Initial Study

3585 El Camino Real Mixed-Use Project

File # 17PLN-00305

Prepared by the

CITY OF PALO ALTO

In Consultation with

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

May 2020

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

Pursuant to Section 21092 and 21092.3 of the Public Resources Code and CEQA Guidelines Section 15072, as amended to date, this notice is to advise you that the City of Palo Alto has prepared an Initial Study on the following project to evaluate the environmental impacts of the project identified below. The Initial Study concludes that the project described below would not have a significant effect on the environment, and therefore, the City proposes to adopt a Mitigated Negative Declaration (MND). The purpose of this notice is to inform the public of the City's intent to adopt a MND for the project, and to provide an opportunity for public comments on the draft MND/Initial Study.

TO: AGENCIES, ORGANIZATION, + INTERESTED PARTIES	The City of Palo Alto requests comments and concerns from agencies, organizations and interested parties regarding the environmental issues associated with construction and operation of the proposed project.
PROJECT TITLE	3585 El Camino Real Mixed-Use Project
PROJECT APPLICANT	KSS Management 22000 Rolling Hills Road Saratoga, California 95070
PROJECT LOCATION	The project site is located at 3585 El Camino Real in the City of Palo Alto in Santa Clara County. The project site encompasses 0.14 acre on one assessor's parcel number (Assessor's Parcel Number 132-40-058). The site is located at the intersection of El Camino Real and Matadero Avenue.
PROJECT DESCRIPTION	The proposed project includes a request for a Zoning Variance and a Major Architectural Review to allow for the demolition of an existing approximately 800 square-foot metal structure and construction of a new three-story, mixed-use building with up to 2,374 square feet of office space and three residential units.

PUBLIC REVIEW PERIOD

This NOI and the Draft Initial Study and Mitigated Negative Declaration are available for public review and comment pursuant to Section 21092 and 21092.3 of the Public Resources Code and CEQA Guidelines Section 15072. The comment period begins on Friday, May 01, 2020 and ends on Monday, June 01, 2020. This NOI and the Draft Initial Study and Mitigated Negative Declaration may be reviewed at the Planning and Development Services office at 250 Hamilton Avenue in Palo Alto or online at https://www.cityofpaloalto.org/news/displaynews.asp?NewsID=4589&TargetID=319

PUBLIC HEARING

The Architectural Review Board (ARB) is anticipated to consider the project as part of its regularly scheduled meeting on May 21, 2020. The meeting will start at 8:30 AM and will be held at the City of Palo Alto Council Chambers, located in City Hall at 250 Hamilton Avenue. The meeting agenda will be posted to the ARB's website. Interested parties should check the ARB agenda on the City's website to confirm the meeting time, date, and location: https://www.cityofpaloalto.org/gov/boards/architectural/default.asp.

COMMENTS

Please send comments by mail or email, before 5:00 PM on June 1, 2020, to:

Sheldon S. Ah Sing, AICP, Principal Planner
City of Palo Alto
250 Hamilton Avenue
Palo Alto, CA 94301
SAhsing@m-group.us

If you require additional project information, please contact Sheldon at (408) 340-5642 ext. 109.

Sheldon S Ah Sing — *Signature (Public Agency)*

Planner — *Title*

27 April 2020 — *Date*

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SECTION 1.0 INTRODUCTION AND PURPOSE

1.1 PURPOSE OF THE INITIAL STUDY

The City of Palo Alto, as the Lead Agency, has prepared this Initial Study for the 3585 El Camino Real Mixed-Use Project in compliance with the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations §15000 et. seq.) and the regulations and policies of the City of Palo Alto, California.

The project proposes to construct a three-story mixed-use building on a 0.14-acre vacant site. This Initial Study evaluates the environmental impacts that might reasonably be anticipated to result from implementation of the proposed project.

1.2 PUBLIC REVIEW PERIOD

Publication of this Initial Study marks the beginning of a 30-day public review and comment period. During this period, the Initial Study will be available to local, state, and federal agencies and to interested organizations and individuals for review. Written comments concerning the environmental review contained in this Initial Study during the 30-day public review period should be sent to:

City of Palo Alto
250 Hamilton Avenue
Palo Alto, California 94301

1.3 CONSIDERATION OF THE INITIAL STUDY AND PROJECT

Following the conclusion of the public review period, the City of Palo Alto will consider the adoption of the Initial Study/Mitigated Negative Declaration (MND) for the project at a regularly scheduled meeting. The City shall consider the Initial Study/MND together with any comments received during the public review process. Upon adoption of the MND, the City may proceed with project approval actions.

1.4 NOTICE OF DETERMINATION

If the project is approved, the City of Palo Alto will file a Notice of Determination (NOD), which will be available for public inspection and posted within 24 hours of receipt at the County Clerk's Office for 30 days. The filing of the NOD starts a 30-day statute of limitations on court challenges to the approval under CEQA (CEQA Guidelines Section 15075(g)).

SECTION 2.0 PROJECT INFORMATION

2.1 PROJECT TITLE

3585 El Camino Real Mixed-Use Project

2.2 PLANNING FILE NUMBER

File # 17PLN-00305

2.3 LEAD AGENCY CONTACT

Sheldon Ah Sing
City of Palo Alto
250 Hamilton Avenue
Palo Alto, California 94301

2.4 PROJECT LOCATION

The approximately 0.14-acre (6,252 square feet) project site is located at 3585 El Camino Real, in the City of Palo Alto. The site is located at the northwest corner of northbound El Camino Real and Matadero Avenue.

2.5 ASSESSOR'S PARCEL NUMBER

132-40-058

2.6 GENERAL PLAN DESIGNATION AND ZONING DISTRICT

The City of Palo Alto Comprehensive Plan Land Use Element designates the land use at the project site as Neighborhood Commercial. The Zoning District for the site is also Neighborhood Commercial (CN).

2.7 PROJECT-RELATED APPROVALS, AGREEMENTS, AND PERMITS

- Major Architectural Review
- Zoning Variance

SECTION 3.0 PROJECT DESCRIPTION

The project site is located at 3585 El Camino Real and consists of one parcel (Assessor's Parcel Number 132-40-058) located at the northwest corner of El Camino Real and Matadero Avenue, as shown in Figure 3.2-1: Regional Map, Figure 3.2-2: Vicinity Map, and Figure 3.2-3: Aerial Photograph.

3.1 EXISTING CONDITIONS

The approximately 0.14-acre project site is currently vacant, except for an approximately 800 square-foot metal, partially dismantled quonset structure located along the northeast property line. The quonset structure would be demolished prior to construction of the proposed mixed-use project.

The project site is bounded by El Camino Real to the south, commercial buildings to the west, an alley to the north, and Matadero Avenue to the east. The rear alley provides access to parking lots serving the commercial buildings along El Camino Real and driveways for residential buildings on Matadero Avenue and Margarita Avenue.

The City of Palo Alto Comprehensive Plan guides future development within the City. The Comprehensive Plan includes goals, policies, and programs related to land use, the natural environment, business and economics, and community services. The Comprehensive Plan land use map identifies land use designations for properties within the City. The type of development and uses allowed within each land use designation is described in the Land Use and Community Design Element. The Comprehensive Plan land uses are further detailed and implemented through the city's Municipal Code and Zoning Ordinance.

The project site is zoned and has a land use designation of Neighborhood Commercial (CN). The CN designation/zoning district is intended to create and maintain neighborhood shopping areas primarily accommodating retail sales, personal service, eating and drinking, and office uses of moderate size serving the immediate neighborhood. The proposed mixed-use residential and office project is permitted in the CN zoning district.

3.2 PROPOSED DEVELOPMENT

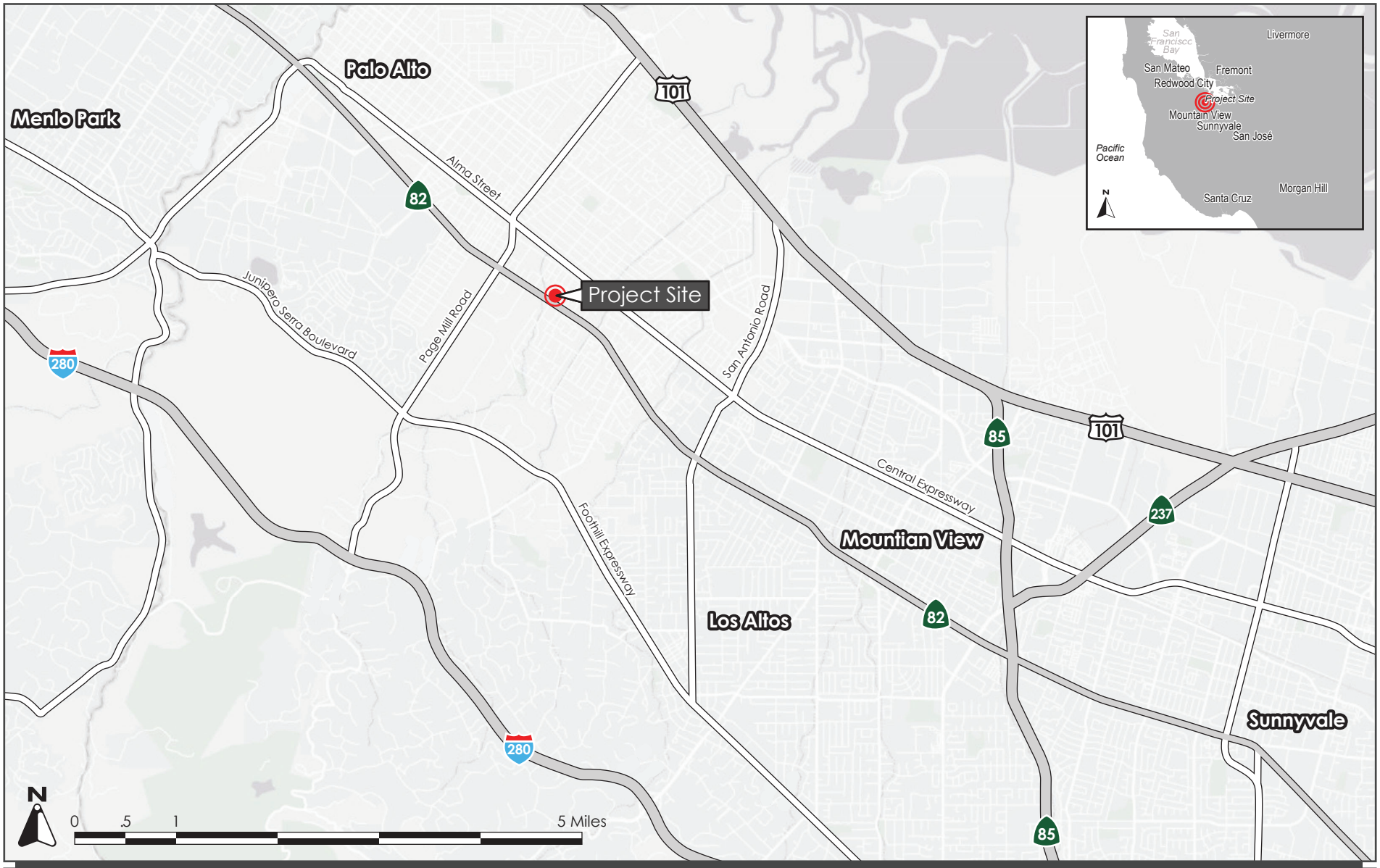
3.2.1 Mixed-Use Building

The proposed project involves demolition of the existing structure and redevelopment of the site with a three-story, mixed-use building with up to 2,374 square feet of office space and three residential units. The first floor would contain approximately 1,244 square feet of office space and a separate, common entryway for the upper residential units (see Figure 3.2-4). Additional office space and one residential unit would be located on the second floor, with the remaining two residential units located on the third floor. The building would be approximately 35 feet high. Figure 3.2-5 shows the conceptual building elevations and cross-section.

The proposed project would total approximately 6,691 square feet. The overall floor area ratio (FAR) for the site would be 1.08 and the lot coverage would be approximately 60 percent.

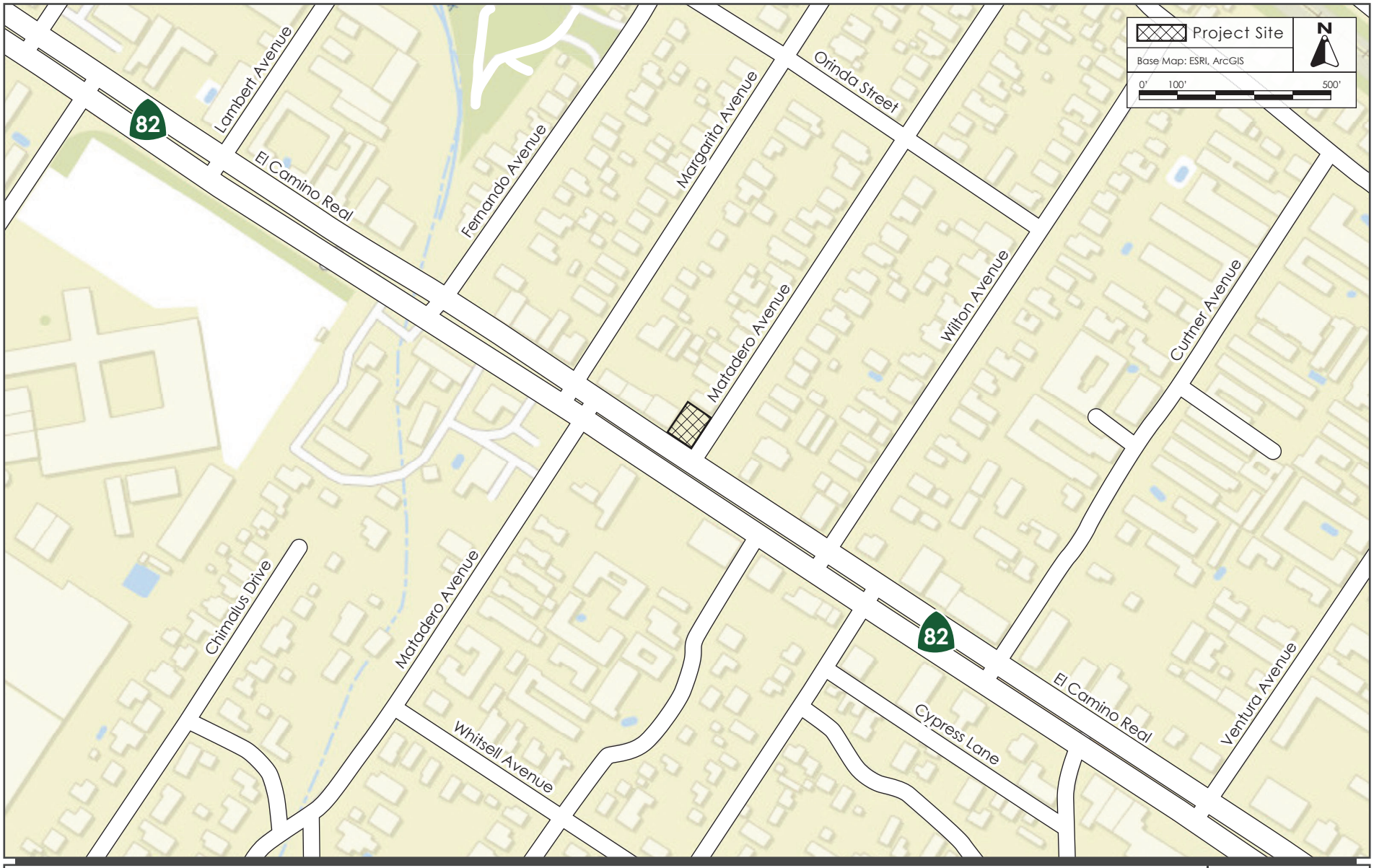
3.2.2 Site Access and Parking

Access to the project site would be provided via a driveway from Matadero Avenue leading to the surface parking lot on the rear portion of the project site. The project proposes to provide a total of 13 parking spaces in a combination of surface and mechanical lift spaces. Pedestrian access to the project site would be provided via existing sidewalks on El Camino Real for the first-floor office space, and Matadero Avenue for the second-floor office space and residential units. The project would provide three long-term bicycle parking spaces and one short-term bicycle parking space. For pedestrian access, a 12-foot-wide sidewalk would be provided along El Camino Real and a 6.5-foot-wide sidewalk would be provided along Matadero Avenue



REGIONAL MAP

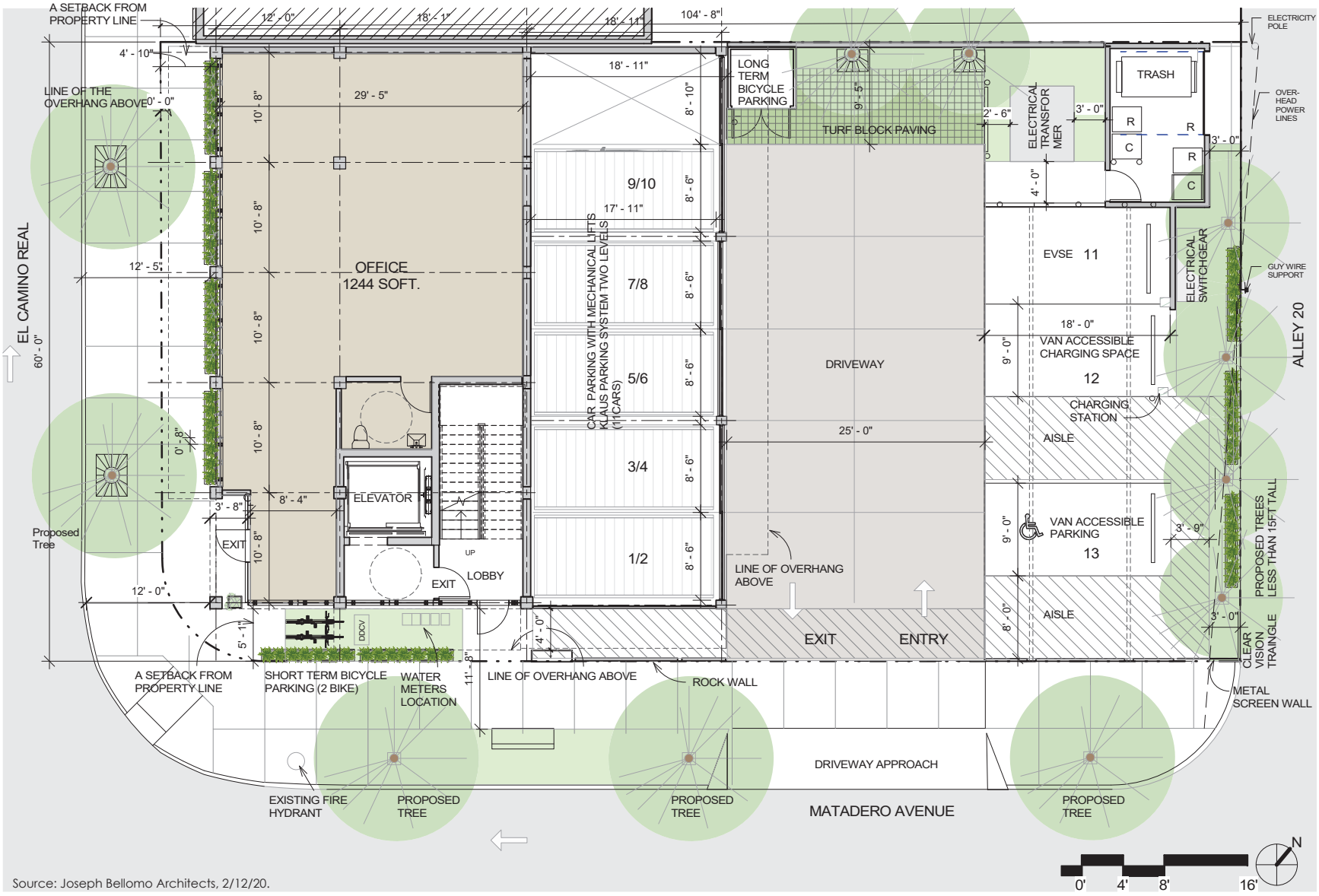
FIGURE 3.1-1



VICINITY MAP

FIGURE 3.1-2

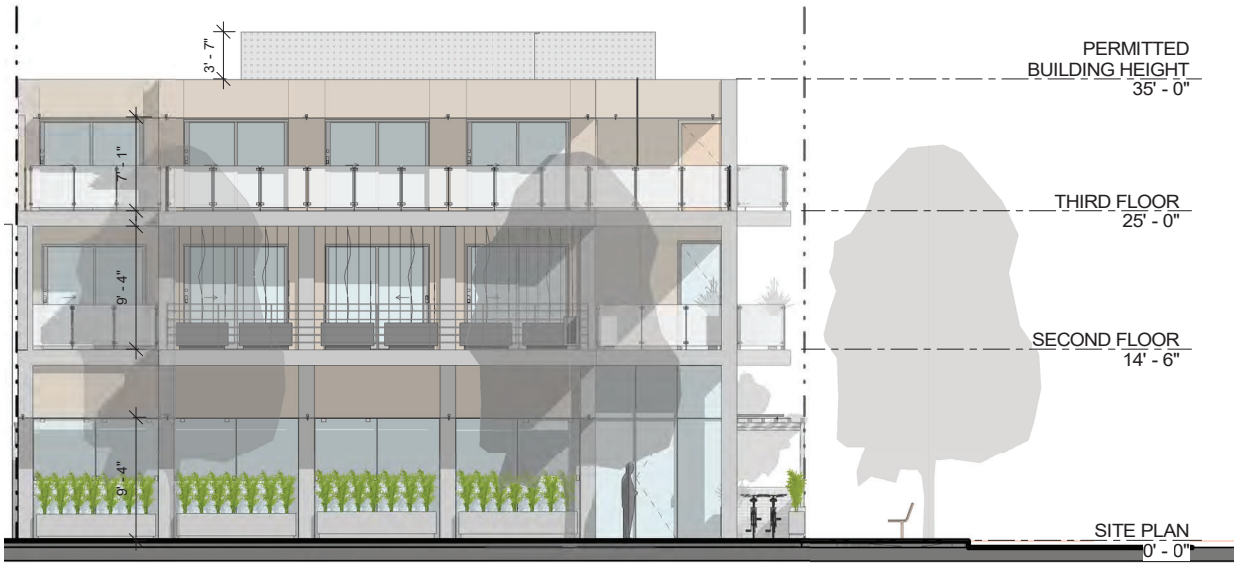
AERIAL PHOTOGRAPH AND SURROUNDING LAND USES | FIGURE 3.1-3



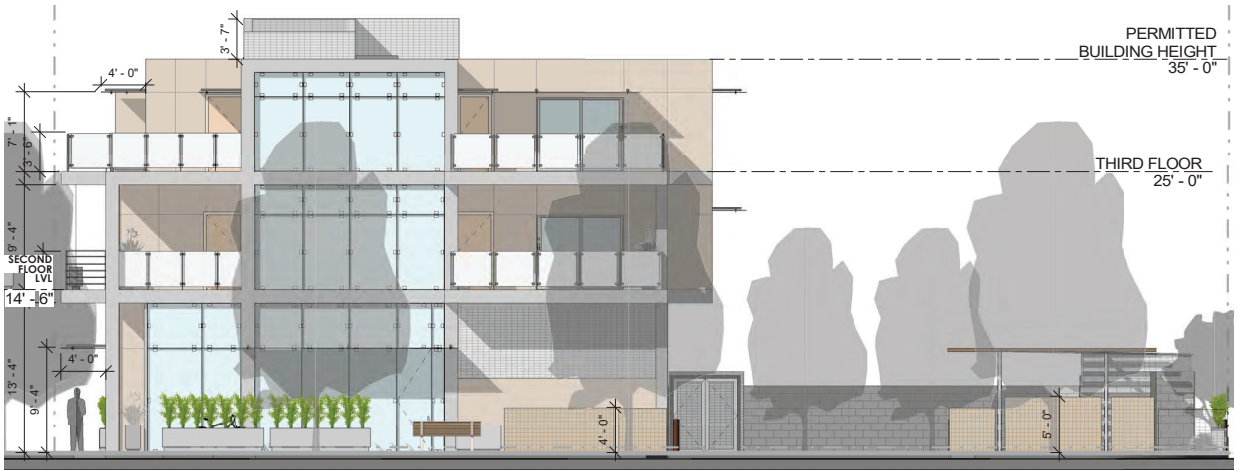
Source: Joseph Bellomo Architects, 2/12/20.

SITE PLAN

FIGURE 3.1-4



ELEVATION FROM EL CAMINO REAL



ELEVATION FROM MATADERO AVENUE (SOUTHEAST SIDE)

Source: Joseph Bellomo Architects, 2/12/2020.

BUILDING ELEVATIONS | FIGURE 3.1-5

3.2.3 Landscaping and Trees

The project site would be landscaped with various trees and shrubs along the project frontage and property lines. Landscaping would be provided in planters around the perimeter of the site. The conceptual landscape plan is shown on Figure 3.2-6. There are no existing trees on the project site.

3.2.4 Green Building and Energy Efficiency

In addition to California Building Code (CBC) requirements, the City of Palo Alto has adopted more stringent green-building regulations. The Palo Alto Green Building Ordinance requires projects to incorporate sustainable design, construction, and operational requirements into multi-family residential, and non-residential projects. The City has adopted California Green Building Standards Code (CALGreen) Tier 2 for new construction. In accordance with the City's Green Building Ordinance, the proposed project would satisfy requirements for CALGreen Tier 2. The project would incorporate into its design the following sustainability features:

- Overhangs, recesses, and other shading devices (vertical garden wall, wood trellis) and techniques to reduce the solar heat gain and energy consumption related to the cooling of the building.
- Solar panels on the roof.
- The building will include the following green building materials:
    - Concrete: 70% replacement of cement with slag (a byproduct of iron extraction process) into concrete mixture making it stronger and environmentally friendly (cement is a significant emission polluter during its refinement process). Slag also makes concrete more impermeable to water.
    - Steel Framing: Steel is a renewable material.
    - Thermo exterior glazing (double insulated low e-glazing) for energy efficiency.
    - Fleetwood operable doors and windows promote natural light, ventilation as well as excellent acoustical values.
    - 3 Form cladding: 3 Form is a manmade, renewable polymer material. The cladding reduces building maintenance and avoids exterior paint.

3.2.5 Construction

It is anticipated that the project would be constructed over an approximate 18-month period, beginning in fall 2020. Construction equipment would be staged on the project site, as necessary.

	TREES	QTY	SIZE AT PLANTING	WATERING LEVEL	TYPE
	PLANTANUS ACERIFOLIA	7	25 GALLONS	MEDIUM	INDIGENOUS
	JAPANESE MAPLE *ACER PALMATUM*	4	25 GALLONS	MEDIUM	
	SHRUBS				
	DOUGLAS IRIS *IRIS DOUGLASIANA*				
	CREEPERS				
	WISTERIA *WISTERIA FRUTESCENS*				
	PLANTS				
	BAMBOO	10			

Source: Joseph Bellomo Architects, 2/12/2020.

LANDSCAPE PLAN

FIGURE 3.1-6

SECTION 4.0 ENVIRONMENTAL SETTING, CHECKLIST, AND IMPACT DISCUSSION

This section presents the discussion of impacts related to the following environmental subjects in their respective subsections:

4.1	Aesthetics	4.11	Land Use and Planning
4.2	Agriculture and Forestry Resources	4.12	Mineral Resources
4.3	Air Quality	4.13	Noise
4.4	Biological Resources	4.14	Population and Housing
4.5	Cultural Resources	4.15	Public Servicesand Recreation
4.6	Energy	4.16	Transportation
4.7	Geology and Soils	4.17	Tribal Cultural Resources
4.8	Greenhouse Gas Emissions	4.18	Utilities and Service Systems
4.9	Hazards and Hazardous Materials	4.19	Wildfire
4.10	Hydrology and Water Quality	4.20	Mandatory Findings of Significance

The discussion for each environmental subject includes the following subsections:

- **Environmental Setting** – This subsection 1) provides a brief overview of relevant plans, policies, and regulations that compose the regulatory framework for the project and 2) describes the existing, physical environmental conditions at the project site and in the surrounding area, as relevant.
- **Impact Discussion** – This subsection 1) includes the recommended checklist questions from Appendix G of the CEQA Guidelines to assess impacts and 2) discusses the project's impact on the environmental subject as related to the checklist questions. For significant impacts, feasible mitigation measures are identified. "Mitigation measures" are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines Section 15370). Each impact is numbered to correspond to the checklist question being answered. For example, Impact BIO-1 answers the first checklist question in the Biological Resources section. Mitigation measures are also numbered to correspond to the impact they address. For example, MM BIO-1.3 refers to the third mitigation measure for the first impact in the Biological Resources section.

4.1 AESTHETICS

4.1.1 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
1) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
3) In an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐
5) Substantially shadow public open space (other than public streets and adjacent sidewalks) between 9:00 a.m. and 3:00 p.m. from September 21 to March 21?	☐	☐	☐	☒

Impact AES-1: The project would not have a substantial adverse effect on a scenic vista. **(Less than Significant Impact)**

According to Policy Program L-9.1 from the Land Use and Community Design Chapter of the City of Palo Alto Comprehensive Plan, roads with high scenic value include Sand Hill Road, University Avenue, Embarcadero Road, Page Mill Road/Oregon Expressway, I-280, Arastradero Road (west of Foothill Expressway), Junipero Serra Boulevard/Foothill Expressway, and Skyline Boulevard. These roads are to be maintained as local scenic routes.

The project site is located south of Page Mill Road; however, the project would not be directly visible to motorists, pedestrians, or cyclists traveling along this road due to existing development and vegetation immediately surrounding the site. The proposed new building would have a maximum height of 35 feet, which is similar to other existing structures in the vicinity. The project would not block background views of scenic resources or interfere with views since these views are already interrupted by existing development. For these reasons, impacts related to public viewsheds, view corridors, and scenic resources along a scenic highway would be less than significant. **(Less than Significant Impact)**

Impact AES-2:	The project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. **(No Impact)**

The project site is not located along, or in proximity to, a designated State Scenic Highway or eligible State Scenic Highway. The nearest state scenic highway is Interstate (I)-280, approximately three miles southwest of the project site. **(No Impact)**

Impact AES-3:	The project would not conflict with applicable zoning and other regulations governing scenic quality. **(Less than Significant Impact)**

The project site is located in a developed area of Palo Alto and is surrounded by a mix of commercial, residential, and office development. The existing visual character of the site is characterized by a vacant lot, except for an approximately 800 square-foot metal, partially dismantled quonset structure located along the northeast property line. The project involves the demolition of the existing quonset structure and redevelopment of the site with a three-story, mixed-use building with covered parking, trash enclosure, and driveway.

The project would increase the massing and intensity of development and would represent a visual change; however, the project would be consistent with the Comprehensive Plan designation and zoning for the site. It proposes a parking lot in the rear of the site, to create a buffer between the project and adjacent residential land uses (see Figure 4.1-1). Although the project would result in a change in visual character, the proposed project would be generally consistent with the adjacent land uses and development pattern in the area.

The proposed project would be subject to Major Architectural Review. Major Architectural Review approval requires that the City make the Architectural Review findings outlined in the Palo Alto Municipal Code (PAMC) Section 18.76.020. The purpose of these findings is to help ensure that approved projects are consistent with the City's adopted goals, policies, and guidelines related to architectural and site design. The proposed project would be reviewed for consistency with the Cal-Ventura area of the South El Camino Real Design Guidelines. For these reasons, the proposed project would not conflict with applicable zoning and other regulations governing scenic quality and this impact would be less than significant. **(Less than Significant Impact)**

Impact AES-4:	The project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. **(Less than Significant Impact)**

Existing development in the surrounding area is a source of light and glare (e.g., windows, signs, headlights, streetlights, parking lot lights, and security lights). The proposed project would incorporate exterior lighting in the form of pedestrian walkway lighting and other safety related lighting.

Source: Joseph Bellomo Architects, 2/12/2020.

CONCEPTUAL RENDERING

FIGURE 4.1-1

Sources of exterior lighting on the project site would include wall-mounted light fixtures located along the building perimeter, downlights to be located throughout the site, and a strip light in the trash enclosure. The light and glare created by the proposed project would be similar to that created by the existing development in the project area. These light sources would not have a significant impact on the night sky, as they would only incrementally add to the existing background light levels already present as a result of the surrounding street lighting and urban development. Further, all lighting proposed by the project would be consistent with the policies, guidelines, and controls in the PAMC, specifically PAMC Section 16.14.170 which requires outdoor lighting systems to be designed to reduce light pollution. The proposed exterior materials would be reviewed as part of the City of Palo Alto Architectural Review Board process and would not result in glare. For these reasons, the proposed project would not create a substantial new source of light and glare that would adversely affect day or nighttime views in the area. **(Less than Significant Impact)**

Impact AES-5:	The project would not substantially shadow public open space (other than public streets and adjacent sidewalks) between 9:00 a.m. and 3:00 p.m. from September 21 to March 21. **(No Impact)**

There are no public open space areas in the vicinity of the project site. Therefore, the project would not cast shadows on public open space. **(No Impact)**

4.2 AGRICULTURE AND FORESTRY RESOURCES

4.2.1 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) 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?	☐	☐	☐	☒
2) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
3) 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))?	☐	☐	☐	☒
4) Result in a loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
5) 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?	☐	☐	☐	☒

Impact AG-1: The project would not convert 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 urban area of Palo Alto, and is designated "Urban and Built-Up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[1] The site is not used or zoned for agricultural purposes. The site is not designated by as farmland of any type, and is not the subject of a Williamson Act contract. None of the properties adjacent to the project site are used for agriculture, nor designated as forest land. For these reasons, the project would have no impact on agricultural or forest resources. **(No Impact)**

[1] California Department of Conservation. *Santa Clara County Important Farmland 2016*. September 2018.

Impact AG-2:	The project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. **(No Impact)**

See response to Impact AG-1. **(No Impact)**

Impact AG-3:	The project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **(No Impact)**

There is no land on the project site or in the project vicinity zoned for or used as forest land, timberland, or Timberland Production. **(No Impact)**

Impact AG-4:	The project would not result in a loss of forest land or conversion of forest land to non-forest use. **(No Impact)**

See response to Impact AG-3. **(No Impact)**

Impact AG-5:	The project would not 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)**

See responses to Impact AG-1 through Impact AG-4. **(No Impact)**

4.3 AIR QUALITY

The following discussion is based, in part, on a CalEEMod Emissions Calculator analysis run on November 20, 2019. This analysis is included with this Initial Study as Appendix A.

4.3.1 Environmental Setting

4.3.1.1 *Regulatory Framework*

Federal, State, and Regional

The U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for what are commonly referred to as "criteria pollutants," because they set the criteria for attainment of good air quality. Criteria pollutants include carbon monoxide, ozone, nitrogen dioxide, sulfur dioxide, and particulate matter (PM).

Regional and Local Criteria Pollutants

Major criteria pollutants, listed in "criteria" documents by the EPA and CARB include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and suspended particulate matter. These pollutants can have health effects such as respiratory impairment and heart/lung disease symptoms. Ambient air quality standards have been established at both the state and federal level. Violations of ambient air quality standards are based on air pollutant monitoring data and are judged for each air pollutant. Areas with air quality that exceed adopted air quality standards are designated as "nonattainment" areas for the relevant air pollutants. Nonattainment areas are sometimes further classified by degree (marginal, moderate, serious, severe, and extreme for ozone, and moderate and serious for carbon monoxide and PM_{10}) or status ("nonattainment-transitional"). Areas that comply with air quality standards are designated as "attainment" areas for the relevant air pollutants. "Unclassified" areas are those with insufficient air quality monitoring data to support a designation of attainment or nonattainment, but are generally presumed to comply with the ambient air quality standard. State Implementation Plans must be prepared by states for areas designated as federal ambient air quality standard.

The Bay Area is considered a non-attainment area for ground-level ozone and fine particulate matter ($PM_{2.5}$) under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for respirable particulates or particulate matter with a diameter of less than 10 micrometers (PM_{10}) under the California Clean Air Act, but not the federal act. High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort. Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (i.e. cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

BAAQMD Guidelines

The Bay Area Air Quality Management District (BAAQMD) is the regional agency tasked with managing air quality in the region. The BAAQMD is primarily responsible for assuring that the federal and state ambient air quality standards are maintained in the San Francisco Bay Area. Air quality standards are set by the federal government (the 1970 Clean Air Act and its subsequent amendments) and the state (California Clean Air Act and its subsequent amendments).

Regional air quality management districts, such as the BAAQMD, must prepare air quality plans specifying how state air quality standards would be met. BAAQMD's most recently adopted plan is the Bay Area 2017 Clean Air Plan (2017 CAP). The 2017 CAP focuses on two closely-related BAAQMD goals: protecting public health and protecting the climate. To protect public health, the plan describes how the BAAQMD will continue its progress toward attaining all State and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities.

The 2017 CAP includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion. The BAAQMD has published CEQA Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects. The thresholds of significance for construction- and operation-related pollutant emissions are discussed further in Section 4.3.3, Impact Evaluation.

4.3.1.2 *Local Community Risks/Toxic Air Contaminants and Fine Particulate Matter*

Besides criteria air pollutants, there is another group of substances found in ambient air referred to as Toxic Air Contaminants (TACs). These contaminants tend to be localized and are found in relatively low concentrations in ambient air. Exposure to low concentrations over long periods, however, can result in adverse chronic health effects. Diesel exhaust is a predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average).

Fine Particulate Matter ($PM_{2.5}$) is a complex mixture of substances that includes elements such as carbon and metals; compounds such as nitrates, organics, and sulfates; and complex mixtures such as diesel exhaust and wood smoke. Long-term and short-term exposure to $PM_{2.5}$ can cause a wide range of health effects. Common stationary sources of TACs and $PM_{2.5}$ include gasoline stations, dry cleaners, diesel backup generators, and motor vehicles. The other, more significant, common source is motor vehicles on roadways and freeways.

4.3.1.3 *Sensitive Receptors*

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities,

elementary schools, and parks. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children. The closest sensitive receptors to the project site are the multi-family residences located directly across the rear alley, approximately 30 feet northeast of the site.

4.3.1.4 *Construction TAC and PM2.5 Health Risks*

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. These exhaust air pollutant emissions would not be considered to contribute substantially to existing or projected air quality violations. Construction exhaust emissions may still pose health risks for sensitive receptors such as surrounding residents. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors.

City of Palo Alto

The City of Palo Alto Comprehensive Plan includes the following air-quality related programs and policies that are relevant to the project.

Policy	Description
(Program) N5.1.2	Implement BAAQMD recommended standards for the design of buildings near heavily traveled roads, in order to minimize exposure to auto-related emissions..
N-5.4:	All potential sources of odor and/or toxic air contaminants shall be adequately buffered, or mechanically or otherwise mitigated to avoid odor and toxic impacts that violate relevant human health standards.
N-5.5:	Support the BAAQMD in its efforts to achieve compliance with existing air quality regulations by continuing to require development applicants to comply with BAAQMD construction emissions control measures and health risk assessment requirements.
N-5.6	Mitigate potential sources of toxic air contaminants through siting or other means to reduce human health risks and meet the BAAQMD's applicable threshold of significance. When siting new sensitive receptors such as schools, day care facilities, parks or playgrounds, medical facilities and residences within 1,000 feet of stationary sources of toxic air contaminants or roadways used by more than 10,000 vehicles per day, require projects to consider potential health risks and incorporate adequate precautions such as high-efficiency air filtration into project design.

4.3.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
2) 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?	☐	☐	☒	☐
3) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

4.3.2.1 *Thresholds of Significance*

Impacts from the Project

As discussed in CEQA Guidelines Section 15064(b), the determination of whether a project may have a significant effect on the environment calls for judgment on the part of the lead agency and must be based to the extent possible on scientific and factual data. The City of Palo Alto has considered the air quality thresholds updated by BAAQMD in May 2017 and regards these thresholds to be based on the best information available for the San Francisco Bay Area Air Basin and conservative in terms of the assessment of health effects associated with TACs and $PM_{2.5}$. The BAAQMD CEQA Air Quality thresholds used in this analysis are identified in Table 4.3-1 below.

Table 4.3-1: BAAQMD Air Quality Significance Thresholds			
Pollutant	**Construction Thresholds**	**Operation Thresholds**	
	Average Daily Emissions (pounds/day)	**Annual Daily Emissions (pounds/year)**	**Annual Average Emissions (tons/year)**
Criteria Air Pollutants			
ROG, NO_x	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
CO	Not Applicable	9.0 ppm (eight-hour) or 20.0 ppm (one-hour)	
Fugitive Dust	Dust Control Measures/Best Management Practices	Not Applicable	
Health Risks and Hazards for New Sources (within a 1,000-foot Zone of Influence)			
Health Hazard	**Single Source**	**Combined Cumulative Sources**	
Excess Cancer Risk	10 per one million	100 per one million	
Hazard Index	1.0	10.0	
Incremental Annual $PM_{2.5}$	0.3 µg/m^3	0.8 µg/m^3 (average)	

Impact AIR-1: The project would not conflict with or obstruct implementation of the applicable air quality plan. **(Less than Significant Impact)**

Construction

The project would be smaller than the BAAQMD CEQA Air Quality Guidelines Operational Criteria Pollutant Screening Size for low-rise apartments (78 dwelling units) and office space (53,000 square feet). Therefore, it is assumed that it would not result in the generation of operational-related criteria air pollutants and/or precursors that exceed the thresholds shown in Table 4.3-1. For informational purposes, however, construction-period emissions of criteria pollutants were calculated for the proposed project using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2. Construction emissions result from on-site equipment use, as well as off-site worker, hauling, and vendor traffic. Table 4.3-2 (below) shows the project's estimated construction-period emissions.

Table 4.3-2: Construction Period Emissions				
Scenario	**ROG**	**NOx**	**PM_{10} Exhaust**	**$PM_{2.5}$ Exhaust**
Total construction emissions	0.1 tons	0.8 tons	0.06 tons	0.05 tons
Average daily emissions[1]	0.5 lbs./day	4.1 lbs./day	0.3 lbs./day	0.3 lbs./day
BAAQMD Thresholds	*54* lbs./day	*54* lbs./day	*82* lbs./day	*54* lbs./day
Exceed Threshold?	**No**	**No**	**No**	**No**
Notes: [1]Assumes 394 workdays. Source: CalEEMod 2016.3.2. November 20, 2019.				

As shown, construction emissions would be below the BAAQMD's thresholds of significance for criteria pollutants. **(Less than Significant Impact)**

Operation

The proposed project would not conflict with the 2017 CAP because it would be smaller than the BAAQMD CEQA Air Quality Guidelines Operational Criteria Pollutant Screening Size for low-rise apartments (451 dwelling units) and office space (346,000 square feet), is considered urban infill, and would be located near bike paths and transit with regional connections. Because the project would not exceed the BAAQMD screening criteria, it would not result in the generation of operational-related criteria air pollutants and/or precursors that exceed the thresholds shown in Table 4.3-1. Thus, the project is not required to incorporate project-specific control measures listed in the 2017 CAP. Further, implementation of the project would not inhibit BAAQMD or partner agencies from continuing progress toward attaining state and federal air quality standards and eliminating health-risk disparities from exposure to air pollution among Bay Area communities, as described within the 2017 CAP. **(Less than Significant Impact)**

Impact AIR-2:	The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. **(Less than Significant Impact)**

Carbon monoxide emissions from project-generated traffic would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below state and federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as an area of attainment for the standard. The highest measured level over any eight-hour averaging period during the last three years in the Bay Area is less than 3.0 parts per million (ppm), compared to the ambient air quality standard of 9.0 ppm. The proposed project would not cause increased traffic volumes at any intersection such that the intersection would exceed more than 44,000 vehicles per hour or affect any intersections where horizontal mixing is substantially limited (e.g. tunnel, parking garage, bridge underpass, natural or urban street canyon, or below-grade roadway). Therefore, the proposed project

would not violate an ambient air quality standard or contribute substantially to an existing or projected air quality violation.[2] **(Less than Significant Impact)**

Impact AIR-3:	The project would not expose sensitive receptors to substantial pollutant concentrations**. (Less than Significant Impact with Mitigation Incorporated)**

Construction Air Quality Impacts

Dust Emissions

Construction activities, particularly during site preparation and grading would temporarily generate fugitive dust in the form of respirable particulate matter (PM_{10} and $PM_{2.5}$). Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soil. The amount of dust generated would be variable, and would be dependent on the size of the area disturbed at any given time, the amount of construction activity, soil type and moisture, and meteorological conditions. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices (BMPs) are employed to reduce these emissions. The proposed project would be required to incorporate the following BAAQMD BMPs to reduce fugitive dust during construction, these BMPs would be included as standard measures as part of the planning approval. These BMPs shall be implemented during all demolition, grading, and construction activities to reduce construction-related particulate emissions:

- Exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day or covered.
- Haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- Visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- Vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- Roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Chapter13, Section 2485 of California Code of Regulations). Clear signage explaining this rule shall be provided for construction workers at all access points.
- Construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. Equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

[2] For projects such as the proposed mixed-use project, the BAAQMD CEQA Air Quality Guidelines state that a proposed project would result in a less than significant impact to localized carbon monoxide concentrations if the project would not increase traffic at affected intersections with more than 44,000 vehicles per hour. According to the traffic analysis for the Draft Existing Conditions Report for the Comprehensive Plan Update, El Camino Real (between Page Mill Road and San Antonio Road) carries daily traffic volumes of 30,443.

- A publicly visible sign shall be posted with the telephone number and name of an individual working for the construction contractor who can be contacted regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Because these BAAQMD-recommended BMPs would be required as conditions of approval, per the City of Palo Alto's standard practice and in accordance with Comprehensive Plan Policy N-5.5, during construction impacts would be less than significant. **(Less than Significant Impact)**

Community Risk Impacts – Toxic Air Contaminants

Emissions from construction-related equipment and associated heavy-duty diesel truck traffic are the primary concern due to release of diesel particulate matter (DPM), which is a known TAC. Construction activities are also a source of $PM_{2.5}$. Based on the BAAQMD Guidelines (2017), a project would result in a significant construction TAC or $PM_{2.5}$ impact if it exceeds any of the thresholds of significance listed below:

- An excess cancer risk level of more than 10 in one million, or a non-cancer (chronic or acute) Hazard Index greater than 1.0; or
- An incremental increase of more than 0.3 micrograms per cubic meter ($\mu g/m^3$) annual average $PM_{2.5}$.

As mentioned previously, the nearest sensitive receptors are the multi-family residences across the rear alley of the project site, approximately 30 feet northeast. For the purposes of this analysis, and to be conservative with regard to health impacts to surrounding residents, it is assumed that the proposed project would generate TACs during construction that would adversely expose nearby sensitive residential receptors in excess of BAAQMD thresholds shown above, in particular exposure to $PM_{2.5}$. Implementation of the BAAQMD BMPs would be considered to reduce exhaust emissions and fugitive dust emissions; however, the following mitigation measure would ensure impacts are less than significant.

MM AIR-1: Any mobile diesel-powered off-road equipment larger than 25 horsepower and operating on-site for more than two days continuously (or 20 hours in total) shall meet U.S. EPA particulate matter emissions standards for Tier 2 engines equipped with CARB-certified Level 3 Diesel Particulate Filters or equivalent.

Implementation of MM AIR-1 would reduce community risk impacts from construction to less than significant. **(Less than Significant with Mitigation Incorporated)**

Operation Community Risk Impacts – Toxic Air Contaminants

Operation of the proposed mixed-use project would not involve use of stationary equipment involving diesel engines; nor would the vehicles traveling to/from the site involve a substantial mix of trucks with diesel engines. For these reasons, operation of the project would not generate substantial levels of DPM or other sources of TACs such that it would represent a substantial risk for nearby residences or other sensitive receptors in the area. **(Less than Significant Impact)**

Impact AIR-4:	The project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. **(Less than Significant Impact)**

Operation of the proposed mixed-use project would not generate odors. Construction of the proposed project would generate localized emissions of diesel exhaust during equipment operation and truck activity. These emissions may be noticeable from time to time by adjacent receptors. Odors would, however, be localized and temporary. For these reasons, the proposed project would not create objectionable odors affecting a substantial number people. **(Less than Significant Impact)**

4.4 BIOLOGICAL RESOURCES

4.4.1 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) 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 Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?	☐	☒	☐	☐
2) 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 CDFW or USFWS?	☐	☐	☐	☒
3) 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?	☐	☐	☐	☒
4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites?	☐	☐	☐	☒
5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Impact BIO-1: The project would not 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 CDFW or USFWS. **(Less than Significant Impact with Mitigation Incorporated)**

There are no trees on the project site; however, there are several trees adjacent to the project site. The trees could provide nesting habitat for birds, including migratory birds and raptors. Nesting birds are

among the species protected under provisions of the Migratory Bird Treaty Act and California Fish and Game Code Sections 3503, 3503.5, and 2800.

Construction of the project during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes abandonment and/or loss of reproductive effort is considered a taking by the CDFW. Any loss of fertile eggs, nesting raptors, or any activities resulting in nest abandonment would constitute an impact. Construction activities, such as site grading, that disturb a nesting bird or raptor on-site or immediately adjacent to the construction zone would also constitute an impact.

Mitigation Measure:

MM BIO-1.1: The project owner or designee shall schedule demolition and construction activities to avoid the nesting season. The nesting season for most birds, including most raptors in the San Francisco Bay area extends from February 1st through August 31st.

If it is not possible to schedule demolition and construction between September 1st and January 31st to avoid the nesting season, pre-construction surveys for nesting raptors and other migratory nesting birds shall be conducted by a qualified ornithologist, as approved by the City of Palo Alto, to identify active nests that may be disturbed during project implementation on-site and within 250 feet of the site. Projects that commence demolition and/or construction activities between February 1st and August 31st shall conduct a pre-construction survey for nesting birds no more than 14 days prior to initiation of construction, demolition activities, or tree removal.

If an active nest is found in or close enough to the project area to be disturbed by construction activities, a qualified ornithologist shall determine the extent of a construction-free buffer zone (typically 250 feet for raptors and 100 feet for other birds) around the nest, to ensure that raptor or migratory bird nests would not be disturbed during ground disturbing activities. CDFW will notified, as appropriate. The construction-free buffer zones shall be maintained until after the nesting season has ended and/or the ornithologist has determined that the nest is no longer active.

The ornithologist shall submit a report indicating the results of the survey and any designated buffer zones to the satisfaction of the City of Palo Alto prior to any grading, demolition, and/or building permit.

With the implementation of the measures contained within MM-BIO-1.1, impacts to migratory birds would be less than significant. **(Less than Significant Impact with Mitigation Incorporated)**

Impact BIO-2:	The project would not 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 CDFW or USFWS. **(No Impact)**

The project site does not contain riparian habitat or sensitive natural communities[3] and is not located within a known regional wildlife movement corridor or any other sensitive biological area.[4] Based on the developed nature of the site and lack of native or riparian habitat located on the site, no federal-or state-listed endangered, threatened, rare, or otherwise sensitive flora or fauna are anticipated to be located on site. **(No Impact)**

Impact BIO-3:	The project would not have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means. **(No Impact)**

See response to Impact BIO-2. **(No Impact)**

Impact BIO-4:	The project would not 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. **(No Impact)**

See response to Impact BIO-2. **(No Impact)**

Impact BIO-5:	The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. **(No Impact)**

There are no trees on the project site; however, there are four trees adjacent to the project site that could potentially be damaged during construction. One tree is located along El Camino Real and the other three trees are located across the rear alley from the project site. The four protected trees would be protected with Type III tree protection in accordance with the City of Palo Alto's Tree Preservation Ordinance and per the standard requirements for tree protection outlined in the ordinance.[5] As a result, the project would not conflict local policies or ordinances applicable to the project or project site. **(No Impact)**

[3] U.S. Fish and Wildlife Service. National Wetlands Inventory. *Surface Waters and Wetlands.* Accessed November 12, 2019. https://www.fws.gov/wetlands/data/mapper.html.
[4] U.S. Fish and Wildlife Service. IPaC Information for Planning and Consultation. Accessed November 12, 2019. https://ecos.fws.gov/ipac/.
[5] Type III Tree Protection consists of two-inches of orange plastic fencing overlaid with two-inch thick wooden slats.

Impact BIO-6:	The project would not 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)**

The project site is not located within an approved Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan; therefore, the project would not conflict with any provisions of such a plan. **(No Impact)**

4.5 CULTURAL RESOURCES

The following discussion is based, in part, on a Historic Resources Evaluation prepared by Archives & Architecture, LLC and dated October 7, 2019. This evaluation is included as Appendix B.

4.5.1 Existing Conditions

Buried Cultural Resources

Portions of the City of Palo Alto have been occupied by humans for thousands of years; beginning with occupation by the Ohlone peoples, through Spanish settlement, to the incorporation of the City in 1894. Buried cultural resources have been found throughout the City of Palo Alto as part of past archaeological surveys. According to the City's Archaeologically Sensitive Areas Map, the project site is located in an area of moderate cultural sensitivity.[6]

Historic Resources

The existing metal quonset hut on the project site was likely constructed around 1946. It has since deteriorated and has been partially dismantled. Quonset huts were developed in the mid-1900s by the U.S. military during World War II. After the war, quonset huts were sold to the public and relocated around the country. While some cities have context statements that identify quonset huts as significant building types in their city's historical development, the City of Palo Alto does not yet have a context statement that addresses this time frame or construction type. In addition, the quonset hut on the project site has been significantly altered (garage doors installed on the side and roof missing). While the building reflects the trend of redistribution of these buildings in the post-war period, this structure is not representative of important patterns of mid-century commercial development in the City of Palo Alto. The building has not been previously recorded as part of any historical survey or review for individual historic significance, nor is it identified or listed on the City of Palo Alto Master List of Structures on the Historic Inventory. The building is not eligible for listing on any historic registers.

4.5.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?	☐	☐	☒	☐
2) Cause a substantial adverse change in the significance of an archaeological resource as pursuant to CEQA Guidelines Section 15064.5?	☐	☒	☐	☐
3) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

[6] City of Palo Alto. *Comprehensive Plan Update Cultural Resources Draft Existing Conditions Report.* August 2014.

Impact CUL-1:	The project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. **(No Impact)**

The building that exists on the project site contains some of the physical fabric of a mid-century quonset hut structure; however, changes to the structure have resulted in a substantial loss of integrity. No important personages are associated with the project site. The architectural character and physical features have been altered over time and are not distinctive in a way that would enable eligibility to the California Register of Historical Resources or for listing on any other historic inventory.

As previously discussed, the existing quonset structure has not been previously recorded as part of any historical survey or review for individual historic significance, nor is it listed on a federal, state, or local historic inventory. The structure was evaluated in accordance with Section 15064.5 of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Resources Code, as well as the City of Palo Alto criteria for designation and listing on the historic inventory under Municipal Code Section 16.49 (as described in Appendix B). It does not meet the significance criteria as outlined in the CEQA Guidelines or the City's the Historic Preservation Ordinance, and therefore is not a historical resource for the purposes of CEQA. For these reasons, the project would not cause a substantial adverse change in the significance of a historical resource. **(No Impact)**

Impact CUL-2:	The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. **(Less than Significant Impact with Mitigation Incorporated)**

As previously discussed, the project site is located in an area of moderate cultural sensitivity. The site has been previously graded and disturbed during construction of the existing parking lot and Quonset hut structure; however, new ground disturbance could result in encountering undisturbed subsurface archaeological resources. In the unlikely event that such resources are unearthed during construction, applicable regulatory requirements pertaining to the handling and treatment of such resources would apply. If archaeological resources are identified, as defined by Section 21083.2 of the Public Resources Code, the site would be required to be treated in accordance with the provisions of Section 21083.2 of the Public Resources Code. If human remains are unearthed, Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. As such, with implementation of the following mitigation measures, potential impacts to subsurface cultural resources would be reduced to a less than significant level.

MM CUL-1.1: In the event any significant cultural materials are encountered during construction grading or excavation, construction within a radius of 50 feet of the find would be halted, the Director of Planning shall be notified, and a qualified archaeologist shall examine the find and make appropriate recommendations regarding the significance of the find and the appropriate treatment of the resource. Recommendations could include collection, recordation, and analysis of any significant cultural materials. A report of

findings documenting any data recovered during monitoring shall be submitted to the Director of Planning.

MM CUL-1.2: Pursuant to Section 7050.5 of the Health and Safety Code, and Section 5097.94 of the Public Resources Code of the State of California in the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission (NAHC) who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this state law, then the land owner shall reinter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance. If the Director of Planning finds that the archaeological find is not a significant resource, work would resume only after the submittal of a preliminary archaeological report and after provisions for reburial and ongoing monitoring are accepted.

With implementation of mitigation measures MM CUL-1.1 and 1.2 the project would have a less than significant impact on archaeological resources, including human remains. **(Less than Significant Impact with Mitigation)**.

Impact CUL-3: The project would not disturb any human remains, including those interred outside of dedicated cemeteries. **(Less than Significant Impact with Mitigation Incorporated)**

See response to Impact CUL-2. **(Less than Significant Impact with Mitigation Incorporated)**

4.6 ENERGY

The following discussion is based, in part, on a CalEEMod Emissions Calculator analysis run on November 20, 2019. This report is included with this Initial Study as Appendix A.

4.6.1 Impact Discussion

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

Impact EN-1:	The project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. **(Less than Significant Impact)**

The project would involve demolition of the existing metal hut and redevelopment of the site with a three-story mixed-use building. Implementation of the project would result in the commitment of additional energy resources, including consumption of energy during construction and operation.

Construction

Construction activities would last approximately 18 months and would require energy for the manufacture and transportation of building materials, preparation of the site (i.e. demolition and grading), and the actual construction of the building. Petroleum-based fuels, such as diesel fuel and gasoline, would be the primary sources of energy for these tasks.

The proposed project includes several measures that will improve the efficiency of the construction process. Implementation of the BAAQMD BMPs, as described in Section 4.3 Air Quality would restrict excessive equipment use by reducing idling times to five minutes or less and would require the applicant to post signs on the project site reminding workers to shut off idle equipment. Additionally, the project would also be required to comply with the City's Construction and Demolition Debris Diversion Ordinance. The ordinance requirements are currently enforced through the City's Green Building Program and require projects to salvage, and/or divert at least 80 percent of project debris from landfill. Energy will be used during construction; however, with implementation of BMPs and recycling requirements, the short-term energy impacts of construction, including impacts to energy resources, would be less than significant. **(Less than Significant Impact)**

Operation

The project site currently is vacant and does not use any energy. The proposed project would increase electricity use at the project site by approximately 63,557 kilowatt hours (kWh) per year and natural has usage by 66,843 kBtu per year. Approximately 3,303 gallons of gasoline would be utilized annually by vehicles traveling to and from the site during operation.

The energy use increase is likely overstated, however, because the estimates for energy use do not take into account the efficiency measures which would be incorporated into the project. The project would be subject to energy conservation requirements in the California Energy Code (Title 24, Part 6, of the California Code of Regulations, California's Energy Efficiency Standards for Residential and Nonresidential Buildings) and CALGreen (Title 24, Part 11 of the California Code of Regulations), as embodied in enforceable conditions of approval. In addition to CBC requirements, the City of Palo Alto has adopted more stringent green building regulations. In accordance with the City's Green Building Ordinance, the proposed project would satisfy requirements for CALGreen Tier 2 projects. Adherence to Title 24 would ensure that the project would not result in wasteful and inefficient use of non-renewable resources due to building operation. Therefore, the project would not result in a significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. **(Less than Significant Impact)**

Impact EN-2:	The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. **(Less than Significant Impact)**

As discussed in Impact EN-1, the project would be subject to the requirements of the CBC, Title 24 energy requirements, CALGreen, and the City's Green Building Ordinance. In addition, the project would obtain energy from the City of Palo Alto Utilities, which provides 100 percent carbon-neutral electricity, consistent with the state's Renewable Portfolio Standard program and Senate Bill 350.[7,8] Thus, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency and any impact would be less than significant. **(Less than Significant Impact)**

[7] City of Palo Alto. "City of Palo Alto – Carbon Neutral". Accessed November 13, 2019. https://www.cityofpaloalto.org/gov/depts/utl/pathway_to_sustainability/carbon_neutral/default.asp.
[8] Senate Bill 350 requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from renewable sources by 2030.

4.7 GEOLOGY AND SOILS

The following discussion is based, in part, on a Geotechnical Investigation prepared by Romig Engineers and dated August 2017. This report is included with this Initial Study as Appendix C.

4.7.1 Existing Conditions

Soils

The project site is a relatively flat parcel situated at an elevation of approximately 35 feet above mean sea level. The site us underlain by stiff to very stiff sandy clay of moderate to high plasticity. Highly expansive soils are present at the surface near-surface soils. Expansive soils shrink and swell as a result of moisture changes, which can cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations.

Seismicity and Seismic-Related Hazards

In the Bay Area there are three major faults trending in a northwest direction within the San Andreas fault system, which have generated about 12 earthquakes per century large enough to cause significant structural damage. These faults include the San Andreas, Hayward, and Calaveras faults. The San Andreas fault is located approximately 5.6 miles southwest of the site. The Hayward and Calaveras faults are located approximately 13 and 17 miles northeast of the site, respectively.

The project site is not located within a State of California Earthquake Fault Zone and no known active faults cross the site.[9] Therefore, the potential for fault rupture to occur at the site is very low.

Liquefaction

Liquefaction is the temporary transformation of loose, saturated granular sediments from a solid state to a liquefied state as a result of seismic ground shaking. Soil susceptible to liquefaction includes loose to medium dense sand and gravel, low-plasticity silt, and some low-plasticity clay deposits.

According to the State of California Official Seismic Hazard Zones Map for the Palo Alto Quadrangle, the site is not located in an area potentially susceptible to earthquake-induced liquefaction. Loose, saturated sandy soil is not present under the project site and the likelihood of liquefaction occurring is low. In addition, the site is not located within an area where historical occurrence of liquefaction has been observed.

Lateral Spreading

Lateral spreading consists of the horizontal displacement of flat-lying alluvial material toward an open area, such a steep bank of a stream channel. Matadero Creek is located approximately 0.1 mile west of the project site. Thus, the potential for lateral spreading during a seismic event is low.

[9] California Department of Conservation. CGS Information Warehouse: Regulatory Maps. Accessed November 13, 2019. http://maps.conservation.ca.gov/cgs/informationwarehouse/.

Landslides

The project site is located in a flat area and would not be exposed to substantial slope instability, erosion, or landslide-related hazards.[10]

Paleontological Resources

Paleontological resources or fossils are the remains of prehistoric plant and animal life. The geologic units in the Palo Alto area are part of an alluvial deposit found along the perimeter of the Santa Clara Valley. These units consist of 12 to 15 feet of moderately well-sorted, unconsolidated, fine sandy silt and clayey silt overlying at least six feet of silty clay. Below this, the Santa Clara formation is an older alluvium made up of partially consolidated clay, silt, sand, and gravel deposited more than 11,000 years ago.[11]

4.7.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
– 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)?	☐	☐	☒	☐
– Strong seismic ground shaking?	☐	☐	☒	☐
– Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
– Landslides?	☐	☐	☐	☒
2) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
3) Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐

[10] Santa Clara County. Geological Hazard Zones. Accessed November 13, 2019. https://sccplanning.maps.arcgis.com/apps/webappviewer/index.html?id=5ef8100336234fbdafc5769494cfe373.
[11] City of Palo Alto. *Comprehensive Plan Update Cultural Resources Draft Existing Conditions Report.* August 2014. Accessed November 26, 2019.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
4) Be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
5) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
6) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☒	☐

Impact GEO-1: The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides. **(Less than Significant Impact)**

Earthquake Faults

The project site is not located within a State of California Earthquake Fault Zone and no known active faults cross the site; thus, any associated impact would be less than significant.[12] **(Less than Significant Impact)**

Seismic Ground Shaking and Seismic-Related Ground Failure

The project site is located in a seismically active region of California and strong ground shaking would be expected during the lifetime of the proposed project. However, there are no known active faults traversing the project site and the potential for surface rupture from displacement or fault movement directly beneath the proposed project is considered low. To address the potential seismic hazards in the area, the proposed project would be built and maintained in accordance with a design-specific geotechnical report and applicable regulations including the CBC , which contains the regulations that govern the construction of structures in California. Adherence to the CBC would reduce seismic-related impacts and ensure adjacent development would not be endangered by structural failure of new development proposed within areas of geologic hazards. **(Less than Significant Impact)**

[12] California Department of Conservation. CGS Information Warehouse: Regulatory Maps. Accessed November 13, 2019. http://maps.conservation.ca.gov/cgs/informationwarehouse/.

Landslides

The project site is not located within an area susceptible to earthquake-induced landslides; therefore, there would be no impact.[13] **(No Impact)**

Impact GEO-2:	The project would not result in substantial erosion or the loss of topsoil. **(Less than Significant Impact)**

Ground-disturbing activities could result in temporary erosion during project construction. The project would, however, be required to comply with Chapter 16.28.120 of the PAMC, which states that an estimate of the cost of implementing and maintaining all interim erosion and sediment control measures must be submitted in a form acceptable to the city engineer. The applicant may propose the use of any erosion and sediment control techniques in the plan, provided such techniques are proven to be as or more effective than the equivalent BMPs contained in the stormwater Manual of Standards. In addition, the project would be required to comply with erosion control standards administered by the Regional Water Quality Control Board (RWQCB) through the National Pollutant Discharge Elimination System (NPDES) permit process, which requires implementation of nonpoint source control of stormwater runoff. **(Less than Significant Impact)**

Impact GEO-3:	The project would not 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)**

See response to Impact GEO-1 and Impact GEO-4. **(Less than Significant Impact)**

Impact GEO-4:	The project would not be located on expansive soil, as defined in the current CBC, creating substantial direct or indirect risks to life or property. **(Less than Significant Impact)**

Based on the geotechnical investigation completed for the project site, highly expansive soil is located at the project site. These soils can result in damage at the project site and adjacent site if the structure is not properly constructed to deal with such soil conditions.

To ensure that the future building is designed properly to account for the presence of expansive soils, the proposed project would be built and maintained in accordance with a design-specific geotechnical report submitted to the satisfaction of the Director of Public Works Engineering, as well as applicable structural regulations (including those contained within the CBC). Based on the Geotechnical Investigation prepared for the project and included as Appendix C, construction methods to reduce risks from expansive soils could include, but are not limited to, the following:

[13] Santa Clara County. Geological Hazard Zones. Accessed July 2, 2018. https://sccplanning.maps.arcgis.com/apps/webappviewer/index.html?id=5ef8100336234fbdafc5769494cfe373.

- Foundation design methods, such as a mat foundation, basement water proofing, foundations that account specifically for lateral loads and settlement in expansive soils conditions
- Spread footing foundations for landscape improvements
- Drilled pier foundations
- Basement retaining walls
- Slabs-on-grade construction
- Use of a vapor retarder
- Use of flexible pavements (asphaltic concrete)
- Ensuring proper site preparation and earthwork (specific material for fill and compaction)

Adherence to the recommendations within the sign-specific geotechnical report and adherence to requirements in the CBC would reduce impacts and ensure adjacent development would not be endangered by structural failure of new development proposed within areas of geologic hazards. Thus, any impact would be less than significant. **(Less than Significant Impact)**

Impact GEO-5:	The project would not 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. **(No Impact)**

The proposed project would be connected to the local wastewater treatment system. Septic systems would not be used and there would be no impact. **(No Impact)**

Impact GEO-6:	The project would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature. **(Less than Significant Impact)**

The geologic units in the Palo Alto area are part of an alluvial deposit found along the perimeter of the Santa Clara Valley. These units consist of 12 to 15 feet of moderately well-sorted, unconsolidated, fine sandy silt and clayey silt overlying at least 6 feet of silty clay. Below this, the Santa Clara formation is an older alluvium made up of partially consolidated clay, silt, sand, and gravel deposited more than 11,000 years ago. No prehistoric or paleontological resources have been identified on the site or in the immediate vicinity. Given the limited depth of disturbance (approximately two to three feet for project foundations) the project would not disturb any paleontologically sensitive soils and the impact would be less than significant. **(Less than Significant Impact)**.

4.8 GREENHOUSE GAS EMISSIONS

The following discussion is based, in part, on a CalEEMod Emissions Calculator analysis run on November 20, 2019. This report is included with this Initial Study as Appendix A.

4.8.1 Environmental Setting

4.8.1.1 *Background Information*

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. In GHG emission inventories, the weight of each gas is multiplied by its global warming potential and is measured in units of CO_2 equivalents (CO_2e). The most common GHGs are carbon dioxide (CO_2) and water vapor. Others include methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These are released into the earth's atmosphere through a variety of natural processes and human activities.

An expanding body of scientific research supports the theory that global climate change is currently causing changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California are adversely affected by the global warming trend. Increased precipitation and sea level rise will increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

4.8.1.2 *Regulatory Framework*

State

Assembly Bill 32

Under the California Global Warming Solutions Act, also known as AB 32, CARB established a statewide GHG emissions cap for 2020, adopted mandatory reporting rules for significant sources of GHGs, and adopted a comprehensive plan, known as the Climate Change Scoping Plan, identifying how emission reductions would be achieved from significant GHG sources.

In 2016, SB 32 was signed into law, amending the California Global Warming Solution Act. SB 32, and accompanying Executive Order B-30-15, require CARB to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. CARB updated its Climate Change Scoping Plan in December of 2017 to express the 2030 statewide target in terms of million metric tons of CO_2E ($MMTCO_2e$). Based on the emissions reductions directed by SB 32, the annual 2030 statewide target emissions level for California is 260 $MMTCO_2e$.

Senate Bill 375

SB 375, known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in September 2008. SB 375 builds upon AB 32 by requiring CARB to develop regional GHG reduction targets for automobile and light truck sectors for 2020 and 2035. The per-capita GHG emissions reduction targets for passenger vehicles in the San Francisco Bay Area include a seven percent reduction by 2020 and a 15 percent reduction by 2035.

Consistent with the requirements of SB 375, the Metropolitan Transportation Commission (MTC) partnered with the Association of Bay Area Governments (ABAG), BAAQMD, and the Bay Conservation and Development Commission to prepare the region's Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan process. The SCS is referred to as Plan Bay Area 2040. Plan Bay Area 2040 establishes a course for reducing per-capita GHG emissions through the promotion of compact, high-density, mixed-use neighborhoods near transit, particularly within identified Priority Development Areas (PDAs).

Regional and Local

2017 Clean Air Plan

To protect the climate, the 2017 CAP (prepared by BAAQMD) includes control measures designed to reduce emissions of methane and other super-GHGs that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. The jurisdictions in the San Francisco Bay Area Air Basin utilize the thresholds and methodology for assessing GHG impacts developed by BAAQMD within the CEQA Air Quality Guidelines. The guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

Palo Alto Sustainability and Climate Action Plan

The City of Palo Alto's Climate Protection Plan was adopted in December 2007, and updated goals were adopted in 2010. This plan addresses measures that the City's municipal operations and residents should implement to reduce GHG emissions. By 2014, the City of Palo Alto cut its GHG emissions by approximately 32 percent from 2005 levels and 37 percent from 1990 levels. A combination of actions led to these reductions, including use of entirely carbon-neutral electricity sources by the municipal utility.[14]

In November of 2016, the Palo Alto City Council adopted a framework for its Sustainability and Climate Action Plan (S/CAP). The goal of the S/CAP is to achieve an 80 percent reduction in GHG emissions below 1990 levels by 2030, as well as address broader issues of sustainability. The City subsequently adopted a 2018-2020 Sustainability Implementation Plan on December 11, 2017. The

[14] City of Palo Alto. "Sustainability and Climate Action Plan". Accessed April 17, 2018. http://www.cityofpaloalto.org/services/sustainability/sustainability_and_climate_action_plan/default.asp

Implementation Plan focuses on two key S/CAP concerns, Greenhouse Gases and Water, and four action areas: Energy, Mobility, Electric Vehicles, and Water.

4.8.1.3 *Existing Conditions*

The project site is currently developed with a vacant metal hut. For the purposes of this analysis, the project site is not assumed to generate GHG emissions.

4.8.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
2) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?	☐	☐	☒	☐

4.8.2.1 *CEQA Thresholds of Significance*

BAAQMD adopted revised CEQA Air Quality Guidelines on June 2, 2010 and then adopted a modified version of the Guidelines in May 2017. The BAAQMD CEQA Air Quality Guidelines include thresholds of significance for GHG emissions. Pursuant to the latest CEQA Air Quality Guidelines, a local government may prepare a Qualified Greenhouse Gas Reduction Strategy that is consistent with AB 32 goals. If a project is consistent with an adopted Qualified Greenhouse Gas Reduction Strategy, it can be presumed that the project will not have significant GHG emissions under CEQA.[15] BAAQMD also developed a quantitative threshold for project- and plan-level analyses based on estimated GHG emissions, as well as per service population metrics.

The BAAQMD GHG recommendations include a specific plan-and project-level GHG emission 'bright-line' threshold for 2020 emissions of 1,100 MT CO_2e/year to achieve the 2020 AB 32 statewide targets. Given the project may not be constructed and operational prior to 2020, GHG emissions resulting from operation of the projects at maximum build out have also been compared to a bright-line threshold consistent with state goals detailed in SB 32, EO B-30-15, and EO S-3-05 to reduce GHG emissions by 40 percent below 1990 levels by 2030. Though BAAQMD has not published a quantified threshold for 2030 yet, this Initial Study's assessment uses a "Substantial Progress" bright-line threshold of 660 MT CO_2e/year (or a 40 percent reduction of the 2020 1,100 MT CO_2e/year threshold).

[15] Bay Area Air Quality Management District, 2017. *CEQA Air Quality Guidelines*. May.

Impact GHG-1:	The project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. **(Less than Significant Impact)**

Construction

GHG emissions associated with construction are estimated to total approximately 106 MT of CO_2e. This temporary increase in emissions result from the operation of construction equipment and from construction workers' personal vehicles traveling to and from the project site. Neither the City nor BAAQMD have quantified thresholds for construction activities. BAAQMD also encourages the incorporation of BMPs to reduce GHG emissions during construction activities, where feasible and applicable. BMPs that would be incorporated into construction of the proposed project include the use of local building materials (where feasible) and recycling or reusing construction waste and demolition materials, which is also consistent with the City's Green Building Ordinance requiring projects to salvage and/or divert at least 80 percent of project debris from the landfill. As a result, construction impacts would be less than significant. **(Less than Significant Impact)**

Operation

The CalEEMod model along with the project-specific information was used to calculate operational period GHG emissions associated with operation of the proposed mixed-use project. The project is scheduled to begin construction in fall 2020. Construction of the project is anticipated to take approximately 18 months, meaning the project would be in operation after 2020, and thereby subject to the 2030 GHG targets based on SB 32. Annual emissions resulting from operation of the project are predicted to be 56 MT of CO_2e per year, which would be less than the Substantial Progress threshold of 660 MT of CO_2e/ year for 2030 emissions per SB 32. Because the BAAQMD threshold would not be exceeded, the impact would be less than significant. **(Less than Significant Impact)**

Impact GHG-2:	The project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. **(Less than Significant Impact)**

In November 2016, the City of Palo adopted its S/CAP which is aimed at promoting sustainable development and lowering greenhouse gas emissions. Included in the CAP are strategies and goals that the City has designed in order to reach their target of a 40 percent greenhouse gas emission reduction. Consistent with Goal 2.1 of the S/CAP, the project includes green building measures as required by the City of Palo Alto's green building program. In addition, the project would recycle or reuse construction waste and demolition material, consistent with Goal 3.1 of the S/CAP. Given that demolition and construction materials would be salvaged or recycled in conformance with City of Palo Alto requirements, and the project would meet the City's Green Building Ordinance and CALGreen requirements to reduce energy usage, construction and operation of the project would not conflict with the plans, policies, or regulations adopted for the purpose of reducing GHG emissions. **(Less than Significant Impact)**

4.9 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based in part on a Phase I Environmental Site Assessment (ESA) prepared by Cornerstone Earth Group, and included with this Initial Study as Appendix **D**.

4.9.1 Existing Conditions

4.9.1.1 *Current and Historic Uses*

The project site is occupied by a quonset hut structure. A review of historical aerial photographs show that the project site has been occupied by the current hut since 1946. The site was operated as an automobile repair business, but has since been vacant.

4.9.1.2 *On-Site Hazardous Materials*

According the California Department of Toxic Substances Control (DTSC) EnviroStor Database, the project site was a previous leaking underground storage tank (LUST) site[16] associated with Combes Auto Repair. The case is now closed.

Based on the information in the Phase I ESA, five underground storage tanks (USTs) were reported at the project site—including two 10,000 gallon gasoline USTs, two 1,000 gallon gasoline USTs, and a 2,000 gallon gasoline UST. Two of these USTs were removed in July 1986; however, the other three USTs could still be on the site. While the LUST case closed as of August 31, 2016, in the case closure letter from the Santa Clara Department of Environmental Health (DEH) states "residual contamination in soil, soil vapor, and groundwater remains at the site that could pose an unacceptable risk under certain site development activities such as site grading, excavation, or the installation of water wells". Any future development would be required to meet DEH's Site Management Requirements.

4.9.1.3 *Off-Site Sources of Contamination*

Four LUST sites are located around the project site along El Camino Real. Three of the sites are cleaned-up and closed. The open case is located at 3666 El Camino Real, 500 feet southeast of the project site. The contaminants of concern are Trichloroethylene (TCE), benzene, and hydrocarbons as gasoline (TPH-g); however, the contamination does not extend under the project site.

4.9.1.4 *Other Hazards*

Asbestos-Containing Materials and Lead-Based Paint

The existing structure at the project site was originally placed in the 1940s. Buildings constructed prior to 1978 may contain asbestos-containing materials (ACMs) in building materials such as roofs, tiling, and insulation. ACMs are of concern because exposure to them has been linked to cancer.

Lead was widely used as a major ingredient in most interior and exterior oil-based paints prior to 1950. Similar to ACMs, lead may also be present in older buildings, such as those at the project site.

[16] DTSC. "EnviroStor Database". Accessed November 13, 2019. https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=3585+el+camino+real+palo+alto%2C+ca.

Airport Safety

The proposed project site is approximately 4.6 miles west of the Moffett Federal Airfield and 2.7 miles southwest of the Palo Alto Airport. The project is not within the Airport Influence Area or safety zones for either airport.

Wildland Fire Hazards

The California Department of Forestry and Fire Protection (CalFire) has mapped areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Fire Hazard Severity Zones represent the risks associated with wildland fires. No Fire Hazard Severity Zones for State responsibility areas or Very High Fire Hazard Severity Zones for local responsibility areas have been identified near the project site.[17]

4.9.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
2) 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?	☐	☐	☒	☐
3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	☐	☒
4) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment?	☐	☒	☐	☐
5) 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, result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒

[17] City of Palo Alto. *Comprehensive Plan Update Hazards and Hazardous Materials Draft Existing Conditions Report.* 2014. Accessed November 27, 2019. http://www.paloaltocompplan.org/wp-content/uploads/2014/09/6_HazardousMaterials.pdf.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
6) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
7) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Impact HAZ-1: The project would not create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials. **(Less than Significant Impact)**

Construction activities may include the temporary transport, storage, use, or disposal of potentially hazardous materials including fuels, lubricating fluids, cleaners, solvents, or contaminated soils. If spilled, these substances could pose a risk to the environment and to human health. The transport, storage, use, or disposal of hazardous materials would be subject to federal, state, and local regulations pertaining to the transport, use, storage, and disposal of hazardous materials, which would assure that risks associated with hazardous materials are minimized. **(Less than Significant Impact)**

Impact HAZ-2: The project would not 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)**

During demolition, limited lead-based paint or ACMs are anticipated given the lack of development on the site. If these materials are encountered during demolition, they would be handled and disposed of consistent with state and federal requirements. Any impact would be less than significant.

Hazardous materials commonly found in residential and office uses are cleaning products, pesticides, paint, oil and batteries. The proposed project would routinely use limited amounts of cleaning and landscape maintenance materials and would not generate substantial hazardous emissions from hazardous materials use. The proposed project would not use acutely or extremely hazardous materials. For these reasons, the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials. **(Less than Significant Impact)**

Impact HAZ-3:	The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. **(No Impact)**

The Keys School, located approximately 0.35 miles southeast of the project on El Camino Real, is the closest existing school to the project site. No existing or proposed schools are within 0.25 mile of the project site. Therefore, no impact would occur. **(No Impact)**

Impact HAZ-4:	The project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment. **(Less than Significant Impact with Mitigation Incorporated)**

The project site is a former LUST case and was closed in 2016. In DEH's case closure letter, however, residual contamination (gasoline, benzene, and xylene) in groundwater, soil, and soil vapor was found to be above the Regional Water Quality Control Board's Tier 1 environmental screening levels.[18] While dewatering is not anticipated (depth of groundwater is approximately 23 feet below ground surface whereas excavation of two to three feet is anticipated), the project would involve grading, which would disturb residual contamination. This could result in a potentially significant impact to construction workers and the surrounding environment if on-site soils are not properly handled.

Mitigation Measures: Consistent with the project site's LUST case closure letter, the project shall comply with the following DEH Site Management Requirements consistent with the mitigation measure described below:

MM HAZ-1.1: A Site Management Plan (SMP) and Health and Safety Plan (HSP) shall be developed by the applicant and submitted to the Director of Planning and DEH prior to issuance of grading permits in order to reduce exposure of construction workers and surrounding receptors to potentially contaminated soil and soil vapor during development of the site. The SMP shall outline the plan for additional sampling required, in particular sampling for polychlrorinated biphenyls at former hydraulic lift locations on the project site. The SMP and SHP shall outline handling practices and the ultimate disposal location for contaminated soils, as appropriate.

With implementation of MM HAZ-1.1, impacts to construction workers and the environment from on-site contamination would be reduced to less than significant levels. **(Less than Significant Impact with Mitigation Incorporated)**

[18] ESLs established by the San Francisco Bay, Regional Water Quality Control Board (January 2019) are used to screen sites for potential human health concerns where releases of hazardous chemicals have occurred. ESLs are risk-based concentrations derived from standardized equations combining exposure information assumptions with toxicity data. Under most circumstances, the presence of a chemical at concentrations below the corresponding screening level can be assumed not to pose a significant health risk.

Thus, the DEH case closure letter included the following recommendations:

> *DEH and the appropriate planning and building department shall be notified prior to any changes in land use, grading activities, excavation, and installation of water wells. This notification shall include a statement that residual contamination exists on the property and list all mitigation actions, if any, necessary to ensure compliance with this site management requirement. The levels of residual contamination and any associated site risk are expected to reduce with time.*

Policy S-3.3 of the City's Comprehensive Plan requires property owners and private entities to disclose the presence of contaminated soil or groundwater, identify potential health impacts, prevent vapor intrusion, and remediate contamination. Consistent with City policies, the project shall implement the following condition of approval to reduce risks to future project occupants.

Condition of Approval: Based on the results of the testing associated with the SMP described in MM HAZ-1.1 and based on the residential ESLs in place at the time of construction, the project applicant shall submit a plan for any mitigation actions to protect future project occupants (such as vapor barriers) to the DEH and Planning Director prior to issuance of grading permits.

Impact HAZ-5:	The project would not be 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. The project would not result in a safety hazard or excessive noise for people residing or working in the project area. **(No Impact)**

The proposed project site is approximately 4.6 miles west of the Moffett Federal Airfield and 2.7 miles southwest of the Palo Alto Airport. The project site is not located within the Airport Influence Area or safety zones for either Moffett Federal Airfield or the Palo Alto Airport. **(No Impact)**

Impact HAZ-6:	The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **(Less than Significant Impact)**

The proposed project would not impair or interfere with the City's Emergency Operations Plan. While El Camino Real is an identified evacuation route, the project would not result in changes to this route, would not substantially increase traffic or roadway congestion such that use of the evacuation route would be hindered, and would not otherwise impair implementation of the City's Emergency Operations Plan. Therefore, impacts would be less than significant. **(Less than Significant Impact)**

Impact HAZ-7:	The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. **(No Impact)**

No Fire Hazard Severity Zones for State responsibility areas or Very High Fire Hazard Severity Zones for local responsibility areas have been identified near the project site.[19] As a result, there would be no risk of exposing people or structures to a significant risk of loss, injury or death involving wild land fires. **(No Impact)**

[19] City of Palo Alto. *Comprehensive Plan Update Hazards and Hazardous Materials Draft Existing Conditions Report.* 2014. Accessed April 4, 2018. http://www.paloaltocompplan.org/wp-content/uploads/2014/09/6_HazardousMaterials.pdf

4.10 HYDROLOGY AND WATER QUALITY

4.10.1 Environmental Setting

4.10.1.1 *Regulatory Framework*

Water Quality

The United States Army Corps of Engineers (USACE) has primary federal responsibility for administering regulations over waters of the United States within the project area. The USACE acts under Sections 9 and 10 of the Rivers and Harbors Act, which govern specified activities in waters of the United States; and Section 404 of the Clean Water Act (CWA), which governs specified activities in other waters of the United States (including wetlands). The USACE requires that a permit be obtained if a project proposes to place structures within, over, or under navigable waters and/or discharging dredged or fill material into waters of the United States.

Section 401 of the CWA requires issuance of a Water Quality Certification by the State Water Resources Control Board (SWRCB) or Regional Water Quality Control Board (RWQCB) when the project requires a CWA Section 404 Permit from the USACE. The SWRCB and RWQCB also regulate other waste discharges to land within California through the issuance of Waste Discharge Requirements under authority of the Porter-Cologne Water Quality Act.

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Stormwater

Stormwater runoff water quality is regulated under Section 402 of the CWA by the federal National Pollutant Discharge Elimination System (NPDES) program to control and reduce pollutants to water bodies from surface water discharges. Construction projects with over one acre of disturbance also require that a Storm Water Pollution Prevention Plan (SWPPP) be prepared and implemented during construction. Caltrans activities disturbing less than one acre require a Water Pollution Control Program.

Locally, the NPDES program is administered by the San Francisco Bay RWQCB. The RWQCB worked with cities and counties throughout the region to prepare and adopt a Municipal Regional Stormwater Permit (MRP). This MRP identifies minimum standards and provisions that the City of Palo Alto, as a permittee, must require of development projects within the City limits.

4.10.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
2) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
3) 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:	☐	☐	☒	☐
– result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
– substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
– 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	☐	☐	☒	☐
– impede or redirect flood flows?	☐	☐	☒	☐
4) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
5) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Impact HYD-1: The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. **(Less than Significant Impact)**

Construction Activities

Construction activities could result in a temporary increase in stormwater pollutants during ground disturbing activities. Construction of the proposed project would disturb less than one acre; therefore, the project applicant would not be required to obtain a NPDES General Permit for Construction Activities, which requires development and implementation of a SWPPP for the project construction activities. The project applicant is required to comply with Chapter 16.11 of the PAMC, which requires that permanent stormwater pollution prevention measures (BMPs) be incorporated into the project grading plans. **(Less than Significant Impact)**

Post-Construction

The project would result in the replacement of 6,252 square feet of impervious surfaces on the project site. Under Provision C.3 of the RWQCB's MRP, redevelopment projects that add and/or replace more than 10,000 square feet of impervious surface are required to design and construct stormwater treatment controls to treat post-construction stormwater runoff. The proposed project would not result in the replacement of more than 10,000 square feet of impervious surfaces. Therefore, the project would not be required to comply with Provision C.3 of the MRP. The project would, however, be required to comply with Chapter 16.11 of the PAMC with regard to provisions for small projects. These provisions include, but are not limited to, minimization of impervious surfaces, construction of sidewalks, walkways, and/or patios with permeable surfaces, and minimization of disturbances to natural drainages to reduce potential post-construction water quality impacts. **(Less than Significant Impact)**

Impact HYD-2:	The project would not 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)**

The proposed project does not include installation of new groundwater wells and would not deplete groundwater supplies. The project site is currently 100 percent impervious and does not contribute to groundwater recharge in the area. Development under the proposed project would not include installation of new groundwater wells or use of groundwater from existing wells. Groundwater at the project site was encountered at a depth of approximately 23 feet below ground surface (bgs).[20] The project does not include any below-grade floors or excavation that would reach the groundwater under the project site. Thus, any impact would be less than significant. **(Less than Significant Impact)**

Impact HYD-3:	The project would not 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 result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; 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 impede or redirect flood flows. **(Less than Significant Impact)**

The project would result in 6,252 square feet of impervious surfaces on the project site. The project would be required to implement post-construction requirements to minimize and treat stormwater runoff (per the requirements of Chapter 16.11 of the PAMC). Thus, the project would not substantially alter the existing drainage pattern of the sites such that erosion or siltation would occur, nor would the project result in a substantial increase the rate or amount of surface runoff. **(Less than Significant Impact)**

[20] Romig Engineers. *Geotechnical Investigation 3585 El Camino Real*. August 2017.

Impact HYD-4:	The project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. **(No Impact)**

The proposed project is located within Flood Zone X and would not place structures in a 100-year floodplain.[21] Zone X includes areas of 0.2-percent annual chance flood; areas of one-percent annual chance flood with average depths of less than one foot or with drainage areas less than one square mile; and areas protected by levees from one-percent annual chance flood. According to the City of Palo Alto Comprehensive Plan 2030 Update, the project site is not within the dam inundation areas for Felt Lake, Lagunita Reservoir, or Searsville Reservoir. Further, any minor amounts of landscape of maintenance chemicals would be stored consistent with state and local requirements. Thus, the project would not risk release of pollutants**. (No Impact)**

Impact HYD-5:	The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. **(Less than Significant Impact)**

The Santa Clara Valley Water District prepared a Groundwater Management Plan in 2016, establishing recharge facilities, recycled water systems, and conservation strategies in order to proactively manage groundwater and surface water resources within its jurisdiction. There are no recharge facilities, pump plants, or drinking water treatment plants in the area; therefore, the project would not impact any of these facilities.[22] **(Less than Significant Impact)**

[21] FEMA *Flood Insurance Rate Map 06085C0017H.* May 18, 2009.
[22] Santa Clara Valley Water District. *2016 Groundwater Management Plan*. November 2016.

4.11 LAND USE AND PLANNING

4.11.1 Environmental Setting

4.11.1.1 *Regulatory Framework*

City of Palo Alto Comprehensive Plan

The City of Palo Alto Comprehensive Plan guides future development within the City. The Comprehensive Plan includes goals, policies, and programs related to land use, the natural environment, business and economics, and community services. The Comprehensive Plan land use map identifies land use designations for properties within the City. The type of development and uses allowed within each land use designation is described in the Land Use and Community Design Element. The Comprehensive Plan land uses are further detailed and implemented through the city's Municipal Code and Zoning Ordinance.

The following policies are contained within the Comprehensive Plan and are relevant to the proposed project.

Policy	Description
L-1.3	Infill development in the urban service area should be compatible with its surroundings and the overall scale and character of the city to ensure a compact, efficient development pattern.
L-1.11	Hold new development to the highest development standards in order to maintain Palo Alto's livability and achieve the highest quality development with the least impacts.
L-4.15	Recognize El Camino Real as both a local serving and regional serving corridor, defined by a mix of commercial uses and housing.
L-6.1	Promote high-quality design and site planning that is compatible with surrounding development and public spaces.

4.11.1.2 *Existing Conditions*

The project site is located at the corner of El Camino Real and Matadero Avenue. The site is surrounded by commercial, office, and residential uses. The project site is zoned and has a land use designation of Neighborhood Commercial (CN) in the City of Palo Alto's Comprehensive Plan.

4.11.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Physically divide an established community?	☐	☐	☐	☒
2) 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?	☐	☐	☐	☒

Impact LU-1:	The project would not physically divide an established community. **(No Impact)**

The project would involve demolition of the existing metal hut and redevelopment of the site with a three-story mixed-use building in a fully urbanized area of Palo Alto. The project would not separate connected neighborhoods or land uses from each other. No new roads, linear infrastructure, or other development features are proposed that would divide an established community or limit movement, travel, or social interaction between established land uses. No impacts would occur. **(No Impact)**

Impact LU-2:	The project would not 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. **(No Impact)**

The project site is zoned and has a land use designation and zoning of Neighborhood Commercial (CN) in the City of Palo Alto's Comprehensive Plan. The district is intended to create and maintain neighborhood shopping areas primarily accommodating retail sales, personal service, eating and drinking, and office uses of moderate size serving the immediate neighborhood. The project involves demolition of the existing metal hut and redevelopment of the site with a three-story mixed-use building with three residential units. Office and multi-family residential uses are permitted in the CN zoning district. In addition, the project would be reviewed for consistency with the Cal-Ventura area of the South El Camino Real Design Guidelines as part of the Major Architectural Review (see Section 4.1 Aesthetics). The project would be consistent with the City of Palo Alto's Comprehensive Plan, zoning designation, and South El Camino Real Design Guidelines for the site and would not conflict with any applicable land use plan, policy, or regulation adopted for the purposes of avoiding or mitigating an environmental effect. **(No Impact)**

4.12 MINERAL RESOURCES

4.12.1 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?	☐	☐	☐	☒
2) 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?	☐	☐	☐	☒

Impact MIN-1: The project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **(No Impact)**

The project site is not located in an area designated as containing regionally or locally significant mineral resources.[23] **(No Impact)**

Impact MIN-2: The project would not 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)**

See response to Impact MIN-1. **(No Impact)**

[23] California Department of Conservation. "CGS Warehouse Mineral Land Classification". Accessed November 15, 2019. https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc.

4.13 NOISE

The following discussion is based, in part, on a Construction Noise Assessment prepared by Illingworth & Rodkin, Inc. and dated October 2, 2019. This report is included with this Initial Study as Appendix **E**.

4.13.1 Environmental Setting

4.13.1.1 *Noise*

Noise may be defined as unwanted sound. Acceptable levels of noise vary from land use to land use. In any one location, the noise level will vary over time, from the lowest background or ambient noise level to temporary increases caused by traffic or other sources. State and federal standards have been established as guidelines for determining the compatibility of a particular use with its noise environment.

There are several methods of characterizing sound. The most common in California is the A-weighted sound level or dBA.[24] This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, different types of noise descriptors are used to account for this variability. Typical noise descriptors include maximum noise level (L_{max}), the energy-equivalent noise level (L_{eq}), and the day-night average noise level (L_{dn}). The L_{dn} noise descriptor is commonly used in establishing noise exposure guidelines for specific land uses. For the energy-equivalent sound/noise descriptor called L_{eq} the most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources which create a relatively steady background noise in which no particular source is identifiable.

Since the sensitivity to noise increases during the evening hours, 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The Day/Night Average Sound Level, L_{dn} (sometimes also referred to as DNL), is the average A-weighted noise level during a 24-hour day, obtained after the addition of 10 dB to noise levels measured in the nighttime between 10:00 p.m. and 7:00 a.m. The Community Noise Equivalent Level (CNEL) is a 24-hour A-weighted noise level from midnight to midnight after the addition of five dBA to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 dBA to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.

4.13.1.2 *Vibration*

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the Peak Particle Velocity (PPV) and another is the Root Mean Square (RMS) velocity. The PPV is defined as the

[24] The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. All sound levels in this discussion are A-weighted, unless otherwise stated.

maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration. In this section, a PPV descriptor with units of mm/sec or in/sec is used to evaluate construction generated vibration for building damage and human complaints.

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction related groundborne vibration levels. Because of the impulsive nature of such activities, the use of the PPV descriptor has been routinely used to measure and assess groundborne vibration and almost exclusively to assess the potential of vibration to induce structural damage and the degree of annoyance for humans.

4.13.1.3 *Regulatory Framework*

State of California

The CBC and CalGreen establish uniform minimum noise insulation performance standards to protect persons within new buildings which house people, including apartments. These standards mandate that interior noise levels attributable to exterior sources shall not exceed 45 dB DNL or CNEL in any habitable room.

City of Palo Alto

2030 Comprehensive Plan

The Comprehensive Plan includes the following policies that are specific to noise and vibration and that are applicable to the proposed project:

Policies	Description
N-6.1	Encourage the location of land uses in areas with compatible noise environments. Use the guidelines in Table N-1 to evaluate the compatibility of proposed land uses with existing noise environments when preparing, revising, or reviewing development proposals. Acceptable exterior, interior and ways to discern noise exposure include: ▪ The guideline for maximum outdoor noise levels in residential areas is an Ldn of 60 dB. This level is a guideline for the design and location of future development and a goal for the reduction of noise in existing development. However, 60 Ldn is a guideline which cannot necessarily be reached in all residential areas within the constraints of economic or aesthetic feasibility. This guideline will be primarily applied where outdoor use is a major consideration (e.g., backyards in single-family housing developments, and recreational areas in multiple family housing projects). Where the City determines that providing an Ldn of 60 dB or lower outdoors is not feasible, the noise level in outdoor areas intended for recreational use should be reduced to as close to the standard as feasible through project design. ▪ Interior noise, per the requirements of the State of California Building Standards Code (Title 24) and Noise Insulation Standards (Title 25), must not exceed an Ldn of 45 dB in all habitable rooms of all new dwelling units.

N-6.3	Protect the overall community and especially sensitive noise receptors, including schools, hospitals, convalescent homes, senior and child care facilities and public conservation land from unacceptable noise levels from both existing and future noise sources, including construction noise.
N-6.6	Apply site planning and architectural design techniques that reduce overall noise pollution and reduce noise impacts on proposed and existing projects within Palo Alto and surrounding communities.
N-6.8	The City may require measures to reduce noise impacts of new development on adjacent properties through appropriate means including, but not limited to, the following: ▪ Orient buildings to shield noise sensitive outdoor spaces from sources of noise. ▪ Construct noise walls when other methods to reduce noise are not practical and when these walls will not shift similar noise impacts to another adjacent property. ▪ Screen and control noise sources such as parking lots, outdoor activities and mechanical equipment, including HVAC equipment. ▪ Increase setbacks to serve as a buffer between noise sources and adjacent dwellings. ▪ Whenever possible, retain fences, walls or landscaping that serve as noise buffer while considering design, safety and other impacts. ▪ Use soundproofing materials, noise reduction construction techniques, and/or acoustically rated windows/doors. ▪ Include auxiliary power sources at loading docks to minimize truck engine idling. ▪ Control hours of operation, including deliveries and trash pickup, to minimize noise impacts.
N-6.9	Continue to require applicants for new projects or new mechanical equipment in the Multifamily, Commercial, Manufacturing or Planned Community districts to submit an acoustical analysis demonstrating compliance with the Noise Ordinance prior to receiving a building permit.

As shown in Table 4.13-1, the Comprehensive Plan defines acceptable, conditionally acceptable, and unacceptable noise levels for uses in the City.

Table 4.13-1: Land Use Compatibility Guidelines for Noise						
Land Use Category	**Exterior DNL Value in Decibels**					
	55	**60**	**65**	**70**	**75**	**80**
Residential, Hotels and Motels,						
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, and Churches						
Office Buildings, Business Commercial, and Professional						
Auditoriums, Concert Halls, and Amphitheaters						
Industrial, Manufacturing, Utilities, and Agriculture						

Normally Acceptable:
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable:
Specified land use may be permitted only after detailed analysis of the noise reduction requirements and noise mitigation features included in the design.

Unacceptable:
New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

Municipal Code

Title 9, Chapter 9.10, Noise, of the PAMC addresses noise levels from stationary sources, as well as construction noise for adjacent residential properties. Portions of the noise code that are applicable to the proposed project follow:

> **9.10.030 Residential Property Noise Limits:** (a) No person shall produce, suffer or allow to be produced by any machine, animal or device, or any combination of same, on residential property, a noise level more than six dB above the local ambient at any point outside of the property plane. (b) No person shall produce, suffer or allow to be produced by any machine, animal, or device, or any combination of same, on multi-family residential property, a noise level more than six dB above the local ambient three feet from any wall, floor, or ceiling inside any dwelling unit on the same property, when the windows and doors of the dwelling unit are closed, except within the dwelling unit in which the noise source or sources may be located.
>
> **9.10.040 Commercial and Industrial Property Noise Limits:** No person shall produce, suffer, or allow to be produced by any machine or device, or any combination of same, on commercial or industrial property, a noise level more than eight dB above the local ambient at any point outside of the property plane.

9.10.060 Special Provisions: The special exceptions listed in this section shall apply, only to the extent and during the hours specified in each of the following enumerated exceptions.[25]

a. **General Daytime Exception.** Any noise source which does not produce a noise level exceeding seventy dBA at a distance of twenty-five feet under its most noisy condition of use shall be exempt from the provisions of Sections 9.10.030(a), 9.10.040, and 9.10.050(a) between the hours of eight a.m. and eight p.m. Monday through Friday, nine a.m. and eight p.m. on Saturday, except Sundays and holidays, when the exemption herein shall apply between ten a.m. and six p.m.

b. **Construction.** Except for construction on residential property as described in subsection (c) of this section, construction, alteration, and repair activities which are authorized by valid city building permit shall be prohibited on Sundays and holidays and shall be prohibited except between the hours of eight a.m. and six p.m. Monday through Friday, [and] nine a.m. and six p.m. on Saturday provided that the construction, demolition, or repair activities during those hours meet the following standards:

    1. No individual piece of equipment shall produce a noise level exceeding one hundred ten dBA at a distance of twenty-five feet. If the device is housed within a structure on the property, the measurement shall be made outside the structure at a distance as close to twenty-five feet from the equipment as possible.
    2. The noise level at any point outside of the property plane of the project shall not exceed one hundred ten dBA.
    3. The holder of a valid construction permit for a construction project in a non-residential zone shall post a sign at all entrances to the construction site upon commencement of construction for the purpose of informing all contractors and subcontractors, their employees, agents, material [personnel], and all other persons at the construction site, of the basic requirements of this chapter.

j. **Emergencies.** Emergencies are exempt from this chapter

4.13.1.4 *Existing Conditions*

The major noise source affecting the project site is local vehicular traffic along El Camino Real. Noise levels in the immediate project area range from 60 dBA to 70 dBA primarily as a result of traffic along El Camino Real.[26] Other urban noise sources, such as mechanical equipment at nearby businesses and rooftops, are present at the site. The site is also impacted sporadically by aircraft noise; though the project is not located within identified noise contour areas for the Palo Alto Airport or the Moffett Federal Airfield, which are both located over two miles from the project site.

[25] Exceptions c through i, k, and l are not applicable to the proposed project.
[26] City of Palo Alto. *Comprehensive Plan Update Environmental Impact Report.* February 5, 2016.

4.13.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
1) 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?	☐	☐	☒	☐
2) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
3) 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?	☐	☐	☐	☒

Impact NOI-1: The project would not 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)**

Construction Noise

Construction noise impacts depend on the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise sensitive receptors. The construction of the proposed project would involve demolition of existing structure, grading, excavation to lay foundations, trenching, building erection, and paving. The hauling of imported and exported soil and materials would generate truck trips on local roadways as well. Construction-generated noise levels typically drop off at a rate of about six dBA per doubling of the distance between the source and receptor. Shielding by buildings or terrain can provide an additional five to 10 dBA noise reduction at distant receptors.

Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), in areas immediately adjoining noise-sensitive land uses, or when construction durations extend over long periods of time. Standard conditions of approval would require the project to comply with the City's Noise Ordinance (Chapter 9 of the PAMC). Specifically, the Noise Ordinance requires the following:

- Construction shall be limited to between the hours of 8:00 a.m. and 6:00 p.m. Monday through Friday, 9:00 a.m. and 6:00 p.m. on Saturday, with no construction allowed on Sundays and holidays.

- No individual piece of equipment shall produce a noise level exceeding 110 dBA at a distance of 25 feet. If the device is housed within a structure on the property, the measurement shall be made out-side the structure at a distance as close to 25 feet from the equipment as possible.
- The noise level at any point outside of the property plane of the project shall not exceed 110 dBA.
- The holder of a valid construction permit shall post a sign at all entrances to the construction site upon commencement of construction, in accordance with Municipal Code Section 9.10.060.b.3.
- During construction, mufflers shall be provided for all heavy construction equipment and all stationary noise sources in accordance with the manufacturers' recommendations.
- Prohibit all unnecessary idling of internal combustion engines.
- Stationary noise sources and staging areas shall be located as far as is feasible from existing noise-sensitive receivers. Locating stationary noise sources near existing roadways away from adjacent properties is preferred.
- Air compressors and pneumatic equipment should be equipped with mufflers, and impact tools should be equipped with shrouds or shields.
- A "construction liaison" shall be designated to ensure coordination between construction staff and neighbors to minimize disruptions due to construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented.
- Neighboring property owners within 400 feet of construction activity shall be notified in writing of the construction schedule and the contact information for the construction liaison.

The City of Palo Alto specifies a quantitative temporary increase threshold of 10 dBA above daytime ambient noise levels. The project would result in a significant temporary construction noise impact if construction activities exceeded 60 dBA L_{eq} at nearby residences or exceeded 70 dBA L_{eq} at nearby commercial uses, and exceed the ambient noise environment by 10 dBA L_{eq} or more for a period longer than one year.

The nearest receptor, the commercial building at 3567 El Camino Real, would be located as close as five feet from an individual piece of equipment. The nearest residence is located across the rear alley of the project site, approximately 75 feet from the center of the project site. Typical noise levels during construction would range between 71 and 85 dBA L_{eq} at 75 feet from the center of the site. Noise levels could intermittently reach 95 dBA L_{max} at the building façade along the southwest and northeast sides of 3567 El Camino Real. Prolonged heavy construction near this building would expose the receptors to noise levels between 81 and 95 dBA L_{eq}. The southeast facade of 3567 El Camino Real has no windows or doors. Interior levels along the southeast facade would be at least 40 dBA lower than exterior levels due to building construction. Noise levels at the gas station 90 feet southeast of the project site would range between 70 and 84 dBA L_{eq} during heavy construction. The commercial land uses located 160 feet southwest would experience noise levels between 65 and 79 dBA L_{eq}.

Construction noise would exceed 60 dBA L_{eq} at residences and 70 dBA L_{eq} at commercial uses. However, with implementation of the City's standard conditions of approval from PAMC Section 18.23.060 (identified above to reduce equipment and worker-generated noise) the project would result in a less than significant impact. **(Less than Significant Impact)**

Operational Noise

On-site noise generation would be typical noise from apartment and office buildings and would be consistent with nearby commercial and office land uses. Permanent noise from the project would be generated by mechanical equipment or an increase in traffic noise and could increase noise levels at nearby residences. In accordance with state requirements, City of Palo Alto Comprehensive Plan Policies N-6.2 and N-6.7.1, thresholds identified in the Comprehensive Plan Environmental Impact Report (EIR), and City of Palo Alto Municipal Code 9.10.040, on-site operational noise would be significant if it would cause the following:

- Cause interior noise levels at nearby residential development to exceed 45 dBA Ldn (International Building Code; City of Palo Alto Comprehensive Plan Policy N-6.1)
- Cause the average 24-hour noise level (Ldn) to increase by five decibels (dB) or more in an existing residential area, even if the Ldn would remain below 60 dB (City of Palo Alto Comprehensive Plan EIR)
- Cause the Ldn to increase by three dB or more in an existing residential area, thereby causing the Ldn in the area to exceed 60dB (City of Palo Alto Comprehensive Plan EIR)
- Cause an increase of three dB or more in an existing residential area where the Ldn currently exceeds 60dB (City of Palo Alto Comprehensive Plan EIR)
- Produce, suffer or allow to be produced by any machine, animal or device, or any combination of same, on commercial or industrial property, a noise level more than eight dB above the local ambient at any point outside of the property plane (PAMC Section 9.10.040)

Traffic Noise

Noise levels in the immediate project area range from 60 dBA to 70 dBA primarily as a result of traffic along El Camino Real.[27] The "normally acceptable" outdoor noise level standard for nearby residences would be 55 dBA L_{dn}, and existing ambient levels exceed this threshold; therefore, a significant impact would occur if project-generated traffic would permanently increase ambient levels by three dBA L_{dn}.

The primary source of noise associated with the project is traffic that would travel to and from the site along El Camino Real. An increase of three dBA is considered substantial in noise sensitive areas along roadways. Vehicular traffic on roadways in the City are anticipated to increase in general as population increases over time; however, the proposed project would have to double the existing traffic volume in the area in order to substantially increase noise levels (by three dBA or more). The traffic from the mixed-use project would result in 41 net new daily traffic trips (refer to Section 4.16, Transportation). Although the increase in traffic would result in an overall increase in traffic noise, the project would not generate sufficient trips to double the existing traffic volumes and substantially

[27] City of Palo Alto. *Comprehensive Plan Update Environmental Impact Report.* February 5, 2016.

increase noise levels. Therefore, the project would have a less than significant long-term noise impact.

Mechanical Equipment

Additional noise would result from rooftop mechanical equipment; though, equipment would be placed on the top of the three-story building. The closest existing sensitive receptor would be the multi-family residences across the rear alley of the project site, which are located approximately 75 feet north of the center of the project site. Commercial/office uses are located adjacent to the project site. Rooftop-mounted HVAC equipment typically generates noise levels of between 60 and 70 dBA at a distance of about 15 feet, which would be similar to the existing noise levels generated by traffic along El Camino Real.

The project includes a metal screen surrounding the HVAC equipment; therefore, the project would not result in a significant increase in noise levels at adjacent buildings and residential buildings. Additionally, in compliance with PAMC Section 18.23.060, the applicant would submit an acoustical analysis by an acoustical engineer demonstrating the equipment's compliance with the Noise Ordinance. Thus, impacts from rooftop mechanical equipment would not be significant. **(Less than Significant Impact)**

Impact NOI-2:	The project would not result in generation of excessive groundborne vibration or groundborne noise levels. **(Less than Significant Impact with Mitigation Incorporated)**

The proposed project would include demolition, grading, and construction activities. Table 4.13-2 identifies vibration levels for typical construction equipment at a distance of 25 feet and five feet from the source.

Table 4.13-2: Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 feet (in/sec)	PPV at 20 feet (in/sec)	PPV at 5 feet (in/sec)
Clam shovel drop		0.202	0.258	1.186
Hydromill (slurry wall)	in soil	0.010	0.010	0.047
	in rock	0.022	0.022	0.100
Vibratory Roller		0.210	0.268	1.233
Hoe Ram		0.089	0.114	0.523
Large bulldozer		0.089	0.114	0.523
Caisson drilling		0.089	0.114	0.523
Loaded trucks		0.076	0.097	0.446
Jackhammer		0.035	0.045	0.206
Small bulldozer		0.003	0.004	0.018

For structural damage, the California Department of Transportation (Caltrans) recommends a vibration limit of 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a concern and 0.5 in/sec PPV for newer structures. The closest structure to the project site is a commercial building at 3567 El Camino Real, which borders the construction boundary to the northwest. Periods of heavy vibration-generating construction within five feet of the shared boundary would result in vibration levels calculated to be as high as 1.233 in/sec PPV, exceeding the 0.3 in/sec PPV threshold (see Table 4.13-2). The nearest sensitive receptor are multi-family homes located across the rear alley to the north. These residences are at least 20 feet from the project site and vibration levels would not exceed 0.3 in/sec PPV (see Table 4.13-2).

Due to the close proximity of the commercial building located at 3567 El Camino Real, vibration levels associated with construction activities are expected to intermittently exceed 0.3 in/sec PPV when heavy construction is occurring within 20 feet of the building. Cosmetic or threshold damage to structures would be possible at this distance and occupants would intermittently experience vibration.

Mitigation Measures:

MM NOI-1: Implementation of the following measures would reduce the vibration impact to a less-than-significant level at the nearest commercial building at 3567 El Camino Real, which borders the construction boundary to the northwest:

- Place operating equipment on the construction site as far as possible from vibration sensitive receptors.
- Avoid using vibratory rollers and tampers near sensitive areas.
- Avoid dropping heavy objects or materials near shared property lines.
- Occupants of 3567 El Camino Real shall be notified of the construction schedule in writing. This schedule shall indicate when heavy vibration-generating construction will be taking place within 25 feet of the building.
- A construction vibration-monitoring plan shall be implemented to document conditions at 3567 El Camino Real, prior to, during, and after vibration generating construction activities within 20 feet of the building. All plan tasks shall be performed in accordance with industry accepted standard methods. The construction vibration monitoring plan should be implemented to include the following tasks:
    - Performance of a photo survey, elevation survey, and crack monitoring survey for the building at 3567 El Camino Real. Surveys shall be performed prior to, in regular intervals during, and after completion of vibration generating construction activities within 20 feet of the building, and shall include internal and external crack monitoring in the structure, settlement, and distress, and shall document the condition of the foundation, walls, and other structural elements in the interior and exterior of said structure to the extent that access is provided by the owner of the building.

- Conduct a post-survey on the structure where monitoring has indicated high levels or complaints of damage. Make appropriate repairs or provide compensation where damage has occurred as a result of construction activities.
- Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site.

With implementation of MM NOI-1, the proposed project would have a less than significant construction vibration impact. **(Less than Significant Impact with Mitigation Incorporated)**

Impact NOI-3:	The project would not be 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. The project would not expose people residing or working in the project area to excessive noise levels. **(Less than Significant Impact)**

The Palo Alto Airport and Moffett Federal Airfield are both located over two miles from the project site. Noise from aircraft would not increase ambient noise levels at the project site because it is located outside of the delineated noise contour areas for both airports. **(Less than Significant Impact)**

4.14 POPULATION AND HOUSING

4.14.1 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) 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)?	☐	☐	☐	☒
2) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Impact POP-1: The project would not 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). **(No Impact)**

The proposed project would construct three residential units, providing additional housing in the City. Based on a per-person household rate of 2.54, the project would add approximately eight new residents to the City's population.[28] The project would also construct 2,374 square feet of office space and, assuming three employees per 1,000 square feet, would generate approximately eight new employees. The project's proposed residential and office uses are consistent with the City's Comprehensive Plan land use and zoning designations; thus, the project has been accounted for in the City's population and employment growth forecasts. For this reason, the project would not result in unplanned population growth within the City and there would be no impact. **(No Impact)**

Impact POP-2: The project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. **(No Impact)**

The project site is currently vacant; therefore, the project would not displace existing people or housing. **(No Impact)**

[28] U.S. Census Bureau. "Quickfacts Palo Alto". Accessed November 20, 2019. https://www.census.gov/quickfacts/paloaltocitycalifornia.

4.15 PUBLIC SERVICES AND RECREATION

4.15.1 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the 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:				
1) Fire Protection?	☐	☐	☒	☐
2) Police Protection?	☐	☐	☒	☐
3) Schools?	☐	☐	☒	☐
4) Parks?	☐	☐	☒	☐
5) Other Public Facilities?	☐	☐	☒	☐
6) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?	☐	☐	☒	☐
7) 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?	☐	☐	☒	☐

Impact PS-1: The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire facilities, the need for new or physically altered fire facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services. **(Less than Significant Impact)**

The project site is currently served by the City of Palo Alto Fire Department (PAFD). The fire station closest to the project site is Fire Station 2, located at 2675 Hanover Street, approximately 0.8 mile west of the project site.

The PAFD provides fire suppression, paramedic ambulance service, search and rescue, fire prevention inspections/permits, public fire education programs, emergency preparedness planning and other services based on community needs. The project would cause an incremental increase in population and employment that would demand additional services; however, the proposed project would be required to adhere to the conditions of approval set forth by the PAFD based on their review of the project plans. The project would be constructed in accordance with building and fire

codes and would be required to be maintained in accordance with applicable City policies identified in the Comprehensive Plan to avoid unsafe building conditions and promote public safety. The site is already served by the PAFD, it is not anticipated the development of the proposed project would result in significant impacts to fire services; nor would the project alone require the construction of additional fire facilities. **(Less than Significant Impact)**

Impact PS-2:	The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the 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 police protection services. **(Less than Significant Impact)**

Police protection is provided by the Palo Alto Police Department (PAPD). The closest police station is located at 275 Forest Avenue, approximately 2.2 miles northwest of the project site. The project site is within the PAPD's service area and is currently serviced by the PAPD.

As previously discussed in Impact PS-1, the project would be constructed in accordance with building and fire codes and would be required to be maintained in accordance with applicable City policies identified in the Comprehensive Plan. It is not anticipated the development of the proposed project would result in significant impacts to police services; nor would the project alone require the construction of additional police facilities. **(Less than Significant Impact)**

Impact PS-3:	The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the 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 schools. **(Less than Significant Impact)**

The proposed project would add three residential units to the City's housing stock, resulting in an incremental increase in students within the Palo Alto Unified School District (PAUSD). The project is, however, consistent with the City's Comprehensive Plan land use and zoning designations. The Comprehensive Plan Update EIR determined that under full buildout of the Comprehensive Plan, the PAUSD would have sufficient capacity to accommodate future students. In addition, PAUSD would collect school impact fees from future development to fund school facilities. For these reasons, the impact is less than significant. **(Less than Significant Impact)**

Impact PS-4:	The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the 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 parks. **(Less than Significant Impact)**

The nearest park to the project site is John Boulware Park, approximately 0.2 miles northwest. Construction of the proposed project would add approximately eight new residents to the City's population. These residents would incrementally increase the use of recreational facilities in the project area. The project, however, would be required to pay the park development fee per PAMC Chapter 16.58 to help fund the maintenance of recreational facilities. For this reason, the project would not result in significant impacts to recreational facilities. **(Less than Significant Impact)**

Impact PS-5:	The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the 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 other public facilities. **(Less than Significant Impact)**

The nearest library to the project site is College Terrace Library, approximately 0.85 miles northwest. Construction of the proposed project would add approximately eight new residents to the City's population. These residents would incrementally increase the use of library facilities in the project area. The project, however, would be required to pay the library development fee per PAMC Chapter 16.58 to help fund the maintenance of library facilities. For this reason, the project would not result in significant impacts to library facilities. **(Less than Significant Impact)**

Impact PS-6:	The project would not 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)**

See response to Impact PS-4. **(Less than Significant Impact)**

Impact PS-7:	The project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. **(Less than Significant Impact)**

See response to Impact PS-4. **(Less than Significant Impact)**

4.16 TRANSPORTATION

4.16.1 Environmental Setting

4.16.1.1 *Regulatory Framework*

Santa Clara County Valley Transportation Authority (VTA)

The proposed project is located within the City of Palo Alto, in Santa Clara County. The Santa Clara County Valley Transportation Authority (VTA) is the Congestion Management Agency (CMA) for the County and has policies and regulations that are relevant to the project. The VTA is responsible for ensuring local government conformance with the Congestion Management Program (CMP), a program aimed at reducing regional traffic congestion. The CMP requires that each jurisdiction identify existing and future transportation facilities that will operate at an acceptable service level and provide mitigation where future growth degrades that service level. The VTA has review responsibility for proposed development projects that are expected to generate 100 or more additional peak-hour trips.

Santa Clara Countywide Bicycle Plan

The Santa Clara Countywide Bicycle Plan synthesizes other local and County plans into a comprehensive 20-year cross-county bicycle corridor network and expenditure plan (May 2008). The long-range countywide transportation plan and the means by which projects compete for funding and prioritization are documented in the Valley Transportation Plan 2035 (adopted in January 2009). VTA has adopted the Santa Clara Countywide Bicycle Plan, which is a planned bicycle network of 24 routes of countywide or intercity significance.

Palo Alto Bicycle & Pedestrian Transportation Plan

The Palo Alto Bicycle & Pedestrian Transportation Plan (adopted in July 2012) identifies objectives for the expansion of bicycle and pedestrian access within the City. The plan was developed through collaboration with the City, Palo Alto Bicycle Advisory Committee, City/School Traffic Safety Committee, and the community. It identifies a network for bicycle travel and recommends improvements to make bicycling and walking a viable option for more people, with a goal of accommodating new growth, maintaining mobility, and reducing overall environmental impacts.

Palo Alto Comprehensive Plan Policies

The following transportation-related policies from the Comprehensive Plan apply to the proposed project.

Policy	Description
T-1.15	Encourage employers to develop shared shuttle services to connect employment areas with the multi-modal transit stations and City amenities, and to offer employees education and information on how to use shuttles.
T-1.17	Require new office, commercial and multi-family residential developments to provide improvements that improve bicycle and pedestrian connectivity as called for in the 2012 Palo Alto Bicycle + Pedestrian Transportation Plan.

Policy	Description
T-5.1	All new development projects should manage parking demand generated by the project, without the use of on street parking, consistent with the established parking regulations. As demonstrated parking demand decreases over time, parking requirements for new construction should decrease
T-5.6	Strongly encourage the use of below-grade or structured parking, and explore mechanized parking instead of surface parking for new developments of all types while minimizing negative impacts including on groundwater and landscaping where feasible.

4.16.1.2 *Existing Conditions*

Pedestrian and Bicycle Facilities

Pedestrian facilities in the project vicinity consist of sidewalks along all roadways and crosswalks at all nearby signalized intersections. Class II bicycle facilities near the project site include:

- Park Boulevard, between El Camino Real and Lambert Avenue
- Page Mill Road, between El Camino Real and the I-280 underpass
- Hansen Way, between Page Mill Road and El Camino Real
- California Avenue, between Hanover Street and El Camino Real
- Meadow Drive, between El Camino Real and Fabian Way
- Stanford Avenue, west of El Camino Real

Class III bicycle facilities near the project site include:

- California Avenue, between El Camino Real and Park Boulevard
- Page Mill Road, between Park Boulevard and the California Avenue Caltrain Station
- Park Boulevard, between Lambert Avenue and Whitclem Drive[29]
- Margarita Avenue/Matadero Avenue between Laguna Avenue and Park Boulevard

The Bol Park Bike Path and the Stanford Perimeter Trail are Class I separated bicycle and pedestrian facilities near the project site. From the project site, this bicycle path can be accessed via Matadero Avenue. The Stanford Perimeter Trail is along Junipero Serra Boulevard, Stanford Avenue and El Camino Real. From the project site, this bicycle path can be accessed via El Camino Real.

Transit Facilities

The project site is well-served by existing transit services. Existing services near the project site are provided by the Santa Clara Valley Transportation Authority (VTA), Caltrain, and the Marguerite Shuttle operated by Stanford University. There are two Stanford Marguerite Shuttle lines serving the project area, Line SE and Line RP. VTA provides bus services to the project area via six local, express, and rapid bus routes, including:

[29] Park Boulevard is a City-designated Bicycle Boulevard, which is a mixture of Class II and Class III bicycle facilities.

- ***Local Route 22*** provides service between Palo Alto Transit Center and the Eastridge Transit Center via El Camino Real with 10-15 minute headways during peak hours.
- ***Express Bus 101*** provides service between Page Mill Road and Hansen Way in Palo Alto and Camden Avenue & the Highway 85 Park & Ride lot in San Jose, with two northbound runs during the AM peak commute hours, and two southbound runs during the PM peak commute hours.
- ***Express Bus 102*** provides service between Page Mill Road and Hansen Way in Palo Alto and the Santa Teresa LRT station in San Jose, with seven northbound runs during the AM peak commute hours and seven southbound runs during the PM peak commute hours, both on 30-minute headways.
- ***Express Bus 103*** provides service between Page Mill Road and Hansen Way in Palo Alto and the Eastridge Transit Center in San Jose, with four westbound runs during the AM peak commute hours and four eastbound runs during the PM peak commute hours, both on 30-minute headways.
- ***Express Bus 104*** provides service between the Palo Alto Veterans Hospital and the Penitencia Creek Transit Center in San Jose, with two westbound runs during the AM peak commute hour and two eastbound runs during the westbound peak commute hour.
- ***Rapid Bus 522*** provides service between the Palo Alto Transit Center and the Eastridge Transit Center with limited stops. This route provides northbound and southbound service throughout the day with 15-minute headways during peak hours, and operates between 5:30 AM and 11:30 PM on weekdays.

VTA bus stops in the project vicinity include stops immediately adjacent to the site on El Camino Real at its intersection with Hansen Way in the southbound direction and Portage Avenue in the northbound direction, at the intersection of El Camino Real and Page Mill Road/Oregon Expressway (approximately one-quarter mile from the project site), and along Hansen Way (approximately 200 feet southwest of the site).

The California Avenue Caltrain Station is located less than one mile north of the project site. Trains that stop at the California Avenue Station operate at approximately 30-minute headways in both directions during the commute hours.

4.16.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities?	☐	☐	☒	☐
2) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
3) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?	☐	☐	☒	☐
4) Result in inadequate emergency access?	☐	☐	☒	☐
5) Cause any change in traffic that would increase the Traffic Infusion on Residential Environment (TIRE) index by 0.1 or more?	☐	☐	☒	☐

4.16.2.1 *Significance Thresholds*

Significance criteria are used to establish what constitutes an impact. For this analysis, the criteria used to determine significant impacts on signalized intersections are based on the City of Palo Alto and VTA's CMP level of service (LOS) standards. The project would result in a significant impact on traffic conditions at a signalized intersection if for either the AM or PM peak hour:

- The LOS at the intersection degrades from an acceptable level (LOS D or better for non-CMP intersections and LOS E or better for CMP intersections) under background conditions to an unacceptable level (LOS E or F for non-CMP intersections and LOS F for CMP intersections); or
- The LOS at the intersection is at an unacceptable level (LOS E or F at non-CMP intersections and LOS F at CMP intersections) under background conditions and the addition of project traffic causes both the critical-movement delay at the intersection to increase by four or more seconds and the V/C to increase by one percent or more. An exception to this rule applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e. the change in average delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by .01 or more.

A significant impact by City of Palo Alto standards would be mitigated when measures are implemented that would restore intersection conditions to its LOS standard or to an average delay that is better than background conditions.

Impact TRN-1:	The project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities. **(Less than Significant Impact)**

Transit Facilities

The project site is currently well-served by existing transit and would continue to be served by VTA, Caltrain, and the Marguerite Shuttle. Implementation of the project would not decrease the performance of these facilities. **(Less Than Significant Impact)**

Intersection LOS

The VTA CMP Transportation Impact Analysis (TIA) guidelines require that a TIA (including LOS analysis) must be completed for any project expected to generate 100 or more net new weekday (AM or PM) peak hour trips. The project is estimated to generate 41 net new daily vehicle trips. Because the project would add less than 100 peak hour trips, a TIA that included a LOS analysis was not warranted for the project. The project's contribution to the surrounding network is not anticipated to change operating conditions at either the El Camino Real and Page Mill Road/Oregon Expressway or El Camino Real and Matadero Avenue intersections. For these reasons, the project would not cause an intersection to drop below its LOS standard and any impact would be less than significant. **(Less Than Significant Impact)**

In response to Senate Bill (SB) 743, the Office of Planning and Research (OPR) is updating the CEQA guidelines to include new transportation-related evaluation metrics. Specifically, SB 743 directs OPR to revise the CEQA guidelines to transition from LOS to Vehicle Miles Traveled (VMT) as the primary metric of transportation impacts. Beginning on July 1, 2020, the CEQA Guidelines update that implements SB 743 will apply statewide. At the time the project transportation assessment was completed, the City of Palo Alto had not defined a methodology for assessing VMT nor revised its policies to require the use of VMT as its primary transportation analysis methodology. While it is estimated the project would result in 82,253 VMT annually, a VMT analysis consistent with SB 743 is not required or included.[30]

Pedestrian and Bicycle Facilities

Pedestrian facilities in the project vicinity consist of sidewalks along all roadways and crosswalks at all nearby signalized intersections. Pedestrian access to the site would be provided to the office space via an entryway on El Camino Real and access to the residential units would be provided via an entryway on Matadero Avenue.

The bicycle network near the project site provides connections to major transit centers, the Stanford University campus, and various retail and restaurant uses. El Camino Real serves as a major barrier between bicycle facilities on either side of it. However, since the project is located adjacent to the crosswalk across El Camino Real at Matadero Avenue, access across this barrier would be provided. Based on the PAMC, the project is required to provide one short term bicycle parking space for the office space and three long-term bicycle parking spaces for the residential units. The project would provide three long-term bicycle parking spaces in the rear parking lot and two short-term bicycle parking spaces on the corner of El Camino Real and Matadero Avenue.

The proposed project would not impede the development or function of planned pedestrian or bicycle facilities and would not affect or conflict with the adopted policies, plans, or programs regarding bikeways or pedestrian facilities, or otherwise substantially reduce the performance or safety of such facilities. **(Less than Significant Impact)**

[30] Appendix D. CalEEMod Calculations. Program used November 20, 2019..

Impact TRN-2:	The project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). **(No Impact)**

As discussed in Impact TRN-1, the City does not have a VMT policy consistent with SB 743; therefore, the project would not conflict with CEQA Guidelines Sections 15064.3, subdivision (b). **(No Impact)**

Impact TRN-3:	The project would not 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)**

Vehicle access to the project site would be provided via one driveway located on Matadero Avenue. The project access points would be clear of any obstructions, thereby ensuring the exiting vehicles can see pedestrians on the sidewalk, and bicyclists and other vehicles traveling on the adjacent roadway. Landscaping would be planted in a manner that would ensure no conflicts with a driver's ability to locate a gap in traffic and see oncoming pedestrians, bicyclists, and vehicles. Trees would be planted along the project frontage on Matadero Avenue at a proper height to provide sight lines for vehicles between three and 10 vertical feet. No other objects exist or are proposed along this frontage that would reduce vehicle sight distance, and the outbound driveway is located greater than 150 feet from the nearby signalized intersection. Therefore, sight distance would be adequate. For these reasons, the proposed project would not create an operational safety hazard. **(Less than Significant Impact)**

Impact TRN-4:	The project would not result in inadequate emergency access. **(Less than Significant Impact)**

The project would be required to conform to the City's traffic and safety regulations that specify adequate emergency access measures. In addition, the project site would be required to meet the standards set forth by the PAFD. Adherence to existing state and federal regulations and City of Palo Alto requirements would reduce impacts. As a result, the proposed project would not impede emergency access. **(Less than Significant Impact)**

Impact TRN-5:	The project would not cause any change in traffic that would increase the TIRE index by 0.1 or more. **(Less than Significant Impact)**

Vehicles travelling to and from the project site would access the site from El Camino Real, Park Boulevard, and Matedero Avenue. While these vehicles would use residential streets, the project would only generate 41 vehicle trips per day, and would not measurably increase traffic on local residential streets and the impact is less than significant. **(Less than Significant Impact)**

4.17 TRIBAL CULTURAL RESOURCES

4.17.1 Environmental Setting

4.17.1.1 *Regulatory Framework*

State

Assembly Bill 52

AB 52, effective July 2015, established a new category of resources for consideration by public agencies called Tribal Cultural Resources (TCRs). AB 52 requires lead agencies to provide notice of projects to tribes that are traditionally and culturally affiliated with the geographic area if they have requested to be notified. Where a project may have a significant impact on a tribal cultural resource, consultation is required until the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource or until it is concluded that mutual agreement cannot be reached.

Under AB 52, TCRs are defined as follows:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are also either:
    - Included or determined to be eligible for inclusion in the California Register of Historic Resources, or
    - Included in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).

A resource determined by the lead agency to be a TCR.

4.17.1.2 *Existing Conditions*

The project is located in a fully developed area within the Stanford Research Park and no tribal cultural resources have been listed or determined eligible for listing in the California Register or a local register of historical resources. To date, no California Native American tribes that are or have been traditionally culturally affiliated with the project vicinity have requested notification from the City of Palo Alto regarding projects in the area and their effects on a tribal cultural resource.

4.17.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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:				
1) 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)?	☐	☐	☐	☒
2) 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.	☐	☐	☐	☒

Impact TCR-1: The project would not cause a substantial adverse change in the significance of a tribal cultural resource that is 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 does not contain tribal cultural resources that are listed or eligible for listing in the California Register, or in a local register of historical resources. For this reason, the project would not cause a substantial adverse change to these resources. **(No Impact)**

Impact TCR-2: The project would not cause a substantial adverse change in the significance of a tribal cultural resource that is 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. **(No Impact)**

The project site does not contain any recognized tribal cultural resources. Furthermore, no California Native American tribes that are or have been traditionally culturally affiliated with the project vicinity have requested notification from the City of Palo Alto regarding projects in the area and their effects on a tribal cultural resource. Thus, there would be no impact. **(No Impact)**

4.18 UTILITIES AND SERVICE SYSTEMS

4.18.1 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
2) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
3) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
4) 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?	☐	☐	☒	☐
5) Be noncompliant with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Impact UTL-1: The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. **(Less than Significant Impact)**

As described in response to Impact UTL-2 and Impact UTL-3, sufficient water supplies would be available to serve the project from existing entitlements and resources. No new or expanded entitlements would be needed to serve the proposed project. The project would also not exceed wastewater treatment requirements or require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. As described in Section 4.10 Hydrology and Water Quality, the proposed project would not generate a substantial increase in stormwater runoff, and would not require the construction of substantial new storm water drainage facilities or expansion of existing facilities. Thus, the project would not result in the relocation or

construction of new utility facilities, the construction or relocation of which could cause significant environmental effects. **(Less than Significant Impact)**

Impact UTL-2:	The project would not have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. **(Less than Significant Impact)**

The proposed project would demand approximately two acre feet per year (AFY) net new gallons of water per day.[31] The City of Palo Alto obtains one hundred percent of its potable water supply from the San Francisco Public Utilities Commission. The City is projected to have a water supply of 19,118 AFY through 2035, with demand peaking at 11,883 AFY in 2020.[32] On average, the City would have a surplus of 7,791 AFY, annually. Sufficient water supplies would be available to serve the project from existing entitlements and resources. **(Less than Significant Impact)**

Impact UTL-3:	The project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. **(Less than Significant Impact)**

The City of Palo Alto Utilities Department (CPAU) oversees a wastewater collection system consisting of over 208 miles of sewer lines. The City operates the Regional Water Quality Control Plant (RWQCP), which has primary treatment (bar screening and primary sedimentation), secondary treatment (fixed film reactors, conventional activated sludge, clarification and filtration), and tertiary treatment (filtration through a sand and coal filter and UV disinfection). Wastewater is routed to RWQCP, where it is treated prior to discharge into the San Francisco Bay. While the CPAU is responsible for the wastewater collection system, the Palo Alto Public Works Department is responsible for the collection/conveyance of sewage collected and delivered to the RWQCP.

The RWQCP is designed to have an average dry weather flow (ADWF) capacity of 39 million gallons per day (MGD) with full tertiary treatment, and a peak wet weather flow capacity of 80 MGD with full secondary treatment. Current average flows are approximately 22 MGD. Therefore, the current unused capacity of the RWQCP is 17 MGD. Wastewater generation is estimated to be about 80 percent of the water usage. The project is estimated to generate approximately 1,490 net new gallons per day (gpd) of wastewater.[33] This increase would be approximately 0.01 percent of the existing unused capacity of the RWQCP. Therefore, there would be sufficient wastewater capacity to serve the project site. **(Less than Significant Impact)**

[31] California Air Pollution Control Officers Association. CalEEMod. Appendix D Default Tables. Table 9.1 Water Use Rates.
[32] City of Palo Alto. *2-15 Urban Water Management Plan.* June 2016. Accessed November 21, 2019. https://www.cityofpaloalto.org/civicax/filebank/documents/51985.
[33] Wastewater rate is 85 percent of total water use.

Impact UTL-4:	The project would not 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 with Mitigation Incorporated)**

The proposed project is estimated to generate approximately 0.01 net new tons of solid waste per year.[34] The City of Palo Alto contracts with GreenWaste of Palo Alto for collection of garbage, recycling, and composting services in the City and with Zanker Road Resource Management, Ltd. All municipal solid waste is processed at the Sunnyvale Materials Recovery and Transfer Station located in Sunnyvale, where approximately 18 percent of material that would otherwise be landfilled is recovered. Any remaining trash is landfilled primarily at the Kirby Canyon Landfill owned by Waste Management, Inc. in San José, which has 15,738,540 Cubic Yards of capacity and an estimated closure date of 2071.[35]The City has established a goal of virtually eliminating waste being burned or buried by 2021 and has adopted the Zero Waste Operational Plan.

The proposed project would be required to comply with PAMC Chapter 16.14, Section A4.408.1, which requires a minimum of 80 percent of non-hazardous construction and demolition debris to be recycled or salvaged. In addition, the project would be required to prepare a Waste Management Plan for on-site sorting of construction debris to ensure that the project meets the diversion requirement for reused or recycled construction and demolition debris. With implementation of Comprehensive Plan polices, the PAMC, and the Zero Waste Plan, the Comprehensive Plan Update EIR concluded that solid waste generated by future development under the Comprehensive Plan would not exceed the permitted or actual capacity of existing landfills. For these reasons, the incremental increase in solid waste generated by the proposed project would be accommodated by a landfill with sufficient permitted capacity. **(Less than Significant Impact)**

Impact UTL-5:	The project would not be noncompliant with federal, state, and local management and reduction statutes and regulations related to solid waste. **(Less than Significant Impact)**

See response to Impact UTL-4. **(Less than Significant Impact)**

[34] California Air Pollution Control Officers Association. CalEEMod. *Appendix D Default Tables*. Table 10.1 Solid Waste Disposal Rates. Accessed November 21, 2019. http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4.

[35] Azavedo, Becky. Email to Wang, Amy. Subject: Kirby Canyon Landfill - remaining capacity and est. closure date. March 7, 2019.

4.19 WILDFIRE

4.19.1 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
1) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
2) 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?	☐	☐	☐	☒
3) 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?	☐	☐	☐	☒
4) 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?	☐	☐	☐	☒

The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, the project would not result in wildfire impacts. **(No Impact)**

4.20 MANDATORY FINDINGS OF SIGNIFICANCE

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
1)	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?	☐	☒	☐	☐
2)	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.)	☐	☒	☐	☐
3)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Impact MFS-1: The project does not 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 Impact with Mitigation Incorporated)**

The project could result in impacts to buried cultural resources, should they be discovered on site. The project could also result in impacts to nesting migratory birds if they are present in trees located on or immediately adjacent to the project site. The project could also expose construction workers to potentially unacceptable health risks from contaminated soil and soil vapor. However, with the implementation of the mitigation and avoidance measures and compliance with City ordinance requirements included in the project and described in Section 4, Environmental Setting, Checklist, and Discussion of Impacts, the proposed project would not result in significant environmental impacts to biological, cultural resources, and hazards and hazardous materials. **(Less than Significant Impact with Mitigation Incorporated)**

Impact MFS-2:	The project does not have impacts that are individually limited, but cumulatively considerable. **(Less than Significant Impact with Mitigation Incorporated)**

Under Section 15065(a)(3) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has potential environmental effects "that are individually limited, but cumulatively considerable." As defined in Section 15065(a)(3) of the CEQA Guidelines, cumulatively considerable means "that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." In addition, under Section 15152(f) of the CEQA Guidelines, where a lead agency has determined that a cumulative effect has been adequately addressed in a prior EIR, the effect is not treated as significant for purposes of later environmental review and need not be discussed in detail.

The project would not impact agricultural, forestry, land use, mineral, population and housing, or increase the potential for wildfires. Therefore, the project would not contribute to cumulative impacts to these resources.

The project's geology and soils and hazardous materials impacts are specific to the project site and would not contribute to cumulative impacts elsewhere. The project would have the potential to result in cumulative hydrology and water quality impacts. With implementation BMPs and compliance with City policies pertaining to stormwater and drainage, the project would have a less than significant water quality impact and not contribute to significant cumulative impacts. In the same way, noise impacts are isolated and proposed mitigation would lessen the project's potential to contribute to a cumulative impact.

The project would be expected to increase traffic compared to existing conditions; however, the project would generate a relatively low amount of new peak-hour traffic and would have a relatively minimal impact on the existing vehicular traffic on nearby roadways. As a result, the project would not contribute to significant cumulative impacts.

The project would emit criteria air pollutants and GHG emissions and contribute to the overall regional and global emissions of such pollutants. By its very nature, air pollution and GHG emissions are largely a cumulative impact. The project-level air quality thresholds identified by BAAQMD are the basis for determining whether a project's individual impact is cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. As discussed in Section 4.3 Air Quality and Section 4.8 Greenhouse gas Emissions, the project would have a less than significant impact. For this reason, the project would have a less than significant cumulative impact on air quality and GHG emissions overall. **(Less than Significant Impact with Mitigation Incorporated)**

Impact MFS-3:	The project does not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly. **(Less than Significant Impact with Mitigation Incorporated)**

Consistent with Section 15065(a)(4) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. Under this standard, a change to the physical environment that might otherwise be minor must be treated as significant if people would be significantly affected. This factor relates to adverse changes to the environment of human beings generally, and not to effects on particular individuals. While changes to the environment that could indirectly affect human beings would be represented by all of the designated CEQA issue areas, those that could directly affect human beings include hazards and hazardous materials and noise. Implementation of mitigation measures and City policies would, however, reduce these impacts to a less than significant level. No other direct or indirect adverse effects on human beings have been identified. **(Less than Significant Impact with Mitigation Incorporated)**

SECTION 5.0 REFERENCES

The analysis in this Initial Study is based on the professional judgement and expertise of the environmental specialists preparing this document, based upon review of the site, surrounding conditions, site plans, and the following references:

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SECTION 6.0 LEAD AGENCY AND CONSULTANTS

6.1 LEAD AGENCY

City of Palo Alto
Planning & Community Environment Department
Jonathan Lait, Interim Community Development Director
Sheldon Ah Sing, Planning Consultant

6.2 CONSULTANTS

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Judy Shanley, Principal Project Manager
Amie Ashton, Senior Project Manager
Tyler Rogers, Associate Project Manager
Zach Dill, Graphic Artist

SECTION 7.0 ACRONYMS AND ABBREVIATIONS

CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
EIR	Environmental Impact Report
MND	Mitigated Negative Declaration
NOD	Notice of Determination
RWQCB	Regional Water Quality Control Board
USFWS	United States Fish and Wildlife Service