Ganesha High School
Ganesha Park
Palomares Middle School
Pomona High School
Fremont (John C.) Middle School
Garey High School
Pomona Cemetery
Emerson Ralph Waldo
Claremont High School
Griffith Park
Cahuilla Park
Scripps Dr
Colby Cir
Harrison Ave
Berkeley Ave
Geneva Ave
W San Jose Ave
Arrow Center Dr
Lincoln Ave
E Columbia Ave
E Kingsley Ave
E Holt Ave
E Monterey Ave
W Monterey Ave
E 1st St
E 3rd St
E 7th St
W 9th St
W Grand Ave
Washington Park
Welch Park
Wright St
Phillips Blvd
Prospect Dr
E Franklin Ave
Mount San Antonio College
Spadra Landfill (closed)
Walnut City Parkland
California Polytechnic University Pomona
Forest Lawn Memorial Park Covina Hills
Corbett Hollow Park
Buzzard Peak
1376 ft
1279 ft
1281 ft
W Temple Ave
San Jose Hills Rd
Sunset Dr
S Buenos Aires
S San Dimas Ave
N San Dimas Canyon Rd
N Orange Grove Ave
W Orange Grove Ave
Laurel Ave
W Holt Ave
W Center St
W 1st St
W 2nd St
W 3rd St
Union Pacific RR
Southern Pacific RR
Mission Blvd
W Mission Blvd
E Mission Blvd
Pomona
Fairplex Dr
Loma Vista St
Val Vista Ave
Glass Dr
Murchison Ave
Ramino del Sur
Kellogg Dr
University Dr
Las Vegas Ave
Sumner Ave
Lynoak Dr
Williams Ave
Falcon St
Damien Ave
Moreno Ave
Fruit St
Citrus St
Gordon St
Wisconsin St
Park Ave
Gibbs St
Palomares St
Rebecca St
Hamilton Blvd
White Ave
Garey Ave
Orange Grove Ave
Grove St
Bonita Ave
Arrow Hwy
2nd St
5th St
6th St
Palomares
C St
E St
Gladstone St
Allen Ave
Juanita Ave
Payson St
Bonita Ave
Cienega Ave
Cypress Ave
Puente St
Holt Ave
Monterey Ave
Grand Ave
Wright St
Phillips Blvd
Franklin Ave
Columbia Ave
Kingsley Ave
Lincoln Ave
San Bernardino Ave
Monterey Ave
Mission Blvd
Temple Ave
Pomona Blvd
Valley Blvd
Orange Fwy
Arrow Hwy
Foothill Blvd
San Bernardino Fwy
Bonita Ave
Puddingstone Dr
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Mountain Meadows Country Club
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Via Verde Park
Avenida Entrada
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Harrison Ave
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W San Jose Ave
Arrow Center Dr
Lincoln Ave
E Columbia Ave
E Kingsley Ave
E Holt Ave
E Monterey Ave
W Monterey Ave
E 1st St
E 3rd St
E 7th St
W 9th St
W Grand Ave
Washington Park
Welch Park
Wright St
Phillips Blvd
Franklin Ave
Mount San Antonio College
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Forest Lawn Memorial Park Covina Hills
Corbett Hollow Park
Buzzard Peak
1376 ft
1279 ft
1281 ft
W Temple Ave
San Jose Hills Rd
Sunset Dr
S Buenos Aires
S San Dimas Ave
N San Dimas Canyon Rd
N Orange Grove Ave
W Orange Grove Ave
Laurel Ave
W Holt Ave
W Center St
W 1st St
W 2nd St
W 3rd St
Union Pacific RR
Southern Pacific RR
Mission Blvd
W Mission Blvd
E Mission Blvd
Pomona
Fairplex Dr
Loma Vista St
Val Vista Ave
Glass Dr
Murchison Ave
Ramino del Sur
Kellogg Dr
University Dr
Las Vegas Ave
Sumner Ave
Lynoak Dr
Williams Ave
Falcon St
Damien Ave
Moreno Ave
Fruit St
Citrus St
Gordon St
Wisconsin St
Park Ave
Gibbs St
Palomares St
Rebecca St
Hamilton Blvd
White Ave
Garey Ave
Orange Grove Ave
Grove St
Bonita Ave
Arrow Hwy
2nd St
5th St
6th St
Palomares
C St
E St
Gladstone St
Allen Ave
Juanita Ave
Payson St
Bonita Ave
Cienega Ave
Cypress Ave
Puente St
Holt Ave
Monterey Ave
Grand Ave
Wright St
Phillips Blvd
Franklin Ave
Columbia Ave
Kingsley Ave
Lincoln Ave
San Bernardino Ave
Monterey Ave
Mission Blvd
Temple Ave
Pomona Blvd
Valley Blvd
Orange Fwy
Arrow Hwy
Foothill Blvd
San Bernardino Fwy


Identify (1 of 2)
SAN JOSE CRK - Thompson Crk to U/S San Gabriel Riv
Layer: Channels
Drawing No: 207/
Asset (MMS) No: F02000265
Maintained By: LACFCD
Date Built: 1/1/1962
Size: Null
Material: Reinforced Cement Concrete(RCC)
Station Name: SAN JOSE CRK - Thompson Crk to U/S San Gabriel Riv
Capacity - Design Q: Null
Lowflow: N
Soft Bottom: N
Link: To Plans
PUENTE CREEK
DRAIN
Industry
La Puente
Avocado Heights
Hacienda Heights
Rowland Heights
South San Jose Hills
Walnut
SAN JOSE HILLS
Lemon Creek
Pomona Fwy
Valley Blvd
Amar Rd
Workman Hill
City of West Covina, County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, METI/NASA, EPA, USDA
esri



(source: https://pw.lacounty.gov/fcd/StormDrain/index.cfm)


VERDUGO MOUNTAINS
La Tuna Canyon Park
Verdugo Mountains Open Space Preserve
La Canada Flintridge
Brand Park
Burbank
Altadena
SAN RAFAEL HILLS
Rose Bowl
Universal City
Glendale
Griffith Park
Pasadena
Arcadia
Azusa
Glendora
Angeles National Forest
San Gabriel River
SAN GABRIEL MOUNTAINS
Santa Fe Dam Open Space
Vincent
La Verne
Claremont
Cable Airport
Rancho Cucamonga
Foothill Blvd
Upland
Fontana
West Hollywood
Beverly Hills
UCLA
Elysian Park
Alhambra
San Gabriel
Rosemead
Baldwin Park
Covina
Frank G Bonelli Regional Park
Montclair
Wilshire Blvd
Monterey Park
El Monte
West Covina
Pomona
Ontario
Ontario Int'l Airport
Los Angeles
East Los Angeles
SAN JOSE HILLS
Culver City
Montebello
Puente Hills Landfill
Chino
RIVERSIDE
JURUPA HILLS
Santa Monica
Up-Los Angeles
Huntington Park
Chino Hills
Canyon Lake
Whittier
Eastvale
Jurupa Valley
Inglewood
South Gate
PUENTE HILLS
Chino Airport
CHINO VALLEY
Santa Ana River Wildlife Area
Los Angeles International Airport
Downey
Lynwood
Norwalk
Firestone Boy Scout Reservation
ORANGE
CHINO HILLS
Chino Hills State Park
Norco
Hawthorne
Compton
Yorba Linda
Corona Municipal Airport
Bellflower
Cerritos
Buena Park
Fullerton
Corona
Lakewood
Gypsum Canyon Nature Preserve
Lake Mathews
Redondo Beach
Torrance
Carson
Anaheim
Cajalco Rd
TEMESCAL VALLEY
The Retreat
Joint Forces Training Center
Orange
Garden Grove
I-5 HOV Lane
Long Beach
Naval Weapons Station Seal Beach
Westminster
Santiago Canyon Rd
Rancho Palos Verdes
PALOS VERDE HILLS
1473 ft
Santa Ana
Tustin
Pacific Ocean
Sunset Beach
Fountain Valley
Limestone Canyon Regional Park
5688 ft
4620 ft
Whiting Ranch
Foothill
County of Los Angeles, San Bernardino Co

II.2 POST DEVELOPMENT CHARACTERISTICS

In the post-development condition, the proposed project will maintain existing drainage patterns. The site's runoff is drained via curb and gutter to catch basins and area drains where it enters the private storm drain that conveys it in a southwesterly direction. Prior to discharge onto the public right-of way, LID flows are conveyed east to a drywell with an underground 48" HDPE detention pipe. Flow exceeding the LID volume will bubble up from the catch basin at the southwest corner of the property and discharge onto Towne Avenue.

II.3 PROPERTY OWNERSHIP/MANAGEMENT

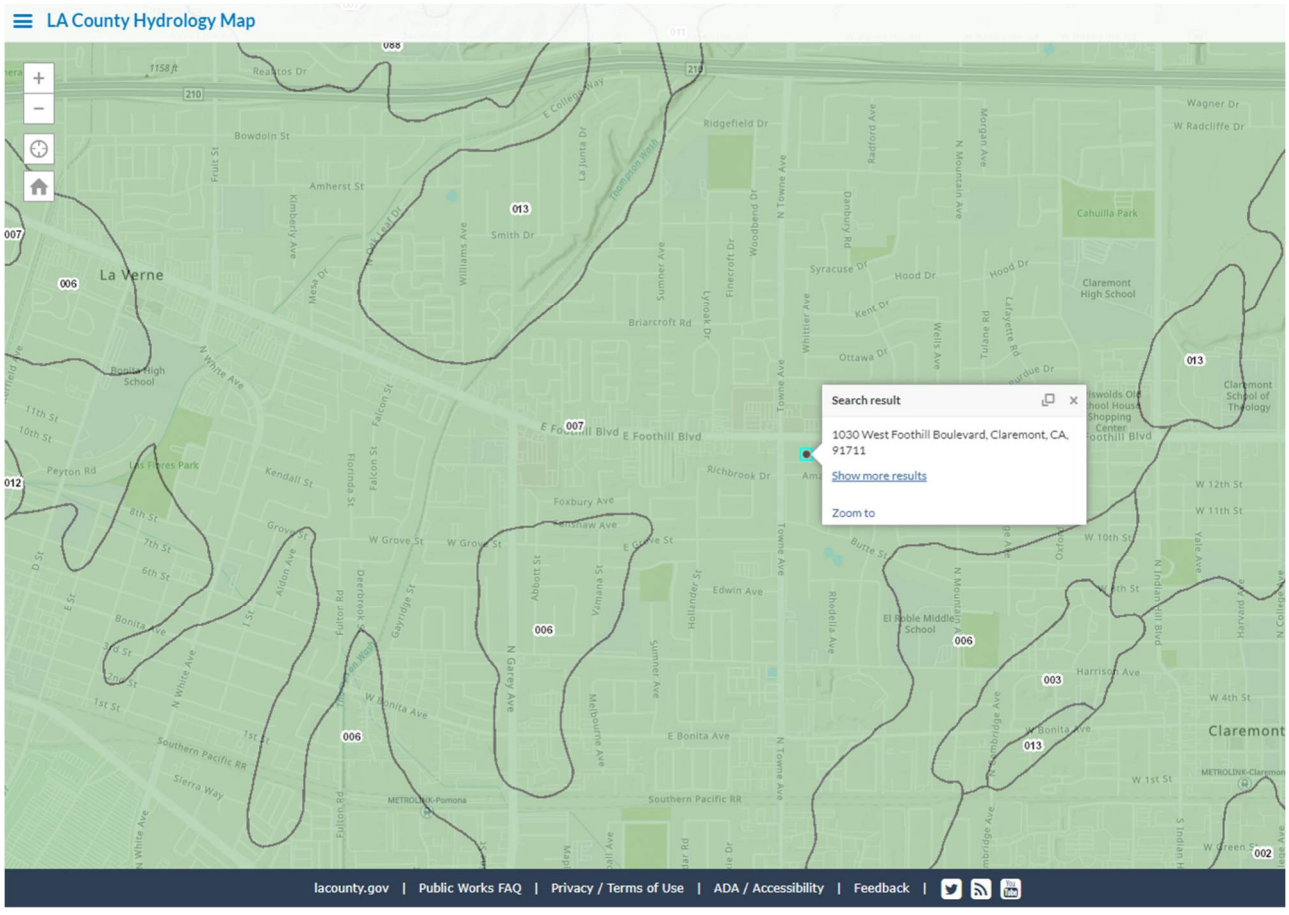
A Homeowners Association (HOA) will be formed upon project completion. The HOA will be responsible for inspecting and maintaining all BMPs prescribed for Tentative Tract No. 83751 at 1030 W. Foothill Blvd. Until an HOA is formally established, The Olson Company shall assume all BMP maintenance and inspection responsibilities for the proposed project. Inspection and maintenance responsibilities are outlined in Section V of this report.

No infrastructure will be transferred to any public agencies.

SECTION III SITE DESCRIPTION

III.1 PHYSICAL SETTING

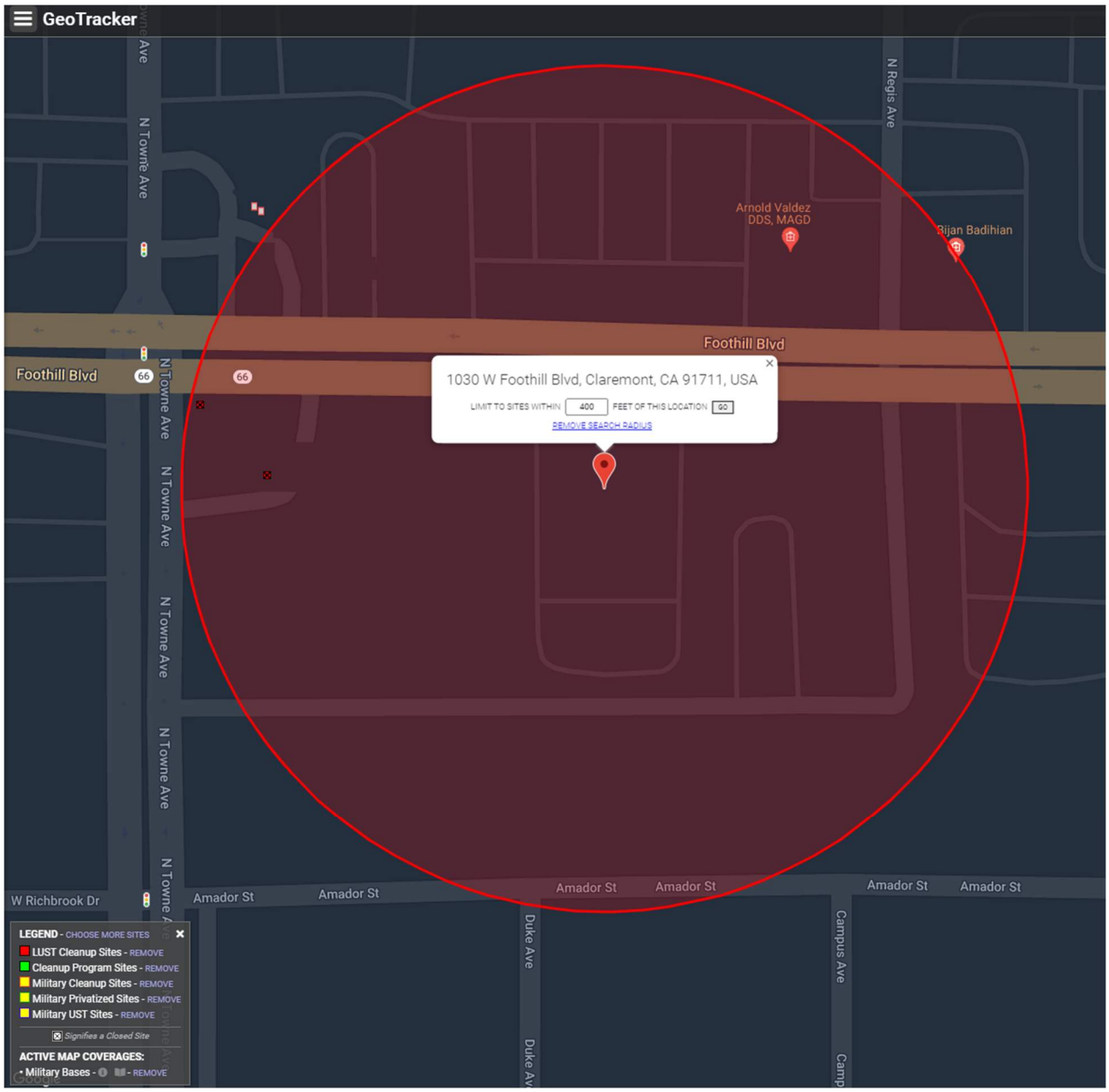
Name of Planned Community / Planning Area	Tentative Tract No. 83751
Location/Address:	1030 W. Foothill Blvd. Claremont, CA 91711
General Plan Land Use Designation:	Mixed Use
Zoning:	MU-3
Acreage of Project Site:	3.05 Acres
Predominant Soil Type:	007



III.2 SITE CHARACTERISTICS

Precipitation Zone:	0.98 inches
Topography:	The project site and overall property is relatively flat with elevation ranging from 1192 to 1206 feet above msl (based on Google Earth), descending gently to the southwest.
Soil Type and Geology:	Artificial fill materials were generally encountered up to about 3 feet below the existing ground surface within the existing building pad located at the east half of the site and within test pit TP-7. Artificial fill was not encountered within the remaining portion of the site. Alluvial deposits were encountered below the fill materials or at ground surface to the maximum depths explored of 46.5 feet. The alluvial materials consist of sand with varying amounts of silt and gravels, brown, dry to moist, medium dense to very dense. Based on the results of percolation testing and analyses, a well configuration of 20 feet depth and 6 feet diameter may utilize a "measured" peak flow rate of 0.30 ft^3/sec. This flow rate corresponds to an average peak infiltration rate of 60 in./hr. This flow rate and infiltration rate only apply to the well configuration evaluated and will differ for other configurations. These values are "measured" values and as such, an appropriate factor of safety should be applied to determine the "design" rates.
Groundwater:	Groundwater was not encountered during this firm's subsurface exploration to a maximum depth of 46.5 feet below the existing ground surface. The CDMG Seismic Hazard Zone Report 040 indicates historic groundwater is estimated to be 150 feet below the existing ground surface.
Other Geotechnical Hazards:	According to the Geotracker website, the project site does not have any active LUST cleanup sites within the project's vicinity. The gas station facility adjacent to the property to the northwest had cleanups that were closed in 1990 and 2004, respectively. There are no other sites within 500 feet of the project (see figure below).
Setbacks:	Infiltration BMPs shall follow the setback requirements set forth in the latest GMED Policy GS200.1 (dated 6/30/21). The invert of stormwater infiltration shall be set back at least 15 feet or outside a 1:1 plane drawn up from the bottom of adjacent foundations or granular soils. Stormwater infiltration shall be setback at least 10 feet from property lines.
Off-Site Drainage:	The property will not receive any off-site drainage.
Existing Utilities:	There are no existing subsurface utilities that will impact the location of LID BMPs on-site.

Significant Ecological Areas (SEAs):	There are no SEAs within the project vicinity.

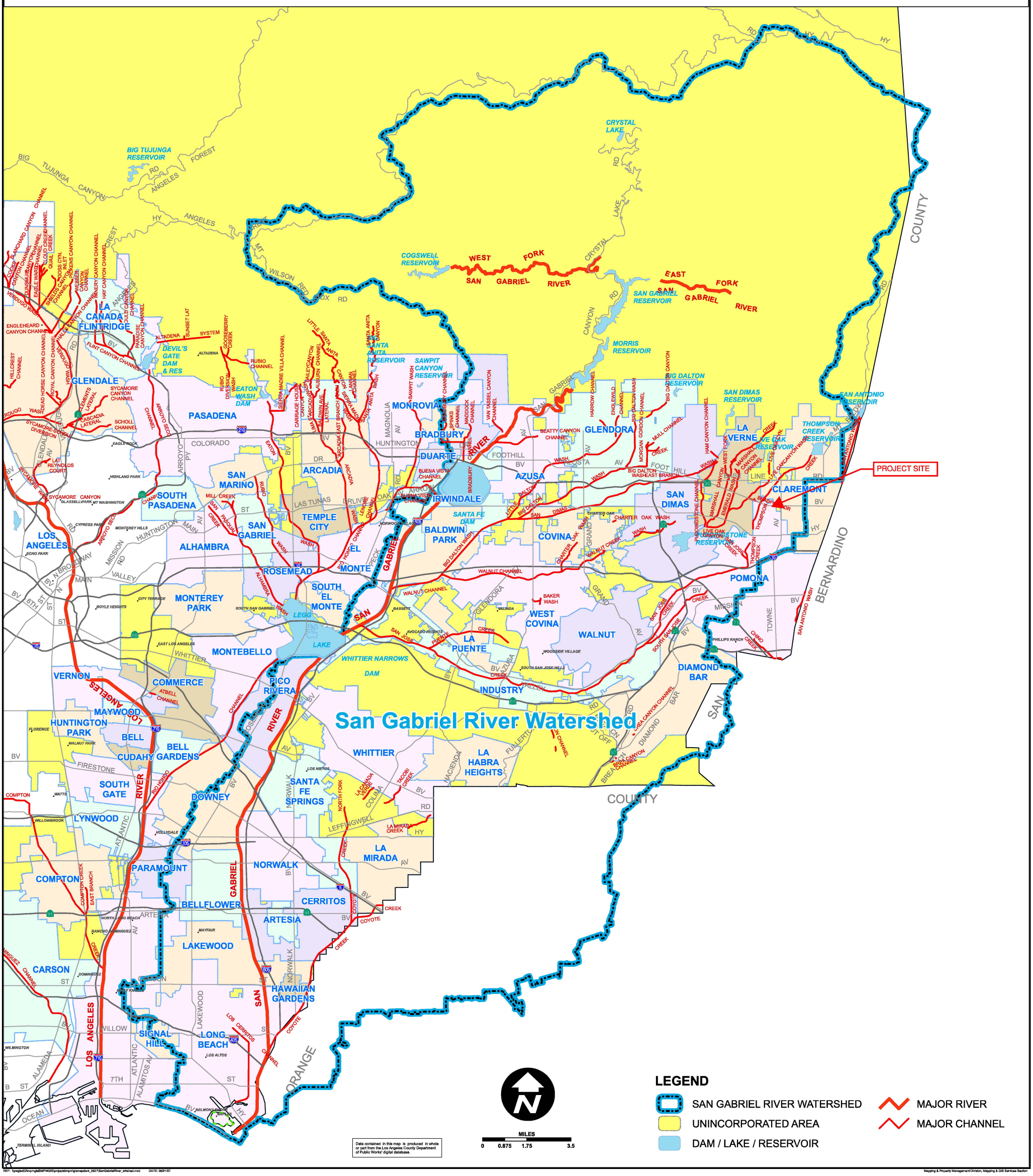


III.3 WATERSHED DESCRIPTION

Receiving Waters:	• Thompson Creek; • San Jose Creek; • San Gabriel River Reach 2; • San Gabriel River Reach 1; and • San Gabriel River Estuary
303(d) Listed Impairments:	• San Jose Creek: Coliform Bacteria, Selenium, Toxicity, Ammonia • San Gabriel River Reach 2: Coliform Bacteria, Lead • San Gabriel River Reach 1: Coliform Bacteria, pH • San Gabriel River Estuary: Copper
Applicable TMDLs:	• San Gabriel River: Metals, Bacteria, Trash
Pollutants of Concern for the Project:	Expected pollutants from attached residential developments include sediment, nutrients, pathogens, pesticides, oil & grease, and trash. Based on the 303(d) listed impairments and TMDLs for the project's receiving waters, the pollutants of concern are pathogens and trash.

COUNTY OF LOS ANGELES

SAN GABRIEL RIVER WATERSHED



REF: \\pwgis02\mpmgis\EWP\MGIS\projects\mpm\gismaps\swk_2627\SanGabrielRiver_wtrshed.mxd DATE: 08/21/07

Mapping & Property Management Division, Mapping & GIS Services Section

SECTION IV BEST MANAGEMENT PRACTICES (BMPs)

SOURCE CONTROL BMPs

The following tables show source control BMPs (routine non-structural and routine structural) included in this project and those that were not included.

ROUTINE NON-STRUCTURAL BMPs				
ID	Name	Included	Not Applicable	If Not Applicable, State Brief Reason
N1	Education for Property Owners, Tenants and Occupants	☒	☐	
N2	Activity Restrictions	☒	☐	
N3	Common Area Landscape Management	☒	☐	
N4	BMP Maintenance	☒	☐	
N5	Title 22 CCR Compliance (How development will comply)	☐	☒	Residential site.
N6	Local Industrial Permit Compliance	☐	☒	Residential site.
N7	Spill Contingency Plan	☐	☒	Residential site.
N8	Underground Storage Tank Compliance	☐	☒	No USTs proposed.
N9	Hazardous Materials Disclosure Compliance	☐	☒	No hazardous wastes.
N10	Uniform Fire Code Implementation	☐	☒	No hazardous wastes.
N11	Common Area Litter Control	☒	☐	
N12	Employee Training	☒	☐	
N13	Housekeeping of Loading Docks	☐	☒	No loading docks proposed.
N14	Common Area Catch Basin Inspection	☒	☐	
N15	Street Sweeping Private Streets and Parking Lots	☒	☐	
N16	Commercial Vehicle Washing	☐	☒	No car washes.

N1, Education for Property Owners, Tenants and Occupants

Educational materials related to urban runoff can be provided to homeowners (via project owner or HOA) and employees to reduce pollutants from reaching the storm drain system. Examples of environmental

awareness materials include, but are not limited to: guidelines for landscaping and gardening, tips for pet care, vehicle cleaning, and proper disposal of household hazardous waste.

N2, Activity Restrictions

Activity restrictions can be developed to restrict activities that have the potential to create adverse impacts on water quality. Activities include but are not limited to: the handling and disposal of contaminants, trash management and litter control, irrigation and landscaping practices, vehicle and equipment cleaning, fertilizer applications and household waste management practices.

N3, Common Area Landscape Management

Common area landscape management will include minimizing fertilizer and pesticide application, use of slow-release fertilizers, maintenance activities, providing education to homeowners (via project owner and/or HOA), and providing education and training for employees on management of landscape materials and storm water management. Maintenance shall be conducted on a monthly basis at a minimum.

N4, BMP Maintenance

The project owners and/or HOA of the site will be responsible for the implementation and maintenance of each applicable non-structural BMP, as well as scheduling inspections and maintenance of all applicable structural BMP facilities through its landscape contractor and any other necessary maintenance contractors for the project site. In addition, the project owner will be required to verify treatment control BMP implementation and ongoing maintenance through inspection, self-certification, or other equally effective measure. The certification shall verify that, at a minimum, the inspection and maintenance of all structural BMPs has occurred prior to the start of the rainy season, and in accordance with frequencies outlined in the Planning Development Document prepared for the project. Maintenance frequencies are identified in Section V and shall be implemented upon completion of the project.

N11, Common Area Litter Control

Regular litter control for the entire project area shall be performed including trash pick-up on a weekly basis, and sweeping of littered common areas, as performed by the maintenance crew. In addition, pet waste receptacles will be provided throughout the project site where applicable. Proper signage regarding litter will be posted on or near trash receptacles and trash bins will have lids if not covered by canopy.

N12, Employee Training

Employees of the owner and/or HOA, as well as any contractors of the aforementioned entities will require training to ensure that employees are aware of activities that may result in pollutants reaching the storm drain. Training shall be conducted on an annual basis to ensure proper maintenance activities and daily activities are occurring.

N14, Common Area Catch Basin Inspection

Employees of the owner and/or HOA, as well as any contractors of the aforementioned entities will require training to ensure that employees are aware of activities that may result in pollutants reaching the storm drain. Training shall be conducted on an annual basis to ensure proper maintenance activities and daily activities are occurring.

N15, Street Sweeping Private Streets and Parking Lots

Street sweeping of all impervious streets and parking lots performed at a frequency that reduces or prevents sediment and debris from entering receiving waters, monthly at a minimum, and prior to the rainy season.

ROUTINE STRUCTURAL BMPs			
Name	Included	Not Applicable	If Not Applicable, State Brief Reason
Provide storm drain system stenciling and signage	☒	☐	
Design and construct outdoor material storage areas to reduce pollution introduction	☐	☒	No outdoor storage areas.
Design and construct trash and waste storage areas to reduce pollution introduction	☐	☒	No trash enclosures.
Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control	☒	☐	
Protect slopes and channels and provide energy dissipation	☐	☒	No slopes or channels.
a. Properly Design: Dock areas	☐	☒	No dock areas.
b. Properly Design: Maintenance bays	☐	☒	No maintenance bays.
c. Properly Design: Vehicle wash areas	☐	☒	No vehicle wash areas.
d. Properly Design: Outdoor processing areas	☐	☒	No outdoor process areas.
e. Properly Design: Equipment wash areas	☐	☒	No equipment wash areas.
f. Properly Design: Fueling areas	☐	☒	No fueling areas.
g. Properly Design: Hillside landscaping	☐	☒	No hillsides.
h. Properly Design: Wash water control for food preparation areas	☐	☒	No food prep areas.
i. Properly Design: Community car wash racks	☐	☒	No car wash racks.

Provide storm drain system stenciling and signage

Storm drain stenciling or signage on all catch basins with the highly visible source control message “No Dumping Drains to Ocean”. This includes catch basins and grate inlets near pedestrian areas or drive aisles. Stencils shall be inspected annually and replaced as needed.

Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control

Installing and maintaining efficient irrigation systems designed to minimize water by eliminating overspray to hardscape areas and setting irrigation timing and cycle lengths in accordance with water demands, given time of year, weather, and day and night temperatures. Where feasible, includes incorporation of native tolerant species for landscaping, protection of slopes and efficient irrigation. May be used in conjunction with educational materials to homeowners as well as activity restrictions.

SITE DESIGN BMPs

The following table shows site design BMPs that are included in this project. A description of each BMPs follows:

Technique	Included?		Brief Description of Method
	Yes	No	
Minimize Impervious Area/Maximize Permeability (C-Factor Reduction)	☒	☐	Hardscape is minimized on the property where imperviousness is 80.3%. Also, infiltration BMPs will be implemented for the project to maximize retention.
Minimize Directly Connected Impervious Areas (DCIAs) (C-Factor Reduction)	☒	☐	Area drain inlets are located within landscape areas. As such, building roof drains will drain to landscaping before collecting into the area drains.
Create Reduced or "Zero Discharge" Areas (Runoff Volume Reduction)	☐	☒	
Conserve Natural Areas (C-Factor Reduction)	☐	☒	

In addition to the site design measures above, drought tolerant plants will be utilized in the project's landscape design.

LOW IMPACT DEVELOPMENT (LID) BMPs

The Los Angeles County Municipal Storm Water Permit, Order NO. R4-2012-0175 requires new development projects to retain on-site the 100% of the Stormwater Quality Design Volume (SWQDv) defined as runoff from:

a. The 0.75-inch, 24-hour rain event or

b. The 85th percentile, 24-hour rain event, as determined from the Los Angeles County 85th percentile precipitation isohyetal map, **whichever is greater.** Except where the project is technically infeasible or where the project has an opportunity for Regional Ground Water Replenishment.

The following table shows LID BMPs that are included in this project. Note only BMPs which meet the infiltration, harvest and use, or bioretention of the SWQDv are considered acceptable. LID BMPs shall meet the design criteria of the Municipal Stormwater Permit Appendix H and the Los Angeles County LID manual (2/2014) will be considered acceptable.

LID BMPs			
Name	Yes	No	If Not Applicable, State Brief Reason
Vegetated (Grass) Strips	☐	☒	Infiltration preferred over biofiltration.
Vegetated (Grass) Swales	☐	☒	Infiltration preferred over biofiltration.
Proprietary Control Measures	☐	☒	Infiltration is feasible.
Dry Detention Basin	☐	☒	Infiltration preferred over biofiltration.
Wet Detention Basin	☐	☒	Infiltration preferred over biofiltration.
Constructed Wetland	☐	☒	Infiltration preferred over biofiltration.
Detention Basin/Sand Filter	☐	☒	Infiltration preferred over biofiltration.
Porous Pavement Detention	☐	☒	Infiltration is feasible.
Porous Landscape Detention	☐	☒	Infiltration is feasible.
Infiltration Basin	☐	☒	Other infiltration BMP selected.
Infiltration Trench	☐	☒	Other infiltration BMP selected.
Biofiltration	☐	☒	Infiltration preferred over biofiltration.
Other: RET-4 Drywell with Underground Detention	☒	☐	

It has been determined that infiltration is feasible for the proposed project due to measured infiltration rates being greater than 0.3 inches per hour. The average "measured" rate was across the wetted surface area (217 square feet side and bottom area) of the proposed infiltration drywell is 60 in/hr (modeled using measured permeability and the various soil layers). See Attachment E for details. Therefore, infiltration BMPs will be used to treat the project's DCV. Harvest and use and bioretention is not applicable and will not be used. Specific details are provided in the following sub-sections.

The infiltration system will consist of one dry well and a 48" HDPE detention pipe approximately 140 feet long. An analysis was performed to evaluate the effectiveness of infiltrating the required Design Capture Volume (DCV) and the required retention volume which includes the dry well and the supporting retention device. Our analysis uses a "flow-based" approach wherein the storm event is modeled using the design hydrograph for the design event. While flows remain below the design flow rate of the dry well, no water retention occurs. Once the storm flow exceeds the well design rate, part of the storm water is infiltrated at the maximum capacity of the well while the remaining flow is accumulated in the retention device. Once the storm flow returns to a flow rate less than the well design rate, stored water will then begin to be infiltrated and draw down based on the flow capacity of the well minus the incoming storm flow. Once the storm event is over, the remaining stored water will infiltrate at the full capacity of the dry well until gone. The final retained water in the dry well will draw down based on our transient dry well calculations.

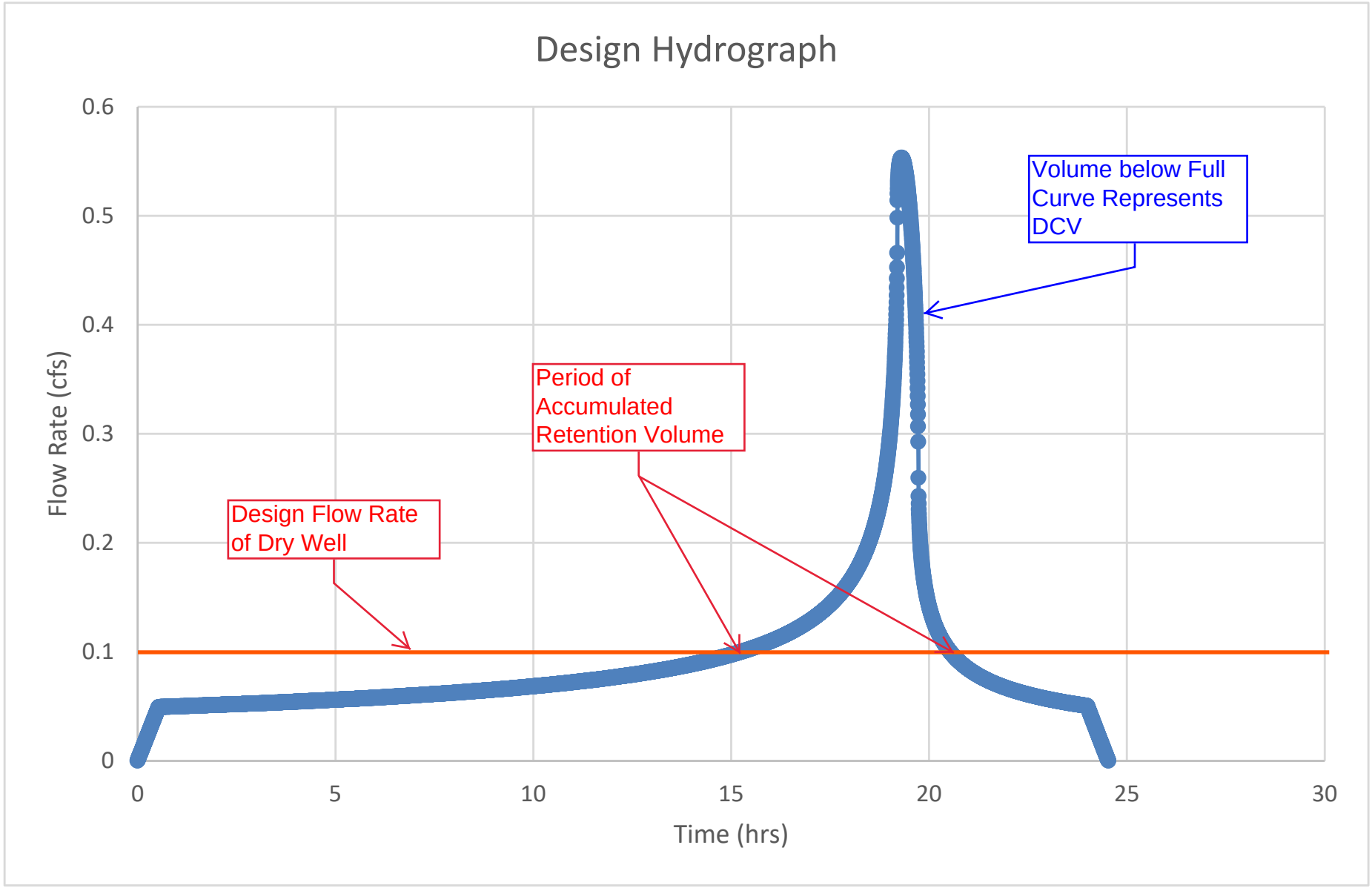
The historic shallowest groundwater level in this area is approximately 150 feet. Therefore, a Maxwell IV drywell having a total depth of 20 feet will maintain a clearance above groundwater greater than the minimum required clearance of 10 feet.

Based on the results of percolation testing and analyses, the well configuration describe here may utilize a "measured" peak flow rate of 0.30 ft^3/sec. This flow rate corresponds to an average peak infiltration rate of 60 in./hr. This flow rate and infiltration rate only apply to the well configuration evaluated and will differ for other configurations. These values are "measured" values and as such, an appropriate factor of safety should be applied to determine the "design" rates.

The design infiltration rate requires the application of a Reduction Factor in accordance with the 2021 County of Los Angeles GS200.1 guidelines. Based on the county requirements, the reduction factor (safety factor) was determined to be 3.

Based on the above reduction factor, design of the system should be based on a peak "design" flow of 0.010 cfs (0.30 cfs/3.0). Once water flow to the well has ceased, we estimate the time to empty the chamber will be approximately 0.1 hours.

Based on our analyses, the DCV of 7,988 cu-ft will be infiltrated within 27.7 hours after the storm event begins. The maximum retention volume is 1,677 cu-ft which will be required in addition to the retention capacity of the dry well. The supplemental storage device should be designed to capture flows that exceed the dry well flow capacity then flow back to the dry well once the storm flow falls below the dry well flow capacity. At 140 feet of 48" HDPE, the volume storage capacity is 1,759 cu-ft. These calculations are summarized in Attachment A and the Hydrograph Method for Drywell Sizing provided below.

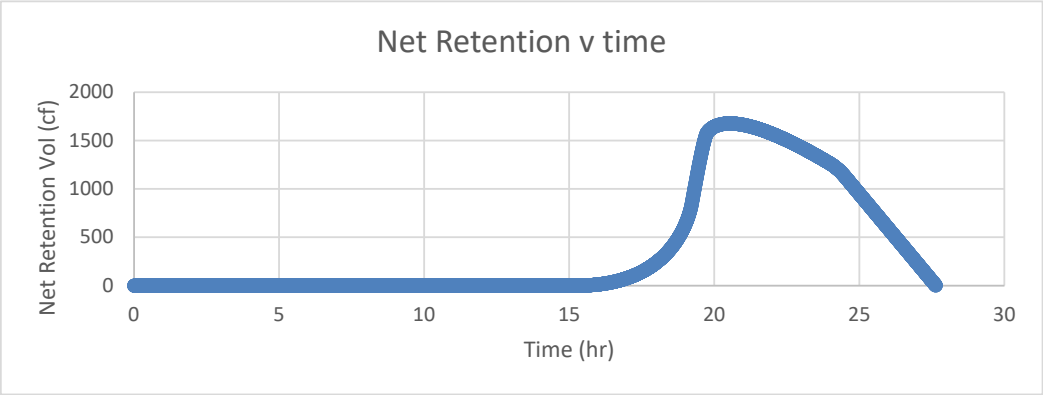

Design Hydrograph
Flow Rate (cfs)
0.6
0.5
0.4
0.3
0.2
0.1
0
0
5
10
15
20
25
30
Time (hrs)
Volume below Full Curve Represents DCV
Period of Accumulated Retention Volume
Design Flow Rate of Dry Well

Preliminary Estimator for Dry Well Infiltration System

Hydrograph Method

J.N.: 3029.00
Client: The Olson Co.
Drainage Area ID: Total Site

Dry Well Data:		
Peak Well Flow-Measured (cfs)	0.3	
Factor of Safety	3	
Peak Well Flow-Design (cfs)	0.1	
Empty time of a well (hrs)	0.1	
Storage Volume of a Well (cuft)	200	
Number of Wells	1	
Hydrograph Data:		
Flow Rate at Begin Retention (cfs)	0.1	OK
Time at Begin Retention (hr)	15.25	
Accumulated Volume at Begin Retention (AcFt)	0.08106	
Flow Rate at End Retention (cfs)	0.1	OK
Time at End Retention (hr)	20.53	
Accumulated Volume at End Retention (AcFt)	0.1632	
Time at end of Event (hr)	24.5	
Accumulated Volume at End of Event (AcFt)	0.1834	
Treatment Data:		
Design Treatment Volume (cuft)	7988	
Allowable Drawdown Time (hrs)	96	
Analyses:		
Vol. Accumulated Above Well Peak Flow (cuft)	3578	
Duration of Peak Flow Exceedance (hr)	5.28	
Vol. Infiltrated During Exceedance of Peak (cuft)	1901	
Volume Required for Retention (cuft)	1677	
Length of 48" Retention Pipe (ft)	134	
Duration of Event (hr)	24.5	
Retention Volume at end of Event (cf)	1117	
Time Req'd to Empty Retention (hr)	3.1	
Retention Vol in Dry Well (cf)	200	
Time Req'd to Empty Dry Well (hr)	0.1	
Total Time to Drawdown Retention (hr)	3.2	
Total Time of Event + Drawdown (hr)	27.7	OK



ALTERNATIVE COMPLIANCE FOR TECHNICAL INFEASIBILITY OR OPPORTUNITY FOR REGIONAL GROUND WATER REPLENISHMENT

Alternative Compliance is not required for the proposed project, as 100% of the SWQDv will be retained onsite.

ALTERNATIVE COMPLIANCE MEASURES

Not applicable.

WATER QUALITY MITIGATION CRITERIA

Not applicable.

HYDROMODIFICATION (FLOW/VOLUME/DURATION) CONTROL CRITERIA

There are no hydrologic conditions of concern for the project site. The project site drains to hard lined channels and to major flood control channels with estimated 100-year peak flows greater than 25,000 cfs, which means it is not susceptible to hydromodification impacts (i.e., San Jose Creek and San Gabriel River). Therefore, the project site is considered exempt from hydromodification and will not be required to mitigate for 2-year pre- and post-development peak flow runoff changes.

SECTION V INSPECTION/MAINTENANCE RESPONSIBILITY FOR BMPs

It has been determined that The Olson Company shall assume all BMP inspection and maintenance responsibilities for the Claremont Tentative Tract No. 83751 project.

Contact Name:	Tom Moore
Title:	VP, Operational Planning
Company:	The Olson Company
Address:	3010 Old Ranch Parkway, Suite 100 Seal Beach, CA 90740
Phone:	(562) 682-7422
Email:	Tmoore@theolsonco.com

Should the maintenance responsibility be transferred at any time during the operational life of Tentative Tract No. 83751, such as when an HOA or POA is formed for a project, a formal notice of transfer shall be submitted to the City of Claremont at the time responsibility of the property subject to this Planning Development Document is transferred. The transfer of responsibility shall be incorporated into this Planning Development Document as an amendment.

The Owner shall verify BMP implementation and ongoing maintenance through inspection, self-certification, survey, or other equally effective measure. The certification shall verify that, at a minimum, the inspection and maintenance of all structural BMPs including inspection and performance of any required maintenance in the late summer / early fall, prior to the start of the rainy season. A form that may be used to record implementation, maintenance, and inspection of BMPs is included in Attachment C.

The City of Claremont may conduct verifications to assure that implementation and appropriate maintenance of structural and non-structural BMPs prescribed within this Planning Development Document is taking place at the project site. The Owner shall retain operations, inspections and maintenance records of these BMPs and they will be made available to the City upon request. All records must be maintained for at least five (5) years after the recorded inspection date for the lifetime of the project.

Long term funding for operations and maintenance of BMPs will be generated through HOA fees. Until an HOA is established, the Owner will provide funding for O&M. CC&Rs specifying BMP maintenance requirements of the HOA and annual HOA BMP Inspection and Maintenance budget will be finalized and submitted to the City for final review.

BMP INSPECTION & MAINTENANCE RESPONSIBILITY MATRIX				
	BMP	Inspection/Maintenance Activities	Minimum Frequency	Responsible Party
INFILTRATION BMPs				
Maxwell IV Drywell + 48" HDPE detention gallery.		The drainage system, including settling chambers and detention system should be inspected annually. Removal of deposited silt and sediment may be performed with the annual inspection, or at a minimum as follows: • When the sediment level fills 10 percent of the effective settling capacity. Maintenance should include removal of all sediment, cleaning of all filters and screens and replacement of chemical absorbents. Removed material should be disposed of at a landfill or facility that is approved to accept it. Records concerning drywell cleaning and sediment disposal should be maintained.	Annually	Owner / HOA
NON-STRUCTURAL SOURCE CONTROL BMPs				
N1	Education for Property Owners, Tenants and Occupants	Educational materials will be provided to homeowners upon occupancy (see Attachment B).	Annually	Owner / HOA

BMP INSPECTION & MAINTENANCE RESPONSIBILITY MATRIX				
	BMP	Inspection/Maintenance Activities	Minimum Frequency	Responsible Party
N2	Activity Restrictions	Activity and use restrictions will be developed and enforced by the Owner/ HOA through CC&Rs.	Ongoing	Owner / HOA
N3	Common Area Landscape Management	Maintenance shall be consistent with City requirements, plus fertilizer and/or pesticide usage shall be consistent with City of Claremont requirements. Maintenance includes mowing, weeding, and debris removal on a weekly basis. Trimming, replanting and replacement of mulch shall be performed on an as-needed basis. Trimmings, clippings, and other waste shall be properly disposed of off-site in accordance with local regulations. Materials temporarily stockpiled during maintenance activities shall be placed away from water courses and drain inlets.	Monthly	Owner / HOA
N4	BMP Maintenance	Maintenance of BMPs implemented at the project site shall be performed at the frequency prescribed in this Planning Development Document. Records of inspections and BMP maintenance shall be maintained by the Owner/HOA and documented with the Planning Development Document, and shall be available for review upon request.	Ongoing	Owner / HOA

BMP INSPECTION & MAINTENANCE RESPONSIBILITY MATRIX				
	BMP	Inspection/Maintenance Activities	Minimum Frequency	Responsible Party
N11	Common Area Litter Control	Litter patrol, violations investigation, reporting and other litter control activities shall be performed in conjunction with maintenance activities. Litter collection and removal shall be performed on a weekly basis.	Weekly	Owner/HOA
N12	Employee Training	The Owner shall educate all new employees/managers on storm water pollution prevention, particularly good housekeeping practices, prior to the start of the rainy season (October 1). Refresher courses shall be conducted annually. Materials that may be used are attached to this Planning Development Document.	Annually	Owner/HOA
N14	Common Area Catch Basin Inspection	Private catch basin inlets, area drains, swales, curb-and-gutter systems and other drainage systems shall be inspected after each storm event and, when debris is present, cleaned prior to the storm season by October 1st each year.	After each storm event and Annually	Owner/HOA
N15	Street Sweeping Private Streets and Parking Lots	Private streets and drive aisles must be swept quarterly, including prior to the start of the rainy season (October 1st).	Quarterly	Owner/HOA
STRUCTURAL SOURCE CONTROL BMPs				
Provide storm drain system stenciling and signage		Private storm drain stencils shall be inspected for legibility, at minimum, once prior to the storm season, no later than October 1st each year. Those determined to be illegible will be re-stenciled as soon as possible.	Annually	Owner/HOA

BMP INSPECTION & MAINTENANCE RESPONSIBILITY MATRIX			
BMP	Inspection/Maintenance Activities	Minimum Frequency	Responsible Party
Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control	In conjunction with routine maintenance activities, verify that landscape design continues to function properly by adjusting properly to eliminate overspray to hardscape areas, and to verify that irrigation timing and cycle lengths are adjusted in accordance with water demands, given time of year, weather, day or nighttime temperatures based on system specifications and local climate patterns.	Monthly	Owner/HOA

Any waste generated from maintenance activities will be disposed of properly. Wash water and other waste from maintenance activities is not to be discharged or disposed of into the storm drain system. Clippings from landscape maintenance (i.e. prunings) will be collected and disposed of properly off-site, and will not be washed into the streets, local area drains/conveyances, or catch basin inlets.

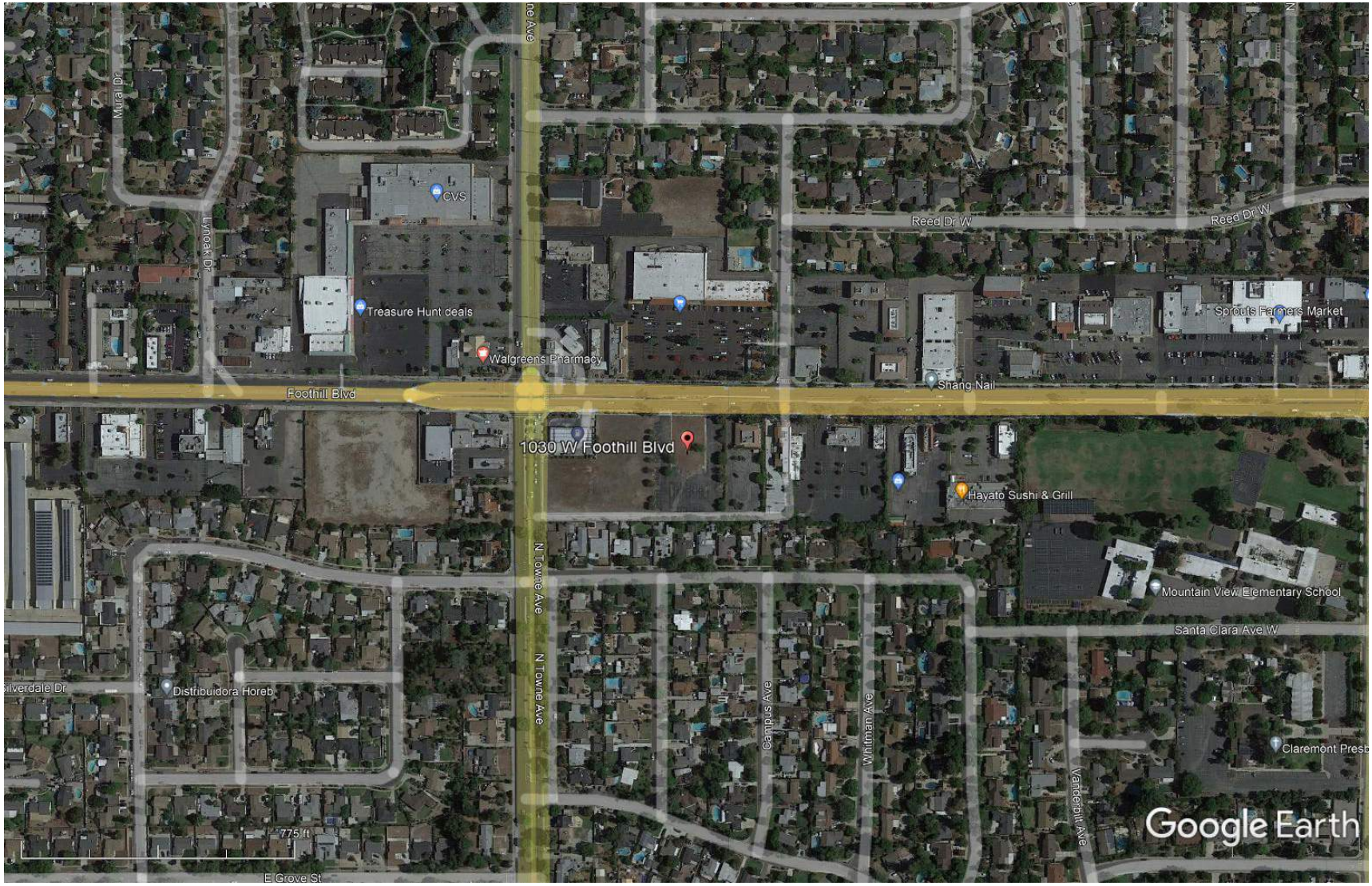
SECTION VI LOCATION MAP, PLOT PLAN & BMP DETAILS

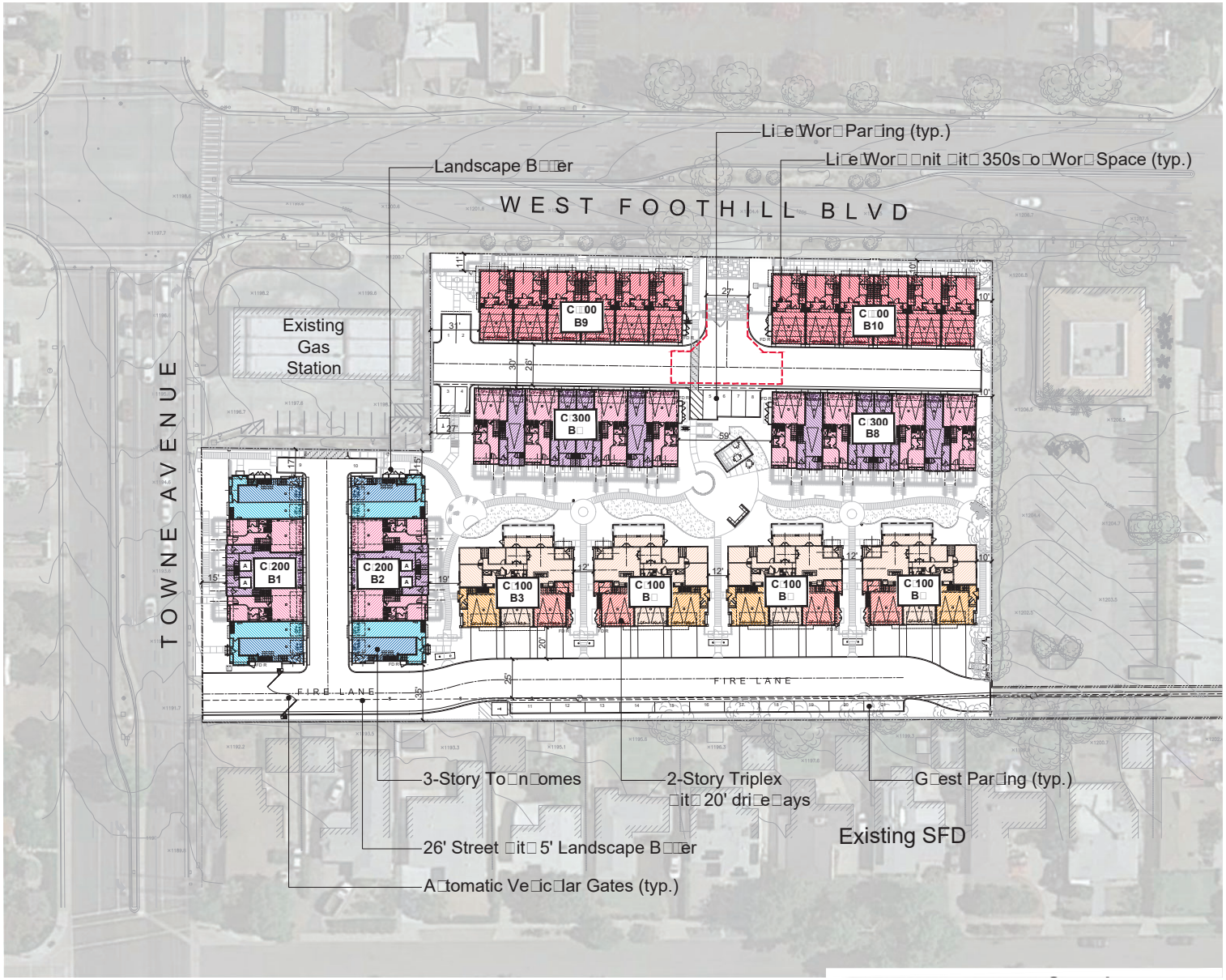
The exhibits provided in this section are to illustrate the post construction BMPs prescribed within this Planning Development Document. Drainage flow information of the proposed project, such as general surface flow lines, concrete or other surface drainage conveyances, and storm drain facilities are also depicted. All structural source control BMPs are shown as well.

EXHIBITS

- Vicinity Map
- Site Plan
- LID Schematic Exhibit
- MaxWell IV Drywell Detail
- Conceptual Grading Plan

VICINITY MAP





SITE INFORMATION
Address:1030 W. Foot□ill Bl□d.
APN: 8311-001-016
□oning: M□-3

M□-3
Commercial FAR: 1.5:1
Density: 15 d□ac
B□ilding Heig□t: 2 stories or 28'
Street Set□ac□: 10'
Set□ac□ to Residential: 10'
Open Space: 120s□□nit
Retail Par□ing: 1sp per 350s□

T□e □ollo□ing SB 1818 par□ing re□□irements apply to an entire pro□ect t□at contains set-aside a□ord□le □nits□i□re□□ested □y t□e de□eloper:
0 1 edroom nit = 1 onsite space
2 3 edroom nit = 2 onsite spaces
4 edroom nit = 2 onsite spaces
Tandem par□ing and □nco□ered par□ing is permitted
Any □ractional space is ro□nded □p to 1 □□ole space
No re□□irement □or g□est par□ing

SITE S□MMARY

De elopment Area: 3.054 ac

□nit Mix:
4 nits - P1 1213gs 2 ed 2.5 a 3-story tandem
4 nits - P1x 1268gs 2 ed 2.5 a 3-story tandem
12 nits - P2 1600gs 3 ed 3 a 3-story tandem
4 nits - P3 1654gs 3 ed 2 a 2-story sxs
12 nits - P4 1811gs 3 ed den 3.5 a 3-story sxs
4 nits - P5 1823gs 3 ed 2.5 a 2-story sxs
4 nits - P6 1855gs 4 ed 2.5 a 2-story sxs
12 nits - P7 2233gs (incl des 350s LW) 3 ed LW 3 a sxs
56 □nits - Total

Density: 18.337 d ac
Lot Co□erage: 98□980s□(74.4□)

Par□ing Re□□ired:
2□3□d - 40 □nits x 2 sp□nit = 80 spaces
4□d - 4 □nits x 2.5 sp□nit = 10 spaces
L□W - 12 □nits x 3 sp□nit = 36 spaces
Total Re□□ired: 126 spaces

Par□ing Pro□ided:
112 spaces - Garages
21 spaces - Open
133 spaces - Total Pro□ided□
**total does not include additional 24 spaces on driveways*

For Open Space re□er to Landscape Dra□ings

ktgy
Ar□□te□t□re □ Pla□□□□
17911 Von □arman A□e□
S□ite 200
Ir□ine□CA 92614
949.851.2133
□tgy.com

T□e Olson Company
3010 Old Ranc□ Par□□ay□S□ite 100
Seal Beac□□CA 90704

CLAREMONT
CLAREMONT□CA □ 2021-1164

Plot Date: 04.07.2022
Progress Set: 02.11.2022
1st S□□mittal Set: 04.01.2022

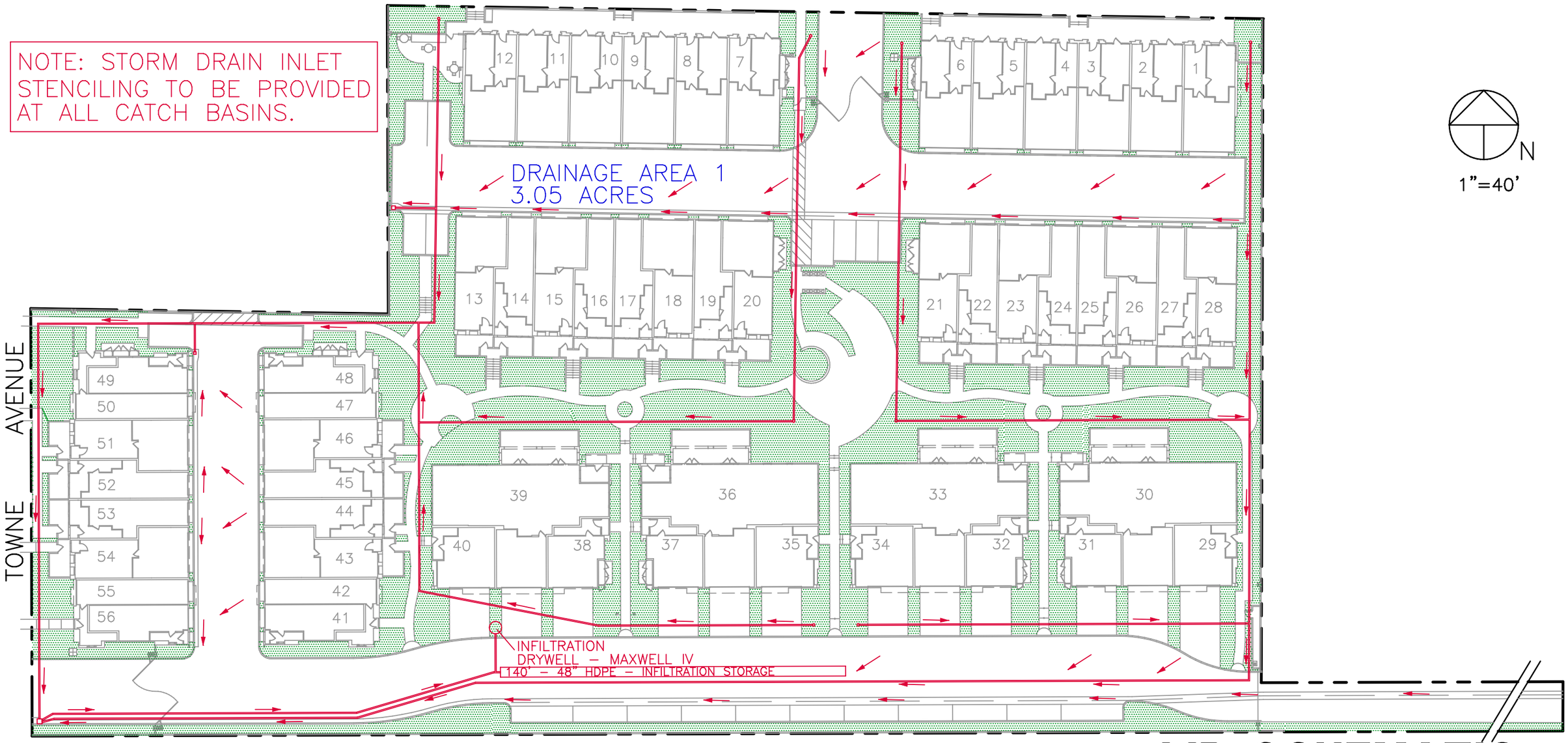
CONCEPT□AL SITE PLAN
FEBR□ARY 9□2022

0 15 30 60

A0.2

FOOTHILL BLVD.

NOTE: STORM DRAIN INLET STENCILING TO BE PROVIDED AT ALL CATCH BASINS.



N

1"=40'

REQUIRED PEAK INFITRATION RATE = 0.55 cfs
PEAK FLOW PROVIDED 0.3 cfs > FACTOR OF SAFETY 3 > 0.1 cfs DESIGN FLOW
RETENTION VOLUME REQUIRED = 1677 cf
RETENTION VOLUME PROVIDED = 1759 cf
DRAWDOWN TIME = 27.7 hours

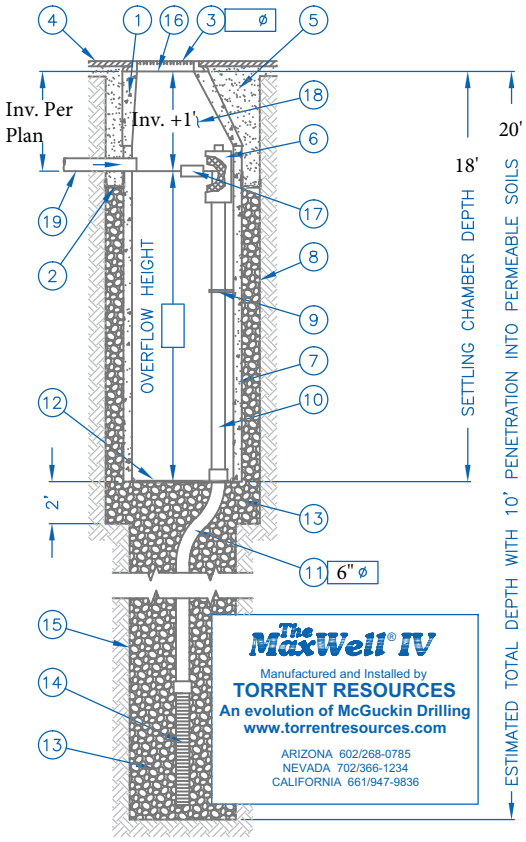
LID SCHEMATIC
CITY OF CLAREMONT
TENTATIVE TRACT NO. 83751

LATEST REVISION: 4/14/22

MAXWELL® IV DRAINAGE SYSTEM DETAIL AND SPECIFICATIONS

ITEM NUMBERS

1. **Manhole Cone** - Modified Flat Bottom.
2. **Moisture Membrane** - 6 Mil. Plastic. Applies only when native material is used for backfill. Place membrane securely against eccentric cone and hole sidewall.
3. **Bolted Ring & Grate** - Diameter as shown. Clean cast iron with wording **"Storm Water Only"** in raised letters. **Bolted in 2 locations** and secured to cone with mortar. Rim elevation ±0.02' of plans.
4. **Graded Basin or Paving** (by Others).
5. **Compacted Base Material** - 1-Sack Slurry except in landscaped installtions with no pipe connections.
6. **PureFlo® Debris Shield** - Rolled 16 ga. steel X 24" length with vented anti-siphon and Internal .265" Max. SWO flattened expanded steel screen X 12" length. **Fusion bonded epoxy coated.**
7. **Pre-cast Liner** - 4000 PSI concrete 48" ID. X 54" OD. **Center in hole** and align sections **to maximize bearing surface.**
8. **Min. 6' Ø Drilled Shaft.**
9. **Support Bracket** - Formed 12 Ga. steel. **Fusion bonded epoxy coated.**
10. **Overflow Pipe** - Sch. 40 PVC mated to drainage pipe at base seal.
11. **Drainage Pipe** - ADS highway grade with TRI-A coupler. **Suspend pipe** during backfill operations to prevent buckling or breakage. Diameter as noted.
12. **Base Seal** - Geotextile or concrete slurry.
13. **Rock** - Washed, sized between 3/8" and 1-1/2" to **best complement soil conditions.**
14. **FloFast® Drainage Screen** - Sch. 40 PVC 0.120" slotted well screen with 32 slots per row/ft.Diameter varies 120" overall length with TRI-B coupler.
15. **Min. 4' Ø Shaft** - Drilled to **maintain permeability** of drainage soils.
16. **Fabric Seal** - U.V. resistant geotextile - **to be removed by customer** at project completion.
17. **Absorbent** – Hydrophobic Petrochemical Sponge. Min. to 128 oz. capacity.
18. **Freeboard Depth** Varies with inlet pipe elevation. Increase settling chamber depth as needed to maintain all inlet pipe elevations above overflow pipe inlet.
19. **Optional Inlet Pipe** (Maximum 4", by Others). Extend moisture membrane and compacted base material or 1 sack slurry backfill below pipe invert.



AZ Lic. ROC070465 A, ROC047067 B-4, ADWR 363
CA Lic. 528080, C-42, HAZ.
NV Lic. 0035350 A - NM Lic. 90504 GF04

U.S. Patent No. 4,923,330 - ™ Trademark 1974, 1990, 2004

Appendix F
Noise Impact Analysis

1030 WEST FOOTHILL BOULEVARD RESIDENTIAL PROJECT NOISE IMPACT ANALYSIS

City of Claremont

Prepared for

THE OLSON COMPANY

3010 OLD RANCH PARKWAY, SUITE 100

SEAL BEACH, CA 90740-2751

Prepared by

MAT ENGINEERING INC.

17192 MURPHY AVENUE, IRVINE, CALIFORNIA 92623

CONTACT: ALEX TABRIZI, PE, TE ▪ 949.344.1828 ▪ at@matengineering.com

Alex Tabrizi, PE, TE

September 7, 2022

Project & Doc No. 0012-2022-01.05

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GLOSSARY

ADT	Average Daily Traffic
ANSI	American National Standards Institute
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dB	decibel
dBA	A-weighted decibel
dBA/DD	A-weighted decibel per each doubling of distance
DOT	Department of Transportation
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noise
FTA	Federal Transit Administration
Hz	Hertz
Ldn	Day-Night Average Sound Level
Leq	Equivalent Sound Level
LV	Vibration Level
ONAC	Federal Office of Noise Abatement Control
ONC	California Department of Health Services Office of Noise Control
OSHA	Occupational Safety and Health Administration
PPV	peak particle velocity
RMS	root mean square
SEL	Single Event Level
sq ft	square feet
UMTA	Urban Mass Transit Administration
VdB	LV at 1 microinch per second

1.0 INTRODUCTION & PROJECT DESCRIPTION

1.1 Purpose of Report & Study Objectives

This Noise Impact Study has been prepared to determine the offsite and onsite noise impacts associated with the proposed 1030 West Foothill Boulevard Residential Project development project. The following is provided in this report:

- A description of the study area and the proposed project.
- Information regarding the fundamentals of noise.
- Information regarding the fundamentals of vibration.
- A description of the local noise guidelines and standards.
- An evaluation of the current noise environment.
- An analysis of the potential short-term construction-related noise and vibration impacts from the proposed project.
- An analysis of long-term operations-related noise impacts from the proposed project.

1.2 Site Location & Project Description

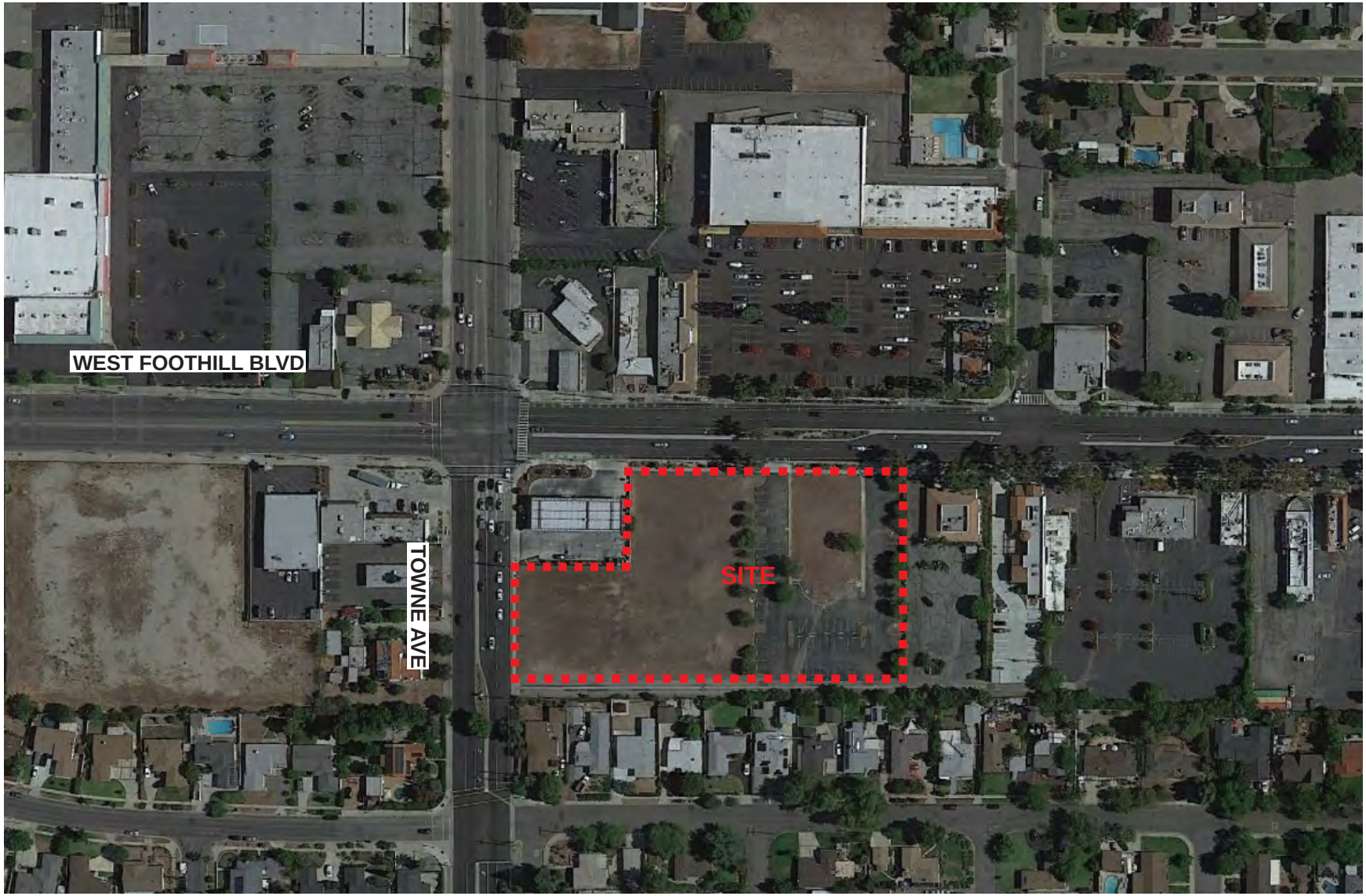
The project site is located at 1030 West Foothill Boulevard, in the City of Claremont. The proposed project consists of construction and operation of 56 dwelling units of residential condominium units.

Exhibit A shows the project site location. Exhibit B shows the proposed site plan.

1.3 Sensitive Receptors

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels.

The closest existing sensitive receptors (to the site area) are residential uses located immediately along Amador Street, immediately adjacent to the alley way (within 25 feet) and

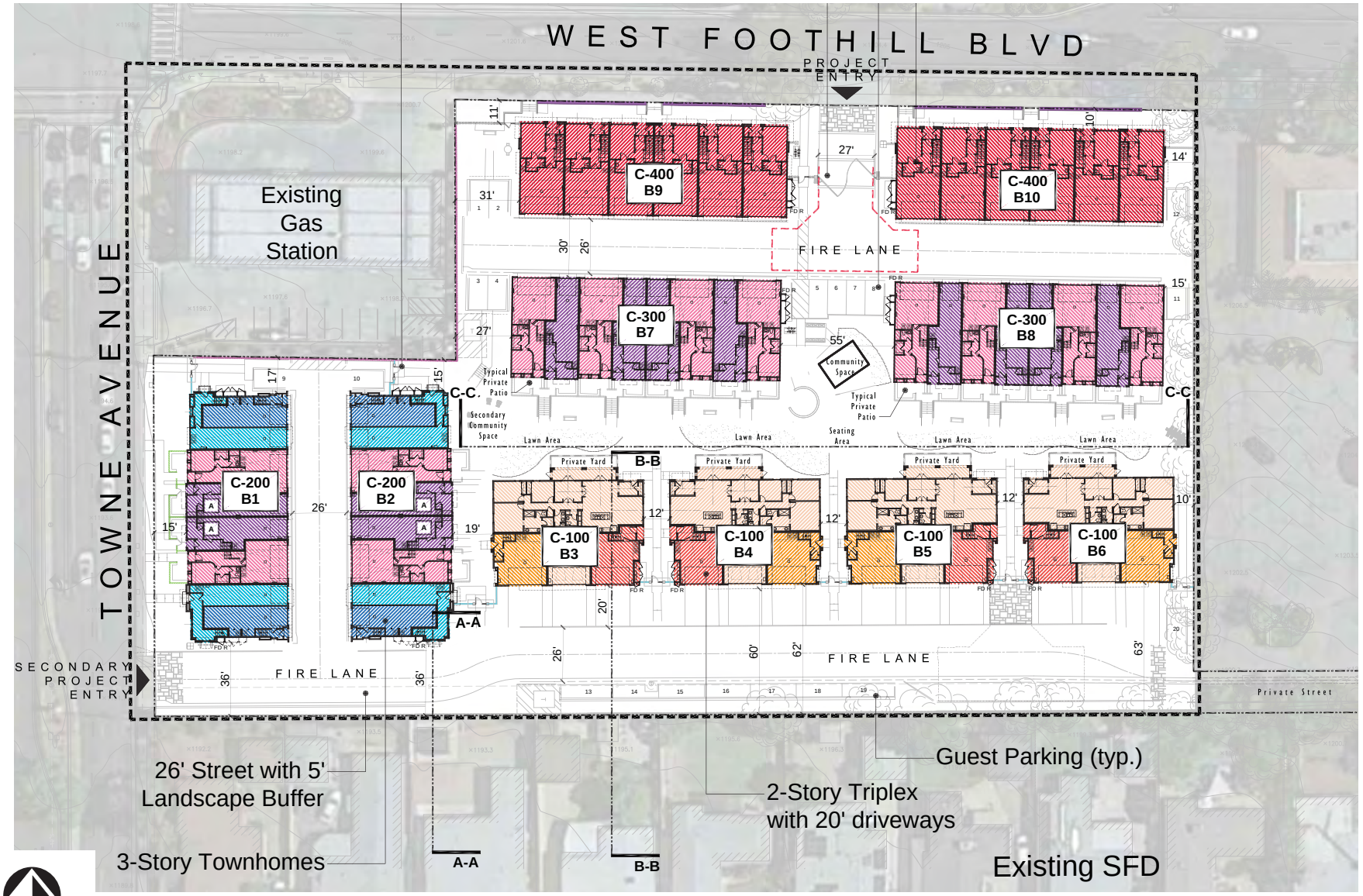


Not to Scale

ENGINEERING, INC.

Site Location

Exhibit A



Not to Scale

ENGINEERING, INC.

Site Plan

Exhibit B

residential uses located across Towne Avenue, approximately 120 feet away to the west of the project site.

2.0 FUNDAMENTAL OF NOISE

2.1 Noise

Noise is defined as unwanted sound. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels. The decibel (dB) is a logarithmic unit, which expresses the ratio of the sound pressure level being measured to a standard reference level. A-weighted decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies that are audible to the human ear.

2.1.1 Noise Description

Noise equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in dBA. The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. The peak traffic hour Leq is the noise metric used by California Department of Transportation (Caltrans) for all traffic noise impact analyses.

The Day-Night Average Sound Level (Ldn) is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of ten decibels to sound levels at night between 10 p.m. and 7 a.m. While the Community Noise Equivalent Level (CNEL) is like the Ldn, except that it has another addition of 4.77 dB to sound levels during the evening hours between 7 p.m. and 10 p.m. These additions are made to the sound levels at these times because during the evening and nighttime hours, when compared to daytime hours, there is a decrease in the ambient noise levels, which creates an increased sensitivity to sounds. For this reason, the sound is perceived to be louder in the evening and nighttime hours and is weighted accordingly. Many cities rely on the CNEL noise standard to assess transportation- related impacts on noise sensitive land uses.

Another noise descriptor that is used primarily for the assessment of aircraft noise impacts is the Sound Exposure Level, which is also called the Single Event Level (SEL). The SEL descriptor represents the acoustic energy of a single event (i.e., an aircraft overflight) normalized to one-second event duration. This is useful for comparing the acoustical energy of different events involving different durations of the noise sources. The SEL is based on an integration of the noise during the period when the noise first rises within 10 dBA of its maximum value and last falls below 10 dBA of its maximum value. The SEL is often 10 dBA greater, or more, than the LMAX since the SEL logarithmetically adds the Leq for each second of the duration of the noise.

2.1.2 Tone Noise

A pure tone noise is a noise produced at a single frequency and laboratory tests have shown the humans are more perceptible to changes in noise levels of a pure tone (Caltrans 1998). For a noise source to contain a “pure tone,” there must be a significantly higher A-weighted sound energy in a given frequency band than in the neighboring bands, thereby causing the noise source to “stand out” against other noise sources. A pure tone occurs if the sound pressure level in the one-third octave band with the tone exceeds the average of the sound pressure levels of the two contagious one-third octave bands by: 5 dB for center frequencies of 500 Hertz (Hz) and above; by 8 dB for center frequencies between 160 and 400 Hz; and by 15 dB for center frequencies of 125 Hz or less (Department of Health Services 1977).

2.1.3 Noise Propagation

From the noise source to the receiver, noise changes both in level and frequency spectrum. The most obvious is the decrease in noise as the distance from the source increases. The manner in which noise reduces with distance depends on whether the source is a point or line source as well as ground absorption, atmospheric effects and refraction, and shielding by natural and manmade features.

Sound from point sources, such as air conditioning condensers, radiate uniformly outward as it travels away from the source in a spherical pattern. The noise drop-off rate associated with this geometric spreading is 6 dBA per each doubling of the distance (dBA/DD). Transportation noise sources such as roadways are typically analyzed as line sources, since at any given moment the receiver may be impacted by noise from multiple vehicles at various locations along the roadway. Because of the geometry of a line source, the noise drop-off rate associated with the geometric spreading of a line source is 3 dBA/DD.

2.1.4 Ground Absorption

The sound drop-off rate is highly dependent on the conditions of the land between the noise source and receiver. To account for this ground-effect attenuation (absorption), two types of site conditions are commonly used in traffic noise models: soft-site and hard-site conditions. Soft-site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. For point sources, a drop-off rate of 7.5 dBA/DD is typically observed over soft ground with landscaping, as compared with a 6.0 dBA/DD drop-off rate over hard ground such as asphalt, concrete, stone and very hard packed earth. For line sources a 4.5 dBA/DD is typically observed for soft-site conditions compared to the 3.0 dBA/DD drop-off rate for hard-site conditions. To be conservative, hard-site conditions were used in this analysis.

2.1.5 Traffic Noise Prediction

The level of traffic noise depends on the three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and greater number of trucks.

Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. Because of the logarithmic nature of traffic noise levels, a doubling of the traffic volume (assuming that the speed and truck mix do not change) results in a noise level increase of 3 dBA. Based on the FHWA community noise assessment criteria, this change is "barely perceptible," for reference a doubling of perceived noise levels would require an increase of approximately 10 dBA. However, the 1992 findings of Federal Interagency Committee on Noise (FICON), which assessed changes in ambient noise levels resulting from aircraft operations, found that noise increases as low as 1.5 dB can cause annoyance, when the existing noise levels are already greater than 65 dB. The truck mix on a given roadway also has an effect on community noise levels. As the number of heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise levels increase.

2.2 Vibration Fundamentals

Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of groundborne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

2.2.1 Vibration Description

Several different methods are used to quantify vibration amplitude such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the root mean square (RMS) amplitude of the vibration velocity. Because of the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels and is denoted as LV and is based on the RMS velocity amplitude. A commonly used abbreviation is VdB, which in this text, is when vibration level (LV) is based on the reference quantity of 1 microinch per second.

2.2.2 Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Offsite sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible groundborne noise or vibration.

2.2.3 Vibration Propogation

The propagation of groundborne vibration is not as simple to model as airborne noise. This is because noise in the air travels through a relatively uniform median, while groundborne vibrations travel through the earth, which may contain significant geological differences. There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

2.2.4 Construction Related Vibration Level Prediction

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. Table 1 gives approximate vibration levels for particular construction activities. The data in Table 1 provides a reasonable estimate for a wide range of soil conditions.

Table 1
Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level (LV) at 25 feet
Pile driver (impact)	1.518 (upper range) 0.644 (typical)	112 104
Pile driver (sonic)	0.734 upper range 0.170 typical	105 93
Clam shovel drop (slurry wall)	0.202	94
Hydromill (slurry wall)	0.008 in soil 0.017 in rock	66 75
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

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

3.0 REGULATORY SETTING

The proposed project is located in the City of Claremont and noise regulations are addressed through the efforts of various federal, State, and local government agencies. The agencies responsible for regulating noise are discussed below.

3.1 Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce.
- Assisting state and local abatement efforts.
- Promoting noise education and research.

The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees. For example, the Occupational Safety and Health Administration (OSHA) agency limits noise exposure of workers to 90 dB Leq or less for 8 continuous hours or 105 dB Leq or less for 1 continuous hour.

The Department of Transportation (DOT) assumed a significant role in noise control through its various operating agencies. The Federal Aviation Administration (FAA) regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration (FTA). Transit noise is regulated by the federal Urban Mass Transit Administration (UMTA), while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). Finally, the federal government actively advocates that local jurisdiction use their land use regulatory authority to arrange new development in such a way that “noise sensitive” uses are either prohibited from being sited adjacent to a highway or, alternately that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation sources, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

3.2 State Regulations

Though not adopted by law, the State of California General Plan Guidelines 2017, published by the California Governor's Office of Planning and Research (OPR) (OPR Guidelines), provides guidance for the compatibility of projects within areas of specific noise exposure. The OPR Guidelines identify the suitability of various types of construction relative to a range of outdoor noise levels and provide each local community some flexibility in setting local noise standards that allow for the variability in community preferences. Findings presented in the Levels of Environmental Noise Document (EPA 1974) influenced the recommendations of the OPR Guidelines, most importantly in the choice of noise exposure metrics (i.e., Ldn or CNEL) and in the upper limits for the normally acceptable outdoor exposure of noise-sensitive uses.

The OPR Guidelines include a Noise and Land Use Compatibility Matrix which identifies acceptable and unacceptable community noise exposure limits for various land use categories. Where the "normally acceptable" range is used, it any special acoustical is defined as the highest noise level that should be considered for the construction of the buildings which do not incorporate treatment or noise mitigation. The "conditionally acceptable" or "normally unacceptable" ranges include conditions calling for detailed acoustical study prior to the construction or operation of the proposed project. The City of Indio has adopted their own version of the State Land Use Compatibility Guidelines for land use planning and to assess potential transportation noise impacts to proposed land uses (see Table 2). Title 24, Chapter 1, Article 4 of the California Administrative Code (California Noise Insulation Standards) requires noise insulation in new hotels, motels, apartment houses, and dwellings (other than single-family detached housing) that provides an annual average noise level of no more than 45 dBA CNEL. When such structures are located within a 60-dBA CNEL (or greater) noise contour, an acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA CNEL annual threshold. In addition, Title 21, Chapter 6, Article 1 of the California Administrative Code requires that all habitable rooms, hospitals, convalescent homes, and places of worship shall have an interior CNEL of 45 dB or less due to aircraft noise.

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable and clearly unacceptable.

3.3 Local Regulations

The City of Claremont establish the following applicable goals policies related to noise and vibration.

3.3.1 City of Claremont General Plan Noise Element

The City of Claremont General Plan Noise Element provides goals, policies and implementation measures that are intended to achieve and maintain land use compatibility with environmental noise levels and to ensure that City residents will be protected from excessive noise intrusion, both now and in the future. The City's Noise Element is provided in Appendix A. Table 2 shows the maximum allowable exterior and interior noise standards specified in Table 6-5 of the City's General Plan Noise Element.

Table 2
Claremont Noise/Land Use Compatibility Standards

Project Land Use Categories	Maximum Interior Noise Level (CNEL)	Maximum Exterior Noise Level (CNEL)
Residential- Medium / High Density	45 dBA	70 dBA

3.3.2 City of Claremont Municipal Code Noise Ordinance

Section 16.154.020(D) and (E) of the City of Claremont Municipal Code establishes noise level standards for various land use categories affected by stationary noise sources. Land use categories in the City of Claremont are defined in three noise zones, as listed below. Tables 3 provide the City of Claremont's exterior and interior noise standard based on the noise zone and the time period, respectively.

- **Noise Zone I:** All single-, double-, and multi-family residential properties
- **Noise Zone II:** All commercial properties
- **Noise Zone III:** All manufacturing or industrial properties

It shall be unlawful for any person at any location within the incorporated area of the City to create any noise or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person which causes the noise level when measured on the property line of any other property to exceed the basic noise level as adjusted above. Each of the noise limits below shall be reduced by 5 dBA for noise consisting of impulse or simple tone noise. If the measurement location is a boundary between two different noise zones, the lower noise level standard shall apply. If the intruding noise source is continuous and cannot reasonably be discontinued or stopped for a time period whereby the ambient noise level can be determined, the measured noise level obtained while the noise is in operation shall be compared directly to the allowable noise level standards as specified respective to the measurement location's designated land use and for the time of day the noise level is measured

Table 3
Claremont Exterior Noise Level Standards

Noise Zone	Time Interval	15 minutes[1] (dBA)	10 minutes[2] (dBA)	5 minutes[3] (dBA)	Anytime[4] (dBA)
I	7:00 AM to 10:00 PM	60	65	74	75
	10:00 PM to 7:00 AM	55	60	69	70
II	7:00 AM to 10:00 PM	65	70	79	80
	10:00 PM to 7:00 AM	60	65	74	75
III	Anytime	70	75	84	85

Source: City of Claremont Municipal Code Section 16.154.020(D) (2019).
[1] 15-minute noise standard. Basic noise level for a cumulative period of more than 15 minutes in any 1 hour.
[2] 10-minute noise standard. Basic noise level plus 5 dBA for a cumulative period of more than 10 minutes in any 1 hour.
[3] 5-minute noise standard. Basic noise level plus 14 dBA for a cumulative period of more than 5 minutes in any 1 hour.
[4] Anytime noise standard. Basic noise level plus 15 dBA at any time. dBA = A-weighted decibels

3.3.3 Construction Noise Regulation

Section 16.154.020(F) of the City of Claremont Municipal Code exempts noise sources associated with, or vibration created by construction, repair, remodeling or grading of any real property or during authorized seismic surveys provided:

- Activities take place between the hours of 7:00 a.m. and 8:00 p.m. weekdays and Saturdays, excluding national holidays; and
- Noise levels as measured on residential properties do not exceed 65 dBA for a cumulative period of more than 15 minutes in any 1 hour, 70 dBA for a cumulative period of more than 10 minutes in any hour, and 79 dBA for a cumulative period of more than 5 minutes in any 1 hour or 80 dBA at any time: and
- Any vibration created doest not endager the public health, welfare, and safety.

Only construction, repair, remodeling, and grading activities that do not exceed the noise levels set by Section 16.154.020(D) may occur on Sundays and national holidays.

Section 16.154.020(H) of the City of Claremont Municipal Code states that the noise standards specified in Section 16.154.020(D) and (E) for noise levels generated by air conditioning, a refrigeration system, or associated equipment shall be increased by 5 dBA. In addition, no person shall cause the loading, unloading, opening, closing, or other handling of boxes, crates, containers, building materials, garbage cans, or similar objects between the hours of 10:00 p.m. and 7:00 a.m. in such a manner as to cause a noise disturbance across a residential real property boundary or within Noise Zone I.

Section 16.154.020(J) of the City of Claremont Municipal Code states that it shall be unlawful for any person to create, maintain, or cause any ground vibration that is perceptible without instruments at any point on any affected property adjoining the project on which the vibration source is located.

The perception threshold shall be presumed to be more than 0.05 in/sec RMS vertical velocity (PPV).

4.0 EXISTING NOISE CONDITIONS

To determine the existing noise level environment, long-term noise measurements were taken in the project study area at two locations in the project vicinity and surrounding receptors. The following describes the measurement procedures, measurement locations, and the noise measurement results.

4.1 Measurement Procedure & Criteria

To ascertain the existing noise at the project site, field monitoring was conducted on July 28th, 2022. The field survey noted that noise within the proposed project area is generally characterized by traffic noise propagating from Foothill Boulevard and Towne Avenue.

4.2 Measurement Equipment

Noise monitoring was performed using a Larson Davis (Model LxT) sound level meter. The sound level meter was programmed in “slow” mode to record the sound pressure level at one second intervals for in A-weighted form.

The sound level meters and microphones were mounted approximately five feet above the ground and equipped with a windscreen during all measurements. The sound level meter was calibrated before monitoring. The noise level measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983).

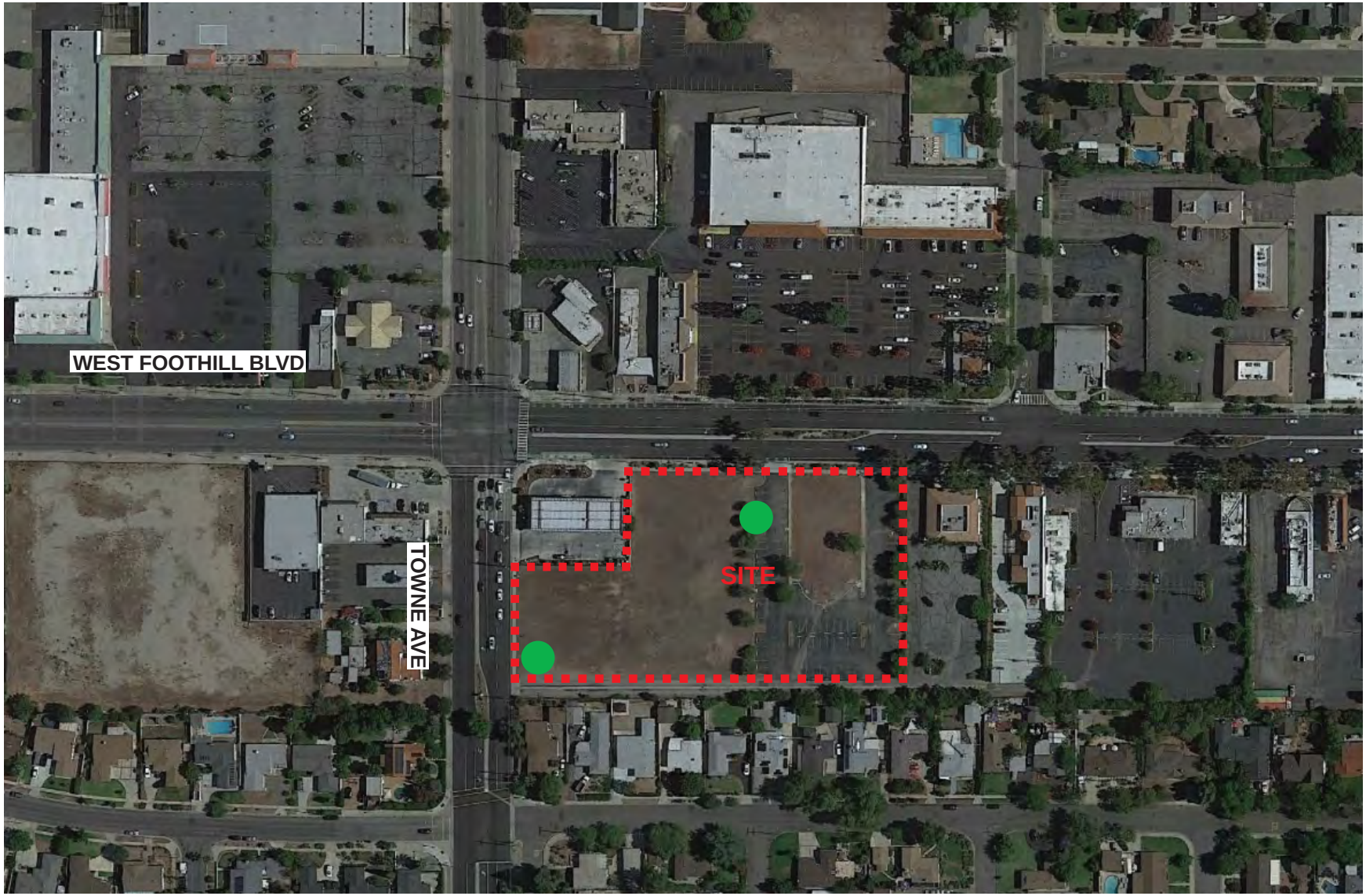
4.3 Measurement Locations

The noise monitoring locations were selected in order to obtain noise measurements of the current noise sources impacting the vicinity of the project site and the surroundings to provide a baseline for the existing noise levels. The noise measurement locations are shown in Exhibit C.

4.4 Noise Measurement and Results

The noise measurements were taken at two locations near the project site. The results of the noise level measurements are provided below in Table 4 and Table 5. The descriptions of the measurement locations are given below:

Location-1: Along the northern portion of the project site at approximately 95 feet from the centerline of the Foothill Boulevard and 350 Feet from the centerline of Towne Avenue.



Not to Scale

Noise Monitoring Location

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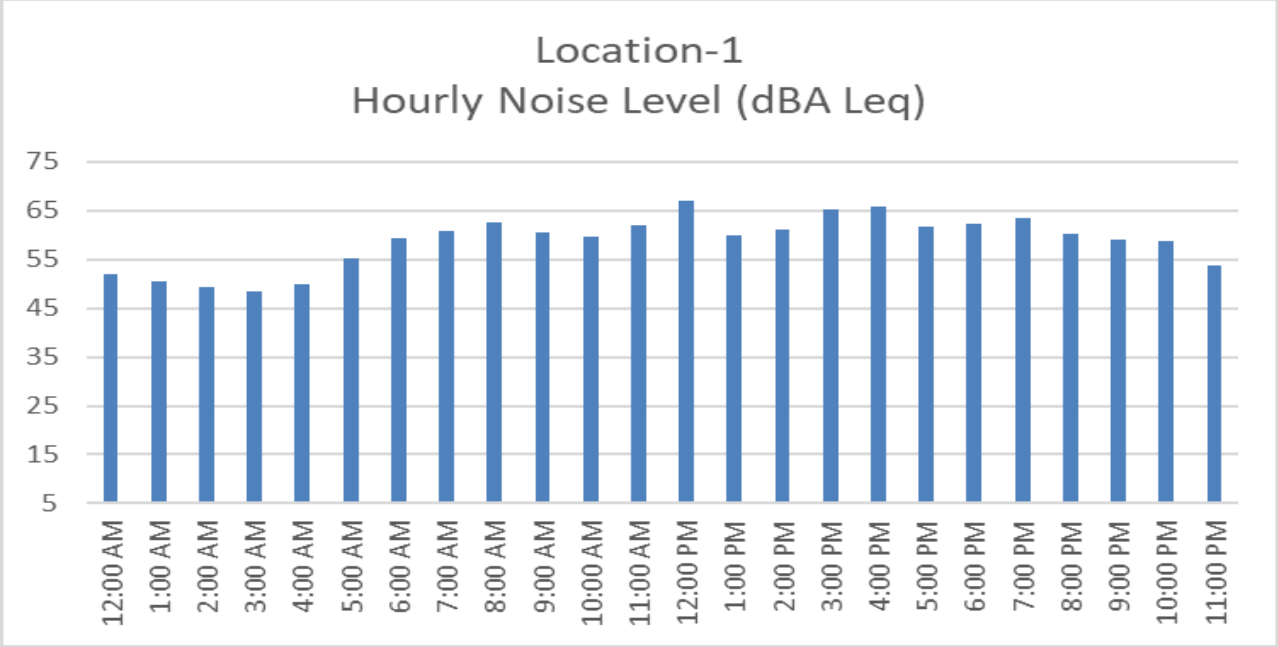
Noise Monitoring Location

1030 WEST FOOTHILL BOULEVARD RESIDENTIAL PROJECT, City of Claremont, California / 0012-2022-01 JUL/2022

Exhibit C

Table 4
Location-1, Noise Measurement Results, measured July 28th, 2022

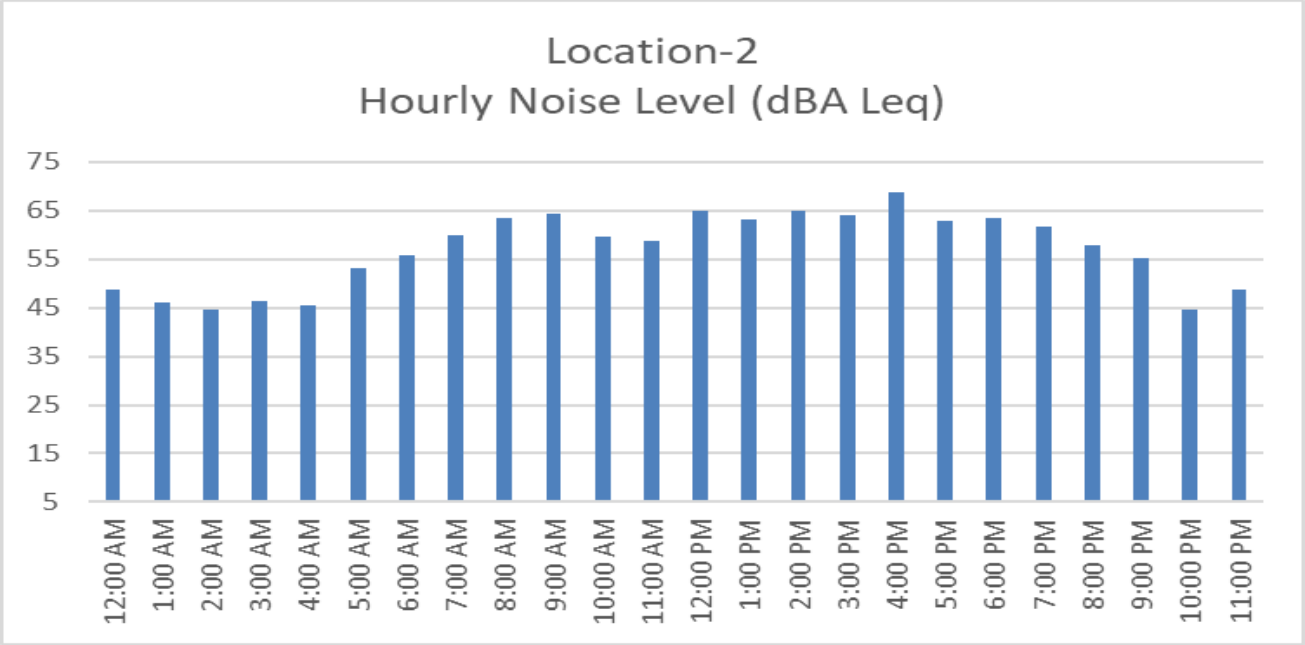
Start Time	Noise Level (dBA L_{eq})	Start Time	Noise Level (dBA L_{eq})
12:00 AM	51.9	12:00 PM	67.0
1:00 AM	50.4	1:00 PM	59.8
2:00 AM	49.4	2:00 PM	61.0
3:00 AM	48.4	3:00 PM	65.1
4:00 AM	49.9	4:00 PM	65.9
5:00 AM	55.1	5:00 PM	61.6
6:00 AM	59.2	6:00 PM	62.4
7:00 AM	60.9	7:00 PM	63.6
8:00 AM	62.5	8:00 PM	60.1
9:00 AM	60.6	9:00 PM	59.0
10:00 AM	59.5	10:00 PM	58.9
11:00 AM	62.1	11:00 PM	53.6
		24 Hour CNEL (dBA)	**64.3**



Location-2: Along the western portion of the project site at approximately 80 feet from the centerline of the Towne Avenue and along the southern alleyway.

Table 5
Location-2, Noise Measurement Results, measured July 28th, 2022

Start Time	Noise Level (dBA L_{eq})	Start Time	Noise Level (dBA L_{eq})
12:00 AM	48.6	12:00 PM	64.9
1:00 AM	46.1	1:00 PM	63.3
2:00 AM	44.5	2:00 PM	64.8
3:00 AM	46.3	3:00 PM	64.2
4:00 AM	45.6	4:00 PM	68.7
5:00 AM	53.2	5:00 PM	62.8
6:00 AM	55.9	6:00 PM	63.5
7:00 AM	59.8	7:00 PM	61.6
8:00 AM	63.4	8:00 PM	58.0
9:00 AM	64.5	9:00 PM	55.3
10:00 AM	59.6	10:00 PM	44.6
11:00 AM	58.8	11:00 PM	48.6
		24 Hour CNEL (dBA)	**62.9**



5.0 NOISE & VIBRATION ANALYSIS

Consistent with the California Environmental Quality Act (CEQA) and the CEQA Guidelines, a significant impact related to noise would occur if a proposed project were determined to 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?

According to the CEQA checklist, to determine whether impacts to noise resources are significant environmental effects, the following thresholds are analyzed and evaluated:

- Exceedance of noise standards for construction and operational noise
- Groundborne vibration.
- Operational noise.
- Short-term construction noise.

Each of these thresholds is analyzed below.

5.1 Exceedance of Noise Standards

This impact discussion analyzes the potential for project construction noise to cause an exposure of persons to or generation of noise levels in excess of established City of Claremont noise standards or applicable standards of other agencies. Noise levels in the project area would be influenced by construction activities.

5.1.1 Construction Noise

Section 16.154.020(F) of the City of Claremont Municipal Code exempts noise sources associated with, or vibration created by construction, repair, remodeling or grading of any real property or during authorized seismic surveys provided:

- Activities take place between the hours of 7:00 a.m. and 8:00 p.m. weekdays and Saturdays, excluding national holidays; and

- Noise levels as measured on residential properties do not exceed 65 dBA for a cumulative period of more than 15 minutes in any 1 hour, 70 dBA for a cumulative period of more than 10 minutes in any hour, and 79 dBA for a cumulative period of more than 5 minutes in any 1 hour or 80 dBA at any time: and

- Any vibration created does not endanger the public health, welfare, and safety.

The closest receptors to the project site include: the residential uses located immediately adjacent to the south of the project site, immediately adjacent to the alley way. It should be noted that there is an existing six-foot noise barrier wall located between the project site and the residential uses to the south. The noise analysis has not taken the existing wall into consideration during analysis.

Short-term noise impacts could occur during construction activities from either the noise impacts created from the transport of workers and movement of construction materials to and from the project site, or from the noise generated onsite during the minor parking area improvements and driveway paving activities.

Table 6 shows typical construction noise levels compiled by the Environmental Protection Agency (EPA) for common type construction equipment. Typical construction noise levels are used to estimate potential project construction noise levels at the adjacent sensitive receptors.

Table 6
Typical Construction Noise Levels

Type	Noise Levels (dBA) at 50 Feet
Earth Moving	
Compactors (Rollers)	73 - 76
Front Loaders	73 - 84
Backhoes	73 - 92
Tractors	75 - 95
Scrapers, Graders	78 - 92
Pavers	85 - 87
Trucks	81 - 94
Materials Handling	
Concrete Mixers	72 - 87
Concrete Pumps	81 - 83
Cranes (Movable)	72 - 86
Cranes (Derrick)	85 - 87
Stationary	
Pumps	68 - 71
Generators	71 - 83
Compressors	75 - 86
Impact Equipment	
Pneumatic Wrenches	82 - 87
Jack Hammers, Rock Drills	80 - 99
Pile Drivers (Peak)	95-105
Other	
Vibrators	68 - 82
Saws	71 - 82

[1] Referenced Noise Levels from the Environmental Protection Agency (EPA)

Construction noise levels will vary significantly based upon the size and topographical features of the active construction zone, duration of the workday, and types of equipment employed, as indicated in Table 7. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Although there would be a relatively high single-event noise exposure potential, resulting in potential short-term intermittent annoyances, the effect in long-term ambient noise levels would be small when averaged over longer time.

Tables 7 show the typical Project Construction noise level from the center of the site at 140 feet. Construction noise calculation worksheets are provided in Appendix B.

Table 7
Project Typical Construction Noise Levels –
From the Center of the Site to the Nearest Receptor

Phase	Equipment	Quantity	Equipment Noise Level from the center of the site (dBA Leq)	Combined Noise Level (dBA Leq)
Demolition	Excavator	3	67.8	73.4
	Concrete Mixer Truck	1	65.9	
Site Preparation	Rubber Tired Dozers	3	69.4	78.7
	Tractors/Loaders/Backhoes	4	71.7	
Grading	Excavator	1	67.8	78.3
	Grader	1	72.1	
	Dozer	1	68.7	
	Tractor	3	71.1	
Building Construction	Crane	1	63.6	77.2
	Forklift	3	62.1	
	Generator	1	68.7	
	Tractor	3	71.1	
Paving	Concrete Mixer Truck	2	65.9	73.3
	Paver	1	65.3	
	Roller	2	64.1	
	Paving Equipment	2	64.1	
Architectural Coating	Compressor (air)	1	64.7	64.7
Claremont Baseline Exterior Noise Standard Criteria				65.0
Noise level exceeds City of Claremont criteria?				Yes

As shown in Table 7, the construction noise levels will exceed the City of Claremont Baseline Exterior Noise Standard Criteria of 65.0 dBA. Construction activity within the Project has the potential to result in significant noise impacts

However, as previously mentioned, construction noise would be a relatively high single-event noise exposure potential, resulting in potential short-term intermittent annoyances, the effect in long-term ambient noise levels would be small when averaged over longer time and also, with the existing noise barrier wall along the residential homes to the south, the project's construction noise levels are expected to be further reduced.

5.1.2 Construction Best Management Practices

In order to further reduce construction noise levels, prior to the issuance of grading permits, the project Applicant or their designee shall develop a Construction Noise Reduction Plan to minimize construction noise at nearby noise sensitive receptors. The Construction Noise Reduction Plan shall outline and identify noise complaint measures, best management construction practices, and equipment noise reduction measures. The Construction Noise Reduction Plan shall include, but is not limited to, the following actions:

1. The construction contractor shall limit construction activities to between the hours of 7:00 a.m. and 8:00 p.m. on weekdays and Saturdays, excluding national holidays. In addition, noise levels on residential properties shall not exceed 65 dBA for a cumulative period of more than 15 minutes in any 1 hour, 70 dBA for a cumulative period of more than 10 minutes in any 1 hour, 79 dBA for a cumulative period of more than 5 minutes in any 1 hour, or 80 dBA at any time.

2. During all project site excavation and grading on-site, construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturer standards.

3. The contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site.

4. Equipment shall be shut off and not left to idle when not in use.

5. The contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise/vibration sources and sensitive receptors nearest the project site during all project construction. Ideally, along the northern property line, away from the residential homes to the south and west.

6. The project proponent shall mandate that the construction contractor prohibit the use of music or sound amplification on the project site during construction.

7. The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment.

8. Limit the use of heavy equipment or vibratory rollers and soil compressors along the project boundaries to the greatest degree possible. It is acknowledged that some soil compression may be necessary along the project boundaries.

9. Jackhammers, pneumatic equipment and all other portable stationary noise sources shall be shielded, and noise shall be directed away from sensitive receptors.

10. For the duration of construction activities, the construction manager shall serve as the contact person should noise levels become disruptive to local residents. A sign should be posted at the project site with the contact phone number.

With use of BMPs (as applicable) construction-related noise impacts are considered to be less than significant.

5.2 Groundborne Vibration

This impact discussion analyzes the potential for the proposed project to cause an exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. Vibration levels in the project area would be influenced by construction activities.

5.2.1 Construction Vibration

Project construction can generate varying degrees of groundborne 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 in the vicinity of a construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). This impact discussion utilizes Caltrans's recommended standard of 0.2 in/sec PPV with respect to the prevention of structural damage for normal buildings. Table 8 displays vibration levels for typical construction equipment.

Based on the site plans, demolition, site preparation, grading and paving would likely take place as near as approximately 25 feet from the nearest residential uses, and building construction would take place as near as approximately 60 feet from the nearest residential uses. However, it is acknowledged that construction activities would occur throughout the project site and would not be concentrated at the point closest to the nearest structure.

Table 8
Project Typical Construction Equipment Vibration Levels

Equipment	Approximate peak particle velocity at 25 feet (inches/second)[1]
Large Bulldozer	0.089
Loaded Trucks	0.076
Small Bulldozers	0.003

Calculated using the following formula:

PPV equip = PPVref x (25/D)1.5

where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance

PPV (ref) = the reference vibration level in in/sec at 25 feet (inches/second)

D = the distance from the equipment to the receiver

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

Based on the vibration levels presented in Table 8, ground vibration generated by heavy-duty equipment would range from approximately 0.003 to 0.089 in/sec PPV at 25 feet from the source of activity. As such, the residence located 25 feet south of the project site would not be exposed to vibration levels exceeding the FTA's 0.2 in/sec PPV significance threshold for vibration. Additionally, groundborne vibration during construction would be a temporary impact and would cease completely when construction ends. Once operational, the project would not be a source of groundborne vibration. Impacts would be less than significant.

5.3 Operational Noise

5.3.1 On-Site Operational Noise

All HVAC equipment will be located on the ground floor and it should be noted that there is an existing six-foot noise barrier wall located between the project site and the residential uses to the south and is expected to provide additional noise shielding from the on-site operational activities.

On-site operational noise is usually only evaluated for commercial and industrial projects. Quantitative analysis of on-site operational noise is typically not conducted for residential projects as they usually do not include stationary noise sources that could result in substantial increases in ambient noise levels resulting in violation of established standards. Furthermore, the proposed Project is considered compatible with the surrounding residential land uses.

Furthermore, HVAC equipment typically result in noise levels that averages 55 dBA at 50 feet from the source.[1] The nearest HVAC unit will be located approximately 60 feet from the nearest

[1] USEPA, Community Noise, 1971

noise sensitive receptor to the south, immediately adjacent to the Alley way. At this distance of 60 feet, HVAC noise would attenuate to 53 dBA. Therefore, HVAC noise levels would not exceed the City's exterior noise standards for residential uses during daytime (60 dBA) and nighttime (55 dBA). Thus, the proposed project would not impacts to nearby sensitive receptors from HVAC units and impacts are considered less than significant.

5.3.2 Project Generated Traffic Noise Levels

Based on the ITE Trip Generation Manual 11th Edition, the project is expected to generate approximately 358 daily trips. The surrounding roadways, both Foothill Boulevard and Towne Avenue, are designated as Arterial Highways in the City of Claremont General Plan Roadway Classification. It should be noted that traffic volumes from the proposed project would represent a nominal increase in the daily traffic compared to the existing traffic conditions on the surrounding roadways. According to Caltrans, a doubling of Traffic (100 percent increase) on a roadway would result in a perceptible increase in traffic noise levels (3 dBA)[2].

As a result, project-related increase in traffic volume would be nominal compared to the existing traffic volumes along the surrounding roadways and the project would not significantly increase the existing traffic noise levels. Thus, project's operational noise levels are not expected to be significant.

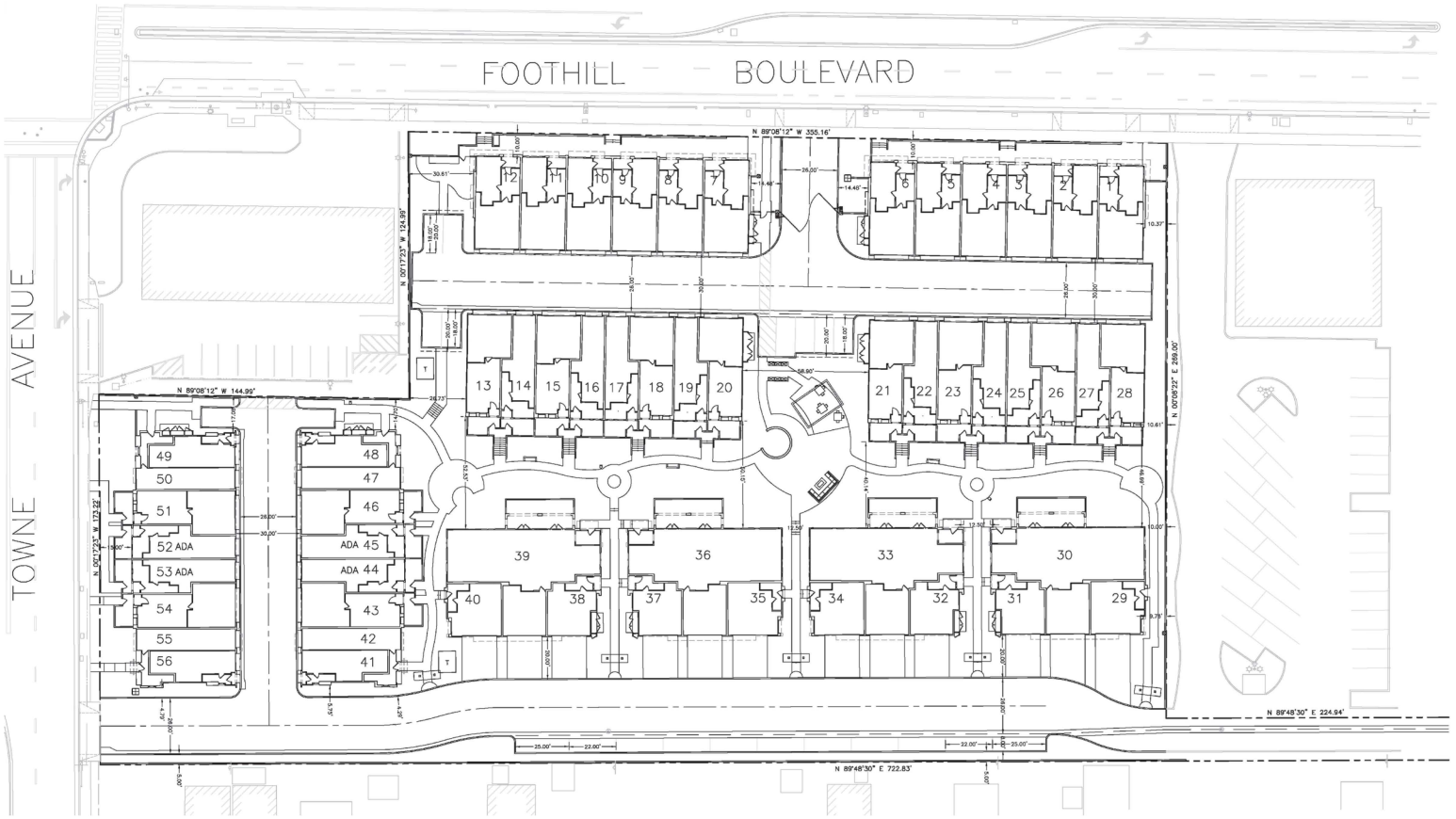
5.3.3 Airport Noise Levels

The nearest airports are Ontario International Airport located at approximately 7.25 miles to the southeast, Cable Airport Hanger located at approximately 2.3 miles to the east and Brackett Field Airport located at approximately 2.3 miles to the southwest of the project site. The project site falls well outside the 65 dBA noise contour for all the above airports and are not considered as a source that contributes to the ambient noise levels on the project site.

[2] California Department of Transportation, technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013.

Appendix G
Transportation Study

FOOTHILL AND TOWNE RESIDENTIAL DEVELOPMENT
TRAFFIC IMPACT STUDY
City of Claremont, California



RK engineering group, inc.

FOOTHILL AND TOWNE RESIDENTIAL DEVELOPMENT
TRAFFIC IMPACT ANALYSIS
City of Claremont, California

Prepared for:

THE OLSON COMPANY
3010 Old Ranch Parkway, Suite 100
Seal Beach, CA 90740-2751

Prepared by:

RK ENGINEERING GROUP, INC.
4000 Westerly Place, Suite 280
Newport Beach, CA 92660

Justin Tucker, P.E.
Michael Torres, E.I.T.
Bryan Estrada, AICP



April 14, 2023
(Update to the March 1, 2023 Report)

1401 dove street, ste. 540
newport beach, ca 92660
(949) 474-0809
rkengineer.com

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San Gabriel Valley Council of Governments VMT Assessment Tool Report Output I

1.0 Introduction

1.1 Purpose of Report and Study Objectives

The purpose of this traffic impact analysis and report is to evaluate and assess the proposed Foothill and Towne Residential Project (hereinafter referred to as "project") from a traffic and circulation perspective. Furthermore, this analysis will determine whether the proposed project will significantly impact the environment.

This study has been conducted pursuant to the *City of Claremont Draft Transportation Study Guidelines for Vehicles Miles Traveled and Level of Service Assessment*, dated August 2020, and the California Environmental Quality Act (CEQA). This study evaluates the potential traffic and environmental impacts associated with the proposed project in accordance with the thresholds of significance.

1.2 Site Location & Project Description

The proposed project is located at 1030 W. Foothill Boulevard near the southeast corner of Towne Avenue and Foothill Boulevard in the City of Claremont. The project site is currently vacant and was previously occupied by a Marie Callender's Restaurant that has since been demolished.

The project consists of constructing fifty-six (56) residential single-family attached dwelling units, inclusive of four (4) low income-units and twelve (12) live/work units. The site is divided in half by a communal lawn area and is herein referred to as the "North Units" and "South Units" respectively. Specifically, the North Units consist of twelve (12) live/work units and sixteen (16) single-family attached dwelling units. The South Units consist of the remaining twenty-eight (28) single-family attached dwelling units.

Access to the North Units is proposed via one (1) existing right-in/right-out only unsignalized driveway along W. Foothill Boulevard (i.e., Project Access No. 1). Access to the South Units is proposed via one (1) existing right-in/right-out only unsignalized driveway located along Towne Avenue (i.e., Project Access No. 2).

It should be noted that the existing alleyway along the southern portion of the site also provides access to adjacent parcels, east of the project. The project is planned to open in 2024 and will be fully occupied by 2025. The project will be evaluated in one (1) single phase.

The project site location map is shown in Exhibit 1-1. Exhibit 1-2 shows the proposed project's site plan.

Location Map

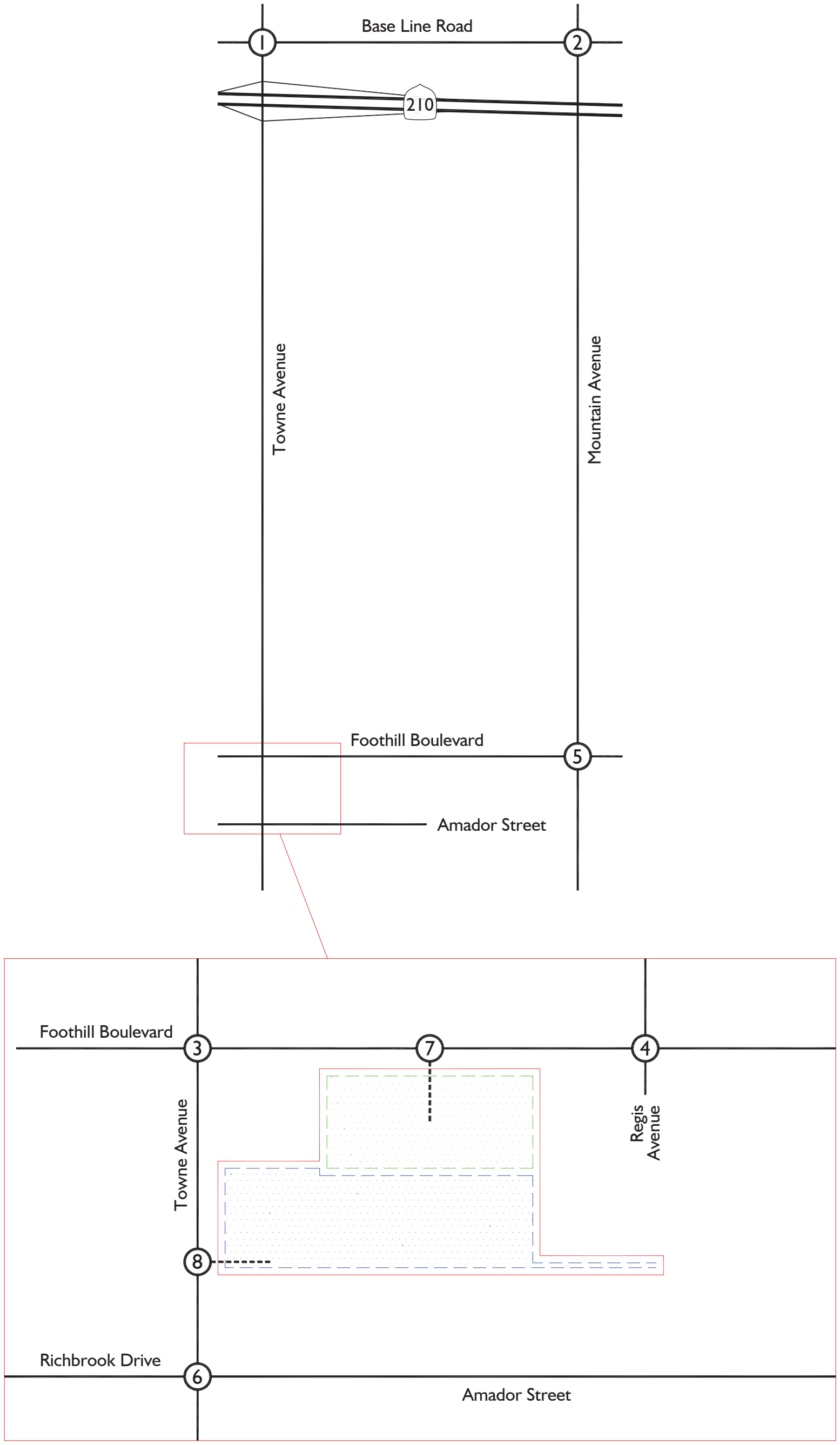
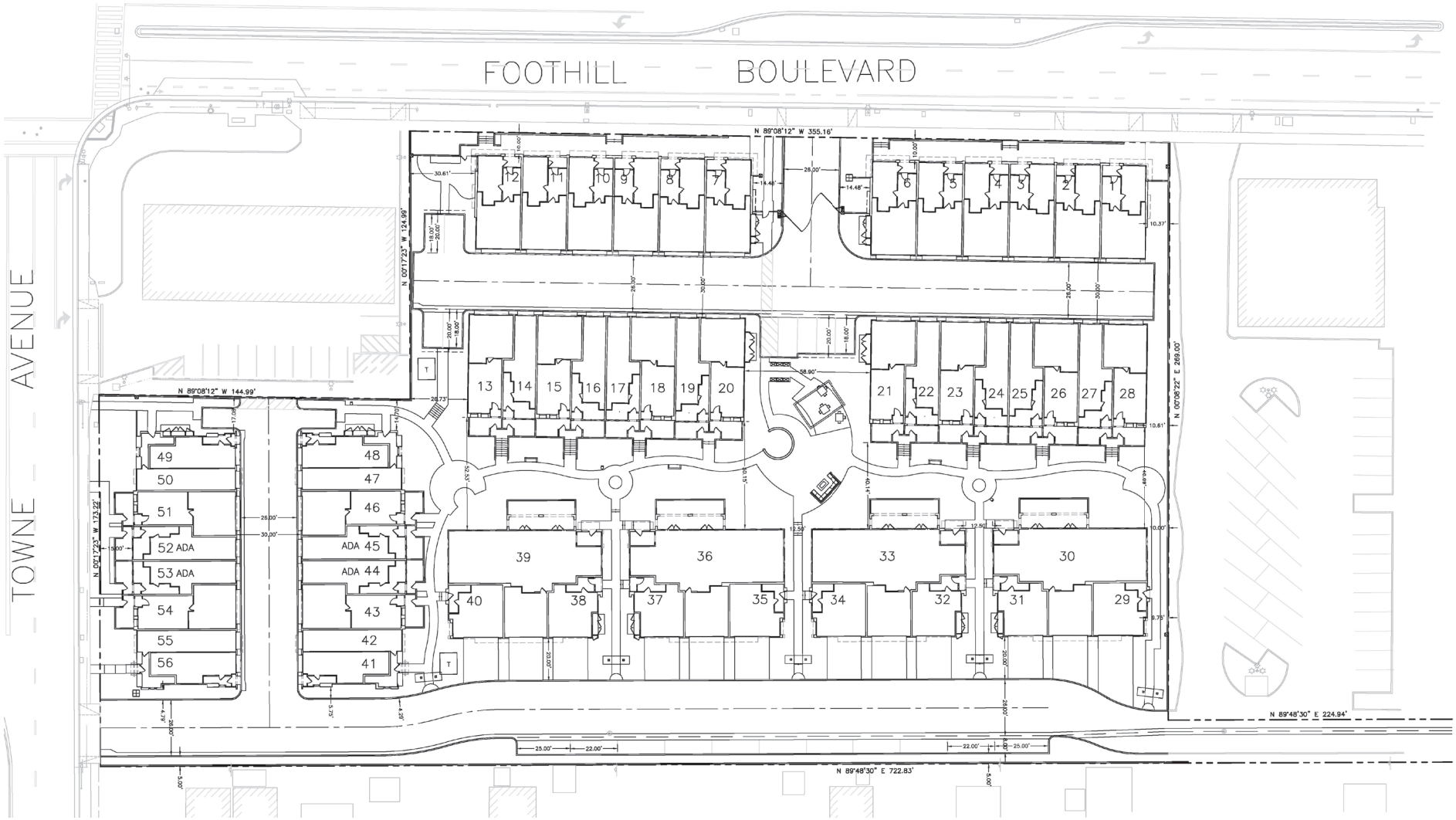


Exhibit 1-2

Site Plan



N

1.3 Traffic Study Area & Analysis Scenarios

Exhibit 1-1 illustrates the project site's location map and traffic analysis study area.

The study area included in this analysis has been determined based on existing and future transportation facilities within the vicinity of the site where the project may contribute a significant amount of traffic.

The study area consists of the following eight (8) intersections listed below. The jurisdiction(s) where each study intersection is located is also identified.

1. Towne Avenue (NS) at Base Line Road (EW) [City of Claremont]
2. Mountain Avenue (NS) at Base Line Road (EW) [City of Claremont]
3. Towne Avenue (NS) at Foothill Boulevard (EW) [City of Claremont/City of Pomona]
4. Regis Avenue (NS) at Foothill Boulevard (EW) [City of Claremont]
5. Mountain Avenue (NS) at Foothill Boulevard (EW) [City of Claremont]
6. Towne Avenue (NS) at Richbrook Drive / Amador Street (EW) [City of Claremont/City of Pomona]
7. Project Access No.1 (North Units) (NS) at Foothill Boulevard (EW) [City of Claremont]
8. Towne Avenue (NS) at Project Access No.2 (South Units) (EW) [City of Claremont/City of Pomona]

The analysis evaluates traffic conditions of the study area under the following scenarios during the weekday AM (7:00 AM to 9:00 AM) and weekday PM (4:00 PM to 6:00 PM) peak hour conditions:

- Existing Conditions;
- Project Opening Year (2025) With Cumulative Projects Without Project Conditions;
- Project Opening Year (2025) With Cumulative Projects With Project Conditions;
- Horizon Year (2040) Without Project Conditions; and
- Horizon Year (2040) With Project Conditions.

2.0 Analysis Methodology

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report in accordance with the City of Claremont requirements. This section also discusses the agency-established applicable performance criteria and thresholds of significance for the study facilities.

2.1 Study Intersection Peak Hour Level of Service Analysis Methodology

In accordance with the *City of Claremont Draft Transportation Study Guidelines for Vehicles Miles Traveled and Level of Service Assessment*, dated August 2020, the Highway Capacity Manual Sixth Edition (HCM 6) is utilized as the technical guide in the evaluation of traffic operations.

The HCM defines level of service as a qualitative measure that describes operational conditions within a traffic stream, generally in terms of factors such as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The criteria used to evaluate LOS (Level of Service) conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted.

The definitions of level of service for interrupted flow (flow regulated by the existence of traffic control devices) are:

- **LOS A** (Free Flow / Insignificant Delays) describes traffic operations in which progression is exceptionally favorable or the cycle length is extremely short. Generally, LOS A operations for signalized intersections tend to result in most vehicles arriving during the green phase and traveling through the intersection without stopping.

- **LOS B** (Stable Operation / Minimal Delays) describes traffic operations in which progression slightly diminishes but is still considered highly favorable and the cycle length is short. Vehicles stop more often causing a marginal increase in average delay.

- **LOS C** (Stable Operation / Acceptable Delays) describes traffic operations in which progression is favorable and the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Many vehicles still pass through the intersection but a significant number of vehicles are stopping. Average delay is fair.

- **LOS D** (Approaching Unstable / Tolerable Delays) describes traffic operations in which progression is ineffective and/or cycle length is long. A considerable amount of vehicles stop and individual cycle failures are noticeable. Average delay is adequate.

- **LOS E** (Unstable Operation / Significant Delays) describes traffic operations in which progression is unfavorable and the cycle length is exceedingly long. Individual cycle failures are frequent. Average delay is high.

- **LOS F** (Forced Flow / Excessive Delays) describes traffic operations in which progression is extremely poor and the cycle length is extremely long. Most cycles fail to clear the queue. Average delay is vast.

2.1.1 HCM (6th Edition) Methodology

Level of service is typically dependent on the quality of traffic flow at the intersection along a roadway. The HCM methodology expresses the level of service at an intersection in terms of delay time for various intersection approaches. The HCM uses different procedures depending on the type of intersection control. The levels of service determined in this study are calculated using the HCM methodology.

For signalized intersections, average control delay per vehicle is used to determine the level of service. Levels of service at signalized study intersections have been evaluated using the HCM intersection analysis program.

For all-way stop-controlled intersections, average control delay per vehicle is used to determine the level of service.

For intersections with stop control on the minor approach only, the calculation of level of service is dependent on the occurrence of gaps occurring in the free-flow traffic movement of the major street, and the level of service is determined based on the worst individual movement on the stop-controlled minor approach or movements sharing a single lane on the stop-controlled minor approach.

Table 2-1 shows the level of service criteria based on the HCM methodology.

Table 2-1
HCM Intersection LOS & Delay Ranges

LOS	Average Control Delay Per Vehicle (Seconds)	
	Signalized	Unsignalized
A	0.00 - 10.00	0.00 - 10.00
B	10.01 - 20.00	10.01 - 15.00
C	20.01 - 35.00	15.01 - 25.00
D	35.01 - 55.00	25.01 - 35.00
E	55.01 - 80.00	35.01 - 50.00
F	>80.00	>50.00

2.1.2 Analysis Parameters

In this report, the HCM levels of service have been evaluated utilizing the HCM 6 methodology and the PTV Vistro analysis software. All analysis parameters utilized in this analysis are in accordance with the City of Claremont TIA guidelines. Existing peak hour factors have been calculated based on the manual turning movement counts collected at the study area intersections.

2.2 LOS Performance Criteria & Thresholds for Requiring LOS Improvements

The eight (8) key study intersections span over the following jurisdictions:

- The City of Claremont; and
- The City of Pomona.

Hence, this study evaluates the potential traffic impacts associated with the proposed project for each study intersection based on the performance criteria and thresholds of significance set forth by the respective jurisdiction(s).

2.2.1 City of Claremont

According to the TIA guidelines set forth by the City of Claremont, the acceptable LOS for intersections is established in the City's General Plan's Mobility Element Table 4-2 as shown below.

Table 4-2
Circulation System Performance Criteria

Peak Hour Intersection Level of Service

Major Arterial	LOS E Minimum acceptable operations
Secondary Arterial	LOS D Minimum acceptable operations
Rural Secondary Arterial	LOS D Minimum acceptable operations
Collector	LOS C Minimum acceptable operations
Local Street	LOS B Minimum acceptable operations

Note: For roadway segments, these standards are applied to mid-block conditions. For intersections, the LOS standard applicable to the largest intersecting street is applied. If the intersection operates at a deficient level of service, the existing level of service shall be maintained.

For intersections, the LOS applicable to the largest intersecting street is applied. When an acceptable level of service cannot be maintained with a proposed development, improvements shall be required to meet the City's standards for LOS.

Signalized Intersections

Signalized intersections will require improvements **if one of the following** conditions is met:

1. Any study intersection that is operating at a minimum level of service as stated in the City's General Plan's Mobility Element Table 4-2 or better for any study scenario without project traffic in which the addition of project traffic causes the intersection to degrade operation, shall improve the deficiency so as to bring the intersection back to at least a minimum acceptable LOS as shown in the City's General Plan's Mobility Element Table 4-2.

2. Any study intersection that is operating at an existing deficient LOS for any study scenario without project traffic shall improve any deficiencies so as to bring the intersection back to the overall level of delay established prior to project traffic being added.

Unsignalized Intersections

Unsignalized intersections will require improvements if both of the following conditions are met:

A deficient intersection requires improvements if the study determines that either section a) **or** both sections b) and c) occur.

a) The addition of project related traffic causes the intersection to move from the minimum acceptable LOS or better to an unacceptable operation LOS per the City's General Plan's Mobility Element Table 4-2.

OR

b) The project contributes additional traffic to an intersection that is already projected to operate at an unacceptable LOS with background traffic.

AND

c) One or both of the following conditions are met:

   1) The project adds ten (10) or more trips to any approach.

   2) The intersection meets the peak hour traffic signal warrant after the addition of project traffic.

2.2.2 City of Pomona

The City of Pomona adheres to the *City of Pomona Transportation Study Guidelines for Vehicles Miles Traveled and Levels of Service Assessment*, dated October 2020, in the evaluation of traffic operations.

According to the City of Pomona guidelines, the acceptable LOS for intersections is LOS D or better as established in the City of Pomona's General Plan. Any intersection operating at LOS E or worse is considered deficient.

The conditions for requiring intersection improvements for signalized and unsignalized intersections follow the same criteria previously identified for the City of Claremont.

2.2.3 Minimum Acceptable LOS Thresholds

Based on the above-mentioned level of service performance criteria, intersection arterial type, and jurisdiction(s) of each study intersection, the minimum acceptable LOS at the eight (8) key study intersections are identified respectively:

1. Towne Avenue (NS) at Base Line Road (EW) [LOS E]
2. Mountain Avenue (NS) at Base Line Road (EW) [LOS E]
3. Towne Avenue (NS) at Foothill Boulevard (EW) [LOS D]
4. Regis Avenue (NS) at Foothill Boulevard (EW) [LOS E]
5. Mountain Avenue (NS) at Foothill Boulevard (EW) [LOS E]
6. Towne Avenue (NS) at Richbrook Drive / Amador Street (EW) [LOS D]
7. Project Access No.1 (North Units) (NS) at Foothill Boulevard (EW) [LOS E]
8. Towne Avenue (NS) at Project Access No.2 (South Units) (EW) [LOS D]

3.0 Existing Conditions & Circulation System

3.1 Existing Traffic Controls & Intersection Geometrics

RK conducted a field review of the study area on Wednesday, August 17th, 2022. Exhibit 3-1 identifies the existing roadway conditions within the study area. The number of through traffic lanes for existing roadways and existing intersection controls has been identified. The type of traffic control and the number of lanes at an intersection are key inputs for the calculation of level of service.

3.2 Existing Conditions Traffic Volumes

During the time of the preparation of this traffic study, local schools were released for summer break. Thus, the collection of any new traffic count data would not fully reflect "typical" conditions.

Historical traffic count data was researched within the study area and historical count data was available for the following study intersections which were collected on Wednesday, June 1st, 2016, while local schools were in session:

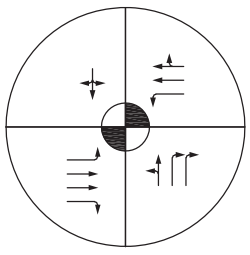
- Int #3 – Towne Avenue (NS) at Foothill Boulevard (EW); and
- Int # 5 – Mountain Avenue (NS) at Foothill Boulevard (EW).

Historical data, while local schools were in session, could not be identified for the other study intersections. As a result, per the approved scope of work, the following methodology was utilized to establish baseline Year 2022 traffic volumes:

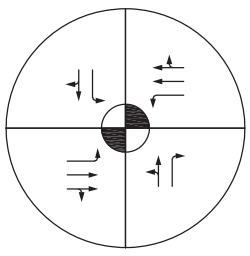
1. The Year 2016 historical traffic counts at study intersections #3 and #5 were grown by applying a linear annual growth rate of two percent (2%) per year for six (6) years (i.e., 12% total growth) to establish baseline (2022) traffic conditions.
2. New 2022 summer traffic counts were collected at all six (6) existing study intersections. New traffic counts for all six (6) study intersections were collected on Tuesday, July 26th, 2022. Specifically, the weekday AM and PM peak period traffic volumes were collected between 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM respectively.

Exhibit 3-1

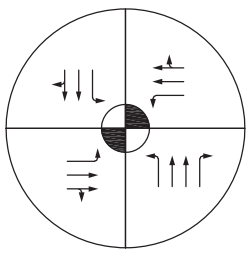
Existing Traffic Controls & Intersection Geometrics



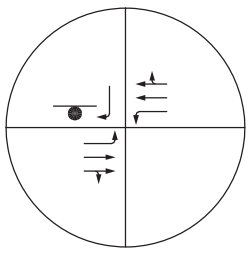
1. Towne Avenue (NS) at
Base Line Road (EW)



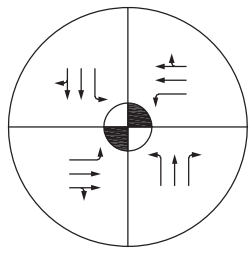
2. Mountain Avenue (NS) at
Base Line Road (EW)



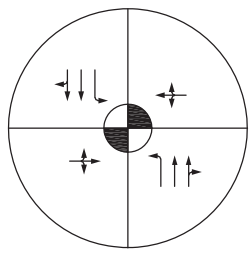
3. Towne Avenue (NS) at
Foothill Boulevard (EW)



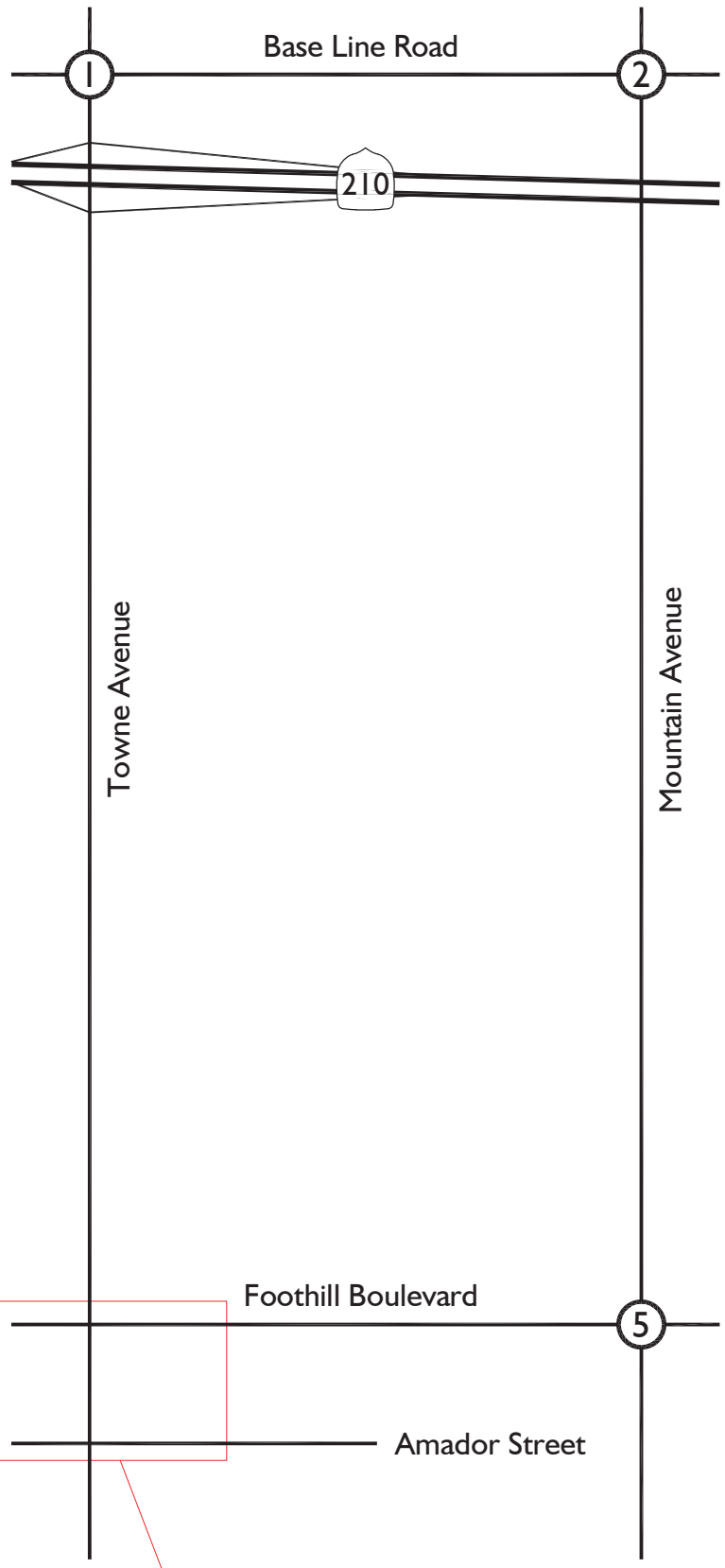
4. Regis Avenue (NS) at
Foothill Boulevard (EW)

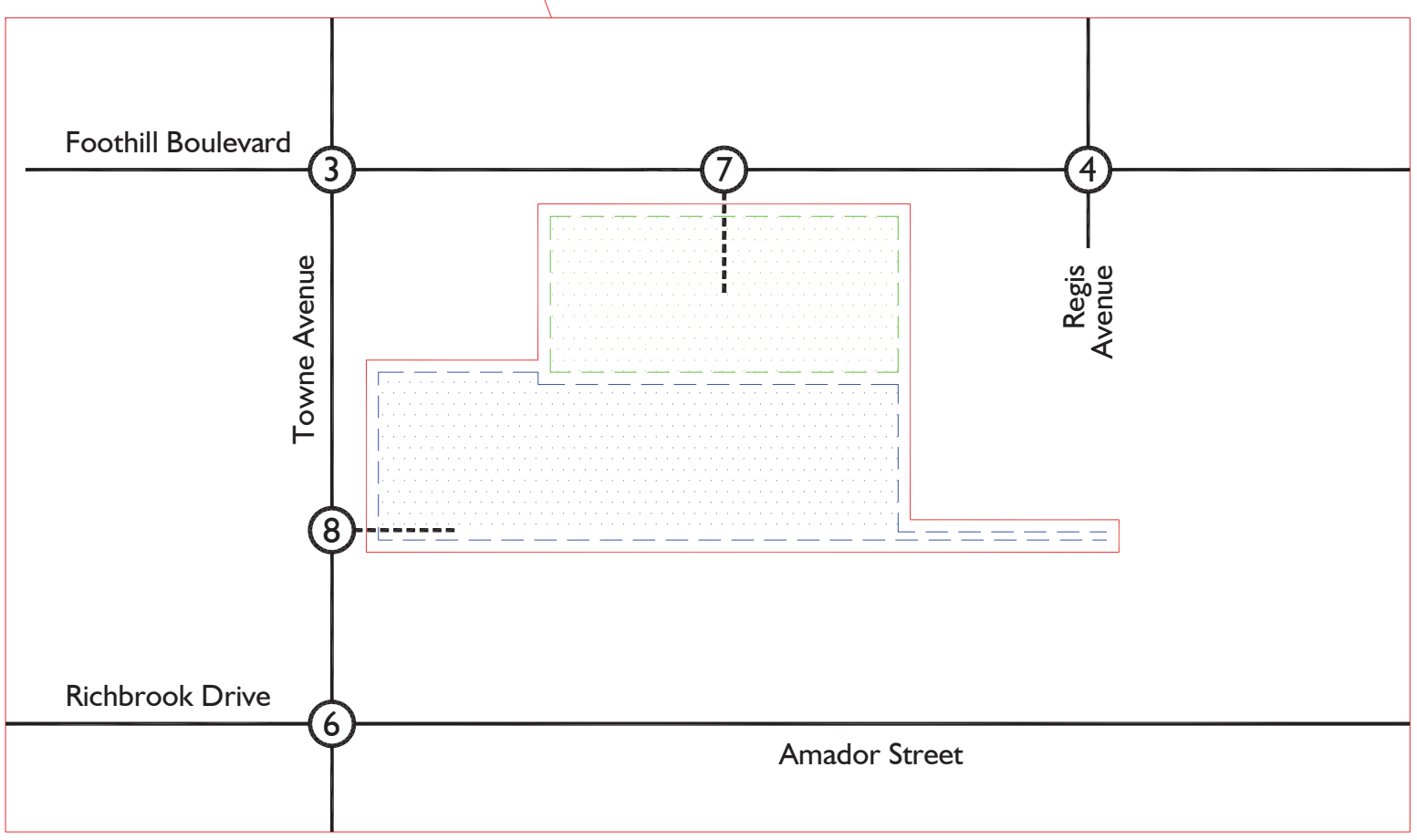


5. Mountain Avenue (NS) at
Foothill Boulevard (EW)



6. Towne Avenue (NS) at
Richbrook Drive/Amador Street (EW)





Legend:

- ① = Study Area Intersection
- = Project Access Driveway
- = Traffic Signal
- = Stop Sign
- = Project Site Boundary
- = North Units
- = South Units

N

3. Considering that the new summer 2022 traffic count data does not account for local school traffic, the new summer 2022 traffic count data has been grown by a factor of 2.376 during the weekday AM peak hour and 1.413 during the PM peak hour to establish baseline Year 2022 existing traffic volumes. These growth factors were calculated by comparing the grown Year 2016 historical traffic counts at intersections #3 and #5 to the new summer 2022 traffic volumes collected at intersections #3 and #5. The higher factors between intersections #3 and #5 were ultimately utilized.

The existing conditions traffic volumes for the study area intersections are shown in Exhibit 3-2.

The peak hour traffic count worksheets as well as the growth factor worksheet (i.e. Summer vs. Historical counts) are included in Appendix A.

3.3 City of Claremont Circulation Element

The City of Claremont Master Plan of Roadways is shown in Exhibit 3-3.

Exhibit 3-3

City of Claremont Master Plan of Roadways

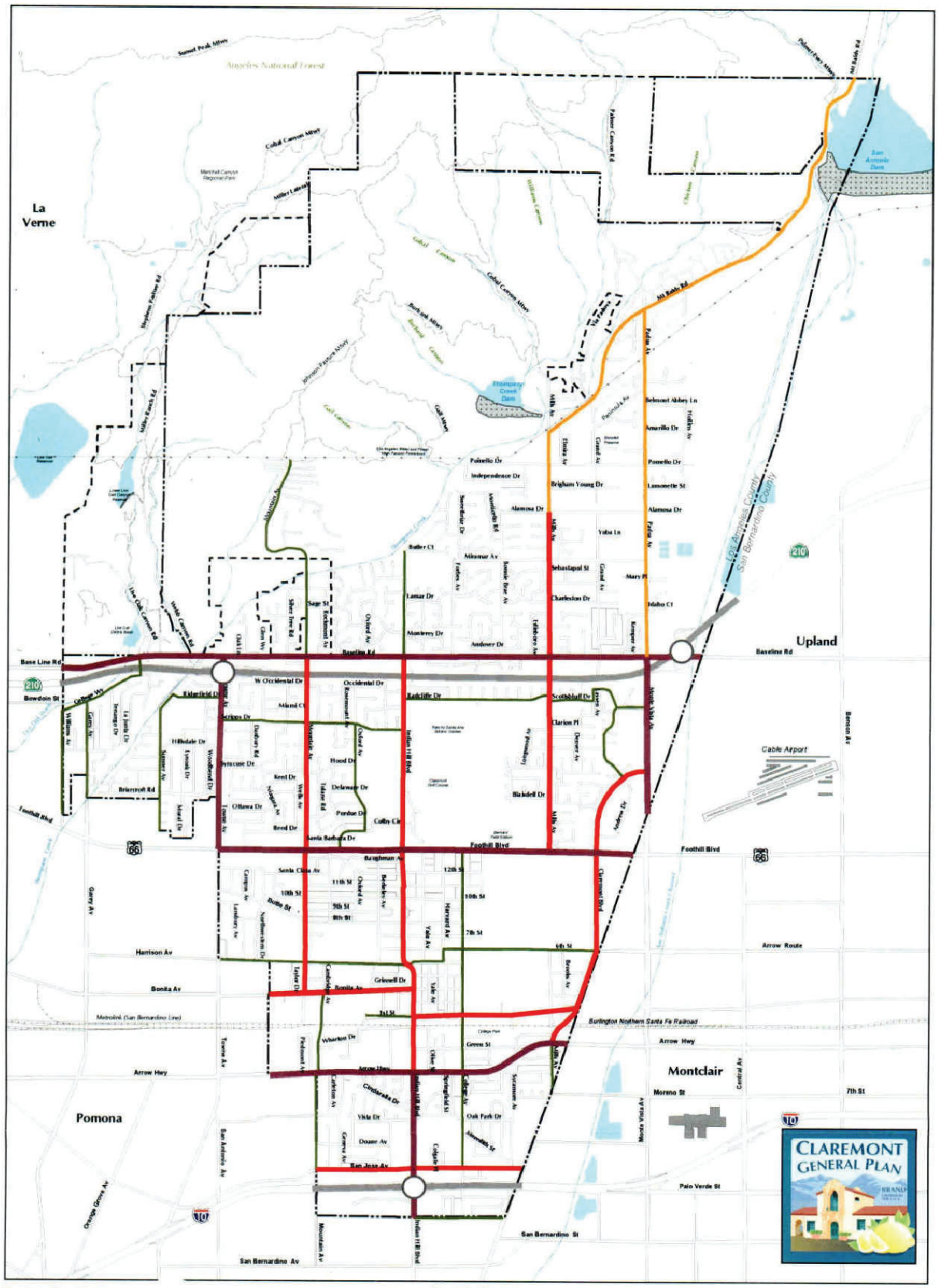
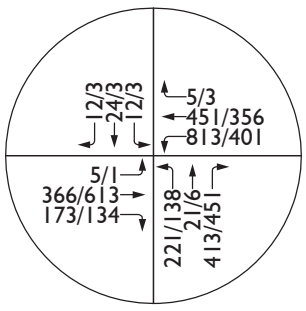
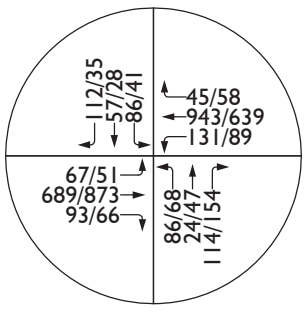


Exhibit 3-2

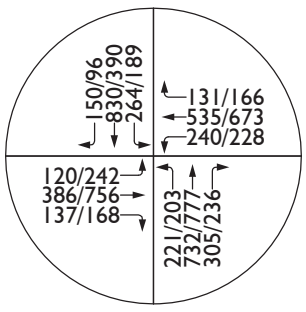
Existing Conditions Traffic Volumes



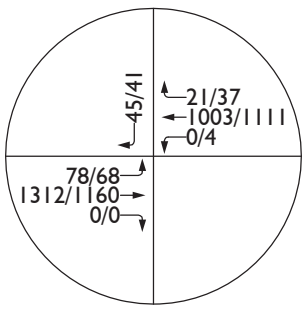
1. Towne Avenue (NS) at Base Line Road (EW)



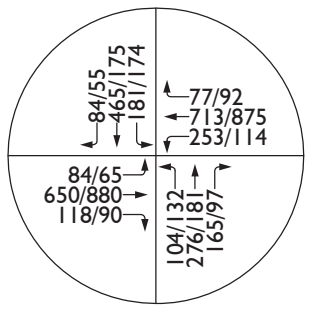
2. Mountain Avenue (NS) at Base Line Road (EW)



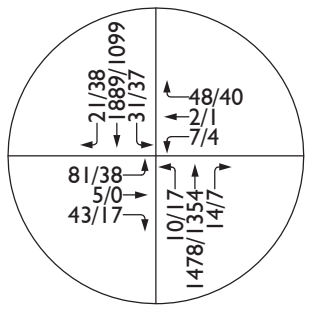
3. Towne Avenue (NS) at Foothill Boulevard (EW)



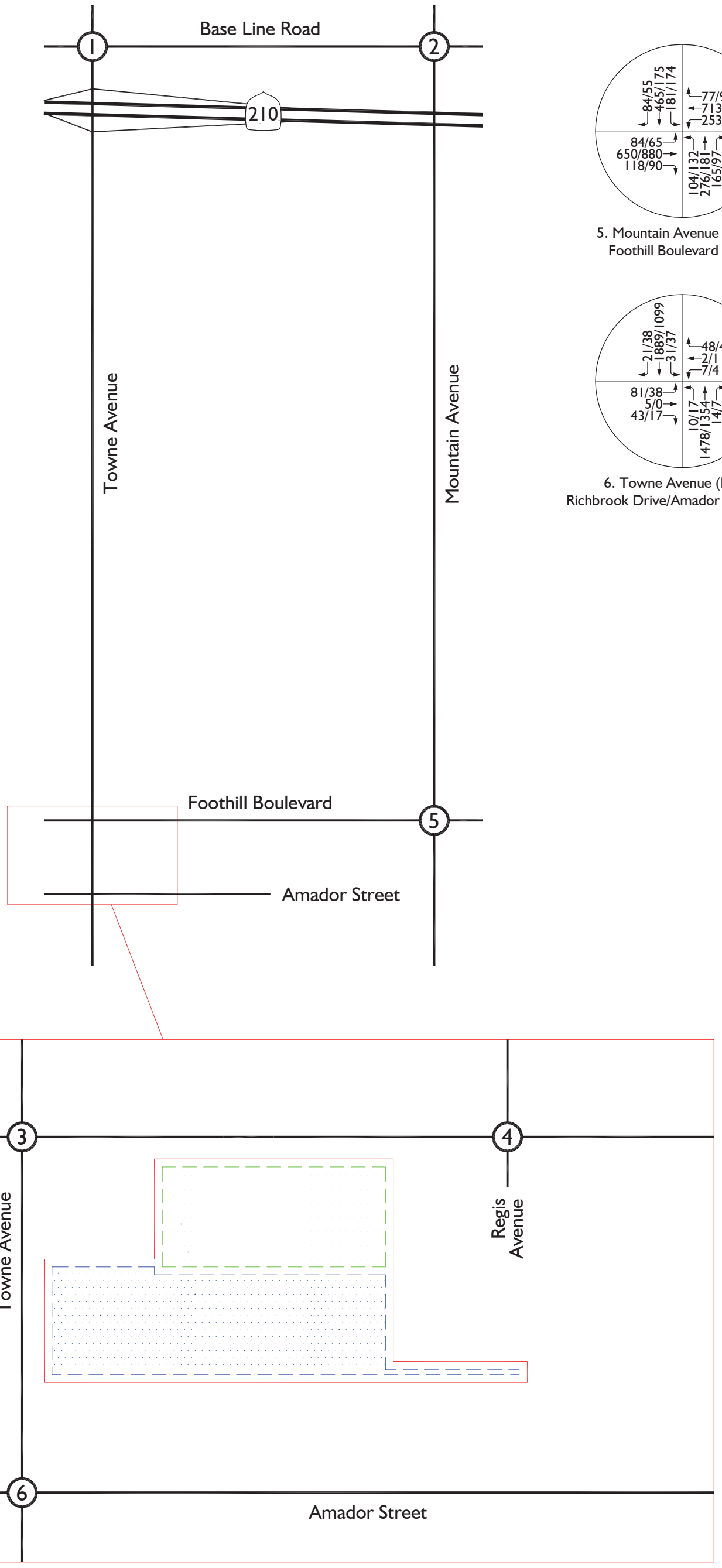
4. Regis Avenue (NS) at Foothill Boulevard (EW)



5. Mountain Avenue (NS) at Foothill Boulevard (EW)



6. Towne Avenue (NS) at Richbrook Drive/Amador Street (EW)



Legend:

10/20 = AM/PM Peak Hour Volumes
① = Study Area Intersection
= Project Site Boundary
= North Units
= South Units

N

4.0 Projected & Future Traffic Volumes

This section of the report provides a discussion on methodologies utilized to derive future traffic volumes for the study area.

4.1 Project Traffic Conditions

4.1.1 Project Trip Generation

Trip generation represents the amount of traffic that is attracted and produced by a development. The trip generation for the proposed project is based on the specific land uses that have been planned for the development.

Trip generation rates for the proposed development are shown in Table 4-1 and are from the *Institute of Transportation Engineers (ITE) Trip Generation Manual* (11th Edition, 2021). This publication provides a comprehensive evaluation of trip generation rates for a variety of land uses.

The project is proposing to develop fifty-six (56) residential single-family attached dwelling units, inclusive of four (4) low income-units and twelve (12) live/work units. As such, ITE Land Use 215: Single Family Attached Housing and ITE Land Use 230: Low-Rise Residential with Ground-Floor Commercial (1-25K GFA) trip rates are the most appropriate for the proposed project. Conservatively, the ITE Land Use 215 trip rates have also been utilized for the four (4) low-income units in addition to the forty (40) market-rate units since the ITE Land Use 223: Affordable Housing trip rates are slightly less.

Table 4-1 shows the ITE trip generation rates for the trip generation analysis of the project land uses.

Utilizing the trip generation rates from Table 4-1, Table 4-2 summarizes the daily and peak hour trip generation for weekday conditions for the proposed project.

As shown in Table 4-2, the North Units are forecast to generate approximately 156 daily trips which include 14 AM peak hour trips and 13 PM peak hour trips. Furthermore, the South Units are forecast to generate approximately 202 daily trips which include 13 AM peak hour trips and 16 PM peak hour trips.

As shown at the bottom of Table 4-2, the total proposed project (North Units + South Units) is proposed to generate approximately 358 daily trips which include 27 AM peak hour trips and 29 PM peak hour trips.

Table 4-1
ITE Trip Generation Rates[1]

Land Use	ITE Code	Units[2]	AM			PM			Daily
			In	Out	Total	In	Out	Total	
Single Family Attached Housing	215	TSF	0.15	0.33	0.48	0.32	0.25	0.57	7.20
Low-Rise Residential with Ground-Floor Commercial - 1-25K G.F.A.	230	TSF	0.10	0.34	0.44	0.26	0.10	0.36	3.44

[1] Source: *ITE Trip Generation Manual* (11th Edition, 2021).

[2] DU = Dwelling Units

Table 4-2
Project Trip Generation[1]

Land Use (ITE Code)	Quantity	Units[2]	AM			PM			Daily
			In	Out	Total	In	Out	Total	
North Units									
Single Family Attached Housing (215)	16	DU	3	6	9	5	4	9	115
Low-Rise Residential with Ground-Floor Commercial - 1-25K G.F.A. (230)	12	DU	1	4	5	3	1	4	41
North Units Trip Generation Sub-Total [A]			***4***	***10***	***14***	***8***	***5***	***13***	***156***
South Units									
Single Family Attached Housing (215)	28	DU	4	9	13	9	7	16	202
South Units Trip Generation Sub-Total [B]			***4***	***9***	***13***	***9***	***7***	***16***	***202***
Total Trip Generation [A] + [B]			**8**	**19**	**27**	**17**	**12**	**29**	**358**

[1] Source: *ITE Trip Generation Manual* (11th Edition, 2021).

[2] DU = Dwelling Units.

4.1.2 Project Trip Distribution

Trip distribution represents the directional orientation of traffic to and from the project site. Trip distribution is heavily influenced by the geographical location of the site and the proximity to the regional freeway system. The directional orientation of traffic was determined by evaluating existing and proposed land uses and highways within the study area.

The outbound and inbound project trip distributions for the proposed project have been developed for both the North and South portions of the site.

Exhibit 4-1 and Exhibit 4-2 show the outbound and inbound project trip distribution for the North Units, respectively.

Exhibit 4-3 and Exhibit 4-4 show the outbound and inbound project trip distribution for the South Units, respectively.

4.1.3 Modal Split

Modal split denotes the proportion of traffic generated by a project that would use any of the transportation modes, namely buses, cars, bicycles, motorcycles, trains, carpools, etc. The traffic-reducing potential of public transit and other modes is significant. However, the traffic projections in this study are conservative as modal split reductions to the traffic volumes via the use of public transit and alternative transportation are not applied to the projections. With the implementation of transit services and the provision of alternative transportation ideas and incentives, the automobile traffic demand can be reduced significantly.

4.1.4 Project Traffic Volumes/Assignment

The assignment of project traffic to the adjoining roadway system is based upon the project's trip generation, trip distribution, and arterial highway and local street systems that would be in place by the time of initial occupancy of the site.

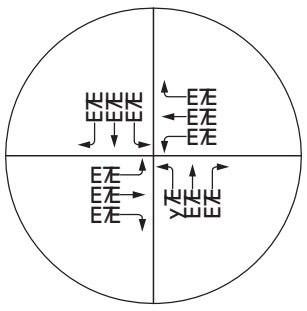
Project traffic volumes are shown in Exhibit 4-5.

Exhibit 4-5 shows the number of vehicular trips generated by the proposed project during the AM and PM peak hours.

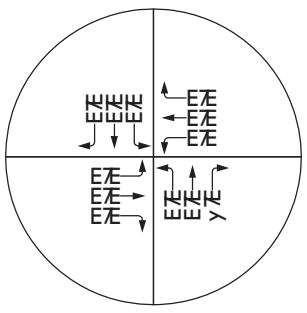
4.2 Background Traffic

4.2.1 Method of Projection

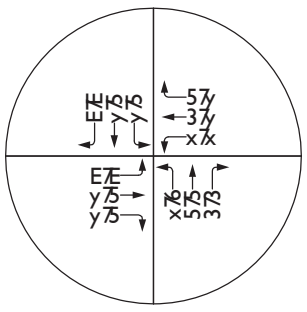
Project Traffic Volumes



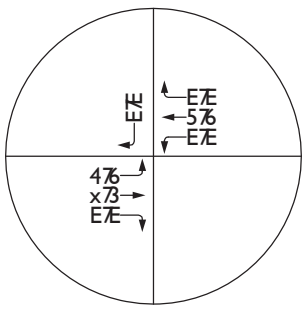
y) Towne Avenue /MS8at
Base 0ine Road /- C 8



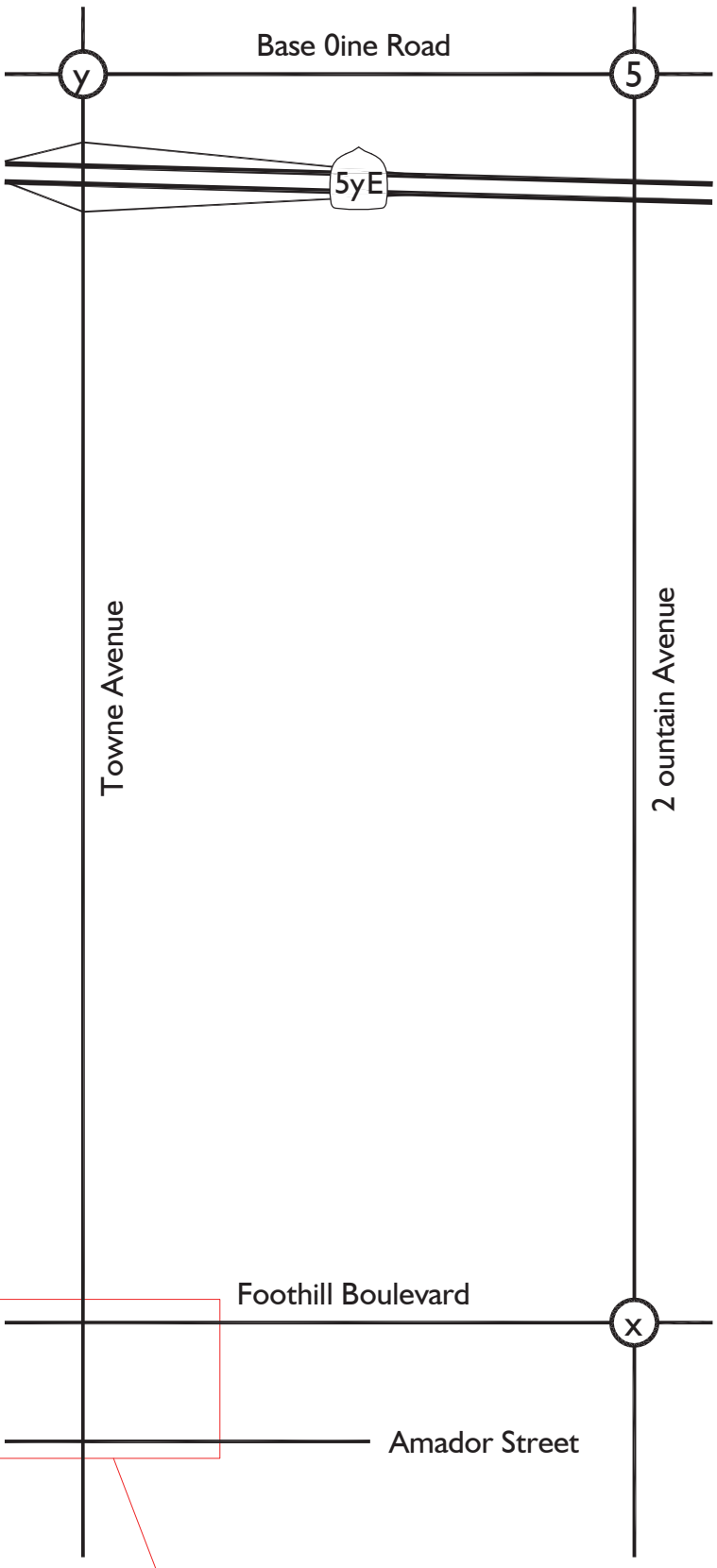
5) 2 ountain Avenue /MS8at
Base 0ine Road /- C 8

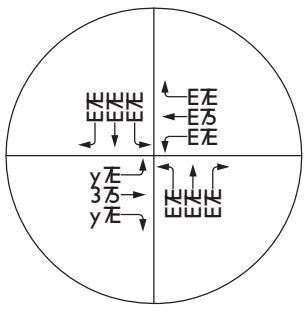


3) Towne Avenue /MS8at
Foothill Boulevard /- C 8

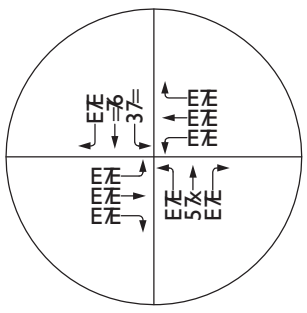


6) Regis Avenue /MS8at
Foothill Boulevard /- C 8

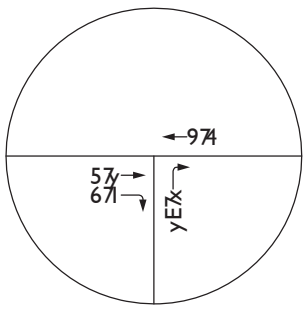




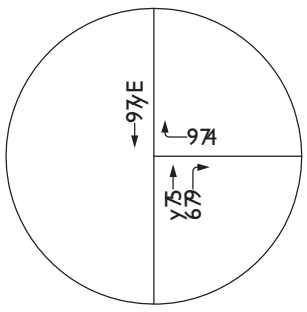
x) 2 ountain Avenue /MS8at
Foothill Boulevard /- C 8



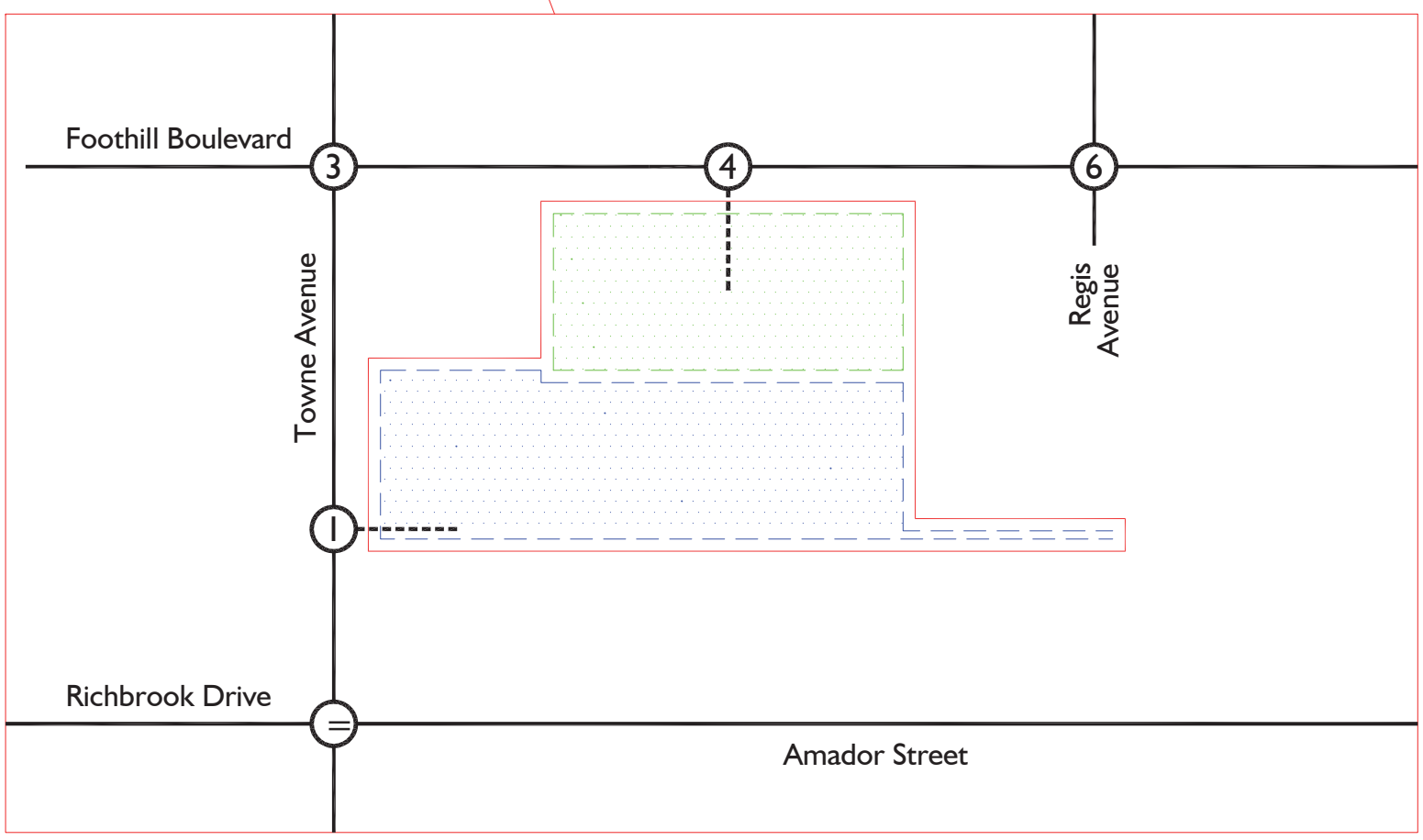
=) Towne Avenue /MS8at
Richbrook Drive7Amador Street /- C 8



4) Morthern N-oldct Access /MS8at
Foohill Boulevard /- C 8



1) Towne Avenue /MS8at
Southern N-oldct Access /- C 8



Legend:

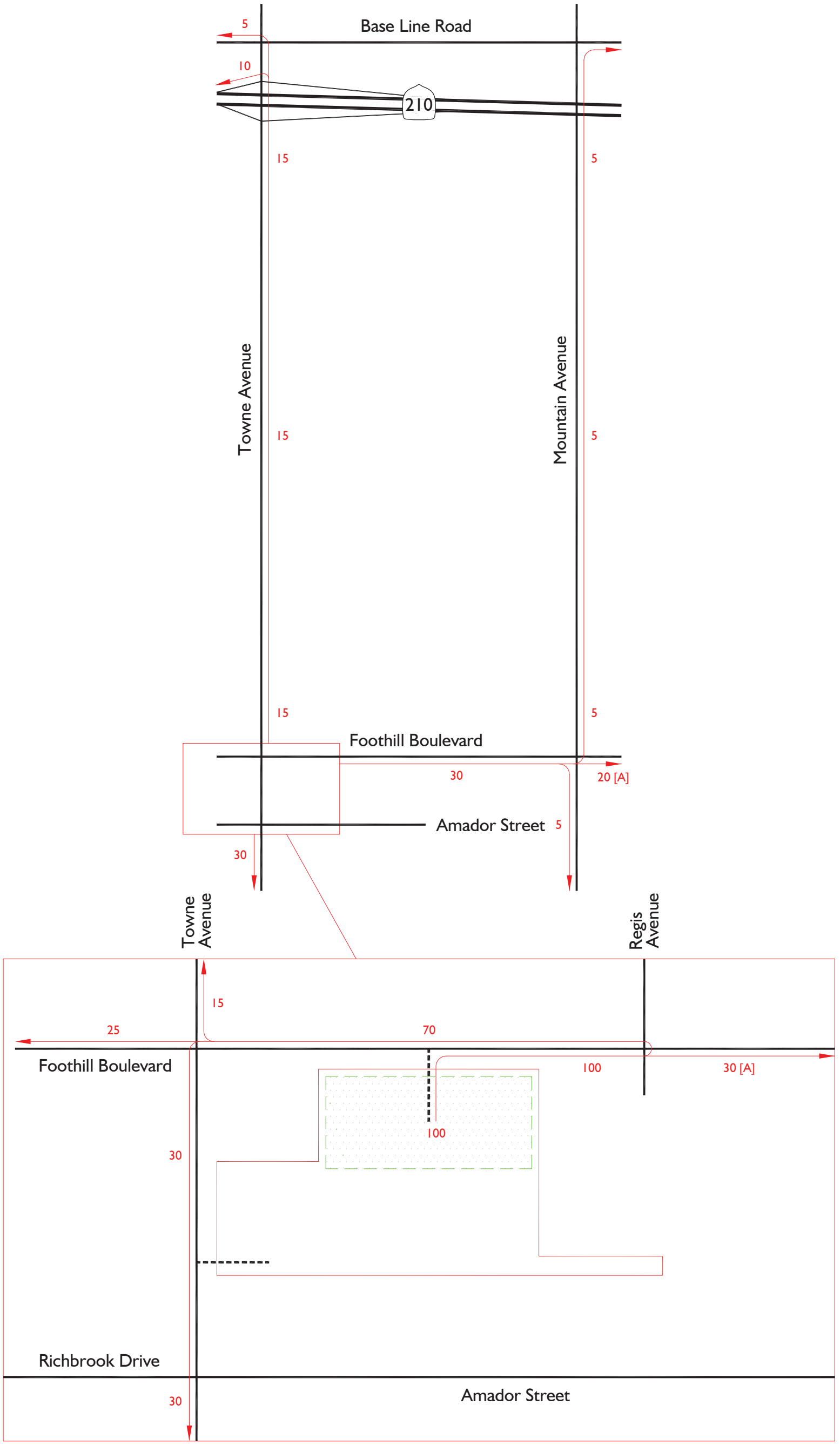
yE75E1 A2 7N2 Neak V our Yolumes
(y) 1 StudP Area jntersection
1 N-oldct Access DrivewaP
1 N-oldct Site BoundarP
1 Morth L nits
1 South L nits

N

RK engineering group, inc.

Exhibit 4-1

Outbound Project Trip Distribution (North Units)



Legend:

10 = Percent from Project

= Project Site Boundary

= Project Access Driveway

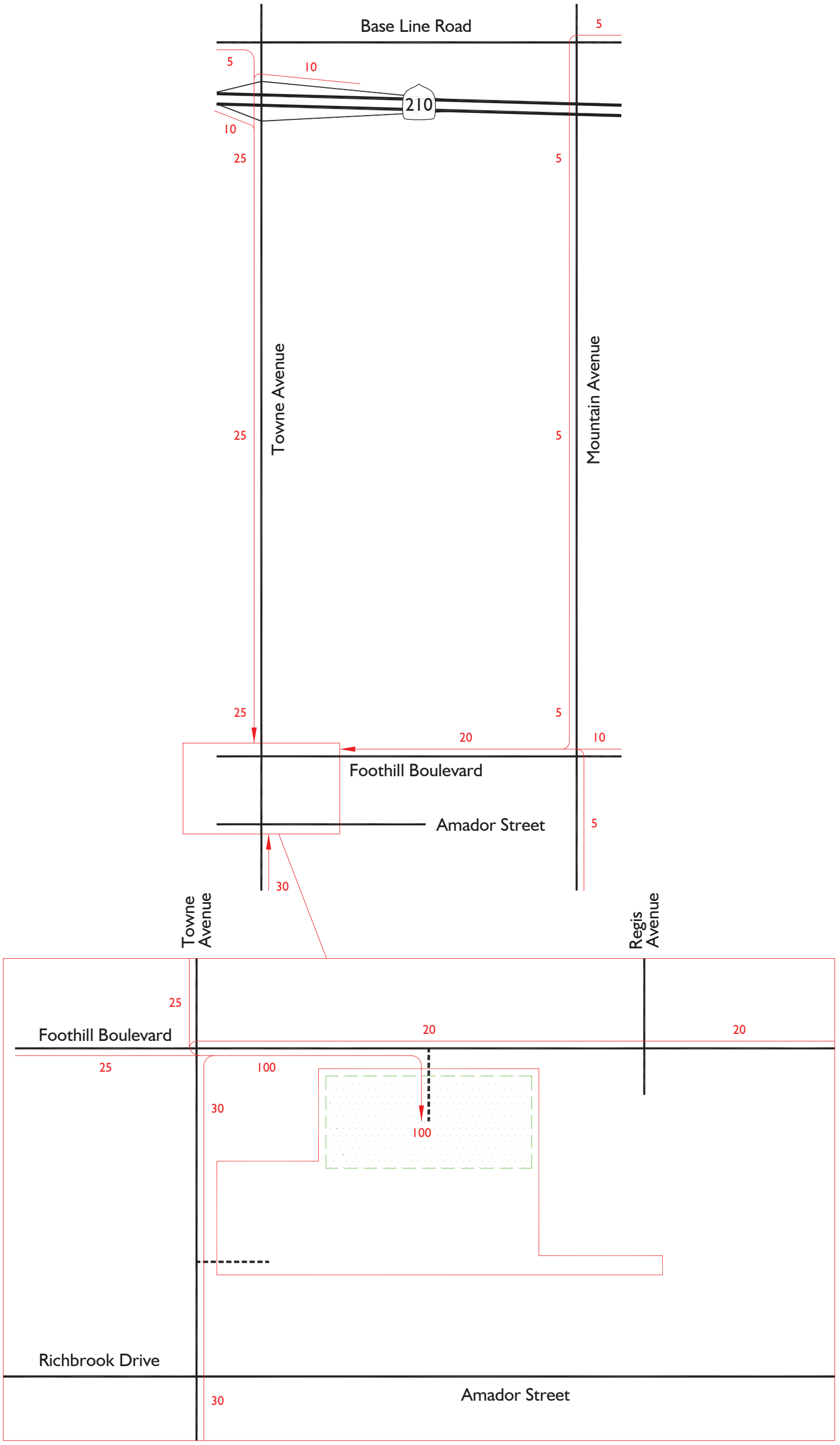
= North Units

Note:

[A] 10% to SR-210 via Monte Vista Avenue.

Exhibit 4-2

Inbound Project Trip Distribution (North Units)

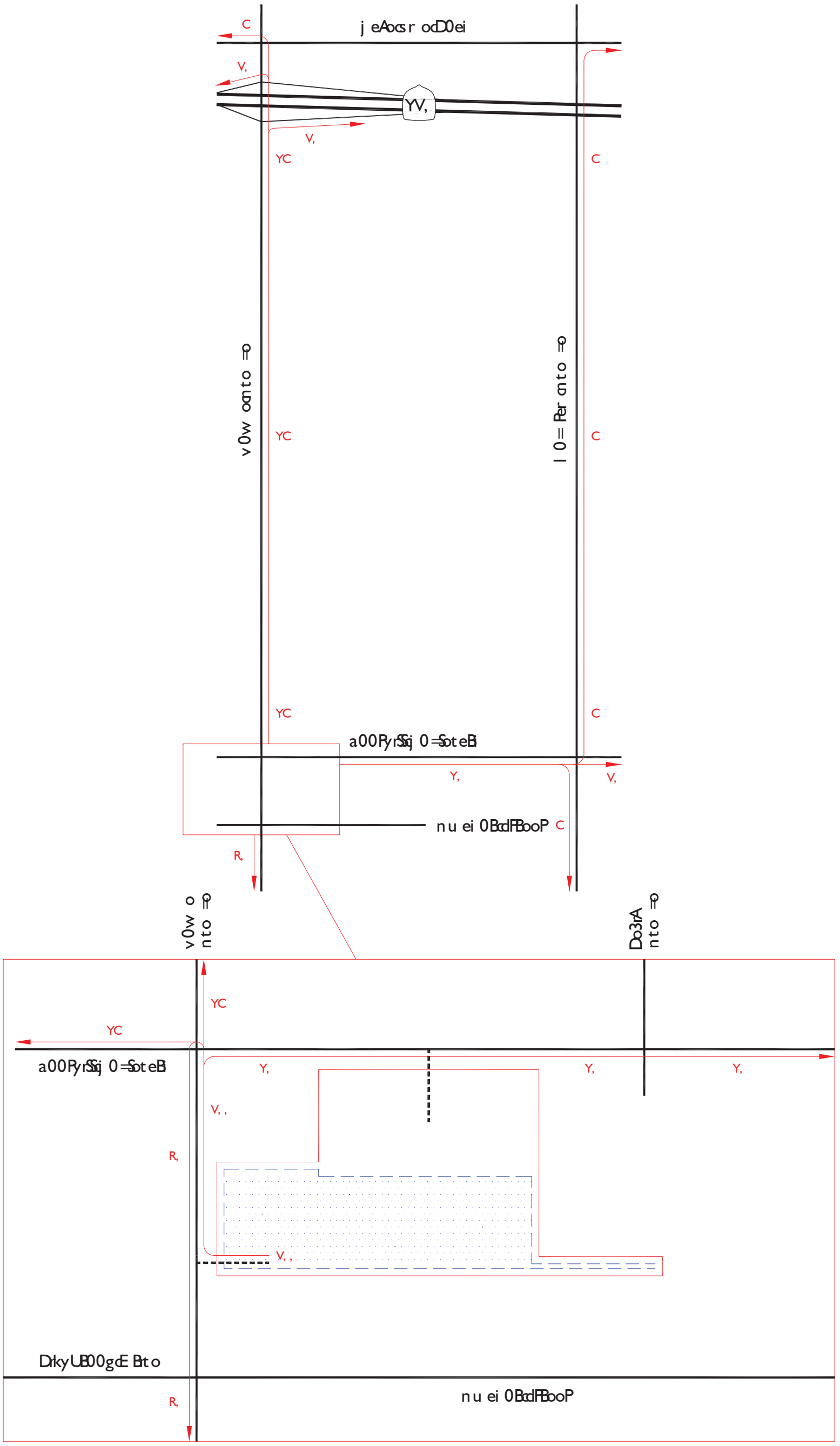


Legend:

10 = Percent to Project
= Project Site Boundary
= Project Access Driveway
= North Units

N

Outbound Project Trip Distribution (South Units)



Legend:

V, f c4oBko PcWB0u c4B05okP — f c4B05okPcdrPoqj 0=i eBl

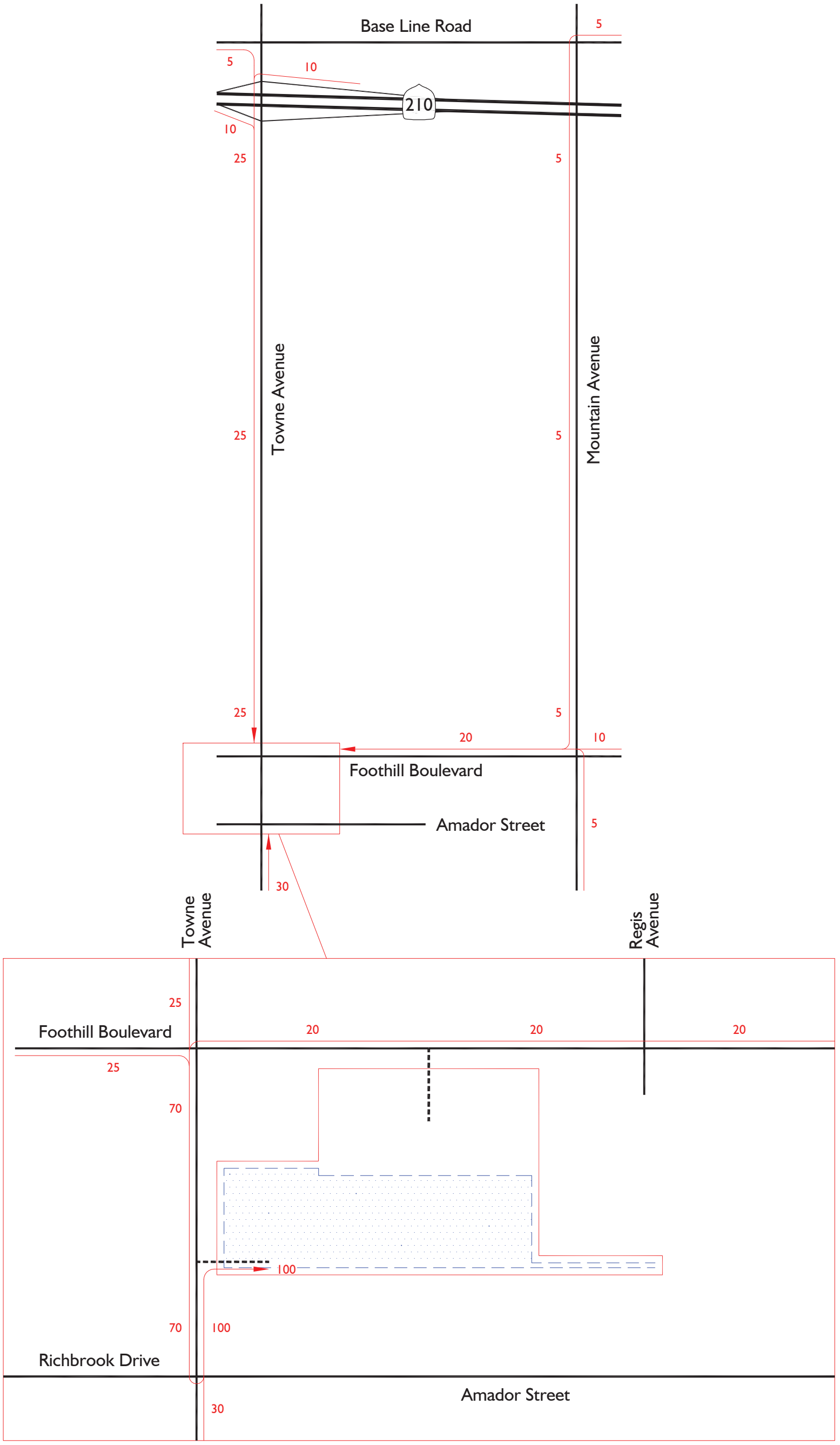
--- f c4B05okPnnkkoAAcE Bntowel — f cd0=Pyc2 rPA

N

RK engineering group, inc.

Exhibit 4-4

Inbound Project Trip Distribution (South Units)



Legend:

10 = Percent to Project

= Project Site Boundary

= Project Access Driveway

= South Units

N

To assess future conditions, project traffic is combined with existing traffic and area-wide growth. As directed by City staff, to account for area-wide/ambient growth in the study area, an annual growth rate of two percent (2%) per year has been applied to the existing (2022) traffic volumes over a 3-year period to opening year 2025 conditions (i.e., 6% total growth).

4.2.2 Cumulative Projects Traffic

Information on future projects in the vicinity of the study area has been provided by the Cities of Claremont, La Verne, and Pomona staff respectively, for inclusion in this analysis and is shown in Table 4-3. Cumulative projects were organized into traffic analysis zones based on their land use types and locations.

Table 4-3 shows the land uses and their corresponding weekday daily and peak hour trip generation for the nearby cumulative projects provided by the public agencies.

A location map of the cumulative projects is shown in Exhibit 4-6.

Furthermore, TAZ trip distributions were developed to illustrate how the cumulative project trips will be distributed throughout the surrounding transportation network. TAZ trip distributions were influenced by the cumulative project's proximity to highways, transit, and major roadway connections.

The TAZ trip distributions are provided in Appendix B.

Cumulative projects traffic volumes are shown in Exhibit 4-7.

In reality, some of the cumulative projects may be downsized, may have already been partially constructed, or may not be developed by project opening year 2025. In addition, many of the related projects have been or will be subject to a variety of mitigation measures that will reduce the potential environmental impacts associated with those projects. However, those mitigation measures have not been considered in projecting the environmental impact of the related projects.

Therefore, the cumulative analyses set forth below are conservative and could result in greater impacts than anticipated. Additionally, the analysis utilizes a growth rate of two percent (6%) per year for project opening year (2025) conditions (i.e., 6% total growth), which would already capture and account for most projects in the area. The growth rate methodology is considered conservative since it is applied to all movements in all the study intersections.

Table 4-3
Cumulative Projects Trip Generation[1]

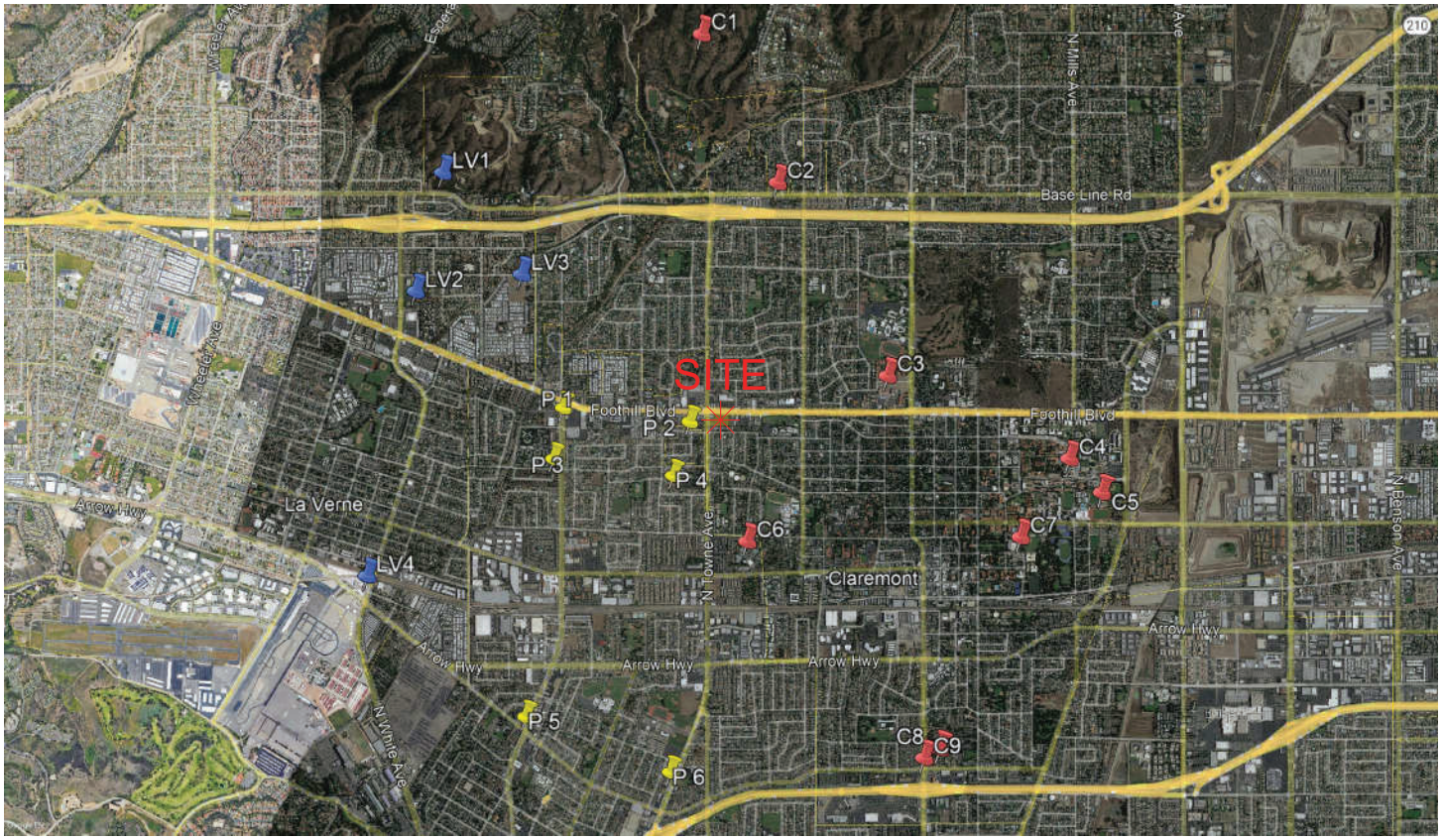
ID No.	Jurisdiction	Project Name / Case Number	Land Use (ITE Code)	Quantity	Units[2]	Weekday						
						AM Peak Hour			PM Peak Hour			Daily
						In	Out	Total	In	Out	Total	
TAZ 1												
C1	**City of Claremont**	Clara Oaks Residential Development	Single Family Detached Housing (210)	40	DU	7	21	28	24	14	38	377
					TAZ 1 Total	**7**	**21**	**28**	**24**	**14**	**38**	**377**
TAZ 2												
LV1	**City of La Verne**	Annex	Single Family Detached Housing (210)	7	DU	1	4	5	4	2	6	66
LV2	**City of La Verne**	Verdana	Single Family Attached Housing (215)	58	DU	9	19	28	19	14	33	418
LV3	**City of La Verne**	Oakcrest	Single Family Detached Housing (210)	42	DU	8	22	30	25	15	40	396
					TAZ 2 Total	**18**	**45**	**63**	**48**	**31**	**79**	**880**
TAZ 3												
C2	**City of Claremont**	Senior Low Income Housing	Senior Adult Housing - Multifamily (252)	15	DU	1	2	3	2	2	4	49
					TAZ 3 Total	**1**	**2**	**3**	**2**	**2**	**4**	**49**
TAZ 4												
C3	**City of Claremont**	Doubletree Hotel / Old School House Specific Plan	Multifamily Housing (Low-Rise) (220)	126	DU	12	38	50	40	24	64	849
					TAZ 4 Total	**12**	**38**	**50**	**40**	**24**	**64**	**849**
TAZ 5												
C4	**City of Claremont**	Keck Science Center Expansion	University/College (550)	10	EMP	6	2	8	3	5	8	89
C5	**City of Claremont**	Claremont McKenna College Master Plan	University/College (550)	250	STU	29	8	37	12	26	38	390
C7	**City of Claremont**	Pomona College 2015 Master Plan	University/College (550)	50	STU	6	2	8	2	5	7	78
					TAZ 5 Total	**41**	**12**	**53**	**17**	**36**	**53**	**557**
TAZ 6												
C6	**City of Claremont**	Mt San Antonio Gardens Master Plan	Senior Adult Housing - Single-Family (251)	19	DU	2	3	5	3	2	5	82
			Senior Adult Housing - Multifamily Housing (252)	46	DU	3	6	9	6	5	11	149
C8	**City of Claremont**	TTM62814	Multifamily Housing (Low-Rise) (220)	13	DU	1	4	5	4	2	6	88
					TAZ 6 Total	**6**	**13**	**19**	**13**	**9**	**22**	**319**
TAZ 7												
LV4	**City of La Verne**	1941 White Avenue	Multifamily Housing (Low-Rise) (220)	353	DU	34	107	141	113	67	180	2,379
			Strip Retail Plaza (<40k) (822)	1.500	TSF	2	1	3	5	5	10	82
					TAZ 7 Total	**36**	**108**	**144**	**118**	**72**	**190**	**2,461**
TAZ 8												
C9	**City of Claremont**	Knight's Inn Redevelopment	Hotel (310)	120	RM	31	24	55	36	35	71	959
					TAZ 8 Total	**31**	**24**	**55**	**36**	**35**	**71**	**959**
TAZ 9												
P1	**City of Pomona**	CUP-018542-2022	Fast Food With Drive Thru Window (934)[3]	2.800	TSF	32	31	63	26	24	50	655
					TAZ 9 Total	**32**	**31**	**63**	**26**	**24**	**50**	**655**
TAZ 10												
P2	**City of Pomona**	DPR-006897-2017	Hotel (310)	132	RM	34	27	61	40	38	78	1,055
					TAZ 10 Total	**34**	**27**	**61**	**40**	**38**	**78**	**1,055**
TAZ 11												
P3	**City of Pomona**	DPR-018998-2022	Multifamily Housing (Mid-Rise) (221)	289	DU	25	82	107	69	44	113	1,312
					TAZ 11 Total	**25**	**82**	**107**	**69**	**44**	**113**	**1,312**
TAZ 12												
P4	**City of Pomona**	TRACTMAP-015269-2021	Single Family Detached Housing (210)	38	DU	7	20	27	23	13	36	358
					TAZ 12 Total	**7**	**20**	**27**	**23**	**13**	**36**	**358**
TAZ 13												
P5	**City of Pomona**	DPR-005713-2016	Multifamily Housing (Low-Rise) (220)	20	DU	2	6	8	6	4	10	135
P6	**City of Pomona**	DPR-018805-2022	Multifamily Housing (Low-Rise) (220)	8	DU	1	2	3	3	2	5	54
					TAZ 13 Total	**3**	**8**	**11**	**9**	**6**	**15**	**189**
					Total Cumulative Projects Trip Generation	***253***	***431***	***684***	***465***	***348***	***813***	***10,020***

[1] Cumulative Projects information provided by City of Claremont & City of La Verne staff.

[2] TSF = Thousand Square Feet;
RM = Rooms;
DU = Dwelling Units;
STU = Students; and
EMP = Employees.

Exhibit 4-6

Cumulative Projects Location Map



NOTE: See report for full list of cumulative projects and traffic analysis zones (TAZ).

Legend:

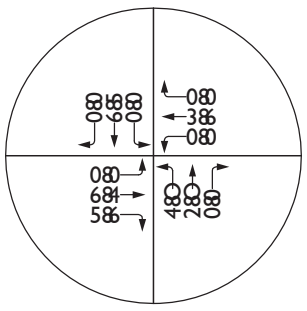
= City of Claremont Cumulative Project

= City of La Verne Cumulative Project

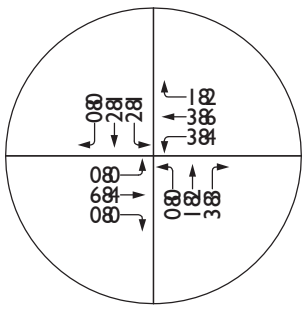
= City of Pomona Cumulative Project

N

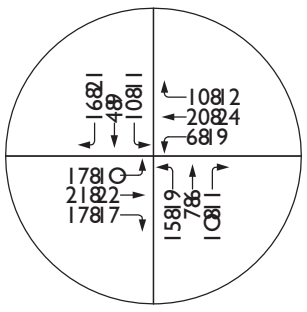
Cumulative Projects Traffic Volumes



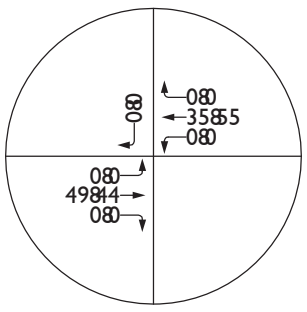
1(Towne Avenue)NS/ at
Base Line Road)EV /



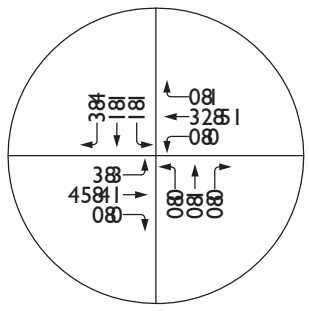
2(Mountain Avenue)NS/ at
Base Line Road)EV /



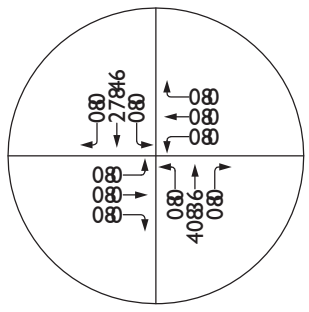
3(Towne Avenue)NS/ at
Foothill Boulevard)EV /



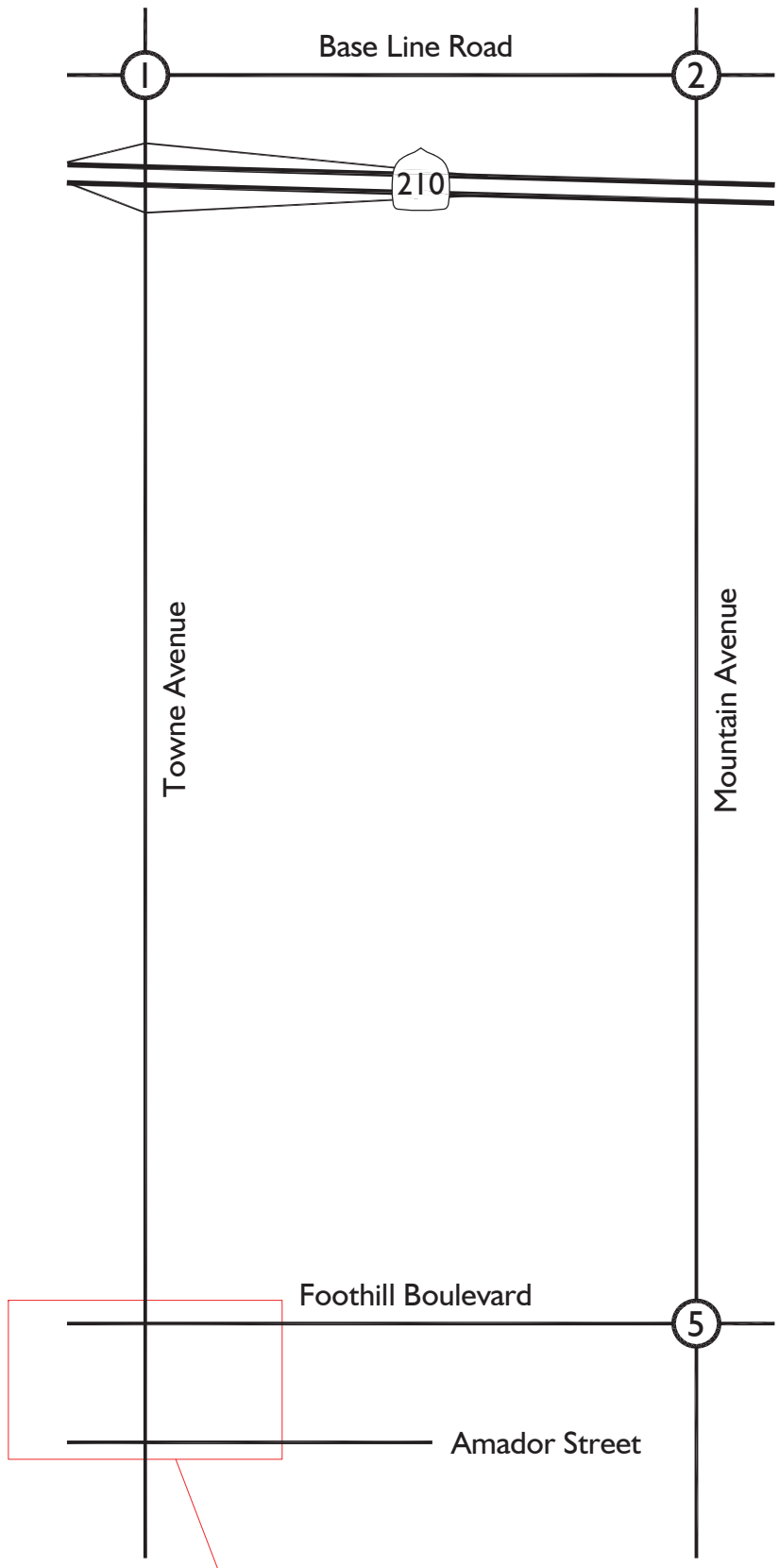
4(Regis Avenue)NS/ at
Foothill Boulevard)EV /

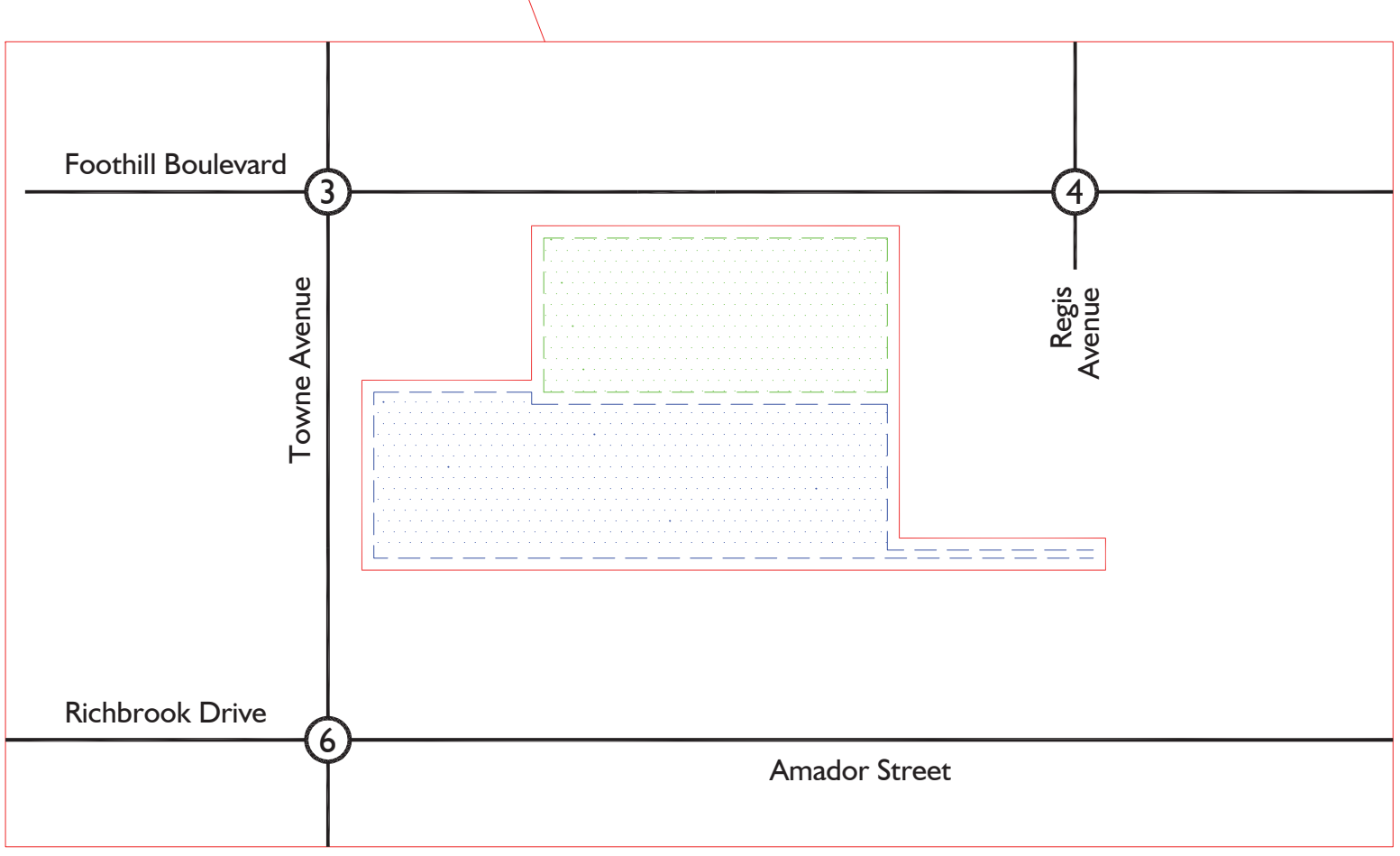


5(Mountain Avenue)NS/ at
Foothill Boulevard)EV /



6(Towne Avenue)NS/ at
Richbrook Drive8Amador Street)EV /





Legend:

10820 = AM8PM Peak Wour Columes
① = Study Area Intersection
= Project Site Boundary
= North Units
= South Units

N

RK engineering group, inc.

4.3 Project Opening Year (2025) With Cumulative Projects Without Project Conditions Traffic Volumes

Project Opening Year (2025) With Cumulative Projects Without Project Conditions traffic volumes consist of three (3) years of annual growth on top of existing (2022) traffic volumes at two percent (2%) per year (i.e., 6% total growth), plus traffic generated by the cumulative projects.

Project Opening Year (2025) With Cumulative Projects Without Project Conditions traffic volumes are shown in Exhibit 4-8.

4.4 Project Opening Year (2025) With Cumulative Projects With Project Conditions Traffic Volumes

Project Opening Year (2025) With Cumulative Projects With Project Conditions consist of three (3) years of annual growth on top of existing (2022) traffic volumes at two percent (2%) per year (i.e., 6% total growth), plus traffic generated by the cumulative projects and the proposed project.

Project Opening Year (2025) With Cumulative Projects With Project Conditions traffic volumes are shown in Exhibit 4-9.

4.5 Horizon Year (2040) Without Project Conditions Traffic Volumes

Horizon Year (2040) model projections from the Southern California Association of Governments (SCAG) 2016 RTP/SCS traffic model were utilized as a basis for determining peak hour turning movements to be used in the Horizon Year (2040) analysis scenarios. Model plots were prepared by Translutions, Inc.

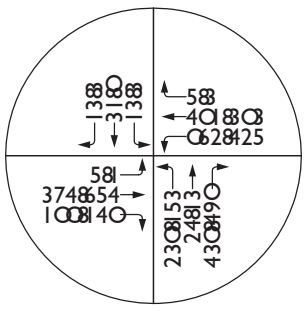
A post-processing methodology from the National Cooperative Highway Research Program (NCHRP) was applied to calculate the horizon year AM and PM peak hour turning movement volumes from the model plot link volumes.

The post-processed horizon year turning volumes were reviewed for reasonableness on a movement-by-movement basis and were increased as necessary.

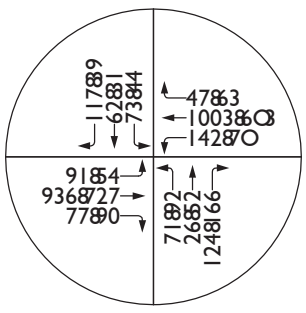
A copy of the SCAG 2016 RTP/SCS model plots, post-processed turning movement volumes via the NCHRPP methodology, and adjusted Horizon Year (2040) traffic volumes are shown in Appendix C.

Horizon Year (2040) Without Project Conditions traffic volumes are shown in Exhibit 4-10.

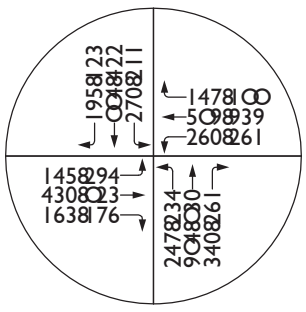
Project Opening Year (2025) With Cumulative Projects Without Project Conditions Traffic Volumes



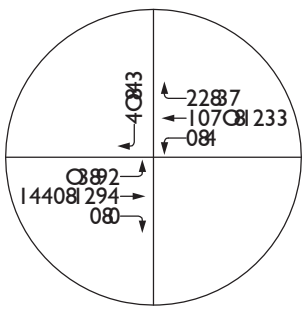
1(Towne Avenue)NS/ at Base Line Road)EV /



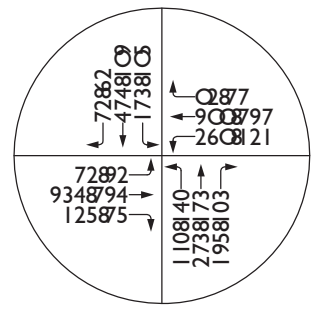
2(Mountain Avenue)NS/ at Base Line Road)EV /



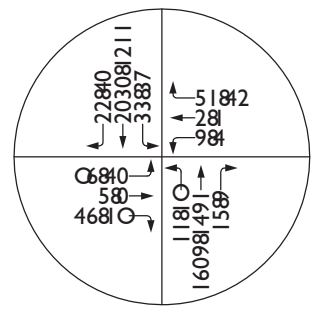
3(Towne Avenue)NS/ at Foothill Boulevard)EV /



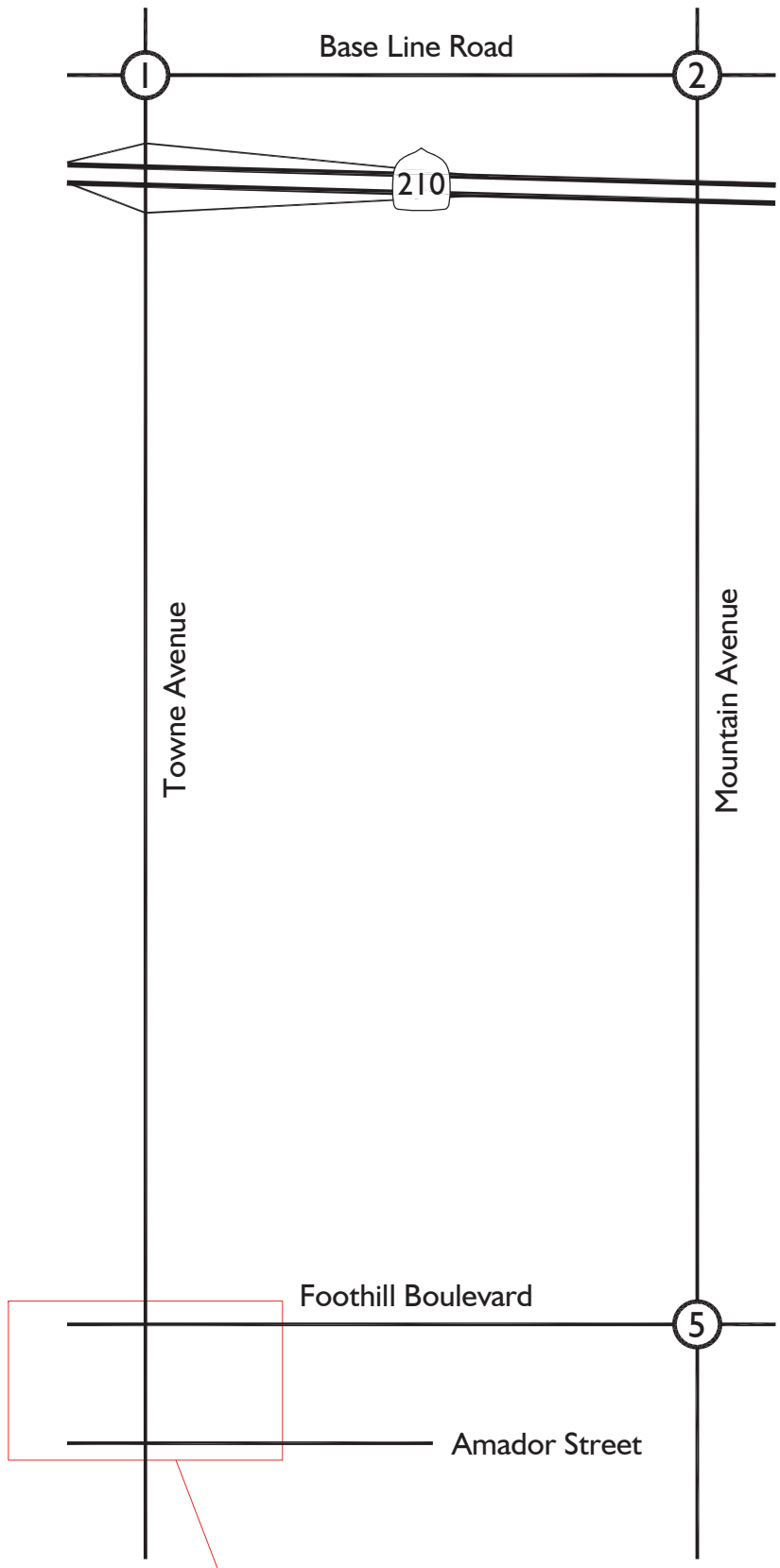
4(Regis Avenue)NS/ at Foothill Boulevard)EV /



5(Mountain Avenue)NS/ at Foothill Boulevard)EV /



6(Towne Avenue)NS/ at Richbrook Drive8Amador Street)EV /



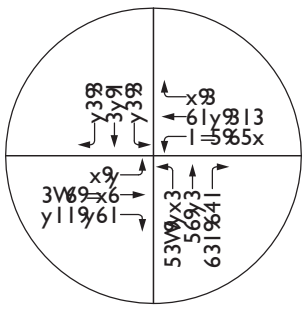


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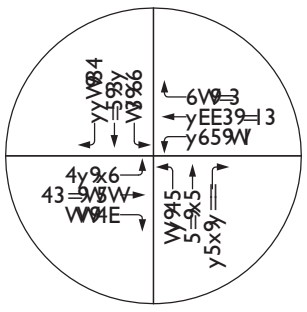
10820 = AM8PM Peak Wour Columes
① = Study Area Intersection
= Project Site Boundary
= North Units
= South Units

N

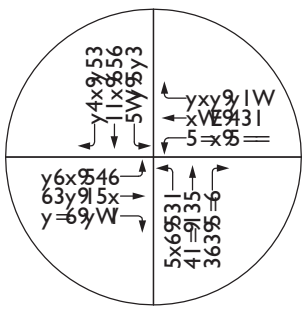
Project Opening Year (2025) With Cumulative Projects With Project Conditions
Traffic Volumes



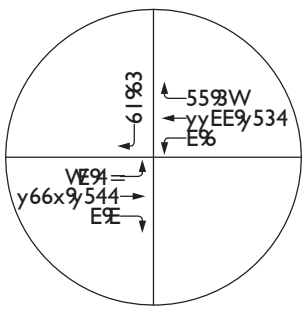
y/ Towne Avenue 8MS7at
Base 0ine Road 8- Y 7



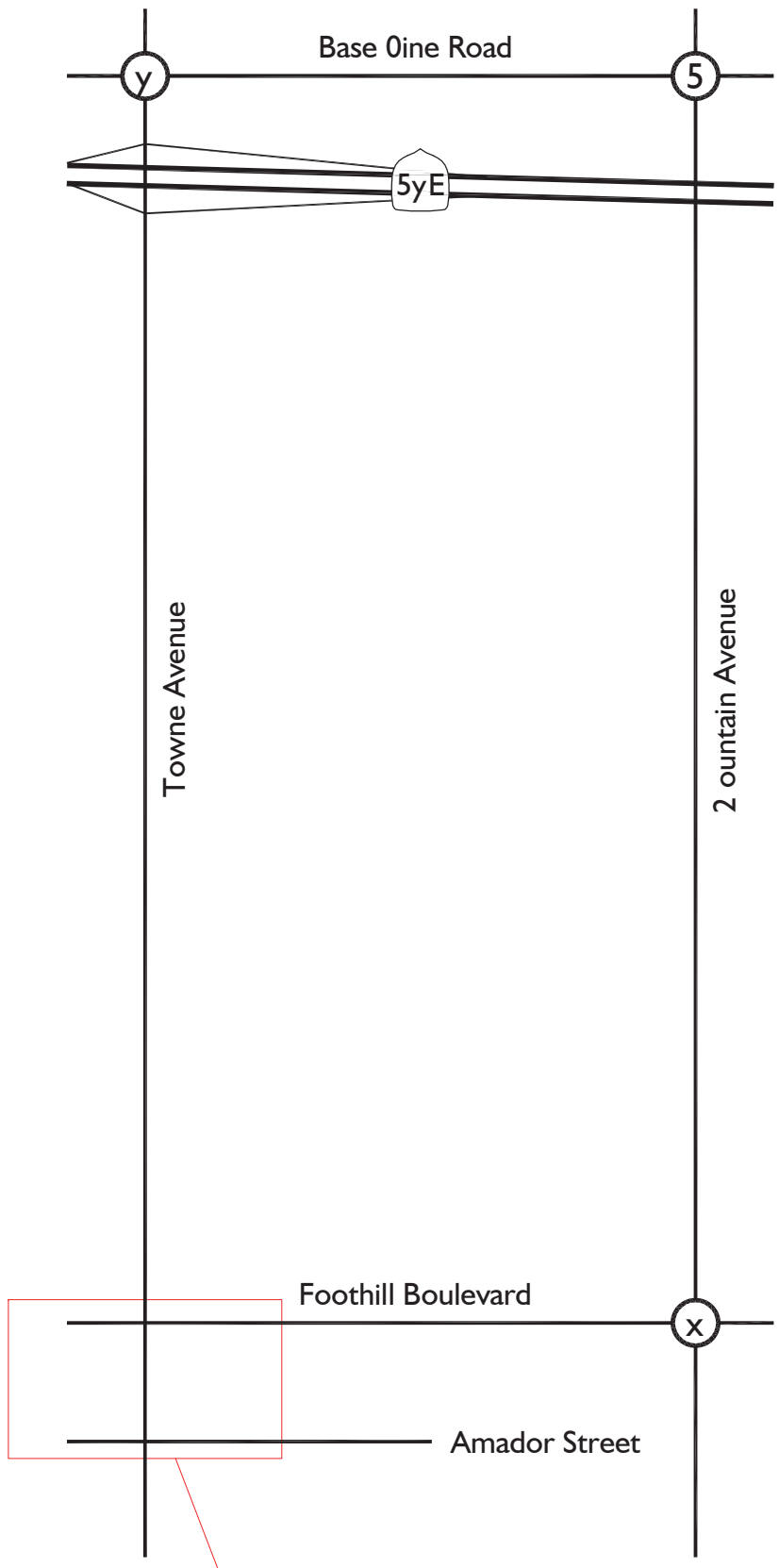
5/ 2 ountain Avenue 8MS7at
Base 0ine Road 8- Y 7

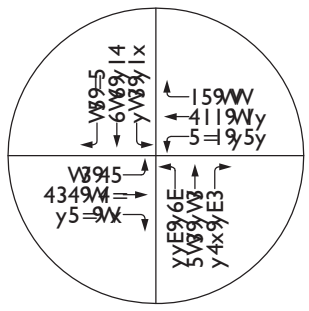


3/ Towne Avenue 8MS7at
Foothill Boulevard 8- Y 7

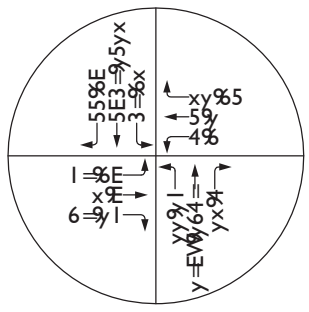


6/ Regis Avenue 8MS7at
Foothill Boulevard 8- Y 7

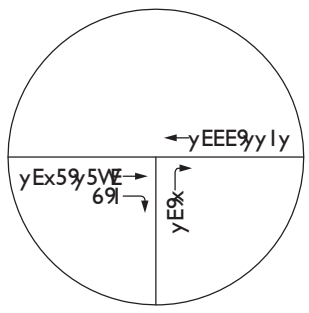




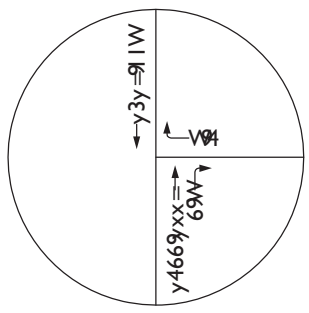
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Foothill Boulevard 8- Y 7



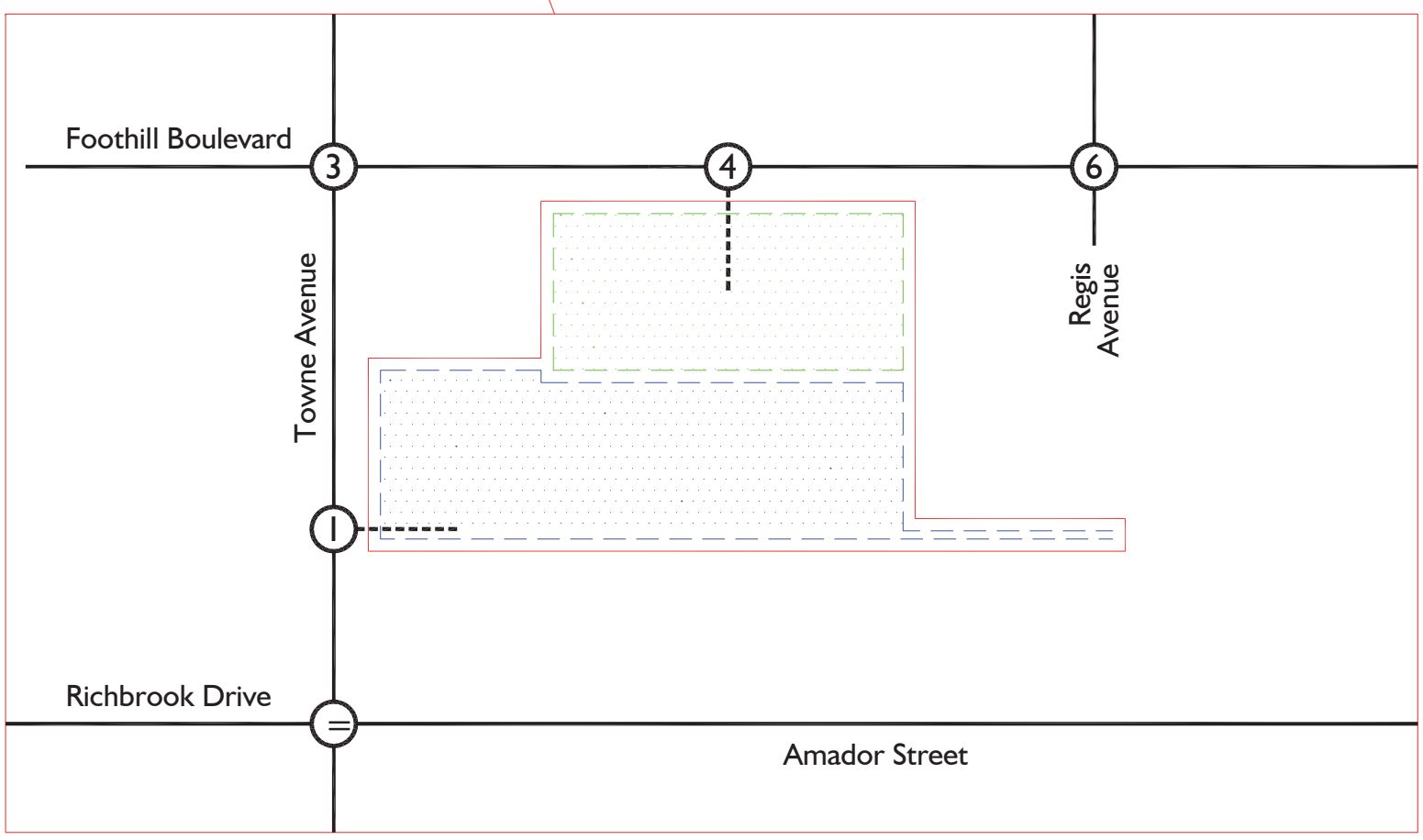
=/ Towne Avenue 8MS7at
Richbrook Drive9Amador Street 8- Y 7



4/ Morthern N-oldct Access 8MS7at
Foohill Boulevard 8- Y 7



1/ Towne Avenue 8MS7at
Southern N-oldct Access 8- Y 7



Legend:

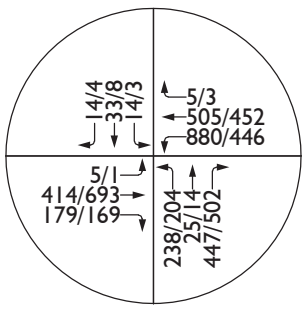
yE5E1 A2 9N2 Neak Cour , olumes
(y) 1 StudP Area jntersection
1 N-oldct Access DrivewaP
1 N-oldct Site BoundarP
1 Morth L nits
1 South L nits

N

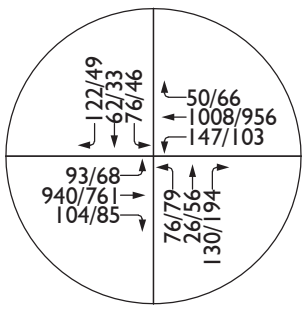
RK engineering group, inc.

Exhibit 4-10

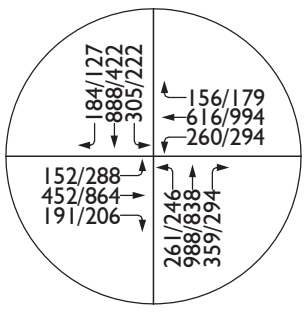
Horizon Year (2040) Without Project Conditions Traffic Volumes



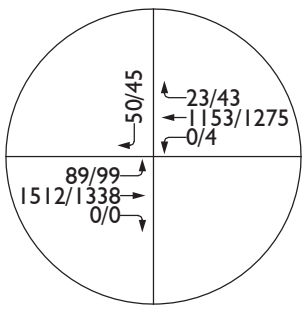
1. Towne Avenue (NS) at Base Line Road (EW)



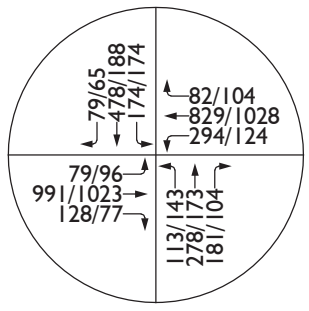
2. Mountain Avenue (NS) at Base Line Road (EW)



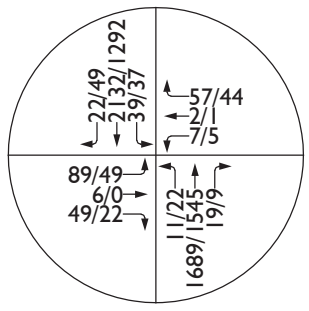
3. Towne Avenue (NS) at Foothill Boulevard (EW)



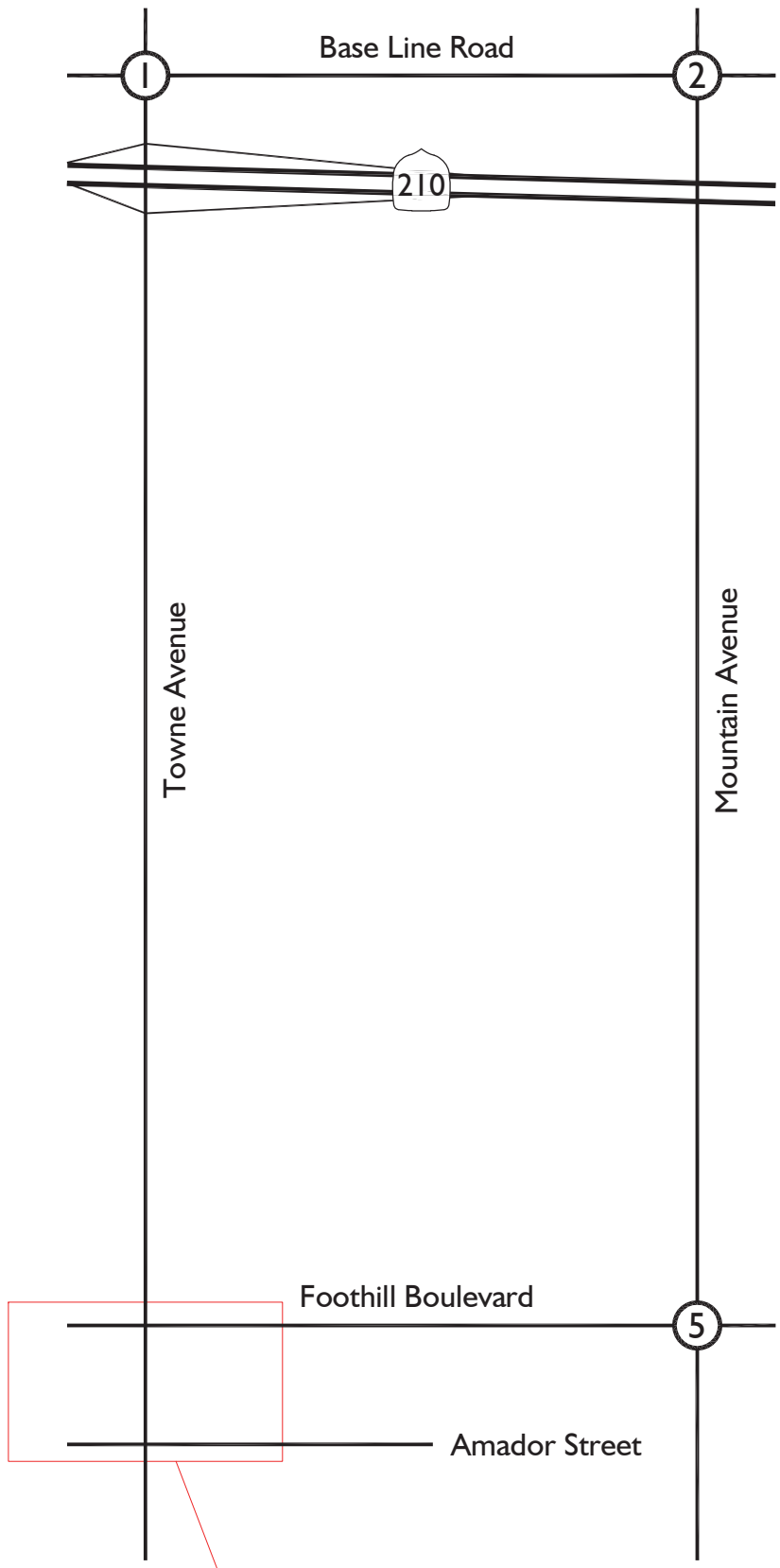
4. Regis Avenue (NS) at Foothill Boulevard (EW)

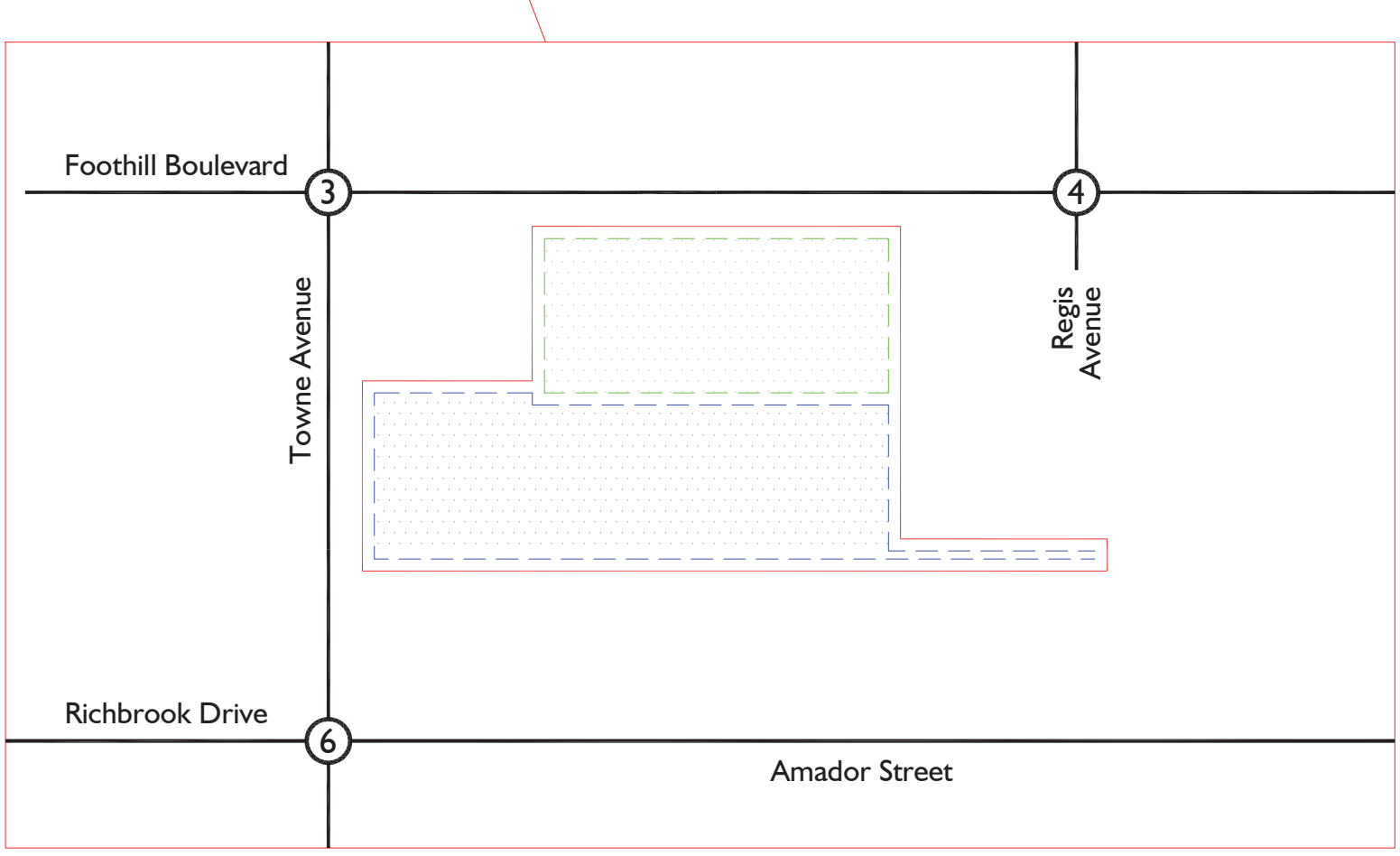


5. Mountain Avenue (NS) at Foothill Boulevard (EW)



6. Towne Avenue (NS) at Richbrook Drive/Amador Street (EW)





Legend:

10/20 = AM/PM Peak Hour Volumes
(1) = Study Area Intersection
= Project Site Boundary
= North Units
= South Units

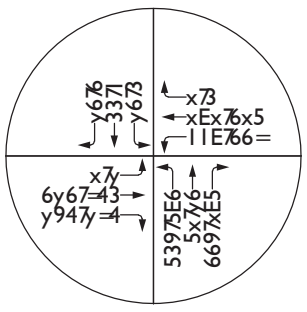
N

4.6 Horizon Year (2040) With Project Conditions Traffic Volumes

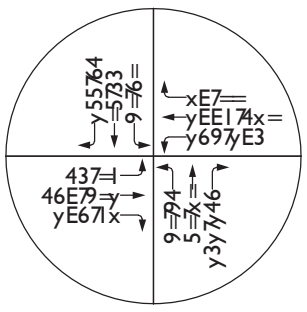
Horizon Year (2040) With Project Conditions consist of the Horizon Year (2040) traffic volumes shown in Exhibit 4-10 plus the traffic generated by the proposed project.

Horizon Year (2040) With Project Conditions traffic volumes are shown in Exhibit 4-11.

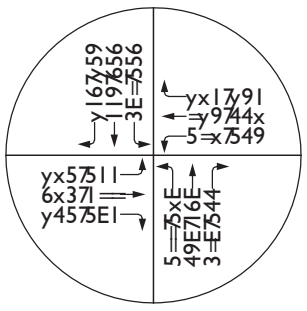
Horizon Year (2040) With uroRej t c onditionC
s raTTj f oV meC



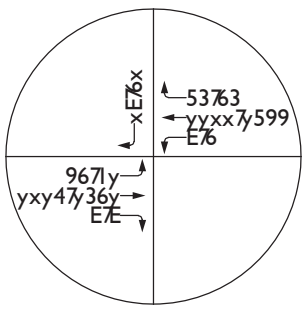
y) Towne Avenue /MS8at
Base 0ine Road /- C 8



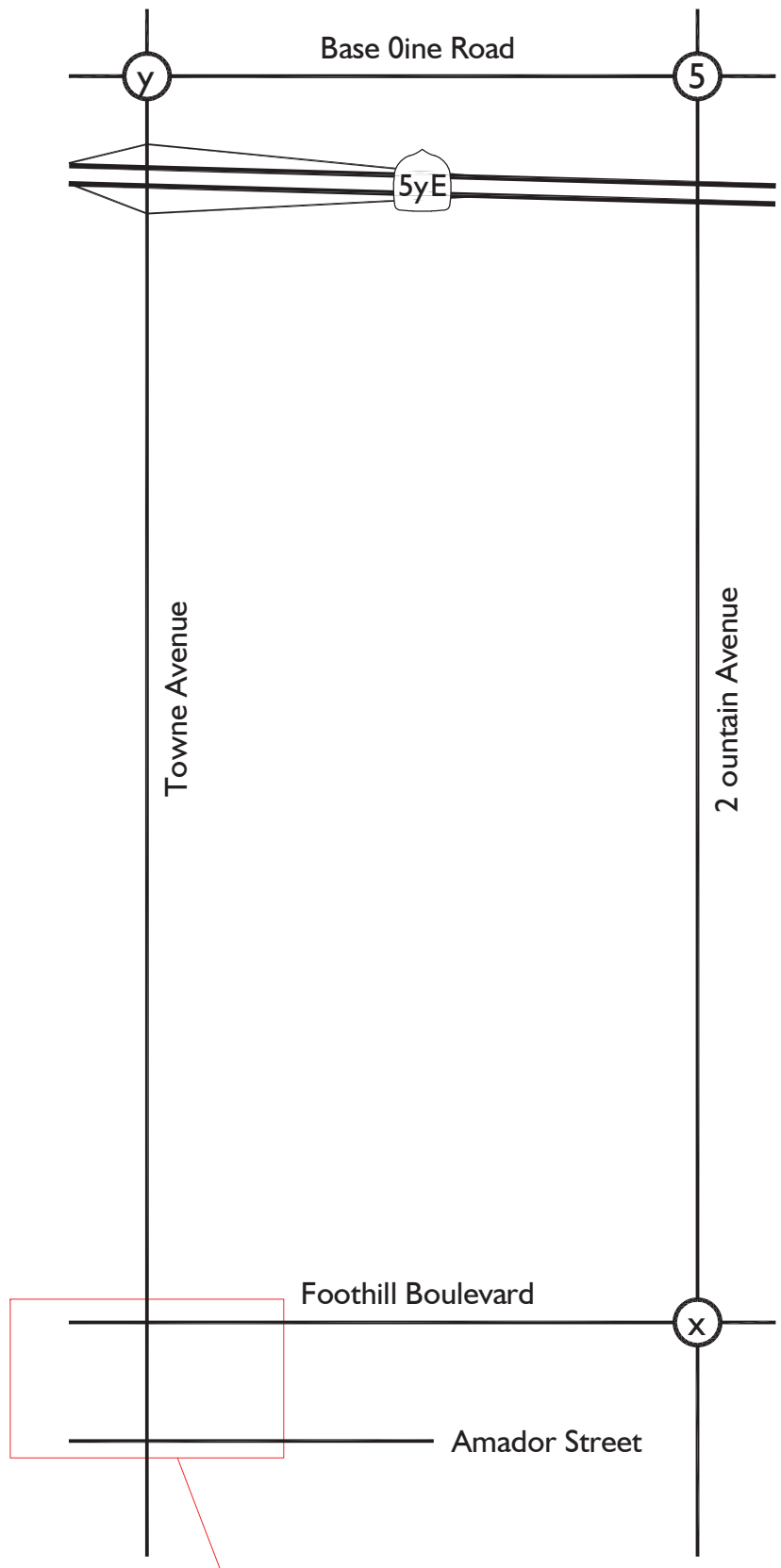
5) 2 ountain Avenue /MS8at
Base 0ine Road /- C 8

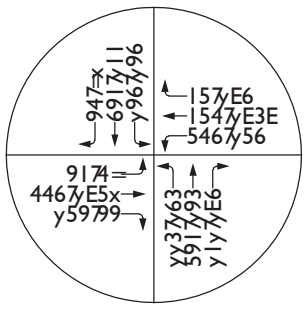


3) Towne Avenue /MS8at
Foothill Boulevard /- C 8

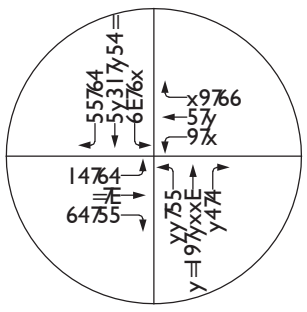


6) Regis Avenue /MS8at
Foothill Boulevard /- C 8

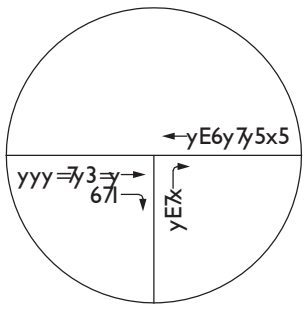




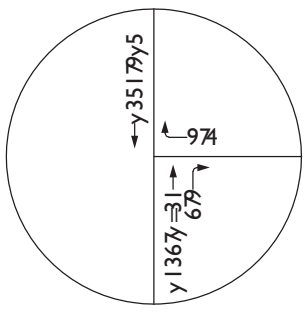
x) 2 ountain Avenue /MS8at
Foothill Boulevard /- C 8



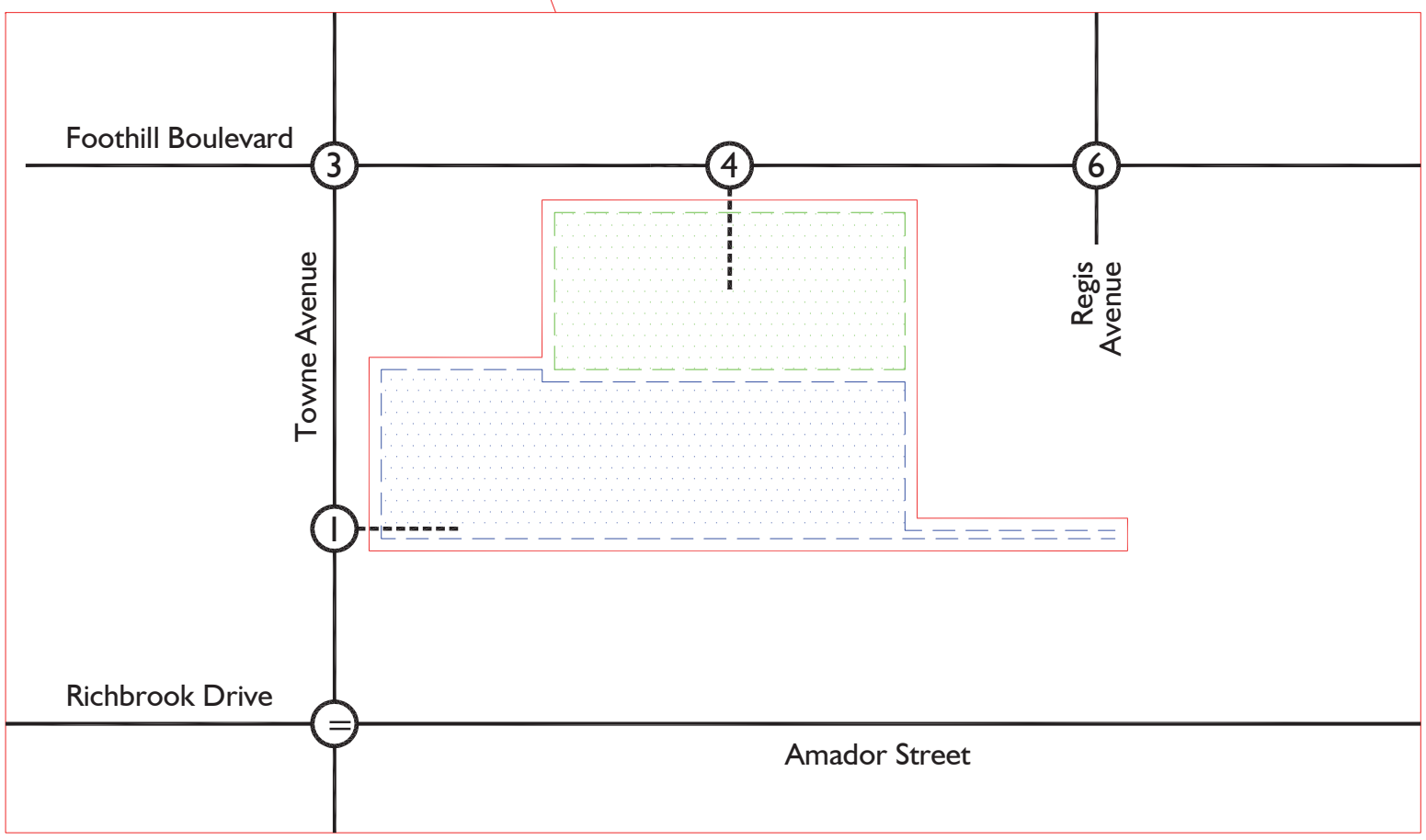
=) Towne Avenue /MS8at
Richbrook Drive7Amador Street /- C 8



4) Morthern N-oldct Access /MS8at
Foohill Boulevard /- C 8



1) Towne Avenue /MS8at
Southern N-oldct Access /- C 8



Legend:

yE75E1 A2 7N2 Neak V our Yolumes
(y) 1 StudP Area jntersection
1 N-oldct Access DrivewaP
1 N-oldct Site BoundarP
1 Morth L nits
1 South L nits

N

RK engineering group, inc.

5.0 Study Intersection Peak Hour LOS Analysis

This section of the report provides a discussion on the study intersection peak hour LOS analysis and findings.

The minimum acceptable LOS thresholds for each study intersection are detailed in Section 2.2.3 of this report. Furthermore, operational improvements shall be identified for the study area intersections in which the LOS performance criteria discussed in Section 2.2 of this report are met.

5.1 Existing Conditions Level of Service

Existing Conditions LOS calculations for the six (6) existing study intersections are shown in Table 5-1 and are based on the existing traffic volumes shown in Exhibit 3-2 and the existing lane geometry shown in Exhibit 3-1.

As shown in Table 5-1, all existing study intersections are currently operating at an acceptable LOS (D or better) during the AM and PM peak hours under Existing Conditions except for the following one (1) study intersection:

Deficient Intersection:

1. Towne Avenue (NS) at Base Line Road (EW)

    - AM Peak Hour – LOS F (122.5 seconds per vehicle)

Detailed LOS analysis worksheets for Existing Conditions are included in Appendix D.

5.2 Project Opening Year (2025) With Cumulative Projects Without Project Conditions Level of Service

Project Opening Year (2025) With Cumulative Projects Without Project Conditions LOS calculations for the six (6) existing study intersections are shown in Table 5-2 and are based on the Project Opening Year (2025) With Cumulative Projects Without Project Conditions traffic volumes shown in Exhibit 4-8 and the existing lane geometry shown in Exhibit 3-1.

Table 5-1
Study Intersection LOS Analysis Summary
Existing Conditions

	Study Intersection	Traffic Control[1]	Methodology	Acceptable LOS	Delay (sec/veh)[2,3]		Level of Service	
					AM	PM	AM	PM
1.	Towne Avenue (NS) at Base Line Road (EW)	TS	HCM 6	E	**122.5**	44.1	**F**	D
2.	Mountain Avenue (NS) / Base Line Road (EW)	TS	HCM 6	E	32.2	29.4	C	C
3.	Towne Avenue (NS) at Foothill Boulevard (EW)	TS	HCM 6	D	39.1	40.2	D	D
4.	Regis Avenue (NS) at Foothill Boulevard (EW)	CSS	HCM 6	E	14.0	13.8	B	B
5.	Mountain Avenue (NS) at Foothill Boulevard (EW)	TS	HCM 6	E	34.2	32.4	C	C
6.	Towne Avenue (NS) at Amador Street / Richbrook Drive (EW)	TS	HCM 6	D	8.4	3.9	A	A
7.	Project Access No. 1 (North Units) (NS) at Foothill Boulevard (EW)	*Does Not Currently Exist*						
8.	Towne Avenue (NS) at Project Access No. 2 (South Units) (EW)	*Does Not Currently Exist*						

[1] TS = Traffic Signal
CSS = Cross-Street Stop

[2] Deficient operation shown in **Bold**.

[3] HCM Analysis Software: PTV Vistro, Version 2023

Table 5-2
Study Intersection LOS Analysis Summary
Project Opening Year (2025) With Cumulative Project Conditions

	Study Intersection	Traffic Control[1]	Methodology	Acceptable LOS	Without Project				With Project							
					Delay (sec/veh)[2,3]		Level of Service		Delay (sec/veh)[2,3]		Increase in Delay		Level of Service		Requires LOS Improvement?	
					AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1.	Towne Avenue (NS) at Base Line Road (EW)	TS	HCM 6	E	**134.7**	45.4	**F**	D	**134.7**	45.4	0.0	0.0	**F**	D	No[4]	No
2.	Mountain Avenue (NS) / Base Line Road (EW)	TS	HCM 6	E	33.8	30.8	C	C	33.8	30.8	0.0	0.0	C	C	No	No
3.	Towne Avenue (NS) at Foothill Boulevard (EW)	TS	HCM 6	D	50.7	47.4	D	D	51.4	47.8	0.7	0.4	D	D	No	No
4.	Regis Avenue (NS) at Foothill Boulevard (EW)	CSS	HCM 6	E	15.0	14.9	B	B	15.0	14.9	0.0	0.0	B	B	No	No
5.	Mountain Avenue (NS) at Foothill Boulevard (EW)	TS	HCM 6	E	40.7	34.2	D	C	40.8	34.2	0.1	0.0	D	C	No	No
6.	Towne Avenue (NS) at Amador Street / Richbrook Drive (EW)	TS	HCM 6	D	9.6	4.2	A	A	9.6	4.2	0.0	0.0	A	A	No	No
7.	Project Access No. 1 (North Units) (NS) at Foothill Boulevard (EW)	CSS	HCM 6	E	- -	- -	- -	- -	12.8	14.3	- -	- -	B	B	No	No
8.	Towne Avenue (NS) at Project Access No. 2 (South Units) (EW)	CSS	HCM 6	D	- -	- -	- -	- -	18.6	16.6	- -	- -	C	C	No	No

[1] TS = Traffic Signal
CSS = Cross-Street Stop

[2] Deficient operation shown in **Bold**.

[3] HCM Analysis Software: PTV Vistro, Version 2023

[4] Although the study intersection is forecast to operate at a deficient LOS (LOS F), the addition of project traffic does not increase the overall intersection delay. As such, the study intersection is not considered to be impacted by the proposed project and as a result, no improvements are required.

As shown in Table 5-2, all existing study intersections are forecasted to operate at an acceptable LOS (LOS D or better) during the AM and PM peak hours under Project Opening Year (2025) With Cumulative Projects Without Project Conditions except for the following one (1) study intersection:

Deficient Intersection:

1. Towne Avenue (NS) at Base Line Road (EW)

    - AM Peak Hour – LOS F (134.7 seconds per vehicle)

Detailed LOS analysis worksheets for Project Opening Year (2025) With Cumulative Projects Without Project Conditions are included in Appendix E.

5.3 Project Opening Year (2025) With Cumulative Projects With Project Conditions Level of Service

Project Opening Year (2025) With Cumulative Projects With Project Conditions LOS calculations for all study intersections are also shown in Table 5-2 and are based on the Project Opening Year (2025) With Cumulative Projects With Project Conditions traffic volumes shown in Exhibit 4-9 and the existing lane geometry shown in Exhibit 3-1.

As shown in Table 5-2, all study intersections are forecasted to operate at an acceptable LOS (LOS D or better) during the AM and PM peak hours under Project Opening Year (2025) With Cumulative Projects With Project Conditions except for the following one (1) study intersection:

Deficient Intersection:

1. Towne Avenue (NS) at Base Line Road (EW)

    - AM Peak Hour – LOS F (134.7 seconds per vehicle)

As shown in Table 5-2, the addition of project traffic does not increase the overall intersection delay at the study intersection of Towne Avenue (NS) at Base Line Road (EW) (i.e., Int. #1) during the Project Opening Year (2025) With Cumulative Projects scenario. The proposed project is expected to generate at most 1 trip at this study intersection

during the AM and PM peak hours. As such, study intersection #1 is not considered to be impacted by the proposed project and as a result, no improvements are required.

Detailed LOS analysis worksheets for Project Opening Year (2025) With Cumulative Projects With Project Conditions are included in Appendix F.

5.4 Horizon Year (2040) Without Project Conditions Level of Service

Horizon Year (2040) Without Project Conditions LOS calculations for the six (6) existing study intersections are shown in Table 5-3 and are based on the Horizon Year (2040) Without Project Conditions traffic volumes shown in Exhibit 4-10 and the existing lane geometry shown in Exhibit 3-1.

As shown in Table 5-3, all existing study intersections are forecasted to operate at an acceptable LOS (LOS D or better) during peak hours under Horizon Year (2040) Without Project Conditions except for the following one (1) study intersection:

Deficient Intersection:

1. Towne Avenue (NS) at Base Line Road (EW)

    - AM Peak Hour – LOS F (138.9 seconds per vehicle)

Detailed LOS analysis worksheets for Horizon Year (2040) Without Project Conditions are included in Appendix G.

5.5 Horizon Year (2040) With Project Conditions Level of Service

Horizon Year (2040) With Project Conditions LOS calculations for the six (6) existing study intersections are shown in Table 5-3 and are based on the Horizon Year (2040) With Project Conditions traffic volumes shown in Exhibit 4-11 and the existing lane geometry shown in Exhibit 3-1.

As shown in Table 5-3, all study intersections are forecasted to operate at an acceptable LOS (LOS D or better) during peak hours under Horizon Year (2040) With Project Conditions except for the following one (1) study intersection:

Table 5-3
Study Intersection LOS Analysis Summary
Horizon Year (2040) Conditions

	Study Intersection	Traffic Control[1]	Methodology	Acceptable LOS	Without Project				With Project							
					Delay (sec/veh)[2,3]		Level of Service		Delay (sec/veh)[2,3]		Increase in Delay		Level of Service		Requires LOS Improvement?	
					AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1.	Towne Avenue (NS) at Base Line Road (EW)	TS	HCM 6	E	**138.9**	46.6	**F**	D	**138.9**	46.6	0.0	0.0	**F**	D	No[4]	No
2.	Mountain Avenue (NS) / Base Line Road (EW)	TS	HCM 6	E	34.3	30.8	C	C	34.3	30.8	0.0	0.0	C	C	No	No
3.	Towne Avenue (NS) at Foothill Boulevard (EW)	TS	HCM 6	D	53.1	48.8	D	D	54.4	49.3	1.3	0.5	D	D	No	No
4.	Regis Avenue (NS) at Foothill Boulevard (EW)	CSS	HCM 6	E	15.6	15.5	C	C	15.6	15.5	0.0	0.0	C	C	No	No
5.	Mountain Avenue (NS) at Foothill Boulevard (EW)	TS	HCM 6	E	41.8	35.4	D	D	41.9	35.4	0.1	0.0	D	D	No	No
6.	Towne Avenue (NS) at Amador Street / Richbrook Drive (EW)	TS	HCM 6	D	10.8	4.6	B	A	10.9	4.6	0.1	0.0	B	A	No	No
7.	Project Access No. 1 (North Units) (NS) at Foothill Boulevard (EW)	CSS	HCM 6	E	- -	- -	- -	- -	13.2	14.9	- -	- -	B	B	No	No
8.	Towne Avenue (NS) at Project Access No. 2 (South Units) (EW)	CSS	HCM 6	D	- -	- -	- -	- -	19.7	17.4	- -	- -	C	C	No	No

[1] TS = Traffic Signal
CSS = Cross-Street Stop

[2] Deficient operation shown in **Bold**.

[3] HCM Analysis Software: PTV Vistro, Version 2023

[4] Although the study intersection is forecast to operate at a deficient LOS (LOS F), the addition of project traffic does not increase the overall intersection delay. As such, the study intersection is not considered to be impacted by the proposed project and as a result, no improvements are required.

Deficient Intersection:

1. Towne Avenue (NS) at Base Line Road (EW)

    - AM Peak Hour – LOS F (138.9 seconds per vehicle)

As shown in Table 5-3, the addition of project traffic does not increase the overall intersection delay at the study intersection of Towne Avenue (NS) at Base Line Road (EW) (i.e., Int. #1) during the Horizon Year (2040) scenario. The proposed project is expected to generate at most 1 trip at this study intersection during the AM and PM peak hours. As such, study intersection #1 is not considered to be impacted by the proposed project and as a result, no improvements are required.

Detailed LOS analysis worksheets for Horizon Year (2040) With Project Conditions are included in Appendix H.

6.0 Intersection Queuing Analysis

As identified in the approved scope of work, a queue evaluation has been performed at three (3) of the study intersections for each analysis scenario. The purpose of this analysis is to determine whether adequate storage capacity is provided without and with the proposed project.

The queue analysis has been performed utilizing the HCM 6 95th percentile queue evaluation methodology. Queue lengths have been reported for the following six (6) turning movements:

Intersection #3 – Towne Avenue (NS) at Foothill Boulevard (EW)

- Northbound Left-Turn
- Northbound Through
- Northbound Right-Turn
- Westbound Left-Turn

Intersection #4 – Regis Avenue (NS) at Foothill Boulevard (EW)

- Eastbound Left-Turn

Intersection #6 – Towne Avenue (NS) at Richbrook Drive/Amador Street (EW)

- Southbound Left-Turn

6.1 Existing Conditions Queue Analysis

The queue analysis under Existing Conditions has been performed for the six (6) turning movements previously identified. Table 6-1 shows the results of the queue analysis under Existing Conditions.

As shown in Table 6-1, the 95th percentile queues are satisfied for all turning movements except for the following two (2) turning movements:

Intersection #3 – Towne Avenue (NS) at Foothill Boulevard (EW)

- Northbound Right-Turn (AM & PM Peak Hour)
- Westbound Left-Turn (AM & PM Peak Hour)

Table 6-1
Study Intersection HCM 95th Percentile Vehicular Queue Analysis Summary[1]
Existing Conditions

Intersection	Movement	Storage Length (Feet)[2]	HCM 95th Percentile Queue Length (Feet)		Adequate Storage Provided?	
			AM	PM	AM	PM
3. Towne Avenue (NS) at Foothill Boulevard (EW)	Northbound Left-Turn	225	193	160	YES	YES
	Northbound Through	400	352	356	YES	YES
	Northbound Right-Turn	80	**310**	**226**	**NO**	**NO**
	Westbound Left-Turn	240	**337**	**286**	**NO**	**NO**
4. Regis Avenue (NS) at Foothill Boulevard (EW)	Eastbound Left-Turn	150	25[3]	25[3]	YES	YES
6. Towne Avenue (NS) at Richbrook Drive/Amador Street (EW)	Southbound Left-Turn	50	25[3]	25[3]	YES	YES

[1] HCM Analysis Software: Vistro, Version 2023.

[2] Storage length for through movements and turning movements without dedicated turn lanes is measured as the distance to the next intersection.

[3] Although the calculated queue length is less, a minimum vehicle length of 25 feet is assumed for the purposes of this analysis.

The remaining four (4) turning movements have queues that are adequately accommodated by the storage space provided under Existing Conditions.

6.2 Project Opening Year (2025) With Cumulative Projects Without Project Conditions Queue Analysis

The queue analysis under Project Opening Year (2025) With Cumulative Projects Without Project Conditions has been performed for all six (6) turning movements previously identified. Table 6-2 shows the results of the queue analysis under Project Opening Year (2025) With Cumulative Projects Without Project Conditions.

As shown in Table 6-2, the 95th percentile queues are satisfied for all turning movements except for the following four (4) turning movements:

Intersection #3 – Towne Avenue (NS) at Foothill Boulevard (EW)

- Northbound Left-Turn (AM & PM Peak Hour)
- Northbound Through (AM & PM Peak Hour)
- Northbound Right-Turn (AM & PM Peak Hour)
- Westbound Left-Turn (AM & PM Peak Hour)

The remaining two (2) turning movements have queues that are adequately accommodated by the storage space provided under Project Opening Year (2025) With Cumulative Projects Without Project Conditions.

6.3 Project Opening Year (2025) With Cumulative Projects With Project Conditions Queue Analysis

The queue analysis under Project Opening Year (2025) With Cumulative Projects With Project Conditions has been performed for all six (6) turning movements previously identified. Table 6-2 also shows the results of the queue analysis under Project Opening Year (2025) With Cumulative Projects With Project Conditions.

As shown in Table 6-2, the 95th percentile queues are satisfied for all turning movements except for the following four (4) turning movements:

Intersection #3 – Towne Avenue (NS) at Foothill Boulevard (EW)

- Northbound Left-Turn (AM & PM Peak Hour)

Table 6-2

Study Intersection HCM 95th Percentile Vehicular Queue Analysis Summary[1]

Project Opening Year (2025) With Cumulative Projects

	Intersection	Movement	Storage Length (Feet)[2]	Without Project				With Project			
				HCM 95th Percentile Queue Length (Feet)		Adequate Storage Provided?		HCM 95th Percentile Queue Length (Feet)		Adequate Storage Provided?	
				AM	PM	AM	PM	AM	PM	AM	PM
3.	Towne Avenue (NS) at Foothill Boulevard (EW)	Northbound Left-Turn	225	**298**	**222**	**NO**	**YES**	**309**	**227**	**NO**	**NO**
		Northbound Through	400	**425**	**445**	**NO**	**NO**	**426**	**448**	**NO**	**NO**
		Northbound Right-Turn	80	**391**	**286**	**NO**	**NO**	**397**	**290**	**NO**	**NO**
		Westbound Left-Turn	240	**381**	**356**	**NO**	**NO**	**397**	**369**	**NO**	**NO**
4.	Regis Avenue (NS) at Foothill Boulevard (EW)	Eastbound Left-Turn	150	25[3]	25[3]	YES	YES	25[3]	25[3]	YES	YES
6.	Towne Avenue (NS) at Richbrook Drive/Amador Street (EW)	Southbound Left-Turn	50	25[3]	25[3]	YES	YES	25[3]	25[3]	YES	YES

[1] HCM Analysis Software: Vistro, Version 2023.

[2] Storage length for through movements and turning movements without dedicated turn lanes is measured as the distance to the next intersection.

[3] Although the calculated queue length is less, a minimum vehicle length of 25 feet is assumed for the purposes of this analysis.

- Northbound Through (AM & PM Peak Hour)
- Northbound Right-Turn (AM & PM Peak Hour)
- Westbound Left-Turn (AM & PM Peak Hour)

The remaining two (2) turning movements have queues that are adequately accommodated by the storage space provided under Project Opening Year (2025) With Cumulative Projects With Project Conditions.

6.4 Horizon Year (2040) Without Project Conditions Queue Analysis

The queue analysis under Horizon Year (2040) Without Project Conditions has been performed for all six (6) turning movements previously identified. Table 6-3 shows the results of the queue analysis under Horizon Year (2040) Without Project Conditions.

As shown in Table 6-3, the 95th percentile queues are satisfied for all turning movements except for the following four (4) turning movements:

Intersection #3 – Towne Avenue (NS) at Foothill Boulevard (EW)

- Northbound Left-Turn (AM Peak Hour)
- Northbound Through (AM & PM Peak Hour)
- Northbound Right-Turn (AM & PM Peak Hour)
- Westbound Left-Turn (AM & PM Peak Hour)

The remaining two (2) turning movements have queues that are adequately accommodated by the storage space provided under Horizon Year (2040) Without Project Conditions.

6.5 Horizon Year (2040) With Project Conditions Queue Analysis

The queue analysis under Horizon Year (2040) With Project Conditions has been performed for all six (6) turning movements previously identified. Table 6-3 also shows the results of the queue analysis under Horizon Year (2040) With Project Conditions.

As shown in Table 6-3, the 95th percentile queues are satisfied for all turning movements except for the following four (4) turning movements:

Table 6-3
Study Intersection HCM 95th Percentile Vehicular Queue Analysis Summary[1]
Horizon Year (2040) Conditions

Intersection		Movement	Storage Length (Feet)[2]	Without Project				With Project			
				HCM 95th Percentile Queue Length (Feet)		Adequate Storage Provided?		HCM 95th Percentile Queue Length (Feet)		Adequate Storage Provided?	
				AM	PM	AM	PM	AM	PM	AM	PM
3.	Towne Avenue (NS) at Foothill Boulevard (EW)	Northbound Left-Turn	225	**344**	224	**NO**	YES	**364**	**228**	**NO**	**NO**
		Northbound Through	400	**456**	**443**	**NO**	**NO**	**459**	**446**	**NO**	**NO**
		Northbound Right-Turn	80	**452**	**294**	**NO**	**NO**	**461**	**298**	**NO**	**NO**
		Westbound Left-Turn	240	**474**	**346**	**NO**	**NO**	**499**	**359**	**NO**	**NO**
4.	Regis Avenue (NS) at Foothill Boulevard (EW)	Eastbound Left-Turn	150	25[3]	25[3]	YES	YES	25[3]	25[3]	YES	YES
6.	Towne Avenue (NS) at Richbrook Drive/Amador Street (EW)	Southbound Left-Turn	50	28	25[3]	YES	YES	31	25[3]	YES	YES

[1] HCM Analysis Software: Vistro, Version 2023.

[2] Storage length for through movements and turning movements without dedicated turn lanes is measured as the distance to the next intersection.

[3] Although the calculated queue length is less, a minimum vehicle length of 25 feet is assumed for the purposes of this analysis.

Intersection #3 – Towne Avenue (NS) at Foothill Boulevard (EW)

- Northbound Left-Turn (AM & PM Peak Hour)
- Northbound Through (AM & PM Peak Hour)
- Northbound Right-Turn (AM & PM Peak Hour)
- Westbound Left-Turn (AM & PM Peak Hour)

The remaining two (2) turning movements have queues that are adequately accommodated by the storage space provided under Horizon Year (2040) With Project Conditions.

6.6 Queue Analysis Findings and Recommendations

Based on the results of the queue evaluation, the following turning movements at the key study intersection of Towne Avenue (NS) at Foothill Boulevard (EW) (i.e., Int. #3) do not provide adequate storage capacity:

Intersection #1 – Towne Avenue (NS) at Foothill Boulevard (EW)

- Northbound Left-Turn (AM & PM Peak Hour)
- Northbound Through (AM & PM Peak Hour)
- Northbound Right-Turn (AM & PM Peak Hour)
- Westbound Left-Turn (AM & PM Peak Hour)

As shown in Tables 6-2 & 6-3, these deficiencies occur in "Without Project" Conditions and the proposed project is estimated to only contribute at most 1 vehicle (i.e., 25 ft) of queuing to any of these four (4) turning movements. Therefore, this increase in queue length by the proposed project is considered to be nominal and thus the project's impact is insignificant.

Although the proposed project's impact on queuing is considered insignificant, RK recommends the following improvements to help facilitate ingress/egress to/from the proposed project:

Recommended Improvement #1

Install/stripe a "KEEP CLEAR" marking along Towne Avenue at the entrance to Project Access No. 2. Based on existing lane geometrics along Towne Avenue, no additional capacity can be provided to alleviate these existing and background queuing issues. As such, this "KEEP CLEAR" marking will provide a buffer (South Units) to help facilitate adequate egress.

Recommended Improvement #2

Install a stop sign and limit line for outbound traffic Project Access No. 2 (Alleyway/Towne Avenue).

7.0 CEQA Vehicle Miles Traveled (VMT) Analysis

The following section provides a discussion on the vehicle miles traveled (VMT) analysis and findings.

The proposed project is subject to a VMT analysis and will adhere to the methodologies and practices described in the *City of Claremont Draft Transportation Study Guidelines for Vehicles Miles Traveled and Level of Service Assessment*, dated August 2020. As per the City of Claremont traffic study guidelines, three (3) types of screening criteria may be applied to effectively screen projects from project-level assessment:

1. Transit Priority Area (TPA) Screening
2. Low VMT Area Screening
3. Project Type Screening

The following subsections summarize and discuss the applicability of each screening criterion to the proposed project.

7.1 Transit Priority Area (TPA) Screening

The City of Claremont guidelines indicates that projects located within a transit priority area (TPA) may be presumed to have a less than significant impact absent substantial evidence to the contrary. A TPA is defined as a half-mile area around an existing major transit stop[1] or an existing stop along a high-quality transit corridor[2].

Foothill Transit bus routes 188 & 292 operate in the vicinity of the project site at the intersection of Towne Avenue at Foothill Boulevard. A review of these bus routes' schedules indicates service intervals that exceed 15 minutes during peak commute periods.

Thus, the proposed project does not satisfy the Transit Priority Area Screening criteria.

[1] A "major transit stop" means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service of 15 minutes or less during peak commute periods.
[2] A "high-quality transit corridor" is defined as a corridor with fixed bus service with service intervals no longer than 15 minutes during peak commute periods.

7.2 Low VMT Area Screening

As stated in the City of Claremont guidelines, Residential projects located within a low VMT-generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. This presumption may not be appropriate if the project land uses would alter the existing built environment in such a way as to increase the rate or length of vehicle trips.

To identify whether a project is in a low VMT-generating area, the San Gabriel Valley Council of Governments (SGVCOG) VMT assessment tool was utilized. The SGVCOG tool identifies the home-based VMT per capita for the traffic analysis zone (TAZ) in which the project is located and compares it to the appropriate City of Claremont Threshold of Significance.

The results of the VMT screening analysis are summarized in Table 7-1.

Table 7-1
Low VMT Area Screening Analysis[1]

Project TAZ	Baseline Year	Home-Based VMT / Capita
22445400	2023	16.4
	City of Claremont Threshold of Significance[2]	15.3
	Percent above Threshold of Significance	6.7%
	Project located in a low VMT area? (Yes / No)	No

1. San Gabriel Valley Council of Governments (SGVCOG) Vehicle Miles Traveled Evaluation Tool. Website: https://apps.fehrandpeers.com/SGVCOGVMT/. Accessed: February 2023.
2. Threshold of Significance value indicates 15% below the SGVCOG Northeast Subarea baseline VMT per service population indicated in the City of Claremont's guidelines.

Based on the results of the SGVCOG VMT assessment tool, (as provided in Appendix I), the proposed project's TAZ VMT is calculated to be 16.4 home-based VMT per capita. Since the proposed project's TAZ VMT is greater than the City of Claremont's threshold of significance of 15.3 home-based VMT per capita, the proposed project does not satisfy the Low VMT Area Screening criteria.

7.3 Project Type Screening

The City of Claremont guidelines specifies that certain project types have been identified as having the presumption of a less than significant impact. The following uses can be

presumed to have a less than significant impact absent substantial evidence to the contrary as their uses are local serving in nature.Local-serving K-12 schools.

- Local parks
- Day care centers
- Local-serving retail
- Local-serving Hotels
- Local-serving assembly uses
- Community institutions
- Affordable, supportive, or transitional housing
- Assisted living facilities
- Senior housing
- Local-serving community colleges that are consistent with the assumptions noted in the Regional Transportation Plan (RTP) / Sustainable Communities Strategy (SCS)
- Student housing projects on or adjacent to a college campus
- Other local-serving uses as approved by the City Traffic Engineer
- Projects generating less than 110 daily vehicle trips

Based on the list of local-serving land uses identified above, the proposed project is not classified as a local serving project and therefore does not satisfy the Project Type Screening Criteria.

7.4 VMT Reduction Measures

The project includes several project design features that will help reduce its VMT compared to the baseline TAZ VMT shown in the SGVCOG tool. In particular, the project will be designed with a higher density than the average residential density surrounding the site which has been shown to significantly reduce VMT.

The *California Air Pollution Control Officers Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, Designed for Local Governments, Communities, and Project Developers, Final Draft, December 2021* (CAPCOA Handbook) has been used to calculate the VMT reduction achieved by the project design.

The following CAPCOA VMT reduction measures are applicable to the project.

T-1 **Increase Residential Density.** This measure accounts for the VMT reduction achieved by a project that is designed with a higher density of dwelling units (du) compared to the average residential density in the U.S. Increased densities affect the distance people travel and provide greater options for the mode of travel they choose. Increasing residential density results in shorter and fewer trips by single-occupancy vehicles and thus a reduction in GHG emissions. This measure is best quantified when applied to larger developments and developments where the density is somewhat similar to the surrounding area due to the underlying research being founded in data from the neighborhood level.

Table 7-2 summarizes the project VMT reduction measures.

Table 7-2
VMT Reduction Measures

Project TAZ	Baseline Year	Home-Based VMT / Capita[1]
22445400	2023	16.4
VMT reduction (%) achieved from Measure T-1 [2]		*-22.2%*
Adjusted Project VMT with Measure T-1		12.8
City of Claremont Threshold of Significance		15.3
Significant Impact? (Yes / No)		No

1. San Gabriel Valley Council of Governments (SGVCOG) Vehicle Miles Traveled Evaluation Tool. Website: https://apps.fehrandpeers.com/SGVCOGVMT/. Accessed: February 2023.
2. See Appendix I for CAPCOA VMT reduction calculations.

It should be noted that when assessing the VMT reduction from the increased density of a project, CAPCOA recommends comparing the increase to an average residential density in the U.S of 9.1 du/acre, unless the baseline project VMT was derived from a travel demand forecasting model, in which case the residential density of the TAZ should be used instead of CAPCOA's value for a typical development.

For this project, the baseline VMT was derived from the SGVCOG subregional model, hence RK reviewed the baseline density within the project TAZ (22445400). Within this TAZ, the residential land uses are comprised almost entirely of single-family homes with a maximum density of 6 dwelling units per acre (du/acre), with the exception of six parcels (totaling approximately 1.76 acres) located near the northeast corner of Towne Avenue and Harrison

Avenue that are designated Residential 22, and have a maximum density of 22 du/acre, according to the City of Claremont General Plan Land Use Map.

Given the overall size of TAZ 22445400, the average residential density within this zone is approximately 6 du/acre. However, to be conservative, RK has utilized the CAPCOA average residential density of 9.1 du/acre for reduction calculation purposes. For more details regarding the VMT reduction calculations, please see Appendix I.

Given the VMT reduction achieved by the density of the site, the project generated VMT is expected to be below the City of Claremont threshold of significance, as shown in Table 7-2.

The project's impact to VMT is considered less than significant.

8.0 Sight Distance Analysis

A corner sight distance analysis has been conducted for the existing project access driveway along Towne Avenue. The purpose of this analysis is to ensure that the intersection provides adequate sight distance for drivers to safely turn onto the major road (i.e., Towne Avenue). The corner sight distance was conducted following the procedures specified in the Caltrans Highway Design Manual.

As per the Caltrans Highway Design Manual, the minimum corner sight distance (feet) is determined by the equation *(1.47 x V_m x T_g), where V_m* is the design speed (mph) of the major road and T_g is the time gap (seconds) for the vehicle along the minor road to enter the major road.

Design speed refers to the selected speed used to determine the various geometric design features of the roadway. Generally, the design speed of a roadway is equal to or exceeds the posted speed limit of a roadway facility. For purposes of this analysis, the posted speed limit of 40 mph (V_m=40) along Towne Avenue has been utilized.

For a passenger vehicle performing a right turn maneuver from a stopped position, a time gap of 6.5 seconds (T_g=6.5) is assumed.

To ensure safe turns onto Towne Avenue, a clear line of sight of at least 385 feet should be maintained between the driver on the minor road and the approaching driver on the major road, as per the corner sight distance equation. The visibility required to perform the analyzed maneuvers forms a clear sight triangle with the corner sight distance of dimension "b" and the crossing distance "a_1". The dimension "a_1" is the set back that drivers on the minor road should have which is at a minimum of 10 feet plus the shoulder width of the major road, but not less than 15 feet.

Figure 405.1 of the Caltrans Highway Design Manual provides an example of corner sight distance at a two-lane two-way highway.

Figure 405.1 Corner Sight Distance (b)

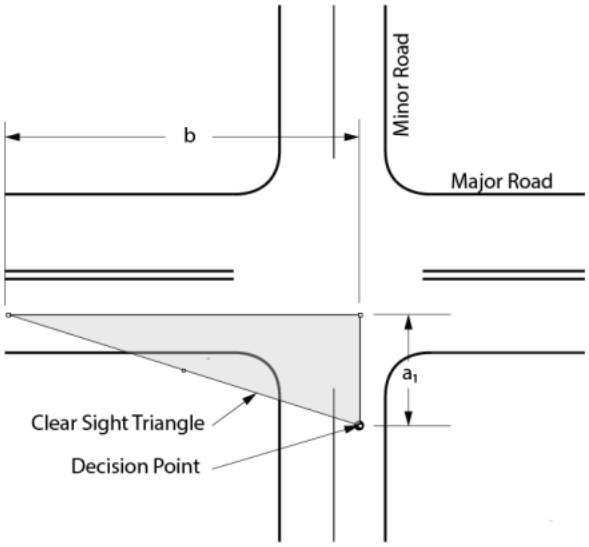


Exhibit 8-1 illustrates the clear sight triangle required for vehicles performing a right turn maneuver from the project access driveway along Towne Avenue. This analysis utilizes the following dimensions: "a_1"=20 feet; "b"=385 feet.

As shown in Exhibit 8-1, the hatched region refers to the limited-use area of the clear sight triangle. This limited-use area is bounded by the sight lines and centerlines of the nearest approaching traffic lanes. It is recommended that the limited-use area should be clear of all obstructions more than 18 inches above the road surface including vegetation. Selected plant materials shall have a mature height of less than 12" without trimming.

It should be noted that within the limited use area several vertical obstructions are present. This includes the adjacent residential wall, power poles, and trees.

Exhibit 8-1

Corner Sight Distance Analysis
Towne Avenue at Southern Project Access



Standards for Corner Sight Distance adhere to Topic 405.1 (2)(a) of the CALTRANS Highway Design Manual, 7th Edition.

- The limited use area is bounded by sight lines and centerlines of the nearest approaching traffic lanes. This area should be It is recommended that the limited-use area should be clear of all obstructions more than 18 inches above the road surface including vegetation. Selected plant materials shall have a mature height of less than 12" without trimming.

Scale - 1":40'

Legend:

= Limited Use Area
= Existing Curbs
= Existing Wall

N

RK engineering group, inc.

9.0 Findings, Conclusions & Recommendations

9.1 Project Summary

The proposed project is located at 1030 W. Foothill Boulevard near the southeast corner of Towne Avenue and Foothill Boulevard in the City of Claremont. The project site is currently vacant and was previously occupied by a Marie Callender's Restaurant that has since been demolished.

The project consists of constructing fifty-six (56) residential single-family attached dwelling units, inclusive of four (4) low income-units and twelve (12) live/work units. The site is divided in half by a communal lawn area and is herein referred to as the "North Units" and "South Units" respectively. Specifically, the North Units consist of twelve (12) live/work units and sixteen (16) single-family attached dwelling units. The South Units consist of the remaining twenty-eight (28) single-family attached dwelling units.

Access to the North Units is proposed via one (1) right-in/right-out only unsignalized driveway along W. Foothill Boulevard (i.e., Project Access No. 1). Access to the South Units is proposed via one (1) right-in/right-out only unsignalized driveway located along Towne Avenue (i.e., Project Access No. 2).

Secondary access is proposed via the existing alley located at the southeast corner of the site. However, for the purposes of this analysis, this secondary access is assumed to not provide direct project ingress or egress.

The project is planned to open in 2024 and will be fully occupied by 2025. The project will be evaluated in one (1) single phase.

The North Units are forecast to generate approximately 156 daily trips which include 14 AM peak hour trips and 13 PM peak hour trips. Furthermore, the South Units are forecast to generate approximately 202 daily trips which include 13 AM peak hour trips and 16 PM peak hour trips.

The total proposed project (North Units + South Units) is proposed to generate approximately 358 daily trips which include 27 AM peak hour trips and 29 PM peak hour trips.

9.2 Traffic Study Area & Analysis Scenarios

The study area consists of the following eight (8) intersections listed below. The jurisdiction(s) where each study intersection is located is also identified.

1. Towne Avenue (NS) at Base Line Road (EW) [City of Claremont]
2. Mountain Avenue (NS) at Base Line Road (EW) [City of Claremont]
3. Towne Avenue (NS) at Foothill Boulevard (EW) [City of Claremont/City of Pomona]
4. Regis Avenue (NS) at Foothill Boulevard (EW) [City of Claremont]
5. Mountain Avenue (NS) at Foothill Boulevard (EW) [City of Claremont]
6. Towne Avenue (NS) at Richbrook Drive / Amador Street (EW) [City of Claremont/City of Pomona]
7. Project Access No.1 (North Units) (NS) at Foothill Boulevard (EW) [City of Claremont]
8. Towne Avenue (NS) at Project Access No.2 (South Units) (EW) [City of Claremont/City of Pomona]

The analysis evaluates traffic conditions of the study area under the following scenarios during the weekday AM (7:00 AM to 9:00 AM) and weekday PM (4:00 PM to 6:00 PM) peak hour conditions:

- Existing Conditions;
- Project Opening Year (2025) With Cumulative Projects Without Project Conditions;
- Project Opening Year (2025) With Cumulative Projects With Project Conditions;
- Horizon Year (2040) Without Project Conditions; and
- Horizon Year (2040) With Project Conditions.

9.3 Intersection LOS Analysis Summary

The intersection level of service analysis has been performed at eight (8) study intersections within the vicinity of the site where the project may contribute a significant amount of traffic. Project deficiencies have been evaluated within the study area based on peak hour level of service criteria.

The following study area intersection has been identified to operate deficiently under all analysis scenarios.

1. Towne Avenue (NS) at Base Line Road (EW)

However, as previously discussed in Section 5.0 of this report, the addition of project traffic does not increase the overall intersection delay at the study intersection of Towne Avenue (NS) at Base Line Road (EW) (i.e., Int. #1) during the analysis scenario with project conditions. The proposed project is expected to generate at most 1 trip at this study intersection during the AM and PM peak hours. As such, study intersection #1 is not considered to be impacted by the proposed project and as a result, no improvements are required.

9.4 Intersection Queuing Analysis Summary

The queue analysis has been performed utilizing the HCM 6 95th percentile queue evaluation methodology. Queue lengths have been reported for the following six (6) turning movements:

Intersection #3 – Towne Avenue (NS) at Foothill Boulevard (EW)

- Northbound Left-Turn
- Northbound Through
- Northbound Right-Turn
- Westbound Left-Turn

Intersection #4 – Regis Avenue (NS) at Foothill Boulevard (EW)

- Eastbound Left-Turn

Intersection #6 – Towne Avenue (NS) at Richbrook Drive/Amador Street (EW)

- Southbound Left-Turn

Based on the results of the queue evaluation, the following turning movements at the key study intersection of Towne Avenue (NS) at Foothill Boulevard (EW) (i.e., Int. #3) do not provide adequate storage capacity:

Intersection #1 – Towne Avenue (NS) at Foothill Boulevard (EW)

- Northbound Left-Turn (AM & PM Peak Hour)
- Northbound Through (AM & PM Peak Hour)
- Northbound Right-Turn (AM & PM Peak Hour)
- Westbound Left-Turn (AM & PM Peak Hour)

These deficiencies occur in "Without Project" Conditions and the proposed project is estimated to only contribute at most 1 vehicle (i.e., 25 ft) of queuing to any of these four (4) turning movements. Therefore, this increase in queue length by the proposed project is considered to be nominal and thus the project's impact is insignificant.

Although the proposed project's impact on queuing is considered insignificant, RK recommends the following improvements to help facilitate ingress/egress to/from the proposed project:

Recommended Improvement #1

Install/stripe a "KEEP CLEAR" marking along Towne Avenue at the entrance to Project Access No. 2. Based on existing lane geometrics along Towne Avenue, no additional capacity can be provided to alleviate these existing and background queuing issues. As such, this "KEEP CLEAR" marking will provide a buffer (South Units) to help facilitate adequate egress.

Recommended Improvement #2

Install a stop sign and limit line for outbound traffic Project Access No. 2 (Alleyway/Towne Avenue).

9.5 Vehicles Miles Traveled (VMT) Analysis Summary

The proposed project is subject to a VMT analysis and will adhere to the methodologies and practices described in the *City of Claremont Draft Transportation Study Guidelines for Vehicles Miles Traveled and Level of Service Assessment*, dated August 2020. As per the City of Claremont traffic study guidelines, three (3) types of screening criteria may be applied to effectively screen projects from project-level assessment:

1. Transit Priority Area (TPA) Screening

2. Low VMT Area Screening

3. Project Type Screening

After utilizing the SGVCOG VMT assessment tool, the proposed project does not satisfy any of the three (3) VMT screening criteria. However, the project includes several project design features that will help reduce its VMT compared to the baseline TAZ VMT shown in the SGVCOG tool. In particular, the project will be designed with a higher density than the average residential density surrounding the site, and the increased density has been shown to significantly reduce VMT.

The proposed project's TAZ VMT is calculated to be 16.4 Home-Based VMT per Capita. The City of Claremont's threshold of significance is 15.3 Home-Based VMT per Capita. In order to reduce the project VMT to levels considered less than significant, the project would require a 6.7% decrease in overall VMT. With the VMT reduction achieved from the increased density, the project would reduce its VMT by 22.2% compared to the TAZ average, and the project generated VMT would be below the City of Claremont threshold of significance. **The project's impact to VMT is considered less than significant.**

9.6 Sight Distance Analysis Summary

A corner sight distance analysis has been conducted for the existing project access driveway along Towne Avenue. The purpose of this analysis is to ensure that the intersection provides adequate sight distance for drivers to safely turn onto the major road (i.e., Towne Avenue). The corner sight distance was conducted following the procedures specified in the Caltrans Highway Design Manual.

As per the Caltrans Highway Design Manual, the minimum corner sight distance (feet) is determined by the equation *(1.47 x V_m x T_g), where V_m* is the design speed (mph) of the major road and T_g is the time gap (seconds) for the vehicle along the minor road to enter the major road. For purposes of this analysis, the posted speed limit of 40 mph (V_m=40) along Towne Avenue has been utilized. For a passenger vehicle performing a right turn maneuver from a stopped position, a time gap of 6.5 seconds (T_g=6.5) is assumed.

As per the corner sight distance equation, a clear line of sight of 385 feet should be maintained between the driver on the minor road and the approaching driver on the major road. Exhibit 8-1 illustrates the clear sight triangle required for vehicles performing a right turn maneuver from the project access driveway along Towne Avenue.

As shown in Exhibit 8-1, the hatched region refers to the limited-use area of the clear sight triangle. This limited-use area is bounded by the sight lines and centerlines of the nearest approaching traffic lanes. It is recommended that the limited-use area should be clear of all obstructions more than 18 inches above the road surface including vegetation. Selected plant materials shall have a mature height of less than 12" without trimming.

It should be noted that within the limited use area several vertical obstructions are present. This includes the adjacent residential wall, power poles, and trees.