Focused Initial Study

4590 Patrick Henry Drive Residential Project

File Nos. PLN23-00290/PLN24-00130

Prepared by

CITY OF SANTA CLARA CALIFORNIA
1852
THE MISSION CITY

In Consultation with

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

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Appendices

All appendices are incorporated herein by reference.
No other documents are incorporated by reference.

Section 1.0 Introduction and Purpose

1.1 Purpose of the Focused Initial Study

The City of Santa Clara, as the Lead Agency, has prepared this Focused Initial Study for the 4590 Patrick Henry Residential 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 Santa Clara, California.

The project proposes to demolish an approximately 42,821-square foot light industrial building and associated surface parking lot and construct an eight-story residential building with up to 284 dwelling units. This Initial Study provides a more limited, focused discussion of environmental impacts that might reasonably be anticipated to result from implementation of the proposed project.

1.1.1 Patrick Henry Drive Specific Plan

On March 22, 2022, the City of Santa Clara certified the Patrick Henry Drive Specific Plan (PHDSP) Final Environmental Impact Report (FEIR) and approved the PHDSP project. The PHDSP was envisioned by the City to redevelop an underutilized existing office park with a high-density mixed-use community. The FEIR analyzed the two development scenarios, Scenarios "A" and "B", as shown in Table 1.1-1, and the City Council adopted the PHDSP, allowing for both development scenarios.

Table 1.1-1: Patrick Henry Drive FEIR Development Scenarios

Scenario	Residential Use (Dwelling Units)	Office (Square Feet)	Non-Residential Use (Square Feet)
Scenario A	12,000	---	310,000
Scenario B	10,300	785,000	310,000

The intent and purpose of the PHDSP FEIR was to provide program-level environmental review for the PHDSP, while allowing for specific development projects that would implement the PHDSP to tier from the FEIR to avoid redundant environmental review by focusing only on those issues that would be specific to a given project and site location. This addendum tiers from the PHDSP FEIR and provides site-specific analysis for the proposed project and assesses consistency of the project with the PHDSP.

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 Focused 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:

Tiffany Vien
1500 Warburton Avenue
Santa Clara, CA 95050
TVien@SantaClaraCA.gov

1.3 Consideration of the Focused Initial Study and Project

Following the conclusion of the public review period, the City will consider the adoption of the Focused Initial Study for the project at a regularly scheduled meeting. The City shall consider the Focused Initial Study together with any comments received during the public review process.

1.4 Notice of Determination

If the project is approved, the City 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

4590 Patrick Henry Residential Project

2.2 Lead Agency Contact

Tiffany Vien
1500 Warburton Ave
Santa Clara, CA 95050
TVien@SantaClaraCA.gov
(408) 615-2450

2.3 Project Applicant

4590 Patrick Henry LLC

2.4 Project Location

The 2.79-acre project site is located on the eastern portion of the PHDSP area at 4590 Patrick Henry Drive in the City of Santa Clara.

2.5 Assessor's Parcel Number

104-04-123

2.6 General Plan Designation and Zoning District

The proposed project has two General Plan designations: *Urban Village (UV)* and *Parks and Open Space (P/OS)*. The project is located in the *UV* Zoning District.

2.7 Project-Related Approvals, Agreements, and Permits

- Demolition Permit
- Grading Permit
- Building Permit
- Site Development Permit
- Architectural Review

Section 3.0 Project Description

3.1.1 Project Location and Existing Conditions

The approximately 2.79-acre site comprises one parcel (Assessor's Parcel Number [APN] 104-04-123) and is currently developed with a one-story light industrial building (approximately 42,821 square feet) and associated surface parking at 4590 Patrick Henry Drive in the City of Santa Clara. The project site is bound by commercial development (e.g., light industrial and offices) to the east, north, and south, and Calabazas Creek to the west.

The proposed project would redevelop a parcel on the western portion of the PHDSP area. The PHDSP area is approximately 73.59-acres and is currently developed with light industrial/commercial/office uses. Build out of the PHDSP would replace 995,541 square feet of existing buildings, including 432,216 square feet of office space, 154,467 square feet of research and development space, 120,900 square feet of industrial space, a 29,400 square foot church, a 137,075 square foot data center, and 121,483 square feet of vacant space. The PHDSP area is generally bounded by the City of Sunnyvale and Calabazas Creek to the west, the San Francisco Public Utility Commission right of way to the north, Great America Parkway to the east, and Mission College Boulevard to the south. Refer to Figures 3.0-1 to 3.0-3 for the Regional, Vicinity, and Aerial maps, respectively.

3.1.2 Proposed Development

The project would demolish the existing building on-site and construct an eight-story residential building with up to 284 dwelling units. Of the 284 units, 15 percent would be affordable (a total of 42 affordable units). The building would be up to 86 feet tall to the top of the parapet and would have a density of approximately 127 dwelling units per acre (du/ac).[1] A courtyard is proposed on the fourth floor and a roof deck and lounge is proposed on the eighth floor. Other amenities proposed by the project include a social lounge, fitness space, clubroom, yoga room, pool and pool deck. Refer to Figures 3.0-4 and 3.0-5 for the site plan and building sections, respectively.

Pursuant to the PHDSP, 22 percent of total residential developable land would be allocated for public parks or publicly accessible open spaces including not less than 11 percent of land dedicated to the City in fee title as public parkland. The project proposes approximately 24,370 square feet of public open space on the ground floor, south of the proposed building.

Access to the project site is currently provided via two full-access driveways on Patrick Henry Drive which would be removed as part of the project. A new 26-foot driveway is proposed along the southern portion of the site along Patrick Henry Drive. The driveway would provide resident and visitor access, as well as emergency vehicle access with a full 124-foot diameter turn-around at the end of the entry road.

[1] 284 dwelling units/2.24 acres (without the park) = 127 du/ac

REGIONAL MAP | FIGURE 3.0-1

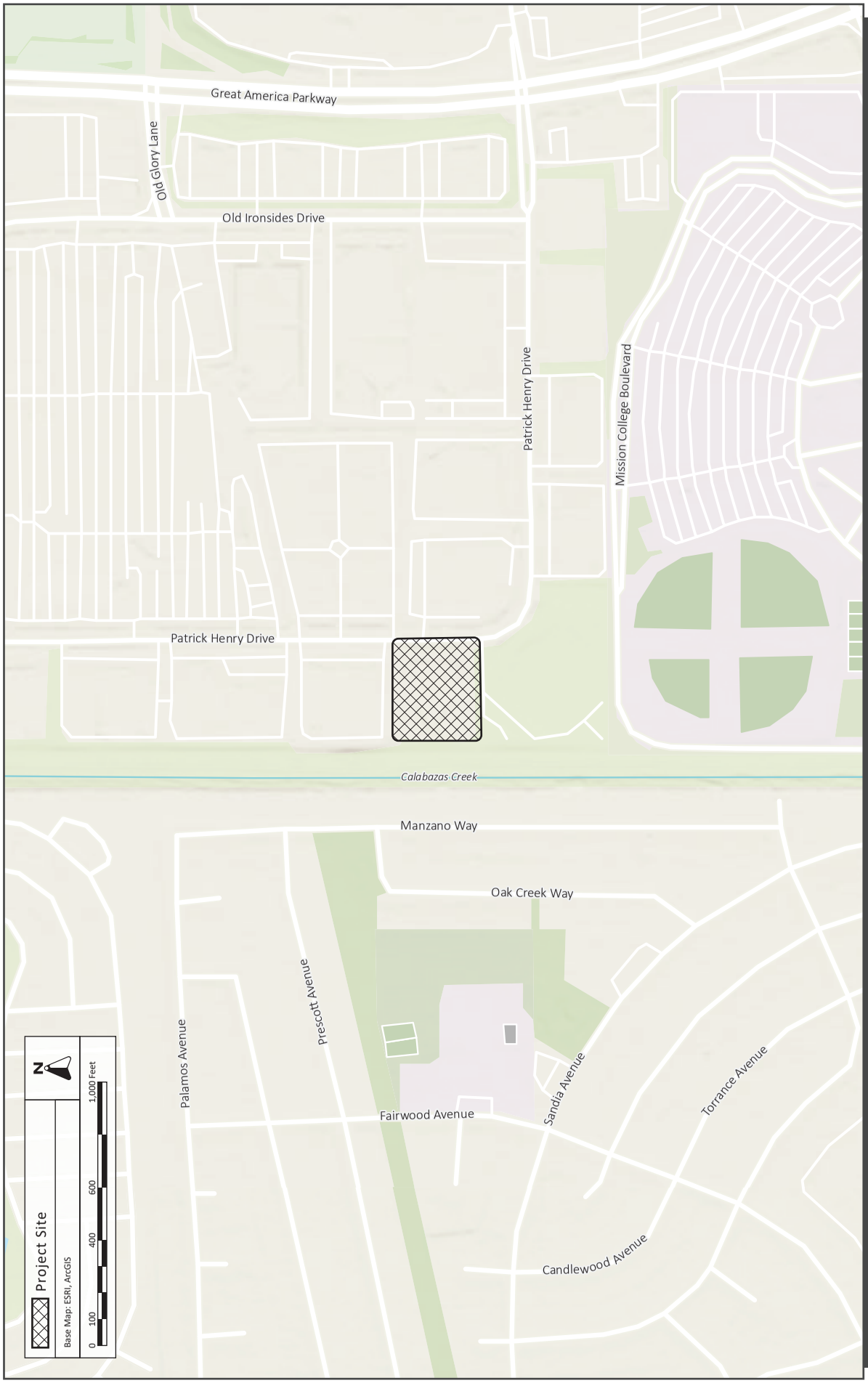
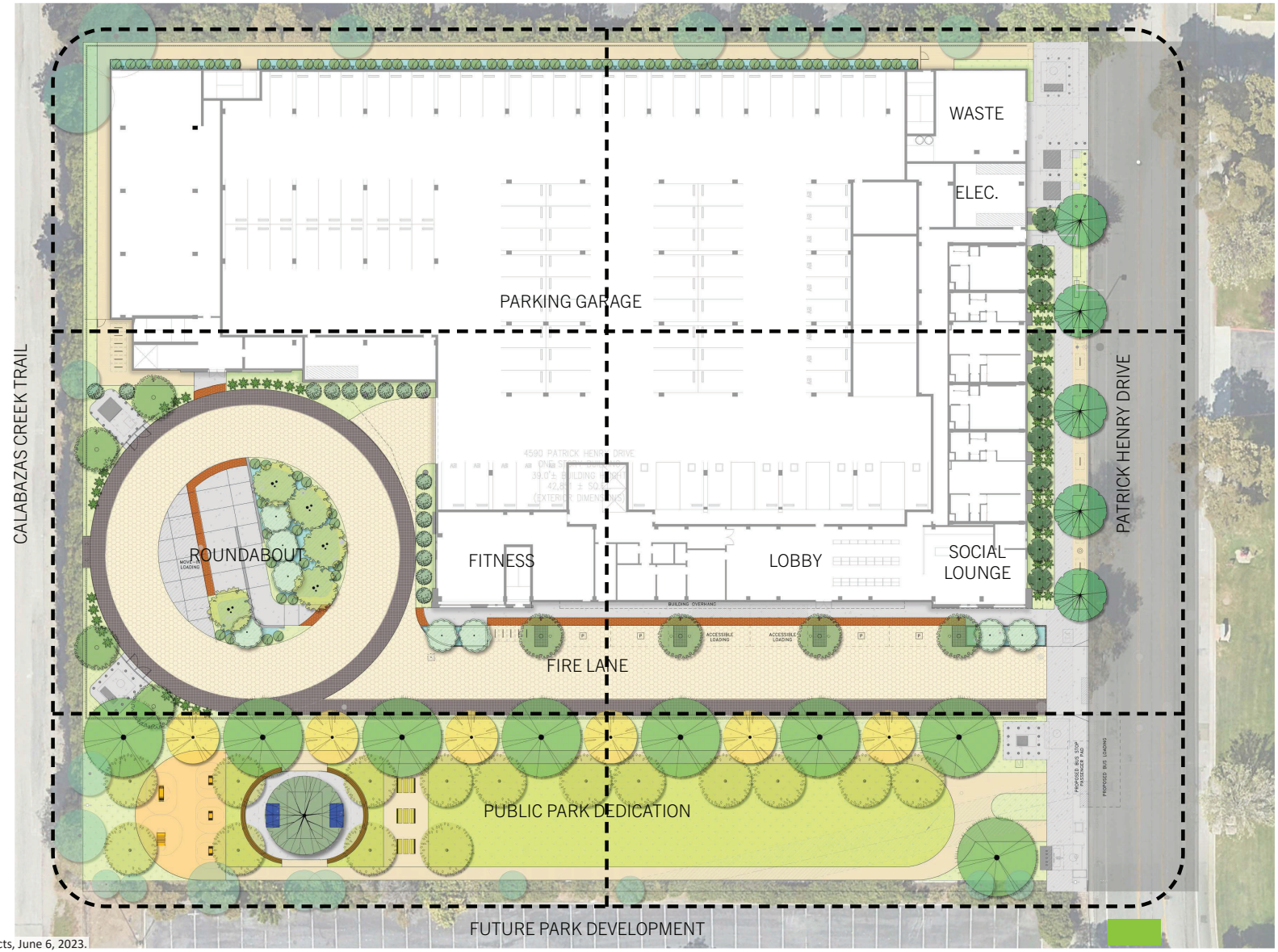


FIGURE 3.0-2

VICINITY MAP

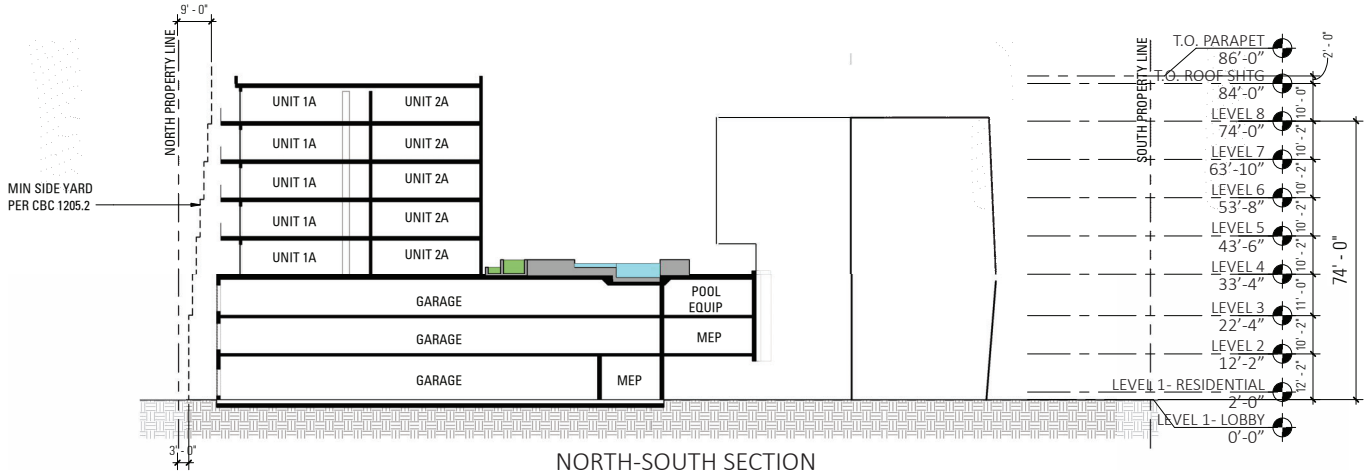
AERIAL PHOTOGRAPH AND SURROUNDING LAND USES | FIGURE 3.0-3



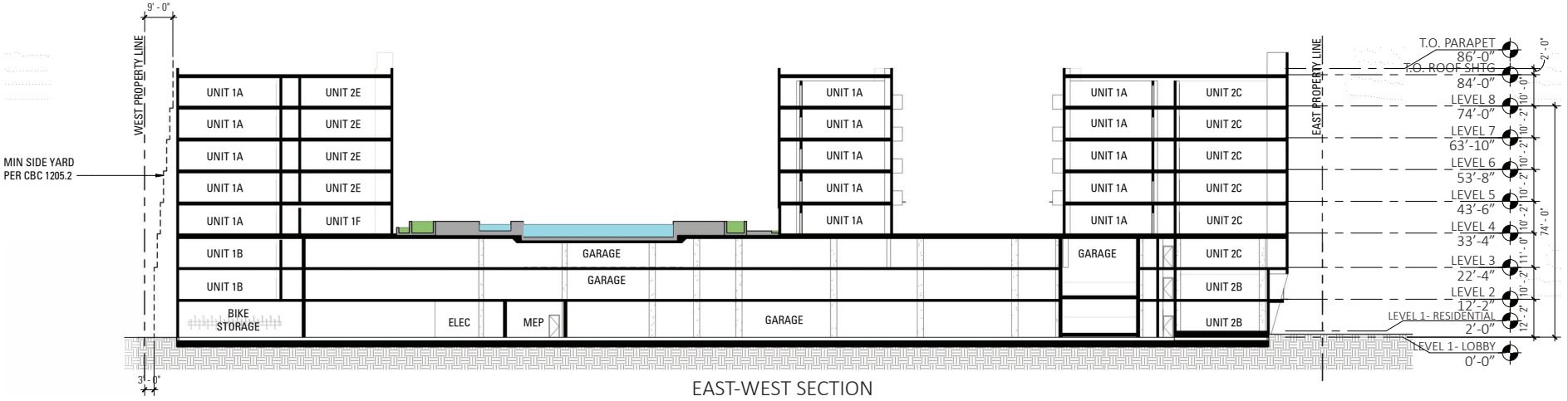
Source: BAR Architects, June 6, 2023.

SITE PLAN – GROUND FLOOR

FIGURE 3.0-4



NORTH-SOUTH SECTION



EAST-WEST SECTION

Source: BAR Architects, June 6, 2023.

BUILDING SECTIONS

FIGURE 3.0-5

The project proposes up to 324 parking spaces; of which 310 spaces would be for residents and the remaining 14 parking spaces would be guest parking. Bicycle storage would be provided on the northwestern corner of the site.

3.1.3 Green Building Measures

The proposed project would be required to be built in accordance with the California Green Building Standards Code (CALGreen), which includes design provisions intended to minimize wasteful energy consumption, and the most recent California Building Code (CBC).

3.1.4 General Plan and Zoning Designations

Most of the project site is designated and zoned as *Urban Village* while approximately 0.5 acres is classified as *Parks and Open Space (P/OS)*. The *Urban Village* Specific Plan designation and zoning district (100-149 du/ac) allows for transit-oriented, multi-family residential development at very-high densities (between five to 12 stories) within the PHDSP area. *Urban Village* developments include structured or below-grade parking and shared outdoor spaces proximate to transit. The project proposes a residential development and would have a density of 127 du/ac, consistent with the *Urban Village* designation. The project has been designed to be consistent with the General Plan and Zoning Code, with the exception of items for which a waiver or incentive has been requested pursuant to the State Density Bonus Law.

3.1.5 Transportation Demand Management Plan

Transportation Demand Management (TDM) programs are intended to reduce vehicle trips and parking demand by promoting the use of multimodal transportation options. As discussed in the PHDSP Final EIR, all future developments are required to implement a TDM program consistent with the requirements outlined in the City of Santa Clara's adopted Climate Action Plan and General Plan. Per Mitigation Measure 5-2D from the PHDSP Final EIR, projects shall achieve a minimum reduction in vehicle miles traveled (VMT) of 20 percent compared to baseline conditions (i.e., without internal or external reductions accounted for, such as geographic location, land use interconnectivity, etc.), with at least 10 percent of the reduction coming through project-specific TDM measures (e.g., transit subsidies, telecommuting options, etc.). Consistent with Mitigation Measure 5-2D, the project proposes the following TDM Measures, as shown in Table 3.0-1.

Table 3.0-1: Proposed Project-Specific TDM Measures

Program Administration, Monitoring, and Reporting
Preparation of TDM Plan
Participation in Transportation Management Association (TMA)
Information and marketing to current and perspective residents
New resident welcome materials
Information posed in prominent on-site locations
Online Kiosk /TDM information board
Designate a Transportation Coordinator
Annual Surveys
Target Trip Reduction Monitoring
Transit Elements
Operate a local shuttle program (funded by TMA members)
Bicycle Facilities
Bicycle parking
On-site bicycle facilities and pedestrian circulation
Protected bike lanes on Patrick Henry Drive
On-site Amenities
On-site amenities that reduce trips (i.e., retail, exercise rooms)
Source: Hexagon Transportation Consultants, Inc. 4590 Patrick Henry Drive Residential Development Transportation Demand Management Plan. May 22, 2023.

3.1.6 Construction

The project proposes construction hours from Monday to Friday, 7:00 AM to 5:00 PM for a period of approximately 27 months (or 572 construction workdays) starting in January 2025.

Section 4.0 Environmental Setting, Checklist, and Impact Discussion

The proposed project includes the construction of an eight-story residential building with up to 284 dwelling units. This Focused Initial Study analyzes the impacts of the proposed project and consistency with the PHDSP FEIR regarding the following environmental issues where the FEIR identified the need for site-specific, project-specific analysis. The project would have the same impacts as analyzed in the PHDSP FEIR with regards to the following environmental resource areas:

- Aesthetics
- Agricultural and Forestry Resources
- Energy
- Greenhouse Gas Emissions
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Transportation
- Wildfire

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

- Air Quality
- Biological Resources
- Cultural Resources/Tribal Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise and Vibration
- Utilities and Service Systems
- 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). In addition, because the analysis in this Focused Initial Study tiers from the PHDSP FEIR, the level of impact in the project specific analysis is presented as it relates to the findings of the PHDSP FEIR.

4.1 Resource Areas That Do Not Require Further Evaluation

As discussed on the previous page, the following resource areas are not analyzed further because they were determined to have the same impacts as analyzed in the PHDSP FEIR. A brief explanation is provided for each resource topic.

Aesthetics: The PHDSP FEIR concluded that build out of the PHDSP would not affect scenic vistas due to the lack of scenic views; the PHDSP would not impact existing visual character and quality due to design standards specific to planned developed in the PHDSP, and new developments associated with the PHDSP would not represent a substantial source of light or glare since all developments would be subject to the Santa Clara City Code Title 18 and Title 24 outdoor lighting zones. The proposed project would be consistent with the PHDSP guidelines and standards and the City of Santa Clara Community Design Guidelines. Impacts to aesthetics would not change with the implementation of the proposed project. There are no mitigation measures related to this topic area from the PHDSP FEIR applicable to the project.

Agricultural and Forestry Resources: The site does not contain agricultural or forestry resources, nor are they present in the vicinity of the site. No agricultural use, forest land, or timberland is located in the entire PHDSP area; therefore, this resource area was determined to not be applicable to the PHDSP and no future developments associated with the PHDSP would result in any impacts related to agricultural and forestry resources. There are no mitigation measures to this topic area from the PHDSP FEIR.

Energy: Construction and operation of the future developments under the PHDSP would require the use of nonrenewable and renewable energy (e.g., electricity, natural gas, diesel fuel, and gasoline fuel). Overall, the PHDSP build out would increase energy demand in Santa Clara. However, regulatory measures, such as the CBC and CALGreen, and the General Plan policies that encourage energy, water, waste, and green building measures would reduce the use of non-renewable resources to the greatest extent possible. The PHDSP FEIR determined that with the implementation of the above General Plan policies and the applicable state energy efficiency standards that significant energy conservation and savings would be realized by future developments, including the project. PHDSP Compliance with the current energy efficiency standards set forth in Title 24, CALGreen, and the City Code and policies would also ensure that all future developments comply with state and local plans for renewable energy and energy efficiency. For these reasons, the project would not result in any new or substantially more severe impacts related to energy. There are no mitigation measures to this topic area from the PHDSP FEIR.

Greenhouse Gas Emissions: The PHDSP FEIR created an interpolated efficiency metric of 1.84 metric tons of carbon dioxide equivalent per service population per year for the year 2040 to evaluate the significance of the greenhouse gas emissions (GHG) generated by build out of the PHDSP. The modeling assumed that electricity provided by Silicon Valley Power, the City's electricity service provider, would comply with Senate Bill (SB) 100's requirement of electricity sold in 2030

being procured from 60 percent renewable energy sources and specific water use estimates provided by a water supply assessment prepared for the project were used instead of default assumptions. The project is consistent with the planned PHDSP land use and is within the anticipated capacity projected in the GHG modeling. Therefore, the project's GHG emissions are accounted for in the PHDSP, and impacts would be same as the approved PHDSP. Also, all future developments facilitated by the PHDSP would comply and be designed consistent with the policies in the General Plan, which support the goals and measures in the California Air Resources Board (CARB) Scoping Plan and Plan Bay Area. For these reasons, the project would not result in any new or substantially more severe impacts related to GHG emissions. There are no mitigation measures to this topic area from the PHDSP FEIR.

Land Use and Planning: The proposed project is consistent with the allowed uses under the *UV* and *P/OS* General Plan and zoning designations. The project would not physically divide the existing community nor would the project conflict with the applicable land use requirements adopted to protect or mitigate impacts to the environment. There are no mitigation measures related to this topic area from the PHDSP FEIR.

Mineral Resources: There are no mineral resources present on-site. This resource area was determined to not be applicable to the PHDSP FEIR because of the plan's location and lack of mineral resources in the entire PHDSP area. No future developments associated with the PHDSP would impact mineral resources. There are no mitigation measures related to this topic area from the PHDSP FEIR.

Population and Housing: The proposed project is consistent with the allowed uses under the General Plan land use designation and Zoning District. The future residents of the project have been accounted for in the PHDSP FEIR. The project would not induce substantial population growth beyond what was accounted for in the PHDSP FEIR, nor would the project displace any existing housing since the project site is developed as an office park with no residences. There are no mitigation measures related to this topic area from the PHDSP FEIR.

Public Services: Build out of the PHDSP would intensify development in the plan area and generate additional residents. The increase in service population would increase the demand for fire protection, police protection, schools, parks, and other public facilities. The PHDSP FEIR determined that increase in demand for public services would be less than significant due to planned expansion of existing facilities, payment of in-lieu fees (e.g., infrastructure fee, school impact fees, parkland dedication and fees), and the future development of schools and libraries (which would be subject to their own evaluation under CEQA). Therefore, implementation of the project would not result in new or substantially adverse physical impacts associated with the provision of new or physically altered public services. There are no mitigation measures related to this topic area from the PHDSP FEIR applicable to the project.

Recreation: The project would include residential uses, which create the predominant demand for recreational facilities. Build out of the PHDSP would require a total of 64 to 86 acres of parkland to serve the increased residential population generated by the plan. All future PHDSP developments

would be required to provide parkland and/or pay park in-lieu fees per the Santa Clara City Code Chapter 17.35. The project would include approximately 24,370 square feet of public open space on the ground floor. There are no mitigation measures related to this topic area from the PHDSP FEIR.

Transportation: The PHDSP would not result in VMT impacts because it qualifies as a transit supportive project due to its proximity to public transit (Old Ironsides light rail train station and frequent Valley Transportation Authority bus service), high density, inclusion of multimodal transportation networks, transit-oriented elements, lack of excess parking, and addition of affordable housing. The build out of the PHDSP would also enhance transit services, bicycle facilities, and pedestrian facilities by adding more infrastructure that complies with City design standards. Existing emergency access points within the PHDSP area would remain and additional connectors would be constructed subject to City review; therefore, the build out of the PHDSP would not result in inadequate emergency access. Since the traffic generated by the proposed project was accounted for in the PHDSP FEIR, transportation impacts would be similar to what was already analyzed in the PHDSP FEIR. Impacts would remain less than significant. There are no mitigation measures related to this topic area from the PHDSP FEIR.

Wildfire: The PHDSP area is located in a local responsibility area (LRA) and is not classified as a very high fire hazarded severity area. This resource area was determined to not be applicable to the PHDSP FEIR because of the plan's location. No future developments associated with the PHDSP would result in any impacts related to wildfire. There are no mitigation measures related to this topic area from the PHDSP FEIR.

4.2 Air Quality

The following discussion is based upon a Construction Air Quality and Health Risk Assessment prepared by Illingworth & Rodkin, Inc. (I&R) in November 2023. The report is attached as Appendix A to this document.

4.2.1 Environmental Setting

4.2.1.1 *Background Information*

Criteria Pollutants

Air quality in the Bay Area is assessed related to six common air pollutants (referred to as criteria pollutants), including ground-level ozone (O_3), nitrogen oxides (NOx), particulate matter (PM), carbon monoxide (CO), sulfur oxides (SO_x), and lead.[2] Criteria pollutants are regulated because they result in health effects. An overview of the sources of criteria pollutants and their associated health are summarized in Table 4.2-1. The most commonly regulated criteria pollutants in the Bay Area are discussed further below.

Table 4.2-1: Health Effects of Air Pollutants

Pollutants	Sources	Primary Effects
O_3	Atmospheric reaction of organic gases with nitrogen oxides in sunlight	• Aggravation of respiratory and cardiovascular diseases • Irritation of eyes • Cardiopulmonary function impairment
Nitrogen Dioxide (NO_2)	Motor vehicle exhaust, high temperature stationary combustion, atmospheric reactions	• Aggravation of respiratory illness • Reduced visibility
Fine Particulate Matter ($PM_{2.5}$) and Coarse Particulate Matter (PM_{10})	Stationary combustion of solid fuels, construction activities, industrial processes, atmospheric chemical reactions	• Reduced lung function, especially in children • Aggravation of respiratory and cardiorespiratory diseases • Increased cough and chest discomfort • Reduced visibility
Toxic Air Contaminants (TACs)	Cars and trucks, especially diesel-fueled; industrial sources, such as chrome platers, dry cleaners and service stations, building materials and products	• Cancer • Chronic eye, lung, or skin irritation • Neurological and reproductive disorders

[2] The area has attained both state and federal ambient air quality standards for CO. The project does not include substantial new emissions of sulfur dioxide or lead. These criteria pollutants are not discussed further.

High O_3 levels are caused by the cumulative emissions of reactive organic gases (ROG) and NO_X. These precursor pollutants react under certain meteorological conditions to form high O_3 levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce O_3 levels. The highest O_3 levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources.

PM is a problematic air pollutant of the Bay Area. PM is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide emissions and localized emissions.

Toxic Air Contaminants

TACs are a broad class of compounds known to have health effects. They include but are not limited to criteria pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, diesel fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway).

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs. Diesel exhaust is a complex mixture of gases, vapors, and fine particles. Medium- and heavy-duty diesel trucks represent the bulk of DPM emissions from California highways. The majority of DPM is small enough to be inhaled into the lungs. Most inhaled particles are subsequently exhaled, but some deposit on the lung surface or are deposited in the deepest regions of the lungs (most susceptible to injury).[3] Chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by CARB.

Sensitive Receptors

Some groups of people are 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 16, the elderly over 65, 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, and elementary schools.

[3] California Air Resources Board. "Overview: Diesel Exhaust and Health." Accessed January 9, 2024. https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health

4.2.1.2 *Regulatory Framework*

Federal and State

Clean Air Act

At the federal level, the United States Environmental Protection Agency (EPA) is responsible for overseeing implementation of the Clean Air Act and its subsequent amendments. The federal Clean Air Act requires the EPA to set national ambient air quality standards for the six common criteria pollutants (discussed previously), including PM, O_3, CO, SO_x, NO_x, and lead.

CARB is the state agency that regulates mobile sources throughout the state and oversees implementation of the state air quality laws and regulations, including the California Clean Air Act. The EPA and the CARB have adopted ambient air quality standards establishing permissible levels of these pollutants to protect public health and the climate. Violations of ambient air quality standards are based on air pollutant monitoring data and are determined for each air pollutant. Attainment status for a pollutant means that a given air district meets the standard set by the EPA and/or CARB.

Risk Reduction Plan

To address the issue of diesel emissions in the state, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. In addition to requiring more stringent emission standards for new on-road and off-road mobile sources and stationary diesel-fueled engines to reduce PM emissions by 90 percent, the plan involves application of emission control strategies to existing diesel vehicles and equipment to reduce DPM (in addition to other pollutants). Implementation of this plan, in conjunction with stringent federal and CARB adopted emission limits for diesel fueled vehicles and equipment (including off-road equipment), will significantly reduce emissions of DPM and NO_X.

Regional

2017 Clean Air Plan

The Bay Area Air Quality Management District (BAAQMD) is the agency primarily responsible for assuring that the federal and state ambient air quality standards are maintained in the San Francisco Bay Area. Regional air quality management districts, such as BAAQMD, must prepare air quality plans specifying how state and federal air quality standards will be met. BAAQMD's most recently adopted plan is the Bay Area 2017 Clean Air Plan (2017 CAP). The 2017 CAP focuses on two related BAAQMD goals: protecting public health and protecting the climate. To protect public health, the 2017 CAP describes how BAAQMD will continue its progress toward attaining state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 CAP 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.[4]

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. Jurisdictions in the San Francisco Bay Area Air Basin utilize the thresholds and methodology for assessing air quality impacts developed by BAAQMD within their CEQA Air Quality Guidelines. The guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

Local

City of Santa Clara 2010-2035 General Plan

General Plan policies related to air quality include, but are not limited to, the following listed below.

Policies	Description
5.8.5-P1	Require new development and City employees to implement transportation demand management programs that can include site-design measures, including preferred carpool and vanpool parking, enhanced pedestrian access, bicycle storage and recreational facilities.
5.10.2-P6	Require "Best Management Practices" for construction dust abatement.
5.10.5-P34	Implement minimum setbacks of 500 feet from roadways with average daily trips of 100,000 or more and 100 feet from railroad tracks for new residential or other uses with sensitive receptors, unless a project-specific study identifies measures, such as site design, tiered landscaping, air filtration systems, and window design, to reduce exposure, demonstrating that the potential risks can be reduced to acceptable levels.
5.10.5-P35	Establish minimum buffers between odor sources and new residential or other uses with sensitive receptors, consistent with BAAQMD guidelines, unless a project-specific study demonstrates that these risks can be reduced to acceptable levels.

4.2.1.3 *Existing Conditions*

Air quality is determined by the concentration of various pollutants in the atmosphere. The amount of a given pollutant in the atmosphere is determined by the amount of pollutants released within an area, transport of pollutants to and from surrounding areas, local and regional meteorological conditions, and the surrounding topography of the air basin.

BAAQMD is responsible for assuring that the national and state ambient air quality standards are attained and maintained in the Bay Area. Air quality studies generally focus on four criteria pollutants that are most commonly measured and regulated: CO, O_3, NO_2, and PM_{10} and $PM_{2.5}$.

[4] Bay Area Air Quality Management District. *Final 2017 Clean Air Plan*. April 19, 2017. Accessed January 19, 2024. http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans.

These pollutants are considered criteria pollutants by the U.S. Environmental Protection Agency (U.S. EPA) and CARB as they can result in health effects such as respiratory impairment and heart/lung disease symptoms. Table 4.2-2 shows violations of state and federal standards at the monitoring station in San José at 158 East Jackson Street (the nearest monitoring station to the site) during the 2017-2019 period (the most recent years for which data is available).

Table 4.2-2: Ambient Air Quality Standards Violations and Highest Concentrations

Pollutant	Standard	Days Exceeding Standard		
		2017	2018	2019
San José Station				
Ozone	State 1-hour	3	0	1
	Federal 8-hour	4	0	2
Carbon Monoxide	Federal 8-hour	0	0	0
	State 8-hour	0	0	0
Nitrogen Dioxide	State 1-hour	0	0	0
PM_{10}	Federal 24-hour	0	0	0
	State 24-hour	6	4	4
$PM_{2.5}$	Federal 24-hour	6	15	0

Source: Bay Area Air Quality Management District. "Annual Bay Area Air Quality Summaries." Accessed January 11, 2024. https://www.baaqmd.gov/about-air-quality/air-quality-measurement/air-quality-summaries.

The Bay Area is considered non-attainment for ground-level O_3 and $PM_{2.5}$ under both the federal Clean Air Act and state Clean Air Act. The area is also considered non-attainment for PM_{10} under the state act, but not the federal act. The Bay Area is considered in attainment or unclassified for all other pollutants.

The nearest sensitive receptors are the single-family residences located approximately 185 feet west of the project site. In addition, Fairwood Explorer Elementary School is located approximately 915 feet west of the site.

4.2.2 Impact Discussion

	New Potentially Significant Impact	New Less than Significant with Mitigation Incorporated	New Less than Significant Impact	Same Impact as Approved Project	Less Impact than Approved Project
Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	☐	☒
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☐	☒
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒	☐

Note: Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the determinations.

4.2.2.1 *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 Santa Clara 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 4.2-3 below.

Table 4.2-3: BAAQMD Air Quality Significance Thresholds

Pollutant	Construction Thresholds	Operation Thresholds	
	Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)	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)	

4.2.2.2 *Findings of the PHDSP FEIR*

2017 CAP

The PHDSP includes standards and guidelines that are consistent with the 2017 CAP and would not result in an increase in trip generation that exceeds the projected service population increase. Therefore, the PHDSP FEIR concluded that build out of the PHDSP would not conflict with implementation of the 2017 CAP.

Construction Criteria Pollutant Emissions

Future development under the PHDSP would result in short-term construction-related criteria air pollutant emissions that would have the potential to have an adverse effect on air quality. In addition, fugitive dust emissions (PM_{10} and $PM_{2.5}$) would also be generated during earth disturbing activities (e.g., site preparation, grading, excavation). Specific project details within the PHDSP were not known at the time the PHDSP FEIR was prepared; therefore, it is plausible and probable that one or more projects developed under implementation of the PHDSP could have the potential to exceed one or more of the BAAQMD's construction criteria air pollutant threshold of significance. The following mitigation measures were included in the PHDSP FEIR to reduce construction criteria pollutants and fugitive dust emissions to a less than significant level.

Mitigation Measure 5-2A: Implement BAAQMD Basic Construction Mitigation Measures. The City shall require new development projects occurring under implementation of the Patrick Henry Drive Specific Plan to implement the BAAQMD's Basic Control Mitigation Measures to address fugitive dust emissions that would occur during earthmoving activities associated with project construction. These measures include:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All 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.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure 5-2B: Require a Project-level Construction Assessment for New Development Proposed Under Implementation of the Patrick Henry Drive Specific Plan. The City shall require applicants to submit a quantitative project-level construction criteria air pollutant and toxic air contaminant emissions analysis for future development proposed under implementation of the Patrick Henry Drive Specific Plan. The estimated construction criteria air pollutant and toxic air contaminant emissions shall be compared against the thresholds of significance maintained by the Bay Area Air Quality Management District (BAAQMD) and, if emissions are shown to be above

BAAQMD thresholds, the City shall require the implementation of mitigation to reduce emissions below BAAQMD thresholds or to the maximum extent feasible. Mitigation measures to reduce emissions could include, but are not limited to:

- Selection of specific construction equipment (e.g., specialized pieces of equipment with smaller engines or equipment that will be more efficient and reduce engine runtime);
- Requiring equipment to use alternative fuel sources (e.g., electric-powered and liquefied or compressed natural gas), meet cleaner emission standards (e.g., U.S. EPA Tier IV Final emissions standards for equipment greater than 50- horsepower), and/or utilizing added exhaust devices (e.g., Level 3 Diesel Particular Filter);
- Minimizing the idling time of diesel-powered construction equipment to two minutes;
- Requiring that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM;
- Requiring all contractors use equipment that meets CARB's most recent certification standard for off-road heavy-duty diesel engines; and
- Application of Low-VOC[5] paints to interior and/or exterior surfaces (e.g., paints that meet SCAQMD Rule 1113 "Low-VOC" or "Super-Compliant" requirements).

Even with implementation of mitigation measures Mitigation Measures 5-2A and 5-2B, the FEIR concluded that impacts related to construction criteria pollutants and TAC emissions from the build out of the PHDSP would be significant and unavoidable since it cannot be guaranteed that construction emissions from individual projects would be below the BAAQMD thresholds.

Operational Criteria Pollutant Emissions

The PHDSP FEIR concluded that full build out of the PHDSP would result in long-term area and mobile source emissions from operation of subsequent development. Build out of the PHDSP (under both scenarios) would result in the exceedance of the BAAQMD significance threshold for operational ROGs and NO_x emissions. The following mitigation measures were included in the PHDSP FEIR to reduce operational ROG and NO_x emissions impacts.

Mitigation Measure 5-2C: Use Low- and Super Compliant VOC Architectural Coatings. The City shall require the use of Low- and Super-Compliant VOC Architectural Coatings in maintaining buildings in the Patrick Henry Drive Specific Plan Area through Covenants Conditions and Restrictions (CC&Rs) and Ground Lease. Developed parcels shall require within their CC&Rs and/or ground

[5] VOCs is volatile organic compounds.

leases requirements for all future interior spaces to be repainted with architectural coatings that meet the "Low-VOC" or "Super-Compliant" requirements. "Low-VOC" refers to paints that meet the more stringent regulatory limits of South Coast Air Quality Management District AQMD Rule 1113. "Super-Compliant" refers to paints that have been reformulated to levels well below the "Low-VOC" limits.

Mitigation Measure 5-2D: Implement TDM Program. Proposed residential, retail, commercial, and office land uses within the Patrick Henry Drive Specific Plan Area shall prepare and implement Transportation Demand Management (TDM) programs consistent with the requirements outlined Section 7.3 of the Patrick Henry Drive Specific Plan. Projects shall achieve a minimum reduction in vehicle miles traveled (VMT) of 20 percent compared to baseline conditions (i.e., without internal or external reductions accounted for, such as geographic location, land use interconnectivity, etc.), with at least 10 percent of the reduction coming through project specific TDM measures (e.g., transit subsidies, telecommuting options, etc.).

Even with implementation of the identified mitigation measures, the PHDSP FEIR concluded that operational ROG and NO_x emissions from implementation of the PHDSP would remain significant and unavoidable.

Construction Toxic Air Contaminants

The PHDSP FEIR concluded that construction TAC emissions associated with one or more projects developed under the PHDSP could expose sensitive receptors to substantial pollutant concentrations. Future projects proposed in the PHDSP area would be required to comply with Mitigation Measure 5-2B which requires preparation of project-specific air quality assessments to evaluate TAC construction emissions. Because site-specific construction schedules and equipment were not known at the time, the PHDSP FEIR concluded that it could not be definitively known that all development projects occurring under implementation of the PHDSP would be able to reduce potential TAC emissions to levels below BAAQMD thresholds; therefore, even with implementation of the mitigation, the impact would be significant and unavoidable.

Operational Toxic Air Contaminants

The land uses envisioned under implementation the PHDSP (i.e., residential, commercial, retail, and community serving land uses) would not include sources of TAC emissions such that significant exposures could occur. Under the PHDSP's 2040 cumulative growth conditions, it was estimated that up to 12,361 vehicles would move through the Great America Parkway and Mission College Boulevard intersection during the PM peak hour.

Since it would not exceed BAAQMD's threshold of 44,000 vehicles per hour, the PHDSP FEIR concluded that implementation of the PHDSP would not result in a CO hotspot[6] that could exceed state or federal air quality standards. Therefore, implementation of the PHDSP would not exacerbate or contribute to significant health risks at or in proximity of the PHDSP area, nor would it increase the number of state, federal, or national ambient air quality standard exceedances.

Odors

According to the BAAQMD's CEQA Air Quality Guidelines, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). Implementation of the PHDSP FEIR would not redevelop the area with land uses associated with odor complaints; therefore, no impact would occur.

Disclosure of Potential Existing Health Risks for New Residential Receptors in Plan Area

Per the *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015) ruling, projects are not required to analyze how existing conditions might impact a project's future users or residents. The following discussion is included for informational purposes only because the City of Santa Clara has policies that address existing air quality conditions affecting a proposed project.

General Plan Policy 5.10.10-P34 requires projects to implement minimum setbacks of 500 feet from roadways with average daily trips of 100,000 or more and 100 feet from railroad tracks for new residential or other uses with sensitive receptors, unless a project-specific study identifies measures, such as site design, tiered landscaping, air filtration systems, and window design, to reduce exposure, demonstrating that the potential risks can be reduced to acceptable levels.

No specific project was proposed at the time the PHDSP FEIR was prepared nor is the PHDSP area within 100 feet of any railroad lines. In addition, Great America Parkway is estimated to have approximately 96,860 average daily trips which is less than the City's 100,000 average daily trip criterion. Therefore, a project-specific study assessing potential health risks associated with existing sources in the area was not required.

[6] BAAQMD developed a screening-level analysis for CO hotspots in 2010 which finds that projects that are consistent with the applicable congestion management program, and that do not cause traffic volumes at affected intersections to increase to more than 44,000 vehicles per hour, would not result in a CO hotspot that could exceed state or federal air quality standards.

4.2.2.3 *Impacts Resulting from the Proposed Project*

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

2017 Clean Air Plan

As discussed in the PHSDP FEIR, projects within the PHDSP area would be required to comply with the requirements outlined in the City's Climate Action Plan (i.e., TDM requirement) and General Plan. The project would be required to achieve a minimum VMT reduction of 20 percent, including 10 percent through TDM measures (refer to Table 3.0-1 or Table 4.2-5 for the list of proposed project-specific TDM measures). The proposed project would be required to incorporate the standards and guidelines included in the PHDSP which are consistent with the 2017 CAP and, as a result, the project would not result in any new impacts to the 2017 CAP or increase the severity of the previously identified impact. **[Same Impact as Approved Project (Less Than Significant Impact)]**

Construction Criteria Pollutant Emissions

Consistent with Mitigation Measure 5-2B, a project-level construction assessment was prepared. The California Emissions Estimator model (CalEEMod) Version 2022 was used to estimate annual emissions from on-site construction activities, construction vehicle trips, and evaporative emissions. The proposed land uses of the project were input into CalEEMod, which included 284 dwelling units entered as "Apartments Mid-Rise" and 327 parking spaces entered as "Unenclosed Parking with Elevator". The construction inputs (e.g., equipment quantities, average hours per day, total number of workdays, and schedule) were provided by the applicant. The construction schedule assumes that the project would be built over a period of approximately 27 months, or 572 construction workdays. Refer to Appendix A for more information regarding assumptions and CalEEMod inputs.

Table 4.2-4 provides a summary of the estimated annualized emissions from construction of the project (without mitigation incorporated).

Table 4.2-4: Construction Period Emissions

Year	ROG	NO_x	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Construction Emissions Per Year (tons)				
2025	0.07	0.94	0.03	0.03
2026	0.66	0.98	0.03	0.03
2027	<1.60*	0.32	0.01	0.01
Annualized Daily Construction Emissions (pounds/day)				
2025 (243 construction workdays)	0.54	7.75	0.23	0.21
2026 (261 construction workdays)	5.04	7.48	0.23	0.21
2027 (68 construction workdays)	<47.15*	9.48	0.24	0.22

Year	ROG	NO_x	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
BAAQMD Threshold (pounds/day)	*54*	*54*	*82*	*54*
Exceed Threshold?	**No**	**No**	**No**	**No**

Source: Illingworth & Rodkin, Inc. *4590 Patrick Henry Drive Construction Air Quality and Health Risk Assessment.* November 7, 2023.

Notes: ROG - reactive organic gases

NO_x - nitrogen dioxide

PM_{10} - diameter of 10 micrometers or less

$PM_{2.5}$ - diameter of 2.5 micrometers or less

* These are unmitigated values. Implementation of Mitigation Measure 5-2C would reduce ROG from construction coatings below these levels. Note that the majority of construction ROG emissions comes from the Building Interior/Architectural Coating phase, which is almost all in the year 2027. Because there are so few construction workdays in 2027, the higher number of emissions are divided over the lower number of construction days, which yields a higher daily annualized emissions for ROG.

As shown in the table above, project construction period emissions would not exceed BAAQMD significance thresholds for ROG, NO_x, PM_{10}, and $PM_{2.5}$. As a result, the project would have a less than significant criteria pollutant emissions impact associated with project construction and would not conflict with or obstruct implementation of the 2017 CAP. Implementation of the project would not result in any new impacts or increase the severity of the previously identified construction criteria pollutant air quality impacts. **[Less Impact than Approved Project (Significant Unavoidable Impact with Mitigation Incorporated)]**

Operational Criteria Pollutant Emissions

As mentioned above, build out of the PHDSP would exceed the BAAQMD significance thresholds for operational ROG and NO_x emissions. Per the PHDSP FEIR, the proposed project would be required to comply with Mitigation Measure 5-2C which requires the use of Low- and Super-Compliant VOC Architectural Coatings in buildings to reduce ROG emissions. While the PHDSP area is located within 0.5 miles of the Old Ironsides Light Rail Station, mobile source emissions would remain as a substantial source of emissions. To reduce ROG, NO_x, and PM emissions from mobile sources, future projects proposed under the PHDSP (including the proposed project) would be required to implement a TDM plan consistent with the requirements outlined in Section 7.3 of the PHDSP and the City's Climate Action Plan. Consistent with Mitigation Measure 5-2D of the PHDSP FEIR, the project proposes the following TDM measures.

Table 4.2-5: Proposed Project-Specific TDM Measures

Program Administration, Monitoring, and Reporting
Preparation of TDM Plan
Participation in Transportation Management Association (TMA)
Information and marketing to current and perspective residents
New resident welcome materials
Information posed in prominent on-site locations
Online Kiosk /TDM information board
Designate a Transportation Coordinator
Annual Surveys
Target Trip Reduction Monitoring
Transit Elements
Operate a local shuttle program (funded by TMA members)
Bicycle Facilities
Bicycle parking
On-site bicycle facilities and pedestrian circulation
Protected bike lanes on Patrick Henry Drive
On-site Amenities
On-site amenities that reduce trips (i.e., retail, exercise rooms)
Source: Hexagon Transportation Consultants, Inc. *4590 Patrick Henry Drive Residential Development Transportation Demand Management Plan*. May 22, 2023.

With implementation of the TDM plan and use of Low- and Super-Compliant VOC Architectural Coatings, the project would have a less than significant impact on operational ROG and NO_x emissions. While full build out of the PHDSP would have a significant and unavoidable operational criteria pollutant emissions impact, the proposed project is consistent with PHDSP FEIR and would not result in any new impacts or substantially increase the severity of the previously identified operational criteria pollutant air quality impacts. **[Less Impact than Approved Project (Significant Unavoidable Impact with Mitigation Incorporated)]**

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

Per the BAAQMD CEQA Air Quality Guidelines, air pollution by its nature is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. If a project exceeds the identified significance thresholds, its emissions would be

cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

The PHDSP FEIR concluded that growth allowed under implementation of the PHDSP would be substantially more than what was accounted for in the City's General Plan and could result in a cumulatively considerable net increase in pollutants for which the region is in nonattainment. As discussed under checklist question a, construction period criteria pollutant emissions associated with the project would not exceed the BAAQMD significance thresholds; therefore, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is in nonattainment. The project would be required to comply with Mitigation Measures 5-2C and 5-2D to reduce operational criteria pollutant emissions and, as a result, implementation of the project would not result in any new impacts or substantially increase the severity of the previously identified criteria pollutant air quality impacts. **[Less Impact than Approved Project (Significant Unavoidable Impact with Mitigation Incorporated)]**

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

Dust Generation

Construction activities on-site would temporarily generate dust and equipment exhaust that would affect nearby sensitive receptors. The project would be required to implement Mitigation Measure 5-2A which requires new development in the PHDSP (including the proposed project) to implement BAAQMD Basic Control Mitigation Measures to reduce dust emissions. With implementation of these measures, fugitive dust and other particulate matter generated during construction would be reduced to a less than significant level. Therefore, the project would not result in any new dust impacts or substantially increase the severity of the previously identified impacts. **[Same Impact as Approved Project (Less Than Significant Impact with Mitigation Incorporated)]**

Construction Toxic Air Contaminants

Consistent with Mitigation Measure 5-2B, a construction health risk assessment was prepared to analyze health risk impacts from TACs and $PM_{2.5}$. The CalEEMod model was used which provides total annual PM_{10} exhaust emissions (DPM) for the off-road construction equipment and on-road vehicles. The U.S. EPA AERMOD dispersion model was used to predict construction-related DPM and $PM_{2.5}$ concentrations at existing residences in the vicinity of the project area (refer to Appendix A of this document for more information).

The maximum exposed individual (MEI) was identified at a single-family residence located 450 feet northwest of the project site (refer to Figure 4.2-1:).[7] Off-site sensitive receptors are designated in green and the MEI from construction is designated in red. The MEI would have a cancer risk of 2.76 cases per one million for infants and 0.05 cases per one million for adults. The maximum-annual $PM_{2.5}$ concentration would be 0.02 micrograms per cubic meter ($\mu g/m^3$) and the maximum hazard index (HI) concentration would be less than 0.01. Implementation of the project would not exceed BAAQMD significance thresholds of 10 cases per one million for cancer risk, 0.3 $\mu g/m^3$ for annual $PM_{2.5}$, and HI of 1.0, respectively (without mitigation).

In addition, Fairwood Explorer Elementary School is located approximately 915 feet west of the site (refer to Figure 4.2-1: for the location of the school receptor). The students attending the school would be exposed to a cancer risk of 0.06 cases per one million, an annual $PM_{2.5}$ of less than 0.01 $\mu g/m^3$, and a HI of less than 0.01. The BAAQMD significance thresholds for cancer risk, annual $PM_{2.5}$, and HI would not be exceeded at the school. Therefore, the impact from the proposed project to nearby sensitive receptors would be less than significant, and implementation of the project would not result in any new TAC impacts or substantially increase the severity of the previously identified impact. **[Less Impact than Approved Project (Significant Unavoidable Impact with Mitigation Incorporated)]**

Operational Toxic Air Contaminants

Build out of the PHDSP was found to not exceed BAAQMD's threshold of 44,000 vehicles per hour. Since the proposed project is consistent with the uses allowed under the PHDSP, implementation of the project would not result in any new impacts or substantially increase the severity of the previously identified operational TAC impact. **[Same Impact as Approved Project (Less Than Significant Impact)]**

Criteria Pollutant Emissions

In a 2018 decision (*Sierra Club v. County of Fresno*), the State Supreme Court determined that CEQA requires that when a project's criteria air pollutant emissions would exceed applicable thresholds and contribute a cumulatively considerable contribution to a significant cumulative regional criteria pollutant impact, the potential for the project's emissions to affect human health in the air basin must be disclosed. State and federal ambient air quality standards are health-based standards and exceedances of those standards result in continued unhealthy levels of air pollutants. As stated in the 2017 BAAQMD CEQA Air Quality Guidelines, air pollution by its nature is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. In developing thresholds of significance for air pollutants,

[7] There are sensitive receptors located approximately 185 feet west of the site, however, the MEI was identified at a residence located approximately 450 feet northwest of the site due to the prevailing wind direction. While the primary wind direction comes from the north/northwest, there are occasionally wind currents coming from the south/southeast. There is little to no wind coming from the east; therefore, the receptors to the west of the site would not be exposed to the same level of project emissions as the residences to the northwest. Divine, Casey. Illingworth & Rodkin, Inc. Personal Communication. March 12, 2024.

Source: Illingworth & Rodkin, Inc., November 7, 2023.

LOCATIONS OF OFF-SITE RECEPTORS AND PROJECT MEI | FIGURE 4.2-1

BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project has a less than significant impact for criteria pollutants, it is assumed to have no adverse health effect.

As discussed under checklist questions a and b, the project would have a less than significant construction criteria pollutant impact and the project would be required to comply with Mitigation Measures 5-2C and 5-2D from the PHDSP FEIR to reduce operational criteria pollutant emissions. With implementation of the identified measures from the PHDSP FEIR, the proposed project would not result in any new impacts or substantially increase the severity of the previously identified criteria pollutant air quality impacts. **[Less Impact than Approved Project (Significant Unavoidable Impact with Mitigation Incorporated)]**

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

The project would generate localized emissions of diesel exhaust during construction equipment operation and truck activity. While the odor emissions may be noticeable from time to time by adjacent receptors, the odors would be localized and temporary and are not likely to affect people off-site.

It is anticipated that the proposed project would use cleaning supplies and maintenance chemicals which would generate temporary odors in the areas of use. The odors from cleaning supplies and maintenance chemicals would be similar to the odors already generated by the surrounding land uses (e.g., residential and commercial development). Therefore, the proposed project would not generate objectionable odors that would affect a substantial number of people off-site nor would the project result in long-term or short-term odor impacts. Implementation of the project would not result in any new odor impacts or substantially increase the severity of the previously identified impacts. **[Same Impact as Approved Project (No Impact)]**

4.2.3 Non-CEQA Effects

Per *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal. 4th 369 *(BIA v. BAAQMD)*, effects of the environment on the project are not considered CEQA impacts. The following discussion is included for informational purposes only because the City of Santa Clara has policies that address existing air quality conditions affecting a proposed project.

A health risk assessment was prepared to assess impacts from existing TAC sources on future on-site residences. BAAQMD recommends that projects be evaluated for community health risk when they are located within 1,000 feet of mobile sources of TACs (e.g., rail lines, highways, and busy surface streets) and permitted stationary sources of TACs.

There are no stationary sources within 1,000 feet of the site that would have the potential to affect the MEI; therefore, stationary sources are not discussed further. The project area is located near

arterial roadways. Screening-level cancer risks, $PM_{2.5}$ concentrations, and HI associated with traffic on the local roadways were estimated using BAAQMD's geographic information systems (GIS) data files. In addition to existing mobile TAC sources, one project has been approved within the PHDSP area (i.e., 3000 Patrick Henry Drive). For the purposes of this analysis, it was conservatively assumed the entire construction period from the proposed project would overlap with the 3000 Patrick Henry Drive construction schedule. This would provide an overestimate of the health risk and hazard levels because it assumes that maximum impacts from the nearby development occurs concurrently with the proposed project at the off-site MEI. Table 4.2-6Table 4.2-2 summarizes the cumulative health risks at the MEI without mitigation.

Table 4.2-6: Cumulative Impacts at MEI (Unmitigated)

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Impacts			
Project Construction	2.76 (infant)	0.02	<0.01
BAAQMD Single-Source Threshold	*10*	*0.3*	*1.0*
Exceed Threshold?	**No**	**No**	**No**
Cumulative Impacts			
Cumulative Roadways	7.29	0.22	0.03
3000 Patrick Henry Drive (mitigated)	<10.00	<0.30	<1.00
Cumulative Total	<20.05	<0.54	<1.04
BAAQMD Cumulative-Source Threshold	*100*	*0.8*	*10.0*
Exceed Threshold?	**No**	**No**	**No**

Source: Illingworth & Rodkin, Inc. *4590 Patrick Henry Drive Construction Air Quality and Health Risk Assessment.* November 7, 2023.

As shown in the table above, the cumulative-source thresholds for cancer risk, annual $PM_{2.5}$, and HI would not be exceeded.

4.3 Biological Resources

The following discussion is based on a Preliminary Arborist Report prepared by HortScience | Bartlett Consulting in June 2023. The discussion is also based upon a Biological Resources Report prepared by H.T. Harvey & Associates (HTH) in October 2023. Copies of these reports are provided in Appendices B and C, respectively.

4.3.1 Environmental Setting

4.3.1.1 *Regulatory Framework*

Federal and State

Endangered Species Act

Individual plant and animal species listed as rare, threatened, or endangered under state and federal Endangered Species Acts are considered special-status species. Federal and state endangered species legislation has provided the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Permits may be required from both the USFWS and CDFW if activities associated with a proposed project would result in the take of a species listed as threatened or endangered. To "take" a listed species, as defined by the State of California, is "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" these species. Take is more broadly defined by the federal Endangered Species Act to include harm of a listed species.

In addition to species listed under state and federal Endangered Species Acts, Sections 15380(b) and (c) of the CEQA Guidelines provide that all potential rare or sensitive species, or habitats capable of supporting rare species, must be considered as part of the environmental review process. These may include plant species listed by the California Native Plant Society and CDFW-listed Species of Special Concern.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) prohibits killing, capture, possession, or trade of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. Hunting and poaching are also prohibited. This includes direct and indirect acts, except for harassment and habitat modification, which are not included unless they result in direct loss of birds, nests, or eggs. The CDFW also protects migratory and nesting birds under California Fish and Game Code Sections 3503, 3503.5, and 3800. The CDFW defines taking as causing abandonment and/or loss of reproductive efforts through disturbance.

Sensitive Habitat Regulations

Wetland and riparian habitats are considered sensitive habitats under CEQA. They are also afforded protection under applicable federal, state, and local regulations, and are generally subject to regulation by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), CDFW, and/or the USFWS under provisions of the federal Clean Water Act (e.g., Sections 303, 304, 404) and State of California Porter-Cologne Water Quality Control Act.

Fish and Game Code Section 1602

Streambeds and banks, as well as associated riparian habitat, are regulated by the CDFW per Section 1602 of the Fish and Game Code. Work within the bed or banks of a stream or the adjacent riparian habitat requires a Streambed Alteration Agreement from the CDFW.

Local

City of Santa Clara Tree Protection Policies

Tree protection is provided under Chapter 12.35 of the City Code and under General Plan Policies 5.3.1-P10, 5.10.1-P3, and 5.10.1-P4 and Appendix 8.10. These policies detail protections for street trees and preservation of all City-designated heritage trees.

City of Santa Clara 2010-2035 General Plan

General Plan policies related to biological resources include, but are not limited to, the following listed below.

Policies	Description
5.3.1-P10	Provide opportunities for increased landscaping and trees in the community, including requirements for new development to provide street trees and a minimum 2:1 on- or off-site replacement for trees removed as part of the proposal to help increase the urban forest and minimize the heat island effect.
5.10.1-P1	Require environmental review prior to approval of any development with the potential to degrade the habitat of any threatened or endangered species.
5.10.1-P3	Require preservation of all City-designated heritage trees listed in the Heritage Tree Appendix 8.10 of the General Plan.
5.10.1-P4	Protect all healthy cedars, redwoods, oaks, olives, bay laurel, and pepper trees of any size, and all other trees over 36 inches in circumference measured from 48 inches above-grade on private and public property, as well as in the public right-of-way.

4.3.1.2 *Existing Conditions*

The project site is in an urbanized area surrounded by light industrial and office development and associated pavement (e.g., roads, driveways, and surface parking lots). There is no vacant land within the PHDSP area and there is currently no native vegetation within the entire plan area.

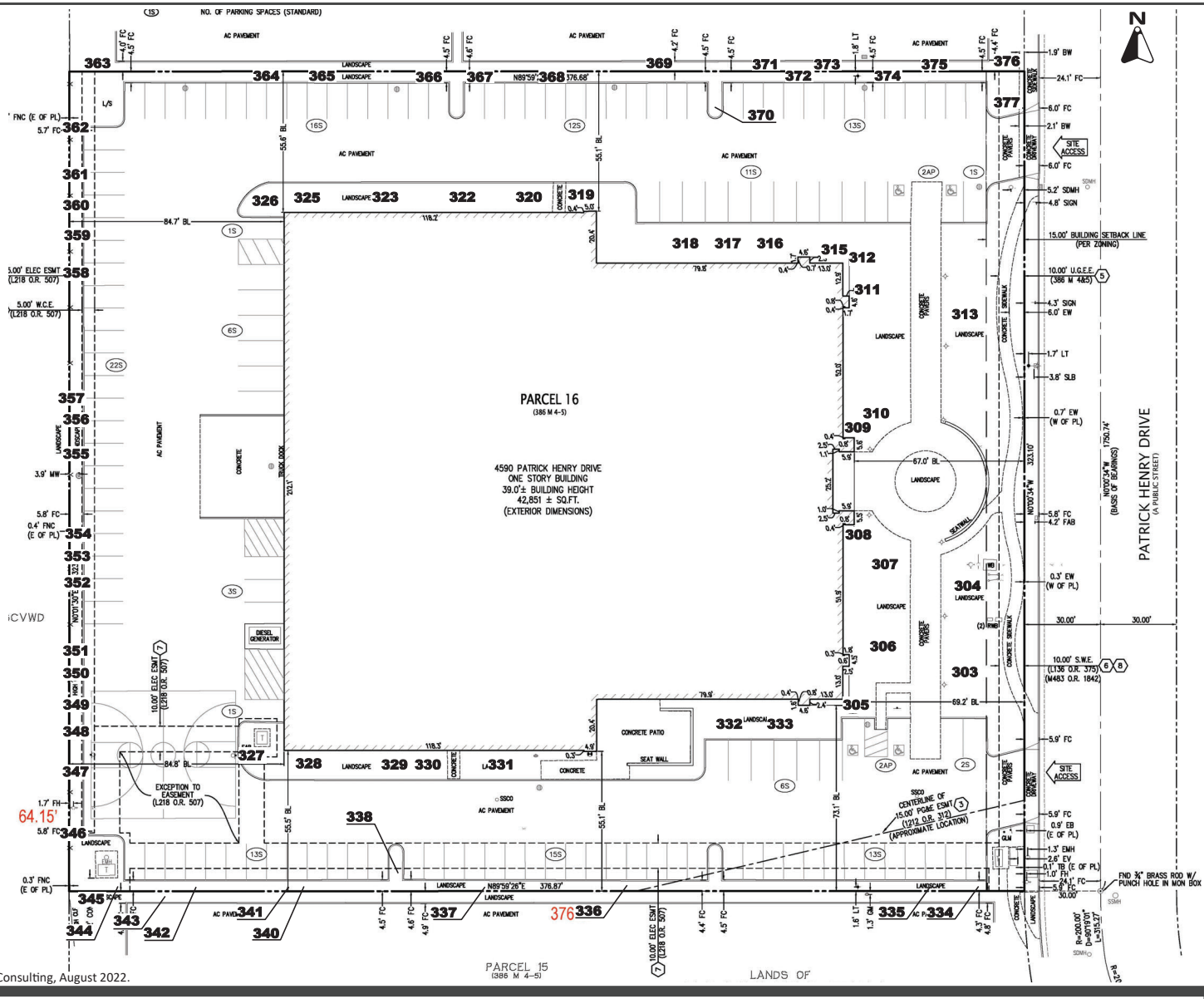
Habitats in developed areas such as the project site and area include predominantly urban-adapted birds and animals. Vegetation on-site includes landscaping shrubs and trees. The nearest waterway is Calabazas Creek, approximately 125 feet west of the project site. The PHDSP FEIR identified the following special-status species with potential to occur within the PHDSP area: Congdon's tarplant, arcuate bush mallow, burrowing owl, white-tailed kite, pallid bat, and Townsend's big-eared bat; as well as nesting birds and roosting bats protected by the MBTA and California Fish and Game Code.

Based on the Preliminary Arborist Report completed by HortScience | Bartlett Consulting, a total of 71 trees were surveyed. Table 4.3-1 identifies the species and size of the trees surveyed. The location of trees is shown on Figure 4.3-1.

Table 4.3-1: Tree Survey

Species	Diameter			Total No. of Trees
	0-12.0 inches	12.1-18.0 inches	Greater than 18 inches	
Blackwood acacia	5	0	2	7
Cajeput paperbark	3	5	1	9
Carob	9	3	1	13
Chinese juniper	7	0	0	7
Chinese pistache	3	0	0	3
Coast redwood	11	0	0	11
Crape myrtle	5	0	0	5
Evergreen ash	2	2	1	5
Hackberry	2	0	0	2
Holly oak	7	0	0	7
Purpleleaf plum	2	0	0	2

Total: 71 trees



Source: HortScience | Bartlett Consulting, August 2022.

TREE LOCATION MAP

FIGURE 4.3-1

4.3.2 Impact Discussion

	New Potentially Significant Impact	New Less than Significant with Mitigation Incorporated	New Less than Significant Impact	Same Impact as Approved Project	Less Impact than Approved Project
Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?	☐	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?	☐	☒	☐	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites?	☐	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒	☐

4.3.2.1 *Findings of the PHDSP FEIR*

Riparian Habitat, Sensitive Natural Communities, Wetlands, Fish and Wildlife Corridors, and Fish and Wildlife Nursery Sites

The PHDSP area is not located within a Habitat Conservation Plan (HCP) area nor does the area contain sensitive natural communities (i.e., northern coastal salt marsh and sycamore alluvial woodland). Therefore, the PHDSP FEIR concluded that implementation of the PHDSP would have a less than significant impact on riparian habitat, sensitive natural communities, wetlands, fish and wildlife corridors, and fish and wildlife nursery sites.

Impacts on Threatened and Endangered Habitat

The PHDSP FEIR concluded that without further project-level analysis, build out of the PHDSP could threaten or endanger habitat for special-status species and, as a result, future developments under the PHDSP would be in violation of Policy 5.10.1-P1 from the City of Santa Clara's General Plan. The following mitigation measure was included in the PHDSP FEIR to reduce impacts to special-status species habitat.

Mitigation Measure 6-2: In order to keep current the biological resource evaluation prepared for the Patrick Henry Drive Specific Plan EIR, upon receiving applications for site-specific projects within the Specific Plan Area, the City shall evaluate the need for a specific biological resource survey of the project site and adjacent area that may be indirectly impacted by project work. If no biological resources are determined to be at risk as determined by a qualified biologist, no further survey shall be required. However, if the City determines that biological resources within the project area require further analysis, the project proponent shall be required to conduct a biological resource survey of the habitat and special-status species that may be impacted by project activities, either directly or indirectly. A report shall be provided to the City detailing survey methods, results, and avoidance and minimization measures required to protect any special-status species with potential to be impacted, in accordance with the regulatory protocols of the responsible jurisdictional agencies for the resource in question, including, but not limited to: USFWS, CDFW, and USACE. If no further surveys/investigation is requested by a permitting or other regulatory agency upon receipt of biological survey report, work may proceed as planned.

With implementation of Mitigation Measure 6-2, impacts related to special-status species habitat would be reduced to a less than significant level.

Impacts on Special-Status Plants

The PHDSP FEIR determined that project construction within the PHDSP area could impact the Congdon's tarplant and arcuate bush mallow. The following mitigation measure was included in the PHDSP FEIR to reduce potential impacts to Congdon's tarplant and arcuate bush mallow.

Mitigation Measure 6-3: Before any project work within the Specific Plan Area, a qualified botanist shall conduct site-specific, focused surveys according to CDFW guidelines to determine presence or absence of special-status plant species on the individual project site and any adjacent potential area of disturbance. A comprehensive, sitewide survey should be conducted within May to September before project work begins, to encompass the Congdon's tarplant and arcuate bush mallow's blooming periods. Following the completion of the surveys, a survey results report shall be prepared and provided to the City. This report should include, but should not be limited to, the following: (1) a description of the survey methodology; (2) a discussion of the survey results; and (3) a map showing the survey area and the location of any special-status plants encountered. If no rare plants are found, then no further mitigation would be required.

If rare plants are found during the survey, the number of individuals present shall be documented and the limits of population shall be marked with flagging. The flagged border of the population shall be avoided by construction personnel for the duration of the project. If the species cannot be avoided or may be indirectly impacted, the applicant shall notify CDFW to discuss avoidance, minimization, and mitigation measures as appropriate for each species population, including measures to be taken and protocols to be followed if special-status plants are inadvertently disturbed during construction activities.

CDFW may require the preparation and implementation of a mitigation plan that details avoidance, preservation, and/or compensation for the loss of individual special-status plant species. Mitigation may include the purchase of mitigation bank credits, preserving and enhancing existing on-site populations, creation of off-site populations through seed collection and/or transplantation and monitoring these populations to ensure their successful establishment, and/or preserving occupied habitat off-site in perpetuity. Specific amounts and methods of mitigation and/or credits shall be determined in formal consultation with CDFW and USFWS.

With implementation of Mitigation Measure 6-3, impacts to special-status plants would be reduced to a less than significant level.

Potential Impacts on Nesting Birds or Roosting Bats

Implementation of the PHDSP could result in impacts nesting birds and/or roosting bats due to the removal of trees and buildings that contain nests. Per the PHDSP FEIR, there is a low potential for burrowing owl, white-tailed kite, pallid bat, and Townsend's big-eared bat to utilize the habitat within the area for roosting and/or nesting. In addition, many common bird species protected by the MBTA, California Migratory Bird Protection Act (MBPA), and California Fish and Game Code may utilize buildings, gravel substrates, and the landscaped vegetation within the PHDSP area for nesting, foraging, and roosting. Removal of existing trees containing nests or eggs of migratory birds, raptors, or bird species during the nesting season, or roosting bats, would be considered unlawful take under the MBTA and the California Fish and Game Code and would constitute a significant impact. The following mitigation was included in the PHDSP FEIR to reduce impacts to nesting birds and roosting bats.

Mitigation Measure 6-4: The demolition of any buildings, disturbance of gravel substrate, and/or removal of trees, shrubs, or weedy vegetation shall be avoided during the February 1 through August 31 bird nesting period to the extent possible. If no demolition, gravel disturbance, vegetation, or tree removal is proposed during the nesting period, no further action is required. If it is not feasible to avoid the nesting period, the project applicant shall retain a qualified wildlife biologist to conduct a survey for nesting birds at most 14 days prior to the start of removal of trees, shrubs, grassland vegetation, or buildings, including prior to grading or other construction activity. If demolition of buildings, disturbance of gravel substrate, or vegetation removal efforts do not begin within the 14 days following the nesting bird survey, another survey shall be required. The area surveyed shall include all construction sites, access roads, and staging areas, as well as reasonably accessible areas within 150 feet outside the boundaries of the areas to be cleared or as otherwise determined by the biologist and dependent on species' life history requirements.

If an active nest is discovered in the areas to be directly physically disturbed, or in other habitats within the vicinity of construction boundaries and may be disturbed by construction activities (as determined by the qualified biologist), clearing and construction shall be postponed until the qualified biologist has determined that the young have fledged (left the nest), the nest fails, or the nest is otherwise determined to be inactive by the biologist (i.e. predation).

To avoid impacts to roosting bats that may rarely utilize the Specific Plan Area vegetation and/or vacant buildings for day roosting, the project applicant shall retain a qualified wildlife biologist to conduct a survey for roosting bats at most 14 days prior to the start of demolition of any vacant buildings left with entry and egress points accessible to bats or removal of

suitable bat roosting vegetation. If roosting bats are detected, the biologist shall enact a minimum of a 150-foot no-work buffer and confer with CDFW to determine potential roost protection or roost eviction practices. After conferring with CDFW, the protective buffer may be adjusted based on specific roost needs. Once bats have been suitably protected by a buffer and/or safely evicted from roosting sites (as approved by CDFW), construction may resume outside the buffered area.

A nesting bird and roosting bat survey report prepared with the methods and results of the pre-project survey will be submitted to the City for review and approval prior to commencement of construction activities. Any additional construction monitoring, as determined through any necessary coordination/discretionary approvals with the resource agencies, will be documented per requirements set forth in an approved mitigation monitoring and reporting program.

The PHDSP FEIR concluded that with implementation of Mitigation Measure 6-4, impacts to migratory and nesting birds would be reduced to a less than significant level.

Impacts on Protected Trees, Plants, and Shrubs

There are no City-designated heritage trees within the PHDSP area. Future projects proposed under the PHDSP would be required to comply with all local policies and ordinances for preserving trees; therefore, the PHDSP would have a less than significant impact on trees, plants, and shrubs.

4.3.2.2 *Impacts Resulting from the Proposed Project*

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Special-Status Plants

Consistent with Mitigation Measure 6-3 of the PHDSP FEIR, HTH completed a focused survey for the Condgon's tarplant and arcuate bush mallow in September 2023. None of these species were identified on or immediately adjacent to the site; therefore, the report concluded that the project would not have an impact on these special-status plants. Therefore, implementation of the proposed project would not result in any new impacts or substantially increase the severity of the previously identified special-status plants impact. **[Less Impact than Approved Project (Less Than Significant Impact with Mitigation Incorporated)]**

Special-Status Animals

HTH completed a reconnaissance-level survey in August 2023 which found that there is no suitable habitat for burrowing owls present on-site or within 500 feet in the athletic fields and grasslands at Mission College (where burrowing owls were formerly known to occur).

While other special-status animals, such as the white-tailed kite and pallid bat, have the potential to fly over the project site, there is no suitable habitat for these species on-site or immediately adjacent to the site. Therefore, the Biological Resources Report concluded that implementation of the project would not result in impacts to these special-status animal species. Nevertheless, the proposed project would be required to implement Mitigation Measure 6-4 to ensure that impacts on these species would not occur.

At the time the PHDSP FEIR was prepared, the ecology and life history of the Crotch's bumble bee and western bumble bee were not discussed in detail as their presence was difficult to determine. In addition, the potential for the monarch butterfly to occur on-site was not addressed in the PHDSP FEIR. Based on recent surveys completed for the Crotch's bumble bee, these species have been identified in scattered locations in Santa Clara County. The Crotch's bumble bee has been recorded approximately 2.2 miles to the north, at Alviso Marina County Park. The project site does not provide high-quality floral resources (i.e., flowers that provide high-quality foraging habitat for the species), and no small mammal burrows or other features providing high-quality nest sites for this species were observed during project surveys. Therefore, the Biological Resources Report concluded that the Crotch's bumble bee is not expected to occur on the site.

Monarchs are expected to fly through the site as occasional migrants and are not known to form large roosts in Santa Clara County. The Biological Resources Report concluded that monarchs would not be present on-site due to the absence of milkweed and that the site does not contain flowering plants that would attract monarchs; therefore, impacts to monarchs would be less than significant.

Therefore, implementation of the proposed project would not result in any new impacts or substantially increase the severity of the previously identified impact on special-status species. **[Same Impact as Approved Project (Less Than Significant Impact with Mitigation Incorporated)]**

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?

Riparian Habitat

The project site does not contain sensitive natural communities (i.e., northern coastal salt marsh and sycamore alluvial woodland) nor does the site contain riparian habitat. Calabazas Creek, located approximately 95 feet west of the project site boundary, does contain riparian habitat. Calabazas Creek is a concrete channel, and the PHDSP FEIR identified only "marginally suitable" riparian habitat at the time of preparation. Therefore, the PHDSP FEIR did not address impacts (e.g.,

shading or encroachment) from future projects on the riparian habitat at that time. However, site visits conducted by HTH in August and September 2023 detected the presence of more significant vegetation along the channel than what the PHDSP FEIR had identified in 2019.

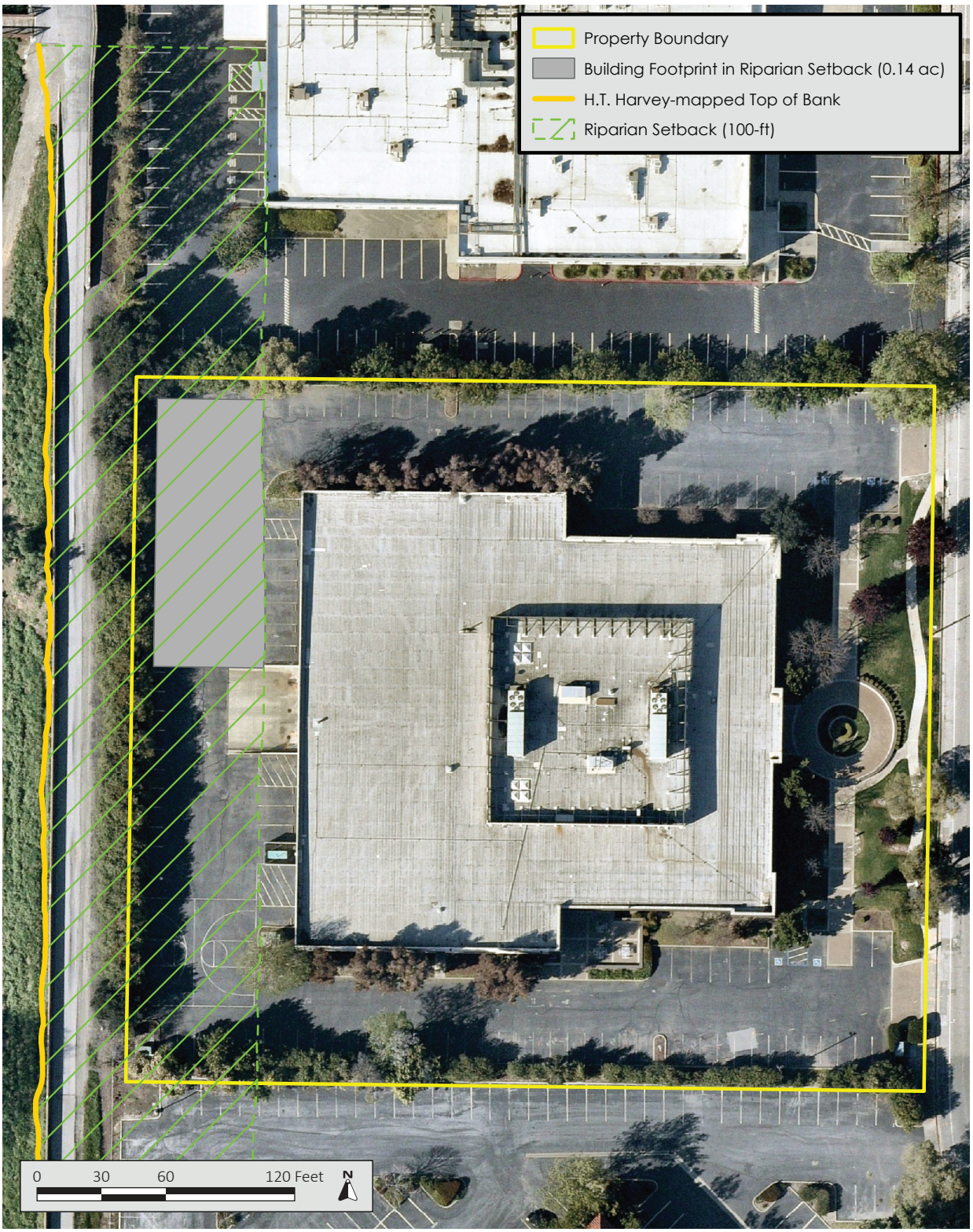
The proposed project would result in the construction of a building that would be up to 86 feet tall to the top of the parapet and approximately 100 feet from the edge of the riparian habitat along Calabazas Creek. While no direct loss of habitat would occur, the building would be located closer to the creek than the existing building which has the potential to shade the mixed riparian woodland along Calabazas Creek during the early morning hours. Since the building would only shade the riparian corridor in the morning, the Biological Resources Report concluded that the shading would not result in the loss or substantial degradation of riparian habitat. **(New Less Than Significant Impact)**

Encroachment on Riparian Corridor

Buffers are often included between new development and riparian habitat to reduce indirect effects of adjacent developments. Given that the PHDSP FEIR identified only "marginally suitable" riparian habitat along the concrete channel at the time of the preparation of the PHDSP, the FEIR did not address potential encroachment impacts from future projects onto the Calabazas Creek riparian corridor. The City of Santa Clara does not have a riparian buffer policy nor does the PHDSP include buffer standards and guidelines. Based on other policies in the region, a 100-foot standard setback from the top of bank is appropriate for streams such as Calabazas Creek. In addition, the Biological Resources Report identified a 100-foot setback appropriate due to the moderate quality of the riparian habitat, the native bird community present at this location, and the ecological value of Calabazas Creek within the Santa Clara Valley.

The proposed building would be set back approximately 45 feet from the top of bank and would encroach within 0.14 acre of the 100-foot setback area (refer to Figure 4.3-2). Encroachment of the project within the 100-foot setback would result in the following impacts on the adjacent riparian communities along Calabazas Creek:

- Birds may be less likely to use areas that are in proximity to tall buildings since they cannot see over when using a habitat area, or that they will have to fly around/between when moving to and from the habitat area. As a result, the proposed building would reduce bird use of the adjacent habitat due to the proximity of the building to the riparian habitat.
- The new building would be located on the east side of Calabazas Creek which would shade the adjacent riparian habitat during the early morning hours. Although shading would not result in a substantial adverse effect on the health of the riparian vegetation, it may affect how wildlife use riparian vegetation when it is shaded versus when it is sunlit.
- Some birds using the habitat along Calabazas Creek are expected to collide with the proposed building which would reduce bird diversity and abundance in this area.



Source: H.T. Harvey & Associates, October 2023.

PROJECT SITE AND SETBACK DIAGRAM | FIGURE 4.3-2

Because the existing riparian habitat adjacent to the site is of moderate quality (as opposed to high quality) and is not expected to attract a large number of birds, these impacts would not affect regional populations of bird species that use the site, nor would it result in a substantial degradation of riparian bird communities in the segment of the Calabazas Creek adjacent to the site. **(New Less Than Significant Impact)**

Artificial Lighting

The proposed project would include artificial lighting within the building, as well as on the building's exterior, pedestrian paths, and parking areas which could impact animal species. The PHDSP FEIR did not address potential impacts of lighting on biological communities such as the riparian habitat in Calabazas Creek; the FEIR identified only "marginally suitable" habitat in the concrete channel at the time of preparation. However, site visits conducted by HTH in August and September 2023 detected the presence of more significant vegetation along the channel than what the PHDSP FEIR identified in 2019. Due to the height of the building and the building lights, the proposed project could illuminate the Calabazas Creek riparian corridor and affect animals' use of the corridor. Up-lighting could also disorient nocturnal migrant birds and increase the risk of bird collisions with the proposed building.

Impact BIO-1: Artificial lighting associated with the project could affect animals' use of the Calabazas Creek riparian corridor and result in an increase in bird collisions with the building.

Mitigation Measure

MM BIO-1.1: The project shall implement the following measures to minimize impacts of new lighting on animal communities:

- Up-lighting (i.e., lighting that project upward above the fixture) shall be avoided in the project design. All lighting shall be fully shielded to block illumination from shining upward above the fixture. If up-lighting cannot be avoided in the project design, up-lights shall be shielded and/or directed such that no luminance projects above/beyond objects at which they are directed (e.g., trees and buildings) and such that the light would not shine directly into the eyes of a bird flying above the object.
- All lighting shall be directed downward and fully shielded as necessary to block illumination from shining towards Calabazas Creek to the west. This measure only pertains to lighting along the western edge of the site or lighting elsewhere that has potential to illuminate the Calabazas Creek riparian corridor.

With implementation of Mitigation Measure BIO-1.1, the project would have a less than significant impact on animal communities from artificial lighting. **(New Less Than Significant Impact with Mitigation Incorporated)**

c) Would the project have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means?

There are no wetlands present on-site; therefore, the project would not affect any federally protected wetlands as defined by Section 404 of the Clean Water Act. Implementation of the project would not result in any new impacts or substantially increase the severity of the previously identified impact on wetlands. **[Same Impact as Approved Project (Less Than Significant Impact)]**

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Wildlife Movement

All project activities would occur within the project footprint; therefore, the implementation of the proposed project would not interfere with the movement of any urban-adapted wildlife species that currently move through the plan area. The project would not result in any new impacts or substantially increase the severity of the previously identified impact on wildlife movement. **[Same Impact as Approved Project (Less Than Significant Impact)]**

Nesting Birds

The trees and shrubs within and adjacent to the project site could potentially provide nesting habitat for birds, including migratory birds or raptors. Nesting birds are species protected under the provisions of the MBTA and California Fish and Game Code Sections 3503, 3503.5, and 3800. Therefore, project construction activities during the nesting season (February to August) could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that results in loss of reproductive effort and/or abandonment is considered a taking by the CDFW and would constitute a significant impact. Consistent with the PHDSP FEIR, the project would be required to implement Mitigation Measure 6-4 to reduce impacts on migratory and nesting birds to a less than significant level. **[Same Impact as Approved Project (Less Than Significant Impact with Mitigation Incorporated)]**

Bird Collisions

The PHDSP FEIR did not address the risk of bird collisions with project buildings, because Calabazas Creek is not a natural watercourse; it is a concrete channel, and in 2019 the PHDSP FEIR identified only “marginally suitable habitat” in that location, which would be unlikely to attract significant numbers of birds. However, site visits conducted by HTH in August and September 2023 detected the presence of more significant vegetation along the channel than what the PHDSP FEIR had identified in 2019. That being said, although bird collisions with the proposed building could occur, the project includes materials such as plaster, tile veneer, aluminum, or simulated limestone broken up by smaller windows which would reduce the potential for bird collisions. Therefore, the number

and frequency of bird collisions with the proposed project would be low. The project would not result in any new impacts or substantially increase the severity of the previously identified impact from bird collisions. **(New Less Than Significant Impact)**

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

Per General Plan Policy 5.3.1-P10, new development is required to provide street trees and a minimum 2:1 on- or off-site replacement for removal of existing trees. In addition, Chapter 12.35 of Santa Clara City Code serves to protect all trees (native and non-native) planted or growing in the streets or public places of the City ("City trees"), as well as certain privately-owned trees. A permit is required for removal of any City trees, City-designated heritage trees, trees from nine listed species with a diameter of 12 inches or more at 54 inches above grade, and any tree with a diameter of 38 inches or more at 54 inches above grade. These trees are considered "protected" trees, and the Code also prohibits the attachment of anything to a protected tree in the City, unless it is necessary and proper to the growth and care of the tree. Additionally, the City Code requires a replacement ratio of 2:1 for 24-inch box replacement trees, or replacement ratio of 4:1 for 15-gallon replacement trees.

As proposed, the project would remove a total of 55 trees; three street trees and 52 on-site trees. Tree Nos. 334-337, 340-342, and 344 would remain on-site (refer to Figure 4.3-1 for the tree location map). None of the off-site trees (Tree Nos. 343, 345, 346, 357, 362, 363, 365, 369, 371, 373, and 375) are proposed for removal. Based on the City's tree replacement policy, the proposed project would be required to plant a minimum of 110 trees with 24-inch boxes or 220 trees with 15-gallon containers. Consistent with the PHDSP FEIR, the project would be required to comply with all local policies and ordinances for preserving trees, including the City's tree replacement policy; therefore, the proposed project would have a less than significant impact on trees. The project would not result in any new impacts or substantially increase the severity of the previously identified impact from tree removal. **[Same Impact as Approved Project (Less Than Significant Impact)]**

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

The project site is not located within an adopted HCP, Natural Community Plan, or other approved habitat conservation plan; therefore, the project would not conflict with any approved local, regional, or state habitat conservation plan. Implementation of the project would not result in any new impacts or substantially increase the severity of the previously identified impact with any approved habitat conservation plan. **[Same Impact as Approved Project (Less Than Significant Impact)]**

4.4 Cultural Resources/Tribal Cultural Resources

An Archaeological Sensitivity Assessment was prepared by Archaeological/Historical Consultants (A/HC) in July 2023. A copy of the assessment is on file with the City of Santa Clara, Community Development Department.

4.4.1 Environmental Setting

4.4.1.1 *Regulatory Framework*

Federal and State

National Historic Preservation Act

Federal protection is legislated by the National Historic Preservation Act of 1966 (NHPA) and the Archaeological Resource Protection Act of 1979. These laws maintain processes for determination of the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA and related regulations (36 Code of Federal Regulations [CFR] Part 800) constitute the primary federal regulatory framework guiding cultural resources investigations and require consideration of effects on properties that are listed or eligible for listing in the NRHP. Impacts to properties listed in the NRHP must be evaluated under CEQA.

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is administered by the State Office of Historic Preservation and encourages protection of resources of architectural, historical, archeological, and cultural significance. The CRHR identifies historic resources for state and local planning purposes and affords protections under CEQA. Under Public Resources Code Section 5024.1(c), a resource may be eligible for listing in the CRHR if it meets any of the NRHP criteria.[8]

Historical resources eligible for listing in the CRHR must meet the significance criteria described previously and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if it maintains the potential to yield significant scientific or historical information or specific data.

The concept of integrity is essential to identifying the important physical characteristics of historical resources and, therefore, in evaluating adverse changes to them. Integrity is defined as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance." The processes of determining integrity are similar for both the CRHR and NRHP and use the same seven variables or aspects to define integrity

[8] California Office of Historic Preservation. "CEQA Guidelines Section 15064.5(a)(3) and California Office of Historic Preservation Technical Assistance Series #6." Accessed January 11, 2024. https://ohp.parks.ca.gov/pages/1069/files/technical%20assistance%20bulletin%206%202011%20update.pdf.

that are used to evaluate a resource's eligibility for listing. These seven characteristics include 1) location, 2) design, 3) setting, 4) materials, 5) workmanship, 6) feeling, and 7) association.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The act requires that upon discovery of human remains, construction or excavation activity must cease and the county coroner be notified.

Public Resources Code Sections 5097 and 5097.98

Section 15064.5 of the CEQA Guidelines specifies procedures to be used in the event of an unexpected discovery of Native American human remains on non-federal land. These procedures are outlined in Public Resources Code Sections 5097 and 5097.98. These codes protect such remains from disturbance, vandalism, and inadvertent destruction, establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, and establish the Native American Heritage Commission (NAHC) as the authority to resolve disputes regarding disposition of such remains.

Pursuant to Public Resources Code Section 5097.98, in the event of human remains discovery, no further disturbance is allowed until the county coroner has made the necessary findings regarding the origin and disposition of the remains. If the remains are of a Native American, the county coroner must notify the NAHC. The NAHC then notifies those persons most likely to be related to the Native American remains. The code section also stipulates the procedures that the descendants may follow for treating or disposing of the remains and associated grave goods.

Assembly Bill 52

Assembly Bill (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.

Local

City of Santa Clara 2010-2035 General Plan

General Plan policies applicable to cultural resources/TCRs include, but are not limited to, the following listed below.

Policies	Description
5.6.3-P1	Require that new development avoid or reduce potential impacts to archaeological, paleontological and cultural resources.
5.6.3-P5	In the event that archeological/paleontological resources are discovered, require that work be suspended until the significance of the find and recommended actions are determined by a qualified archeologist/paleontologist.
5.6.3-P6	In the event that human remains are discovered, work with the appropriate Native American representative and follow the procedures set forth in State Law.

4.4.1.2 *Existing Conditions*

Subsurface Resources

Archaeological Resources

Native Americans occupied Santa Clara Valley and the greater Bay Area for more than 5,000 years. The exact time period of the Ohlone (originally referred to as Costanoan) migration into the Bay Area is debated by scholars. Dates of the migration range between 3000 B.C. and 500 A.D. Regardless of the actual time frame of their initial occupation of the Bay Area and, in particular, Santa Clara Valley, it is known that the Ohlone had a well-established population of approximately 7,000 to 11,000 people with a territory that ranged from the San Francisco Peninsula and the East Bay, south through the Santa Clara Valley and down to Monterey and San Juan Bautista.

The Ohlone people practiced hunting, fishing, and collecting seasonal plant and animal resources, including tidal and marine resources from San Francisco Bay. The customary way of living, or lifeway, of the Costanoan/Ohlone people disappeared by about 1810 due to disruption by introduced diseases, a declining birth rate and the impact of the California mission system established by the Spanish in the area in 1777.

Mission Period

Spanish explorers began coming to Santa Clara Valley in 1769. From 1769 to 1776, several expeditions were made during which time the explorers encountered the local Native American tribes. These expeditions lead to the establishment of the California Missions, including the first Mission Santa Clara founded in 1777 near what is today the Kifer Road/De La Cruz Boulevard intersection. After being destroyed by flooding, a second Mission Santa Clara was constructed near the present-day Martin Avenue/De La Cruz intersection. The third, fourth, and fifth Missions were constructed on what is today the Santa Clara University Campus, located approximately 4.0 miles

southeast of the project site. During the Mission period, the Mission controlled much of the land (approximately 80,000 acres) in Santa Clara Valley and the Native Americans were brought into the Mission, effectively ending the Ohlone's traditional occupation of the valley.

Post-Mission and Early 20th Century

During and after the Gold Rush of 1849, people began to settle in the Santa Clara Valley to farm the land. In the 1850s, the City began to take shape as a recognizable small town and by 1852, Santa Clara was incorporated as a town and became a state chartered City. At the end of the 19th century, more and more people arrived seeking the mild climate and job opportunities of the Santa Clara area. By 1906, the population of the City grew to nearly 5,000. The population remained fairly stable and did not increase until after World War II, when the city outgrew its 19th century boundaries and expanded to open lands north and west of the original City limits.

The project site was vacant from at least 1889 until construction of the existing building in 1990. Prior to the construction of the existing building, the site was used for agricultural operations (e.g., grassland farming) from at least the 1930s until the 1970s.

Record Search

Based on a record search prepared for the proposed project, no subsurface cultural resources have been documented on-site. Within a 0.25-mile radius, one resource was identified along the vicinity of Calabazas Creek.[9] A previous study was completed which included a portion of the project site, however, no resources were encountered. Seven previous studies have been completed within a 0.25-mile radius; none of which encountered any resources.

Based on an 1889 topographic map, Sanjon/Campbell Creek is approximately 0.8 miles east of the site. Due to the project's proximity to Sanjon/Campbell Creek[10] and the resource identified along Calabazas Creek, the Archaeological Sensitivity Assessment concluded that there is moderate potential for encountering buried Native American archaeological deposits. Because the site has been historically utilized for agricultural purposes, the project site has very low potential for encountering historic-era archaeological deposits.

[9] This resource was never formally recorded; therefore, the Archaeological Sensitivity Assessment references it as an informal resource.

[10] The Calabazas Creek was channelized in the 1880s to run by the project site. While Calabazas Creek is currently located approximately 125 feet west of the project site, prior to the 1880s, it did not reach the area (as shown on the 1876 topographic map in the Archaeological Sensitivity Assessment). As a result, Calabazas Creek does not appear next to the site on maps from 1866 to 1876. It does, however, appear on maps in 1889, 1890, and onward. Fierer-Donaldson, Molly. Archaeological/Historical Consultants. Personal Communication. January 25, 2024.

Historic Structures

The existing one-story commercial building was constructed in 1990 (34 years old) and is primarily stucco with brick veneer siding. The existing building on-site is not listed on the National Register of Historic Places (NRHP)[11], California Register of Historical Resources (CRHR)[12], or City's HRI.[13] At the time the PHDSP FEIR was completed (2021), no building or structure in the PHDSP area was listed on a local or state historic resources inventory (HRI).

Tribal Cultural Resources

During preparation of the PHDSP FEIR, the City of Santa Clara notified the Native American tribes traditionally and culturally affiliated with the PHDSP area which included the Amah Mutsun Tribal Band, Amah Mutsun Tribal Band of Mission San Juan Bautista, Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, Ohlone Indian Tribe, North Valley Yokuts Tribe, and Indian Canyon Mutsun Band of Costanoan. No comments were received by the City, nor was there any request for consultation.

4.4.2 Impact Discussion

	New Potentially Significant Impact	New Less than Significant with Mitigation Incorporated	New Less than Significant Impact	Same Impact as Approved Project	Less Impact than Approved Project
Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?	☐	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource as pursuant to CEQA Guidelines Section 15064.5?	☐	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☒	☐

[11] National Register of Historic Places. "National Register Database and Research." Accessed January 24, 2024. https://www.nps.gov/subjects/nationalregister/database-research.htm.
[12] California Register of Historic Places. "California Historical Resources." Accessed January 24, 2024. https://ohp.parks.ca.gov/listedresources/.
[13] City of Santa Clara. "8.9 Historic Preservation and Resource Inventory." Accessed January 24, 2023. https://www.santaclaraca.gov/home/showpublisheddocument/12893/635713044859030000.

	New Potentially Significant Impact	New Less than Significant with Mitigation Incorporated	New Less than Significant Impact	Same Impact as Approved Project	Less Impact than Approved Project
Would the project:					
d) 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), or (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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒	☐

4.4.2.1 *Findings of the PHDSP FEIR*

Historic Resources

While the PHDSP FEIR did not identify any buildings listed on a local, state, or federal HRI, the analysis concluded that properties or features within the PHDSP area could potentially meet the CEQA definition of a historic resource in the future, as the plan would be built out over a number of years and structures could become historically significant with sufficient passage of time. Therefore, future projects under the PHDSP may cause substantial adverse changes in the significance of a historic resource and impacts would be significant. The following mitigation measure was included in the PHDSP FEIR to reduce impacts to historic resources.

Mitigation Measure 7-1: For any individual project within the Patrick Henry Drive Specific Plan Area that the City determines may involve a property that contains a potentially significant historic resource, the resource shall be assessed by a professional who meets the Secretary of the Interior's Professional Qualifications Standards to determine whether the property is a significant historic

resource and whether or not the project may have a potentially significant adverse effect on the historic resource. If, based on the recommendation of the qualified professional, the City determines that the project may have a potentially significant effect, the City shall require the applicant to implement the following mitigation measures:

(a) Adhere to at least one of the following Secretary of the Interior's Standards:[14]

- Secretary of Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings*; or
- Secretary of Interior's *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*.

The qualified professional shall make a recommendation to the City as to whether the project fully adheres to the Secretary of the Interior's Standards, and any specific modifications necessary to do so. The final determination as to a project's adherence to the Standards shall be made by the City body with final decision-making authority over the project. Such a determination of individual project adherence to the Secretary of the Interior's Standards will constitute mitigation of the project historic resource impacts to a less-than-significant level (CEQA Guidelines section 15064.5).

(b) If measure (a) is not feasible, the historic resource shall be moved to a new location compatible with the original character and use of the historic resource, and its historic features and compatibility in orientation, setting, and general environment shall be retained, such that a substantial adverse change in the significance of the historic resource is avoided.[15] Implementation of measure (b) would reduce the impact to a less-than-significant level.

[14] Under the CEQA Guidelines (section 15064.5[b][3]), a project's adverse impact on a historic resource generally can be mitigated to a less-than-significant level by following either of these standards.

[15] One example of a substantial adverse change would be the loss of eligibility for listing on the California Register. The State Historical Resources Code encourages the retention of historic resources on-site and discourages the non-historic grouping of historic buildings into parks or districts. However, it is recognized that moving a historic building, structure, or object is sometimes necessary to prevent its destruction. Therefore, a moved building, structure, or object that is otherwise eligible may be listed in the California Register if it was moved to prevent its demolition at its former location and if the new location is compatible with the original character and use of the historic resource. A historic resource should retain its historic features and compatibility in orientation, setting, and general environment. (California Office of Historic Preservation, California Register and National Register: A Comparison, Technical Assistance Series 6; Sacramento, CA: California Department of Parks and Recreation, 2001)

If neither measure (a) nor measure (b) is feasible, then the City shall, as applicable and to the extent feasible, implement the following measures in the following order:

(c) Document the historic resource before any changes that would cause a loss of integrity and loss of continued eligibility. The documentation shall adhere to the Secretary of the Interior's Standards for Architectural and Engineering Documentation. The level of documentation shall be proportionate with the level of significance of the resource. The documentation shall be made available for inclusion in the Historic American Building Survey (HABS) or the Historic American Engineering Record (HAER) Collections in the Library of Congress, the California Historical Resources Information System (CHRIS), and the Bancroft Library, as well as local libraries and historical societies.

(d) Retain and reuse the historic resource to the maximum feasible extent and continue to apply the Secretary of the Interior's Standards to the maximum feasible extent in all alterations, additions, and new construction.

(e) Through careful methods of planned deconstruction to avoid damage and loss, salvage character-defining features and materials for educational and interpretive use on-site, or for reuse in new construction on the site in a way that commemorates their original use and significance.

(f) Interpret the historical significance of the resource through a permanent exhibit or program in a publicly accessible location on the site or elsewhere within the Specific Plan Area.

Implementation of measures (b), (c), (d), (e), and/or (f) would reduce a significant impact on historic resources, but not to a less-than-significant level. Without knowing the characteristics of the potentially affected historic resource or of the future individual development proposal, the City cannot determine with certainty that measure (a) or (b) above would be considered feasible.

Even with implementation of Mitigation Measure 7-1, the PHDSP FEIR concluded historical resource impacts would be significant and unavoidable because it cannot be guaranteed any of the measures in Mitigation Measure 7.1 would reduce impacts to historic resources to less than significant.

4.4.2.2 *Archaeological Resources, Human Remains, and Tribal Cultural Resources*

The PHDSP FEIR concluded that construction of the proposed development under the PHDSP could disturb unrecorded sensitive archaeological resources or TCRs which would result in a significant impact. The PHDSP included the following mitigation to reduce impacts to archaeological resources, human remains, and TCRs.

Mitigation Measure 7-2: During the City's standard project-specific review process for all future, discretionary, public improvement and private development projects in the Patrick Henry Drive Specific Plan Area, the City shall determine the possible presence of, and the potential for new or substantially more severe impacts of the action on, archaeological resources and tribal cultural resources. The City shall require individual project applicants or environmental consultants to contact the California Historical Resources Information System (CHRIS) to determine whether the particular project is located in a sensitive area. Future discretionary development projects that CHRIS determines may be located in a sensitive area - i.e., on or adjoining an identified archaeological/tribal cultural resources site – shall proceed only after the project applicant contracts with an archaeologist/Tamien Nation representative who meets the Secretary of the Interior's Professional Qualifications Standards, to conduct a determination in regard to cultural values remaining on the site and warranted mitigation measures, as described directly below.

In general, to make an adequate determination in these instances, the archaeologist/Tamien Nation Representative shall conduct a preliminary field inspection to (1) assess the amount and location of visible ground surface, (2) determine the nature and extent of previous impacts, and (3) assess the nature and extent of potential impacts. Such field inspection may demonstrate the need for some form of additional subsurface testing (e.g., excavation by auger, shovel, or backhoe unit) or, alternatively, the need for on-site monitoring of subsurface activities (i.e., during grading or trenching).

In addition, the City shall continue to notify the Native American tribes traditionally and culturally affiliated with the Specific Plan Area of the discretionary, public improvement and private development projects if those proposed improvements or projects are subject to a CEQA Negative Declaration (including Mitigated Negative Declaration) or Environmental Impact Report (EIR), in accordance with California Assembly Bill 52, and if a Native American tribe requests consultation, conduct a good faith consultation.

Following field inspection and completion of all necessary phases of study as determined by the archaeologist/Tamien Nation representative and the City, damage to any identified archaeological/tribal cultural resources shall be avoided or mitigated to the maximum extent possible. Preservation in place to maintain the relationship between the artifact(s) and the archaeological/tribal cultural context is the preferred manner of mitigating impacts on an archaeological/tribal cultural resource site. Preservation may be accomplished by:

- Planning construction to avoid the archaeological or tribal cultural site;
- Incorporating the site within a park, green space, or other open space element;
- Covering the site with a layer of chemically stable soil; or
- Deeding the site into a permanent conservation easement.

When in-place mitigation is determined by the City to be infeasible, a *data recovery plan*, which makes provisions for adequate recovery of culturally or historically consequential information about the site (including artifacts discovered on the site), subject to review and approval by the City, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be submitted to the CHRIS Northwest Information Center. If Native American artifacts are indicated, the studies shall also be submitted to the Native American Heritage Commission (NAHC). CHRIS and NAHC are recognized as experts in their respective disciplines.

Identified cultural resources shall be recorded on form DPR 422 (archaeological sites). Mitigation measures recommended by these two groups (CHRIS and NAHC), as reviewed and approved by the City, shall be undertaken prior to and during construction activities. Although the precise details of the mitigation measures would be specific to the particular project site, the measures shall be consistent with the avoidance and mitigation strategies described above in this programmatic mitigation measure.

A *data recovery plan* and data recovery for a historic resource shall not be required if the City determines that testing or studies already completed have adequately recovered the necessary data, provided that the data have already been documented in an EIR or are available for review at the CHRIS Northwest Information Center (CEQA Guidelines section 15126.4[b]).

Resource identification training procedures shall be implemented for construction personnel, conducted by an archaeologist/Tamien Nation representative who meets the Secretary of the Interior's Professional Qualifications Standards. In the event that subsurface cultural resources are

otherwise encountered during approved ground-disturbing activities for a Plan Area construction activity, work within 50 feet shall be stopped and a qualified archaeologist/Tamien Nation representative retained to evaluate the finds following the procedures described above. Project personnel shall not collect cultural resources. Although work may continue beyond 50 feet, the archaeologist/Tamien Nation representative shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to archaeological/tribal cultural resources.

If human remains are found, the rules set forth in State Health and Safety Code section 7050.5 and CEQA Guidelines section 15126.4(b) apply and shall be followed.

The PHDSP FEIR concluded that implementation of Mitigation Measure 7-2 would reduce impacts related to the unanticipated discovery of archaeological resources (including TCRs and human remains) to a less than significant level.

4.4.2.3 *Impacts Resulting from the Proposed Project*

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

As described in the PHDSP FEIR, no buildings within the PHDSP area are listed as historical resources on a local, state, or federal level. The minimum threshold for eligibility as a historic resource is any structure at least 50 years old. The only potential impacts to historical resources identified in the FEIR were hypothetical impacts to buildings that are currently less than 50 years old. Due to the long duration of the PHDSP, buildings within the PHDSP may be considered historic at the time of redevelopment.

The existing building on-site was built in 1990[16] and does not meet the threshold for historic resources. Therefore, redevelopment of the project site would not physically damage or materially impair the integrity of any historic building. Construction of the proposed project would not impact any designated or eligible historic structures. As a result, the proposed project would not result in any new impacts or substantially increase the severity of the previously identified historic resource impacts. **[Less Impact than Approved Project (Significant Unavoidable Impact with Mitigation Incorporated)]**

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

[16] PES Environmental, Inc. *Phase I Environmental Site Assessment*. September 19, 2019.

The project site was used for agricultural purposes until 1990 (when the current building was built). The Archaeological Sensitivity Assessment determined that the project would be unlikely to have buried historic archaeological deposits. The project site was, however, determined to have moderate potential for encountering buried Native American archaeological deposits. Therefore, the project would be required to comply with Mitigation Measure 7-2 in the event archaeological resources are encountered during ground-disturbing activities. The proposed project is consistent with the development projections of the PHDSP FEIR and therefore, implementation of the project would not result in any new impacts or substantially increase the severity of the previously identified archaeological resource impacts. **[Same Impact as Approved Project (Less Than Significant Impact with Mitigation Incorporated)]**

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

The project would not include any substantial excavations (except for trenching for utilities) since no below-grade parking is proposed. Nevertheless, construction activities on-site could result in the exposure or destruction of as yet undiscovered human remains. If human remains are encountered, the project would be required to comply with the rules set forth in State Health and Safety Code section 7050.5 and CEQA Guidelines section 15126.4(b) per Mitigation Measure 7-2 of the PHDSP FEIR. For this reason, the project would not result in any new impacts or substantially increase the severity of the previously identified impact to human remains. **[Same Impact as Approved Project (Less Than Significant Impact with Mitigation Incorporated)]**

d) 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), or

(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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

As mentioned previously, the City of Santa Clara notified the Native American tribes traditionally and culturally affiliated with the PHDSP area as a part of the PHDSP FEIR preparation. No comments were received by the City, nor was there any request for consultation. Consistent with Mitigation Measure 7-2 of the PHDSP FEIR, the project applicant would be required to contract with an archaeologist/Tamien Nation representative who meets the Secretary of the Interior's Professional Qualifications Standards, to determine if cultural resources are present on-site and identify

mitigation measures (if warranted). Additionally, as required by Mitigation Measure 7-2 of the PHDSP FEIR, the City shall continue to notify the Native American tribes traditionally and culturally affiliated with the PHDSP area of the discretionary public improvement and private development projects if those proposed improvements or projects are subject to a CEQA Negative Declaration (including Mitigated Negative Declaration) or Environmental Impact Report (EIR), in accordance with California Assembly Bill 52, and conduct consultation if requested. With implementation of the identified mitigation from the PHDSP FEIR, the project would not result in any new impacts or substantially increase the severity of the previously identified tribal cultural resources impact. **[Same Impact as Approved Project (Less Than Significant Impact with Mitigation Incorporated)]**

4.5 Geology and Soils

The following discussion is based upon a Geotechnical Investigation prepared by Langan Engineering and Environmental Services, Inc. (Langan) in August 2023. A copy of the report is attached in Appendix D.

4.5.1 Environmental Setting

4.5.1.1 *Regulatory Framework*

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed following the 1971 San Fernando earthquake. The act regulates development in California near known active faults due to hazards associated with surface fault ruptures. Alquist-Priolo maps are distributed to affected cities, counties, and state agencies for their use in planning and controlling new construction. Areas within an Alquist-Priolo Earthquake Fault Zone require special studies to evaluate the potential for surface rupture to ensure that no structures intended for human occupancy are constructed across an active fault.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) was passed in 1990 following the 1989 Loma Prieta earthquake. The SHMA directs the California Geological Survey (CGS) to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. CGS has completed seismic hazard mapping for the portions of California most susceptible to liquefaction, landslides, and ground shaking, including the central San Francisco Bay Area. The SHMA requires that agencies only approve projects in seismic hazard zones following site-specific geotechnical investigations to determine if the seismic hazard is present and identify measures to reduce earthquake-related hazards.

California Building Standards Code

The CBC prescribes standards for constructing safe buildings. The CBC contains provisions for earthquake safety based on factors including occupancy type, soil and rock profile, ground strength, and distance to seismic sources. The CBC requires that a site-specific geotechnical investigation report be prepared for most development projects to evaluate seismic and geologic conditions such as surface fault ruptures, ground shaking, liquefaction, differential settlement, lateral spreading, expansive soils, and slope stability. The CBC is updated every three years.

California Division of Occupational Safety and Health Regulations

Excavation, shoring, and trenching activities during construction are subject to occupational safety standards for stabilization by the California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) under Title 8 of the California Code of Regulations and Excavation Rules. These regulations minimize the potential for instability and collapse that could injure construction workers on the site.

Paleontological Resources Regulations

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. They range from mammoth and dinosaur bones to impressions of ancient animals and plants, trace remains, and microfossils. These are valued for the information they yield about the history of the earth and its past ecological settings. The California Public Resources Code (Section 5097.5) specifies that unauthorized removal of a paleontological resource is a misdemeanor. Under the CEQA Guidelines, a project would have a significant impact on paleontological resources if it would disturb or destroy a unique paleontological resource or site or unique geologic feature. Paleontological resources are fossils, the remains or traces of prehistoric life preserved in the geologic record. They range from the well-known and well publicized (such as mammoth and dinosaur bones) to scientifically important fossils.

Local

City of Santa Clara 2010-2035 General Plan

General Plan policies applicable to geology and soils include, but are not limited to, the following listed below.

Policies	Description
5.10.5-P5	Regulate development, including remodeling or structural rehabilitation, to ensure adequate mitigation of safety hazards, including flooding, seismic, erosion, liquefaction and subsidence dangers.
5.10.5-P6	Require that new development is designed to meet current safety standards and implement appropriate building code to reduce risks associated with geologic conditions.
5.10.5-P7	No Implement all recommendations and design solutions identified in project soils reports to reduce potential adverse effects associated with unstable soils or seismic hazards.

Santa Clara City Code

Title 15 of the Santa Clara City Code includes the City's adopted Building and Construction Code. These regulations are based on the CBC and include requirements for building foundations, walls, and seismic resistant design. Requirements for grading and excavation permits and erosion control are included in Chapter 15.15 Building Code. Requirements for building safety and earthquake reduction hazard are addressed in Chapter 15.55 Seismic Hazard Identification.

4.5.1.2 *Existing Conditions*

Regional Geology

The project site is located in the Santa Clara Valley, a relatively flat alluvial basin, bounded by the Santa Cruz Mountains to the southwest, the Diablo Mountain Range to the east, and San Francisco Bay to the north. The Santa Clara Valley consists of a large structural basin containing alluvial deposits from the Diablo Range and Santa Cruz Mountains.

On-site Geologic Conditions

Topography and Soils

Soils on-site contain alluvial deposits that consist of clay and sandy clay with layers of clayey sand and silty sand with moderate expansion potential.[17] There are no unique geological features on or adjacent to the project site and the topography of the project area is relatively flat.

Groundwater

Based on the Phase I Environmental Site Assessment (ESA)[18] prepared for the site, groundwater in the vicinity of the site was estimated to range from 5.5 to 14 feet below the ground surface (bgs). Groundwater levels fluctuate seasonally depending on variables including variations in rainfall, irrigation, and groundwater pumping.

Seismicity

The project site is located within the San Francisco Bay Area, the most seismically active region in the United States. As mentioned in the PHDSP FEIR, the PHDSP area is not located in an Alquist-Priolo Special Study Zone, and no faults run through the PHDSP area or the City of Santa Clara.

The Hayward Fault is located approximately 5.0 miles east of Santa Clara and 7.0 miles east of the PHDSP area. The Calaveras fault is located approximately 7.0 miles east of the City and approximately 11 miles east of the PHDSP area. The San Andreas fault is located approximately 7.0 miles west of the City and approximately 12 miles west of the PHDSP area.[19]

Liquefaction

Liquefaction occurs when water-saturated soils lose structural integrity due to seismic activity. Soils that are most susceptible to liquefaction are loose to moderately dense, saturated granular soils with poor drainage. The project site is located within a potential liquefaction zone.[20]

[17] Langan Engineering and Environmental Services, Inc. *Geotechnical Investigation 4590 Patrick Henry Drive.* August 9, 2023.
[18] PES Environmental, Inc. *Phase I Environmental Site Assessment Report*. September 19, 2019.
[19] City of Santa Clara. Patrick Henry Drive Environmental Impact. SCH# 2019120515. July 2021.
[20] Langan Engineering and Environmental Services, Inc. *Geotechnical Investigation 4590 Patrick Henry Drive.* August 9, 2023.

Lateral Spreading

Lateral spreading is a type of ground failure related to liquefaction. It consists of the horizontal displacement of flat-lying alluvial material toward an open area, such as a steep bank of a stream channel. Based on the Geotechnical Investigation prepared for the site, the layers below the groundwater level are dense enough to resist lateral spreading and clayey; therefore, the potential for lateral spreading at the project site is low.

Landslides

Landslides occur when the stability of a slope changes from a stable to an unstable condition. Since the project area is relatively flat, the potential for landslides on-site is low.

Paleontological Resources

Paleontological resources are the fossilized remains of organisms from prehistoric environments preserved in the geological strata. The project site is underlain by Holocene deposits. Holocene geologic units are not generally considered paleontological sensitive, because remains dated less than 10,000 years are not usually considered fossils.

4.5.2 Impact Discussion

	New Potentially Significant Impact	New Less than Significant with Mitigation Incorporated	New Less than Significant Impact	Same Impact as Approved Project	Less Impact than Approved Project
Would the project:					
a) 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?	☐	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒	☐

	New Potentially Significant Impact	New Less than Significant with Mitigation Incorporated	New Less than Significant Impact	Same Impact as Approved Project	Less Impact than Approved Project
Would the project:					
c) 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?	☐	☐	☐	☒	☐
d) Be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒	☐
e) 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?	☐	☐	☐	☒	☐
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☐	☒	☐

4.5.2.1 *Findings of the PHDSP FEIR*

Seismic Ground Shaking, Liquefaction, and Landslides

There are no known active faults within the PHDSP area, nor would there be slope stability hazard impacts due to the topography of the site; therefore, the PHDSP FEIR concluded that no rupture of a known earthquake fault and landslide impact would occur. These issues were not discussed further.

The project site is located within a seismically active region and could experience intense ground shaking in the event of a large earthquake. The project would be built in accordance with the latest CBC requirements which would reduce the seismic-related impacts; therefore, implementation of the PHDSP was found to have a less than significant impact on seismic ground shaking and related effects.

Soil Erosion and Loss of Topsoil

The PHDSP FEIR concluded that project compliance with City-required standard grading and construction-period erosion control techniques, consistent with Best Management Practices (BMPs) in the California Stormwater Quality Association (CASQA) Stormwater Best Management Practice Handbook, would have a less than significant impact on erosion and loss of topsoil.

Ground Instability

All projects within the PHDSP area may encounter possible ground instability conditions. Determination of differential settlement, liquefaction, lateral spreading, and subsidence potential in the PHDSP area would require site-specific geotechnical studies for future individual development proposals. Therefore, the PHDSP FEIR found that impacts related to ground instability would be significant. The following mitigation measure was included in the PHDSP to reduce impacts related to ground instability.

Mitigation Measure 8-3: Subject to City review and approval, complete and implement the geotechnical mitigation recommendations identified in the required individual project and site-specific geotechnical investigations and engineering studies for site-specific proposals, in coordination with City grading permit and building permit performance standards. Such recommendations shall address design- and construction-level details regarding engineering issues and solutions such as the type of building foundation, the extent of subsurface excavation, the details of retaining structures, and any need for subsurface water extraction.

The PHDSP FEIR concluded that implementation of Mitigation Measure 8-3 would reduce impacts related to ground instability to a less than significant level.

Septic Tanks

The PHDSP area is served by a comprehensive, integrated wastewater collection, treatment, and disposal system. Neither septic tank systems nor alternative wastewater disposal systems are required or proposed under the PHDSP; therefore, the PHDSP FEIR concluded there would be no impact and this issue is not discussed further.

Paleontological Resources

While there are no records of recorded fossil sites within the area, future development proposed under the PHDSP could disturb unknown paleontological resources during ground-disturbing activities which would result in a significant impact. The following mitigation was included in the PHDSP FEIR to reduce impacts to undiscovered paleontological resources.

Mitigation Measure 8-4: For all public improvement and private development projects in the Patrick Henry Drive Specific Plan Area, the following measures shall be implemented:

(1) Education Program. Project applicants shall implement a program that includes the following elements:

- Resource identification training procedures for construction personnel, conducted by a paleontologist who meets the Secretary of the Interior's Professional Qualifications Standards;

- Spot-checks and monitoring by a qualified paleontologist of all excavations deeper than seven feet below ground surface; and

- Procedures for reporting discoveries and their geologic context.

(2) *Procedures for Resources Encountered.* If subsurface paleontological resources are encountered, excavation shall halt within a buffer area of at least 50 feet around the find, where construction activities will not be allowed to continue until the project paleontologist evaluates the resource and its stratigraphic context. Work shall be allowed to continue outside the buffer area; however, the paleontologist shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to paleontological resources. During monitoring, if potentially significant paleontological resources are found, "standard" samples shall be collected and processed by a qualified paleontologist to recover micro vertebrate fossils. If significant fossils are found and collected, they shall be prepared to a reasonable point of identification. Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage.

Itemized catalogs of material collected and identified shall be provided to a local museum repository with the specimens. Significant fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a local museum repository for permanent curatorship and storage. A report documenting the results of the monitoring and salvage activities, and the significance of the fossils, if any, shall be prepared. The report and inventory, when submitted to the City, shall signify the completion of the program to mitigate impacts on paleontological resources.

The PHDSP FEIR concluded that with implementation of Mitigation Measure 8-4, the project would have a less than significant impact on paleontological resources.

4.5.2.2 *Impacts Resulting from the Proposed Project*

a) Would the project 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?

As mentioned above, the project site is located within a seismically active region and could experience intense ground shaking in the event of a large earthquake. Based on the site-specific Geotechnical Investigation prepared for the site, the soils on-site have moderate expansion potential. The potential for lateral spreading on-site is low.

The Geotechnical Investigation makes specific recommendations regarding site preparation and grading, lime treatment, trench backfill, mat slab foundation, floors and floor slabs, concrete pavement, seismic design criteria, etc. Since the project site is located within a liquefaction zone, the Geotechnical Investigation concluded that the proposed project could be supported on a mat slab foundation and be designed to withstand 1.25 inches of settlement from liquefaction and 0.75 inches of differential settlement. If the mat cannot be designed for the anticipated settlements, the building can be supported on deep foundations or a mat foundation over ground improvement. Because the project is located on a site with expansive soils, the Geotechnical Investigation recommends that the mat foundation be embedded at least 30 feet beneath the adjacent exterior grade and exterior concrete should be underlain by at least eight inches of select fill. Furthermore, the site-specific Geotechnical Investigation shall be reviewed and approved by the City of Santa Clara's Building Division as part of the building permit review and issuance process to confirm the findings of the report and consistency of the project plans with the recommendations. The building shall meet the requirements of applicable Building and Fire Codes, including the latest CBC, as adopted or updated by the City.

By designing the building in conformance with the recommendations of the site-specific Geotechnical Investigation (per Mitigation Measure 8-3), the proposed project would not exacerbate existing geological hazards on-site such that it would impact (or worsen) off-site geological and soil conditions. As a result, the project would not result in any new impacts or substantially increase the severity of the previously identified geological hazards impact. **[Same Impact as Approved Project (Less Than Significant Impact)]**

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

The project would not include any substantial excavations (except for trenching for utilities) since no below-grade parking is proposed. Any ground disturbance would, however, expose soils and increase the potential for wind or water-related erosion and sedimentation until project construction is complete. Consistent with the PHDSP FEIR, the project would be required to comply with the City's standard grading and construction-period erosion control techniques to reduce

erosion and sedimentation impacts to a less than significant level. Implementation of the project would not result in any new impacts or substantially increase the severity of the previously identified erosion impacts from construction. **[Same Impact as Approved Project (Less Than Significant Impact)]**

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

The project site is relatively flat; therefore, the potential for landslides and lateral spreading is low. As discussed under checklist question a, due to the potential liquefaction settlement and expansive clay, the site-specific Geotechnical Investigation recommended that the project be supported on a mat slab foundation and be designed to withstand liquefaction and differential settlements. Consistent with Mitigation Measure 8-3, the project shall be required to implement the recommendations from the site-specific Geotechnical Investigation which will be subject to City review and approval. With implementation of Mitigation Measure 8-3 from the PHDSP FEIR, impacts related to ground instability would be reduced to a less than significant level. The project would not result in any new impacts or substantially increase the severity of the previously identified impacts related to ground instability. **[Same Impact as Approved Project (Less Than Significant Impact with Mitigation Incorporated)]**

d) Would the project be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property?

The soils on-site have moderate expansion potential. As mentioned under checklist questions a and c, the project would be required to implement the recommendations identified in the site-specific Geotechnical Investigation. Therefore, the project would not create substantial direct or indirect risks to life or property. With implementation of Mitigation Measure 8-3 from the PHDSP FEIR, impacts related to expansive soils would be reduced to a less than significant level. The project would not result in any new impacts or substantially increase the severity of the previously identified impacts related to expansive soils. **[Same Impact as Approved Project (Less Than Significant Impact with Mitigation Incorporated)]**

e) Would the project 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?

The project would not result in any new impacts or substantially increase the severity of the previously identified impacts to wastewater disposal systems. **[Same Impact as Approved Project (No Impact)]**

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

While the project would not include substantial excavation, except for trenching for utilities, the project would be required to comply with Mitigation Measure 8-4 which includes implementation of an education program and stopping work if paleontological resources are encountered. Therefore, the project would not result in any new impacts or substantially increase the severity of the previously identified impacts to paleontological resources. **[Same Impact as Approved Project (Less than Significant Impact with Mitigation Incorporated)]**

4.5.3 Non-CEQA Effects

Per *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal. 4th 369 (BIA v. BAAQMD), effects of the environment on the project are not considered CEQA impacts. The following discussion is included for informational purposes only because the City has policies that address existing geology and soils conditions affecting a proposed project.

General Plan Policy 5.10.5-P6 requires new development be designed to meet current safety standards and implement appropriate building code to reduce risks associated with geologic conditions. In addition, General Plan Policy 5.10.5-P7 requires implementation of all recommendations and design solutions identified in project soils reports to reduce potential adverse effects associated with unstable soils or seismic hazards.

As mentioned previously, a site-specific Geotechnical Investigation has been prepared for the site which will require approval from the City of Santa Clara's Building Division (refer to Mitigation Measure 8-3). In addition, the project would be required to adhere to the latest CBC requirements to ensure that future site residents would not be endangered by hazardous site conditions. Therefore, the project would comply with General Plan Policies 5.10.5-P6 and 5.10.5-P7.

4.6 Hazards and Hazardous Materials

The information in this section is based upon a Phase I Environmental Site Assessment (ESA) prepared by Partner Engineering and Science, Inc. (PES) in September 2019 and a Phase II ESA prepared by ENGEO, Inc. (ENGEO) in October 2022 and updated in March 2024. These reports are included in Appendices E and F of this document.

4.6.1 Environmental Setting

4.6.1.1 *Regulatory Framework*

Overview

The storage, use, generation, transport, and disposal of hazardous materials and waste are highly regulated under federal and state laws. In California, the EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (CalEPA). In turn, local agencies have been granted responsibility for implementation and enforcement of many hazardous materials regulations under the Certified Unified Program Agency (CUPA) program.

Worker health and safety and public safety are key issues when dealing with hazardous materials. Proper handling and disposal of hazardous material is vital if it is disturbed during project construction. Cal/OSHA enforces state worker health and safety regulations related to construction activities. Regulations include exposure limits, requirements for protective clothing, and training requirements to prevent exposure to hazardous materials. Cal/OSHA also enforces occupational health and safety regulations specific to lead and asbestos investigations and abatement.

Federal and State

Federal Aviation Regulations Part 77

Federal Aviation Regulations, Part 77 Objects Affecting Navigable Airspace (FAR Part 77) sets forth standards and review requirements for protecting the airspace for safe aircraft operation, particularly by restricting the height of potential structures and minimizing other potential hazards (such as reflective surfaces, flashing lights, and electronic interference) to aircraft in flight. These regulations require that the Federal Aviation Administration (FAA) be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above the ground.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Over five years, $1.6 billion was collected and the tax went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites. CERCLA accomplished the following objectives:

- Established prohibitions and requirements concerning closed and abandoned hazardous waste sites;
- Provided for liability of persons responsible for releases of hazardous waste at these sites; and
- Established a trust fund to provide for cleanup when no responsible party could be identified.

The law authorizes two kinds of response actions:

- Short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response; and
- Long-term remedial response actions that permanently and significantly reduce the dangers associated with releases of threats of releases of hazardous substances that are serious, but not immediately life-threatening. These actions can be completed only at sites listed on the EPA's National Priorities List.

CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.[21]

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), enacted in 1976, is the principal federal law in the United States governing the disposal of solid waste and hazardous waste. RCRA gives the EPA the authority to control hazardous waste from the "cradle to the grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also sets forth a framework for the management of non-hazardous solid wastes.

[21] United States Environmental Protection Agency. "Superfund: CERCLA Overview." Accessed January 11, 2024. https://www.epa.gov/superfund/superfund-cercla-overview.

The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization, phasing out land disposal of hazardous waste, and corrective action for releases. Some of the other mandates of this law include increased enforcement authority for the EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.[22]

Government Code Section 65962.5

Section 65962.5 of the Government Code requires CalEPA to develop and update a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by state and local agencies and developers to comply with CEQA requirements.

The Cortese List includes hazardous substance release sites identified by the Department of Toxic Substances Control (DTSC) and State Water Resources Control Board (SWRCB).[23]

Toxic Substances Control Act

The Toxic Substances Control Act (TSCA) of 1976 provides the EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics, and pesticides. The TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint (LBP).

California Accidental Release Prevention Program

The California Accidental Release Prevention (CalARP) Program aims to prevent accidental releases of regulated hazardous materials that represent a potential hazard beyond the boundaries of a property. Facilities that are required to participate in the CalARP Program use or store specified quantities of toxic and flammable substances (hazardous materials) that can have off-site consequences if accidentally released. The Santa Clara Fire Department (SCFD) Community Risk Reduction Division implements the CalARP Program within the City.

Regional and Local

City of Santa Clara 2010-2035 General Plan

General Plan policies applicable to hazards and hazardous materials include, but are not limited to, those listed below.

[22] United States Environmental Protection Agency. "Summary of the Resource Conservation and Recovery Act." Accessed January 11, 2024. https://www.epa.gov/laws-regulations/summary-resource-conservation-and-recovery-act.

[23] California Environmental Protection Agency. "Cortese List Data Resources." Accessed January 11, 2024. https://calepa.ca.gov/sitecleanup/corteselist/.

Policies	Description
5.10.5-P22	Regulate development on sites with known or suspected contamination of soil and/or groundwater to ensure that construction workers, the public, future occupants and the environment are adequately protected from hazards associated with contamination, in accordance with applicable regulations.
5.10.5-P23	Require appropriate clean-up and remediation of contaminated sites.
5.10.5-P24	Protect City residents from the risks inherent in the transport, distribution, use and storage of hazardous materials

Santa Clara Emergency Operations Plan

In June 2016, the City of Santa Clara adopted an Emergency Operations Plan (EOP) to address the planned response of the City of Santa Clara to emergency situations associated with natural disasters and technological incidents, as well as chemical, biological, radiological, nuclear and explosive emergencies. The EOP establishes the emergency organization, assign tasks, specifies policies and general procedures, and provides for coordination of planning efforts for emergency events such as earthquake, flooding, dam failure, and hazardous materials responses.

4.6.1.2 *Existing Conditions*

The approximately 2.79-acre project site is currently developed with a one-story light industrial building (approximately 42,821 square feet) and associated surface parking. Based on the Phase I ESA, groundwater in the vicinity of the site was estimated to range from 5.5 to 14 feet bgs. Groundwater levels fluctuate seasonally depending on variables including variations in rainfall, irrigation, and groundwater pumping. Groundwater in the project area flows in the north and northeast direction.

History of Project Site

A land use history of the project site has been compiled based on a review of historical sources including Sanborn Fire Insurance Maps, topographic maps, aerial photographs, City directory listings, and prior environmental documents. The site was undeveloped from at least 1889 until construction of the existing building in 1990, but was used for grassland farming from at least the 1930s until the 1970s. The building was previously occupied by two tenants [California Eastern Laboratories (CEL) and Benvenue Medical, Inc. (Benvenue)] and there have been no significant changes to the property since the building was constructed.

On-site Sources of Contamination

Phase I Environmental Site Assessment

The project site is listed on the Resource Conservation and Recovery Act-Large Quantity Generator (RCRA-LQG), California Environmental Reporting System (CERS), CERS Hazardous Waste, Certified

Unified Program Agency (CUPA), Hazardous Waste Information System (HAZNET), RCRA Non-Generator/No Longer Regulated (NonGen/NLR) databases.[24]

CEL is listed in the RCRA-LQG database as a large quantity generator and in the CERS, CERS Hazardous Waste, CUPA databases as a facility that generate hazardous wastes. CEL is also listed in the HAZNET database for off-site disposal of waste and aged laboratory chemicals, organic solids, acidic and alkaline solutions, and unspecified aqueous solutions from 1994 to 2010 and in 2012.

Benvenue is listed in the RCRA NonGen/NLR database as a non-generator of hazardous waste as of 2018.

Phase II Environmental Site Assessment

A Phase II ESA was prepared to analyze potential impacts from former on-site and off-site activities. Soil, soil gas, and groundwater samples were collected from the project site and compared to the San Francisco Bay RWQCB Environmental Screening Levels (ESLs) for residential use.

Based on the results of the soil samples, various total petroleum hydrocarbon (TPH) analytes, volatile organic compounds (VOCs), metals, and organochlorine pesticides (OCPs) were detected in the soil samples above laboratory reporting limits, however, none of the soil samples exceeded their respective ESLs.

Trichloroethylene (TCE) was the only VOC detected in one groundwater sample. While TCE was detected, it was found to not exceed its respective ESL based on Maximum Concentration Limit (MCL) Priority and vapor intrusion.

Based on the results of the soil gas samples, benzene, naphthalene, chloroform, ethylbenzene, tetrachloroethylene (PCE), and TCE were found exceeding their respective residential ESLs using U.S. EPA's attenuation factor of 0.03.[25] In addition, oxygen was detected at concentrations ranging from 13 to 20 percent in the samples. Per the Phase II ESA, the oxygen detected would suggest that there is a potential bioattenuation zone, an area of soil with conditions that support biodegradation of petroleum hydrocarbon vapors that might be present beneath a site.

Off-site Sources of Contamination

Within a 0.25-mile radius of the project site, nine off-site facilities were identified. None of these off-site facilities were determined to represent a significant environmental concern for the project site because 1) the site has received a case closure by the regulatory agency, 2) the direction of

[24] The Phase I ESA also identified the site as being in the RCRA NonGen/NLR and HAZNET databases for off-site disposal of organic and inorganic solids, empty containers, alkaline solutions, and an aqueous solution with metals in 2012, however, this listing may be associated with Pacific Gas and Electric Company (PG&E) historical gas line testing in the site vicinity. It was mentioned that PG&E was not a tenant of the site.

[25] The concern with VOCs in soil gas, with respect to a risk to human health, is if soil gas would enter indoor air through vapor intrusion. The screening level for soil gas is calculated based on a ratio of the acceptable indoor air concentration to the soil gas concentration, also referred to as an attenuation factor.

groundwater flow, 3) the site only has soil contamination, and/or 4) the distance of the off-site facility to the project site.

4.6.1.3 *Other Hazards*

Airports

The Norman Y. Mineta San José International Airport is located approximately 3.0 miles southeast of the project site. The project site is not located within the Airport Influence Area (AIA) or the airport safety zone of the Norman Y. Mineta San José International Airport, as defined by the Comprehensive Land Use Plan (CLUP).[26]

Wildland Fires

The proposed project is located in an urbanized area that is not subject to wildland fires.

4.6.2 Impact Discussion

	New Potentially Significant Impact	New Less than Significant with Mitigation Incorporated	New Less than Significant Impact	Same Impact as Approved Project	Less Impact than Approved Project
Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒	☐

[26] Walter B. Windus, PE. Aviation Consultant. "Comprehensive Land Use Plan: Norman Y. Mineta San José International Airport." May 2011. Accessed January 25, 2024. https://www.sccgov.org/sites/dpd/DocsForms/Documents/ALUC_SJC_CLUP.pdf.

	New Potentially Significant Impact	New Less than Significant with Mitigation Incorporated	New Less than Significant Impact	Same Impact as Approved Project	Less Impact than Approved Project
Would the project:					
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment?	☐	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒	☐
f) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒	☐

4.6.2.1 *Findings of the PHDSP FEIR*

Hazardous Materials Transport, Use, Storage, and Disposal

Construction and operation of the PHDSP could involve the transport, use, storage, or disposal of common hazardous substances, however, compliance with applicable federal, state, and local handling, storage, and disposal requirements would ensure significant hazards to the public or the environment created by the routine transport, use, or disposal of hazardous materials would be avoided. With implementation of local, state, and federal regulations, the PHDSP was found to have a less than significant impact from the use, transport, storage, and disposal of chemicals.

Existing Hazardous Materials Contamination

Based on the PHDSP FEIR, there is potential that the construction of new developments within the PHDSP could encounter contamination and expose the public or the environment to the accidental release of hazardous materials. The PHDSP FEIR concluded that compliance with the existing applicable state-level and regional mandated site assessment, remediation, removal, and disposal requirements for soil, surface water, and/or groundwater contamination would prevent the

potential exposure of existing hazardous materials and further existing contamination. Compliance with established requirements would prevent exacerbation of existing contamination or accidental release, and ensure that impacts associated with potential soil and surface/groundwater contamination would be reduced to a less than significant level.

Asbestos and Polychlorinated Biphenyls

Given the age of the buildings in the PHDSP area, the PHDSP FEIR concluded that the existing buildings and transformers would likely contain asbestos and/or PCBs. Remediation of asbestos and PCB paint must be in accordance with national regulatory guidelines, CalOSHA standards, and City requirements. Implementation of City, County, regional, and state-mandated requirements would result in a less than significant impact associated with asbestos-containing materials and PCBs.

Lead-Based Paint

LBP that is split into thin layers or chipped from surfaces could release airborne particles during alternation, renovation, or demolition of existing structures within the PHDSP area. If LBP is present, each site-specific project would be required to comply with CalOSHA regulations. With implementation of the CalOSHA regulations, the PHDSP was found to have a less than significant impact associated with LBP.

Schools

While there are existing schools located within 0.25 miles of the PHDSP area, the land uses permitted under the PHDSP are not expected to involve the routine transport, use, storage, or disposal of hazardous materials to that extent that a significant public or environmental hazard would occur. While future construction under the PHDSP would likely involve the intermittent transport, use, storage, and disposal of potentially hazardous materials, including fuels and lubricants, paints, solvents, and other materials commonly used in construction and maintenance, these projects would be required to comply with applicable local, state, and federal regulations. The PHDSP FEIR concluded that the potential for hazardous material impacts on schools would be less than significant.

Government Code Section 65962.5

No sites within the PHDSP area are listed on a list of hazardous materials sites pursuant to Government Code Section 65962.5; therefore, the PHDSP FEIR concluded impacts would be less than significant.

Airport Safety

The PHDSP is not within two miles of an airport, but 12 acres of the eastern section of the PHDSP area (northeast of Old Ironsides Drive and Patrick Henry Drive) is within the AIA for the Norman Y. Mineta San José International Airport. Projects proposed in the PHDSP area that are within the AIA would need to be referred to the ALUC for consistency review with the Norman Y. Mineta San José

International Airport. The PHDSP FEIR concluded that compliance with the Norman Y. Mineta San José International Airport CLUP development standards would reduce aircraft hazard impacts for people residing or working in the area to a less than significant level.

Emergency Operation Plans

Impacts to EOPs would be the same on all project sites within the PHDSP area given that the projects would be required to comply with the plans and policies identified in the City's EOP. The PHDSP FEIR found impacts to EOPs to be less than significant.

Wildfire Hazards

The PHDSP FEIR found no impacts related to wildlife hazards since the PHDSP area is not within a Very High Fire Hazard Severity Zone and there is no terrain or vegetation within the plan area that would be conducive to wildfires. For these reasons, the PHDSP FEIR concluded that no impacts related to wildfire hazards would occur.

4.6.2.2 *Impacts Resulting from the Proposed Project*

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

Construction

The proposed project would demolish the existing building on-site and construct an eight-story residential building with up to 284 dwelling units. Any hazardous materials present on-site would be properly disposed of during project construction. Consistent with the PHDSP FEIR, the project would be required to comply with all applicable federal, state, and local handling, storage, and disposal requirements to ensure that construction workers and/or nearby residents would not be exposed to hazardous materials. Therefore, the project would not result in any new impacts or substantially increase the severity of the previously identified hazardous impact through the routine transport, use, or disposal of hazardous materials during project construction. **[Same Impact as Approved Project (Less Than Significant Impact)]**

Operation

While the project would likely include the use and storage of cleaning supplies and maintenance chemicals in small quantities, the small quantities of cleaning supplies and maintenance chemicals used on-site would not pose a risk to adjacent land uses. Based on the proposed use of the site, the proposed project would not create a significant hazard to the public or environment from the use, transport, or storage of these chemicals. Furthermore, the project would be required to comply with local, state, and federal regulations related to handling, storage, and disposal of hazardous materials during project operation. Therefore, the project would not result in any new impacts or substantially increase the severity of the previously identified hazardous impact through the routine

transport, use, or disposal of hazardous materials during project operation. **[Same Impact as Approved Project (Less Than Significant Impact)]**

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

While no on-site or off-site sources of contamination were identified in the Phase I ESA, benzene, naphthalene, chloroform, ethylbenzene, PCE, and TCE were found exceeding their respective residential ESLs for soil gas as discussed in the Phase II ESA. The building was constructed in 1990 and would not contain any asbestos, PCBs, or LBP materials.

Impact HAZ-1: Construction of the project could expose construction workers to benzene, naphthalene, chloroform, ethylbenzene, tetrachloroethylene (PCE), and trichloroethylene (TCE) which were found to exceed the San Francisco Bay Regional Water Quality Control Board (RWQCB) Soil Gas Vapor Intrusion Human Health Risk Levels.

Mitigation Measure

MM HAZ-1.1: Prior to issuance of any grading permit, the project applicant shall obtain regulatory oversight from the Department of Toxic Substances Control (DTSC) or the Santa Clara County Department of Environmental Health (SCCDEH) under their Site Cleanup Program. A Site Management Plan (SMP), Removal Action Plan (RAP), or equivalent document shall be prepared under regulatory oversight and approval by a qualified environmental consultant that identifies remedial measures and/or soil management practices to ensure construction worker safety. The plan and evidence of regulatory oversight shall be provided to the Director of Community Development.

Implementation of Mitigation Measure HAZ-1.1 would reduce the risk of construction workers exposure to VOCs. Therefore, the project would not result in any new impacts or substantially increase the severity of the previously identified hazardous impact involving the release of hazardous materials into the environment. **[New Less Than Significant Impact with Mitigation Incorporated (Less Than Significant Impact)]**

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

The nearest school to the project site is Fairwood Explorer Elementary School, approximately 915 feet west of the site. As mentioned under checklist question a, the project would likely include the use and storage of cleaning supplies and maintenance chemicals in small quantities. The project would not use or store hazardous materials in sufficient quantities to pose a health risk to any

nearby school. Consistent with the PHDSP FEIR, the project would be required to comply with applicable local, state, and federal regulations when handling hazardous materials, substances, or waste. Therefore, the project would not result in any new impacts or substantially increase the severity of the previously identified hazardous impact to any nearby school. **[Same Impact as Approved Project (Less Than Significant Impact)]**

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

As mentioned previously, there are no sites within the PHDSP area on any list of hazardous materials sites pursuant to Government Code Section 65962.5. Therefore, implementation of the project would not result in any new impacts or substantially increase the severity of the previously identified hazardous materials impact to the public and/or environment. **[Same Impact as Approved Project (Less Than Significant Impact)]**

e) If located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The Norman Y. Mineta San José International Airport is located approximately 3.0 miles southeast of the project site and is located outside the Norman Y. Mineta San José International Airport CLUP-defined safety zone and the AIA.

FAR Part 77 sets forth standards and review requirements for the protection of airspace for safe aircraft operation, particularly by restricting the height of potential structures and minimizing reflective surfaces, flashing lights, electronic interference, and other potential hazards to aircraft in flight. Per the PHDSP FEIR, any structures that would exceed 150 feet to 170 feet above ground are required under FAR Part 77 to be submitted to the FAA for review. The proposed building would be up to 86 feet tall to the top of the parapet. Therefore, the proposed project would not be considered an aircraft hazard, and the project would not result in a substantial safety hazard for people residing or working at the project site. Implementation of the project would not result in any new impacts or substantially increase the severity of the previously identified safety hazard impact. **[Same Impact as Approved Project (Less Than Significant Impact)]**

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

The project would be constructed in accordance with current building and fire codes and would be required to be maintained in accordance with applicable City policies identified in the General Plan to avoid unsafe building conditions. Consistent with the PHDSP FEIR, the project would be required to comply with the plans and policies identified in the City's EOP. Therefore, the proposed project

would not impair implementation of or physically interfere with the City's emergency operations. Implementation of the project would not result in any new impacts or substantially increase the severity of the previously identified impact related to emergency response plans. **[Same Impact as Approved Project (Less Than Significant Impact)]**

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

The project site is located in an urbanized area of the City and is not located in an area adjacent to any wildland area. Therefore, implementation of the project would not result in any new impacts or substantially increase the severity of the previously identified impact related to wildland fires. **[Same Impact as Approved Project (No Impact)]**

4.6.3 Non-CEQA Effects

Per *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal. 4th 369 (BIA v. BAAQMD), effects of the environment on the project are not considered CEQA impacts. The following discussion is included for informational purposes only because the City has policies that address existing hazards and hazardous materials conditions affecting a proposed project.

General Plan Policy 5.10.5-P22 requires development on sites with known or suspected contamination of soil and/or groundwater to be regulated to ensure that construction workers, the public, future occupants and the environment are adequately protected from hazards associated with contamination, in accordance with applicable regulations. In addition, General Plan Policy 5.10.5- P23 requires appropriate clean-up and remediation of contaminated sites.

As discussed under checklist question b, the Phase II ESA found benzene, naphthalene, chloroform, ethylbenzene, PCE, and TCE exceeding their respective residential ESLs for soil gas. The project would be required to implement Mitigation Measure HAZ-1.1 to ensure that construction workers would not be exposed to soil gas. Future residents of the site could be exposed to vapor intrusion; therefore, the project would be required to implement the following Condition of Approval.

Condition of Approval:

- As part of the project's Site Management Plan (SMP), Removal Action Plan (RAP), or equivalent document, the project applicant shall design and install a vapor intrusion mitigation system (VIMS) consistent with design specifications by equipment manufacturers, local permit conditions and regulations, and relevant industry standards to ensure that future residents would not be exposed to volatile organic compounds. The VIMS design package shall be submitted to the Department of Toxic Substances Control (DTSC) or the Santa Clara County Department of Environmental Health (SCCDEH) for review and approval prior to the issuance of building permits. The approved VIMS shall be included on all building permit documents. In addition, the project applicant shall prepare an Operation,

Maintenance, and Monitoring (OM&M) plan which shall also include a contingency plan in the event that the VIMS is not working as designed.

4.7 Hydrology and Water Quality

4.7.1 Environmental Setting

4.7.1.1 *Regulatory Framework*

Federal and State

The federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality in California. Regulations set forth by the EPA and the SWRCB have been developed to fulfill the requirements of this legislation. EPA regulations include the NPDES permit program, which controls sources that discharge pollutants into the waters of the United States (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by the RWQCBs. The plan area is within the jurisdiction of the San Francisco Bay RWQCB.

Under Section 303(d) of the federal Clean Water Act, the SWRCB and RWQCBs are required to identify impaired surface water bodies that do not meet water quality standards and develop total maximum daily loads (TMDLs) for contaminants of concern. The list of the state's identified impaired surface water bodies, known as the "303(d) list" can be found on the on the RWQCB's website.[27]

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) established the National Flood Insurance Program (NFIP) to reduce impacts of flooding on private and public properties. The program provides subsidized flood insurance to communities that comply with FEMA regulations protecting development in floodplains. As part of the program, FEMA publishes Flood Insurance Rate Maps (FIRMs) that identify Special Flood Hazard Areas (SFHAs). An SFHA is an area that would be inundated by the one-percent annual chance flood, which is also referred to as the base flood or 100-year flood.

Statewide Construction General Permit

The SWRCB has implemented an NPDES General Construction Permit for the State of California (Construction General Permit). For projects disturbing one acre or more of soil, a Notice of Intent (NOI) must be filed with the RWQCB by the project sponsor, and a SWPPP must be prepared by a qualified professional prior to commencement of construction and filed with the RWQCB by the project sponsor. The Construction General Permit includes requirements for training, inspections, record keeping, and, for projects of certain risk levels, monitoring. The general purpose of the requirements is to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related storm water discharges.

[27] San Francisco Regional Water Quality Control Board. "The 303(d) List of Impaired Water Bodies." Accessed January 16, 2024. https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/303dlist.html.

Regional

San Francisco Bay Basin Plan

The San Francisco Bay RWQCB regulates water quality in accordance with the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). The Basin Plan lists the beneficial uses that the San Francisco Bay RWQCB has identified for local aquifers, streams, marshes, rivers, and the San Francisco Bay, as well as the water quality objectives and criteria that must be met to protect these uses. The San Francisco Bay RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements, including permits for nonpoint sources such as the urban runoff discharged by a City's stormwater drainage system. The Basin Plan also describes watershed management programs and water quality attainment strategies.

Municipal Regional Permit Provision C.3

The San Francisco Bay RWQCB re-issued the Municipal Regional Permit (MRP) in May 2022 to regulate stormwater discharges from municipalities and local agencies (co-permittees) in Alameda, Contra Costa, San Mateo, and Santa Clara Counties, and the cities of Fairfield, Suisun City, and Vallejo.[28] Under Provision C.3 of the MRP, new and redevelopment projects that create or replace 5,000 square feet or more of impervious surface area are required to implement site design, source control, and Low Impact Development (LID)-based stormwater treatment controls to treat post-construction stormwater runoff. LID-based treatment controls are intended to maintain or restore the site's natural hydrologic functions, maximizing opportunities for infiltration and evapotranspiration, and using stormwater as a resource (e.g., rainwater harvesting for non-potable uses). The MRP also requires that stormwater treatment measures are properly installed, operated, and maintained.

In addition to water quality controls, the MRP requires new development and redevelopment projects that create or replace one acre or more of impervious surface to manage development-related increases in peak runoff flow, volume, and duration, where such hydromodification is likely to cause increased erosion, silt pollutant generation, or other impacts to local rivers, streams, and creeks. Projects may be deemed exempt from these requirements if: (1) the post-project impervious surface area is less than, or the same as, the pre-project impervious surface area; (2) the project is located in a catchment that drains to a hardened (e.g., continuously lined with concrete) engineered channel or channels or enclosed pipes, which extend continuously to the Bay, Delta, or flow-controlled reservoir, or, in a catchment that drains to channels that are tidally influenced; or (3) the project is located in a catchment or subwatershed that is highly developed (i.e., that is 70 percent or more impervious).[29]

[28] California Regional Water Quality Control Board San Francisco Region. *Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, NPDES Permit No. CAS612008*. May 11, 2022

[29] The Hydromodification Applicability Maps developed the permittees under Order No. R2-2009-0074 were prepared using this standard, adjusted to 65 percent imperviousness to account for the presence of vegetation on the photographic references used to determine imperviousness. Thus, the maps for Order No. R2-2009-0074 are accepted as meeting the 70 percent requirement.

Water Resources Protection Ordinance and District Well Ordinance

Valley Water operates as the flood control agency for Santa Clara County. Their stewardship also includes creek restoration, pollution prevention efforts, and groundwater recharge. Permits for well construction and destruction work, most exploratory boring for groundwater exploration, and projects within Valley Water property or easements are required under Valley Water's Water Resources Protection Ordinance and District Well Ordinance.

2021 Groundwater Management Plan

The 2021 Groundwater Management Plan (GWMP) describes Valley Water's comprehensive groundwater management framework, including existing and potential actions to achieve basin sustainability goals and ensure continued sustainable groundwater management. The GWMP covers the Santa Clara and Llagas subbasins, which are located entirely in Santa Clara County. Valley Water manages a diverse water supply portfolio, with sources including groundwater, local surface water, imported water, and recycled water. About half of the county's water supply comes from local sources and the other half comes from imported sources. Imported water includes Valley Water's State Water Project and Central Valley contract supplies and supplies delivered by the San Francisco Public Utilities Commission (SFPUC) to cities in northern Santa Clara County. Local sources include natural groundwater recharge and surface water supplies. A small portion of the county's water supply is recycled water.

Local groundwater resources make up the foundation of the county's water supply, but they need to be augmented by the District's comprehensive water supply management activities to reliably meet the county's needs. These include the managed recharge of imported and local surface water and in-lieu groundwater recharge through the provision of treated surface water and raw water, acquisition of supplemental water supplies, and water conservation and recycling.[30]

Construction Dewatering Waste Discharge Requirements

Each of the RWQCBs regulate construction dewatering discharges to storm drains or surface waters within its Region under the NPDES program and Waste Discharge Requirements.

Dam Safety

Dam failure is the uncontrolled release of impounded water behind a dam. Flooding, earthquakes, blockages, landslides, lack of maintenance, improper operation, poor construction, vandalism, and terrorism can all cause a dam to fail. Because dam failure that results in downstream flooding may affect life and property, dam safety is regulated at both the federal and state level. Dams under the jurisdiction of the California Division of Safety of Dams are identified in California Water Code Sections 6002, 6003, and 6004 and regulations for dams and reservoirs are included in the California Code of Regulations. In accordance with the state's Dam Safety Act, dams are inspected regularly and detailed evacuation procedures have been prepared for each dam.

[30] Valley Water. *2021 Groundwater Management Plan, Santa Clara and Llagas Subbasins*. November 2021.

As part of its comprehensive dam safety program, Valley Water routinely monitors and studies the condition of each of its 10 dams. Valley Water also has its own Emergency Operations Center and a response team that inspects dams after significant earthquakes. These regulatory inspection programs reduce the potential for dam failure.

Local

City of Santa Clara 2010-2035 General Plan

General Plan policies related to hydrology and water quality that are applicable to the project are listed below.

Policies	Description
5.10.5-P11	Require that new development meet stormwater and water management requirements in conformance with state and regional regulations.
5.10.5-P13	Require that development complies with the Flood Damage Protection Code.
5.10.5-P15	Require new development to minimize paved and impervious surfaces and promote on-site Best Management Practices for infiltration and retention, including grassy swales, pervious pavement, covered retention areas, bioswales, and cisterns, to reduce urban water run-off.
5.10.5-P16	Require new development to implement erosion and sedimentation control measures to maintain an operational drainage system, preserve drainage capacity and protect water quality.
5.10.5-P17	Require that grading and other construction activities comply with the Association of Bay Area Governments' Manual of Standards for Erosion and Sediment Control Measures and with the California Stormwater Quality Association, Stormwater Best Management Practice Handbook for Construction.
5.10.5-P18	Implement the Santa Clara Valley Nonpoint Source Pollution Control Program (SCVNSPC), Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) and the Urban Runoff Management Plan (URMP).
5.10.5-P19	Limit development activities within riparian corridors to those necessary for improvement or maintenance of stream flow.
5.10.5-P20	Maintain, upgrade and replace storm drains throughout the City to reduce potential flooding.
5.10.5-P21	Require that storm drain infrastructure is adequate to serve all new development and is in place prior to occupancy.

Santa Clara City Code

Chapter 13.20, Storms Drains and Discharges, of the Santa Clara City Code is enacted for the protection of health, life, resources and property through prevention and control of unauthorized discharges into watercourses. The primary goal of this chapter is the cleanup of stormwater pollution from urban runoff that flows to creeks and channels, eventually discharging into the San Francisco Bay. The City Code also includes Flood Damage Prevention Code (Chapter 15.45) and requirements for grading and excavation permits and erosion control (Chapter 15.15).

Santa Clara Emergency Operations Plan

In June 2016, the City of Santa Clara adopted an Emergency Operations Plan (EOP) to address the planned response of the City of Santa Clara to emergency situations associated with natural disasters and technological incidents, as well as chemical, biological, radiological, nuclear and explosive emergencies. The EOP establishes the emergency organization, assign tasks, specifies policies and general procedures, and provides for coordination of planning efforts for emergency events such as earthquake, flooding, dam failure, and hazardous materials responses.

4.7.1.2 *Existing Conditions*

Storm Drainage and Water Quality

The water quality of streams, creeks, ponds, and other surface water bodies can be greatly affected by pollution carried in contaminated surface runoff. Pollutants from unidentified sources, known as nonpoint source pollutants, are washed from streets, construction sites, parking lots, and other exposed surfaces into storm drains. Stormwater from urban uses contains metals, pesticides, herbicides, and other contaminants, including oil, grease, asbestos, lead, and animal wastes. Stormwater from the project site drains into Calabazas Creek, located immediately west of the project site. Based on data from the SWRCB, Calabazas Creek is currently listed on the California 303(d) impaired waters list for diazinon.[31]

Groundwater

Groundwater on-site was estimated to range from 5.5 to 14 feet bgs.[32] Groundwater in the project area flows in the north and northeast direction.

Flooding

According to the FEMA Flood Insurance Rate Maps (FIRM),[33] the project site is located in Flood Zone X. Flood Zone X is defined as "Areas of 0.2 percent annual chance flood; areas of one percent 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." Flood Zone X is not subject to a 100-year flood hazard.

[31] State Water Resources Control Board. "Impaired Water Bodies." Accessed January 26, 2024. https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml.
[32] PES Environmental, Inc. *Phase I Environmental Site Assessment Report*. September 19, 2019.
[33] Federal Emergency Management Agency. "FEMA Flood Map Service Center." Accessed January 26, 2024. https://msc.fema.gov/portal/search?AddressQuery.

Dam Failure

As shown in Figure 4.4-1 of the City's General Plan FEIR, the project site is not located in any dam failure inundation hazard zone.[34]

Seiches, Tsunamis, and Mudflows

A seiche is the oscillation of water in an enclosed body of water such as a lake or the San Francisco Bay. There are no landlocked bodies of water nearby that would affect the site in the event of a seiche.

A tsunami is a sea wave generated by an earthquake, landslide, or other large displacement of water in the ocean. There are no bodies of water near the site that would affect the site in the event of a tsunami.

A mudflow is the rapid movement of a large mass of mud formed from loose soil and water. The project site and surrounding area are relatively flat and would not be susceptible to mudflow.

4.7.2 Impact Discussion

	New Potentially Significant Impact	New Less than Significant with Mitigation Incorporated	New Less than Significant Impact	Same Impact as Approved Project	Less Impact than Approved Project
Would the project:					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☐	☒	☐
– result in substantial erosion or siltation on- or off-site;	☐	☐	☐	☒	☐

[34] City of Santa Clara. 2010-2035 General Plan Integrated Final Environmental Impact Report. SCH# 2008092005. January 2011.

	New Potentially Significant Impact	New Less than Significant with Mitigation Incorporated	New Less than Significant Impact	Same Impact as Approved Project	Less Impact than Approved Project
Would the project:					
– 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?	☐	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒	☐

4.7.2.1 *Findings of the PHDSP FEIR*

Construction Water Quality Impacts

All projects proposed under the PHDSP would implement site-specific and mandated measures to protect water quality, including but not limited to those measures required under the SCVURPPP. In addition, any project grading activity that would disturb more than one acre of soil would require a NOI and an NPDES permit from the San Francisco Bay RWQCB. Project owners would be required to submit a NOI to the RWQCB to be covered by the General Construction Permit prior to the beginning of construction and the General Construction Permit requires the preparation and implementation of a SWPPP. After completion of the project, the owners are required to submit a Notice of Termination to the RWQCB to indicate that construction is completed.

In addition, depending on the individual development proposals, grading permits would be required. For all grading permits, the City mandates site-specific measures to be implemented during grading to minimize construction period erosion, including a site-specific erosion and sediment control plan subject to City review and approval. The PHDSP FEIR concluded that with implementation of the required NDPES, SCVURPPP, and City construction period measures, the risk of construction period water quality impacts would be reduced to a less than significant level.

Operational Water Quality Impacts

Build out of the PHDSP FEIR could result in contaminated stormwater runoff from petroleum and other contaminants from automobiles. Per the PHDSP FEIR, all projects within the PHDSP area would be required to comply with the RWQCB and City-mandated post-construction control measures to reduce post-construction water quality impacts.

In addition, the City of Santa Clara is subject to the terms of the countywide MRP which requires each project to implement post-construction measures to prevent or control pollutants in runoff (recommended measures are included in the Stormwater C.3 Guidebook) and identify a plan to inspect and maintain these measures. As part of the standard City development process, future project applicants would be required to submit, for City review and approval, a Santa Clara "C.3" data form, which would be used to determine whether C.3 requirements apply (i.e., projects meeting or exceeding the size threshold for impervious surfaces) and to identify which site design measures, pollutant source controls, and/or stormwater treatment measures are proposed to prevent runoff pollution. The PHDSP FEIR concluded that compliance with regulatory requirements would result in a less than significant post-construction water quality impact.

Groundwater Recharge and Groundwater Management

Implementation of the PHDSP is expected to decrease the proportion of the PHDSP area that is covered with impervious surface through application of LID techniques that would increase permeable area as well as the introduction of new landscaped, open space, and park areas. The PHDSP FEIR concluded that the PHDSP would not conflict with or obstruct implementation of the 2016 GWMP because the PHDSP area is not an area designated by Valley Water for groundwater recharge. The PHDSP was found to have a less than significant impact on groundwater recharge and groundwater management.

Drainage Patterns and Flooding Risks

As described in the PHDSP FEIR, the area is already developed with buildings, surface parking, and associated landscaping. The PHDSP FEIR concluded that the existing drainage patterns would not be substantially altered because implementation of stormwater control measures as required by the MRP would reduce the volume of stormwater runoff compared to the existing hardscape surfaces.

Certain portions of the PHDSP area are located in Special Flood Hazard Areas: AH and AO. An AH and AO flood zone has a one percent or greater chance of an annual shallow flooding. Areas within the AH zone include parcels south of Patrick Henry Drive. Areas within the AO flood zone are located within the northeastern corner of the PHDSP area on Old Ironside Drive. The other parcels in the PHDSP area are in Zone X, an area with reduced flood risk due to levee.

The PHDSP FEIR determined that compliance with regulatory requirements (e.g., MRP, City of Santa Clara Flood Damage Prevention Code, City of Santa Clara Green Stormwater Infrastructure Plan)

would result in a less than significant impacts related to drainage patterns and flooding risks.

Flood Hazard, Tsunami, and Seiche Zones

The PHDSP area is not near bodies of water that would pose a hazard for a seiche or tsunami. Based on the PHDSP's location, impacts related to seiches, tsunamis, and groundwater would be the same for all future developments facilitated by the PHDSP. No further discussion of these issues was provided.

4.7.2.2 *Impacts Resulting from the Proposed Project*

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

Construction Water Quality Impacts

The approximately 2.79-acre project site would disturb more than one acre of soil; therefore, the proposed project would be required to obtain a General Construction Permit. In addition, the project would be required to implement site-specific measures during grading to minimize construction period erosion as discussed in the PHDSP FEIR.

By complying with the requirements of the NPDES, SCVURPPP, and City construction period measures, construction of the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Therefore, implementation of the project would not result in any new impacts or substantially increase the severity of the previously identified water quality impact from construction. **[Same Impact as Approved Project (Less Than Significant Impact)]**

Post-Construction Impacts

Implementation of the project would decrease the amount of impervious areas from 101,480 square feet to 91,303 square feet, a net decrease of 10,177 square feet compared to the existing conditions. Since the proposed project would replace more than 5,000 square feet of impervious surfaces, the project would be required to comply with the provisions of the NPDES MRP consistent with the PHDSP FEIR. The MRP requires all post-construction stormwater runoff to be treated by numerically sized LID treatment controls, such as biotreatment facilities, unless the project is granted Special Project LID Reduction Credits, which would allow the project to implement non-LID measures for all or a portion of the site depending on the project characteristics. The project plans would be certified by engineers to ensure incorporation of appropriate and effective source control measures to meet LID requirements to prevent discharge of pollutants, reduce impervious surfaces, retain a percentage of runoff on-site for percolation, and treatment control measures to remove pollutants from runoff entering the storm drainage system.

The project proposes to treat stormwater runoff from the project site with flow-through planters, bioretention areas, and landscaping. The final stormwater control plan shall be reviewed and approved by the City at the grading permit stage. Therefore, the proposed project would not result in any new impacts or substantially increase the severity of the previously identified hydrology and water quality impacts. **[Same Impact as Approved Project (Less Than Significant Impact)]**

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

Groundwater within the vicinity of the site is estimated at a depth ranging from 5.5 to 14 feet bgs. The project would not include any substantial excavations (except for trenching for utilities) since no below-grade parking is proposed. Additionally, the project is not located in an area used for groundwater recharge; therefore, the proposed project would not interfere with groundwater recharge or deplete supplies. Therefore, the proposed project would not result in any new impacts or substantially increase the severity of the previously identified groundwater recharge impacts. **[Same Impact as Approved Project (Less Than Significant Impact)]**

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would 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?

The existing and proposed square footages of pervious and impervious surfaces for the project site are shown below in Table 4.7-1.

Table 4.7-1: Pervious and Impervious Surfaces On-Site

	Existing/Pre-Construction (sq ft)	%	Project/Post-Construction (sq ft)	%	Difference (sq ft)	%
Impervious Area						
Subtotal	101,480	83	91,303	75	-10,177	
Pervious Area						
Subtotal	20,257	17	30,434	25	+10,177	
Total:	121,737	100	121,737	100		

Implementation of the project would result in 91,303 square feet of impervious areas, a net decrease of 10,177 square feet of impervious areas compared to existing conditions. The proposed project would reduce stormwater runoff from the project site. As mentioned under checklist question a, the project would be required to comply with the MRP consistent with the PHDSP FEIR and would not substantially alter the existing drainage patterns. Therefore, the project would not substantially increase erosion or increase the rate or amount of stormwater runoff. The proposed project would not result in any new impacts or substantially increase the severity of the previously identified drainage impacts. **[Same Impact as Approved Project (Less Than Significant Impact)]**

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

Due to the location of the project site, the project would not be subject to inundation by a seiche or tsunami. In addition, the project area is flat and there are no mountains in proximity; therefore, development of the project site would not cause mudflows that would impact adjacent properties. As mentioned previously, the project site is located in Zone X, an area that is not subject to a 100-year flood hazard, and the project site is not located in a dam failure inundation hazard zone. Therefore, the project would not release pollutants due to dam, seiche, or tsunami inundation. Implementation of the proposed project would not result in any new impacts or substantially increase the severity of the previously identified impacts due to dam, seiche, or tsunami inundation. **[Same Impact as Approved Project (Less Than Significant Impact)]**

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

As discussed under checklist question a, the project would be required to comply with the MRP, SCVURPPP, and City construction period measures. The project would not include any substantial excavations since below-grade parking is not proposed; therefore, the project would not interfere with groundwater recharge or deplete groundwater supplies. For these reasons, implementation of the project would not conflict with, or obstruct implementation of, any water quality control plan or sustainable groundwater management plan. The proposed project would not result in any new impacts or substantially increase the severity of the previously identified impacts related to groundwater management plans. **[Same Impact as Approved Project (Less Than Significant Impact)]**

4.8 Noise and Vibration

The following discussion is based on a Noise and Vibration Assessment prepared by I&R in November 2023. A copy of this report is included as Appendix G of this document.

4.8.1 Environmental Setting

4.8.1.1 *Background Information*

Noise

Factors that influence sound as it is perceived by the human ear, include the actual level of sound, period of exposure, frequencies involved, and fluctuation in the noise level during exposure. Noise is measured on a decibel scale, which serves as an index of loudness. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness. Because the human ear cannot hear all pitches or frequencies, sound levels are frequently adjusted or weighted to correspond to human hearing. This adjusted unit is known as the A-weighted decibel, or dBA.

Since excessive noise levels can adversely affect human activities and human health, federal, state, and local governmental agencies have set forth criteria or planning goals to minimize or avoid these effects. Noise guidelines are generally expressed using one of several noise averaging methods, including L_{eq}, DNL, or CNEL.[35] These descriptors are used to measure a location's overall noise exposure, given that there are times when noise levels are higher (e.g., when a jet is taking off from an airport or when a leaf blower is operating) and times when noise levels are lower (e.g., during lulls in traffic flows on freeways or in the middle of the night). L_{max} is the maximum A-weighted noise level during a measurement period.

Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Vibration amplitude can be quantified using Peak Particle Velocity (PPV), which is defined as the maximum instantaneous positive or negative peak of the vibration wave. PPV has been routinely used to measure and assess ground-borne construction vibration. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 inches/second (in/sec) peak particle velocity (PPV).

[35] L_{eq} is a measurement of average energy level intensity of noise over a given period of time. Day-Night Level (DNL) is a 24-hour average of noise levels, with a 10 dB penalty applied to noise occurring between 10:00 PM and 7:00 AM. Community Noise Equivalent Level (CNEL) includes an additional five dB applied to noise occurring between 7:00 PM and 10:00 PM. Where traffic noise predominates, the CNEL and DNL are typically within two dBA of the peak-hour L_{eq}.

4.8.1.2 *Regulatory Framework*

Federal

Federal Transit Administration

The Federal Transit Administration (FTA) has identified construction noise thresholds in the Transit Noise and Vibration Impact Assessment Manual.[36] During daytime hours, an exterior threshold of 80 dBA L_{eq} shall be applied at residential land uses and 90 dBA L_{eq} shall be applied at commercial and industrial land uses.

State and Local

California Building Standards Code

The CBC establishes uniform minimum noise insulation performance standards to protect persons within new buildings housing people, including hotels, motels, dormitories, apartments, and dwellings other than single-family residences. Title 24 mandates that interior noise levels attributable to exterior sources not exceed 45 L_{dn}/CNEL in any habitable room. Exterior windows must have a minimum Sound Transmission Class (STC) of 40 or Outdoor-Indoor Transmission Class (OITC) of 30 when the property falls within the 65 dBA DNL noise contour for a freeway or expressway, railroad, or industrial source.

City of Santa Clara 2010-2035 General Plan

The City of Santa Clara's General Plan identifies noise and land use compatibility standards for various land uses and establishes policies to control noise within the community. Table 8.14-1 from the General Plan shows acceptable noise levels for various land uses. Residential land uses are considered compatible in noise environments of 55 dBA CNEL or less. The guidelines state that where the exterior noise levels are greater than 55 dBA CNEL and less than 70 dBA CNEL at residential uses, the design of the project should include measures to reduce interior noise to acceptable levels.

General Plan policies applicable to noise and vibration include, but are not limited to, the following listed below.

Policies	Description
5.5.2-P3	Implement site design solutions, such as landscaping and increased building setbacks, to provide a buffer between non-residential and residential uses.
5.5.2-P4	Provide adequate separation between incompatible land uses in order to minimize negative effects on surrounding existing and planned development.

[36] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, FTA Report No. 0123, September 2018.

Policies	Description
5.10.6-P1	Review all land use and development proposals for consistency with the General Plan compatibility standards and acceptable noise exposure levels defined on Table 5.10-1.
5.10.6-P2	Incorporate noise attenuation measures for all projects that have noise exposure levels greater than General Plan "normally acceptable" levels, as defined on Table 5.10-1.
5.10.6-P3	New development should include noise control techniques to reduce noise to acceptable levels, including site layout (setbacks, separation and shielding), building treatments (mechanical ventilation system, sound-rated windows, solid core doors and baffling) and structural measures (earthen berms and sound walls).
5.10.6-P5	Require noise-generating uses near residential neighborhoods to include solid walls and heavy landscaping along common property lines, and to place compressors and mechanical equipment in sound-proof enclosures.

Santa Clara City Code

Section 9.10.040 of the City Code establishes noise level performance standards for fixed sources of noise, as seen below in Schedule A. Noise levels at single-family residences, multi-family residences, and at public spaces are limited to 55 dBA during daytime hours (7:00 AM to 10:00 PM) and 50 dBA at night (10:00 PM to 7:00 AM).

Construction activities are not permitted within 300 feet of residentially zoned property except within the hours of 7:00 AM and 6:00 PM on weekdays and 9:00 AM and 6:00 PM on Saturdays. No construction is permitted on Sundays or holidays.

4.8.1.3 *Existing Conditions*

Based on the noise monitoring completed for the PHDSP FEIR, the existing noise environment in the PHDSP area consists primarily of transportation noise sources (i.e., vehicles on Great America Parkway, Patrick Henry Drive, etc.) and local commercial building operations. The nearest sensitive receptors are the single-family residences located approximately 185 feet west of the project site.

4.8.2 Impact Discussion

	New Potentially Significant Impact	New Less than Significant with Mitigation Incorporated	New Less than Significant Impact	Same Impact as Approved Project	Less Impact than Approved Project
Would the project result in:					
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒	☐

	New Potentially Significant Impact	New Less than Significant with Mitigation Incorporated	New Less than Significant Impact	Same Impact as Approved Project	Less Impact than Approved Project
Would the project result in:					
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒	☐

4.8.2.1 *Findings of the PHDSP FEIR*

Construction Noise

The PHDSP FEIR concluded that the construction of the future developments associated with the PHDSP would generate noise levels that would exceed the City's standards and/or otherwise result in a substantial, temporary increase in ambient noise levels in the vicinity. The following mitigation measure is included in the PHDSP FEIR to reduce construction noise impacts to less than significant.

Mitigation Measure 13-1: To reduce potential noise levels from Specific Plan related construction activities, the City shall ensure future development projects within the Plan Area:

1) *Notify Residential and Commercial Land Uses of Planned Construction Activities*. This notice shall be provided at least one week prior to the start of any construction activities, describe the noise control measures to be implemented by the Project, and include the name and phone number of the designated contact for the Applicant/project representative and the City of Santa Clara responsible for handling construction-related noise complaints (per Section 8). This notice shall be provided to: A) The owner/occupants of residential dwelling units within 500 feet of construction work areas; B) The owner/occupants of commercial buildings (including Mission College) within 200 feet of construction work areas or within 400 feet of construction work areas if pile driving equipment will be used; and C) Mission College when construction work areas are within 500 feet of College athletic fields.

2) *Notify Calaveras Creek Trail Users of Construction Activities.* Prior to the start of construction activities within 500 feet of Calaveras Creek Trail, signs shall be posted along the trail warning of potential temporary

elevated noise levels during construction. Signs shall be posted within 250 feet of impacted trail segments (i.e., portions of the trail within 500 feet of a work area) and shall remain posted throughout the duration of all substantial noise generating construction activities (typically demolition, grading, and initial foundation installation activities).

3) *Restrict Work Hours.* All construction-related work activities, including material deliveries, shall be subject to the requirements of City Municipal Code Section 9.10.230. Construction activities, including deliveries, shall occur only during the hours of 7:00 AM to 6:00 PM, Monday through Friday, and 9 AM to 6 PM on Saturday, unless otherwise authorized by City permit. The applicant/project representative and/or its contractor shall post a sign at all entrances to the construction site informing contractors, subcontractors, construction workers, etc. of this requirement.

4) *Control Construction Traffic and Site Access.* Construction traffic, including soil and debris hauling, shall follow City-designated truck routes and shall avoid routes (including local roads in the Plan Area) that contain residential dwelling units to the maximum extent feasible given specific project location and access needs.

5) *Construction Equipment Selection, Use, and Noise Control Measures.* The following measures shall apply to construction equipment used in the Plan Area: A) To the extent feasible, contractors shall use the smallest size equipment capable of safely completing work activities; B) Construction staging shall occur as far away from residential and commercial land uses as possible; C) All stationary noise generating equipment such as pumps, compressors, and welding machines shall be shielded and located as far from sensitive receptor locations as practical. Shielding may consist of existing vacant structures or a three- or four-sided enclosure provide the structure/barrier breaks the line of sight between the equipment and the receptor engines shall be equipped with standard noise suppression devices such as mufflers, engine covers, and engine/mechanical isolators, mounts, etc. These devices shall be maintained in accordance with manufacturer's recommendations during active construction activities; E) Pneumatic tools shall include a noise suppression device on the compressed air exhaust; F) The applicant/project representative and/or their contractor shall connect to existing electrical service at the site to avoid the use of stationary power generators; G) No radios or other amplified sound devices shall be audible beyond the property line of the construction site.

6) *Implement Construction Activity Noise Control Measures*: The following measures shall apply to construction activities in the Plan Area: A) Demolition: Activities shall be sequenced to take advantage of existing

shielding/noise reduction provided by existing buildings or parts of buildings and methods that minimize noise and vibration, such as sawing concrete blocks, prohibiting on-site hydraulic breakers, crushing, or other pulverization activities, shall be employed to the maximum extent feasible; B) Demolition Site Preparation, Grading, and Foundation Work: During all demolition, site preparation, grading, and structure foundation work activities within 500 feet of a residential dwelling unit or 250 feet of a commercial building (including Mission College), a physical noise barrier capable of achieving a minimum 10 dB reduction in construction noise levels shall be installed and maintained around the site perimeter to the maximum extent feasible given site constraints and access requirements. Potential barrier options capable of achieving a 10 dB reduction in construction noise levels could include, but are not limited to: i) A six-foot-high concrete, wood, or other barrier installed at-grade (or mounted to structures located at-grade, such as a K-Rail), and consisting of a solid material (i.e., free of openings or gaps other than weep holes) that has a minimum rated transmission loss value of 20 dB; ii) Commercially available acoustic panels or other products such as acoustic barrier blankets that have a minimum sound transmission class (STC) or transmission loss value of 20 dB; iii) any combination of noise barriers and commercial products capable of achieving a 10 dBA reduction in construction noise levels during demolition, site preparation, grading, and structure foundation work activities; iv) The noise barrier may be removed following the completion of building foundation work (i.e., it is not necessary once framing and typical vertical building construction begins provided no other grading, foundation, etc. work is still occurring on-site); and C) Pile Driving: If pile driving activities are required within 500 feet of a residential dwelling unit or 400 feet of a commercial building (including Mission College), the piles shall be pre-drilled with an auger to minimize pile driving equipment run times.

7) *Prepare Project-Specific Construction Noise Evaluation.* Prior to the start of any specific construction project lasting 12 months or more, the City shall review and approve a project-specific construction noise evaluation prepared by a qualified acoustical consultant that: A) Identifies the planned project construction sequence and equipment usage; B) Identifies typical hourly average construction noise levels for project construction equipment; C) Compares hourly average construction noise levels to ambient noise levels at residential and commercial land uses near work areas (ambient noise levels may be newly measured or presumed to be consistent with those levels shown in Table 13-2 and 13-3 of the Patrick Henry Drive Specific Plan Draft Environmental Impact Report (EIR); and D) Identifies construction noise control measures incorporated into the project that ensure: i) activities do not generate

noise levels that are above 60 dBA Leq at a residential dwelling unit and exceed the ambient noise environment by at least 5 dBA Leq for more than one year; and ii) activities do not generate noise levels that are above 70 dBA Leq at a commercial building (including Mission College) and exceed the ambient noise environment by at least 5 dBA Leq for more than one year. Such measures may include, but are limited to: a) The requirements of Sections 4, 5, 6, and 8; B) Additional project and/or equipment-specific enclosures, barriers, shrouds, or other noise suppression methods. The use of noise control blankets on building facades shall be considered only if noise complaints are not resolvable with other means or methods.

8) *Prepare a Construction Noise Complaint Plan.* The Construction Noise Complaint Plan shall: A) Identify the name and/or title and contact information (including phone number and email) for a designated project and City representative responsible for addressing construction-related noise issues; B) Includes procedures describing how the designated project representative will receive, respond, and resolve construction noise complaints; C) At a minimum, upon receipt of a noise complaint, the project representative shall notify the City contact, identify the noise source generating the complaint, determine the cause of the complaint, and take steps to resolve the complaint; D) The elements of the Construction Noise Complaint Plan may be included in the project-specific noise evaluation prepared to satisfy Section 7 or as a separate document.

9) *Owner/Occupant Disclosure:* The City shall require future occupants/tenants in the Plan Area receive disclosure that properties in the Plan Area may be subject to elevated construction noise levels from development in the Plan Area. This disclosure shall be provided as part of the mortgage, lease, sub-lease, and/or other contractual real-estate transaction associated with the subject property.

The PHDSP FEIR concluded that implementation of Mitigation Measure 13-1 would reduce impacts related to temporary construction noise levels to a less than significant level.

Construction Vibration Levels

Construction activities have the potential to result in varying degrees of ground vibration, depending on the specific construction equipment used and activities involved. Since project-specific information was not available at the time the PHDSP FEIR was prepared, the PHDSP FEIR concluded that the construction of the future developments associated with the PHDSP would generate vibration levels above City standards and/or otherwise result in excessive ground-borne vibration levels.

The following mitigation measure is included in the PHDSP FEIR to reduce construction vibration impacts to a less than significant level.

Mitigation Measure 13-2: To reduce potential vibration-related structural damage and other excessive vibration levels from Specific Plan related construction activities, the City shall ensure future development projects within the Plan Area:

1) *Notify Residential and Commercial Land Uses of Planned Construction Activities.* See Patrick Henry Drive Specific Plan Draft Environmental Impact Report (EIR) Mitigation Measure 13-1, Section 1.

2) *Restrict Work Hours.* See Patrick Henry Drive Specific Plan Draft EIR Mitigation Measure 13-1, Section 2.

3) *Prohibit Vibratory Equipment if Feasible.* The use of large vibratory rollers, vibratory/impact hammers, and other potential large vibration-generating equipment (e.g., hydraulic breakers/hoe rams) shall be prohibited within 100 feet of any residential building façade and 50 feet of any commercial building façade during construction activities. Plate compactors and compactor rollers are acceptable, and deep foundation piers or caissons shall be auger drilled.

4) *Prepare Project-Specific Construction Vibration Evaluation Plan.* If it is not feasible to prohibit vibratory equipment per Section 3) due to site- or project-specific conditions or design considerations, the City shall review and approve a project-specific construction vibration evaluation that: A) Identifies the project's planned vibration-generating construction activities (e.g., demolition, pile driving, vibratory compaction); B) the potential project-specific vibration levels (given project-specific equipment and soil conditions, if known) at specific building locations that may be impacted by the vibration-generating work activities (generally buildings within 50 feet of the work area); C) Identifies the vibration control measures incorporated into the project that ensure equipment and work activities would not damage buildings or result in vibrations that exceed Caltrans' strongly perceptible vibration detection threshold for peak particle velocity (PPV) of 0.1 inches/second (in/sec). Such measures may include, but are not limited to: i) the requirements of Sections 1, 2, and 3; ii) the use of vibration monitoring to measure actual vibration levels; iii) the use of photo monitoring or other records to document building conditions prior to, during, and after construction activities; and iv) the use of other measures such as trenches or wave barriers; D) Identifies the name (or title) and contact information (including phone number and email) of the Contractor and City-representatives responsible for addressing construction vibration-related issues; and E) Includes procedures describing how the

construction contractor will receive, respond, and resolve to construction vibration complaints. At a minimum, upon receipt of a vibration complaint, the Contractor and/or City representative described in the first sub-bullet above shall identify the vibration source generating the complaint, determine the cause of the complaint, and take steps to resolve the complaint by reducing ground-borne vibration levels to peak particle velocity levels that do not exceed accepted guidance or thresholds for structural damage that are best applicable to potentially impacted buildings (e.g., see Patrick Henry Drive Specific Plan Draft EIR Table 13-6) and Caltrans' strongly perceptible vibration detection threshold (PPV of 0.1 in/sec, see Patrick Henry Drive Specific Plan Draft EIR Table 13-7).

The PHDSP FEIR concluded that implementation of Mitigation Measure 13-2 would reduce impacts related to construction vibration levels to a less than significant level.

On-site Noise-Generating Sources

The PHDSP FEIR concluded that the build out of the PHDSP would result in new operational noise generation sources, such as roadway and infrastructure improvements and new on-site equipment, which would generate noise levels in excess of applicable City Standards. The following mitigation measure is included in the PHDSP to reduce impacts related to on-site noise-generating sources.

Mitigation Measure 13-3: Control Fixed and Other On-site Noise-Generating Sources and Activities. To ensure on-site, operations-related equipment and activities associated with the Specific Plan do not generate noise levels that exceed City standards or otherwise result in a substantial permanent increase in ambient noise levels, future development projects shall submit a project-specific operational noise analysis to the City for review and approval prior to the issuance of the first building permit for the project, or as otherwise determined by the City. The noise analysis shall be prepared by a qualified acoustical consultant and shall identify all major fixed machinery and equipment, non-residential truck docks/dedicated loading zones, waste collection areas, and above ground parking garages included in the final project design/site plan. The noise analysis shall also document how project noise sources and activities will comply with the exterior sound limits established in Municipal Code Section 9.10.040, Schedule A and the noise compatibility guidelines in General Plan Table 8.14-1. Fixed machinery and equipment may include, but is not limited to, pumps, fans (including air intake or exhaust fans in parking garages), compressors, air conditioners, generators, and refrigeration equipment. The control of noise from such equipment may be accomplished by selecting quiet equipment types, siting machinery and equipment inside buildings, within an enclosure (e.g., equipment cabinet or mechanical closets, or behind a parapet wall or other

barrier/shielding. Truck docks/dedicated loading zones consist of a loading dock or other dedicated area for the regular loading and unloading of retail, commercial, or other non-residential goods from delivery trucks. The control of noise from such truck docks/loading areas, waste collection areas, and parking garages may be accomplished by placing such areas away from sensitive land uses, restricting activities or operating hours for certain areas, or other design means.

The PHDSP FEIR concluded that implementation of Mitigation Measure 13-3 would reduce impacts related to on-site noise levels to a less than significant level.

Traffic Noise Levels

Implementation of the PHDSP would increase the resident and employee population within the City and increase the number of vehicle trips and traffic-related noise levels. Build out of the PHDSP would substantially increase existing and future traffic noise levels exceeding City noise and land use compatibility standards. The following roadway segments would experience substantial increases in noise on a project- and cumulative-basis due to the build out of the PHDSP:

- Lawrence Expressway from State Route (SR) 237 to Tasman Drive
- Great America Parkway from Old Glory Lane to Patrick Henry Drive
- Great America Parkway from Patrick Henry Drive to Mission College Boulevard
- Mission College Boulevard loop north of Mission College Boulevard
- Tasman Drive from Patrick Henry Drive to Old Glory Lane
- Tasman Drive from Lawrence Expressway to Patrick Henry Drive

The traffic generated from the build out of the PHDSP would result in an approximately one decibel increase in traffic noise levels compared to existing conditions. A one decibel increase would not exceed City guidelines for noise and land use compatibility; however, the roadways within the PHDSP area already experience high levels of traffic-generated noise and the build out of the PHDSP would only exacerbate the noise levels for noise-sensitive land uses. Installation of physical barriers to reduce noise is infeasible and reviewing land use compatibility for noise-sensitive developments would not protect existing developments from the anticipated noise levels from traffic. For these reasons, impacts would be significant and unavoidable.

Operational Vibrations

Development proposed under the PHDSP could include a mix of residential, mixed-use, flex, and/or office land uses which could involve machinery and equipment that generate vibration levels in exceedance of the City's vibration perception threshold of 0.01 in/sec PPV. The PHDSP FEIR concluded that the potential pumps, generators, and other typical equipment would be securely mounted and not large enough to generate substantial vibrations beyond the immediate vicinity of the equipment. In addition, the PHDSP does not propose or support any large vibration-inducing

equipment or land use activities and, as a result, the PHDSP would not result in excessive ground-borne vibration levels.

Airport-Related Noise

The Norman Y. Mineta International Airport CLUP establishes the 65 dBA CNEL noise contour as the noise restriction area for residential land uses and General Plan Policy 5.10.6-P8 encourages safe and compatible land uses within the airport's noise restriction area. While a portion of the PHDSP area is located within the airport's AIA, the PHDSP area is not located within the 65 dBA CNEL contour. Future owners in the PHDSP area that own property in the AIA and rent or lease property for residential use shall be required to include a disclosure in the rental/lease agreement with the tenant that the property is within a high noise area associated with airport operations and may be exposed to airport-related noise levels greater than 65 dBA CNEL per Policy N-5 of the CLUP. Therefore, build out of the PHDSP FEIR would not expose people residing or working in the project area to excessive noise levels.

Other Disclosures and Planning Considerations

Per the *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015) ruling, projects are not required to analyze how existing conditions might impact a project's existing or future population. The following discussion is included for informational purposes only because the City of Santa Clara has policies that address existing noise environment affecting a proposed project.

The City's General Plan establishes 70 dBA CNEL as the conditionally acceptable noise limit for residential land uses and 75 dBA CNEL as the conditionally acceptable noise limit for commercial and recreational land uses. General Plan Policy 5.10.6-P1 requires the City to review land use and development projects for consistency with these standards, and General Plan Policies 5.10.6-P2 and 5.10.6-P3 require the incorporation of noise attenuation measures and noise control techniques where noise exposure levels are greater than normally acceptable levels. In addition, the CBC establishes that interior noise levels attributable to exterior noise sources shall not exceed 45 CNEL (as established by the General Plan) for residential developments.

Based on existing and potential future CNEL values measured in and modeled for the PHDSP area, between approximately two and six dBA of exterior noise attenuation may be needed to meet the conditionally acceptable noise levels for commercial and residential land uses, respectively, at exterior use areas such as open space, exterior recreational areas, and private yards and patios. Projects that are located west of Old Glory Lane would be located more than 400 feet west of Great America Parkway and subjected to lower noise levels (estimated to be less than 70 CNEL) but could still require specific site design and noise control measures to comply with land use compatibility standards and interior noise requirements. Projects located along Patrick Henry Drive in the western part of the PHDSP area would unlikely require special site design or noise control measures unless ambient noise levels were to substantially increase in the PHDSP area as a result of development or increased vehicle traffic. Nevertheless, future development proposed under the

PHDSP would be required to comply with the following Condition of Approval to ensure consistency with the City's noise standards.

Condition of Approval NOI-1: Prepare Final Acoustical Analysis. Future development projects shall submit a project-specific acoustical analysis to the City for review and approval prior to the issuance of the first building permit for the project, or as otherwise determined by the City. The analysis shall be prepared by a qualified acoustical consultant, based on the final design of the project, and identify:

1) Exterior noise levels at all property lines, building facades, and public or common open space, recreation, and/or other exterior use area boundaries.

2) Final site and building design measures that would attenuate noise in public open space and recreational lands to 65 CNEL or less, if feasible, but not more than 75 CNEL. This may be achieved by locating such areas away from major roadways or providing setbacks for facilities adjacent to major roadways (e.g., orienting parking and other support areas closer to roadways.)

3) Final site and building design measures that would attenuate noise to no more than 70 CNEL and 75 CNEL at common residential and commercial exterior use areas, respectively (this does not include private balconies).

4) Final site and building design measures that would achieve exterior to interior noise reduction levels necessary to meet a 45 CNEL interior noise level for residential and other sensitive land uses and a 50 dBA hourly Leq noise level for offices, retail, and other less sensitive indoor spaces (when in operation). Such standards are to be achieved with a windows closed condition. The specific attenuation measures necessary for the project will depend on the specific project location, ambient noise levels, and project design. Potential noise insulation design features that may be required to achieve interior noise levels include sound barriers, enhanced exterior wall, ceiling, and roof assemblies with above average sound transmission class or outdoor/indoor transmission class values, enhanced insulation methods (acoustical caulking, louvered vents, etc.).

The identified Condition of Approval would ensure future development projects in the PHDSP area are designed and constructed in a manner that is compatible with the existing ambient noise environment and consistent with state noise requirements and City goals, policies, and standards for the types of land uses proposed.

4.8.2.2 *Impacts Resulting from the Proposed Project*

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction Impacts

Construction of the project is anticipated to occur over a period of 27 months which would generate considerable amounts of noise, especially during earthmoving activities when heavy equipment is used. Pile driving is not proposed.

As required per Mitigation Measure 13-1 *1) Notify Residential and Commercial Land Uses of Planned Construction Activities*, the residences located within 500 feet of the project site along Mazano Way, Oak Creek Way, and Prescott Avenue and the four commercial properties located within 200 feet of the project site which include 4600 Patrick Henry Drive to the north, 4701 Patrick Henry Drive to the northeast, 4575 Patrick Henry Drive to the east, and 3200 Patrick Henry Drive to the south shall be given notice at least one week prior to the start of construction activities and a description of noise control measures to be implemented by the project (refer to Mitigation Measure 13-1 *6) Implement Construction Activity Noise Control Measures*). Since the Mission College athletic field is located over 500 feet from the project site, notification would not be required. In addition, future occupants or tenants in the PHDSP area shall receive disclosure that properties within the PHDSP area may be subject to construction noise levels from development in the PHDSP area and this disclosure shall be provided as part of the mortgage, lease, sub-lease, and/or other contractual real-estate transaction associated with the subject property consistent with Mitigation Measure 13-1 *9) Owner/Occupant Disclosure*. The western property boundary is located approximately 71 feet east of the Calabazas Creek Trail. The project would be required to comply with Mitigation Measure 13-1 *2) Notify Calaveras Creek Trail Users of Construction Activities* and post signs along Calabazas Creek trail warning the trail users of construction activities. The project would also be required to comply with Chapter 9.10 of the City Code which includes the City's allowable construction work hours per Mitigation Measure 13-1 *3) Restrict Work Hours*.

Access to the site would be provided via Patrick Henry Drive. The proposed project shall, to the extent feasible, utilize SR 237 and Highway 101 (US 101), Great America Parkway, and other major roadways in the site vicinity and avoid routes that contain residential dwelling units consistent with Mitigation Measure 13-1 *4) Control Construction Traffic and Site Access*

As proposed, the construction staging would be located south of the building area and would be separated from 3200 Patrick Henry Drive to the south by the proposed open space. The construction staging area would be located as far away as possible from residential and commercial land uses and small stationary noise sources would be shielded when these sources result in a complaint or are identified by City staff or the contractor as having the potential to result in complaints. The proposed project would be required to implement all other measures identified in Mitigation Measure 13-1 *5) Construction Equipment Selection, Use, and Noise Control Measure*.

Because there are existing residences and commercial properties located within 500 feet of the proposed construction areas, a project-specific construction noise assessment was prepared for the site and construction noise impacts at the nearby commercial and residential building façades were estimated for each phase of construction. The noise levels assumed construction equipment would be used along the outer boundary of the building footprint (worst-case scenario) and construction equipment would be located at the center of the construction site. As recommend by the FTA, the Federal Highway Administration's (FHWA's) Roadway Construction Noise Model (RCNM) was used to calculate the hourly average noise levels for each phase of construction, assuming the two loudest pieces of equipment would operate simultaneously. Table 4.8-1 below lists the equipment that would be used during construction and the estimated construction noise levels at nearby land uses from the boundary of the site while Table 4.8-2 lists the equipment that would be used during construction and the estimated construction noise levels at nearby land uses from the center of the construction site. Where noise from construction activities exceeds the ambient noise environment by at least five dBA Leq at noise-sensitive uses in the area for a period exceeding one year, the impact would be considered significant.

Table 4.8-1: Construction Noise Levels – Construction Equipment at Boundary of Site

Phase	Calculated Hourly Average L_{eq} (dBA) at Nearest Buildings						
	Construction Equipment	**Noise Level at 50 feet**	**North Comm (50 feet)**	**Northeast Comm (155 feet)**	**East Comm (160 feet)**	**South Comm (130 feet)**	**West Res (205 feet)**
Demolition	Excavator* Skid Steer Loader	80	80	70	70	72	68
Site Preparation	Excavator* Skid Steer Loader*	79	79	69	69	71	67
Grading/ Excavation	Grader* Rubber Tired Dozer Tractor/Loader/ Backhoe*	84	84	74	74	76	72
Trenching/ Foundation	Tractor/Loader/ Backhoe* Concrete Trucks	81	81	71	71	73	69
Building Exterior	Crane Forklift Tractor/Loader/ Backhoe*	81	81	71	71	73	69
Building Interior/ Architectural Coating	Aerial Lift*	71	71	61	61	63	59

Phase	Calculated Hourly Average L_{eq} (dBA) at Nearest Buildings						
	Construction Equipment	Noise Level at 50 feet	North Comm (50 feet)	Northeast Comm (155 feet)	East Comm (160 feet)	South Comm (130 feet)	West Res (205 feet)
Paving	Cement and Mortar Mixer* Paver Paving Equipment Roller	80	80	70	70	72	68

Note: The construction noise levels at the nearby building façades were estimated assuming construction equipment is used along the outer boundary of the proposed building footprint (worst-case scenario).
* denotes two loudest pieces of construction equipment per phase
Res - Residential
Comm - Commercial

Table 4.8-2: Construction Noise Levels – Construction Equipment at Center of Site

Phase	Calculated Hourly Average L_{eq} (dBA) at Nearest Buildings						
	Construction Equipment	Noise Level at 50 feet	North Comm (155 feet)	Northeast Comm (345 feet)	East Comm (330 feet)	South Comm (285 feet)	West Res (400 feet)
Demolition	Excavator* Skid Steer Loader	80	70	63	64	65	62
Site Preparation	Excavator* Skid Steer Loader*	79	69	62	63	64	61
Grading/ Excavation	Grader* Rubber Tired Dozer Tractor/Loader/ Backhoe*	84	74	67	68	69	66
Trenching/Foundation	Tractor/Loader/ Backhoe* Concrete Trucks	81	71	64	65	66	63
Building Exterior	Crane Forklift Tractor/Loader/ Backhoe*	81	71	64	65	66	63

Phase	Calculated Hourly Average L_{eq} (dBA) at Nearest Buildings						
	Construction Equipment	Noise Level at 50 feet	North Comm (155 feet)	Northeast Comm (345 feet)	East Comm (330 feet)	South Comm (285 feet)	West Res (400 feet)
Building Interior/ Architectural Coating	Aerial Lift*	71	61	54	55	56	53
Paving	Cement and Mortar Mixer* Paver Paving Equipment Roller	80	70	63	64	65	62

Note: Please note the distances listed above represents the approximate distance from the center of the project site to the nearest property line of the adjacent uses. This distance is used to determine the average noise level throughout the course of construction as it occurs throughout the site.
* denotes two loudest pieces of construction equipment per phase
Res - Residential
Comm - Commercial

As shown in the tables above, construction noise levels would range from 61 to 84 dBA L_{eq} at the commercial building façade to the north, from 54 to 74 dBA L_{eq} at the commercial building façade to the northeast, from 55 to 74 dBA L_{eq} at the commercial building façade to the east, from 56 to 76 dBA L_{eq} at the commercial building façade to the south, and from 53 to 72 dBA L_{eq} at the residences to the west. The exterior threshold of 70 dBA L_{eq} at the nearby commercial buildings and 60 dBA L_{eq} at the nearest residences would be exceeded. The commercial buildings to the northeast, east, and south would be exposed to noise levels exceeding 70 dBA L_{eq} for less than a year; therefore, mitigation would not be required for these receptors. The commercial building to the north would be exposed to noise levels exceeding 70 dBA L_{eq} for more than a year from grading/excavation, trenching/foundation, and building exterior construction phases. The ambient noise levels along this segment of Patrick Henry Drive would range from 60 to 65 dBA L_{eq} (during the daytime); therefore, the existing ambient noise level would be exceeded. The residences to the west would be exposed to noise levels above 65 dBA L_{eq} for more than a year and would exceed the existing ambient noise levels by more than five dBA.

Impact NOI-1: Construction noise levels would exceed the exterior threshold of 70 dBA L_{eq} at the nearby commercial buildings and 60 dBA L_{eq} at the nearest residences and the existing ambient noise levels would be exceeded by more than five dBA for more than one year.

Mitigation Measure

In addition to Mitigation Measures 13-1 *1)* to *6)* and consistent with Mitigation Measure 13-1 *6*) to *8) Prepare Project-Specific Construction Noise Evaluation*, the proposed project would be required

to comply with the following mitigation to reduce construction noise at the adjacent residential and commercial land uses.

MM NOI-1.1: A temporary 12-foot tall construction noise barrier, measured above grade, shall be constructed along the northern and western property lines as shown in Figure 4.8-1. The two most common construction site noise barriers are constructed of plywood or quilted noise control blankets. The noise barrier shall be solid, without cracks or gaps over its face or at the base, have a surface weight of at least two pounds per square foot (e.g., 5/8-inch plywood) or have a Sound Transmission Class (STC) rating of at least STC 20.

MM NOI-1.2: The project applicant shall submit and implement a Construction Noise Complaint Plan that establishes protocols for receiving and logging complaints, explaining how the complaint will be addressed, identifying the source(s) of the complaint, and determining and implementing the steps necessary to resolve the complaint. The contact information (including phone number and email) for the designated representatives of the project applicant or project representative and City will be determined prior to notification and included in the notification letter.

The project applicant or project representative and the City shall determine how complaints are communicated, documented, and resolved. The following procedures shall be implemented in response to complaints related to construction noise:

- Establish a complaint log.
- Create a standardized complaint form so that critical information regarding a complaint can be documented (See Attachment 1 of Appendix G).
- The designated project applicant or representative shall be responsible for responding to all complaints.
- If someone other than a designated project applicant or representative or the City receives a complaint, immediately route the complaint to the designated Applicant/representative.
- Receipt of the complaint shall be acknowledged to the complainant within 72 hours.
- The designated project applicant or representative shall obtain information regarding the complaint and record the information on the complaint form and enter the complaint in the complaint log.
- Confirm source of complaint and determine a plan for implementing corrective actions.

Source: Illingworth & Rodkin, Inc., November 2, 2023.

LOCATION OF TEMPORARY NOISE BARRIERS | FIGURE 4.8-1

- After implementation of corrective actions, contact complainant to determine if the issue has been resolved.

The temporary construction noise barriers would reduce construction related noise levels at the nearby receptors by at least 10 dBA. With implementation of Mitigation Measures NOI-1.1 and NOI-1.2 and Mitigation Measures 13-1 *1)* to *6)*, the project's impact from construction noise would be reduced to a less than significant level. The project would not result in any new impacts or substantially increase the severity of the previously identified construction noise impact. **[Same Impact as Approved Project (Less Than Significant Impact with Mitigation Incorporated)]**

Operational Impacts

Project-Generated Traffic Noise

As discussed in the PHDSP FEIR, traffic generated from the build out of the PHDSP would result in an approximately one decibel increase in traffic noise levels compared to existing conditions. While full build out of the PHDSP would have a significant unavoidable traffic noise impact, the proposed project is consistent with the PHDSP development projections and would generate only a small fraction of the total trips estimated for the PHDSP and would not result in any new impacts or substantially increase the severity of the previously identified impact related to project-generated traffic noise. **[Less Impact than Approved Project (Significant Unavoidable Impact)]**

On-site Noise-Generating Sources

Based on a review the plans, potential operational noise sources include rooftop supply and exhaust fans, heating, ventilation, and air conditioning (HVAC) equipment, three transformers located outside the building along Patrick Henry Drive, and one transformer located near the southwest corner of the building. The applicable noise limit for the Light Industrial land use category would be 70 dBA. If the adjacent properties were to be constructed into residential developments prior to the completion of the proposed project, then the thresholds would be 55 dBA during the daytime (7:00 AM to 10:00 PM) and 50 dBA during the nighttime (10:00 PM to 7:00 AM) per City Code Section 9.10.040, Schedule A.

Assuming all equipment would operate simultaneously, the HVAC noise levels would be less than 30 dBA L_{eq} at the property lines of nearby land uses which would not exceed the residential thresholds of 55 dBA during the daytime and 50 dBA during the nighttime. Specifications for the three transformers along Patrick Henry Drive were not available at the time the analysis was prepared. Transformers up to 1,000 kilo-volt-amperes (kVA) typically generate noise levels up to 64 dB, the average level measured one foot from the surface of the transformer. Transformers up to 10,000 kVA typically generate noise levels up to 68 dBA. Assuming worst-case scenario, the noise from the two transformers located adjacent to each other on the northeast corner of the building would range from 31 dBA to 35 dBA at the nearest property line across Patrick Henry Drive. Therefore, the estimated noise levels from the transformers would not exceed the allowable limits. Additionally, equipment proposed in the mechanical rooms would be fully enclosed and would not affect adjacent land uses.

Consistent with the PHDSP FEIR, implementation of the project would not result in any new impacts or substantially increase the severity of the previously identified noise impact from on-site noise-generating sources. **[Less Impact Than Approved Project (Less Than Significant Impact with Mitigation Incorporated)]**

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

Project construction could generate perceptible vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams) are used. Construction activities would include grading, foundation work, paving, and new building framing and finishing. As mentioned previously, pile driving is not proposed. The project would be required to comply with Mitigation Measure 13-2 *1) Notify Residential and Commercial Land Uses of Planned Construction Activities* and *2) Restrict Work Hours*. All vibratory equipment would be more than 200 feet from the nearest residential building façade, and more than 50 feet from the nearest commercial building façade; therefore, the project would comply with Mitigation Measure 13-2 *3) Prohibit Vibratory Equipment if Feasible*.The California Department of Transportation (Caltrans) strongly perceptible vibration detection threshold is 0.1 in/sec PPV. Typical vibration levels that could be expected from construction equipment at 25 feet and estimated vibration levels at existing buildings surrounding the project site are summarized below in Table 4.8-3.

Table 4.8-3: Estimated Vibration Levels at Structures Surrounding the Project Site (in/sec PPV)

Equipment		PPV at 25 ft. (in/sec)	North Comm (50 feet)	Northeast Comm (155 feet)	East Comm (160 feet)	South Comm (130 feet)	West Comm (205 feet)
Clam shovel drop		0.202	0.094	0.027	0.026	0.033	0.020
Hydromill (slurry wall)	in soil	0.008	0.004	0.001	0.001	0.001	0.001
	in rock	0.017	0.008	0.002	0.002	0.003	0.002
Vibratory Roller		0.210	0.098	0.028	0.027	0.034	0.021
Hoe Ram		0.089	0.042	0.012	0.012	0.015	0.009
Large bulldozer		0.089	0.042	0.012	0.012	0.015	0.009
Caisson drilling		0.089	0.042	0.012	0.012	0.015	0.009
Loaded trucks		0.076	0.035	0.010	0.010	0.012	0.008
Jackhammer		0.035	0.016	0.005	0.005	0.006	0.003
Small bulldozer		0.003	0.001	0.000	0.000	0.000	0.000

Source: Transit Noise and Vibration Impact Assessment Manual, Federal Transit Administration, Office of Planning and Environment, U.S. Department of Transportation, September 2018, as modified by Illingworth & Rodkin, Inc., November 2023.
Notes: Res – Residential
Comm - Commercial

As shown in the table above, the projected vibration levels at all nearby commercial buildings would be below the 0.1 in/sec PPV threshold. The highest projected vibration levels would be from a vibratory roller at 50 feet from the commercial building to the north.

Consistent with the findings of the PHDSP FEIR, the project would be required to implement Mitigation Measure 13-2 to ensure construction vibration levels are reduced to a less than significant level. Therefore, the proposed project would not result in any new impacts or substantially increase the severity of the previously identified construction vibrations impact. **[Same Impact as Approved Project (Less Than Significant Impact with Mitigation Incorporated)]**

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The project site is not located in the Norman Y. Mineta International Airport's AIA or 65 dBA CNEL noise contour. Therefore, the proposed project would not result in any new impacts or substantially increase the severity of the previously identified impact related to excessive noise levels from aircraft operation. **[Same Impact as Approved Project (Less Than Significant Impact)]**

4.8.3 Non-CEQA Effects

Per *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal. 4th 369 (BIA v. BAAQMD), effects of the environment on the project are not considered CEQA impacts. The following discussion is included for informational purposes only because the City has policies that address existing noise conditions affecting a proposed project.

The City's General Plan establishes 70 dBA CNEL as the conditionally acceptable noise limit for residential land uses and 75 dBA CNEL as the conditionally acceptable noise limit for commercial and recreational land uses. General Plan Policy 5.10.6-P1 requires the City to review land use and development projects for consistency with these standards, and General Plan Policies 5.10.6-P2 and -P3 require the incorporation of noise attenuation measures and noise control techniques where noise exposure levels are greater than normally acceptable levels. In addition, the CBC establishes that interior noise levels attributable to exterior noise sources shall not exceed 45 CNEL (as established by the local General Plan) for residential developments.

As discussed in the PHDSP FEIR, projects located along Patrick Henry Drive (in the western part of the PHDSP area) would unlikely require special site design or noise control measures unless ambient noise levels were to substantially increase in the PHDSP area as a result of development or increased vehicle traffic. Nevertheless, future development proposed under the PHDSP (including the proposed project) would be required to implement Condition of Approval NOI-1 identified in the PHDSP FEIR to ensure future developments are designed and constructed in a manner consistent with state requirements and City policies and standards.

4.9 Utilities and Service Systems

4.9.1 Environmental Setting

4.9.1.1 *Regulatory Framework*

State

State Water Code

Pursuant to the State Water Code, water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (approximately 980 million gallons) of water annually must prepare and adopt an urban water management plan (UWMP) and update it every five years. As part of a UWMP, water agencies are required to evaluate and describe their water resource supplies and projected needs over a 20-year planning horizon, water conservation, water service reliability, water recycling, opportunities for water transfers, and contingency plans for drought events. The City of Santa Clara adopted its most recent UWMP (2020 UWMP) in June 2021.

Assembly Bill 939

The California Integrated Waste Management Act of 1989, or AB 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that local jurisdictions divert at least 50 percent of solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. Projects that would have an adverse effect on waste diversion goals are required to include waste diversion mitigation measures.

Assembly Bill 341

AB 341 sets forth the requirements of the statewide mandatory commercial recycling program. Businesses that generate four or more cubic yards of garbage per week and multi-family dwellings with five or more units in California are required to recycle. AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020.

Senate Bill 1383

SB 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The bill grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that at least 20 percent of currently disposed edible food is recovered for human consumption by 2025.

California Green Building Standards Code

CALGreen establishes mandatory green building standards for buildings in California. CALGreen was developed to reduce GHG emissions from buildings, promote environmentally responsible and healthier places to live and work, reduce energy and water consumption, and respond to state environmental directives. CALGreen covers five categories: planning and design, energy efficiency, water efficiency and conservation, material and resource efficiency, and indoor environmental quality.

Local

City of Santa Clara 2010-2035 General Plan

The following General Plan Policies have been adopted for the purpose of reducing or avoiding impacts related to utilities and service systems and are applicable to the project.

Policies	Description
5.3.1-P9	Require that new development provide adequate public services and facilities, infrastructure, and amenities to serve the new employment or residential growth.
5.10.1-P6	Require adequate wastewater treatment and sewer conveyance capacity for all new development.
5.10.4-P4	Require an adequate water supply and water quality for all new development.
5.10.4-P5	Prohibit new development that would reduce water quality below acceptable State and local standards.
5.10.4-P6	Maximize the use of recycled water for construction, maintenance, irrigation and other applications.
5.10.4-P7	Require installation of native and low-water-consumption plant species when landscaping new development and public spaces to reduce water usage.
5.10.4-P8	Require all new development within a reasonable distance of existing or proposed recycled water distribution systems to connect to the system for landscape irrigation.
5.10.5-P11	Require that new development meet stormwater and water management requirements in conformance with State and regional regulations.
5.10.5-P21	Require that storm drain infrastructure is adequate to serve all new development and is in place prior to occupancy.

4.9.1.2 *Existing Conditions*

Water Supply

The City of Santa Clara has four sources of water which include surface water from the SFPUC, treated surface water from Valley Water, groundwater, and recycled water. A portion of the City's water supply is reliant on SFPUC and Valley Water. Surface water from SFPUC and Valley Water provide less than half (an average of 40 percent) of the City's water supply while the remaining 60 percent come from City owned- and operated-wells. In 2020, the City's water demand was

approximately 16.3 million gallons per day (mgd) for potable water and 3.1 mgd for recycled water.[37] The water supply system consists of approximately 335 miles of water mains, 21 active water wells, seven storage tanks with 28.8 million gallons of water storage capacity, and three booster pump stations.[38] South Bay Water Recycling (SBWR) supplies recycled water within the City. Recycled water in the City is currently used for irrigation at parks, landscape street medians, multi-family residential units, and schools.

There is an existing 12-inch water main located in Patrick Henry Drive. The existing commercial building on-site is currently vacant and does not have any water demand.

Wastewater Services

Wastewater treatment in Santa Clara is provided by the San José-Santa Clara Regional Wastewater Facility (the Facility). The Facility serves approximately 1.4 million residents and over 17,000 businesses by treating an average of 110 million gallons of wastewater per day (mgd), with a capacity of up to 167 mgd.[39] The Facility currently treats an average of 110 mgd of wastewater.[40] Currently, approximately 13 percent of the Facility's effluent is recycled for non-potable uses and the remainder flows into San Francisco Bay. In 2021, the City of Santa Clara had rights to approximately 25.7 mgd of the total treatment capacity at the Facility with peak sewage flows of 15.7 mgd.[41]

There is an existing 12-inch sanitary sewer main in Patrick Henry Drive. As mentioned above, the site is currently vacant; therefore, no wastewater is generated on-site.

Stormwater Drainage

The City of Santa Clara owns and maintains the municipal storm drainage system which serves the site. There is an existing 33-inch pipe located in Patrick Henry Drive. The PHDSP area drains to San Tomas Aquino Creek through a network of storm water drainage pipes ranging from 27 inches to 54 inches in diameter.[42]

Electricity, Natural Gas, and Telecommunications

Silicon Valley Power (SVP) is the City of Santa Clara's energy utility and PG&E provides natural gas services within the City of Santa Clara. SVP and PG&E currently provide electricity and natural gas

[37] City of Santa Clara. 2020 Urban Water Management Plan. June 22, 2021.
[38] Ibid.
[39] City of San José. San José-Santa Clara Regional Wastewater Facility. Accessed January 30, 2023. https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/water-utilities/regional-wastewater-facility.
[40] City of Santa Clara. 2010-2035 General Plan Integrated Final Environmental Impact Report. SCH# 2008092005. January 2011.
[41] City of San José, Environmental Services Department. *Tributary Agencies' Estimated Available Plant Capacity – 2021.* December 21, 2021.
[42] City of Santa Clara. Patrick Henry Drive Environmental Impact Report. SCH# 2019120515. July 2021.

services to the PHDSP area. Telecommunication services (e.g., phone and cable) are provided by AT&T and Comcast.

Solid Waste

Solid waste collection in the City of Santa Clara is provided by Mission Trail Waste Systems through a contract with the City. Mission Trail Waste System also has a contract to implement the Clean Green portion of the City's recycling plan by collecting yard waste. All other recycling services are provided through Stevens Creek Disposal and Recycling. Mission Trail Waste Systems delivers solid waste to the Newby Island Sanitary Landfill (NISL), located in San José, which has disposal capacity through January 1, 2041. The project site does not currently generate any solid waste.

4.9.2 Impact Discussion

	New Potentially Significant Impact	New Less than Significant with Mitigation Incorporated	New Less than Significant Impact	Same Impact as Approved Project	Less Impact than Approved Project
Would the project:					
a) 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?	☐	☐	☐	☒	☐
b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒	☐
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒	☐

	New Potentially Significant Impact	New Less than Significant with Mitigation Incorporated	New Less than Significant Impact	Same Impact as Approved Project	Less Impact than Approved Project
Would the project:					
e) Be noncompliant with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒	☐

4.9.2.1 *Findings of the PHDSP FEIR*

Water Supply and Demand

Build out of the PHDSP would exceed demand projections under the 2015 UWMP since the PHDSP was not identified in the City's General Plan and the PHDSP was not proposed until after the 2015 UWMP was prepared; therefore, development associated with the PHDSP was not accounted for in the UWMP. In addition, the recently adopted 2020 UWMP was based on 2018 Association of Bay Area Governments (ABAG) projections and did not include the PHDSP growth projections. The City determined that adequate water supplies would be available to meet the water demands for the PHDSP though additional conservation programs or other resources (such as increased groundwater pumping or additional use of recycled water as applicable) may be necessary, as discussed in the PHDSP WSA and the 2015 UWMP. The following mitigation measure was included in the PHDSP to reduce impacts to water supply.

Mitigation Measure 18-1: Consistent with SB 221 and SB 610, no tentative map, Architectural/Design Review, or development agreement for a proposed, individual project shall be approved until the City of Santa Clara Water & Sewer Utilities Department confirms that water supplies are adequate for each individual project. Such confirmation shall include an updated description of the citywide water supply situation (including any plans for pumping additional groundwater) at that future time, reflecting any progress on City plans for expanding its recycled water program and any City requirements for implementing additional "best management practices" (BMPs) related to recycled water use and/or water conservation (which could include, among other measures, dedicated landscape meters, and installation of separate submeters for each unit in multi-family development and individual commercial spaces). These City actions would ensure a continual monitoring of citywide water supply throughout implementation of the Specific Plan. Additionally, incorporation of measures to reduce water demand and, if necessary, identification of alternative water sources to offset project supply shortages would reduce this impact to a less-than-significant level.

Implementation of Mitigation 18-1 would reduce impacts related to water demand to a less than significant level.

Water, Wastewater and Storm Drainage System Infrastructure

The water, wastewater, and storm drainage infrastructure systems within the PHDSP area would require improvements, such as upgrades to infrastructure to alleviate existing deficiencies, to accommodate new development facilitated by the PHDSP. Individual project applicants would need to prepare hydraulic modeling analyses to determine what upgrades are needed for water infrastructure.

For wastewater generation and infrastructure, as standard Conditions of Approval, each individual project would need to provide sanitary sewer information to the City to help the City determine what type of improvements would be needed (e.g., construction of a new lift station or pump station) to ensure there is capacity for the wastewater generated by the PHDSP.

For storm drainage infrastructure, the existing off-site storm drain systems would be able to accommodate stormwater flows generated by future development under the PHDSP. The need for new storm drain infrastructure would be monitored by the City.

The PHDSP FEIR concluded that construction period air emissions, noise, and traffic associated with utility infrastructure construction (if needed) would be reduced through compliance with the City of Santa Clara construction protocols and mitigation. Therefore, construction and operational impacts associated with water, wastewater, and storm drainage infrastructure would be less than significant.

Wastewater Treatment Capacity

Existing flows in the PHDSP area were estimated at 0.12 mgd at the time the FEIR was prepared. Based on the Sanitary Sewer Technical Memorandum prepared for the PHDSP, wastewater generation from PHDSP is projected to total approximately 2.15 mgd under Scenario A and 1.97 mgd under Scenario B. The Sanitary Sewer Technical Memorandum identified deficiencies along Old Ironsides Drive and Tasman Drive sanitary sewer lines under both scenarios. In addition, the Tasman Drive Lift Station would have to be upsized to increase its capacity. Any improvements to the Tasman Lift station would also be subject to separate review, including CEQA, as deemed applicable by the City. As standard Conditions of Approval, each individual project would need to provide sanitary sewer information to the City. Additional wastewater generation from other General Plan-approved development combined with wastewater generated from Patrick Henry Drive Specific Plan development would total approximately 4.3 mgd, which would not exceed the City's remaining capacity allocation of 9.606 mgd. Therefore, build out of the PHDSP FEIR would have a less than significant impact on wastewater treatment facility capacity.

Solid Waste Disposal and Recycling Service

Per the PHDSP FEIR, development under the PHDSP would be anticipated to generate between 119,600 and 128,180 cubic yards of solid waste per year.[43] Implementation of the PHDSP is not expected to generate an inordinate amount of solid waste for its size during demolition/construction or operation. In addition, the existing solid waste disposal and recycling facilities would have capacity to accommodate solid waste from future projects under the PHDSP; therefore, the PHDSP FEIR concluded that the PHDSP's effect on solid waste and recycling services would be less than significant.

Electricity, Natural Gas, and Telecommunications

SVP has identified several electrical system improvements necessary to provide adequate service to Specific Plan development. Future PHDSP project applicants would be responsible for funding the off-site distribution duct bank (at the Mission substation). Other distribution and transmission system improvements that are not limited to serving the PHDSP would require future PHDSP project applicants to pay a pro rata share of the cost, based on plans and cost estimates as they are developed. The PHDSP FEIR concluded that all electrical system, natural gas, and telecommunication infrastructure upgrades/improvements would be required to comply with the construction mitigation identified in the PHDSP FEIR for air emissions/dust, noise, and traffic) as well as the City's construction standards and regulations; therefore, construction period impacts associated with the electrical system, natural gas infrastructure, and telecommunication infrastructure in the PHDSP would be less than significant.

4.9.2.2 *Impacts Resulting from the Proposed Project*

a) Would the project 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?

Water Supply

As described in the PHDSP, the existing water use in the PHDSP area is 79.6 acre-feet per year (71,030 gallons per day). Build out of the PHDSP would have a net water demand ranging from approximately 1,491 acre-feet per year (1,331,182 gallons per day) to 1,650 acre-feet per year (1,472,940 gallons per day). Operation of the proposed project would use approximately 50,695 gpd of water.[44]

[43] City of Santa Clara. Patrick Henry Drive Environmental Impact Report. SCH# 2019120515. July 2021.
[44] The water demand rates for indoor use were calculated using CalEEMod Appendix D (Apartments Mid Rise). CalEEMod. "Table 9.1: Water Use Rates." Accessed January 11, 2024. http://www.aqmd.gov/docs/default source/caleemod/caleemod-appendixd.pdf.

Per Mitigation Measure 18-1, the City of Santa Clara Water & Sewer Utilities Department shall confirm whether water supplies are adequate for each individual project proposed under the PHDSP. Therefore, the proposed project would not result in any new impacts or substantially increase the severity of the previously identified water supply impact. **[Same Impact as Approved Project (Less Than Significant Impact with Mitigation Incorporated)]**

Wastewater Facilities

The City currently has approximately 25.7 mgd of wastewater treatment capacity at the Facility. The proposed project would generate up to 40,556 gpd of wastewater (or 0.041 mgd).[45] As discussed in the PHDSP FEIR, each individual project would be required to provide sanitary sewer information to the City. No project would be approved by the City until the City determines that sufficient sewer capacity exists. Consistent with the PHDSP FEIR, the proposed project would not result in the relocation or construction of sanitary sewer and wastewater treatment facilities. Therefore, the proposed project would not result in any new impacts or substantially increase the severity of the previously identified wastewater facilities impact. **[Same Impact as Approved Project (Less Than Significant Impact)]**

Stormwater Drainage Facilities

As discussed in the PHDSP FEIR, no storm drainage systems improvements have been deemed necessary; however, the City would continuously monitor new development approvals to ensure that stormwater flows are handled sufficiently. Therefore, the proposed project would not result in any new impacts or substantially increase the severity of the previously identified wastewater facilities impact. **[Same Impact as Approved Project (Less Than Significant Impact)]**

Electric Power, Natural Gas, and Telecommunications

New development under the PHDSP FEIR, including the project, would continue to be served by PG&E for natural gas needs. Future development associated with the PHDSP would connect to existing electric power, and telecommunication lines in the PHDSP area. The proposed building would connect to existing electrical lines and other utilities such as fiber optic, telephone, and cable. The PHDSP FEIR concluded that build out of the PHDSP would not require or result in the construction of new or expended electric power, natural gas, or telecommunications facilities. Therefore, the proposed project would not result in any new impacts or substantially increase the severity of the previously identified electric power, natural gas, or telecommunication facilities impact. **[Same Impact as Approved Project (Less Than Significant Impact)]**

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

[45] Wastewater generated by the proposed development project is assumed to be 80 percent of the total water demand.

As discussed under checklist question a, the proposed project would use approximately 50,695 gpd of water. The PHDSP FEIR concluded that adequate water supplies would be available to meet the water demands for the PHDSP though additional conservation programs or other resources may be necessary. Per Mitigation Measure 18-1, no individual project proposed under the PHDSP shall be approved until the City of Santa Clara Water & Sewer Utilities Department confirms that there are adequate water supplies to serve each individual project as proposed. Therefore, with implementation of Mitigation Measure 18-1, the proposed project would not result in any new impacts or substantially increase the severity of the previously identified water supply impact. **[Same Impact as Approved Project (Less Than Significant Impact with Mitigation Incorporated)]**

c) Would the project 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?

As discussed in the PHDSP FEIR, each individual project would be required to provide sanitary sewer information to the City. No project would be approved by the City until the City determines that sufficient sewer capacity exists. The proposed project would generate up to 0.041 mgd of wastewater. Based on the Sanitary Sewer Technical Memorandum, which based its future capacity analysis on updated General Plan Phase III loads, additional wastewater generation from other General Plan-approved development combined with wastewater generated from the PHDSP development would total approximately 4.3 mgd, which would not exceed the City's remaining capacity allocation of 9.606 mgd. Therefore, the proposed project would not result in any new impacts or substantially increase the severity of the previously identified wastewater impacts. **[Same Impact as Approved Project (Less Than Significant Impact)]**

d) Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Development under the PHDSP would be anticipated to generate between 119,600 and 128,180 cubic yards of solid waste per year, which is only 0.6 percent of the annual solid waste disposed of the NISL.[46] The proposed project is estimated to generate approximately 47.3 cubic yards of solid waste per week or 2,460 cubic yards of annual solid waste.[47] Because the project is consistent with the development projections of the PHDSP, impacts related to solid waste and recycling services would be less than significant. Therefore, the proposed project would not result in any new impacts or substantially increase the severity of the previously identified solid waste impact. **[Same Impact as Approved Project (Less Than Significant Impact)]**

[46] City of Santa Clara. Patrick Henry Drive Environmental Impact Report. SCH# 2019120515. July 2021.

[47] The City's Development Guidelines for Solid Waste Service specify the following solid waste generation rates for residential development: "*Multi-family residential garbage level of service must be calculated at a rate of no less than 32 gallons per week per unit (roughly one cubic yard per every six units)*." 284 dwelling units ÷ 6 dwelling units = 47.3 x 1 cubic yard = 47.3 cubic yards per week.

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

The proposed project would be required to comply with existing federal, state, and local regulations and programs pertaining to solid waste. Since the project is consistent with the PHDSP, the proposed project would not result in any new impacts or substantially increase the severity of the previously identified solid waste impact. **[Same Impact as Approved Project (Less Than Significant Impact)]**

4.10 Mandatory Findings of Significance

		New Potentially Significant Impact	New Less than Significant with Mitigation Incorporated	New Less than Significant Impact	Same Impact as Approved Project	Less Impact than Approved Project
a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐	☐
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐	☐
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒	☐

a) 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?

As discussed in the individual sections of this document, the proposed project would not degrade the quality of the environment with implementation of the identified Conditions of Approval and mitigation measures from the PHDSP FEIR, as well as implementation of the new mitigation measures identified in Section 4.3 and below.

With implementation of Mitigation Measure BIO-1.1, the project would have a less than significant impact on animal communities from artificial lighting. As discussed in Section 4.3, the proposed building would encroach within 0.14 acre of the 100-foot riparian setback. With implementation of Mitigation Measure BIO(C)-1.1, encroachment of the proposed building within the 100-foot setback would not be cumulatively considerable. Therefore, the proposed project would result in a less than significant impact on biological resources.

b) Does the project have impacts that are individually limited, but cumulatively considerable?

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."

The proposed project would result in temporary air quality, hydrology and water quality, and noise impacts during construction. With implementation of the identified Conditions of Approval and mitigation measures from the PHDSP FEIR, existing regulations, and City policies, construction impacts would be mitigated to a less than significant level. Because the nature of the identified impacts to air quality, hydrology and water quality, and noise and vibration would be temporary and mitigated, the proposed project would not have a cumulatively considerable impact on these resources.

New mitigation was identified for biological resources (e.g., encroachment on the riparian corridor) that was not previously addressed in the PHDSP FEIR.

Encroachment on Riparian Corridor

As mentioned in Section 4.3, the PHDSP FEIR did not address potential encroachment impacts from future projects onto the Calabazas Creek riparian corridor, due to the lack of significant habitat identified along the concrete channel at the time of the preparation of the PHDSP FEIR. Encroachment of developments along Calabazas Creek (both inside and outside the plan area) has resulted in a cumulative impact on riparian bird communities over time due to the degradation of the riparian habitat, increase in human activity in and along the riparian corridor, and loss of open areas that birds can use for foraging or as flight paths in and out of the riparian corridor. Future

development along Calabazas Creek would result in impacts on the same habitat types and species that would be affected by the proposed project.

Per the Biological Resources Report, encroachment of the project within the 100-foot riparian setback would result in a considerable contribution to significant cumulative impacts on the functions and values of remaining riparian habitat in the City and along streams on the Santa Clara Valley floor without mitigation. Currently, most of the project site located within 100 feet of the top of bank is developed with a parking lot. The existing building is located approximately 115 feet from the top of bank and the only area that is not hardscape is a narrow band of landscaped vegetation that is approximately 25 feet from the top of bank. As mentioned previously, the proposed building would encroach within 0.14 acre of the 100-foot setback area. The project's contribution to cumulative impacts within the setback area would be cumulatively considerable as it represents a new type of development that would have a greater impact on the adjacent corridor (due to the reduction in wildlife use from the proposed building and avian collisions with the proposed building) compared to existing conditions.

Impact BIO(C)-1: Construction and operation of the new building within the 100-foot riparian setback would result in a cumulatively considerable contribution to the Calabazas Creek riparian corridor.

Mitigation Measure

MM BIO(C)-1.1: Prior to the issuance of any grading or building permits, the project applicant shall provide compensatory mitigation to offset project impacts on the ecological functions and values of the riparian corridor. Such compensatory mitigation shall be provided as follows:

- Native habitat shall be provided, on-site and/or on the Santa Clara Valley floor, at a minimum ratio of 1:1 (compensation: impact), on an acreage basis, for a total of 0.14 acres of native habitat to compensate for 0.14 acres of project impacts within the 100-foot setback. Restoration/enhancement would consist of the complete removal of non-native trees, shrubs, and vines, as well as hardscape, and the planting of native trees and shrubs appropriate for streamside areas in Santa Clara, in areas contiguous with riparian habitat or, in cases like the project site, separated from riparian habitat only by a levee. No night lighting should be present within, or should shine directly into, the mitigation area.
- Restoration/enhancement on the project site itself would be sufficient, provided that the total acreage is a single area or patch, rather than multiple small patches of native vegetation summed to meet the required areal acreage extent. In other words, to qualify, the mitigated/restored area must be contiguous, and not bisected or fragmented by other unrestored areas. Although the 24,370 square feet

of public open space that is proposed to the south of the building may contain some native trees and shrubs, and may meet some of the criteria for restored riparian habitat, it would not qualify as appropriate mitigation acreage as currently envisioned because it is currently proposed to serve primarily as a park, with features (e.g., table tennis equipment, fitness equipment, picnic tables, and lawn) that, if incorporated, would render it incompatible as mitigation habitat because they would reduce the quality of the habitat, and therefore not provide ecological functions and values equal to or exceeding those in the riparian habitat affected.

- On-site mitigation for the riparian encroachment can be achieved by revising the design of the public open space such that a 0.14-acre area immediately adjacent to the western site boundary incorporates native trees and shrubs; excluding the use of non-native grasses, forbs, shrubs, and trees; omitting any night lighting of the area used for mitigation; and concentrating high-human use areas (such as exercise equipment and picnic tables) in eastern portions of the public open space, outside the 0.14-acre area used as on-site mitigation. Restoration/enhancement that is provided must restore or augment high-quality habitat for birds, in the opinion of a qualified biologist.
    - Either on-site or off-site restoration/enhancement would need to be performed according to a *Habitat Mitigation and Monitoring Plan* that will be prepared to describe the mitigation and will contain the following components:
        - Summary of habitat impacts and proposed mitigation ratios
        - Goal of the restoration to achieve no net loss of habitat functions and values
        - Location of mitigation site(s) and description of existing site conditions
        - Mitigation design:
            - Existing and proposed site hydrology
            - Grading plan if appropriate, including bank stabilization or other site stabilization features
            - Soil amendments and other site preparation elements as appropriate
            - Planting plan
            - Irrigation and maintenance plan
            - Remedial measures and adaptive management

- Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule). Success criteria will include quantifiable measurements of vegetation type (e.g., dominance by natives) and extent appropriate for the restoration location. At a minimum, success criteria will include the following:
    - At Year 5 post-planting, canopy closure at the mitigation site will be at least 60 percent of the canopy closure at a nearby reference site (i.e., a site supporting the same habitat type as that being established at the mitigation site).

  Monitoring methods and frequency shall be outlined in the Plan. The Plan shall include monitoring between Years 1 and 5 to document progress toward meeting the success criteria so that any necessary remedial actions can be taken to ensure that the success criteria are met. Monitoring beyond Year 5 shall be necessary if the success criteria is not met by Year 5, as monitoring is required until all success criteria defined in the Plan have been met. The Plan shall be implemented within one year prior to project impacts on riparian woodland, and it shall be implemented within one year following construction completion. In addition, a letter signed by a qualified biologist accompanying the Plan shall be submitted to and approved by the Director of Community Development prior to the issuance of any demolition, grading and building permits (whichever occurs the earliest).

With implementation of Mitigation Measures BIO(C)-1.1, encroachment of the proposed building within the 100-foot setback would be less than significant and would not result in a cumulatively considerable contribution to the impact on the riparian corridor.

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

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 air quality, hazardous materials, and noise. Implementation of applicable regulations and policies, Conditions of Approval and mitigation measures from the PHDSP FEIR, and new mitigation identified for the proposed project would reduce the impacts to a less than significant level. No other direct or indirect adverse effects on human beings have been identified.

Section 5.0 References

The analysis in this Focused 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 Santa Clara
Community Development Department
Reena Brilliot, *Acting Director of Community Development*
Sheldon Ah Sing, *Development Review Officer*
Steve Le, *Senior Planner*
Tiffany Vien, *Associate Planner*

6.2 Consultants

David J. Powers & Associates, Inc.
Environmental Consultants and Planners
Shannon George, *Principal Project Manager*
Fiona Phung, *Project Manager*
Clare Moisan, *Researcher*
Ryan Osako, *Graphic Artist*

Archaeological/Historical Consultants
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Archaeological Sensitivity

ENGEO Incorporated
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Hexagon Transportation Consultants, Inc.
San José, CA
Transportation Demand Management

HortScience | Barlett Consulting
Berkeley, CA
Arborist Report

H.T. Harvey & Associates
Los Gatos, CA
Biological Resources Report

Illingworth & Rodkin, Inc.
Cotati, CA
Air Quality and Noise and Vibration Assessment

Langan Engineering and Environmental Services, Inc.
Oakland, CA
Geotechnical Investigation

PES Environmental, Inc.
Novato, CA
Phase I Environmental Site Assessment