I-280 Trail

(formerly known as the Junipero Serra Trail)

Initial Study / Mitigated Negative Declaration

10300 Torre Avenue

Cupertino, CA 95014

June 2022

Prepared by:

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PUBLIC WORKS DEPARTMENT
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DRAFT
CITY OF CUPERTINO
MITIGATED NEGATIVE DECLARATION

As provided by the Environmental Assessment Procedure adopted by the City Council of the City of Cupertino on May 27, 1973, and amended on March 4, 1974, January 17, 1977, May 1, 1978, and July 7, 1980, the City of Cupertino City Council has reviewed the proposed project described below to determine whether it could have a significant effect on the environment as a result of project implementation. "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affect by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (CEQA Guidelines Section 15382).

PROJECT INFORMATION AND LOCATION

Project Name: I-280 Trail formerly known as the Junipero Serra Trail
Applicant: City of Cupertino
Location: City of Cupertino

PROJECT DESCRIPTION

The project proposes to construct an approximately 1.68-mile shared use trail along the Junipero Serra Channel and Calabazas Creek between North De Anza Boulevard and Vallco Parkway in the City of Cupertino. The purpose of the project is to construct the central and eastern portions of I-280 Trail formerly known as the Junipero Serra Trail, which will ultimately become part of "The Loop" trail around Cupertino as envisioned in the 2016 Bicycle and Pedestrian Plan.

FINDINGS OF DECISION MAKING BODY

The City Council finds the project described is consistent with the General Plan and will not have a significant effect on the environment based on the analysis completed in the attached Initial Study. The City, before the public release of this draft Mitigated Negative Declaration (MND), has agreed to make project revisions that mitigate the project's effects to a less than significant level. The City agrees to implement the mitigation measures identified in the attached Initial Study and summarized below.

Biological Resources

Mitigation Measure BIO-1a: Pre-Construction Survey for San Francisco Dusky-Footed Woodrats. Within 30 days prior to the start of construction activities, a qualified biologist shall map all San Francisco dusky-footed woodrat houses within a 25-foot buffer around the project footprint. Environmentally sensitive habitat fencing shall be placed to protect the houses with a minimum 25-foot buffer. If a 25-foot buffer is not feasible, a smaller buffer may be allowable based on advice from a qualified biologist with knowledge of woodrat ecology and behavior, or Mitigation Measure BIO-1b may be implemented.

Mitigation Measure BIO-1b: Relocation of Woodrat Houses. In the unlikely event that one or more woodrat houses are determined to be present and physical disturbance or destruction of the houses cannot be avoided, then the woodrats shall be evicted from their houses and the nest material relocated outside of the disturbance area, prior to onset of activities that would disturb the house, to avoid injury or mortality of the woodrats. The reproductive season for San Francisco dusky-footed woodrats typically starts in February or March and breeding activity usually continues to July but can extend into September. Thus, relocation efforts should be completed in the fall to minimize the potential for impacts on young woodrats in the house. Additionally, it is recommended that the period between the completion of the relocation efforts and the start of construction activities be minimized to reduce the potential for woodrats to reconstruct houses in the project footprint prior to the start of construction activities.

Relocation generally involves first choosing an alternate location for the house material based on the following criteria: 1) proximity to current nest location; 2) safe buffer distance from planned work; 3) availability of food resources; and 4) availability of cover. An alternate house structure will then be built at the chosen location. Subsequently, during the evening hours (i.e., within 1 hour prior to sunset), a qualified biologist will slowly dismantle the existing woodrat house to allow any woodrats to flee and seek cover. All sticks from the nest will be collected and spread over the alternate structure. However, alternative relocation measures can be employed as advised by a qualified wildlife biologist in consultation with CDFW.

Mitigation Measure BIO-2a: Pre-Construction Survey for Roosting Bats. A survey of culverts within the project site, including a 50-foot buffer (as feasible) shall be conducted by a qualified bat biologist no less than 30 days before the start of construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, tree removal, vegetation removal, fence installation, demolition, and grading). If construction activities are delayed by more than 30 days, an additional bat survey shall be performed. The survey may be conducted at any time of year but should be conducted in such a way to allow sufficient time to determine if special-status bats or maternity colonies are present on the site. The results of the survey shall be documented.

If no habitat or signs of bats are detected during the habitat suitability survey, no further surveys are warranted. If suitable habitat is present and signs of bat occupancy (e.g., guano pellets or urine staining) are detected, Mitigation Measure BIO-2b shall apply.

Mitigation Measure BIO-2b: Acoustic Survey. If suitable habitat is present and signs of bat occupancy are detected, a follow-up dusk emergence survey shall be conducted no less than 30 days prior to construction activities. A dusk survey will determine the number of bats present and will also include the use of acoustic equipment to determine the species of bats present. The results of the survey shall be documented. If an active roost is observed within the project site, Mitigation Measure BIO-2c shall apply.

Mitigation Measure BIO-2c: Roost Buffer. If a day roost or a maternity colony is detected and is found sufficiently close to work areas to be disturbed by construction activities, the qualified biologist shall determine the extent of a construction-free buffer zone to be established around the roost in consultation with CDFW. Within the buffer zone, no site disturbance and mobilization of heavy equipment, including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, demolition, and grading shall be permitted. Monitoring shall be required to ensure compliance with relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented.

Mitigation Measure BIO-3: Pre-Construction/Pre-Disturbance Survey for Nesting Birds. Avoidance. To the extent feasible, construction activities should be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts to nesting birds protected under the MBTA and California Fish and Game Code would be avoided. The nesting season for most birds in Santa Clara County extends from February 1 through August 31.

Pre-Construction Surveys. If it is not possible to schedule construction activities between September 1 and January 31, then preconstruction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no nests would be disturbed during project implementation. These surveys shall be conducted no more than five days prior to the initiation of any site disturbance activities and equipment mobilization, including tree, shrub, or vegetation removal, fence installation, grading, etc. If project activities are delayed by more than five days, an additional nesting bird survey shall be performed. During this survey, the biologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, culverts) in and immediately adjacent to the impact area for nests. Active nesting is present if a bird is building a nest, sitting in a nest, a nest has eggs or chicks in it, or adults are observed carrying food to the nest. The results of the surveys shall be documented.

If an active nest is found sufficiently close to work areas to be disturbed by these activities, the biologist will determine the extent of a construction-free buffer zone to be established around the nest (typically up to 1,000 feet for raptors and up to 250 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation. Within the buffer zone, no site disturbance and mobilization of heavy equipment, including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, demolition, and grading will be permitted until the chicks have fledged. Monitoring shall be required to ensure compliance with MBTA and relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented.

Cultural Resources

Mitigation Measure CUL-1a: Inadvertent Discovery of Archaeological Resources. The City of Cupertino shall retain a Professional Archaeologist on an “on- call” basis during ground disturbing construction activities to review, identify and evaluate any potential cultural resources that may be inadvertently exposed during construction. The archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s) and/or unique archaeological resources under the California Environmental Quality Act (CEQA).

If the Professional Archaeologist determines that any cultural resources exposed during construction constitute a historical resource and/or unique archaeological resource under CEQA, he/she shall notify the City of Cupertino and other appropriate parties of the evaluation and recommend mitigation measures to mitigate to a less-than significant impact in accordance with California Public Resources Code Section 15064.5. Mitigation measures may include avoidance, preservation in-place, recordation, additional archaeological testing, and data recovery among other options. The completion of a formal Archaeological Monitoring Plan (AMP) and/or Archaeological Treatment Plan (ATP) that may include data recovery may be recommended by the Professional Archaeologist if significant archaeological deposits are exposed during ground disturbing construction. Development and implementation of the AMP and ATP and treatment of significant cultural resources will be determined by the City of Cupertino in consultation with any regulatory agencies.

A Monitoring Closure Report shall be filed with the City of Cupertino at the conclusion of ground disturbing construction if archaeological and Native American monitoring of excavation was undertaken.

Mitigation Measure CUL-1b: Tribal Cultural Resources Awareness Training. Prior to the start of ground disturbing construction, the City of Cupertino implement a Worker Awareness Training (WAT) program for cultural resources. Training should be required for all personnel participating in ground disturbing construction to alert them to the archaeological sensitivity of the project area and provide protocols to follow in the event of a discovery of archaeological materials. A Professional Archaeologist should develop and distribute for job site posting an "ALERT SHEET" summarizing potential finds that could be exposed and the protocols to be followed as well as points of contact to alert in the event of a discovery. Training shall be scheduled at the discretion of the contractor in consultation with the City of Cupertino.

Mitigation Measure CUL-2a: Construction Plans. The City of Cupertino shall note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources including prehistoric Native American burials. Significant prehistoric cultural resources are defined as human burials, features or other clusterings of finds made, modified, or used by Native American peoples in the past. The prehistoric and protohistoric indicators of prior cultural occupation by Native Americans include artifacts and human bone, as well as soil discoloration, shell, animal bone, sandstone cobbles, ashy areas, and baked or vitrified clays. Prehistoric cultural materials may include:

a. Human bone - either isolated or intact burials.

b. Habitation (occupation or ceremonial structures as interpreted from rock rings/features, distinct ground depressions, differences in compaction (e.g., house floors).

c. Artifacts including chipped stone objects such as projectile points and bifaces; groundstone artifacts such as manos, metates, mortars, pestles, grinding stones, pitted hammerstones; and shell and bone artifacts including ornaments and beads.

d. Various features and samples including hearths (fire-cracked rock; baked and vitrified clay), artifact caches, faunal and shellfish remains (which permit dietary reconstruction), or distinctive changes in soil stratigraphy indicative of prehistoric activities.

e. Isolated artifacts.

Historic cultural materials may include finds from the late 19th through early 20th centuries. Objects and features associated with the Historic Period can include:

a. Structural remains or portions of foundations (bricks, cobbles/boulders, stacked field stone, postholes, etc.).

b. Trash pits, privies, wells, and associated artifacts.

Mitigation Measure CUL-2b: Inadvertent Discovery of Human Remains. In accordance with Section 7050.5, Chapter 1492 of the California Health and Safety Code and Sections 5097.94, 5097.98 and 5097.99 of the Public Resources Code, if potential human remains are found, the lead agency (City of Cupertino) staff and the Santa Clara County Coroner shall be immediately notified of the discovery. The coroner would provide a determination regarding the nature of the remains within 48 hours of notification. No further excavation or disturbance of the identified material, or any area reasonably suspected to overlie additional remains, can occur until a determination has been made. If the County Coroner determines that the remains are, or are believed to be, of Native American ancestry, the coroner would notify the Native American Heritage Commission within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the Native American Heritage Commission must immediately notify those persons it believes to be the Most Likely Descendant from the deceased Native American. Within 48 hours of this notification, the Most Likely Descendant would recommend to the lead agency their preferred treatment of the remains and associated grave goods.

Hazards and Hazardous Materials

Mitigation Measure HAZ-1a: Prior to excavation, shallow soil samples shall be taken along the proposed trial alignment and other areas of disturbance to determine if contaminated soil is located on-site with concentrations above established construction/trench worker thresholds.

Mitigation Measure HAZ-1b: Once soil sampling is complete, a report of findings shall be provided to the SCCDEH (or other appropriate agency) for review. If no contaminants are found above established thresholds, no further action is required.

Mitigation Measure HAZ-1c: If contaminated soils are found in concentrations above established thresholds, a Site Management Plan (SMP) shall be prepared and implemented to manage the cleanup of potential contamination. The SMP shall be prepared prior to construction to reduce or eliminate exposure risk to human health and the environment, specifically, potential risks associated with the presence of contaminated soils. Contaminated soil removed from the site shall be hauled off-site and disposed at a licensed hazardous materials disposal site in accordance with applicable regulations.
The SMP shall be submitted to the Santa Clara County Department of Environmental Health (SCCDEH) (or equivalent agency) for review and acceptance. A copy of the accepted SMP shall be submitted to the City of Cupertino Public Works Department, and shall be implemented prior to the commencement of grading activities on the site.

Noise

Mitigation Measure NOI-1: The following shall be incorporated in all grading and construction plans: Construction hours shall be limited to the hours between 7:00 AM and 5:00 PM on weekdays, and 9:00 AM and 4:00 PM on weekends. This is more restrictive of the Municipal Code requirements which restrict construction activities to the daytime hours of 7:00 AM and 8:00 PM on weekdays, and 9:00 AM to 6:00 PM on weekends. Further, grading activities and underground utility work (e.g., water infrastructure for irrigation) that occur within 750 feet of a residential area shall not occur on Saturdays, Sundays, holidays, or during the nighttime period, consistent with the provisions of Municipal Code Section 10.48.053(B). In addition, the construction crew shall adhere to the following best management practices shall be observed:

- At least 30 days prior to the start of any construction or grading activities, all off-site businesses and residents within 300 feet of construction activities shall be notified of the planned construction activities. The notification shall include a brief description of the project, the activities that would occur, the hours when activity would occur, and the construction period's overall duration. The notification shall include the telephone numbers of the contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. Such notification is required per the Special Provisions in the Project Manual prepared by the City and included as part of the construction documents for the project
- The City and/or its construction contractors shall prepare a Construction Noise Control Plan that demonstrates equipment used for the project will comply with the City's performance standard of 87 dBA at a distance of 25 feet, as provided for in Municipal Code Section 10.48.053(A)(1). Such documentation may include, but is not limited to, manufactures cut sheets for the equipment that will be used for construction activities demonstrating that the equipment would meet the performance standards and/or the equipment has been equipped with a muffler that would reduce noise generated by the equipment to a level that is lower than 87 dBA at a distance of 25 feet. The Construction Noise Plan shall also contain the following measures, at a minimum, to further reduce the potential for construction noise to adversely affect receptors in

proximity of construction activities. These measures will be implemented by the on-site Construction Manager, Manager's designated contractors, contractor's representatives, or other appropriate personnel:

- At least 10 days prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, which includes permitted construction days and hours, as well as the telephone numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, he/she will investigate, take appropriate corrective action, and report the action to the City.
- During the entire active construction period, equipment and trucks used for project construction will utilize the best available noise control techniques (e.g., improved mufflers, equipment re-design, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds), wherever feasible.
- Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.
- Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.
- During the entire active construction period, stationary noise sources (e.g., generators) shall be located as far from sensitive receptors as possible, and they will be muffled and enclosed within temporary sheds, or insulation barriers or other measures will be incorporated to the extent feasible.
- Haul routes shall be identified and utilized that avoid the greatest amount of sensitive use areas.
- Signs will be posted at the job site entrance(s), within the on-site construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All other equipment shall be turned off if not in use for more than five minutes.
- During the entire active construction period and to the extent feasible, the use of noise producing signals, including horns, whistles, alarms, and bells shall be for safety warning purposes only. The construction equipment shall use smart back-up alarms that adjust the alarm level based on the background noise level or switch off back-up alarms and replace with human spotters in compliance with all safety requirements and laws.

PUBLIC REVIEW PERIOD

The public circulation period for the Initial Study and draft MND began on June 30, 2022 and ended on August 1, 2022.

Matt Morley Director of Public Works

CERTIFICATE OF THE CITY CLERK

This is to certify that the above Mitigated Negative Declaration was filed in the Office of the City Clerk of the City of Cupertino on Jun 17, 2022.

City Clerk

I-280 TRAIL PROJECT INITIAL STUDY

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Chapter 1. Introduction

This Initial Study (IS) evaluates the potential environmental effects of a project to construct a trail within the City of Cupertino.

1.1 PROJECT BACKGROUND AND OVERVIEW

The I-280 Trail was originally approved in 2016 as part of the City's Bicycle Transportation Plan and supplemented in 2018 with the City's Pedestrian Transportation Plan. The 2.91-mile trail is intended to be the northern segment of a larger community-wide loop of on- and off-street bicycle facilities (currently referred to as, "The Loop"). The I-280 Trail lies almost entirely within Valley Water rights-of-way along the existing maintenance road that follows the Junipero Serra Channel on the south side of Interstate 280 (I-280) from Mary Avenue at the western extent to the intersection of Calabazas Creek and Vallco Parkway at the eastern extent. The trail would create an important east-west off-street trail across the heart of the City that serves recreational users, commuters, school children, and bicyclists.

This Initial Study evaluates the environmental impacts of the east and central segments (Segment 2 and Segment 3) of the I-280 Trail , an approximately 1.68-mile segment from De Anza Boulevard on the west to Calaveras Creek on the east. The project will be partially funded through the Measure B Bicycle and Pedestrian Capital Projects Competitive Grant Program administered by Valley Transportation Authority (VTA).

1.2 REGULATORY GUIDANCE

The California Environmental Quality Act (CEQA; Public Resources Code § 21000 et seq.) and the CEQA Guidelines (14 CCR §15000 et seq.) establish the City of Cupertino (City) as the lead agency for the project. The lead agency is defined in CEQA Guidelines Section 15367 as, "the public agency which has the principal responsibility for carrying out or approving a project." The lead agency is responsible for preparing the appropriate environmental review document under CEQA. The Cupertino City Council serves as the decision-making body for the City and is responsible for adopting the CEQA document and approving the project.

CEQA Guidelines Section 15070 states a public agency shall prepare a proposed Negative Declaration or a Mitigated Negative Declaration when:

1. The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or
2. The Initial Study identifies potentially significant effects, but:
    - Revisions in the project plans made before a proposed Mitigated Negative Declaration and Initial Study are released for public review would avoid the effects or mitigate the effects to a point where no significant effects would occur, and
    - There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

Pursuant to Section 15070, the City has determined a Mitigated Negative Declaration is the appropriate environmental review document for the I-280 Project.

To ensure that the mitigation measures and project revisions identified in a Mitigated Negative Declaration (MND) are implemented, CEQA Guidelines Section 15097(a) requires the City to adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. The City

shall prepare a Mitigation, Monitoring and Reporting Plan based on the mitigation measures contained in this IS/MND.

1.3 LEAD AGENCY CONTACT INFORMATION

The lead agency for the project is the City of Cupertino. The contact person for the lead agency is:

Evelyn Moran, CIP Project Manager
City of Cupertino Public Works Department
10300 Torre Avenue
Cupertino, CA 95014
Phone: 408-777-1313

1.4 DOCUMENT PURPOSE AND ORGANIZATION

The purpose of this document is to evaluate the potential environmental effects of the I-280 Project. This document is organized as follows:

- Chapter 1 – Introduction. This chapter introduces the project and describes the purpose and organization of this document.
- Chapter 2 – Project Description. This chapter describes the project location, area, site, objectives, and characteristics.
- Chapter 3 – Environmental Checklist and Responses. This chapter contains the Environmental Checklist that identifies the significance of potential environmental impacts (by environmental issue) and a brief discussion of each impact resulting from implementation of the proposed project. This chapter also contains the Mandatory Findings of Significance.
- Chapter 4 – Report Preparation. This chapter provides a list of those involved in the preparation of this document.
- Appendices

Chapter 2. Project Description

2.1 PROJECT PURPOSE

In June 2016 the City adopted the 2016 Bicycle Transportation Plan. The plan identifies a prioritized list of projects that support and promote bicycling in Cupertino. The plan includes a route encircling the City called, "The Loop." The I-280 Trail (formerly referred to as the Junipero Serra Trail) is one of the trail segments that would make up The Loop. It will provide an off-street bicycle and pedestrian facility that runs parallel to the existing Junipero Serra Channel and Calabazas Creek and provide a connection between the Don Burnett Bicycle Pedestrian Bridge and Vallco Parkway.

The project analyzed in this Initial Study is for the construction of Segments 2 and 3, the Central and East segments, respectively, of the I-280 Trail section of "The Loop".

2.2 PROJECT LOCATION AND SURROUNDING LAND USES

The project is located in the City of Cupertino within Valley Water right-of-way for the Junipero Serra Channel. The segment of the trail included in this analysis extends from De Anza Boulevard on the west to Calabasas Creek/Vallco Parkway on the east. These are known as the I-280 Central (De Anza Boulevard to Wolfe Road) and I-280 East (Wolfe to Calaveras Creek/Vallco Parkway) Trail segments of the Loop Trail (see Figure 2).

The Junipero Serra Channel is located along the northern edge of the proposed trail and is designated as Public Facilities land use. California Department of Transportation (Caltrans) I-280 right-of-way borders the northern extent of the Junipero Serra Channel. A variety of land uses are located to the south of the proposed trail, including office, industrial, commercial, and residential. The western extent of the proposed trail is within the North De Anza Boulevard Special Area and the eastern extent of the proposed trail is within the Vallco Shopping District Special Area and Housing Element site, as designated on the City's Community Vision 2015 -2040 General Plan. The Main Street Cupertino shopping district is located south of the proposed Vallco Parkway trailhead, and the Apple Park corporate headquarters is located north of the proposed trail alignment on the north side of I-280.

2.3 SITE FEATURES

The project site is a linear alignment just south of the Valley Water Junipero Serra Channel. The channel is a trapezoidal concrete channel except where it is culverted at roadway crossings. The northside of the channel includes concrete masonry unit soundwalls adjacent to I-280 and/ or landscaping. The alignment is flat and mostly unpaved with chain link fencing, roadways, or building walls to the south and various utility poles along the alignment and overhanging adjacent tree limbs. A PG&E utility corridor with overhead powerlines runs both within or immediately adjacent to portions of the I-280 Central Trail segment. At the alignment's eastern terminus, the trail turns south along the western bank of the Calabazas Creek.

2.4 PROJECT FEATURES

The proposed trail is a 1.68-mile long, 12-foot wide Class I Shared Use path with an 8-foot wide asphalt path and zero- to 2-foot wide shoulders of unpaved decomposed granite. Fencing, bench seating, decorative paving, boardwalk decking, interpretive and wayfinding signage, and landscaping are also proposed along the trail's length and at trailheads. See Figures 3 - 8 for

typical trail cross sections and conceptual trailhead illustrations, and Table 2-1 for proposed trailhead features. Per City regulations, the trail will be open from sunrise to a half hour after sunset.

Table 2-1: Trailhead Features

Trailhead/ Feature	Guardrail fence	Pavers	Seating	Interpretive /wayfinding signage	Landscape plantings	Crosswalk connection(s)	Boardwalk decking
I-280 Central							
De Anza Blvd Trailhead	X	X	X	X			
Lucille Ave Trailhead	X	X	X	X	X	X	
Vallco Trailhead		X	X	X	X	X	
I-280 East							
Promontory Trailhead	X	X	X	X	X		X
Vallco Parkway Trailhead		X	X	X	X	X	

Fencing would be installed as needed to separate trail users from the Junipero Serra Channel and adjacent roadways. Planned fencing includes:

- 54-inch high, six gauge wire mounted to posts, spaced at 8-feet on center
- 42-inch high, split rail wood fencing between the trail and Lucille Avenue

The railing would be removable to allow creek maintenance access and operations. The railings would be constructed behind the top of bank and would be 3.5 feet tall.

<u>Trailhead Access Improvements</u>

Several street improvements at trail access points were recommended in a Trailhead Access analysis prepared for the project by Hexagon Transportation Consultants. The following improvements based on these recommendations will be included in the project. Additional detail is provided in Chapter 3.17 Transportation.

The proposed Lucille Avenue Trailhead is located at the intersection of Lucille Avenue and Villa de Anza Avenue, just west of the Blaney Avenue overpass. The project will install curb ramps and a high-visibility crosswalk on the west leg of the intersection. Trail users can park on both sides of Lucille Avenue west of the crosswalk or on the west side of Villa De Anza Avenue. The project will include the installation of signage to prohibit parking for at least 50 feet on approaches to the crosswalk to provide unrestricted sightlines for pedestrians and motorists.

North Blaney Avenue currently has on-street bike lanes in both directions but lacks a median island or left turn lanes. In order to facilitate safe bicycle access to the trailhead, signage directing northbound bicyclists on Blaney Avenue to turn right onto a frontage road (also called "North Blaney Avenue") and southbound bicyclists to turn right onto Villa de Anza Avenue will be installed. At the curve where the North Blaney Avenue frontage road connects to Lucille Avenue, the curved section of roadway will be reconstructed at a slightly longer radius to provide sufficient room for the trail and a relocated guardrail. In addition, a driveway will be provided on the curve to serve trail maintenance vehicles and to provide access to the trail for northbound bicyclists on North Blaney Avenue. For improved pedestrian access, a new sidewalk will be constructed on the east side of North Blaney Avenue for a length of at least 210 feet, with curb ramps at the Olivewood Street intersection.

The Vallco Trailhead is located at the northwest corner of the future Vallco Mall development. The segment of trail west of the trailhead is to be connected to the segment to the east by a wide sidewalk along the north side of the Perimeter Road where it passes under Wolfe Road. It is proposed that the sidewalk have a centerline stripe and guide signs to direct bicyclists onto the trail. Guide signs will also be installed at intersections on Wolfe Road to direct bicyclists to the trailhead location.

The Vallco Parkway trailhead is located on the north side of Vallco Parkway approximately 80 feet east of its intersection with driveways that serve the Main Street development to the south and Apple offices to the north. There is an existing driveway on the north side of the street that will provide access for trail maintenance vehicles. Guide signs will be installed directing westbound bicyclists on Vallco Parkway to use the driveway to access the trail. In addition, guide signage will be installed on the southwest corner of the intersection to direct eastbound bicyclists to turn left onto the Apple driveway for access to the trailhead on the northeast corner.

Blaney Avenue Alternative

The Blaney Avenue Alternative in the I-280 Central trail segment would modify the existing Junipero Serra Channel by extending an existing 72-inch culvert for 38 feet to the east and include the realignment of an existing storm drain at Blaney Avenue. At this location, the Junipero Serra Channel is an engineered trapezoidal concrete channel with concrete banks and no associated riparian vegetation. Replacement of 38 feet of existing trapezoidal channel with an underground culvert in this location would provide additional surface area for the trail.

This alignment alternative was suggested by community members in communications with the City during the early design stages of the project, but is not considered to be the alignment preferred by the City.

Pervious and Impervious Surfaces

The project site is 117,410 square feet or approximately 2.7 acres in size. The proposed trail alignment is currently composed of approximately 116,860 square feet of pervious (unpaved) surface area and approximately 550 square feet of impervious surface area. The project would replace most of the existing unpaved area with asphalt pavement for the trail, resulting in an overall net increase of approximately 101,710 square feet of impervious surface area.

Utilities

The project does not propose any trail amenities such as lighting or bathrooms, therefore sewer connections and electricity service are not required. A limited amount of water use is anticipated for irrigating the proposed landscaping at the Lucille Avenue and Vallco Parkway trailheads.

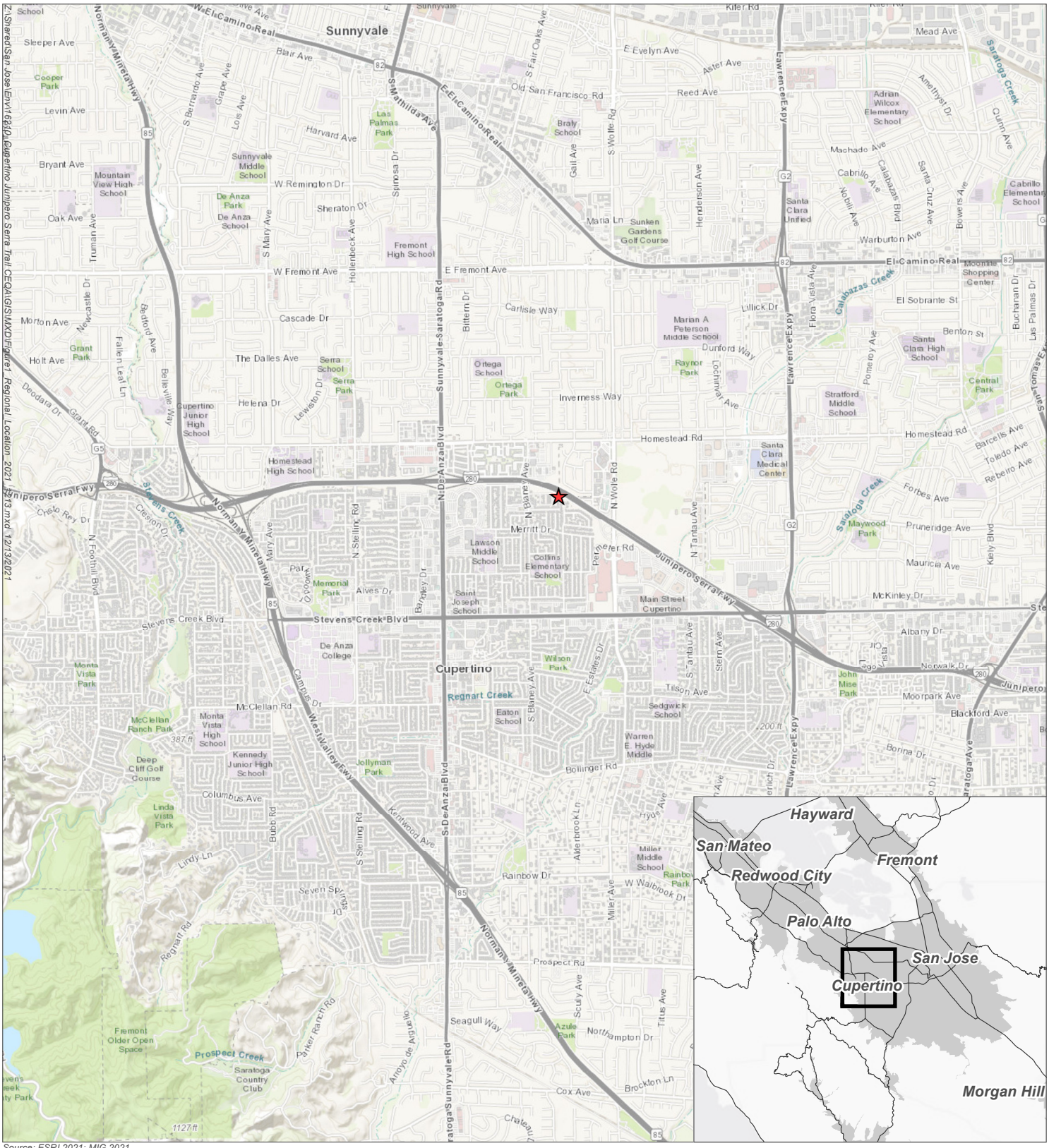
Construction

Construction on the I-280 East segment is anticipated to start in December 2022 for a duration of approximately five months (100 working days). The I-280 Central segment is anticipated to start construction in March 2024 for a duration of approximately seven months (150 working days). Road or lane closures are not anticipated during construction. All project-related construction activities would be completed under the oversight of the City Arborist to ensure existing trees within and adjacent to the proposed project are not harmed, except for the planned trees to be removed by the project.

Trail construction would require the use of construction equipment, such as backhoes and hauling trucks, that would be used for grading as well as for import and export of material such as earth, debris, and demolished items. Small vehicles, such as pickup trucks, would also be used for general construction needs. Once the rough grading is complete, paving operations would proceed, consisting of placement of asphalt pavement, aggregate base and decomposed granite.

Project plans currently show the project will require the removal of four trees (six- to seven-inch trunk diameters) for the I-280 East segment construction. Please note, schematic designs have only been developed for the East segment of the I-280 Trail, therefore additional tree removals may be required as plans are further developed for the Central segment.

Staging for construction would occur within existing maintenance access areas adjacent to the proposed trail, existing landscape space north of Lucille Avenue and the Apple Vallco parking lot. These staging areas were previously disturbed and construction would not require ground disturbance or tree trimming/removal. Public road or lane closures are not anticipated to be necessary to accommodate the proposed construction. The contractor will be required to prepare a construction logistics plan to coordinate construction and maintain access and safety during construction.



Source: ESRI 2021; MIG 2021

Figure 1 Regional Location

I-280 Trail

Source: ESRI 2021; MIG 2021

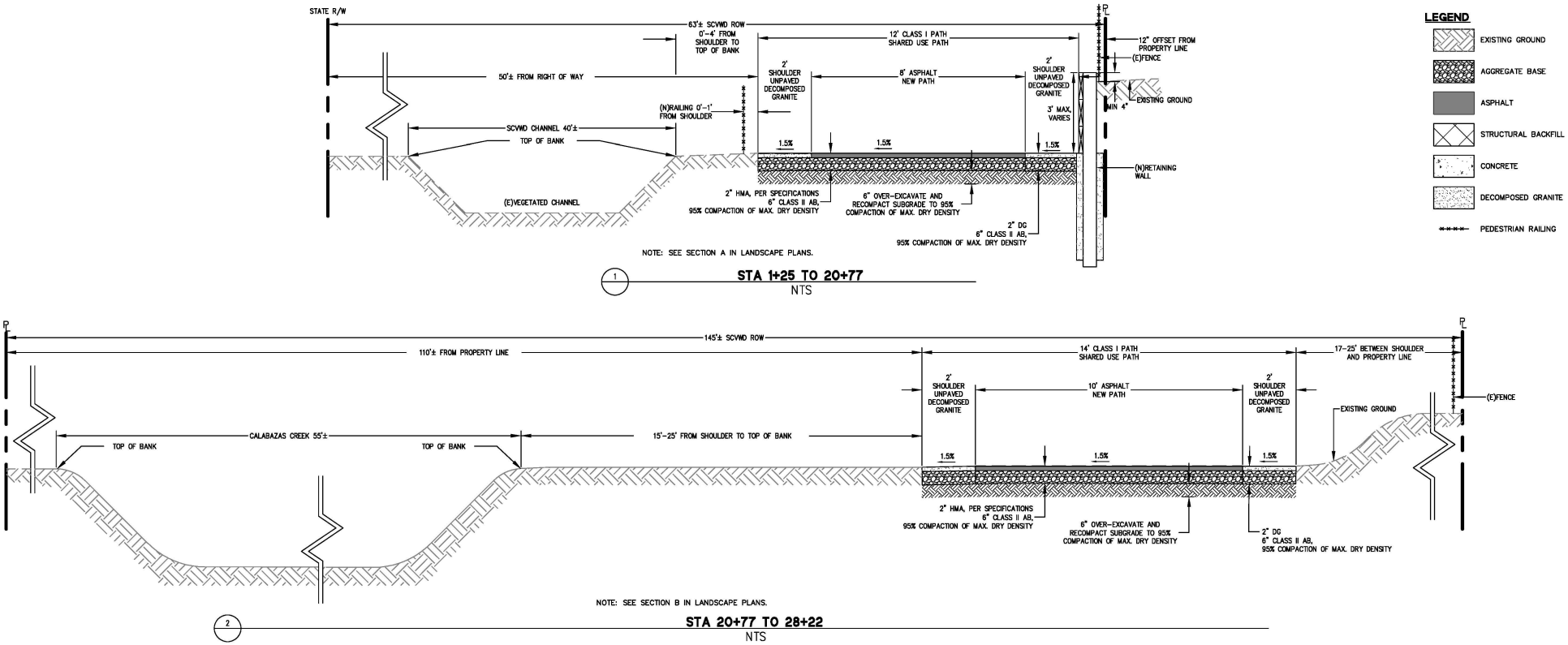
0 0.125 0.25 0.5 Miles

Project Area (9.12 acres)

Figure 2 Project Area Map

I-280 Trail

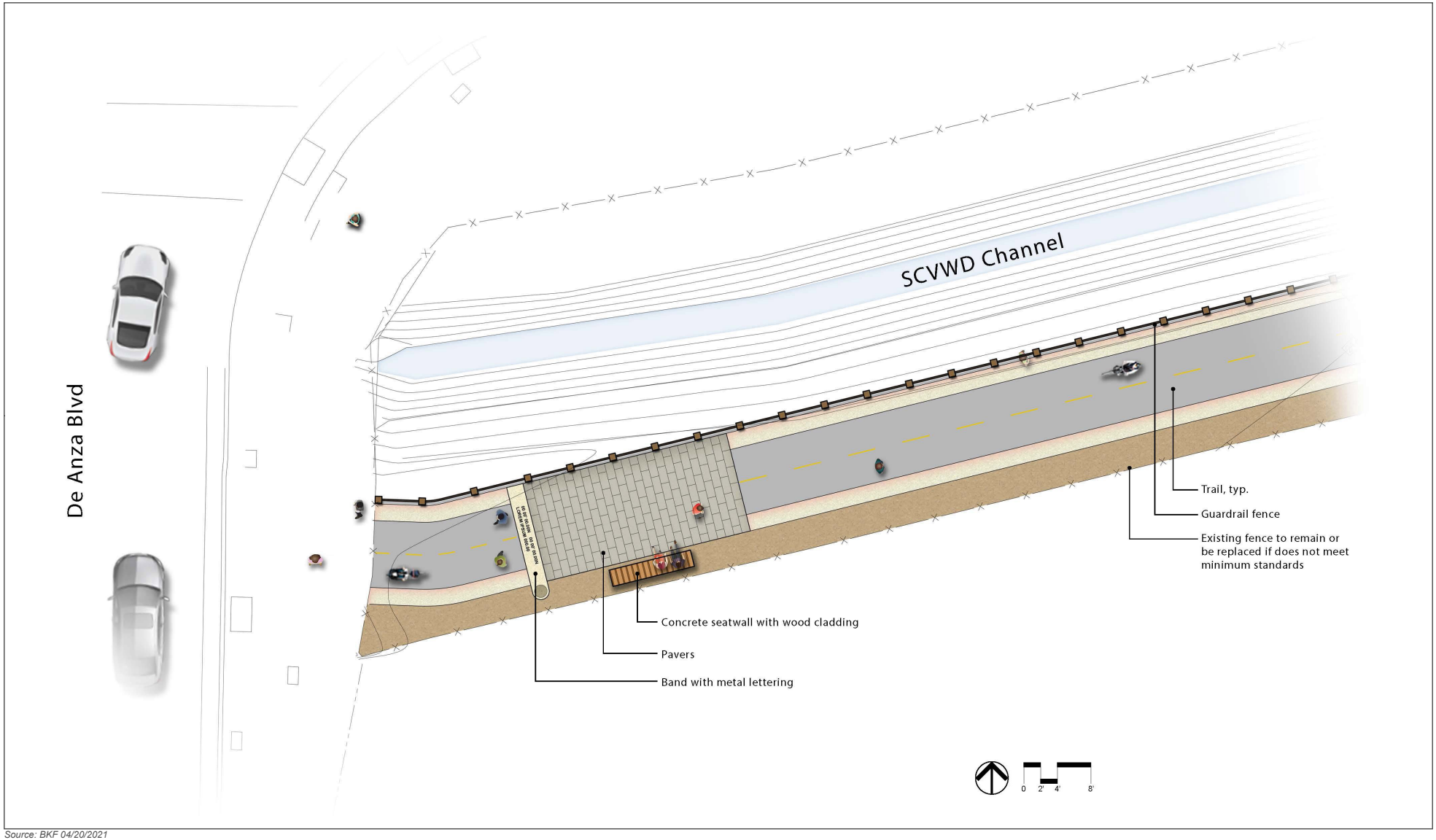
MIG



Source: BKF 08/24/2021

Figure 3 Typical Sections

I-280 Trail

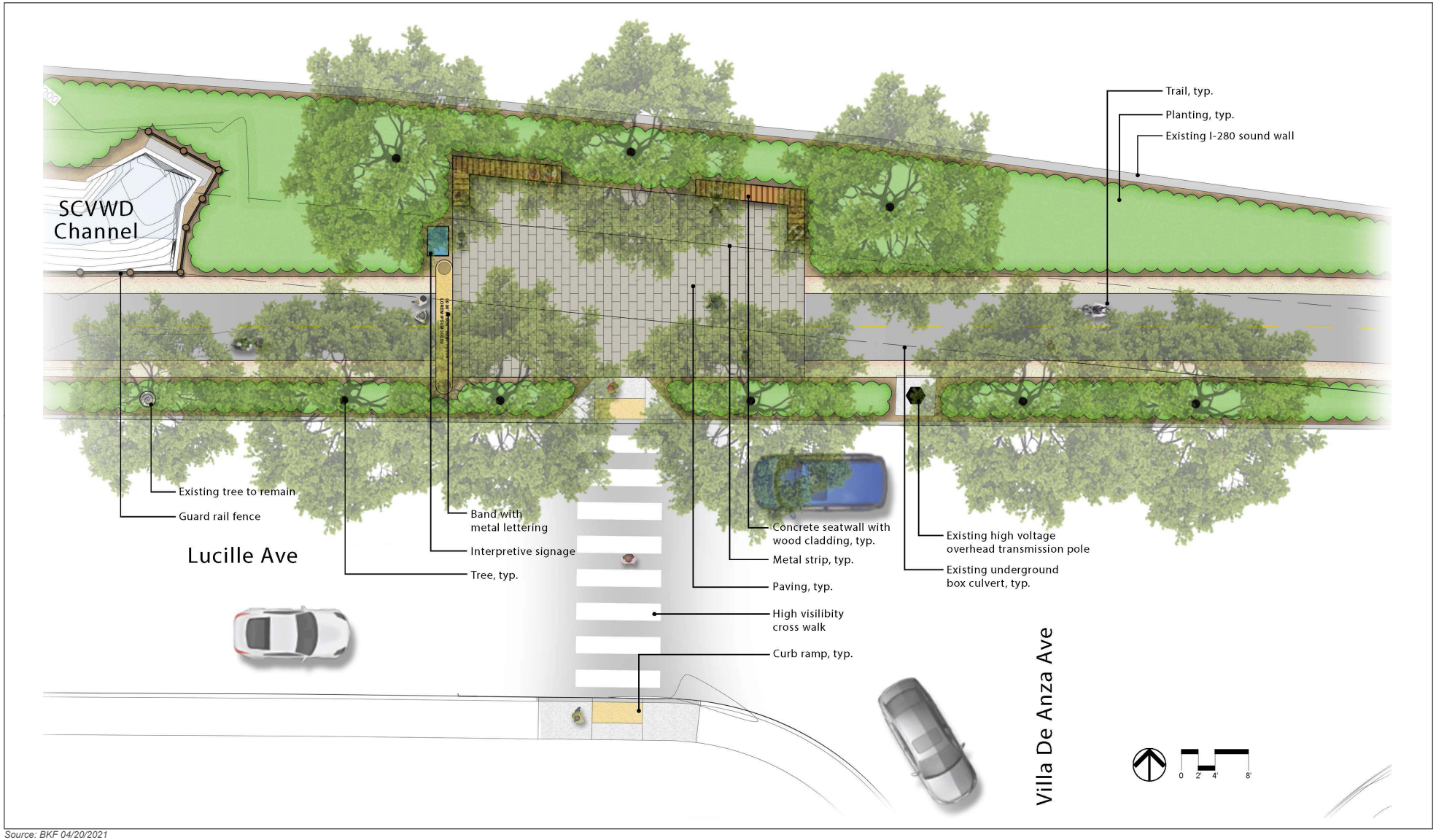


Source: BKF 04/20/2021

Figure 4 De Anza Boulevard Trailhead

I-280 Trail

MIG

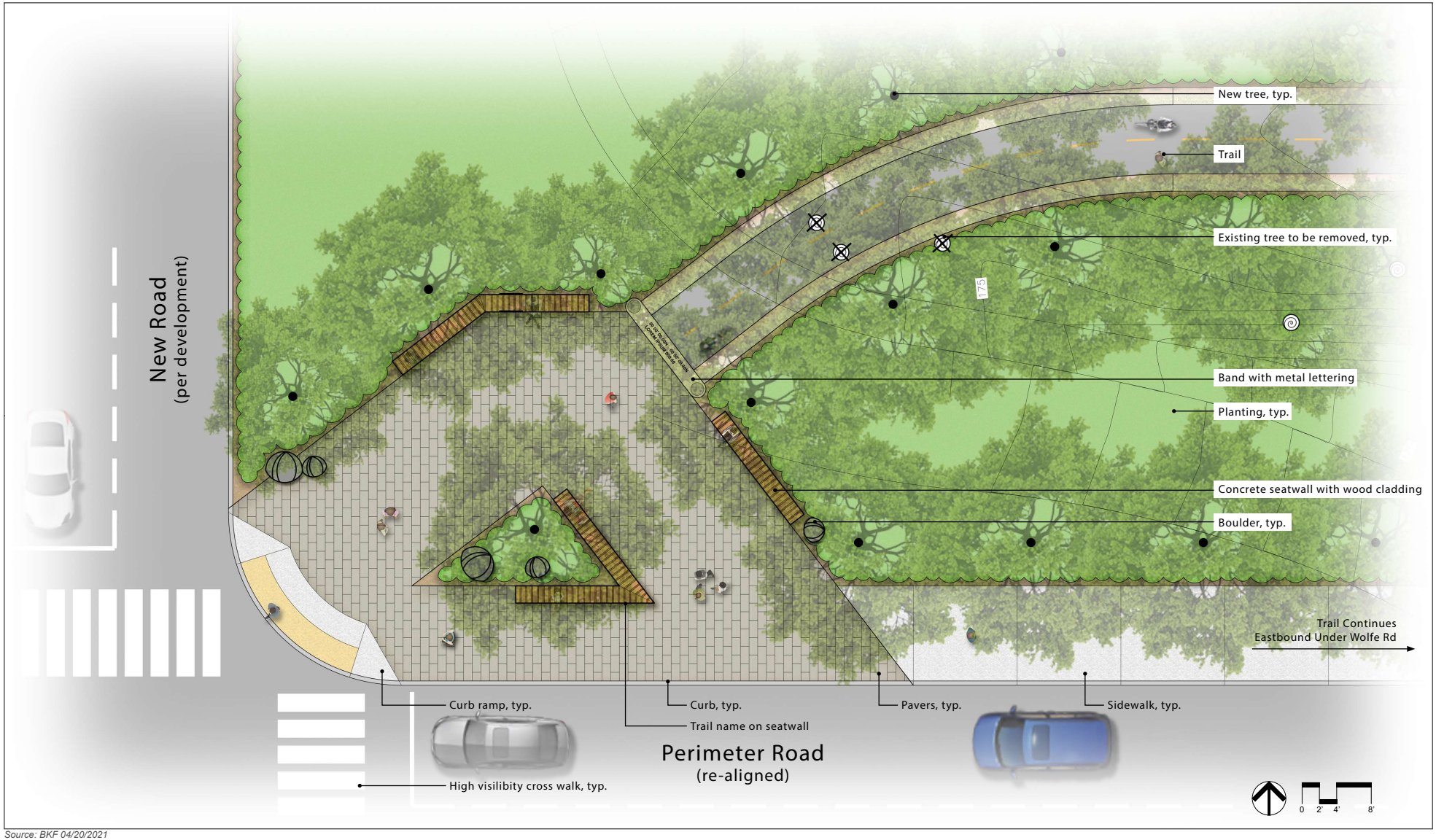


Source: BKF 04/20/2021

Figure 5 Lucille Avenue Trailhead – JST Central

I-280 Trail

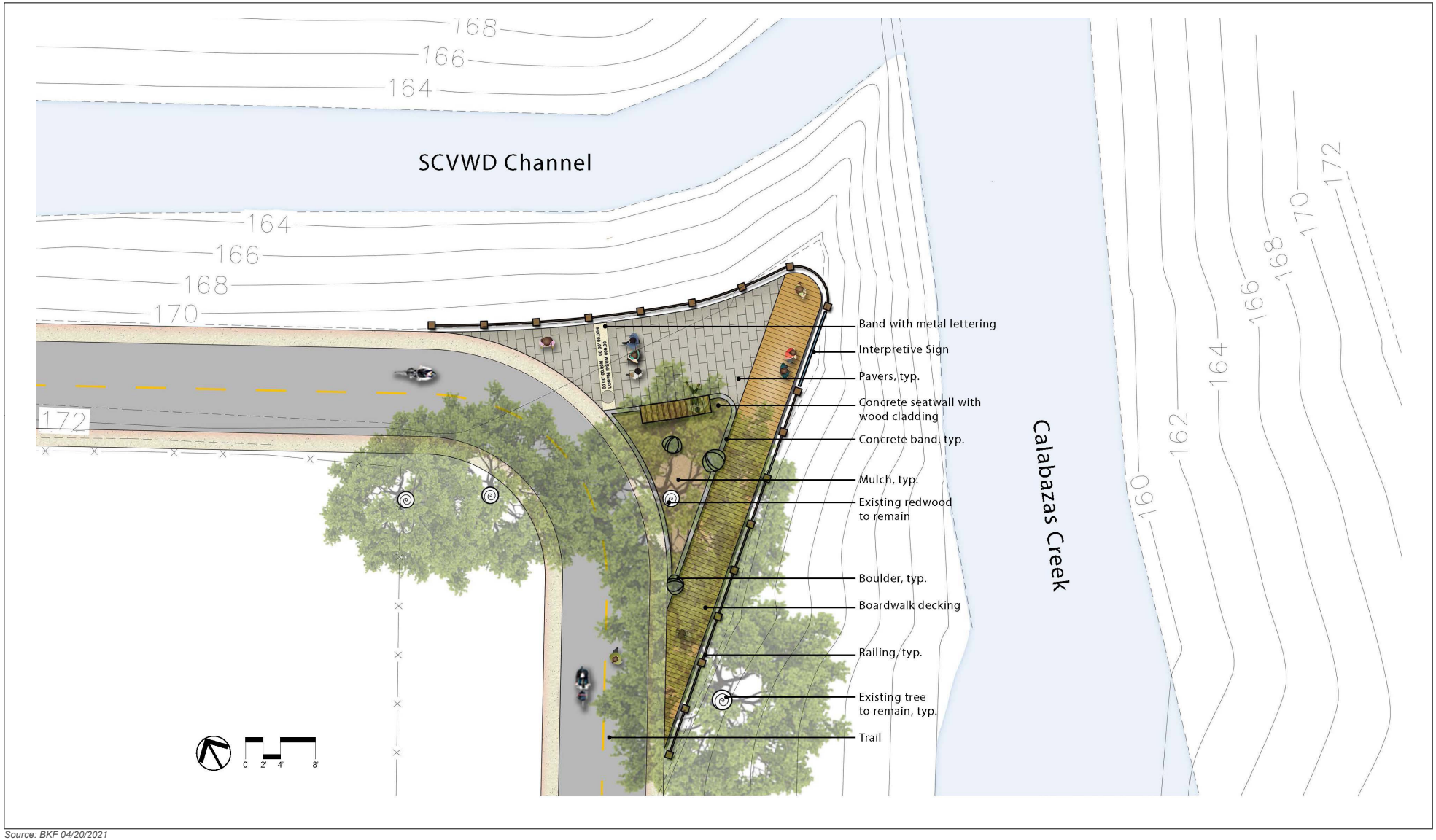
MIG



Source: BKF 04/20/2021

Figure 6 Vallco Trailhead – JST Central

I-280 Trail



Source: BKF 04/20/2021

Figure 7 Promontory Trailhead – JST East

I-280 Trail

MIG

Source: BKF 04/20/2021

Figure 8 Vallco Parkway Trailhead – JST East

I-280 Trail

MIG

Photo 1. Westerly terminus of the trail alignment at DeAnza Boulevard. (Central section)

Photo 2. Viewing west along the trail alignment from Lucille Avenue. (Central section) (20211109_130525)

Source: MIG 11/09/2021

Figure 9 Photos 1 and 2

I-280 Trail

MIG

Photo 3. Viewing east along trail alignment towards the Junipero Serra Channel/Sunnyvale East Channel diversion structure. (Central section)

Photo 4. Viewing northwest towards the N. Blaney Avenue overpass from N. Blaney Avenue. (Central section)

Source: MIG 11/09/2021

Figure 10 Photos 3 and 4

I-280 Trail

Photo 5. Viewing east along the trail alignment behind the existing self-storage facility. (Central section)

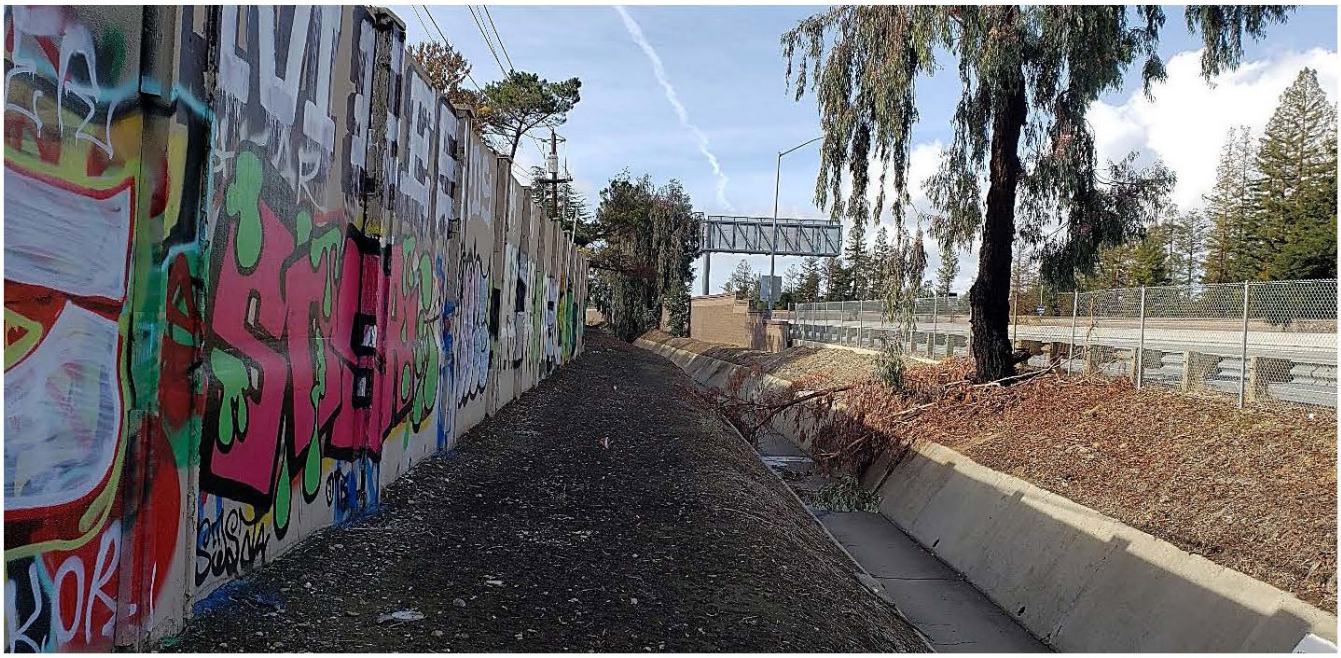


Photo 6. Viewing west along the trail alignment behind existing residences on Drake Drive. (Central section)

Source: MIG 11/09/2021

Figure 11 Photos 5 and 6

Photo 7. View of existing freeway soundwall and adjacent utility yard along the trail alignment. (Central section)

Photo 8. Viewing east along the trail alignment toward the SB I-280 offramp at Wolfe Road. (Central section)

Source: MIG 11/09/2021

Figure 12 Photos 7 and 8

Photo 9. Viewing west towards Junipero Serra Channel culvert under Wolfe Road. (East section)

Photo 10. Viewing east towards existing vegetation and trees along the trail alignment. (East section)

Source: MIG 11/09/2021

Figure 13 Photos 9 and 10

Photo 11. Confluence of Junipero Serra Channel and Calabazas Creek Channel at I-280. (East section)

Photo 12. Viewing north along the Calabazas Creek section of the trail alignment. (East section)

Source: MIG 11/09/2021

Figure 14 Photos 11 and 12

Photo 13. Viewing north along the trail alignment near the Vallco Parkway entrance. (East section)

Photo 14. Viewing south from the trail alignment towards the Vallco Parkway entrance. (East section)

Source: MIG 11/09/2021

Figure 15 Photos 13 and 14

I-280 Trail

2.5 STANDARD DESIGN AND CONSTRUCTION MEASURES

The proposed trail and bicycle and pedestrian improvements would be implemented consistent with all relevant federal, state, regional, and local regulations aimed at preventing or reducing environmental impacts. Table 2-2 lists the Standard Designs and Construction Measures that have been incorporated into the planning, design, construction, operation, and maintenance of the proposed project to minimize the potential adverse effects of the project on the surrounding community and the environment. These Standard Design and Construction Measure will be included in project construction drawings and/or specifications and as such are considered a part of the project and are not considered mitigation measures.

Table 2-2 Standard Design and Construction Measures

Impact Section	Standard Design and Construction Measure
Air Quality	**Fugitive Dust** – To reduce potential fugitive dust that may be generated by project construction activities, the City or its contractor shall implement the following BAAQMD basic construction measures when they are appropriate: • All active construction areas will be watered twice daily or more often if necessary. Increased watering frequency will be required whenever wind speeds exceed 15 miles-per-hour. • Cover stockpiles of debris, soil, sand, and any other materials that can be windblown. Trucks transporting these materials will be covered. • All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day or as often as necessary to keep them free of dust and debris associated with site construction. The use of dry power sweeping is prohibited. Subsequent to clearing, grading, or excavating, exposed portions of the site will be watered, landscaped, treated with soil stabilizers, or covered as soon as possible. Hydroseed or apply (nontoxic) soil stabilizers to inactive construction areas and previously graded areas inactive for 10 days or more. • Installation of sandbags or other erosion control measures to prevent silt runoff to public roadways. • Replanting of vegetation in disturbed areas as soon as possible after completion of construction. • Idling times will be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes. Clear signage will be provided for construction workers at all access points. • All construction equipment will be maintained and properly tuned in accordance with manufacturer's specifications. All equipment will be checked by a

	certified mechanic and determined to be running in proper condition prior to operation. • Post a publicly visible sign with the telephone number and person to contact at the City of Cupertino regarding dust complaints. This person will respond and take corrective action within 48 hours. The BAAQMD's phone number will also be visible to ensure compliance with applicable regulations
Air Quality	**Construction Emission Reduction/Energy Efficiency Best Management Practices -** To reduce construction equipment related fuel consumption and emissions of criteria air pollutants, toxic air contaminants, and GHGs, the City shall implement the following best management practices: • Where possible, electrical service shall be provided to construction work areas to avoid the need to power equipment with generators.
Geology/Paleontological Resources	**Paleontological Resources**: The following measures shall be applied to development of the project site to reduce and/or avoid impacts to paleontological resources: If vertebrate fossils or other paleontological resources are discovered during construction, all work on the site shall stop immediately until a qualified professional paleontologist can assess the nature and importance of the find and recommend appropriate treatment. Treatment may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection and may also include preparation of a report for publication describing the finds. The City of Cupertino's Project Manager or other suitable representative shall be responsible for submitting the paleontologist's report to the Director of Public Works and implementing the recommendations of the qualified professional paleontologist. The representative shall submit a report to the Director of Public Works indicating how the paleontologist's recommendations were complied with as soon as all measures have been incorporated into the project.
Hydrology/Water Quality	**Erosion Control -** Park projects will be designed in accordance with the most current Chapter 9.18 Stormwater Pollution Prevention and Watershed Protection of the Municipal Code, as applicable, and the most current Municipal Regional Stormwater NPDES permit. Projects will be constructed in accordance with the most current version of Section 7.20 Storm Water Pollution Control of the General Conditions of the City's Public Works

	contract documents. Construction plans will include the City of Cupertino, Public Works Department “Construction Best Management Practices” plan sheet. **General Permit for Construction Activity.** The project disturbs more than one acre of land and therefore requires compliance with the requirements of the California General Permit For Stormwater Discharges associated with Construction Activity (Permit No. CAS000002). The Construction General Permit requires the filing of a Notice of Intent (NOI) with the State Water Resources Control Board (SWRCB) and preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) during construction. In order to meet the requirements of the National Pollutant Discharge Elimination System (NPDES) program for construction, construction contractors shall install and maintain appropriate BMPs, as shown in the erosion control plans and in accordance with the SWPPP, on all construction projects. BMPs shall be installed in accordance with industry recommended standards, and/or in accordance with the Construction General Permit issued by the state. sediment, construction materials, debris and wastes, and other pollutants must be retained on site and may not be transported from the site via sheet flow, swales, area drains, natural drainage courses, wind, or vehicle tracking to the extent feasible. Under direction of the Contractor's qualified SWPPP practitioner (QSP), erosion and/or sediment control devices shall be modified as needed as the project progresses to ensure effectiveness. The contractor shall download and keep a copy of the SWPPP on site and available for review throughout the entire construction period. **Green Stormwater Infrastructure -** The project will be designed consistent with the City’s Green Stormwater Infrastructure (GSI) Plan (adopted Sep. 2019). **Best Management Practices** to prevent stormwater pollution and minimize potential sedimentation shall be applied to project construction, including but not limited to the following: • Burlap bags filled with drain rock shall be installed around storm drains to route sediment and other debris away from the drains. • Earthmoving or other dust-producing activities shall be suspended during periods of high winds. • All exposed or disturbed soil surfaces shall be watered at least twice daily to control dust as necessary.

	• Stockpiles of soil or other materials that can be blown by the wind shall be watered or covered. • All trucks hauling soil, sand, and other loose materials shall be covered and all trucks shall maintain at least two feet of freeboard. • All paved access roads, parking areas, staging areas, and residential streets adjacent to the construction sites shall be swept daily (with water sweepers). • Vegetation in disturbed areas shall be replanted as quickly as possible. • All unpaved entrances to the site shall be filled with rock to remove mud from tires prior to entering City streets. A tire wash system shall be installed if requested by the City.
Noise	**Construction Noise** – Project construction shall be restricted to the hours of 7 AM to 5 PM on weekdays and 9 AM to 4 PM on weekends. This is consistent with and more restrictive of the City's Municipal Code requirements as follows: . • Section 10.48.051, Landscape Maintenance Activities, states that the use of motorized equipment for landscape maintenance activities for public schools, public and private golf courses, and public facilities is limited to the hours of 7 AM to 8 PM on weekdays and 7 AM to 6 PM on weekends and holidays. • Section 10.48.053, Grading, Construction, and Demolition sets forth standards for construction-related noise: 1. Grading, construction and demolition activities shall be allowed to exceed the noise limits of Section 10.48.040 during daytime hours (7 AM to 8 PM on weekdays and 9 AM to 6 PM on weekends) provided that the equipment utilized has high-quality noise muffler and abatement devices installed and in good condition, and the activity meets one of the following two criteria: 1) No individual device produces a noise level more than 87 dBA at a distance of 25 feet; or 2) The noise level on any nearby property does not exceed 80 dBA. 2. Grading, street construction, demolition, and underground utility work are prohibited within 750 feet of a residential area on weekends, holidays, and during the nighttime period (8 PM to 7 AM on weekdays and 6 PM to 9 AM on weekends). This restriction does not apply to emergency work activities as defined by Section 10.48.030 of the Municipal Code. 3. Construction, other than street construction (and certain emergency work activities), is prohibited on holidays.

	4. Construction, other than street construction (and certain emergency work activities) is prohibited during nighttime periods unless it meets the nighttime standards in Section 10.48.040. **Park Usage Noise -** Chapter 13.04, Parks Section 13.04.190, Closing Hours – Prohibitions, states that no person shall remain, stay, or loiter in any public park between the hours of 10 PM and 6 AM, unless otherwise posted at the public park.
Transportation	**Traffic Control** - For all construction projects affecting vehicle, bicycle, or pedestrian circulation patterns, the contractor will provide vehicle traffic control measures to ensure safety and vehicle flow during construction, and which ensure public safety and provide for adequate access to public rights-of-way during construction. All construction projects will require the construction contractor to comply with the most current version of Section 7.21 Traffic Control and Public Safety of the General Conditions of the City's Public Works contract documents which require contractors to give adequate warning to the public of construction and to maintain access to public rights-of-way during construction.

In addition to the measures listed in Table 2-2, the City uses several documents to specify standard measures for City sponsored construction projects. These standard measures are specified in City construction contracts and serve to eliminate or reduce environmental impacts associated with construction projects, some of which are intended to ensure the City complies with state and federal laws regarding air emissions, storm water pollution prevention, and hazardous materials handling and storage at construction sites. These measures are found in the documents listed below.

The current City documents containing standard measures consist of:

- Department of Public Works Construction Best Management Practices (BMPs) for Stormwater Pollution Prevention and Water Course Protection (pursuant to City Municipal Code Chapter 9.18) (dated September 1, 2016)
- City of Cupertino Public Works Department, Standard Details for Construction within City right-of-way. Undated.
- City of Cupertino Public Works Contract Documents, General Conditions of Project Manual (standard construction contract language)

These documents can be found at: https://www.cupertino.org/our-city/departments/public-works/permitting-development-services/engineering-standards-policies-procedures.

Chapter 3. Environmental Checklist and Responses

1. **Project Title: I-280 Trail (formerly known as the Junipero Serra Trail)**
2. **Lead Agency Name and Address:** City of Cupertino, 10300 Torre Avenue, Cupertino, CA 95014
3. **Contact Person and Phone Number:** Evelyn Moran, 408-477-1313
4. **Project Location:** Junipero Serra Channel right-of-way
5. **Project Sponsor's Name and Address:** City of Cupertino
6. **General Plan Designation:** Public Facilities, Regional Shopping, and Riparian Corridor
7. **Zoning:** N/A
8. **Description of the Project:** The project proposes to construct the Central and East segments of the I-280 Trail. The two segments total 1.68 miles long and would consist of an eight-foot wide asphalt concrete surface with decomposed granite shoulders. Fencing, landscaping, signage, and trailheads would be provided along the trail length.
9. **Surrounding Land Uses and Setting:** Office / Industrial / Commercial / Residential, Low Density Residential, Low / Medium Density Residential, Medium Density Residential, Industrial / Residential, and Regional Shopping land uses
10. **Other public agencies whose approval is required:** Valley Water, California Department of Fish and Wildlife and Regional Water Quality Control Board. Army Corps of Engineers approval would be required if the Blaney Avenue Alternative is undertaken.
11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?** On May 28,2021, the Tamien Nation of the Greater Santa Clara County requested consultation with the City pursuant to PRC section 21080.3.1. Outreach to the Tamien Nation was made and a response was received by Tamien Nation Chairperson Quirina Luna Geary. See Tribal Cultural Resources Section 3.18 for additional information. There is no formal plan for consultation currently in place.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

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

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

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

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

Signature Date

EVALUATION OF ENVIRONMENTAL IMPACTS

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

3.1 AESTHETICS

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

3.1.1 Environmental Setting

The City of Cupertino is situated on the mid-peninsula in the south Bay Area. Cupertino borders San Jose and Santa Clara to the east, Saratoga to the south, and Sunnyvale and Los Altos to the north. As of the 2010 census, the City had a land area of 11.26 square miles (U.S. Census Bureau 2010). The topography of the City and the surrounding vicinity is generally flat because the City lies in the west-central part of the Santa Clara Valley, which has a broad, mostly flush alluvial plain that extends southward from San Francisco Bay. Linda Vista Park is the only City park not situated on largely flat land. The Santa Cruz Mountains rise up to the west and provide a visual backdrop for the majority of the City. Cupertino is further defined by its largely urban setting.

<u>Scenic Highway Corridors</u>

The California Scenic Highway Program (Streets and Highway Code, Sections 260 through 263) is managed by the California Department of Transportation (Caltrans). The program is intended to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment.

There are no state-designated scenic highways within the City. The nearest official state-designated scenic highway is SR 9, located approximately 5.2 miles south of the project site.

<u>Sensitive Scenic and Visual Resources</u>

The City defines scenic vistas and scenic corridors in the following manner (page 4.1-21 of General Plan EIR):

> *"Scenic corridors are considered a defined area of landscape, viewed as a single entity that includes the total field of vision visible from a specific point, or series of points along a linear transportation route. Public view corridors are areas in which short-range, medium-range and long-range views are available from publicly accessible viewpoints, such as from city streets. However, scenic vistas are generally interpreted as long-range views of a specific scenic feature (e.g., open space lands, mountain ridges, bay, or ocean views)".*

The eastern part of Cupertino is relatively flat, whereas the western part of the city is characterized by changes in topography as it slopes into the Santa Cruz Mountains. Because Cupertino is largely built out, views of scenic vistas within the City are limited. However, given the flat nature of the majority of the City, views of the Santa Cruz Mountain Range can be captured from portions of major roadway corridors such as Stevens Creek Boulevard and Homestead Road. Views of the Santa Cruz Mountains are likely to increase as a person travels towards the foothills in the western and southern areas of the City.

There are no state-designated scenic highways within the City. The nearest official state-designated scenic highway is SR 9, located approximately 5.2 miles south of the project site.

The City has not designated any major roadways or any other streets/areas in the City as scenic corridors or as being part of a scenic vista. While the General Plan does not specifically address scenic corridors or vistas, it recognizes the views of the foothills (i.e., Montebello) and ridgelines of the Santa Cruz Mountains to the west and other natural features that surround the City as important resources (City of Cupertino 2014).

3.1.2 Regulatory Setting

<u>City of Cupertino General Plan</u>

The Cupertino General Plan: Community Vision 2015 – 2040 (2014) sets the City's policy direction in a number of areas including land use, mobility, housing, open space, infrastructure, public health and safety, and sustainability. The Land Use and Community Character Element contains policies that guide future physical change in Cupertino. Land Use and Community Character Element policies relevant to the proposed project include:

> *Policy LU-3.1: Site Planning.* Ensure that project sites are planned appropriately to create a network of connected internal streets that improve pedestrian and bicycle access, provide public open space and building layouts that support city goals related to streetscape character for various Planning Areas and corridors.
>
> *Policy LU-4.1: Street and Sidewalks.* Ensure that the design of streets, sidewalks and pedestrian and bicycle amenities are consistent with the vision for each Planning Area and Complete Streets policies.
>
> Policy LU-5.3: Enhance Connections. Look for opportunities to enhance publicly-accessible pedestrian and bicycle connections with new development or redevelopment.
>
> *Policy LU-11.1: Connectivity.* Create pedestrian and bicycle access between new developments and community facilities. Review existing neighborhood circulation to improve safety and access for students to walk and bike to schools, parks, and community facilities such as the library.

3.1.3 Impact Discussion

Would the project:

a) Have a substantial adverse effect on a scenic vista?

Less than Significant Impact. For purposes of determining significance under CEQA, a scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the public. The Cupertino General Plan has not designated any major roadways or any other streets/areas in the City as scenic corridors or as being part of a scenic vista. There are no officially designated scenic vista points in the Cupertino planning area and there are no officially designated scenic highways in Cupertino. Significant visual resources in the area include the Santa Cruz Mountains, which form a distinctive backdrop to the City looking west.

The project site currently contains a concrete lined channel, hard packet dirt access roads, chain link fencing, wood fencing, locked gates, freeway sound walls, high voltage overhead transmission poles, culverts, and vegetation, including trees. Views provided by the site are predominantly of I-280 to the north and existing commercial and residential structures to the south. The site, though currently inaccessible to the public, provides minimal views of the Santa Cruz Mountains at several points along the proposed trail alignment. Views of the Santa Cruz Mountains are largely obstructed by existing physical features, including buildings, sound barrier walls, and trees.

The project would not intrude upon the minimal existing views of the Santa Cruz Mountains that are provided along the extent of the proposed Central and East segments. The proposed trail would be installed at ground-level. Trail amenities, including interpretive signage, pavers, and concrete seatwalls would be constructed relatively close to or on the ground and would not obstruct existing views. Proposed fencing would include a combination of split rail wooden fencing and six gauge wire fencing, both of which would allow for visibility through the fencing. The project would also install new landscape plantings at the three new trailheads. Proposed plantings include trees, shrubs, and groundcover. New tree plantings would not likely obstruct existing views of the Santa Cruz Mountains considering existing views are minimal.

Construction activities would have a short-term impact on scenic vistas along the project alignment; however, such activities would not be visible over a large area because of curves in the roadway, vegetation, and varying topography along the project site alignment restrict views. Further, as stated previously, existing views of the Santa Cruz Mountains are minimal. Construction activities would be short-term and temporary, and all construction equipment and signage would be removed from the proposed trial alignment following completion of the two trail segments.

Overall, the proposed project, including new amenities and plantings, would not have a substantial adverse effect on existing scenic vistas because existing views of scenic vistas are minimal, the project would install mostly ground-level amenities, and construction activities would be short-term and small-scale in nature. The project would enhance the existing site, which consists of a concrete-lined channel, bare ground, chain link fencing, overhead transmission poles, and some vegetation, by adding attractive, decorative amenities and new vegetation along the length of the two trail segments and at trailheads. This impact is considered less than significant.

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

No Impact. The project alignment is not visible from an officially designated state scenic highway. The closest officially designated state scenic highway to project site is State Route (SR) 9, located approximately 5.2 miles south of the project site in Saratoga (Caltrans 2022). Therefore, the

project would not damage scenic resources within a state scenic highway. The segment of I-280 extending west from Interstate 880 to the Santa Clara/San Mateo County line, located adjacent to the Junipero Serra Channel to the north, is eligible for designation as a state scenic highway; however, it does not yet have official designated status.

As described under criterion a), the project site currently provides minimal views of the Santa Cruz Mountains to the west. All project elements, except for new tree plantings, would be at or near ground level, and therefore would not obstruct existing minimal scenic views. There are currently numerous mature trees in the Caltrans right-of-way between I-280 and the proposed trail alignment.

Because the project does not affect scenic resources within a state scenic highway, there would be no impact.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant Impact. The proposed project consists of constructing a new paved trail and associated trail amenities along the Caltrans I-280 right-of-way and Junipero Serra Channel. Amenities along the trail segments would be constructed predominantly at ground level and would be minimally visible from outside the site. New amenities at the De Anza Boulevard, Lucille Avenue, and Vallco Parkway trailheads would be highly visible to the public. Construction equipment would be visible for the duration of construction; however, the equipment is expected to move along the trail alignment as construction progresses. Tree removal is proposed; however, plans for the East segment only show four trees would be removed, and approximately 25 new tree plantings. Detailed design plans are not yet available for the Central segment, therefore, tree removal and replacement numbers are not yet confirmed. No permanent significant degradation of the existing visual character or quality of the site is anticipated. Rather, the project is anticipated to permanently enhance the scenic quality of the site by adding new, attractive trail amenities and new vegetation. Therefore, the impact is considered less than significant.

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

Less than Significant Impact. The project does not propose the installation of lighting features. Construction on East would begin in December 2022 and last approximately 100 workings days, and construction on Central would begin in March 2024 and last approximately 150 working days. During the months of November through April, sunset ranges from 5:00 PM to 8:00 PM, and as such, nighttime begins as early as 5:00 PM. Considering project construction is allowed to occur until5:00 PM on weekdays and 4:00 PM on weekends per the City's Construction Noise Ordinance, and construction on Central would begin in the month of December and construction on East would begin in the month of March, the project may conduct grading and construction activities during nighttime hours. Nighttime construction activities would require lighting to ensure safe and effective working conditions.

Residential areas are located adjacent to the Junipero Serra Channel to the south at several points along the proposed trail alignment. Nighttime construction lighting has the potential to impact adjacent residential areas. Per the Cupertino Municipal Code (Chapter 19.102.040 D.3), temporary construction lighting is exempt from the City's requirement for outside lighting (i.e., fully shieled and downward facing). It is anticipated that impacts from construction lighting would be limited to the maximum extent feasible by shielding and directing lights only to areas required for

operations and safety. Further, the use of construction lighting would be temporary and confined to nighttime hours, which would constitute a smaller portion of total construction hours relative to daytime hours. This impact would be less than significant.

3.1.4 References

California Department of Transportation (Caltrans). 2022. California State Scenic Highway System Map. Accessed February 7, 2022 at https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways.

City of Cupertino. 2014a. Cupertino General Plan: Community Vision 2015 – 2040. February 7, 2022.

2014b. General Plan Amendment, Housing Element Update, and Associated Rezoning EIR, State Clearinghouse Number 2014032007. December 4, 2014.

2022. Cupertino Municipal Code. Accessed February 14, 2022 at https://codelibrary.amlegal.com/codes/cupertino/latest/overview.

U.S. Census Bureau. 2010. QuickFacts. Cupertino city, California. Accessed February 14, 2022 at https://www.census.gov/quickfacts/fact/table/cupertinocitycalifornia/PST045221.

3.2 AGRICULTURAL AND FOREST RESOURCES

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

3.2.1 Environmental Setting

The project site is located in the City of Cupertino and all proposed project improvements would occur within an existing, urban area. The California Department of Conservation Farmland Mapping and Monitoring Program identifies the area as Urban and Built-up Land (California Department of Conservation 2022).

3.2.2 Regulatory Setting

<u>Farmland Mapping and Monitoring Program</u>

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) assesses the location, quality, and quantity of agricultural land and conversion of these lands over time. Agricultural land is rated according to soil quality and irrigation status. The best quality land is called Prime Farmland. In CEQA analyses, the FMMP classifications and published county maps are used, in part, to identify whether agricultural resources that could be affected are present on-site or in the project area.

California Land Conservation Act

The California Land Conservation Act (Williamson Act) enables local governments to enter into contracts with private landowners to restrict parcels of land to agricultural or related open space uses. In return, landowners receive lower property tax assessments. In CEQA analyses, identification of properties that are under a Williamson Act contract is used to also identify sites that may contain agricultural resources or are zoned for agricultural uses

3.2.3 Impact Discussion

Would the project:

a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

b) **Conflict with existing zoning for agricultural use or a Williamson Act contract?**

b) **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?**

c) **Result in the loss of forest land or conversion of forest land to non-forest use?**

d) **Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?**

No Impact. (Responses a – e). The proposed project would not impact Prime Farmland, Unique Farmland, Farmland of Statewide Importance, forest land, or land under a Williamson Act contract as none are present on site (California Department of Conservation 2018). All construction activities are confined to the existing Valley Water easements along the Junipero Serra Channel and Calabazas Creek and are not in agricultural or forestry use. The project would not convert or cause the conversion of any farmland or forest land to a non-agricultural/non-forest use because the project site is within urban and built-up land surrounded by urban uses. Thus, the project would not result in impacts to any agricultural or forestry resources.

3.2.4 References

California Department of Conservation. 2022. California Important Farmland Finder. August. Accessed on February 14, 2022 at https://maps.conservation.ca.gov/DLRP/CIFF/.

City of Cupertino. 2019. City of Cupertino Land Use Map. Accessed on February 14, 2022 at: https://www.cupertino.org/home/showpublisheddocument/13148/637045848489430000.

3.3 AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
*Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.				

3.3.1 Environmental Setting

Air quality is a function of pollutant emissions and topographic and meteorological influences. Physical atmospheric conditions such as air temperature, wind speed and topography influence air quality.

Criteria Air Pollutants

Federal, state, and local governments control air quality through the implementation of laws, ordinances, regulations, and standards. The federal and state governments have established ambient air quality standards for “criteria” pollutants considered harmful to the environment and public health. National Ambient Air Quality Standards (NAAQS) have been established for carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), fine particulate matter (particles 2.5 microns in diameter and smaller, or $PM_{2.5}$), inhalable coarse particulate matter (particles 10 microns in diameter and smaller, or PM_{10}), and sulfur dioxide (SO_2). California Ambient Air Quality Standards (CAAQS) are more stringent than the national standards for the pollutants listed above and include the following additional pollutants: hydrogen sulfide (H_2S), sulfates (SO_X), and vinyl chloride. In addition to these criteria pollutants, the federal and state governments have classified certain pollutants as hazardous air pollutants (HAPs) or toxic air contaminants (TACs), such as asbestos and diesel particulate matter (DPM).

San Francisco Bay Area Air Basin

The proposed project is located in the San Francisco Bay Area Air Basin (SFBAAB), an area of non-attainment for both the 1-hour and 8-hour state ozone standards, and the national 24-hour $PM_{2.5}$ standard. The SFBAAB is comprised of nine counties: all of Alameda, Contra Costa, Santa Clara, San Francisco, San Mateo, Marin, Napa, and the southern portions of Solano and Sonoma. In San Mateo County, $PM_{2.5}$ exceeds the national standard only on about one day each year (BAAQMD 2017a).

The San Francisco Bay Area is generally characterized by a Mediterranean climate with warm, dry summers and cool, damp winters. During the summer daytime high temperatures near the coast are primarily in the mid-60s, whereas areas farther inland are typically in the high-80s to low-90s. Nighttime low temperatures on average are in the mid-40s along the coast and low to mid-30s inland.

The Mediterranean climate is seen along most of the West Coast of North America and is primarily due to a (typically dominating) high-pressure system, located off the west coast of North America, over the Pacific Ocean. During the summer and fall months the high-pressure ridge is at its strongest and therefore provides a more stable atmosphere. Warm temperatures and a stable atmosphere associated with the high-pressure ridge provide favorable conditions for the formation of photochemical pollutants (e.g., O_3) and secondary particulates (e.g., nitrogen oxides (NO_x) and SO_2).

Varying topography and limited atmospheric mixing throughout the SFBAAB restrict air movement resulting in reduced dispersion and higher concentrations of air pollutants. The SFBAAB is most susceptible to air pollution during the summer when cool marine air flowing through the Golden Gate can become trapped under a layer of warmer air (a phenomenon known as an inversion) and is prevented from escaping the valleys and bays created by the Coast Ranges.

Sensitive Receptors

A sensitive receptor is defined by the Bay Area Air Quality Management District (BAAQMD) as a facility or land use that include members of the population that are particularly sensitive to the effects of air pollution, such as children, seniors, or people will illnesses (BAAQMD 2017b) These typically include residences, hospitals, and schools. Sensitive air quality receptors within 1,000 feet of the project site include:

- Multi-family residential receptors located at the southwest corner of the I-280 on- and off-ramp intersection with N De Anza Boulevard, approximately 180 feet southwest of the Central alignment's western terminus.
- Multi-family residential receptors north of the Central alignment, across I-280, on Northwood Drive and other roadways within the Northpoint Home Owner Association area.
- Single- and multi-family residential receptors, just south of the Central alignment on Lucille Avenue. These receptors also include residences that are located on streets that run in a north-south orientation and intersect Lucille Avenue, including Larry Way and Randy Lane. The closest of these receptors are approximately 30 feet from the Valley Water ROW (and project site).
- Single-family residential receptors north of the project site, across I-280, on Shetland Place, Parkview Court, and Linnet Lane.
- Multi-family residential receptors at "The Pointe at Cupertino Apartments" along Olivewood Street, Maplewood Steet, Rosewood Road, Orangewood Street. The closest of these receptors are approximately 10 feet from the Valley Water ROW (and project site).
- Single-family residences on N Portal Avenue; the closest of these receptors are approximately 10 feet from the Valley Water ROW (and project site).
- Single-family residences on Drake Drive and Auburn Drive; the closest of these receptors are approximately 20 feet from the Valley Water ROW (and project site).

- Multi-family residential receptors at the "Main Street Cupertino Lofts", at the corner of Vallco Parkway and Main Street Driveway, approximately 150 feet southwest of the East alignments' eastern terminus.

3.3.2 Regulatory Setting

CARB In-Use Off-Road Diesel Vehicle Regulation

On July 26, 2007, CARB adopted a regulation to reduce DPM and NO_x emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. This regulation applies to all off-road diesel vehicles over 25 horsepower (hp) used in California and most two-engine vehicles (except on-road two-engine sweepers), which are subject to the *Regulation for In-Use Off-Road Diesel Fueled Fleets (Off-Road regulation).* Additionally, vehicles that are rented or leased (rental or leased fleets) are included in this regulation. This regulation:

- Imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles.
- Requires all off-road diesel vehicles over 25-horsepower be reported to CARB (using the Diesel Off-Road Online Report System DOORs) and labeled.
- Restricts the adding of older vehicles into fleets; and,
- Requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies, VDECS (i.e., exhaust retrofits).

CARB In-Use Off-Road Diesel Vehicle Regulation

CARB's In-Use Heavy-Duty Diesel-Fueled regulation (also known as the Truck and Bus Regulation) is intended to reduce emission of NO_x, PM, and other criteria pollutants generated from existing on-road diesel vehicles operating in California. The regulation applies to nearly all diesel fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds that are privately or federally owned, and for privately and publicly owned school buses. Heavier trucks and buses with a GVWR greater than 26,000 pounds must comply with a schedule by engine model year or owners can report to show compliance with more flexible options. Fleets complying with the heavier trucks and buses schedule must install the best available PM filter on 1996 model year and newer engines and replace the vehicle 8 years later. Trucks with 1995 model year and older engines had to be replaced starting 2015. Replacements with a 2010 model year or newer engines meet the final requirements, but owners can also replace the equipment with used trucks that have a future compliance date (as specified in regulation). By 2023, all trucks and buses must have at least 2010 model year engines with few exceptions.

Bay Area Air Quality Management District

The BAAQMD is the agency primarily responsible for maintaining air quality and regulating emissions of criteria and toxic air pollutants within the SFBAAB. The BAAQMD carries out this responsibility by preparing, adopting, and implementing plans, regulations, and rules that are designed to achieve attainment of state and national air quality standards. The BAAQMD is the

agency primarily responsible for maintaining air quality and regulating emissions of criteria and toxic air pollutants within the SFBAAB. The BAAQMD carries out this responsibility by preparing, adopting, and implementing plans, regulations, and rules that are designed to achieve attainment of state and national air quality standards. The BAAQMD currently has 13 regulations containing more than 100 rules that control and limit emissions from sources of pollutants. **Error! Reference source not found.** *s*ummarizes the major BAAQMD rules and regulations that may apply to the proposed project.

Table 3-1 Potentially Applicable BAAQMD Rules and Regulations

Regulation	Rule	Description
1- General Provisions and Definitions	1- General Provisions and Definitions	301 – Public Nuisance: Establishes that no person shall discharge quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number or person or the public; or which endangers the comfort, repose, health, or safety of any such person or the public.
6 – Particulate Matter	1 – General Requirements	Limits visible particulate matter emissions.
6 – Particulate Matter	6 – Prohibition of Trackout	Limits the quantity of particulate matter through control of trackout of solid materials on paved public roads from construction sites that are greater than one acre in size.
8 – Organic Compounds	3 – Architectural Coatings	Sets forth VOC limitations and requirements for architectural coatings. Traffic marking coatings are required to meet a standard of 100 g/L.
7- Odorous substances	Odorous Substances	Establishes general limitations on odorous substances and specific emission limitations on certain odorous compounds, such as ammonia.
Source: BAAQMD, 2019.		

On April 29, 2017, the BAAQMD adopted its *Spare the Air-Cool the Climate 2017 Clean Air Plan* (Clean Air Plan). The 2017 Clean Air Plan updates the most recent Bay Area ozone plan, the 2010 Clean Air Plan, in fulfillment of state ozone planning requirements. The Plan focuses on the three following goals:

- Attain all state and national air quality standards.
- Eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants; and
- Reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050.
- The plan includes 85 distinct control measures to help the region reduce air pollutants and has a long-term strategic vision which forecasts what a clean air Bay Area will look like in the year 2050. The control measures aggressively target the largest source of GHG, ozone pollutants, and particulate matter emissions – transportation. The 2017 Clean Air Plan includes more incentives for electric vehicle infrastructure, off-road electrification projects such as Caltrain and shore power at ports, and reducing emissions from trucks, school buses, marine vessels, locomotives, and off-road equipment (BAAQMD 2017b).

City of Cupertino General Plan

The Environmental Resources and Sustainability Element of the City's General Plan includes goals, policies, and strategies to help the City improve sustainability and the ecological health and the quality of life for the community. The following goals, policies, and strategies from the General Plan may be applicable to the proposed project:

- *Goal ES-4* Maintain healthy air quality levels.
- *Policy ES-4.1 New Development*. Minimize the air quality impacts of new development projects and air quality impacts that affect new development.
- *Strategy ES-4.1.1 Toxic Air Contaminants*. Continue to review projects for potential generation of TACs at the time of approval and confer with the BAAQMD on controls needed if impacts are uncertain.
- *Strategy ES-4.1.2 Dust Control*. Continue to require water application to non-polluting dust control measures during demolition and the duration of the construction period.

3.3.3 Impact Discussion

Would the proposed project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact. The proposed project would not conflict with nor obstruct implementation of the BAAQMD *2017 Clean Air Plan*. The *2017 Clean Air Plan* includes increases in regional construction, area, mobile, and stationary source activities, and operations in its emission inventories and plans for achieving attainment of air quality standards. Chapter 5 of the 2017 Clean Air Plan contains the BAAQMD's strategy for achieving the plan's climate and air quality goals. This control strategy is the backbone of the *2017 Clean Air Plan*.

The proposed project consists of construction activities and would not emit operational criteria air pollutants upon its completion. The control measures in the *2017 Clean Air Plan* do not apply to the proposed project and, therefore, the proposed project would not conflict with the *2017 Clean Air Plan*. No impact would occur.

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?

Less Than Significant Impact. The proposed project would generate short-term construction emissions as the trail segments are developed. Construction emissions associated with the proposed project were estimated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0. As described in more detail below, the proposed project would not generate construction criteria air pollutant emissions that exceed BAAQMD-recommended criteria air pollutant thresholds. This analysis does not estimate operational emissions, because it would consist of two trail segments once constructed. Minor amounts of emissions may be generated by landscaping and maintenance activities; however, these emissions would be nominal and not have the potential to exceed BAAQMD thresholds.
The proposed project's potential construction emissions were estimated using CalEEMod default assumptions, with the following project-specific modifications made to reflect project conditions. Please see Appendix A for details regarding modeling inputs.

I-280 Trail – East Segment

- *Construction Phases and Schedule:* CalEEMod default assumptions for construction phases and scheduling were adjusted to reflect project-specific information.
- *Construction Equipment:* CalEEMod default assumptions for construction equipment were modified to reflect the specific equipment and runtimes anticipated for the project.
- *Soil Hauling:* The modeling accounts for the off haul of approximately 4,928 cubic yards (CY) of soil (i.e., approximately one foot of soil across the area covered by the trail).
- *Vendor Deliveries:* The modeling was updated to reflect the import of approximately 2,464 CY of aggregate and approximately 548 CY of asphalt to meet the design specifications of two (2) inches of hot mix asphalt (eight feet width) on top of six (6) inches of aggregate (12 feet across). Modeling assumes nine (9) CY trucks would be required for material delivery due to site constraints. Vendor trips also added to account for supplemental deliveries (e.g., pipes for irrigation and benches) and water truck use.
- *Fugitive Dust Control Measures:* Fugitive dust control measures consistent with BAAQMD guidelines were incorporated in the construction emissions modeling (see also Standard Design and Construction Measures in **Error! Reference source not found.**-2). Specifically, the model assumes the site would be watered twice a day, reducing fugitive dust emissions by 55%.

I-280 Trail - Central Segment

- *Construction Phases and Schedule:* CalEEMod default assumptions for construction phases and scheduling were adjusted to reflect project-specific information.
- *Construction Equipment:* CalEEMod default assumptions for construction equipment were modified to reflect the specific equipment and runtimes anticipated for the project .
- *Soil Hauling:* The modeling accounts for the off haul of approximately 8,448 CY of soil (i.e., approximately one foot of soil across the area covered by the trail).
- *Vendor Deliveries:* The modeling was updated to reflect the import of approximately 4,224 CY of aggregate and approximately 939 CY of asphalt to meet the design specifications of two inches of hot mix asphalt (eight feet width) on top of six inches of aggregate (12 feet across). Modeling assumes nine CY trucks would be required for material delivery due to site constraints. Vendor trips also added to account for supplemental deliveries (e.g., pipes for irrigation, culverts, and benches) and water truck use.
- *Fugitive Dust Control Measures:* Fugitive dust control measures consistent with BAAQMD guidelines were incorporated in the construction emissions modeling (see also Standard Design and Construction Measures in **Error! Reference source not found.**-2). Specifically, the model assumes the site would be watered twice a day, reducing fugitive dust emissions by 55 percent.

The project's estimated construction criteria air pollutant emissions are presented in Table 3-6.

Table 3-2: Estimated Project Construction Criteria Air Pollutant Emissions

Segment / Year	***Pollutant Emissions (Average Pounds per Day)*** *(C)*				
	ROG	**NOx**	**CO**	**PM_{10}**	**$PM_{2.5}$**

				Dust[(A)]	Exhaust	Dust[(A)]	Exhaust
East Segment (2022 / 2023)[(B)]	1.1	8.4	8.0	0.8	0.4	0.3	0.3
Central Segment (2024)[(C)]	1.0	7.0	7.7	0.8	0.3	0.3	0.2
BAAQMD CEQA Threshold	**54**	**54**	**--**	**BMPs**	**82**	**BMPs**	**82**
Potentially Significant Impact?	**No**	**No**	**No**	**No**	**No**	**No**	**No**

BAAQMD 2017b and MIG 2022.
(A) For all projects, the BAAQMD recommends implementing eight basic construction best management practices (BMPs) to control fugitive dust from construction activities. These measures would be implemented as Standard Design and Construction Measures and are accounted for in the emissions estimates presented herein this table.
(B) Average daily emissions for the I-280 East segment account for 100 workdays.
(C) Average daily emissions for the I-280 Central segment account for 150 workdays.

As shown in Table 3-6, construction emissions associated with the proposed project would be below all BAAQMD significance thresholds for criteria air pollutant emissions. Therefore, this impact would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Sensitive residential receptors are located immediately south of and adjacent to portions of the East and Central segments. Project-related construction activities would emit $PM_{2.5}$ from equipment exhaust. Nearly all the project's $PM_{2.5}$ emissions from equipment exhaust would be diesel particulate matter (diesel PM), a TAC. Although project construction would emit criteria and hazardous air pollutants, these emissions would not result in substantial pollutant concentrations. As described above, the project is below all BAAQMD construction emission thresholds and construction along each trail segment would last less than a year each. Construction emissions generated during construction of the trail segments would be spread out geographically, depending on where the construction work was occurring, and not expose the same receptor to exhaust emissions day after day. Furthermore, the City would implement the BAAQMD's best management practices for controlling fugitive dust, which would reduce potential emissions of fugitive dust and limit diesel construction equipment idling to no more than five minutes. Once operational, the project would consist of a trail that would be used for non-vehicular modes of recreation. Activities along these trail segments would not generate substantial pollutant concentrations. This impact would be less than significant.

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

Less Than Significant Impact. Construction of the project would generate typical odors associated with construction activities, such fuel and oil odors and asphalt and concrete paving odors. The odors generated by the project would be intermittent and localized in nature and would disperse quickly. Once construction is complete, the project would not generate further odors. Therefore, the project would not create objectionable odors affecting a substantial number of people. This impact would be less than significant.

3.3.4 References

Bay Area Air Quality Management District (BAAQMD). 2017a. "Air Quality Standards and Attainment Status". BAAQMD, Research & Data, Air Quality Standards & Attainment Status. January 5, 2017. Accessed on December 29, 2021 at http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status.

2017b. *California Environmental Quality Act Air Quality Guidelines*. San Francisco, CA. June 2010, updated May 2017.

2017c. 2017 Clean Air Plan: Spare the Air, Cool the Climate. BAAQMD, Planning, Rules, and Research Division. April 19, 2017.

2019. Current Rules. BAAQMD. August 9, 2019. Accessed February 8, 2022. http://www.baaqmd.gov/rules-and-compliance/current-rules

City of Cupertino. 2020. Cupertino General Plan: Community Vision 2015-2040 (General Plan). Adopted October. Amended March 3, 2020 by Ordinance Number CC 20-006.

3.4 BIOLOGICAL RESOURCES

The following discussion and analyses are based in part on a Biological Resources Report prepared for the project by MIG. A copy of the report, dated December 2021 is included in Appendix B.

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

3.4.1 Environmental Setting

Field surveys of the project area were conducted by MIG senior biologist Tay Peterson, B.A. on November 9, 2021, and MIG senior biologist David Gallagher, M.S. on December 1, 2021. The surveys were conducted to provide a project-specific impact assessment for the development of the site as described in the project description. Specifically, surveys were conducted to (1) assess existing biotic habitats and plant and animal communities in the parcel, (2) assess the project area for its potential to support special-status species and their habitats, and (3) identify potential jurisdictional habitats (e.g., waters of the U.S./states), and other sensitive biological resources.

Sensitive Habitats and Aquatic Features

All plant communities observed in the project area were evaluated to determine if they are considered sensitive. Sensitive natural communities are communities that are especially diverse; regionally uncommon; or of special concern to local, state, and federal agencies. Elimination or substantial degradation of these communities would constitute a significant impact under CEQA. The project area was also inspected for the presence of wetlands, drainages, streams, coastal waterways, and other aquatic features, including those that support stream-dependent (i.e., riparian) plant species that could be subject to jurisdiction by the USACE, RWQCB, and/or CDFW. Wetlands are defined for regulatory purposes in the 33 CFR 328.3 and 40 CFR 230.3 as "areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." To be considered subject to federal jurisdiction, a wetland must be located within the project area and normally exhibit positive indicators for hydrophytic vegetation, hydric soil, and wetland hydrology.

Special-Status Species

During the field surveys, Ms. Peterson and Mr. Gallagher evaluated the suitability of the habitat to support special-status species documented in the project area. For the purposes of this assessment, special-status species include those plant and animals listed, proposed for listing or candidates for listing as threatened or endangered by the USFWS or NOAA Fisheries under FESA, those listed or proposed for listing as rare, threatened or endangered by the CDFW under CESA, animals designated as CFP or CSSC by CDFW, birds protected by USFWS under the MBTA and/or by CDFW under Fish and Game Code Sections 3503 and 3513, and plants listed as Rank 1A, 1B, 2, 3 and 4 of the CNPS Inventory.

The potential occurrence of special-status plant and animal species in the project area was initially evaluated by developing a list of special-status species that are known to or have the potential to occur in the vicinity of the project area based on a 9-quad search of current database records (e.g., CNDDB and CNPS Electronic Inventory records) and review of the USFWS list of federal endangered and threatened species (i.e., IPaC). The potential for occurrence of those species included on the 9-quad list was then evaluated based on the habitat requirements of each species relative to the habitat conditions documented in the project area. If there are no documented occurrences within five miles of the project area, if there is clearly no suitable habitat present, and if the project area is clearly outside of the expected range of the species, these species were eliminated from consideration and are not discussed further. All remaining species were then evaluated for the potential to occur on or in the immediate vicinity of the project area according to the following criteria.

> *Not Expected:* CNDDB or other documents do not record the occurrence of the species within or reasonably near the project area and within the last 10 years, and/or no components of suitable habitat are present within or adjacent to the project area.
>
> *Low Potential:* The CNDDB or other documents may or may not record the occurrence of the species within a five-mile radius of the project area. However, few components of suitable habitat are present within or adjacent to the project area.
>
> *Moderate Potential:* Species does not meet all terms of High or Low category. For example: CNDDB or other reputable documents may record the occurrence of the species

near but beyond a five-mile radius of the project area, or some of the components representing suitable habitat are present within or adjacent to the project area, but the habitat is substantially degraded or fragmented.

High Potential: The CNDDB or other reputable documents record the occurrence of the species off-site, but within a five-mile radius of the project area and within the last 10 years. All or most of the components representing suitable habitat are present within the project area.

Present or Assumed Present: Species was observed on the project area, or recent species records (within five years) from literature or other sources are known within the project area.

Existing Land Uses, Vegetation Communities, and Habitats

The 9.12-acre project area is an approximately 1.7-mile linear alignment bordering the Junipero Serra Channel and Calabazas Creek. Approximately 1,000 feet of the proposed alignment adjacent to the I-280 southbound off-ramp for Wolfe Road was not surveyed for this analysis because it is on private property. The project site is located within an urban area bordered by I-280 to the north with residential and commercial development bordering the remaining project area. The Junipero Serra Channel is located along the northern edge of the proposed trail and Calabazas Creek is located along the eastern edge of the proposed trail where it turns south to join Vallco Parkway. The project area is mainly flat with elevations ranging from approximately 174 feet to 221 feet.

The project area is located within the San Francisco Bay Area Subregion of the Central Western Californian Region, both of which are contained within the larger California Floristic Province (Baldwin et al. 2012). A reconnaissance-level field survey was conducted by MIG biologists and three vegetation communities, habitats, and land cover types were identified in the project area: 1) developed (4.82 acres); 2) Coast Live Oak Woodland and Forest (0.88 acres); and 3) stream (3.42 acres). Existing land cover types, vegetation communities, and habitats in the project areas are described below.

Developed

The dominant land cover within the project area is developed and includes hard packed dirt access roads, chain link fencing, utility poles, building walls, and masonry sound walls. Most areas within this land cover type are devoid of vegetation, but there are scattered areas of vegetation dominated by ornamental and ruderal (i.e., disturbed) species, mostly along the perimeter of the project area. Based on aerial imagery, the approximately 1,000 feet of the proposed alignment not surveyed on foot was mapped as developed land cover.

Trees observed included holly oak, Chinese elm, sweetgum, blue gum, Monterey pine, Peruvian pepper tree, coast live oak, and coast redwood. Vines and shrubs observed included English ivy, scarlet firethorn, trumpet creeper, and mission cactus. Herbaceous plants observed included stinkwort and wild radish. These areas are regularly cleared of understory vegetation, which precludes the establishment of native vegetation and wildlife habitat.

Due to the scarcity of vegetation, the developed portions of the project area provide relatively low-quality habitat for wildlife species. However, a wide variety of wildlife may move through developed areas en route to other habitats, especially since the developed areas border streams.

The wildlife most often associated with developed areas are those that are tolerant of human disturbance, including introduced species such as the house sparrow, European starling, rock pigeon, house mouse, and Norway rat. Several common native species are also able to use this habitat and several native birds may nest on the site, including raccoon, Anna's hummingbird, dark-eyed junco, house finch, and California towhee.

Coast Live Oak Woodland and Forest (Quercus agrifolia – Heteromeles arbutifolia Alliance)
The project area includes native coast oak woodland along Calabazas Creek. Coast live oak (*Quercus agrifolia*) and toyon (*Heteromeles arbutifolia*) are the dominant woody species present. Other trees and shrubs present in small numbers included valley oak and big berry manzanita. The understory was dominated by Bermuda buttercup, slender oat, and ripgut brome.

Woodlands dominated by oaks typically support diverse animal communities in California and can contribute disproportionately to landscape-level species diversity especially when a stream is nearby. The presence of water during a portion of the year provides abundant food resources, including a wide range of invertebrates; and coast live oaks provide substantial shelter for animals in the form of cavities, crevices in bark, and complex branching growth. However, the oak woodland in the project area is limited in extent and surrounded by urban development, and therefore is not expected to support large numbers of woodland-associated species. Nevertheless, a variety of common wildlife species may occur here, including a wide variety of terrestrial vertebrates (e.g., amphibians, reptiles, and mammals), as well as several guilds of birds, including insectivores (e.g., warblers, flycatchers), seedeaters (e.g., finches), and raptors. Leaf litter, downed tree branches, low-growing forbs, and fallen logs provide cover for amphibians and reptiles, including California slender salamander, western fence lizard, and the San Francisco alligator lizard. The trees and shrubs may provide habitat for breeding birds such as the bushtit, Bewick's wren, chestnut-backed chickadee, Anna's hummingbird, dark-eyed junco, California scrub-jay, oak titmouse, Hutton's vireo, and spotted towhee, as well as wintering birds including the hermit thrush, ruby-crowned kinglet, and Townsend's warbler. Trees provide nesting opportunities for smaller raptors, such as the Cooper's hawk and red-shouldered hawk. Mammals, including the native raccoon, striped skunk, and black-tail deer, as well as the non-native Virginia opossum and eastern fox squirrel may occur in the coast live oak woodland. Several non-native eastern gray squirrel individuals were observed in the woodland along with several California ground squirrel burrows along the bank of Calabazas Creek. Additionally, oak trees and culverts may support roost habitat for crevice-roosting bats, including Yuma myotis, California myotis and Mexican free-tailed bat.

Stream

The project area contains sections of the Junipero Serra Channel and Calabazas Creek. Within the project area, the Junipero Serra Channel is an engineered trapezoidal concrete storm drain channel that is culverted at roadway crossings, except from Wolfe Road to its confluence with Calabazas Creek, which is an earthen engineered storm drain with a concrete outfall, with an approximately four-foot drop, at the confluence with Calabazas Creek. Within the project area, Calabazas Creek flows through a natural channel. However, downstream of the project area, Calabazas Creek enters an engineered channel and just upstream of the project area, Calabazas Creek exits a large box culvert. Within the project area, both the Junipero Serra Channel and Calabazas Creek were mapped up to the top of bank.

Junipero Serra Channel is an intermittent storm drain channel that conveys stormwater runoff from the surrounding urban area into Calabazas Creek. An intermittent storm drain channel in an urban area generally only flows during certain times of the year when runoff from rainfall or other

sources of runoff (e.g., irrigation runoff) flow into the channel. During dry periods, storm drain channels may not have flowing surface water. At the time of the site visit, there were small sections of the channel that had standing water (< 1 inch) and patches of wetland vegetation were sediment had accumulated, including common smartweed, dallis grass, barnyard grass, tall flatsedge, and bristly ox-tongue. The earthen section of the channel, including the banks was vegetated. Species observed within the channel included common smartweed, bristly ox-tongue, watercress, and bull mallow. Trees observed on the banks included coast live oak, sweetgum, and bay laurel. Herbaceous species observed on the banks included stinkwort, common bedstraw, vetch, wild radish, and field hedge parsley.

Calabazas Creek is a 13.3-mile-long northeast by northward-flowing intermittent to perennial stream originating on Table Mountain in Santa Clara County, California and flows into the San Francisco Bay via the Guadalupe Slough. The Calabazas Creek watershed covers an area of approximately 20 square miles. Major tributaries to Calabazas Creek include Prospect, Rodeo, and Regnart Creeks, the El Camino Storm Drain, and the Junipero Serra Channel. The Creek flows through the cities of Saratoga, Cupertino, Sunnyvale, San Jose, and Santa Clara. Within the urban areas, the creek is mostly an engineered channel. However, the upper reaches of the creek, where it passes through unincorporated County jurisdiction and into Saratoga, flows through a natural channel. At the time of the site visit, there was no surface water present. The channel was mostly unvegetated, but small patches of wetland vegetation were observed along the margins of the creek, including mule fat. The Coast Live Oak Woodland and Forest was present along the banks of the creek.

Calabazas Creek contains suitable habitat for native fishes, including California roach, Sacramento sucker, Three-spined stickleback as well as non-native fishes, including Western mosquitofish. Central California Coast steelhead occurred historically in Calabazas Creek but are now considered extirpated (Leidy 2007; Leidy et al. 2005). Due to the outfall structure on the Junipero Serra Channel, fish are likely only present during very high flow events even if flowing water is present in Calabazas Creek.

<u>Special-Status Species and Sensitive Habitats</u>

CEQA requires assessment of the effects of a project on species that are “threatened, rare, or endangered”; such species are typically described as “special-status species”. Impacts on these species are regulated by federal and state laws described under the Regulatory Setting above.
The CNPS (2021) and CNDDB (2021) identify 91 special-status plant species as potentially occurring in the nine 7.5-minute quadrangles containing and/or surrounding the project area. All 91 of those potentially occurring special-status plant species were determined to be absent from the project area for at least one of the following reasons: (1) a lack of specific habitat (e.g., freshwater marsh) and/or edaphic requirements (e.g., serpentine soils) for the species in question, (2) the geographic range of the species does not overlap the project area, (3) the species is known to be extirpated from the site vicinity, and/or (4) the habitats within the project area are too degraded to reasonably expect any special-status species to occur there.

Based on a review of the USFWS and CNDDB databases, the biologist’s knowledge of sensitive species, and an assessment of the types of habitats within the project area, it was determined that one wildlife species could potentially occur within or near the project area. This determination was made due to the presence of essential habitat requirements for the species, the presence of known occurrences within five miles of the project area, and/or the project area’s location within the species’ known range of distribution. The legal status and likelihood of occurrence of special-status animal species in the project area are discussed in greater detail below. Special-status

species that are not expected to occur in the project area because it lacks suitable habitat, is outside the known range of the species, and/or is isolated from the nearest known extant populations by development or otherwise unsuitable habitat were excluded from the analysis. Animal species not expected to occur in the project area for these reasons include California giant salamander, California tiger salamander, foothill yellow-legged frog, Santa Cruz black salamander, San Francisco garter snake, burrowing owl, long-eared owl, peregrine falcon, white-tailed kite, yellow warbler, pallid bat, and Townsend's big-eared bat.

Special-Status Fish

Central California Coast Steelhead (Federal Listing Status: Threatened; State Listing Status: None). The Central California Coast (CCC) steelhead Distinct Population Segment (DPS) was listed as a threatened species on August 18, 1997 (NMFS 1997), and the threatened status was reaffirmed on January 5, 2006 (NMFS 2006). Critical habitat was designated for the CCC steelhead DPS on September 2, 2005 (NMFS 2005), and a final recovery plan was published in October 2016. Like CCC coho salmon, steelhead populations in many areas have declined due to degradation of spawning habitat, introduction of barriers to upstream migration, over-harvesting by recreational fisheries, and reduction in winter flows due to damming and reduction of spring flows due to water diversions (NMFS 1997). In addition, non-native fish species, such as striped bass, common carp, and white catfish may pose risks to native steelhead populations through predation, competition, and habitat modification. Increasing predation pressure at river mouths and in the ocean from the growing California sea lion population is also posing significant risk to CCC steelhead.

Steelhead are found along the entire Pacific Coast of the United States. The CCC steelhead DPS includes all naturally spawned populations of steelhead in coastal streams from the Russian River (inclusive) to Aptos Creek (inclusive), and the drainages of San Francisco, San Pablo, and Suisun bays eastward to Chipps Island at the confluence of the Sacramento and San Joaquin Rivers; and tributary streams to Suisun Marsh including Suisun Creek, Green Valley Creek, and an unnamed tributary to Cordelia Slough (commonly referred to as Red Top Creek), exclusive of the Sacramento-San Joaquin River Basin of the California Central Valley.

Critical habitat for the Central California Coast steelhead DPS was designated on September 2, 2005, and includes all river reaches and estuarine areas accessible to listed steelhead in coastal river basins from the Russian River in Sonoma County to Aptos Creek in Santa Cruz County. The San Mateo Hydrologic Unit includes the coastal streams in San Mateo County from San Pedro Creek near Pacifica to Butano Creek near Año Nuevo and the Santa Clara Hydrologic Unit including San Francisquito Creek, Stevens Creek, Guadalupe River, Coyote Creek, and Penitencia Creek (NMFS 2006).

Steelhead in most tributaries to San Francisco and San Pablo bays have been virtually extirpated, including Calabazas Creek (McEwan and Jackson 1996). Steelhead occurred historically in Calabazas Creek but have not been observed since the 1970s and there are several impassable barriers to migration upstream from the San Francisco Bay (Leidy 2005; Leidy et al. 2007). Therefore, CCC steelhead are not expected to occur in Calabazas Creek in the project area.

Special-Status Amphibians

California Red-legged Frog (Federal status: Threatened; State status: Species of Special Concern). The California red-legged frog was federally listed as threatened in June 1996 (USFWS 1996) based largely on a significant range reduction and continued threats to surviving

populations. Critical habitat was most recently designated in March 2010 (USFWS 2010). Designated critical habitat is not present in the project area. The historical distribution of the California red-legged frog extended from the city of Redding in the Central Valley and Point Reyes National Seashore along the coast, south to Baja California, Mexico. The species' current distribution includes isolated locations in the Sierra Nevada and the San Francisco Bay area, and along the central coast (USFWS 2002).

The Junipero Serra Channel within the project area lacks suitable aquatic breeding habitat (i.e., long-lived pools or slow-moving streams with emergent vegetation or other egg mass attachment sites) for the California red-legged frog. However, the earthen portion of the channel between Wolfe Road and Calabazas Creek does provide suitable foraging and dispersal habitat, including the presence of small mammal burrows, which are used for aestivation during the non-breeding season. Additionally, Calabazas Creek, within the project area, provides suitable foraging and dispersal habitat and may provide suitable breeding habitat if water and emergent vegetation are present for sufficient periods of time. The nearest known breeding populations of red-legged frogs are located in Permanente Creek in Rancho San Antonio County and Open Space Preserve, approximately four miles west of the project area; and in the upper reaches of Calabazas Creek, approximately five miles upstream of the project area (CNDDB 2021). However, there are no documented occurrences of red-legged frog in the urbanized reaches, including the entire downstream section of Calabazas Creek (CNDDB 2021).

Even though the project area contains suitable habitat for California red-legged frog, it is highly unlikely that red-legged frogs would breed or disperse into the project area due to the high levels of disturbance and isolation from natural habitats in the region. Further, the surrounding urbanization precludes overland dispersal onto the site from potential off-site habitat and it is extremely unlikely that an individual from Permanent Creek and the remote upstream portions of Calabazas Creek would disperse downstream as far as the project site. Therefore, California red-legged frog are not expected to occur within the project area, and none were observed during the field visits.

Special-Status Reptiles

Western Pond Turtle (Federal status: None; State status: Species of Special Concern). The western pond turtle occurs in ponds, streams, and other wetland habitats in the Pacific slope drainages of California (Bury and Germano 2008). Ponds or slack-water pools with suitable basking sites (such as logs) are an important habitat component for this species, and western pond turtles do not occur commonly along high-gradient streams. Females lay eggs in upland habitats, in clay or silty soils in unshaded areas. Juveniles occur in shallow aquatic habitats with emergent vegetation and ample invertebrate prey. Nesting habitat is typically found within 600 feet of aquatic habitat (Jennings and Hayes 1994), but if no suitable nesting habitat can be found close by, adults may travel overland considerable distances to nest.

The Junipero Serra Channel within the project area does not provide suitable aquatic habitat due to ephemeral flows and the lack of substantial emergent vegetation along most of its length. However, Calabazas Creek may provide suitable aquatic habitat if water is present for sufficient periods of time. Also, if present in Calabazas Creek, western pond turtle could potentially move into the adjacent upland areas within the project area. The nearest known documented occurrences of western pond turtle are from Saratoga Creek near its confluence with Calabazas Creek at Guadalupe Slough; the salt ponds, marshes, and channels along the Bay trail to the west, both approximately seven miles downstream of the project area; and Vasona Lake County Park in Los Gatos, approximately six miles south of the project area (CNDDB 2021).

Even though the project area contains suitable habitat for western pond turtle, it is highly unlikely that pond turtles would breed or disperse into the project area due to the high levels of disturbance and isolation from natural habitats in the region. Further, the surrounding urbanization precludes overland dispersal onto the site from potential off-site habitat and it is extremely unlikely that an individual from Vasona Lake and the downstream portions of Calabazas Creek would disperse upstream as far as the project site. Therefore, western pond turtle is not expected to occur within the project area, and none were observed during the field visits.

Special-Status Mammals

San Francisco Dusky-footed Woodrat (Federal status: None; State status: Species of Special Concern). The San Francisco dusky-footed woodrat occurs in a variety of woodland and scrub habitats throughout San Mateo County and the adjacent Central Coast Range, south to the Pajaro River in Monterey County (Hall 1981, Zeiner et al. 1990). San Francisco dusky-footed woodrats prefer riparian and oak woodland forests with dense understory cover, or thick chaparral habitat, and build large, complex houses of sticks and other woody debris, which may be maintained by a series of occupants for several generations (Carraway and Verts 1991; Lee and Tietje 2005). Also, they will often build these stick houses in the canopy of trees. Woodrats also use human-made structures, and can nest in electrical boxes, sheds, pipes, abandoned vehicles, wooden pallets, and portable storage containers. The breeding season for dusky-footed woodrat begins in February and sometimes continues through September, with females bearing a single brood of one to four young per year (Carraway and Verts 1991).

No woodrat houses were observed during the field surveys. However, at least five woodrat nests were observed along the north bank of the Junipero Serra drainage channel between Wolfe Road and Calabazas Creek in 2019 (H.T. Harvey & Associates 2019). Additionally, there is suitable habitat for dusky-footed woodrat in the Coast Live Oak Woodland and Forest along Calabazas Creek. Therefore, San Francisco dusky-footed woodrat as a high potential to be present in the project area.

Bat Colonies

Bats tend to forage and roost near freshwater sources. Both Calabazas Creek and Junipero Serra Channel provide a seasonal source of freshwater within and adjacent to the project area. Cavities within trees as well as culverts in and adjacent to the project area may provide suitable day and maternity roost habitat for many species of bats.

Roost sites play a critical role in mating, hibernation, rearing young, conserving energy, and protection from adverse weather and predators. Selection of roost sites is influenced by distribution and abundance of food resources, risks of predation, as well as the physical attributes of the roost itself. Roost selection is paramount to the success of a species and the removal of roost habitat could adversely impact the survivorship of a species (Kunz 1982).

Depending upon species, maternity roosts can host from a few to thousands of reproductive female bats that congregate during spring and summer months to give birth and nurse their young. In California, maternity roosts may remain active from April through August. As a potentially uncommon and limited resource, maternity roosts may be the limiting resource for a local population of bats, and thus may be essential to the survival of a local bat population. Maternity roosts tend to have sensitivity to disturbance, with documented instances of abandonment even during the presence of flightless young. As bats have a low reproductive rate of typically one pup

per year, negative impacts to maternity roosts can have profound impacts on a local population of bats (Szewczak 2013).

Disturbance of roosting habitat of any bat species would be considered significant under CEQA guidelines. No suitable tree cavities were observed within the project area. However, the culverted sections of Junipero Serra Channel and Calabazas Creek in or adjacent to the project area provide potential roosting habitat for bats.

Nesting Birds

Nesting birds may occur in trees, shrubs, understory vegetation, shallow scrapes on bare ground, and in culverts in and around the project area. All migratory bird species are protected under the California Fish and Game Code.

Sensitive and regulated Plant Communities and Habitats

Natural communities have been considered part of the Natural Heritage Conservation triad, along with plants and animals of conservation significance since the state inception of the Natural Heritage Program in 1979. CDFW determines the level of rarity and imperilment of vegetation types; and tracks sensitive communities in its Rarefind database (CNDDB 2021). Global rankings (G) of natural communities reflect the overall condition (rarity and endangerment) of a habitat throughout its range, whereas state (S) rankings reflect the condition of a habitat within California. Natural communities are defined using NatureServe's standard heritage program methodology as follows (CDFG 2007):

- G1/S1: Less than 6 viable occurrences or less than 2,000 acres.
- G2/S2: Between 6 and 20 occurrences or 2,000 to 10,000 acres.
- G3/S3: Between 21 and 100 occurrences or 10,000 to 50,000 acres.
- G4/S4: The community is apparently secure, but factors and threats exist to cause some concern.
- G5/S4: The community is demonstrably secure to ineradicable due to being common throughout the world (for global rank) or the state of California (for state rank).

State rankings are further described by the following threat code extensions:

- S1.1: Very threatened.
- S1.2: Threatened.
- S1.3: No current threats known.

In addition to tracking sensitive natural communities, CDFW also ranks vegetation alliances, defined by repeating patterns of plants across a landscape that reflect climate, soil, water, disturbance, and other environmental factors (Sawyer et al. 1995). If an alliance is marked G1-G3, all the vegetation associations within it will also be of high priority (CDFG 2007). CDFW provides the Vegetation Classification and Mapping Program's (VegCAMP) currently accepted list of vegetation alliances and associations (CDFW 2020).

Natural Communities of Special Concern

There are no CDFW classified sensitive natural communities within the project area.

Sensitive Vegetation Alliances

There are no CDFW classified sensitive plant communities within the project area.

CDFW Stream/Riparian Habitat

As described above under Regulatory Setting, the California Fish and Game Code includes regulations governing the use of, or impacts to, many of the state's fish, wildlife, and sensitive habitats, including the bed and banks of rivers, lakes, and streams. Both the Junipero Serra Channel and Calabazas Creek and its associated riparian habitat up to the top of bank is subject to CDFW jurisdiction under Section 1600 et seq. of State Fish and Game Code.

Critical Habitat/EFH

There is no designated critical habitat or essential fish habitat within the project area.

Waters of the U.S./State

Both the Junipero Serra Channel and Calabazas Creek meet the definition of waters of the U.S/state and any impacts to verified waters of the U.S./state within the project area would be subject to jurisdiction by the USACE and RWQCB. Waters of the state generally extend to the top of the bank.

Wildlife Corridors

Wildlife corridors are segments of land that provide a link between these different habitats while also providing cover. Development that fragments natural habitats (i.e., breaks them into smaller, disjunct pieces) can have a twofold impact on wildlife: first, as habitat patches become smaller, they are unable to support as many individuals (patch size); and second, the area between habitat patches may be unsuitable for wildlife species to traverse (connectivity).

Due to habitat fragmentation in the project region, the vegetation communities along streams and other aquatic features often function as environmental corridors that allow animals to move among habitat patches. Both the Junipero Serra Channel and Calabazas Creek within the project area likely function as wildlife movement corridors. However, the project area is in an urban setting and is not adjacent to or connects open space areas. Therefore, the project area likely functions as an isolated wildlife corridor that provides movement and refugia for wildlife that are commonly found in developed areas.

3.4.2 Regulatory Setting

Federal Regulations

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 project activities 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.

U.S. Migratory Bird Treaty Act

The U.S. Migratory Bird Treaty Act (MBTA) states it is "unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill; attempt to take, capture or kill; possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or in part, of any such bird or any part, nest or egg thereof…" In short, under MBTA it is illegal to disturb a nest that is in active use, since this could result in killing a bird, destroying a nest, or destroying an egg. The U.S. Fish and Wildlife Service (USFWS) enforces MBTA. The MBTA does not protect some birds that are non-native or human-introduced or that belong to families that are not covered by any of the conventions implemented by MBTA. In 2017, the USFWS issued a memorandum stating that the MBTA does not prohibit incidental take; therefore, the MBTA is currently limited to purposeful actions, such as directly and knowingly removing a nest to construct a project, hunting, and poaching.

Clean Water Act

The Clean Water Act (CWA) is the primary federal law regulating water quality. The implementation of the CWA is the responsibility of the U.S. Environmental Protection Agency (EPA). However, the EPA depends on other agencies, such as the individual states and the U.S. Army Corps of Engineers (USACE), to assist in implementing the CWA. The objective of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 404 and 401 of the CWA apply to activities that would impact waters of the U.S. The USACE enforces Section 404 of the CWA and the California State Water Resources Control Board enforces Section 401.

As part of its mandate under Section 404 of the CWA, the EPA regulates the discharge of dredged or fill material into "waters of the United States" (U.S.). "Waters of the U.S." include territorial seas, tidal waters, and non-tidal waters in addition to wetlands and drainages that support wetland vegetation, exhibit ponding or scouring, show obvious signs of channeling, or have discernible banks and high-water marks. Wetlands are defined as those areas "that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3(b)). The discharge of dredged or fill material into waters

of the U.S. is prohibited under the CWA except when it is in compliance with Section 404 of the CWA. Enforcement authority for Section 404 was given to the USACE, which it accomplishes under its regulatory branch. The EPA has veto authority over the USACE's administration of the Section 404 program and may override a USACE decision with respect to permitting.

Substantial impacts to waters of the U.S. may require an Individual Permit. Projects that only minimally affect waters of the U.S. may meet the conditions of one of the existing Nationwide Permits, provided that such permits' other respective conditions are satisfied. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions (see below).

Any applicant for a federal permit to impact waters of the U.S. under Section 404 of the CWA, including Nationwide Permits where pre-construction notification is required, must also provide to the USACE a certification or waiver from the State of California. The "401 Certification" is provided by the State Water Resources Control Board through the local Regional Water Quality Control Board (RWQCB). The RWQCB issues and enforces permits for discharge of treated water, landfills, storm-water runoff, filling of any surface waters or wetlands, dredging, agricultural activities, and wastewater recycling. The RWQCB recommends the "401 Certification" application be made at the same time that any applications are provided to other agencies, such as the USACE, USFWS, or NOAA Fisheries. The application is not final until completion of environmental review under CEQA. The application to the RWQCB is similar to the pre-construction notification that is required by the USACE. It must include a description of the habitat that is being impacted, a description of how the impact is proposed to be minimized and proposed mitigation measures with goals, schedules, and performance standards. Mitigation must include a replacement of functions and values, and replacement of wetland at a minimum ratio of 2:1, or twice as many acres of wetlands provided as are removed. The RWQCB looks for mitigation that is on site and in-kind, with functions and values as good as or better than the water-based habitat that is being removed.

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.

<u>State Regulations</u>

California Environmental Quality Act (CEQA)

CEQA requires public agencies to review activities which may affect the quality of the environment so that consideration is given to preventing damage to the environment. When a lead agency issues a permit for development that could affect the environment, it must disclose the potential

environmental effects of the project. This is done with an "Initial Study and Negative Declaration" (or Mitigated Negative Declaration) or with an "Environmental Impact Report". Certain classes of projects are exempt from detailed analysis under CEQA if they meet specific criteria and are eligible for a Categorical Exemption.

CEQA Guidelines Section 15380 defines endangered, threatened, and rare species for purposes of CEQA and clarifies that CEQA review extends to other species that are not formally listed under the state or federal Endangered Species acts but that meet specified criteria. The state maintains a list of sensitive, or "special-status", biological resources, including those listed by the state or federal government or the California Native Plant Society (CNPS) as endangered, threatened, rare or of special concern due to declining populations. During CEQA analysis for a proposed project, the California Natural Diversity Data Base (CNDDB) is usually consulted. CNDDB relies on information provided by the California Department of Fish and Wildlife (CDFW), USFWS, and CNPS, among others. Under CEQA, the lists kept by these and any other widely recognized organizations are considered when determining the impact of a project.

California Endangered Species Act

The California Endangered Species Act (CESA; Fish and Game Code 2050 et seq.) generally parallels FESA. It establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. Section 2080 of the California Fish and Game Code prohibits the take, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or by the regulations. "Take" is defined in Section 86 of the California Fish and Game Code as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." This definition differs from the definition of "take" under FESA. CESA is administered by CDFW. CESA allows for take incidental to otherwise lawful projects but mandates that State lead agencies consult with the CDFW to ensure that a project would not jeopardize the continued existence of threatened or endangered species.

California Fish and Game Code Sections 1600-1607

Sections 1600-1607 of the California Fish and Game Code require that a Notification of Lake or Streambed Alteration application be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." CDFW reviews the proposed actions in the application and, if necessary, prepares a Lake or Streambed Alteration Agreement (LSAA or SAA), that includes measures to protect affected fish and wildlife resources.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) was created in 1977 with the intent to preserve, protect, and enhance rare and endangered plants in California (California Fish and Game Code sections 1900 to 1913). The NPPA is administered by CDFW, which has the authority to designate native plants as endangered or rare and to protect them from "take." CDFW maintains a list of plant species that have been officially classified as endangered, threatened, or rare. These special-status plants have special protection under California law and projects that directly impact them may not qualify for a categorical exemption under CEQA guidelines.

Fully Protected Species and Species of Special Concern

The classification of California fully protected (CFP) species was the CDFW's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The Fish and Game Code sections (§5515 for fish, §5050 for amphibian and reptiles, §3511 for birds, §4700 for mammals) deal with CFP species and state that these species "…may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species" (CDFW Fish and Game Commission 1998). "Take" of these species may be authorized for necessary scientific research. This language makes the CFP designation the strongest and most restrictive regarding the "take" of these species. In 2003, the code sections dealing with CFP species were amended to allow the CDFW to authorize take resulting from recovery activities for state-listed species.

California species of special concern (CSSC) are broadly defined as animals not listed under FESA or CESA, but which are nonetheless of concern to CDFW because they are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by CDFW, land managers, consulting biologists, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA, and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under CEQA during project review.

California Migratory Bird Protection Act

Fish & Game Code section 3513 states that federal authorization of take or possession is no longer lawful under the state Fish & Game Code if the federal rules or regulations are inconsistent with state law. The California Migratory Bird Protection Act (MBPA) was passed in September 2019 to provide a level of protection to migratory birds in California consistent with the U.S. MBTA prior to the 2017 rule change limiting protection of migratory birds under the U.S. MBTA to purposeful actions (i.e., directly, and knowingly removing a nest to construct a project, hunting, and poaching). Thus, under the MBPA, protections for migratory birds in California are consistent with rules and regulations adopted by the United States Secretary of the Interior under the U.S. MBTA before January 1, 2017. The MBPA reverts to existing provisions of the U.S. MBTA on January 20, 2025.

Nesting Birds

Nesting birds, including raptors, are protected under California Fish and Game Code Section 3503, which reads, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." In addition, under California Fish and Game Code Section 3503.5, "it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto". Passerines and non-passerine land birds are further protected under California Fish and Game Code 3513. As such, CDFW typically recommends surveys for nesting birds that could potentially be directly (e.g., actual removal of trees/vegetation)

or indirectly (e.g., noise disturbance) impacted by project-related activities. Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “take” by CDFW.

Non-Game Mammals

Sections 4150-4155 of the California Fish and Game Code protects non-game mammals, including bats. Section 4150 states “A mammal occurring naturally in California that is not a game mammal, fully protected mammal, or fur-bearing mammal is a nongame mammal. A non-game mammal may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission”. The non-game mammals that may be taken or possessed are primarily those that cause crop or property damage. Bats are classified as a non-game mammal and are protected under California Fish and Game Code, in addition to being protected if they are a listed species (e.g., CSSC, CFP, state or federal threatened, or state or federal endangered).

Sensitive Vegetation Communities

Sensitive vegetation communities are natural communities and habitats that are either unique in constituent components, of relatively limited distribution in the region, or are of particularly high wildlife value. These communities may or may not necessarily contain special-status species. Sensitive natural communities are usually identified in local or regional plans, policies, or regulations, or by the CDFW (i.e., CNDDB) or the USFWS. The CNDDB identifies a number of natural communities as rare, which are given the highest inventory priority (Holland 1986; CDFW 2016). Impacts to sensitive natural communities and habitats must be considered and evaluated under CEQA (CCR: Title 14, Div. 6, Chap. 3, Appendix G).

Porter-Cologne Water Quality Control Act

The intent of the Porter-Cologne Water Quality Control Act (Porter-Cologne) is to protect water quality and the beneficial uses of water, and it applies to both surface and ground water. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the RWQCBs develop basin plans, which identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under Porter-Cologne, referred to as “waters of the State,” include isolated waters that are not regulated by the USACE. Projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State are required to comply with the terms of the Water Quality Certification Program. If a proposed project does not require a federal license or permit, any person discharging, or proposing to discharge, waste (e.g., soil) to waters of the State must file a Notice of Intent (NOI) or a Report of Waste Discharge and receive either waste discharge requirements (WDRs) or a waiver to WDRs before beginning the discharge.

State and Local Requirements to Control Construction-Phase and Post-Construction Water Quality Impacts

The CWA has nationally regulated the discharge of pollutants to the waters of the U.S. from any point source since 1972. In 1987, amendments to the CWA added Section 402(p), which established a framework for regulating nonpoint source storm water discharges under the National Pollutant Discharge Elimination System (NPDES). The NPDES is a permitting system

for the discharge of any pollutant (except for dredge or fill material) into waters of the U.S. In California, this permit program is administered by the RWQCBs. The NPDES General Construction Permit requirements apply to clearing, grading, and disturbances to the ground such as excavation. Construction activities on one or more acres are subject to a series of permitting requirements contained in the NPDES General Construction Permit. This permit requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) to be implemented during project construction. The project sponsor is also required to submit a Notice of Intent (NOI) with the State Water Resources Control Board Division of Water Quality. The NOI includes general information on the types of construction activities that would occur on the site.

In many Bay Area counties, including Santa Clara County, projects must also comply with the *California Regional Water Quality Control Board, San Francisco Bay Region, Municipal Regional Stormwater NPDES Permit* (MRP) (Water Board Order No. R2-2009-0074). This MRP requires that all projects implement BMPs and incorporate Low Impact Development practices into the design that prevents stormwater runoff pollution, promotes infiltration, and holds/slows down the volume of water coming from a site. To meet these permit and policy requirements, projects must incorporate the use of green roofs, pervious surfaces, tree planters, bioretention and/or detention basins, among other methods.

<u>Local Regulations</u>

City of Cupertino Municipal Code

The following provisions of the City of Cupertino Municipal Code (CMC) help to minimize adverse effects to biological resources as a result of development in Cupertino.

Chapter 14.15, Landscape Ordinance implements the California Water Conservation in Landscaping Act of 2006 by establishing new water-efficient landscaping and irrigation requirements. In general, any building or landscape projects that involve more than 2,500 square feet of landscape area are required to submit a Landscape Project Submittal to the Director of Community Development for approval. Existing and established landscapes over one acre, including cemeteries, are required to submit water budget calculations and audits of established landscapes.

Chapter 14.18, Protected Trees provides regulations for the protection, preservation, and maintenance of trees of certain species and sizes. Removal of a protected tree requires a permit from the City of Cupertino. “Protected” trees include trees of a certain species and size in all zoning districts; heritage trees in all zoning districts; any tree required to be planted or retained as part of an approved development application, building permit, tree removal permit, or code enforcement action in all zoning districts; and approved privacy protection planting in R-1 zoning districts. Protected trees include trees of the following species that have a minimum single trunk diameter of 12 inches (38-inch circumference) or a minimum multi-trunk diameter of 24 inches (75-inch circumference) measured as 4.5 feet from the natural grade: native oak tree species (*Quercus* spp.), including coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), black oak (*Quercus kelloggii*), blue oak (Quercus douglasii), and interior live oak (*Quercus wislizeni*); California buckeye (*Aesculus californica*); big leaf maple (*Acer macrophyllum*); deodar cedar (*Cedrus deodara*); blue atlas cedar (*Cedrus atlantica* ‘Glauca’); bay laurel or California bay (*Umbellularia californica*); and western sycamore (*Platanus racemosa).*

Town of Cupertino General Plan

The Cupertino General Plan (City of Cupertino 2015) includes policies that are relevant to the protection of biological resources and applicable to the proposed project. The policies are identified in Chapter 6, Environmental Resources and Sustainability, of the General Plan and are listed below.

> *Policy ES-5.2 Development Near Sensitive Areas.* Encourage the clustering of new development away from sensitive areas such as riparian corridors, wildlife habitat and corridors, public open space preserves and ridgelines. New developments in these areas must have a harmonious landscaping plan approved prior to development.
>
> Policy ES-5.3 Landscaping in and Near Natural Vegetation. Preserve and enhance existing natural vegetation, landscape features and open space when new development is proposed within existing natural areas. When development is proposed near natural vegetation, encourage the landscaping to be consistent with the palate of vegetation found in the natural vegetation.
>
> *Policy ES-5.6 Recreation and Wildlife.* Provide open space linkages within and between properties for both recreational and wildlife activities, most specifically for the benefit of wildlife that is threatened, endangered, or designated as species of special concern.

Valley Water – Water Resources Protection Ordinance

This ordinance protects water resources managed by the Santa Clara Valley Water District (Valley Water) by regulating modifications, entry, use or access to water district facilities and/or water district easements. Valley Water uses the Water Resources Protection Manual to administer the Water Resources Protection Ordinance. The manual includes requirements, recommendations, and design guides for protection of riparian corridors, native landscaping, temporary erosion control options, encroachment between top of bank, trail construction, and flood protection. Both the I-280 Trail and Calabazas Creek within the project area are subject to Valley Water jurisdiction.

3.4.3 Impact Discussion

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 or U.S. Fish and Wildlife Service?

<u>Special-Status Plant Species</u>

No Impact. No special-status plant species are expected to occur within the project are due to the lack of suitable habitat. Therefore, the proposed project would not result in a substantial adverse effect on any special-status plant species.

<u>San Francisco Dusky-Footed Woodrat</u>

Less than Significant with Mitigation Incorporated. The San Francisco dusky-footed woodrat may occur year-round in the riparian corridor of the Junipero Serra Channel between Wolfe Road

and Calabazas Creek as well as the riparian corridor of Calabazas Creek and the adjacent Coast Live Oak Woodland and Forest. Project activities could result in injury to or mortality of dusky-footed woodrats due to clearing, grading, and worker foot traffic. In addition, indirect impacts could occur as a result of over-crowding (from individuals in disturbed habitat moving to areas that are already occupied) and increased risk of predation. Project construction would also result in the temporary impact on foraging individuals through the alteration of foraging patterns (e.g., avoidance of work areas because of increased noise and activity levels during project activities). Additionally, dusky-footed woodrats are very important ecologically in that they provide an important prey source, and their nests also provide habitat for a wide variety of small mammals, reptiles, and amphibians. Therefore, project-related impacts to dusky-footed woodrats would be considered significant under CEQA.

Impact BIO-1: Project construction and project activities could result in direct and indirect impacts to the San Francisco dusky-footed woodrat.

Mitigation Measure BIO-1a: Pre-Construction Survey for San Francisco Dusky-Footed Woodrats. Within 30 days prior to the start of construction activities, a qualified biologist shall map all San Francisco dusky-footed woodrat houses within a 25-foot buffer around the project footprint. Environmentally sensitive habitat fencing shall be placed to protect the houses with a minimum 25-foot buffer. If a 25-foot buffer is not feasible, a smaller buffer may be allowable based on advice from a qualified biologist with knowledge of woodrat ecology and behavior, or Mitigation Measure BIO-1B may be implemented.

Mitigation Measure BIO-1b: Relocation of Woodrat Houses. In the unlikely event that one or more woodrat houses are determined to be present and physical disturbance or destruction of the houses cannot be avoided, then the woodrats shall be evicted from their houses and the nest material relocated outside of the disturbance area, prior to onset of activities that would disturb the house, to avoid injury or mortality of the woodrats. The reproductive season for San Francisco dusky-footed woodrats typically starts in February or March and breeding activity usually continues to July but can extend into September. Thus, relocation efforts should be completed in the fall to minimize the potential for impacts on young woodrats in the house. Additionally, it is recommended that the period between the completion of the relocation efforts and the start of construction activities be minimized to reduce the potential for woodrats to reconstruct houses in the project footprint prior to the start of construction activities.

Relocation generally involves first choosing an alternate location for the house material based on the following criteria: 1) proximity to current nest location; 2) safe buffer distance from planned work; 3) availability of food resources; and 4) availability of cover. An alternate house structure will then be built at the chosen location. Subsequently, during the evening hours (i.e., within 1 hour prior to sunset), a qualified biologist will slowly dismantle the existing woodrat house to allow any woodrats to flee and seek cover. All sticks from the nest will be collected and spread over the alternate structure. However, alternative relocation measures can be employed as advised by a qualified wildlife biologist in consultation with CDFW.

With the Implementation of Mitigation Measure BIO-1a and BIO-1b, impacts to San Francisco dusky-footed woodrats would be less than significant.

Roosting Bats

Less than Significant with Mitigation Incorporated. Construction activities could result in the disturbance of active maternity or day roosts. In addition, noise and increased construction activity could temporarily alter foraging behavior, potentially resulting in the abandonment of nest sites. Therefore, project-related impacts to roosting habitat for bats would be considered significant under CEQA.

> **Impact BIO-2:** Project construction activities could potentially result in the abandonment of roosting bat nest sites.
>
> **Mitigation Measure BIO-2a: Pre-Construction Survey for Roosting Bats.** A survey of culverts within the project site, including a 50-foot buffer (as feasible) shall be conducted by a qualified bat biologist no less than 30 days before the start of construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, tree removal, vegetation removal, fence installation, demolition, and grading). If construction activities are delayed by more than 30 days, an additional bat survey shall be performed. The survey may be conducted at any time of year but should be conducted in such a way to allow sufficient time to determine if special-status bats or maternity colonies are present on the site. The results of the survey shall be documented.
>
> If no habitat or signs of bats are detected during the habitat suitability survey, no further surveys are warranted. If suitable habitat is present and signs of bat occupancy (e.g., guano pellets or urine staining) are detected, Mitigation Measure BIO-1b shall apply.
>
> **Mitigation Measure BIO-2b: Acoustic Survey.** If suitable habitat is present and signs of bat occupancy are detected, a follow-up dusk emergence survey shall be conducted no less than 30 days prior to construction activities. A dusk survey will determine the number of bats present and will also include the use of acoustic equipment to determine the species of bats present. The results of the survey shall be documented. If an active roost is observed within the project site, Mitigation Measure BIO-2C shall apply.
>
> **Mitigation Measure BIO-2c: Roost Buffer.** If a day roost or a maternity colony is detected and is found sufficiently close to work areas to be disturbed by construction activities, the qualified biologist shall determine the extent of a construction-free buffer zone to be established around the roost in consultation with CDFW. Within the buffer zone, no site disturbance and mobilization of heavy equipment, including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, demolition, and grading shall be permitted. Monitoring shall be required to ensure compliance with relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented.

The implementation of Mitigation Measures BIO-2A to BIO-2C would reduce impacts to roosting bats to a less than significant level.

Nesting Birds

All migratory bird species and their nests are protected under the MBTA and California Fish and Game Code. Project activities must comply with the provisions of the MBTA and California Fish and Game Code (i.e., avoid take of protected nesting birds). Therefore, project-related impacts to nesting birds would be considered significant under CEQA.

Construction disturbance during the avian breeding season (February 1 through September 15, for most species) could result in the incidental loss of eggs or nestlings, either directly through the destruction or disturbance of active nests or indirectly by causing the abandonment of nests. In addition, noise and increased construction activity could temporarily alter foraging behavior, potentially resulting in the abandonment of nest sites.

> **Impact BIO-3:** Construction disturbance during the avian breeding season could cause the incidental loss of eggs or nestlings, or cause the abandonment of nests, resulting in the incidental take of protected nesting birds.
>
> **Mitigation Measure BIO-3: Pre-Construction/Pre-Disturbance Survey for Nesting Birds.** *Avoidance.* To the extent feasible, construction activities should be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts to nesting birds protected under the MBTA and California Fish and Game Code would be avoided. The nesting season for most birds in Santa Clara County extends from February 1 through August 31.
>
> *Pre-Construction Surveys.* If it is not possible to schedule construction activities between September 1 and January 31, then preconstruction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no nests would be disturbed during project implementation. These surveys shall be conducted no more than five days prior to the initiation of any site disturbance activities and equipment mobilization, including tree, shrub, or vegetation removal, fence installation, grading, etc. If project activities are delayed by more than five days, an additional nesting bird survey shall be performed. During this survey, the biologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, culverts) in and immediately adjacent to the impact area for nests. Active nesting is present if a bird is building a nest, sitting in a nest, a nest has eggs or chicks in it, or adults are observed carrying food to the nest. The results of the surveys shall be documented.
>
> If an active nest is found sufficiently close to work areas to be disturbed by these activities, the biologist will determine the extent of a construction-free buffer zone to be established around the nest (typically up to 1,000 feet for raptors and up to 250 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation. Within the buffer zone, no site disturbance and mobilization of heavy equipment, including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, demolition, and grading will be permitted until the chicks have fledged. Monitoring shall be required to ensure compliance with MBTA and relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented.

The implementation of Mitigation Measure BIO-3 would reduce impacts to nesting birds to a less than significant level.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service? and

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?

Less than Significant Impact. There are no CDFW classified sensitive natural or sensitive plant communities within the project area, and no designated critical habitat or essential fish habitat. The California Fish and Game Code includes regulations governing the use of, or impacts to, many of the state's fish, wildlife, and sensitive habitats, including the bed and banks of rivers, lakes, and streams.

The Junipero Serra Channel and Calabazas Creek are subject to the regulatory jurisdiction of the USACE, RWQCB and CDFW, and will require CWA 401/404 and LSAA permits, if impacted. The project proposes to install an asphalt path trail along the top of bank. The top of bank was mapped during the December 2021 site visit and based on the proposed trail location and site conditions, the proposed trial alignment may require work within the top of bank, which may require authorization from the RWQCB and CDFW. However, the proposed trail alignment occurs outside of the active channel and will not require authorization from the USACE. The construction of the trail may result in the removal of vegetation as well as placement of fill within the top of bank for both the Junipero Serra Channel and Calabazas Creek. However, the work within the top of bank will not alter the hydrology of the channel and creek, or adversely affect the movement of native wildlife, or adversely impact any special-status species or sensitive plant communities.

The Blaney Avenue alternative includes modifying the existing Junipero Serra Channel by extending an existing 72-inch culvert for 38 feet and the realignment of an existing storm drain at Blaney Avenue. At this location, the Junipero Serra Channel is an engineered trapezoidal concrete channel with concrete banks and no associated riparian vegetation. The extension of the culvert will not likely alter the hydrology of the downstream reach of the channel and will not remove woody riparian vegetation from the top of bank. Also, the extension of the culvert will not adversely affect the movement of native wildlife or adversely impact any special-status species or sensitive plant communities. In addition to RWQCB and CDFW permits, the Blaney Avenue alternative would require authorization from the USACE for impacts within the active channel below the ordinary high water mark (OHWM).

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Less than Significant Impact. Construction activities could temporarily restrict some wildlife species from moving between suitable habitat patches during project implementation. In addition, noise and disturbance associated with construction activities could cause a temporary reduction in habitat connectivity through the site for species that commonly use habitats in the project area. However, due to the type of construction activities, e.g., light grading on existing access roads, installation of wildlife friendly split-rail fencing and landscaping, or in the case of the Blaney Avenue alternative, the extension of an existing culvert along an engineered storm drain channel, impacts on wildlife movement are less than significant. Furthermore, because project construction will not occur at night, when many mammals, reptiles, and amphibians are active, use of the project area by dispersing nocturnal animals would not be diminished during construction.

Numerous animals likely breed within and around the project area, but no particularly important wildlife nursery areas are present in the project area or would be impacted by the project. Once construction activities are complete, wildlife movement conditions would be similar to pre-project conditions in upland and riparian habitats, and wildlife dispersal through the project area is

expected to return to existing conditions. Therefore, impacts to wildlife movement from construction activities are expected to be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (including the County Heritage and Significant Tree Ordinances)? fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. Since the project occurs on land managed by Valley Water, the project will comply with the conditions of the Water Resources Protection Ordinance as it pertains to the project, including work within the top of bank, landscaping, trail construction, etc. (see Section 3.3.3 above). Also, if protected trees need to be removed as part of the project, the City of Cupertino will comply with the guidelines for the removal of protected trees as described in the City of Cupertino Municipal Code (see Section 3.3.1 above).

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?

No Impact. There is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan that applies to the project site. Thus, the proposed project would not conflict with such a plan.

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3.5 CULTURAL RESOURCES

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

The following discussion is based on an Archaeological Resources Assessment Report prepared for the project by Basin Research Associates (Basin, January 27, 2022). Due to the sensitive nature of the information contained in the report, it is kept confidentially at the Cupertino Community Development Department, Planning Division, located at 10300 Torre Ave, Cupertino, California, 95014. Inquires regarding the report should be directed to the City.

3.5.1 Environmental Setting

<u>Prehistoric</u>

Cultural resources are traces of human occupation and activity. In northern California, human occupation extends back in time for at least 9,000-11,500 years with Native American occupation and use of the Bay Area extending over 5,000-8,000 years and possibly longer. Evidence for early occupation along the bay shore has been hidden by rising sea levels from about 15,000 to 7,000 years ago or was buried under sediments caused by bay marshland infilling along estuary margins from about 7,000 years onward. The locations of the shoreline, marshlands, and creeks within the greater San Francisco Bay area have changed over the past 6,000 years due to either natural factors or urban development including flood control. In general, the prehistoric archaeological sites associated with the bay, inland areas and the Coast Ranges are located close to water (e.g., creeks, marshes, and the shoreline) and exploitable resources.

The project site is within an environmentally advantageous area for Native American use and occupation during the prehistoric period prior to white contact. The area would have provided a favorable environment during the prehistoric period with coastal, riparian, and inland resources readily available. Prehistoric use was heavily influenced by the presence of various seasonal creeks, the San Francisco Bay marshlands around the bay margin, the coastal margins and the foothills and higher elevations. In addition, travel would have been relatively easy between the coast and bay shorelines and interior. The foothills and higher elevations would have provided access to acorns, seeds, game, tool stone and other resources while San Francisco Bay and its margins three to four miles to the east along with the many perennial and seasonal creeks and sloughs would have been sources of shellfish, fish, waterfowl, and riparian vegetation.

Prehistoric site types in the general project area include habitation sites ranging from villages to temporary campsites, stone tool and other manufacturing areas, quarries for tool stone

procurement, cemeteries usually associated with large villages, isolated burial sites, rock art locations, bedrock mortars or other milling feature sites and trails. Archaeological sites appear to have been selected for relative accessibility, protection from seasonal flooding, and proximity to a diversified resource base. The higher elevations were probably occupied seasonally for hard seed collection and processing and hunting.

Archaeological information suggests a slow steady increase in the prehistoric population in the greater Bay Area and the Santa Clara Valley over time with an increasing focus on permanent settlements with large populations in later periods. This change from hunter-collectors to an increased sedentary lifestyle is due both to more efficient resource procurement as well as a focus on staple food exploitation, the increased ability to store food at village locations, and the development of increasingly complex social and political systems including long-distance trade networks.

The aboriginal inhabitants of the project area belonged to a group known as the Costanoan, a name derived from the Spanish word Costanos ("coast people" or "coastal dwellers") who occupied the central California coast as far east as the Diablo Range. Their territory covered 6,000-7,000 square miles extending along the Pacific Coast from south of Monterey Bay north to the San Francisco Peninsula and inland 20-45 miles into the Coast Ranges, including the east shore of San Francisco Bay from the Carquinez Straits south. The descendants of the Costanoan in the greater San Francisco Bay Area now generally prefer to be known as Ohlone (Margolin1978).

In 1770, the Ohlone lived in approximately 50 separate and politically autonomous tribelets with each group having one or more permanent villages surrounded by a number of temporary camps. The camps were used to obtain seasonally available floral and faunal resources (Kroeber 1925; Levy 1978). Tribelet territories, defined by physiographic features, generally supported a population of approximately 200 persons with a range of between 50-500 individuals. The Ohlone population at the time of Spanish contact was estimated at 7,000 (Kroeber 1925) while recent research using mission records (Milliken et al. 2007) suggests a population of 16,000.

The project alignment is within Tamyen (Tamien) tribelet territory of the Ohlone (Kroeber 1925; Levy 1978; Hylkema 1995; Milliken 1995). Milliken (1995) maps Tamien territory as from the former Agnews Developmental Center in Santa Clara to downtown San Jose and west from the Guadalupe River to Cupertino on upper Stevens Creek. Milliken (2006) maps the project vicinity within San Clara/Tamien. No known Native American ethnographic settlements or contemporary Native American use areas have been identified in or adjacent to the project alignment. The banks of various creeks and rivers functioned as trails. No prehistoric/ethnographic trails have been identified in the project vicinity (e.g., Elsasser 1986; Shoup and Milliken 1999).

Traditional Native American lifeways were disrupted by European exploration, colonization, and the development of the Spanish missions in the late 18th century. Introduced diseases, the cataclysmic impact of the mission system, a declining birthrate, and the later secularization of the missions by the Mexican government and establishment of the rancho system led to drastic reductions of the Native American population and the disappearance of the pre-contact lifeway. The Ohlone were transformed from hunters and gatherers into generally agricultural laborers who lived at the missions and worked with former neighboring groups such as the Esselen, Yokuts, and Miwok. The sparse ethnographic data available on the Ohlone was collected by the early explorers, mission staff, and late 19th and early 20th century interviews of members of the surviving multi-ethnic Indian communities that formed in and around Ohlone territory. Recent

interpretations of the prehistoric Ohlone populations have been based on intensive mission records studies (e.g., Milliken 2006; Milliken et al. 2009).

Historic

The history of the Santa Clara Valley can be divided into the Age of Exploration, the Hispanic Period (Spanish Period 1769-1821 and the Mexican Period 1822-1848), and the American Period (1848-onward). During the Hispanic Period, Spanish government policy in northwestern New Spain was directed at the founding of presidios (forts), missions, and pueblos (secular towns) with the land held by the Crown whereas later Mexican policy (1822-1846) stressed individual ownership of the land with grants of vast tracts of land to individuals. The American Period focused on development and growth - a pattern that continues into the 21st century.

Hispanic Period (1769 to 1848)

The Spanish philosophy of government in northwestern New Spain was directed at the founding of presidios, missions, and secular towns with the land held by the Crown (1769-1821). The later Mexican policy stressed individual ownership of the land. After the secularization of the missions was declared by Mexico in 1833, vast tracts of the mission lands were granted to individual citizens.

Spanish explorers in the late 1760s and 1770s were the first Europeans to traverse the Santa Clara Valley. Expedition parties likely followed Native American trails through the general study area. The first party, led by Gaspar de Portola and Father Juan Crespi, arrived in the Alviso area in the fall of 1769. Sergeant Jose Francisco Ortega of their party explored the eastern portion of San Francisco Bay and likely forded both the mouth of the Guadalupe River and Coyote Creek. The following year, Pedro Fages led another party through the Santa Clara Valley and in 1772 Fages returned with Crespi and in 1774, Fr. Francisco Palou. Hickman (1974:7/) notes that Palou likely crossed San Tomas Aquinas and Saratoga "arroyos" south of the trail alignment on November 27, 1774 and that following Bolton (1926:410), Palou's camp was on Calabasas Creek. A few years later, in 1776, Juan Bautista de Anza and Father Pedro Font traveled through the region and their favorable reports led to the establishment of both Mission Santa Clara and the Pueblo San Jose de Guadalupe in 1777. The Juan Bautista de Anza National Historic Trail [1776] corridor authorized by Congress in 1990 passes through the general project area west of the trail alignment (vicinity of State Highway 85 and I-280; see USNPS 1995:Sheet 40).

Mission Santa Clara de Asis, the eighth of the 21 missions founded in California and one of seven missions located within Ohlone territory, would have been the mission with the greatest impact on the aboriginal population living in the vicinity of the trail alignment (Beck and Haase 1974; Hart 1987).

The western part of the project trail from the intersection of De Anza Boulevard to Blaney Avenue was within ungranted lands while the portion east of Blaney Avenue was within the lands of the former Rancho Quito. No known Hispanic Period dwellings or features (e.g., corrals, outstations, orchards, trails/roads, etc.) have been identified in or adjacent to the project alignment Several Hispanic Era trails/roads have been mapped in the general study area – none were located in, adjacent to or crossed the project alignment (Tracy 1859; Hendry and Bowman 1940; Hoover et al. 1966; Shoup and Milliken 1999; Brown (2005).

Modern

American Period

California became a United States territory in 1848 through the Treaty of Guadalupe Hidalgo that ended the Mexican War of 1846-1847. California was not formally admitted as a state until 1850. In the mid-19th century, the majority of the rancho and pueblo lands and some of the ungranted land in California were subdivided as the result of the American takeover, population growth, and the confirmation of Mexican Period property titles. Growth can be attributed to the Gold Rush (1848), followed by the completion of the transcontinental railroad (1869) and local railroads. Still later, the development of the refrigerator railroad car (ca. 1880s) used for the transport of agricultural produce to distant markets, had a major impact on the Santa Clara Valley. During the later American Period and into the Contemporary Period (ca. 1876-1940s), fruit production became a major industry. This predominance of fruit production/processing held steady until after World War II. In recent decades this agrarian land-use pattern has been gradually displaced by residential housing, commercial centers, and the development of research and development and manufacturing associated with the electronics industry leading to the designation of the general region as the "Silicon Valley." Within the Santa Clara Valley, the City of San Jose served as a County seat as well as a financial and social center (Broek 1932:76-83; Hart 1987). The City of Cupertino, incorporated in 1955, became Santa Clara County's 13th city and shared in the postwar development. Today, it is residential community and known as a hub for technological research and development.

Study Area Specific Summary Review

In addition to the summary of the American historic period of the region, the Basin report included the following historical summary of the specific project area.

Juan Bautista de Anza and Padre Pedro Font camped on the Arroyo San Jose Cupertino (now called Stevens Creek) on March 25, 1776. The arroyo was named in honor Joseph Desa, a Franciscan priest born at Cupertino, Italy, in 1603 who was canonized as St. Joseph of Cupertino in 1767. Hence, the historical place name and contemporary city "Cupertino." The City, incorporated in 1955, became Santa Clara County's 13th city and shared in the postwar development. Today, it is residential community and known as a hub for technological research and development. Focal points of activity in the project area include the residential/retail mixed use district known as Main Street Cupertino near the south terminus of the eastern portion of the trail; Apple Inc.'s corporate headquarters south of the entrance to central portion of the trail, and the associated the Apple Park northeast of the eastern portion of the trail.

A review of the USGS topographic map series indicates that I-280, the Junipero Serra Freeway, was constructed between 1961 and 1973. The summary historic map review shows no notable cultural features in or adjacent to the current trail project. Features of note in the general study area are limited to roads and the early population clusters associated with "Cupertino." Stevens Creek Road (later Boulevard), the first east/west thoroughfare south of the I-280 Trail Project (0.5-0.75 mile south) was in existence by at least 1866. At the time, this road provided access to "Stephens" the homestead and thriving of winery of Elisha Stephens on Cupertino Creek (Arroyo San Jose Cupertino, now Stevens Creek). Young Road (present- day Homestead Road) the first east-west thoroughfare north of the project alignment (0.25-0.75 mile north) was constructed by 1876. An 1887 annotated map of the study area shows "Cupertino" located on the J.T. Doyle property on the west bank of Cupertino Creek (present-day Stevens Creek).

The commercial and civic activities in the study area centered at the "Crossroads" of present-day Stevens Creek Boulevard and De Anza Boulevard. Neither Westside or Cupertino are shown on the 1866 Healey or 1876 Thompson and West maps. North/south Saratoga and Mountain View Road (present day De Anza Boulevard/Sunnyvale Saratoga Road), the westernmost intersection of the central portion of the proposed trail, and portions of Blaney Road adjacent to the trail were constructed by 1887. The 1899 USGS Palo Alto topographic quadrangle shows "West Side" at the intersection of present-day De Anza Boulevard and Stevens Creek Boulevard. The Cupertino post office was established in 1882 (discontinued in 1894) while the "Westside" post office was established in 1892 and changed to "Cupertino" in 1900. The 1899 USGS Palo Alto topographic quadrangle shows "West Side" Stevens Creek Boulevard and De Anza Boulevard; "Cupertino" is not mapped. Later topographic quadrangles show "Cupertino" placed at the West Side/crossroads location. North-south Wolfe Road through East/Segment 3 extended south to Stevens Creek Boulevard, crossing the trail, between 1961 and 1973 (Healey 1866; Thompson and West 1876; Wyatt and Arbuckle 1948:11; Baltzer 1969 [1887 map]; Patera 1991:51, 230; USGS 1899 [surveyed 1895], 1961, 1973, 1980, 1991; US War Dept 1943).

<u>Records Search Results and Native American Outreach</u>

Records Search

A prehistoric and historic site records and literature search for the project site and a 1,000-foot radius was completed by staff of the California Historical Resources Information System, Northwest Information Center, Sonoma State University (CHRIS/NWIC File No. 21-0648 by Akmenkalns dated 11/12/2021). In addition, selected reference material available on the web, the Bancroft Library at the University of California, Berkeley, and BASIN, San Leandro was also consulted. Sources consulted included:

- National Register of Historic Places listings for Santa Clara County, California (USNPS 2021a-c).
- OHP Built Environment Resources Directory for Santa Clara County [BERD] (CAL/OHP 2021a).
- Listed California Historical Resources for Santa Clara County (CAL/OHP 2021b) with the most recent updates of the National Register of Historic Places; California Historical Landmarks; and California Points of Historical Interest as well as other evaluations of properties reviewed by the State of California Office of Historic Preservation.
- California History Plan (CAL/OHP 1973).
- California Inventory of Historic Resources (CAL/OHP 1976).
- Five Views: An Ethnic Sites Survey for California (CAL/OHP 1988).
- Archaeological Determinations of Eligibility (CAL/OHP 2021c).
- Other regional/local lists and maps (see References Cited and Consulted in Archaeological Resources Assessment Report).

The Native American Heritage Commission (NAHC) was contacted for a review of the Sacred Lands File (Busby 2021a). No other agencies, departments or local historical societies were contacted regarding landmarks, potential historic sites, or structures. An archaeological survey of the project alignment was conducted by Basin on October 26, 2021.

<u>Native American Outreach</u>

The results of the SLF search were negative (Sanchez 2021). Letters and/or emails were sent to the 13 knowledgeable Native American individuals/organizations identified by the NAHC (Busby 2021b-n) (see Attachments). Responses were received from one Native American group. Contacts included (January 5, 2022):

- Valentin Lopez, Amah Mutsun Tribal Band, Galt.
- Irenne Zwierlein, Chairperson, Amah Mutsun Tribal Band of Mission San Juan Bautista, Lakeport.
- Kanyon Sayers-Roods, Indian Canyon Mutsun Band of Costanoan, San Jose.
- Ann Marie Sayers, Chairperson, Indian Canyon Mutsun Band of Costanoan, Hollister.
- Monica Arellano, Chairperson, Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, Castro Valley.
- Katherine Erolinda Perez, Chairperson and Timothy Perez, North Valley Yokuts Tribe, Linden.
- Dee Manzanares Ybarra, Chairperson, Rumsen Am:a Tur:ataj Ohlone, Herperia; Quirina Luna Geary, Chairperson, Tamien Nation, San Jose.
- Johnathan Wasaka Costilla, THPO, Tamien Nation, Clearlake Oaks; Corrina Gould, Chairperson, The Confederated Villages of Lisjan, Oakland; Andrew Galvan, The Ohlone Indian Tribe, Fremont; and,
- Kenneth Woodrow, Chairperson, Wuksache Indian Tribe/Eshom Valley Band, Salinas.

One response was received via email from Quirina Luna Geary, Chairperson, Tamien Nation. The Chairperson noted that there are known Tribal Cultural Resources (TCR) southwest of the project area and expressed concern that the project may impact TCRs. She recommended a Tamien Nation Tribal monitor be present during any ground disturbing actives on the west portion of the project; Tribal Cultural Sensitivity Training be given to all construction crews; and an archaeologist be retained on an on-call basis to assess any finds. As noted previously, the NAHC review of the SLF was negative for registered tribal resources.

Archaeological Survey

A field inventory of the I-280 Trail Project (Central and East segments) was completed by Mr. Christopher Canzonieri (MA, RPA) on October 26, 2021. The Basin report provides a description of the survey, summarized in the following paragraphs.

The Central portion of the trail is located between De Anza Boulevard and Wolfe Road parallel to the south bank of the concrete channelized section of the Junipero Serra Channel. Access was through several locked gates along the Valley Water right-of-way. The proposed trail alignment follows an existing unimproved road varying in width from approximately eight feet to 25 feet. A portion of the proposed trail was not inventoried due to dense vegetation and the presence of an I-280 off-ramp. Surface visibility along the most of this trail segment was excellent (approximately 75-100 percent). The built environment consists of a concrete channel with associated inlet pipes of varying sizes. One telephone pole and one 115kV power pole [Wolfe Loop-Monta Vista Section] are also present.

The East portion of the trail is located between Wolfe Road and Vallco Parkway along the south bank of the earthen section of the Junipero Serra Channel and along the west side of Calabazas Creek. Surface visibility along most of the segment was excellent (approximately 75-100 percent). The built environment is limited to a concrete circular interface and associated inlet pipes of varying sizes at the confluence of the concrete lined Junipero Serra Channel with Calabazas Creek.

No subsurface indications of prehistoric or historic archaeological material or culturally modified sediments were noted within or adjacent to the project alignment or within or adjacent to Calabazas Creek.

3.5.2 Regulatory Setting

Federal

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.

State

California Environmental Quality Act

Pursuant to CEQA, a historical resource is a resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR). In addition, resources included in a local register of historic resources or identified as significant in a local survey conducted in accordance with state guidelines are also considered historic resources under CEQA, unless a preponderance of the facts demonstrates otherwise. Per CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR or is not included in a local register or survey shall not preclude a Lead Agency from determining that the resource may be a historic resource as defined in California Public Resources Code (PRC) Section 5024.1. CEQA applies to archaeological resources when (1) the archaeological resource satisfies the definition of a historical resource or (2) the archaeological resource satisfies the definition of a “unique archaeological resource.” A unique archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria:

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

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.12 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 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.

Health and Safety Code, Sections 7050 and 7052

Health and Safety Code Section 7050.5 declares that, in the event of the discovery of human remains outside a dedicated cemetery, all ground disturbances must cease, and the county

coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

California Penal Code Section 622.5

California Penal Code Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands but specifically excludes the landowner.

Government Code Section 6254(r)

Government Code explicitly authorizes public agencies to withhold information from the public relating to Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission.

Government Code Section 6250 et. seq.

Records housed in the Information Centers of the California Historical Resources Information System (CHRIS) are exempt from the California Public Records Act.

3.5.3 Impact Discussion

Would the project:

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

No Impact. There are no historical resources located on or within the immediate vicinity of the project. The Basin report concluded that no historic properties listed, determined eligible or potentially eligible for inclusion on the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR) have been identified in or adjacent to the project alignments. In addition, no evidence of prehistoric or historic era archaeological resources was observed during the field survey conducted for the project.

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

Less Than Significant with Mitigation Incorporated. Research conducted for the proposed project suggests a very low potential for exposing subsurface archaeological materials within or adjacent to the project due to prior channel construction and maintenance and the anticipated shallow subsurface impacts associated with the construction of the proposed trail. The Calabazas Creek portion of the trail alignment has not been channelized has probably been subject to repeated overbank flooding and scouring with concomitant surface disturbance. Per the Basin report, Calabazas Creek and the near vicinity have been designated as “highest” in potential for buried sites with lessening sensitivity further from the creek with low and lowest from the middle of the I-280/Wolfe Road interchange and west of the interchange. No prehistoric archaeological resources or combined prehistoric/historic period archaeological resources have been recorded or reported in or immediately adjacent to the project, and no evidence of prehistoric or historic era archaeological resources was observed during the field survey conducted for the project.

The Basin report stated that the proposed trail construction could proceed as planned as it would not affect any recorded historic properties or unique archaeological resources, and subsurface testing for buried archaeological resources was not recommended due to previous disturbance. In addition, archaeological and/or Native American monitoring was not recommended due to the lack of known resources within the trail alignment. However, the following mitigation measures, based on the recommendations of the Basin report, will be implemented to reduce potential impacts to unknown archaeological resources to a less than significant level.

> **Impact CUL-1:** Construction of the project could potentially result in disturbance to unknown archaeological resources.
>
> **Mitigation Measure CUL-1a: Inadvertent Discovery of Archaeological Resources**. The City of Cupertino shall retain a Professional Archaeologist on an on-call basis during ground disturbing construction activities to review, identify and evaluate any potential cultural resources that may be inadvertently exposed during construction. The archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s) and/or unique archaeological resources under the California Environmental Quality Act (CEQA).
>
> If the Professional Archaeologist determines that any cultural resources exposed during construction constitute a historical resource and/or unique archaeological resource under CEQA, he/she shall notify the City of Cupertino and other appropriate parties of the evaluation and recommend mitigation measures to mitigate to a less-than significant impact in accordance with California Public Resources Code Section 15064.5. Mitigation measures may include avoidance, preservation in-place, recordation, additional archaeological testing, and data recovery among other options. The completion of a formal Archaeological Monitoring Plan (AMP) and/or Archaeological Treatment Plan (ATP) that may include data recovery may be recommended by the Professional Archaeologist if significant archaeological deposits are exposed during ground disturbing construction. Development and implementation of the AMP and ATP and treatment of significant cultural resources will be determined by the City of Cupertino in consultation with any regulatory agencies.
>
> A Monitoring Closure Report shall be filed with the City of Cupertino at the conclusion of ground disturbing construction if archaeological and Native American monitoring of excavation was undertaken.
>
> **Mitigation Measure CUL-1b: Tribal Cultural Resources Awareness Training.** Prior to the start of ground disturbing construction, the City of Cupertino shall implement a Worker Awareness Training (WAT) program for cultural resources. Training shall be required for all personnel participating in ground disturbing construction to alert them to the archaeological sensitivity of the project area and provide protocols to follow in the event of a discovery of archaeological materials. A professional archaeologist shall develop and distribute for job site posting an "ALERT SHEET" summarizing potential finds that could be exposed and the protocols to be followed as well as points of contact to alert in the event of a discovery. Training shall be scheduled at the discretion of the contractor in consultation with the City of Cupertino.

Implementation of mitigation measures MM CUL-1a and MM CUL-1b would ensure that the project would not have a significant impact on buried archaeological resources. **(Less than Significant Impact with Mitigation Incorporated)**

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less than Significant Impact with Mitigation Incorporated. Although it is probable that the installation of subsurface infrastructure during subdivision development has destroyed or severely impacted any cultural deposits, the possibility of discovery of prehistoric cultural resources remains. The project will therefore implement the following mitigation measures that will reduce potential impacts to a less than significant level.

Impact CUL-2: Project excavation could disturb previously unknown buried archaeological resources and/or human remains.

Mitigation Measure CUL-2a: Construction Plans. The City of Cupertino shall note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources including prehistoric Native American burials. Significant prehistoric cultural resources are defined as human burials, features or other clusterings of finds made, modified, or used by Native American peoples in the past. The prehistoric and protohistoric indicators of prior cultural occupation by Native Americans include artifacts and human bone, as well as soil discoloration, shell, animal bone, sandstone cobbles, ashy areas, and baked or vitrified clays. Prehistoric cultural materials may include:

a. Human bone - either isolated or intact burials.

b. Habitation (occupation or ceremonial structures as interpreted from rock rings/features, distinct ground depressions, differences in compaction (e.g., house floors).

c. Artifacts including chipped stone objects such as projectile points and bifaces; groundstone artifacts such as manos, metates, mortars, pestles, grinding stones, pitted hammerstones; and shell and bone artifacts including ornaments and beads.

d. Various features and samples including hearths (fire-cracked rock; baked and vitrified clay), artifact caches, faunal and shellfish remains (which permit dietary reconstruction), or distinctive changes in soil stratigraphy indicative of prehistoric activities.

e. Isolated artifacts.

Historic cultural materials may include finds from the late 19th through early 20th centuries. Objects and features associated with the Historic Period can include:

a. Structural remains or portions of foundations (bricks, cobbles/boulders, stacked field stone, postholes, etc.).

b. Trash pits, privies, wells, and associated artifacts.

Mitigation Measure CUL-2b: Inadvertent Discovery of Human Remains. In accordance with Section 7050.5, Chapter 1492 of the California Health and Safety Code and Sections 5097.94, 5097.98 and 5097.99 of the Public Resources Code, if potential human remains are found, the lead agency (City of Cupertino) staff and the Santa Clara

County Coroner shall be immediately notified of the discovery. The coroner would provide a determination regarding the nature of the remains within 48 hours of notification. No further excavation or disturbance of the identified material, or any area reasonably suspected to overlie additional remains, can occur until a determination has been made. If the County Coroner determines that the remains are, or are believed to be, of Native American ancestry, the coroner would notify the Native American Heritage Commission within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the Native American Heritage Commission must immediately notify those persons it believes to be the Most Likely Descendant from the deceased Native American. Within 48 hours of this notification, the Most Likely Descendant would recommend to the lead agency their preferred treatment of the remains and associated grave goods.

Implementation of mitigation measures MM CUL-2a and MM CUL-2b would ensure that the project would not have a significant impact on buried archaeological resources. **(Less than Significant Impact with Mitigation Incorporated)**

3.5.4 References

California State Parks. 2021. Office of Historic Preservation. Built Environment Resource Directory. Accessed February 16, 2022, at https://ohp.parks.ca.gov/

National Park Service. 2021. National Register of Historic Places NPGallery Database. Accessed on February 16, 2022, at https://npgallery.nps.gov/nrhp.

Basin Research Associates. Archaeological Resources Assessment Report – Junipero Serra Trail Project (East and Central Segments), City of Cupertino, Santa Clara County. January 27, 2022.

3.6 ENERGY

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

3.6.1 Environmental Setting

Energy consumption is closely tied to the issues of air quality and greenhouse gas (GHG) emissions, as the burning of fossil fuels and natural gas for energy has a negative impact on both, and petroleum and natural gas currently supply most of the energy consumed in California.
In general, California's per capita energy consumption is relatively low, in part due to mild weather that reduces energy demand for heating and cooling, and in part due to the government's proactive energy-efficiency programs and standards. According to the California Energy Commission, Californians consumed about 279,510 gigawatt hours (GWh) of electricity and 12,331 million therms of natural gas in 2020 (CEC 2021a and CEC 2021b). The CEC estimates that by 2030, California's electricity consumption will reach between 326,026 GWh and 354,209 GWh with an annual growth rate of 0.99 to 1.59 percent (CEC 2017), and natural gas consumption is expected to reach between 13,207 million and 14,190 million BTU with an annual growth rate of 0.25 to 0.77 percent (CEC 2017).

In 2020, total electricity use in Santa Clara County was 16,436 million kilowatt hours (kWh), including 4,392 million kWh of consumption for non-residential land uses (CEC 2022a). Natural gas consumption was 418 million therms in 2020, including 174 million therms from non-residential uses (CEC 2022b).

Energy conservation refers to efforts made to reduce energy consumption to preserve resources for the future and reduce pollution. It may involve diversifying energy sources to include renewable energy, such as solar power, wind power, wave power, geothermal power, and tidal power, as well as the adoption of technologies that improve energy efficiency and adoption of green building practices. Energy conservation can be achieved through increases in efficiency in conjunction with decreased energy consumption and/or reduced consumption from conventional energy sources.

3.6.2 Regulatory Setting

Since increased energy efficiency is so closely tied to the State's efforts to reduce GHG emissions and address global climate change, the regulations, policies, and action plans aimed at reducing GHG emissions also promote increased energy efficiency and the transition to renewable energy sources. The U.S. EPA and the State address climate change through numerous pieces of legislation, regulations, planning, policy-making, education, and implementation programs aimed at reducing energy consumption and the production of GHG.

The proposed project would not involve the development of facilities that include energy intensive equipment or operations. While there are numerous regulations that govern GHG emissions reductions through increased energy efficiency, the following regulatory setting description focuses only on regulations that: 1) provide the appropriate context for the proposed project's potential energy usage; and 2) may directly or indirecly govern or influence the amount of energy used to develop and operate the proposed improvements. For example, the project would not result in permanently occupied buildings and thus the State building code requirements pertaining to energy efficiency are not discussed below. See the Environmental and Regulatory Setting discussion in Section 3.8, Greenhouse Gas Emissions, for a description of the key regulations related to global climate change, energy efficiency, and GHG emission reductions.

CARB Low Carbon Fuel Standard Regulation

CARB initially approved the LCFS regulation in 2009, identifying it as one of the nine discrete early action measures in the *2008 Scoping Plan* to reduce California's GHG emissions. The LCFS regulation defines a Carbon Intensity, or "CI," reduction target (or standard) for each year, which the rule refers to as the "compliance schedule." The LCFS regulation requires a reduction of at least 10 percent in the CI of California's transportation fuels by 2020 and maintains that target for all subsequent years.

In 2018, CARB approved amendments to the LCFS regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030 in-line with California's 2030 GHG emission reduction target enacted through Senate Bill 32, adding new crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector. Under the 2018 amendment, the LCFS regulation now requires a reduction of at least 20 percent in CI by 2030 and beyond.

3.6.3 Impact Discussion

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

No Impact The proposed project consists of the construction of two trail segments. Construction activities would require the use of heavy-duty off-road construction equipment and on-road vehicles (e.g., passenger vehicles truck trips for deliveries and hauling) that would combust fuel, primarily diesel and gasoline. The use of this fuel energy would be necessary to construct the project. Once the project has been constructed it could reduce vehicle trips by providing additional non-vehicular infrastructure for residents and employees within the city. No impact would occur.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The proposed project would involve the construction of two new trail segments within the city. As discussed in response a) above, these trail segments could serve to reduce vehicular trips by providing additional bicycle and pedestrian infrastructure. In doing so, the project would support local, regional, and statewide goals for reducing vehicle miles traveled. The project would not conflict with or obstruct a state or local plan for renewable energy of energy efficiency. No impact would occur.

3.6.4 References

California Energy Commission (CEC) 2017. 2017 Integrated Energy Policy Report. 2017 IEPR Workshops, Notices and Documents. https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2017-integrated-energy-policy-report/2017-iepr

2022a. "Electricity Consumption by County." *Electricity Consumption by County.* CEC, Energy Consumption Database. n.d. Accessed February 24, 2022 at http://ecdms.energy.ca.gov/elecbycounty.aspx.

2022b. "Gas Consumption by County." *Gas Consumption by County.* CEC, Energy Consumption Database. n.d. February 24, 2022 at http://ecdms.energy.ca.gov/gasbycounty.aspx.

3.7 GEOLOGY AND SOILS

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

3.7.1 Environmental Setting

Regional Geologic Setting

The Coast Ranges geomorphic province of California stretches from the Oregon border south almost to Point Conception. In the San Francisco Bay Area, most of the Coast Ranges developed on abasement of tectonically mixed Cretaceous- and Jurassic-aged (70 to 200 million years old) rocks of the Franciscan Complex. Younger sedimentary and volcanic units locally cap these

basement rocks. Younger superficial deposits reflecting the geologic conditions of the last million years or so cover most of the Coast Ranges.

The San Andreas Fault system has produced the dominant north-west oriented structural and topographic trend seen throughout the Coast Ranges today. It reflects the boundary between the North American tectonic plate to the east and the Pacific tectonic plate to the west. The San Andreas fault system is about 40 miles wide in the Bay area and extends from the San Gregorio fault near the coastline to the Coast Ranges-Central Valley blind thrust fault at the western edge of the Great Central Valley. The San Andreas Fault is the dominant structure within the system, capable of producing the highest magnitude earthquakes. Many other subparallel or branch faults within the system are equally active and nearly as capable of generating large earthquakes.

Local Geology

The City of Cupertino is located in the eastern portion of the Santa Clara Valley. The Santa Clara Valley, an alluvial basin, is oriented northwest to southeast and is bounded by the Santa Cruz Mountains to the west and the Hamilton/Diablo Range to the east. The Santa Clara Valley was formed when sediments derived from the Santa Cruz Mountains and the Hamilton/Diablo Range were exposed by continued tectonic uplift and regression of the inland sea that had previously inundated this area. Bedrock in this area is made up of the Franciscan Complex, a diverse group of igneous, sedimentary, and metamorphic rocks of Late Jurassic to Cretaceous age (70 to 140 million years old). Overlaying the bedrock at substantial depths are marine and terrestrial sedimentary rocks of Tertiary and Quaternary age.

Regional Seismicity

The San Francisco Bay area is one of the most seismically active regions in the United States. Significant earthquakes occurring in the Bay area are generally associated with crustal movement along well-defined, active fault zones of the San Andreas Fault system. The closest active faults in the San Andreas Fault system are the Hayward fault, approximately 12.1 miles to the northeast, and the Calaveras fault, approximately 14 miles to the northeast.

The faults considered capable of generating significant earthquakes are generally associated with the well-defined areas of crustal movement, which trend northwesterly. The San Andreas Fault generated the great San Francisco earthquake of 1906 and the Loma Prieta earthquake of 1989, and passes approximately 6.1 miles southwest of the trail site. Other major active faults in the Bay area include the Hayward, Calaveras, and the San Gregorio Fault Zone.

3.7.2 Regulatory Setting

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act regulates development in California near known active faults due to hazards associated with surface fault ruptures. There are no Alquist-Priolo earthquake fault zones on the project site (California Geological Survey, 1974).

Seismic Hazard Mapping Act

The Seismic Hazard Mapping Act was passed in 1990 following the Loma Prieta earthquake to reduce threats to public health and safety and to minimize property damage caused by earthquakes. The act directs the U.S. Department of Conservation to identify and map areas prone to the earthquake hazards of liquefaction, earthquake-induced landslides, and amplified ground shaking. The act requires site-specific geotechnical investigations to identify potential

seismic hazards and formulate mitigation measures prior to permitting most developments designed for human occupancy within the Zones of Required Investigation.

California Building Code

The 2019 California Building Codes (CBC) covers grading and other geotechnical issues, building specifications, and non-building structures.

California Public Resources Code

Section 5097 of the Public Resources Code specifies the procedures to be followed in the event of the unexpected discovery of historic, archaeological, and paleontological resources, including human remains, historic or prehistoric resources, paleontological resources on nonfederal land. The disposition of Native American burial falls within the jurisdiction of the California Native American Heritage Commission (NAHC). Section 5097.5 of the Code states the following:

> *No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.*

3.7.3 Impact Discussion

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other significant evidence of a known fault?

ii) Strong seismic ground shaking?

iii) Seismic-related ground failure, including liquefaction?

. **iv) Landslides?**

No Impact. The project alignment is not located within an earthquake fault zone, liquefaction zone, or landslide zone. Thus, the likelihood of damage to the trail alignment, bridge, or relocated maintenance ramp is considered remote. In the event of a major earthquake on one of the region's active faults, strong ground shaking at the project alignment would likely occur, but no new structures or facilities designed for human occupancy are included in the project. Therefore, there would be no substantial risk of loss of life or property expected from seismic ground shaking at the site. The project would not exacerbate any hazardous seismic conditions.

b) Result in significant soil erosion or the loss of topsoil?

Less Than Significant Impact. Construction of the project would disturb the ground and expose soils, thereby increasing the potential for wind- and water-related erosion and sedimentation at the site until the completion of construction and ground disturbance is stabilized. As discussed in Section 3.10 Hydrology and Water Quality of this Initial Study, the proposed project would implement erosion control measures during and after construction consistent with the National

Pollutant Discharge Elimination System (NPDES) Construction General Permit and Municipal Regional Permit. Compliance with these requirements would ensure the project would not result in substantial soil erosion or the loss of topsoil.

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

Less Than Significant Impact. As discussed under GEO-1 above, the proposed trail alignment is not located within a landslide hazard zone and is not in the vicinity of a slope that could be affected by a landslide. The project alignment is not located within a liquefaction hazard zone, and the soils underlying the alignment are generally not susceptible to liquefaction. Therefore, the project would not result in on- or off-site landslide, subsidence, liquefaction, or collapse.

The project alignment is located adjacent to the Junipero Serra Creek channel and Calabazas Creek. Creek banks can be susceptible to lateral spreading. Along most of the project alignment, however, the Junipero Serra Creek channel and Calabazas Creek are engineered channels, and portions of the creek adjacent to the project alignment have concrete banks. Only an approximately 600-foot long stretch of Calabazas Creek has natural channel banks adjacent to the trail alignment. Engineered and reinforced banks reduce the potential for lateral spreading along the project alignment. Because of the low susceptibility to liquefaction and the engineered banks of the creek, the project would not result in lateral spreading risks.

d) Be located on expansive soil, as noted in the 2010 California Building Code, creating substantial direct or indirect risks to life or property?

Less Than Significant Impact. Although no specific subsurface soil investigations were conducted for the project, expansive soils are known to exist throughout the South Bay Area, including the City of Cupertino. Expansive soils are clay rich soils that have the ability to undergo large volume changes with changes in moisture content. The large fluctuations in volume, often referred to as shrink/swell potential, can adversely impact building and structure foundations. Because the project is a pedestrian and bicycle trail and does not involve the construction of buildings or other structures, any potential impact from expansive soils on the site would be considered less than significant.

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?

No Impact. The project proposes construction of a bicycle and pedestrian trail. No septic systems would be constructed or used; therefore, no impacts related to septic systems would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact. Soil along the project alignment has been previously disturbed during construction along the Junipero Serra Creek and Calabazas Creek channels and grading of the Valley Water maintenance road. There are no known paleontological sites or unique geological features in the project area. Because project construction would generally be limited to the upper four feet or less of soil, the risk of encountering paleontological resources during construction is considered low.

Although the likelihood of encountering paleontological resources during project construction activities is low, they could be encountered. The project would implement a Standard Design and Construction measure protecting such resources in the event they are encountered. See Table 2-2.

Implementation of the Standard Design and Construction measure would ensure that the proposed project would not significantly impact paleontological resources.

3.7.4 References

Santa Clara County. Santa Clara County Geologic Hazard Zones Map. October 26, 2012. https://stgenpln.blob.core.windows.net/document/GEO_GeohazardATLAS.pdf. Accessed March 10, 2022.

City of Cupertino. Regnart Creek Trail Initial Study/Mitigated Negative Declaration. February 2020.

3.8 GREENHOUSE GAS EMISSIONS

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

3.8.1 Environmental Setting

Gases that trap heat in the atmosphere and affect regulation of the Earth's temperature are known as greenhouse gases (GHGs). Many chemical compounds found in the earth's atmosphere exhibit the GHG property. GHGs allow sunlight to enter the atmosphere freely. When sunlight strikes the earth's surface, it is either absorbed or reflected back toward space. Earth that has absorbed sunlight warms up and emits infrared radiation toward space. GHGs absorb this infrared radiation and "trap" the energy in the earth's atmosphere. Entrapment of too much infrared radiation produces an effect commonly referred to as "Global Warming", although the term "Global Climate Change" is preferred because effects are not just limited to higher global temperatures.
GHGs that contribute to climate regulation are a different type of pollutant than criteria or hazardous air pollutants because climate regulation is global in scale, both in terms of causes and effects. Some GHGs are emitted to the atmosphere naturally by biological and geological processes such as evaporation (water vapor), aerobic respiration (carbon dioxide), and off-gassing from low oxygen environments such as swamps or exposed permafrost (methane); however, GHG emissions from human activities such as fuel combustion (e.g., carbon dioxide) and refrigerants use (e.g., hydrofluorocarbons) significantly contribute to overall GHG concentrations in the atmosphere, climate regulation, and global climate change.

Human production of GHG has increased steadily since pre-industrial times (approximately pre-1880) and atmospheric carbon dioxide concentrations have increased from a pre-industrial value of 280 parts per million (ppm) in the early 1800's to 417 ppm in December 2021 (NOAA, 2020). The effects of increased GHG concentrations in the atmosphere include increasing temperature, shifts in precipitation patterns and amounts, reduced ice and snow cover, sea level rise, and acidification of oceans. These effects in turn will impact food and water supplies, infrastructure, ecosystems, and overall public health and welfare.

The 1997 United Nations' Kyoto Protocol international treaty set targets for reductions in emissions of four specific GHGs – carbon dioxide, methane, nitrous oxide, and sulfur hexafluoride – and two groups of gases – hydrofluorocarbons and perfluorocarbons. These GHGs are the primary GHGs emitted into the atmosphere by human activities. The six common GHGs are described below.

Carbon Dioxide (CO_2) is released to the atmosphere when fossil fuels (oil, gasoline, diesel, natural gas, and coal), solid waste, and wood or wood products are burned.

Methane (CH_4) is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from the decomposition of organic waste in municipal solid waste landfills and the raising of livestock.
Nitrous oxide (N_2O) is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels.

Sulfur hexafluoride (SF_6) is commonly used as an electrical insulator in high voltage electrical transmission and distribution equipment such as circuit breakers, substations, and transmission switchgear. Releases of SF_6 occur during maintenance and servicing as well as from leaks of electrical equipment.

Hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) are generated in a variety of industrial processes.

GHG emissions from human activities contribute to overall GHG concentrations in the atmosphere and the corresponding effects of global climate change (e.g., rising temperatures, increased severe weather events such as drought and flooding). GHGs can remain in the atmosphere long after they are emitted. The potential for a GHG to absorb and trap heat in the atmosphere is considered its global warming potential (GWP). The reference gas for measuring GWP is CO_2, which has a GWP of one. By comparison, CH_4 has a GWP of 25, which means that one molecule of CH_4 has 25 times the effect on global warming as one molecule of CO_2. Multiplying the estimated emissions for non-CO_2 GHGs by their GWP determines their carbon dioxide equivalent (CO_2e), which enables a project's combined global warming potential to be expressed in terms of mass CO_2 emissions. GHG emissions are often discussed in terms of Metric Tons of CO_2e, or $MTCO_2e$.

3.8.2 Regulatory Setting

California Air Resources Board (CARB) is the lead agency for implementing Assembly Bill (AB) 32, the California Global Warming Solutions Act adopted by the Legislature in 2006. AB 32 requires the CARB to prepare a Scoping Plan containing the main strategies that will be used to achieve reductions in GHG emissions in California.

Executive Order B-30-15, 2030 Carbon Target and Adaptation, issued by Governor Brown in April 2015, sets a target of reducing GHG emissions by 40 percent below 1990 levels in 2030. By directing state agencies to take measures consistent with their existing authority to reduce GHG emissions, this order establishes coherence between the 2020 and 2050 GHG reduction goals set by AB 32 and seeks to align California with the scientifically established GHG emissions levels needed to limit global warming below two degrees Celsius.

To reinforce the goals established through Executive Order B-30-15, Governor Brown went on to sign SB 32 and AB 197 on September 8, 2016. Senate Bill 32 made the GHG reduction target to reduce GHG emissions by 40 percent below 1990 levels by 2030 a requirement as opposed to a goal. Assembly Bill 197 gives the Legislature additional authority over CARB to ensure the most successful strategies for lowering emissions are implemented, and requires CARB to, "protect the state's most impacted and disadvantaged communities …[and] consider the social costs of the emissions of greenhouse gases."

<u>CARB 2017 Scoping Plan</u>

On December 14, 2017 CARB adopted the second update to the Scoping Plan, the *2017 Climate Change Scoping Plan Update* (*2017 Scoping Plan Update*; CARB 2017). The primary objective

of the *2017 Scoping Plan Update* is to identify the measures needed to achieve the mid-term GHG reduction target for 2030 (i.e., reduce emissions by 40 percent below 1990 levels by 2030), as established under Executive Order B-30-15 and SB 32. The *2017 Scoping Plan Update* identifies an increasing need for coordination among state, regional, and local governments to achieve the GHG emissions reductions that can be gained from local land use planning and decisions. It notes emission reduction targets set by more than one hundred local jurisdictions in the state could result in emissions reductions of up to 45 $MMTCO_2E$ and 83 $MMTCO_2E$ by 2020 and 2050, respectively. To achieve these goals, the *2017 Scoping Plan Update* includes a recommended plan-level efficiency threshold of six metric tons or less per capita by 2030 and no more than two metric tons by 2050.

ABAG/MTC Plan Bay Area 2050

In January 2009, California SB 375 went into effect known as the Sustainable Communities and Climate Protection Act. The objective of SB 375 is to better integrate regional planning of transportation, land use, and housing to reduce greenhouse gas emissions and other air pollutants. SB 375 tasks CARB to set GHG reduction targets for each of California's 18 regional Metropolitan Planning Organizations (MPOs). Each MPO is required to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP). The SCS is a growth strategy in combination with transportation policies that will show how the MPO will meet its GHG reduction target. If the SCS cannot meet the reduction goal, an Alternative Planning Strategy may be adopted that meets the goal through alternative development, infrastructure, and transportation measures or policies.

Plan Bay Area was the integrated long-range transportation, land-use, and housing plan developed for the Bay Area pursuant to SB 375 that was adopted by the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC) in 2013. An update to *Plan Bay Area*, titled *Plan Bay Area 2040*, was jointly approved by the ABAG Executive Board and by MTC in 2017. *Plan Bay Area* and *Plan Bay Area 2040* identified Priority Development Areas, which were transit-oriented infill development opportunities in areas where future growth would not increase urban sprawl.

On October 1, 2021, MTC and AMBAG released *Plan Bay Area 2050* which focused on the elements of Housing, Economy, Transportation, and Environment. Across these elements, there were a total of 35 strategies, which are long-term policies or investments, and 80 implementation actions, which contain advocacy and legislation, initiatives, and planning and research. *Plan Bay Area 2050* projected that it would achieve a 20% reduction in GHG emissions from cars and light duty trucks by 2035 if all of its strategies were implemented, which would meet SB 375's GHG target.

BAAQMD 2017 Clean Air Plan

As discussed in Section 3.3, Air Quality, the BAAQMD's *2017 Clean Air Plan* is a multi-pollutant plan focused on protecting public health and the climate (BAAQMD 2017a). The *2017 Clean Air Plan* lays the groundwork for a long-term effort to reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050, consistent with GHG reduction targets adopted by the state of California. As opposed to focusing solely on the nearer 2030 GHG reduction target, the *2017 Clean Air Plan* makes a concerted effort to imagine and plan for a successful and sustainable Bay Area in the year 2050. In 2050, the Bay Area is envisioned as a region where:

- Energy efficient buildings are heated, cooled, and powered by renewable energy.

- The transportation network has been redeveloped with an emphasis on non-vehicular modes of transportation and mass transit.
- The electricity grid is powered by 100 percent renewable energy; and
- Bay Area residents have adopted lower-carbon intensive lifestyles (e.g., purchasing low-carbon goods in addition to recycling and putting organic waste to productive use).

The *2017 Clean Air Plan* includes a comprehensive, multipollutant control strategy that is broken up into 85 distinct measures and categorized based on the same economic sector framework used by CARB for the AB 32 Scoping Plan Update.[1] The accumulation of all 85 control measures being implemented support the three overarching goals of the plan. These goals are:

- Attain all state and national air quality standards.
- Eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants; and
- Reduce Bay Area GHG Emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

City of Cupertino General Plan

The Environmental Resources and Sustainability Element of Cupertino's General Plan includes goals, policies, and strategies to help the City improve sustainability and the ecological health and the quality of life for the community. The following goals and policies of this Element may be applicable to the proposed project:

- *Goal ES-1*. Ensure a sustainable future for the City of Cupertino.
- *Policy ES-1.1 Principles of Sustainability*. Incorporate the principles of sustainability into Cupertino's planning, infrastructure, and development process in order to achieve improvement, reduce GHG emissions, and meet the needs of the community without compromising the needs of future generations.
- *Strategy ES-2.1.1 Climate Action Plan*. Adopt, implement, and maintain a Climate Action Plan to attain GHG emission targets consistent with state law and regional requirements.
- *Goal ES-2*. Promote conservation of energy resources.
- *Policy ES-2.1 Conservation and Efficient Use of Energy Resources.* Encourage the maximum feasible conservation and efficient use of electrical power and natural gas resources for new and existing residences, businesses, industrial, and public uses.

City of Cupertino Climate Action Plan

The Cupertino Climate Action Plan (CAP) is a strategic planning document that identifies sources of GHG emissions within the City's boundaries, presents current and future emissions estimates, identifies a GHG reduction target for future years, and presents strategic goals, measures, and actions to reduce emissions from the energy, transportation and land use, water, solid waste, and green infrastructure sectors (Cupertino 2015a).

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[1] The sectors included in the AB 32 Scoping Plan Update are: stationary (industrial) sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants.

The CAP uses 2010 as the GHG baseline emissions for the City and set community-wide emissions reduction goals for 2020 (15 percent below 2010 baseline levels), 2035 (49 percent below 2010 baseline levels), and 2050 (83 percent below baseline levels).

The City's Climate Action Plan includes the following goals and measures related to transportation and land use emissions:

- Goal 2: Encourage Alternative Transportation – Support transit, carpooling, walking, and bicycling as viable transportation modes to decrease the number of single-occupancy vehicle trips within the community.
  - Measure C-T-1: Bicycle and Pedestrian Environment Enhancements. Continue to encourage multi-modal transportation, including walking and biking, through safety and comfort enhancements in the bicycle and pedestrian environment.

Chapter 4 of the City's Climate Action Plan defines actions and implementation steps that the City could specifically take to reduce its own GHG emissions, including:

- Goal 1: Improve Facilities – Transform facilities into models of technology demonstration and conservation.
  - Measure M-F-7: Conserve Water Through Efficient Landscaping. Implement best management practices in landscaping design and share City successes community-wide to lead by example in water conservation action.
- Goal 3: Reduce Solid Waste – Effectively manage materials to shift behavior, consumption, and life-cycle impacts.
  - Measure M-SW-3: Construction and Demolition Waste Diversion. Enhance construction and demolition waste diversion rates for municipal projects.

<u>City of Cupertino Municipal Code</u>

Chapter 16.72 of the City's Municipal Code, Requirement for Construction and Demolition Waste Recycling, is intended to ensure maximum diversion of construction and demolition waste generated by new construction or remodeling projects within the City. Section 16.72.040 requires covered projects to recycle or divert at least sixty-five percent (65%), or meet the amounts, criteria and requirements specified in the applicable California Green Building Standards Code, whichever is more restrictive, of all materials generated for discard by the project.

3.8.3 Impact Discussion

Global climate change is the result of GHG emissions worldwide; individual projects do not generate enough GHG emissions to influence global climate change. Thus, the analysis of GHG emissions is by nature a cumulative analysis focused on whether an individual project's contribution to global climate change is cumulatively considerable.

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. The proposed project would produce short-term GHG emissions from construction-related fuel combustion over a cumulative timeframe of approximately one year (i.e., the timeframe for East and Central combined). Upon completion of the proposed project, only a nominal quantity of emissions would be generated from routine landscape maintenance activities. Although the BAAQMD has not established a quantitative threshold for construction-

related emissions, the BAAQMD does maintain a 1,100 $MTCO_2e$ operational GHG threshold for non-stationary sources. The 1,100 $MTCO_2e$ threshold was developed for the year 2020, consistent with state-wide GHG emission reduction goals set for under AB 32 and, therefore, does not directly address post-2020 GHG emissions. Instead, an interpolated project-specific goal of 660 $MTCO_2e$ will be used herein this analysis, since it takes the BAAQMD's recommended 2020 threshold and adjusts it downward for the State's next codified GHG reduction goal for 2030 (i.e., 40% below 1990 levels by 2030; SB 32).[2] Since construction activities cease to emit GHG upon completion, they are typically amortized over the lifetime of the project, added to the operational emissions, and compared to the threshold. Construction emission associated with the proposed project were estimated using CalEEMod, with the project-specific modifications described in Section 3.3.

Construction of the proposed East and Central segments would generate approximately 97.8 $MTCO_2e$ and 153.7 $MTCO_2e$, respectively. When added together and amortized over 30 years (the anticipated approximate lifetime of the proposed project) it would result in approximately 8.4 $MTCO_2e$/yr. The project does not have operational GHG emissions for the amortized construction emissions to be added to. The project's estimated emissions of 8.4 $MTCO_2e$/yr is substantially less than (i.e., approximately 1.3% of) the 660 $MTCO_2e$ project-specific goal. Furthermore, this GHG emissions estimate does not account for the GHG benefits the project could result in, by providing more bicycle and pedestrian infrastructure throughout the City, which would reduce VMT and the GHG emissions associated with it. The proposed project, therefore, would not generate significant levels of GHG emissions. This impact would be less than significant.

b) Conflict with an applicable, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, including the *2017 Scoping Plan*, the *2017 Clean Air Plan*, *Plan Bay Area 2050*, or the City's Climate Action Plan. The policies contained in these plans generally apply to larger projects and uses that result in trip generation (e.g., commercial buildings, residential structures, etc.) trail project. Further, as discussed under response a), the project could further the goals of many of these plans by providing additional non-vehicular infrastructure, which would reduce VMT and the associated GHG emissions – a primary goal of many of these plans. No impact would occur.

3.8.4 References

Bay Area Air Quality Management District (BAAQMD) 2017a. *California Environmental Quality Act Air Quality Guidelines*. San Francisco, CA. June 2010, updated May 2017.

2017b. 2017 Clean Air Plan: Spare the Air, Cool the Climate. BAAQMD, Planning, Rules, and Research Division. April 19, 2017.

[2] The 660 MTCO2e/yr goal was developed by taking the 1,100 $MTCO_2e$/yr threshold, which was the threshold to reduce emissions back to 1990 level and reducing it by 40 percent (1,100 $MTCO_2e$/yr * (1 - 0.4) = 660 $MTCO_2e$/yr). This demonstrates the progress required under SB 32. This linear reduction approach oversimplifies the threshold development process. The County is not adopting nor proposing to use 660 $MTCO_2e$ as a CEQA GHG threshold for general use; rather, it is only intended for use on this project.

California Air Resources Board (CARB) 2017. *2017 Climate Change Scoping Plan.* Sacramento, CA. December 2017.

City of Cupertino. 2015a Climate Action Plan. Cupertino, CA. January.

2015b. Cupertino General Plan: Community Vision 2015-2040 (General Plan). Adopted October. Amended October 20, 2015 by Ordinance Number CC 15-087.

Metropolitan Transportation Commission / Association of Bay Area Governments (MTC/ABAG). 2021. *Plan Bay Area 2050 Forecasting and Modeling Report.* October 2021. Accessed January 25, 2022 at https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_Forecasting_Modeling_Report_October_2021.pdf.

National Oceanic and Atmospheric Administration (NOAA). 2022. "Mauna Loa CO_2 Monthly Mean Data." *Trends in Atmospheric Carbon Dioxide*. NOAA, Earth System Research Laboratory, Global Monitoring Division. September 9, 2020. Web. Accessed February 4, 2022. http://www.esrl.noaa.gov/gmd/ccgg/trends/.

3.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?	☐	☐	☐	☒

3.9.1 Environmental Setting

The project site is located adjacent to an the Junipero Serra Channel, an existing concrete lined creek channel in a highly urbanized setting between N. De Anza Boulevard and Vallco Parkway at Calaveras Creek. I-280 is located just north of the creek channel, while roadways, commercial, and residential uses abut the southern project boundary.

A review of readily available regulatory databases did not reveal active hazardous materials or waste cleanup cases within the proposed trail alignment. The State Water Resources Control Board's GeoTracker database identifies one site with the project footprint that a former leaking underground storage tank (LUST) site with a "Completed – Case Closed" status.

- 19333 Vallco Parkway – Former Tandem/Apple Corporation: LUST cleanup site. In 2009, 15 pounds of soil contaminated with perchloroethylene (PCE) were excavated and removed for proper disposal from the site. Potential media of concern are indoor air, soil, and soil vapor. Land use restrictions include prohibition of day care, elder care, hospital,

school and residential uses, notification prior to any change in land use, and notification after change of property owner.

Two active sites are present within 1,000 feet of the site including:

- 10123 N. Wolfe Road – Vallco Town Center: Open - Site Assessment with the State Water Resources Control Board. The case file notes residual contamination due to previous underground storage tank use and requires oversight of clean up to accommodate planned future uses.

- 10910 N. Tantau Ave – Intersil: Federal Superfund Site/ Open – Remediation: Manufacturing at the site includes microwave electronic equipment processes requiring the use of acids and solvents. Contamination at the site appears to be primarily associated with a neutralization sump and a chemical storage shed. The facility is located within the Hillview-Porter region. Detected soil contaminants include trichloroethene (TCE), dichloroethene (DCE), trichloroethane (TCA), and chloro- benzenes. Groundwater contaminants include TCE at 910 parts per billion (ppb), 1,1-DCE at 92 ppb, chloroform at 100 ppb, and Freon at 63 ppb. There are seven private wells and a creek downgradient of the site. There are two backup municipal supply wells within 1.5 miles of the site. Inhabitants of the residential area downgradient from the site are potential receptors for groundwater and surface water contamination. Land use restrictions include prohibition of activities that would disturb the remediation and monitoring systems in place, prohibition of day care, elder care, hospital, school and residential uses, no groundwater extraction without approval, and notification prior to any subsurface work.

Several sites in the vicinity of the project site have “Completed – Case Closed” statuses including:

- 10700 N. De Anza Boulevard - Four Phase Systems: From 1977 to 1984, Four-Phase Systems, Inc. manufactured semiconductor components and printed circuit boards at the site. Four-Phase utilized a number of hazardous materials, and generated, stored, and treated hazardous waste. Four-Phase Systems was granted a hazardous waste permit in 1982 and acquired by Motorola that same year, but soon discontinued operations and submitted a closure plan in 1984. The semiconductor manufacturing facility was closed in 1984 and DHS certified the closure in February 1987. The closure was certified by DHS in1987. After the closure, DHS conducted an inspection of the site and found waste that was not completely removed from the site. Cleanup of the site was conducted and closure activities were finally completed. Motorola was certified closed again on 7/30/2001.The property is currently owned by Apple Computer and serves as Apple Computer headquarters.

- 10500 N. De Anza Boulevard – Apple Corporation: Leaking Underground Storage Tank (LUST) cleanup site.

- 10930 De Anza Boulevard – Mariani Packing: LUST cleanup site

- 10150 N. Wolfe Road – JC Penney: LUST cleanup site

- 10900 N. Blaney Avenue – PG&E. LUST cleanup site

3.9.2 Regulatory Setting

Federal

United States Environmental Protection Agency

The United States Environmental Protection Agency (EPA) was created in 1970 to serve as a single source collection of all federal research, monitoring, standard-setting, and enforcement activities to make sure there is appropriate protection of the environment. The EPA's duty is to create and enforce regulations that protect the natural environment and apply the laws passed by Congress. The EPA is also accountable for establishing national criteria for various environmental programs and enforcing compliance.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) provides a Federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the EPA was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) enacted in 1976 governs the disposal of solid waste and hazardous materials. The Resource Conservation and Recovery Act gives the EPA the power to control the generation, transportation, treatment, storage, and disposal of hazardous substances that cannot be disposed of in ordinary landfills. It also allows for each state to apply their own hazardous waste programs instead of implementing the federal program on the condition that the state's program is just as strict in its requirements. This state program must be permitted by the EPA in order to be used.

State

California Environmental Protection Agency

The California Environmental Protection Agency (Cal/EPA) was established in 1991 and is comprised of: the California Air Resources Board, the State Water Resources Control Board, the Regional Water Quality Control Board, CalRecycle, the Department of Toxic Substances Control, the Office of Environmental Health Hazard Assessment, and the Department of Pesticide Regulation. This integrated group amalgamates all of California's environmental authority agencies into one and has led the state of California in developing and applying numerous progressive environmental policies in America. The primary goal of the Cal/EPA is to restore, protect, and enhance the environment.

Regional Water Quality Control Board

The RWQCB oversees cases involving groundwater contamination within the San Francisco Bay Area from Spills, Leaks, Incidents and Clean-up (SLIC) cases while the County of Santa Clara's Department of Environmental Health would oversee most leaking underground storage tank (LUST) cases. In the incidence of a spill at a project site, the applicant would notify the County of Santa Clara and a lead regulator (County, RWQCB or DTSC) would be determined.

Cortese List

The Cortese list was authorized by the state legislature in 1985. A list of several types of hazardous materials is gathered by a few agencies as directed by the statute.
Government Code Section 65962.5. (a) The Department of Toxic Substances Control shall compile and update as appropriate, but at least annually, and shall submit to the Secretary for Environmental Protection, a list of all of the following:

1. All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.

2. All land designated as hazardous waste property or border zone property pursuant to Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.

3. All information received by the Department of Toxic Substances Control pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.

4. All sites listed pursuant to Section 25356 of the Health and Safety Code.

All sites included in the Abandoned Site Assessment Program. Government Code Section 65962.5. (c) The State Water Resources Control Board shall compile and update as appropriate, but at least annually, and shall submit to the Secretary for Environmental Protection, a list of all of the following:

1. All underground storage tanks for which an unauthorized release report is filed pursuant to Section 25295 of the Health and Safety Code.

2. All solid waste disposal facilities from which there is a migration of hazardous waste and for which a California regional water quality control board has notified the Department of Toxic Substances Control pursuant to subdivision (e) of Section 13273 of the Water Code.

3. All cease and desist orders issued after January 1, 1986, pursuant to Section 13301 of the Water Code, and all cleanup or abatement orders issued after January 1, 1986, pursuant to Section 13304 of the Water Code, that concern the discharge of wastes that are hazardous materials.

The proposed project site is not on the Hazardous Waste and Substances Sites (Cortese) List.[3]

California Department of Toxic Control

The California Department of Toxic Control, a department of the Cal/EPA, is the primary agency in California for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste produced in California. The California Department of Toxic Control regulates hazardous waste primarily under the authority of the Federal Resource

[3] California Environmental Protection Agency. “Cortese List Data Resources.” Accessed February 28, 2022. https://calepa.ca.gov/sitecleanup/corteselist.

Conservation and Recovery Act and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

Local

City of Cupertino Emergency Operations Plan

The City of Cupertino Emergency Operations Plan (EOP) is an all-hazards document describing the City incident management organization, compliance with relevant legal statutes, other relevant guidelines, whole community engagement, continuity of government focus, and critical components of the incident management structure. The incident management system is a component-based system designed to be scaled up and components activated as necessary to reflect the incident/event's escalation from routine incident(s) to emergency, disaster, or catastrophe affecting the City. The EOP is not intended to address specific emergency responses, scenarios, hazards, or threats. Functional and hazard specific annexes to the EOP will outline specific response activities for response organizations.[4]

3.9.3 Impact Discussion

Would the project:

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

Less Than Significant Impact. The proposed project is the construction of a new recreational trail adjacent to an existing creek canal. The project would not involve the routine transport, use or disposal of hazardous materials. Use of hazardous materials would be limited to small quantities of construction fuels and fluids during the short-term construction period as well as small quantities of chemicals for landscaping and maintenance. These materials would be stored and used in accordance with the manufacturer's specifications. The compliance with existing hazardous materials regulations would reduce any chance of upset conditions to less than significant levels.

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?

Less Than Significant Impact with Mitigation Incorporated. The proposed project is the construction of a new recreational trail that would not include the use of hazardous materials after project completion except for small amounts landscaping and cleaning supplies. Such use as part of project operation would not cause 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.

Small quantities of hazardous materials, including fuels, oils, solvents, paints, and other building materials could be accidentally released into the environment during construction. Waste management and materials pollution control BMPs include designated areas for material delivery

[4] California Environmental Protection Agency. "Cortese List Data Resources." Accessed February 28, 2022. https://calepa.ca.gov/sitecleanup/corteselist.

and storage, materials use, stockpile management, spill prevention and control, solid and hazardous waste management, contaminated soil, concrete waste, and liquid waste management. With the compliance of applicable regulations and the implementation of standard construction hazardous materials BMPs, the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving hazardous materials.

Pesticides

The project vicinity was previously used for agricultural purposes prior to development of the existing uses. Because of the past agricultural uses, it is reasonable to assume that pesticides and other agricultural chemicals were used as part of the normal agricultural operations. It is common to find arsenic, lead, and dichlorodiphenyltrichloroethane (DDT) residue in the soils in Santa Clara County from historic farming operations.

Construction of the proposed trail would require soil grading and excavation. If pesticides and chemicals from historic agricultural operations have persisted on-site, soil disturbing activities during construction could expose workers and the environment to these hazardous materials.

Lead

The project site is adjacent to I-280. As such, the site has the potential to contain aerially deposited lead as a result of the former uses leaded gas in automobiles. Additionally, the site's location adjacent to known hazardous materials or waste contamination sites places construction workers at risk for exposure during construction.

Because of the potential for soils contaminated with agricultural chemicals and/or lead to be present on the site, the following mitigation measures are proposed:

> **Impact HAZ-1:** Construction of the project has the potential to expose construction workers to legacy agricultural chemicals and/or aerially deposited lead due to past agricultural uses in the vicinity and the site's proximity to I-280.
>
> **Mitigation Measure HAZ-1a**: Prior to excavation, shallow soil samples shall be taken along the proposed trial alignment and other areas of disturbance to determine if contaminated soil is located on-site with concentrations above established construction/trench worker thresholds.
>
> **Mitigation Measure HAZ-1b**: Once soil sampling is complete, a report of findings shall be provided to the SCCDEH (or other appropriate agency) for review. If no contaminants are found above established thresholds, no further action is required.
>
> **Mitigation Measure HAZ-1c**: If contaminated soils are found in concentrations above established thresholds, a Site Management Plan (SMP) shall be prepared and implemented to manage the cleanup of potential contamination. The SMP shall be prepared prior to construction to reduce or eliminate exposure risk to human health and the environment, specifically, potential risks associated with the presence of contaminated soils. Contaminated soil removed from the site shall be hauled off-site and disposed at a licensed hazardous materials disposal site in accordance with applicable regulations.
> The SMP shall be submitted to the Santa Clara County Department of Environmental Health (SCCDEH) (or equivalent agency) for review and acceptance. A copy of the

accepted SMP shall be submitted to the City of Cupertino Public Works Department, and shall be implemented prior to the commencement of grading activities on the site.

With implementation of mitigation measure MM HAZ-1a through MM HAZ-1c, the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The impact is considered less than significant with mitigation.

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

Less Than Significant Impact. The nearest schools to the project site is Sam H. Lawson Middle School, located 0.25 mile south of the project site and LP Collins Elementary School, located 0.25- mile south east of the project site. The proposed trail would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. The potential to expose sensitive receptors to airborne pollutants during construction is addressed in Section 3.4 Air Quality, and also found less than significant. Therefore, the proposed project would not create a significant hazard to schools in the vicinity.

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

Less than Significant Impact. The project site is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (otherwise known as the Cortese List)(CalEPA 2022, DTSC 2022, SWRCB 2022) as the project's east segment will require construction on the southeast corner of the parcel located at 19333 Vallco Parkway for the trail and trailhead improvements. The maximum depth of excavation for the trail is expected to be approximately 1.67 feet (18 inches) and retaining wall excavation approximately 4-feet deep. See Figure 3.

In addition to utilizing a site that formerly contained a leaking underground tank that since has been remediated and removed and now considered "completed – case closed", there are other Cortese list sites immediately adjacent to the proposed project. There are two active/open cases under the State Water Resources Control Board's oversite within 1000 feet of the site and five former LUST sites that are considered "Completed – Case Closed" by the State Water Resources Control Board (SWRCB 2022). The project would not require significant grading as the trail alignment is already flat. Due to the minimal ground disturbance required for the project, the project would not encounter contaminated ground water or soils with contaminated vapors. The impact is considered less than significant.

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

No Impact. The project alignment is not within an airport land use plan or within two miles of a public or public use airport. The closest airports to the project site are Moffatt Federal Airfield and Norman Y. Mineta San Jose International Airport, located approximately five miles north and northeast, respectively of the project site.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. Roadways adjacent to the project would be utilized during construction for the delivery of materials to the construction site. Road and lane closures are not anticipated to be required during construction. However, should the need arise, the contractor would be required to maintain access for emergency vehicles for the duration of construction and therefore would not significantly impair or physically interfere with an adopted emergency evacuation plan. Fire access plans have been reviewed and approved by local authorities. After project construction is completed, there would be no impediment to vehicular or emergency vehicle access. Thus, the proposed project would have a less-than-significant impact to emergency plans.

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

No Impact. The project site is not within the wildland-urban interface (ABAG 2022). However, it is located near to areas that are designated as within the wildland-urban interface which are located approximately 2.7 miles south and south of State Route 85. The project does not propose new structures within areas designated within the wildland-urban interface and are therefore not subject to wildfire-related building practices. Therefore, the project would not expose people or structures to significant risk of loss due to wildland fires.

3.9.4 References

Association of Bay Area Governments (ABAG). Bay Area Hazards: Wildland-Urban Interface. Accessed February 15, 2022 at https://mtc.maps.arcgis.com/apps/mapviewer/index.html?layers=d45bf08448354073a26675776f2d09cb

California Department of Toxic Substances (DTSC). 2022. EnviroStor Database. Accessed February 15, 2022 at https://www.envirostor.dtsc.ca.gov/public/map/?myaddress.

California Environmental Protection Agency (CalEPA). 2022. Cortese List Data Resources. Accessed February 15, 2022 at https://calepa.ca.gov/sitecleanup/corteselist/.

City of Cupertino. 2019. Emergency Operations Plan. Accessed February 15, 2022 at https://www.cupertino.org/home/showpublisheddocument/24990/637019800695800000.

State Water Resources Control Board (SWRCB). 2022. GeoTracker Database. Accessed February 15, 2022 at https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=.

3.10 HYDROLOGY AND WATER QUALITY

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

3.10.1 Environmental Setting

Most of the project is unpaved providing maintenance access to the adjacent Junipero Serra Creek and Calabazas Creek channels. The project alignment is located in the West Valley Watershed. The West Valley watershed is an 85-square mile area of multiple small-creek watersheds. The West Valley watershed is characterized by channelized creeks on the valley floor and more natural streams in the hillsides. Runoff from the project alignment outfalls to Junipero Serra Channel, adjacent to the alignment.

Groundwater

Cupertino is within the Santa Clara subbasin of the Santa Clara Valley Groundwater Basin. The Santa Clara Subbasin extends from the southern edge of San Francisco Bay through the Coyote Valley to approximately Cochrane Road in Morgan Hill. Groundwater movement generally follows the surface water patterns flowing from the interior of the subbasin northerly toward San Francisco Bay. Groundwater levels within Cupertino are generally 50 feet or more below ground surface (bgs). The basin is divided into confined and recharge areas. Almost all of the City of Cupertino is located within the Santa Clara subbasin recharge area. The creeks that flow through the City also provide seepage and groundwater recharge.

Water Quality

Surface water quality is affected by point source and non-point source (NPS) pollutants. Point source pollutants are emitted at a specific point, such as a pipe, while NPS pollutants are generated by surface runoff from diffuse sources such as streets, paved areas, and landscape areas. Point source pollutants are mainly controlled with pollutant discharge regulations established by the San Francisco Bay RWQCB through National Pollutant Discharge Elimination System, or waste discharge requirements (see Regulatory section, below).

NPS pollutants are more difficult to monitor and control and are important contributors to reductions in surface water quality in urban areas. Typical stormwater runoff pollutants include oil, grease, and metals accumulated in streets, driveways, parking lots, and rooftops, as well as pesticides, herbicides, particulate matter, nutrients, animal waste, and other substances from landscaped areas. In general, pollutant concentrations in stormwater runoff do not vary significantly within an urbanized watershed. However, pollutant concentrations do increase when impervious cover is more than 40 to 50 percent of the drainage area. Runoff volume is the most important variable in predicting pollutant loads. Surface runoff from the project alignment and surrounding area drains to the Junipero Serra Channel and Calabazas Creek.

Flooding

According to flood mapping prepared by the Federal Emergency Management Agency (FEMA), the project trail alignment is located outside the limits of the 100-year flood plain. The 100-year flood flows in the project area are contained within the Calabazas Creek channel, which is designated as being within a Special Flood Hazard Area, Zone A. The proposed trail itself is not within a Special Hazard Flood area, but is designated as being within Zone X (0.2 percent Annual Chance of Flood Hazard or Areas of 1 percent annual chance of flood with average depth less than one foot or with drainage areas of less than one square mile).

The project trail alignment is not located within a designated dam failure inundation area, which is an area that may be flooded in the event of a complete dam failure. Additionally, due to the project's inland location and distance from the nearest body of water (i.e., San Francisco Bay), it is not subject to seiche or tsunami hazards, or sea level rise. The project alignment is located on the valley floor and not subject to mudflows.

3.10.2 Regulatory Setting

Federal Regulations

Clean Water Act

Under the Clean Water Act (CWA) of 1977, the United States Environmental Protection Agency (USEPA) seeks to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The statute employs a variety of regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The CWA authorizes the USEPA to implement water quality regulations. The National Pollutant Discharge Elimination System (NPDES) permit program under Section 402(p) of the CWA controls water pollution by regulating storm water discharges into the waters of the United States (US). California has an approved state NPDES program. The USEPA has delegated authority for water permitting to the State Water Resources Control Board (SWRCB), which has divided the state into nine regional basins, each under the jurisdiction of a Regional Water Quality Control Board (RWQCB).

Section 401 requires an applicant for any Federal permit that proposes an activity that may result in a discharge to "waters of the U.S." to obtain certification from the State that the discharge will comply with other provisions of the CWA. In California, a Water Quality Certification is provided by the State Water Resources Control Board and/or RWQCB.
Section 404 authorizes the USACE to regulate the discharge of dredged or fill material to waters of the U. S., including wetlands. The USACE issues individual site-specific or general (Nationwide) permits for such discharges.

Federal Emergency Management Agency (FEMA)

FEMA administers the National Flood Insurance Program (NFIP), which provides subsidized flood insurance to communities that comply with FEMA regulations, which limit development in flood plains. FEMA also issues Flood Insurance Rate Maps (FIRMs) that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection is established by FEMA, with the minimum level of flood protection for new development set as the 100-year flood event, also described as a flood that has a 1-in-100 chance of occurring in any given year.

National Pollutant Discharge Elimination System

As previously discussed, the NPDES permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the U.S. from their municipal separate storm sewer systems (MS4s). Under the NPDES Program, all facilities which discharge pollutants from any point source into waters of the U.S. are required to obtain an NPDES permit. Point source discharges include discharges from publicly owned treatment works (POTWs), discharges from industrial facilities, and discharges associated with urban runoff, such as storm water. The NPDES permit programs in California are administered by the SWRCB and the nine RWQCBs.

State Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Act (Water Code Sections 1300 et seq.) is the basic water quality control law in California. The Act established the SWRCB, (see also below) and divided the state into nine regional basins, each under the jurisdiction of a RWQCB. The Act authorizes the SWRCB and RWQCBs to issue and enforce Waste Discharge Requirements, NPDES permits, Section 401 water quality certifications, or other approvals.

State Water Resources Control Board

The SWRCB is the primary State agency responsible for the protection of the state's water quality and groundwater supplies. Construction activities that disturb one or more acres of land must comply with the requirements of the SWRCB Construction General Permit (2009-0009-DWQ) as amended by 2010-0014-DWQ. Under the terms of the permit, applicants must file permit registration documents with the SWRCB prior to the start of construction. The registration documents include a Notice of Intent (NOI), risk assessment, site map, Stormwater Pollution Prevention Plan (SWPPP), annual fee, and a signed certification statement.

San Francisco Bay Regional Water Quality Control Board

The San Francisco Bay RWQCB is the regional authority responsible for planning, permitting and enforcement of the CWA. Cupertino is within the jurisdiction of the San Francisco Bay RWQCB (Region 2), which covers most of the Bay Area region, including Santa Clara County. The San Francisco Bay RWQCB addresses region-wide water quality issues through the Water Quality Control Plan for San Francisco Bay Region (Basin Plan), which is updated every 3 years. The Basin Plan was adopted in 1993 and updated most recently in May 2017. The Basin Plan designates beneficial uses of the State waters within Region 2, describes the water quality that must be maintained to support such uses, and provides programs, projects, and other actions necessary to achieve the standards established in the Basin Plan.

The SWRCB issued county-wide municipal stormwater permits in the early 1990s to operators of MS4s serving populations over 100,000 (Phase 1). On November 19, 2015, the San Francisco Bay RWQCB re-issued a single regional municipal stormwater discharge permit known as the Municipal Regional Stormwater NPDES Permit (MRP) to regulate stormwater discharges from municipalities and local agencies in Alameda, Contra Costa, San Mateo, and Santa Clara counties, and the cities of Fairfield, Suisun City, and Vallejo.

Provision C.3 of the MRP (New Development and Redevelopment) allows the co-permittees to require the implementation of appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address stormwater runoff pollutant discharges and prevent increases in runoff flows to local waterways.

Impervious trails built to direct stormwater runoff to adjacent vegetated areas, or other non-erodable areas, preferably away from creeks or toward the outboard side of levees are excluded from Provision C.3 requirements as specified in Provision C.3.b.ii.(4)(d). In order to comply with Provision C.3 of the MRP, project sponsors are required to submit a Storm Water Management Plan (SWMP) with building plans, to be reviewed by the City of Cupertino Public Works Department. The SWMP must be prepared under the direction of a licensed and qualified professional.

California Fish and Game Code

The California Department of Fish and Wildlife (CDFW) protects streams, water bodies, and riparian corridors through the streambed alteration agreement process under Section 1600 to 1616 of the California Fish and Game Code. The California Fish and Game Code establishes that "an entity may not divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river stream, or lake (Fish and Game Code Section 1602(a)) without notifying the CDFW, incorporating necessary mitigation and obtaining a streambed alteration agreement. The CDFW's jurisdiction extends from the top of banks and often includes the outer edge of riparian vegetation canopy cover.

Emergency Services Act

The Emergency Services Act, under California Government Code Section 8589.5(b), calls for public safety agencies whose jurisdiction contains populated areas below dams, to adopt emergency procedures for the evacuation and control of these areas in the event of a partial or total failure of the dam. The Governor's Office of Emergency Services (OES) is responsible for the coordination of overall state agency response to major disasters and assisting local governments in their emergency preparedness, response, recovery, and hazard mitigation efforts. In addition, the Cal OES Dam Safety Program provides assistance and guidance to local jurisdictions on emergency planning for dam failure events and is also the designated repository of dam failure inundation maps.

<u>Regional Regulations</u>

Valley Water

Valley Water, previously known and referred to herein as Santa Clara Valley Water District (SCVWD), is a water resources agency responsible for balancing flood protection needs with the protection of natural watercourses and habitat in the Santa Clara Valley. Valley Water serves 16 cities and 1.8 million residents, provides wholesale water supply, operates three water treatment plants, and provides flood protection along the creeks and rivers within the county. Valley Water implements the Clean, Safe Creeks and Natural Flood Protection (CSC) Plan that created a countywide special parcel tax for flood protection, improved water quality and safety, healthy creek and bay ecosystems and trails, parks, and open space along waterways.

Valley Water reviews plans for development projects near streams to ensure that the proposed storm drain systems and wastewater disposal systems will not adversely impact water quality in the streams. In addition, Valley Water reviews projects for conformance to Valley Water flood control design criteria, stream maintenance and protection plans, and groundwater protection programs.

Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) – The SCVURPPP is an association of 13 cities and towns in the Santa Clara Valley, together with the County of Santa Clara and Valley Water. The RWQCB has conveyed responsibility for implementation of storm water regulations to the member agencies of SCVURPPP. The SCVURPPP incorporates regulatory, monitoring, and outreach measures aimed at improving the water quality of South San Francisco Bay and the streams of the Santa Clara Valley to reduce pollution in urban runoff to the "maximum extent practicable." The SCVURPPP maintains compliance with the MRP and promotes stormwater pollution prevention within that context. Participating agencies (including

the City of Cupertino) must meet the provisions of the MRP by ensuring that new development and redevelopment mitigate water quality impacts to stormwater runoff both during the construction and operation of projects. See discussion of MRP above.

Local Regulations

General Plan

The following are relevant goals and policies from the Environmental Resources and Sustainability Element, Health and Safety Element, and Infrastructure Elements of the Cupertino General Plan that are related to hydrology and water quality.

Environmental Resources and Sustainability Element

Goal ES-7: Ensure protection and efficient use of all water resources.

- *Policy ES-7.1 Natural Water Bodies and Drainage Systems.* In public and private development, use Low Impact Development (LID) principles to manage stormwater by mimicking natural hydrology, minimizing grading and protecting or restoring natural drainage systems.
- *Policy ES-7.2 Reduction of Impervious Surfaces*. Minimize stormwater runoff and erosion impacts resulting from development and use low impact development (LID) designs to treat stormwater or recharge groundwater
- *Policy ES-7.3 Pollution and Flow Impacts*. Ensure that surface and groundwater quality impacts are reduced through development review and voluntary efforts.
- *Policy ES-7.8 Natural Water Courses*. Retain and restore creek beds, riparian corridors, watercourses and associated vegetation in their natural state to protect wildlife habitat and recreation potential and assist in groundwater percolation. Encourage land acquisition or dedication of such areas.
- *Policy ES-7.11 Water Conservation and Demand Reduction Measures*. Promote efficient use of water throughout the City in order to meet State and regional water use reduction targets.

Health and Safety Element

Goal HS-7. Protect people and property from risks associated with floods.

- *Policy HS-7.3 Existing Non-Residential Uses in the Flood Plain*. Allow commercial and recreational uses that are now exclusively within the flood plain to remain in their present use or to be used for agriculture, provided it doesn't conflict with Federal, State and regional requirements.
- *Policy HS-7.4 Construction in Flood Plains*. Continue to implement land use, zoning and building code regulations limiting new construction in the already urbanized flood hazard areas recognized by the Federal Flood Insurance Administrator.
- *Policy HS-7.5: Hillside Grading*. Restrict the extent and timing of hillside grading operations to April through October except as otherwise allowed by the City. Require performance bonds during the remaining time to guarantee the repair of any erosion damage. Require planting of graded slopes as soon as practical after grading is complete.

Infrastructure Element

- *Policy INF-4.1 Planning and Management.* Create plans and operational policies to develop and maintain an effective and efficient stormwater system.

Municipal Code

The City's Municipal Code is another primary tool that guides development in the City. It identifies land use categories, site development regulations, and other general provisions that ensure consistency between the General Plan and proposed development projects. The Municipal Code contains all ordinances for the City. The following chapters contain directives pertaining to hydrology and water quality issues:

- Chapter 9.18, Stormwater Pollution Prevention and Watershed Protection provides regulations and legal effect to the MRP issued to the City and ensures ongoing compliance with the most recent version of the NPDES permit regarding municipal stormwater and urban runoff requirements. The code contains permit requirements for construction projects and new development or redevelopment projects.
- Chapter 9.19, Water Resources Protection requires property owners to obtain permits for modification of property adjacent to a stream.
- Chapter 14.15, Landscape Ordinance, implements the California Water Conservation in Landscaping Act of 2006 establishing new water-efficient landscaping and irrigation requirements.
- Chapter 16.18, Interim Erosion and Sediment Control Plan requires implementation of an Interim Erosion and Sediment Control Plan calculating maximum runoff for the 10-year storm event and measures to be undertaken to retain sediment on site, surface and erosion control measures, and vegetative measures.
- Chapter 16.52, Prevention of Flood Damage, applies to all Special Flood Hazard Areas within the City (i.e., subject to flooding during the 100-year storm). A development permit must be obtained before new construction, substantial improvements, or development begins in any are of special flood hazard. It also specifies construction standards that must be implemented to protect buildings and improvements from flood damage.

3.10.3 Impact Discussion

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. The proposed project would not violate any water quality standards or waste discharge requirements. The proposed project could impact water quality during the short-term construction period through the accidental release of construction fuels or fluids along the entire alignment or through an increase in sedimentation or erosion due to ground disturbance.

The project involves more than one acre of disturbance and is therefore required to obtain coverage under the State Water Resources Control Board General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). The Construction General Permit requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP). In addition to the SWPPP required by the SWRCB General Permit, Standard Design and Construction Measures include preparation of an erosion control plan for

erosion and sediment control, tracking control, non-stormwater management control (including, but not limited to, dewatering operations, paving and grinding operations, illicit connections/discharge, and non-stormwater discharges), waste management and materials pollution control (spill prevention and control, solid, liquid, and hazardous waste management, etc.). These measures ensure the project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

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

Less than Significant Impact. The proposed new trail would not require a significant amount of water for project operations. Water use is anticipated for irrigation of landscaped areas along the project alignment. Native and drought resistant species are planned to minimize operational water use for irrigation. The project is not located on any designated groundwater recharge areas and would not substantially divert any natural overland flow of runoff to the adjacent creek. Therefore, the project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

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

i) Result in substantial erosion or siltation on- or off-site;

Less than Significant Impact. The proposed project would not alter the existing drainage pattern of the site or area nor result in substantial erosion or siltation. The project occurs adjacent to creeks, however does not propose activities that would substantially alter the drainage pattern in the area such that substantial erosion or siltation would occur on- or off-site. As discussed previously, the trail will would direct stormwater runoff to decomposed granite shoulders and to adjacent vegetated areas or other non-erodible permeable areas. Therefore, the project would not be considered a C.3 Regulated Project. Additionally, the project includes an erosion control plan with BMPs that would be implemented throughout project construction to prevent erosion or siltation from disturbed area. The impact is considered less than significant.

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

Less than Significant Impact. The project would increase the amount of impermeable surfaces compared to existing conditions as the 8-foot width would be paved with asphalt. However, the trail is a linear feature and designed to drain to decomposed granite shoulders along either side of the trail, to adjacent vegetated areas or other non-erodible permeable areas. Therefore, the proposed project would not substantially increase the rate or amount of surface water runoff in a manner which would result in flooding on- or off-site.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less than Significant Impact. As stated above, the project would result in 101,710 square feet of new impervious surface at the site. The project plans show the asphalt trail surface draining to decomposed granite shoulders, to adjacent vegetated areas or other non-erodible permeable areas to ensure the project does not exceed existing runoff rates and volumes and to treat

stormwater prior to discharge into the storm drain system. Therefore, the impact from additional runoff, or polluted runoff is considered less than significant.

iv) Impede or redirect flood flows?

Less than Significant Impact. The project includes the construction of an at-grade paved trail with various trail features and amenities such as fencing, seating, and landscaped areas. These proposed features are not located within mapped areas subject to flooding (FEMA 2022). Therefore, the project would not impede or redirect flood flows.

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

No Impact. The terms tsunami or seiche are described as ocean waves or similar waves in large water bodies, usually created by undersea fault movement or by a coastal or submerged landslide. The project site is approximately six miles south of the San Francisco Bay shoreline tsunami zone and is also at 200 feet above mean sea level. Therefore, the project is not at risk to release pollutants in the event of a seiche or tsunami since there is no nearby waterbody. Additionally, the project does not propose work, storage areas or other areas that are potential sources for polluted water that could be released in the event of a flood.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant Impact. As noted above, while the project increases impermeable surfaces over existing conditions, the trail would drain to decomposed granite shoulders along either side of the trail, to adjacent vegetated areas, or other non-erodible permeable areas. Therefore, the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The impact is considered less than significant.

3.10.4 References

California Department of Water Resources. 2022. Division of Safety of Dams, California Dam Breach Inundation Maps. Accessed February 16, 2022 at: https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2

FEMA 2022. FEMA Flood Map Service Center. FIRM panel 06085C0209H, effective 5/18/2009. Accessed February 17, 2022 at: https://msc.fema.gov/portal/search?AddressQuery=cupertino%20ca#searchresultsanchor

3.11 LAND USE AND PLANNING

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

3.11.1 Environmental Setting

The project site is located in northern Cupertino. The project alignment is located along the Junipero Serra and Calabazas Creek channels in an existing Valley Water easement. The western extent of the trail alignment (Central) is located adjacent to a surface parking lot. In the project area, Junipero Serra Channel is a concrete channel that runs west-east and northwest-southeast, though the final portion of the East segment runs north-south along Calabazas Creek. The project includes road crossings at Blaney Avenue and Wolfe Road. The East segment would conclude at Vallco Parkway. Land uses along the proposed trail alignment include Office / Industrial / Commercial / Residential, Low Density Residential, Low / Medium Density Residential, Medium Density Residential, Industrial / Residential, and Regional Shopping land uses.

3.11.2 Regulatory Setting

<u>Local</u>

City of Cupertino General Plan

The Cupertino General Plan: Community Vision 2015 - 2040 (2014) sets the City's policy direction in a number of areas including land use, mobility, housing, open space, infrastructure, public health and safety, and sustainability. The Land Use and Community Character Element contains policies that guide future physical change in Cupertino. Land Use and Community Character Element policies relevant to the proposed project include:

> *Policy LU-3.1: Site Planning.* Ensure that project sites are planned appropriately to create a network of connected internal streets that improve pedestrian and bicycle access, provide public open space and building layouts that support city goals related to streetscape character for various Planning Areas and corridors.
>
> *Policy LU-4.1: Street and Sidewalks.* Ensure that the design of streets, sidewalks and pedestrian and bicycle amenities are consistent with the vision for each Planning Area and Complete Streets policies.
>
> *Policy LU-5.3: Enhance Connections.* Look for opportunities to enhance publicly-accessible pedestrian and bicycle connections with new development or redevelopment.

> *Policy LU-11.1: Connectivity.* Create pedestrian and bicycle access between new developments and community facilities. Review existing neighborhood circulation to improve safety and access for students to walk and bike to schools, parks, and community facilities such as the library.

Cupertino Parks and Recreation System Master Plan

The 2020 Cupertino Parks and Recreation Master Plan creates a cohesive strategy to guide future development, renovation, and management of City parks, recreation facilities, and trails. The Master Plan provides direction for the City as it improves and enhances the City's parks through the year 2040. The Master Plan was developed after an extensive public engagement process that helped assess community needs and goals while identifying opportunities to meet those needs in the future. The Master Plan includes the implementation of the Cupertino Loop Trail over the next two to four years. As discussed previously, the Loop Trail includes the I-280 Trail (formerly referred to as the Junipero Serra Trail) segments.

Cupertino Bicycle Transportation Plan

In June 2016, the City Council adopted the 2016 Bicycle Transportation Plan. The Plan is a long-range planning document designed to encourage bicycling as a safe, practical, and healthy alternative to motor vehicles. It addresses present and future needs of the bicycling community, lays the groundwork for grant funding eligibility for bicycle projects, and is in close alignment with the goals set by the Cupertino Bicycle Pedestrian Commission to significantly increase the attractiveness and safety of bicycling throughout the City, with a particular focus on safe connectivity to schools. A goal of the Cupertino Bicycle Transportation Plan that relates to the project is as follows:

- Goal 3: Increase and improve bicycle access to community destinations across the City of Cupertino for all ages and abilities.

The Bicycle Transportation Plan recommended a series of Class I shared use paths. When joined together with low-stress on-street facilities, this would form the "Cupertino Loop Trail", providing access around Cupertino, largely separated from vehicle traffic. This network would support recreational riders and long-range bicycle trips. The proposed project is part of the Cupertino Loop Trail.

Cupertino Pedestrian Transportation Plan

To encourage walking as a viable way to get around Cupertino, the City Council adopted the 2018 Pedestrian Transportation Plan in February 2018. The Plan outlines physical improvements to the City that will provide improved access for all ages and abilities. The following goals of the plan apply to the project:

- Goal 1: Improve pedestrian safety and reduce the number and severity of pedestrian-related collisions, injuries, and fatalities.

- Goal 2: Increase and improve pedestrian access to community destinations across the City of Cupertino for people of all ages and abilities.

- Goal 3: Continue to develop a connected pedestrian network that fosters an enjoyable walking experience.

The Plan identifies the "I-280 Channel Trail" as a Tier I project that would benefit pedestrians.

3.11.3 Discussion

Would the project:

a) Physically divide an established community?

No Impact. The project site is a Valley Water right-of-way located along the Junipero Serra Channel and Calabazas creek. The project does not include any physical barriers that would result in the division of an established community.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact. The proposed project is identified in the City's Parks and Recreation System Master Plan and 2016 Bicycle Transportation Plan as a segment of the envisioned Cupertino Loop Trail. The proposed trail alignment would be consistent with the goals and policies of the Parks and Recreation System Master Plan and Bicycle Transportation Plan. The design of the proposed trail segments is subject to City design review and approval, which would ensure the trail's accessibility, safety, and connectivity features are consistent with applicable planning and regulatory documents.

The project's consistency with other plans and policies adopted for the purpose of avoiding or mitigating environmental effects are discussed throughout this Initial Study. This Initial Study incorporates best management practices, conditions of approval, and mitigation measures that would reduce the project's potentially significant impacts to less than significant. Therefore, the proposed trail segments would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

3.11.4 References

City of Cupertino. 2014. Cupertino General Plan: Community Vision 2015 – 2040. February 7, 2022.

2016. City of Cupertino 2016 Bicycle Transportation Plan. June 2016.

2018. City of Cupertino Pedestrian Transportation Plan. February 2018.

3.12 MINERAL RESOURCES

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

3.12.1 Environmental Setting

There are several sites in the City of Cupertino that are designated by the Surface Mining and Reclamation Act (SMARA) as containing mineral deposits which are of regional significance, including Hanson Permanente Quarry and Stevens Creek Quarry; however, these quarries are located outside the City limits under the jurisdiction of Santa Clara County (City of Cupertino 2014). The project site is located in an MRZ-3 zone, meaning it contains mineral deposits the significance of which cannot be evaluated from available data. The City's General Plan shows the site is in an area that is "Urban/Suburban Developed – Unsuitable for Extraction." As such, project site is not within an area designated as containing mineral deposits of importance.

3.12.2 Regulatory Setting

<u>State</u>

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act (SMARA) was enacted by the California legislature in 1975 to address the need for a continuing supply of mineral resources, and to prevent or minimize the negative impacts of surface mining to public health, property, and the environment. As mandated under SMARA, the State Geologist has designated mineral land classifications in order to help identify and protect mineral resources in areas within the state subject to urban expansion or other irreversible land uses which would preclude mineral extraction. SMARA also allowed the State Mining and Geology Board (SMGB), after receiving classification information from the State Geologist, to designate lands containing mineral deposits of regional or statewide significance.

3.12.3 Impact Discussion

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact (Responses a – b). There are no known mineral resources of regional value or local importance on or adjacent to the project site. Therefore, the project would not result in the loss of availability of known mineral resources.

3.12.4 References

City of Cupertino. 2014. Cupertino General Plan: Community Vision 2015 – 2040. December 4, 2014.

3.13 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 in other applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.13.1 Environmental Setting

Noise may be defined as loud, unpleasant, or unwanted sound. The frequency (pitch), amplitude (intensity or loudness), and duration of noise all contribute to the effect on a listener, or receptor, and whether the receptor perceives the noise as objectionable, disturbing, or annoying.

<u>The Decibel Scale (dB)</u>

The decibel scale (dB) is a unit of measurement that indicates the relative amplitude of a sound. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a tenfold increase in acoustic energy, while 20 dBs is 100 times more intense, 30 dBs is 1,000 more intense, and so on. In general, there is a relationship between the subjective noisiness, or loudness of a sound, and its amplitude, or intensity, with each 10 dB increase in sound level perceived as approximately a doubling of loudness.

<u>Sound Characterization</u>

There are several methods of characterizing sound. The most common method is the “A-weighted sound level,” or dBA. This scale gives greater weight to the frequencies of sound to which the human ear is typically most sensitive. Thus, most environmental measurements are reported in dBA, meaning decibels on the A-scale. Human hearing matches the logarithmic A-weighted scale, so that a sound of 60 dBA is perceived as twice as loud as a sound of 50 dBA. In a quiet environment, an increase of 3 dB is usually perceptible, however, in a complex noise environment such as along a busy street, a noise increase of less than 3 dB is usually not perceptible, and an increase of 5 dB is usually perceptible. Normal human speech is in the range from 50 to 65 dBA. Generally, as environmental noise exceeds 50 dBA, it becomes intrusive and above 65 dBA noise becomes excessive. Nighttime activities, including sleep, are more sensitive to noise and are considered affected over a range of 40 to 55 dBA. Table 3-3 lists typical outdoor and indoor noise levels in terms of dBA.

Table 3-3: Typical Outdoor and Indoor Noise Levels		
Common Outdoor Activities	**Noise Level (dBA)**	**Common Indoor Activities**
	-110-	Rock Band
Jet flyover at 1,000 feet		
	-100-	
Gas lawn mower at 3 feet		
	-90-	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	-80-	Garbage disposal at 3 feet
Noise urban area, daytime		
Gas lawnmower, 100 feet	-70-	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	-60-	
		Large business office
Quiet urban daytime	-50	Dishwasher next room
Quite urban nighttime	-40-	Theater, large conference room (background)
Quiet suburban nighttime		
	-30-	Library
Quite rural nighttime		Bedroom at night
	-20-	
		Broadcast/recording studio
	-10-	
Lowest threshold of human hearing	-0-	Lowest threshold of human hearing
Source: Caltrans 2013		

Sound levels are typically not steady and can vary over a short time period. The equivalent noise level (Leq) is used to represent the average character of the sound over a period of time. The Leq represents the level of steady noise that would have the same acoustical energy as the sum of the time-varying noise measured over a given time period. Leq is useful for evaluating shorter time periods over the course of a day. The most common Leq averaging period is hourly, but Leq can describe any series of noise events over a given time period.

Variable noise levels are values that are exceeded for a portion of the measured time period. Thus, L01 is the level exceeded one percent of the time and L90 is the level exceeded 90 percent of the time. The L90 value usually corresponds to the background sound level at the measurement location.

Noise exposure over the course of an entire day is described by the day/night average sound level, or Ldn, and the community noise equivalent level, or CNEL. Both descriptors represent the 24-hour noise impact on a community. For Ldn, the 24-hour day is divided into a 15-hour daytime period (7:00 AM to 10:00 PM) and a nine-hour nighttime period (10:00 PM to 7:00 AM) and a 10 dB "penalty" is added to measure nighttime noise levels when calculating the 24-hour average noise level. For example, a 45 dBA nighttime sound level would contribute as much to the overall day-night average as a 55 dBA daytime sound level. The CNEL descriptor is similar to Ldn, except that it includes an additional 5 dBA penalty beyond the 10 dBA for sound events that occur during the evening time period (7:00 PM to 10:00 PM). The artificial penalties imposed during Ldn and CNEL calculations are intended to account for a receptor's increased sensitivity to sound levels during quieter nighttime periods.

Sound Propagation

The energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out and travels away from the noise generating source. Theoretically, the sound level of a point source attenuates, or decreases, by 6 dB with each doubling of distance from a point source. Sound levels are also affected by certain environmental factors, such as ground cover (asphalt vs. grass or trees), atmospheric absorption, and attenuation by barriers. Outdoor noise is also attenuated by the building envelope so that sound levels inside a residence are from 10 to 20 dB less than outside, depending mainly on whether windows are open for ventilation or not.

When more than one point source contributes to the sound pressure level at a receiver point, the overall sound level is determined by combining the contributions of each source. Decibels, however, are logarithmic units and cannot be directly added or subtracted together. Under the dB scale, a doubling of sound energy corresponds to a 3 dB increase in noise levels. For example, if one noise source produces a sound power level of 70 dB, two of the same sources would not produce 140 dB – rather, they would combine to produce 73 dB.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear can discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people can begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness.

Noise Effects

Noise effects on human beings are generally categorized as:

- Subjective effects of annoyance, nuisance, and/or dissatisfaction
- Interference with activities such as speech, sleep, learning, or relaxing
- Physiological effects such as startling and hearing loss

Most environmental noise levels produce subjective or interference effects; physiological effects are usually limited to high noise environments such as industrial manufacturing facilities or airports. Predicting the subjective and interference effects of noise is difficult due to the wide variation in individual thresholds of annoyance and past experiences with noise; however, an accepted method to determine a person's subjective reaction to a new noise source is to compare

it to the existing environment without the noise source, or the "ambient" noise environment. In general, the more a new noise source exceeds the ambient noise level, the more likely it is to be considered annoying and to disturb normal activities.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5 dB increase is generally perceived as a distinctly noticeable increase, and a 10 dB increase is generally perceived as a doubling of loudness that would almost certainly cause an adverse response from community noise receptors.

Groundborne Vibration

Vibration is the movement of particles within a medium or object such as the ground or a building. As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared, in inches per second (in/sec). PPV represents the maximum instantaneous positive or negative peak of a vibration signal and is most appropriate for evaluating the potential for building damage. Human response to groundborne vibration is subjective and varies from person to person.

Existing Noise Environment

The City's noise environment consists of transportation and non-transportation related noise sources. The General Plan Health and Safety Element identifies traffic noise as the predominant noise source in the City. I-280, Highway 85, and several major arterial roads such as, but not limited to, Stevens Creek Boulevard, De Anza Boulevard, Homestead Road, and Foothill Boulevard are all located within the City's boundaries. Although the City receives some aircraft-related noise from planes traveling to and from San Jose International Airport (approximately six miles northwest of the city center) and other nearby airports, it is not located in a noise-impacted area for any airport. Similarly, although the City contains one freight rail line (serving the Lehigh Permanente Quarry), rail service is infrequent and is not a significant contributor to the City's transportation-related noise environment.

The General Plan Health and Safety Element identifies that non-transportation noise sources may occur from all land use types. The City is mostly developed with residential, commercial, mixed-use, institutional, and light industrial land uses that can generate noise from heating, ventilation, and air conditioning (HVAC) systems, loading docks, trash compactors, and machinery. The project site is located immediately south of, and generally parallels, I-280. Traffic on I-280 is the primary driver of noise levels along the trail segments proposed for development. Noise barriers are present in some, but not all, portions of the project site, and help shield the site from noise generated by traffic on I-280. Other noise sources in proximity of the project site include vehicles operating on other, primary roadways in proximity of the project site (e.g., N De Anza Boulevard, N Wolfe Road, and N Blaney Avenue), and the active operation of residential, commercial, and light industrial land uses south of the site (e.g., HVAC, cars starting, doors closing, etc.).

Ambient noise measurements were collected by MIG staff along portions of the project site between approximately 9:00 AM on Tuesday, January 4, 2022, and 9:00 AM on Wednesday, January 5, 2022 (Appendix C). The ambient noise levels were digitally measured and stored using three Larson Davis SoundTrack LxT sound level meters that meet American National Standards Institute requirements for a Type 1 integrating sound level meter. Each sound meter was

calibrated immediately before and after the monitoring period using a reference one-kilohertz (1kH) check frequency and 114 dB sound pressure level and found to be operating within normal parameters for sensitivity. Long-term measurements were continuously collected over the sample periods in 1-minute intervals; short-term measurements were periodically collected over the sample periods in 10-second intervals. These intervals were selected to capture short-term noise events and increases in noise levels above typical background conditions. Weather conditions during the monitoring were generally overcast during the mornings and clear and mostly sunny during the afternoons; a small amount of light precipitation (less than 0.01 inches) occurred from approximately 8:30 AM to 9:00 AM on the morning of January 4th. Temperatures ranged from the high 40's and low 50's (overnight and early mornings) to the mid 60's (in the later afternoon). Winds ranged from calm conditions during the mornings and nighttime to approximately 5- to 7-miles per hour during the late afternoon period. The ambient noise monitoring conducted included two long-term (LT) and four short-term (ST) measurements at locations selected to:

- Provide direct observations and measurements of existing noise sources at and in the vicinity of the proposed I-280Trail alignment; and
- Determine typical ambient noise levels at and in the vicinity of the proposed trail alignment.

The ambient noise monitoring locations are described below and shown in Figure 16.

- Site LT-1 was within the Valley Water right-of-way (ROW), near the intersection of Lucille Avenue and Randy Lane, approximately 680 feet west of the North Blane Avenue overpass and 150 feet from the centerline of I-280.[5] This segment of I-280 contains an approximately 14-foot-tall concrete masonry unit (CMU) wall on the north side of the Valley Water ROW, between I-280 and site LT-1.
- Site LT-2 was within the Valley Water ROW, near the existing Hyatt House at 10380 Perimeter Road in Cupertino, approximately 685 feet southeast of the Wolfe Road overpass and 195 feet from the centerline of I-280. This segment of I-280 does not contain any noise barrier. It is noted site LT-2 was at the end of the I-280 southbound on-ramp from Wolfe Road.
- Site ST-1 was at the intersection of Lucille Avenue and North Blaney Avenue, next to an existing public storage facility, approximately 100 feet east of the North Blaney Road overpass and 150 feet from the centerline of I-280. This segment of I-280 does not contain any noise barrier; however, the terminus of an approximately 10-foot-tall noise barrier is located 85 feet west of site ST-1.
- Site ST-2 was at the intersection of Lucille Avenue and Villa De Anza Avenue, approximately 105 feet west of the North Blaney Avenue overpass and 175 feet from the centerline of I-280. This segment of I-280 contains an approximately 14-foot-tall CMU wall on the north side of the Valley Water ROW, between I-280 and site ST-2.
- Site ST-3 was on Lucille Avenue, under the North Blaney Avenue overpass, approximately 155 feet from the centerline of I-280. This segment of I-280 includes an approximately 14-foot-tall to 10-foot-tall CMU wall that terminates approximately 15 feet east of the North Blaney Avenue overpass.
- Site ST-4 was located at the eastern end of Olivewood Street, in The Pointe at Cupertino Apartments, approximately 155 feet from the centerline of I-280.

Based on observations made during the ambient noise monitoring, I-280 is the predominant noise source in the vicinity of the proposed trail alignment. Table 3-4 and Table 3-5 summarize the

[5] The distance from LT-1 to Wolfe Road is based on a line parallel to the Valley Water ROW. Unless otherwise noted, reported distances are based on the shortest distance between the noise monitoring site and the identified feature. Reported distances to the I-280 centerline are perpendicular to the centerline.

results of the long-term and short-term measurements, respectively. Note that Table 3-5 also provides data at the long-term locations for the same temporal interval for comparison purposes.

Table 3-4: Summary of Measured Long-Term Ambient Noise Levels (dBA)

Day / Site	Total Hours Monitored	Daily L_{min}	Daily L_{max}	Measured L_{eq} Range(A)			24-Hour CNEL(B)
				Daytime (7 AM to 7 PM)	Evening (7 PM to 10 PM)	Nighttime (10 PM to 7 AM)	
Tuesday, January 4th to Wednesday, January 5th							
LT-1	24-Hours	30.9	90.3	63.4 – 66.8	60.0 – 62.1	50.6 – 62.6	66.2
LT-2	24-Hours	40.4	91.7	72.0 – 74.5	69.0 – 71.2	59.4 – 69.7	74.3

Source: MIG 2022
(A) Values are the lowest and highest measured average hourly values during the listed time period.
(B) L_{dn} data is only presented for full 24-hour monitoring days (midnight to midnight).

Table 3-5: Summary of Measured Short-Term Ambient Noise Levels (dBA)

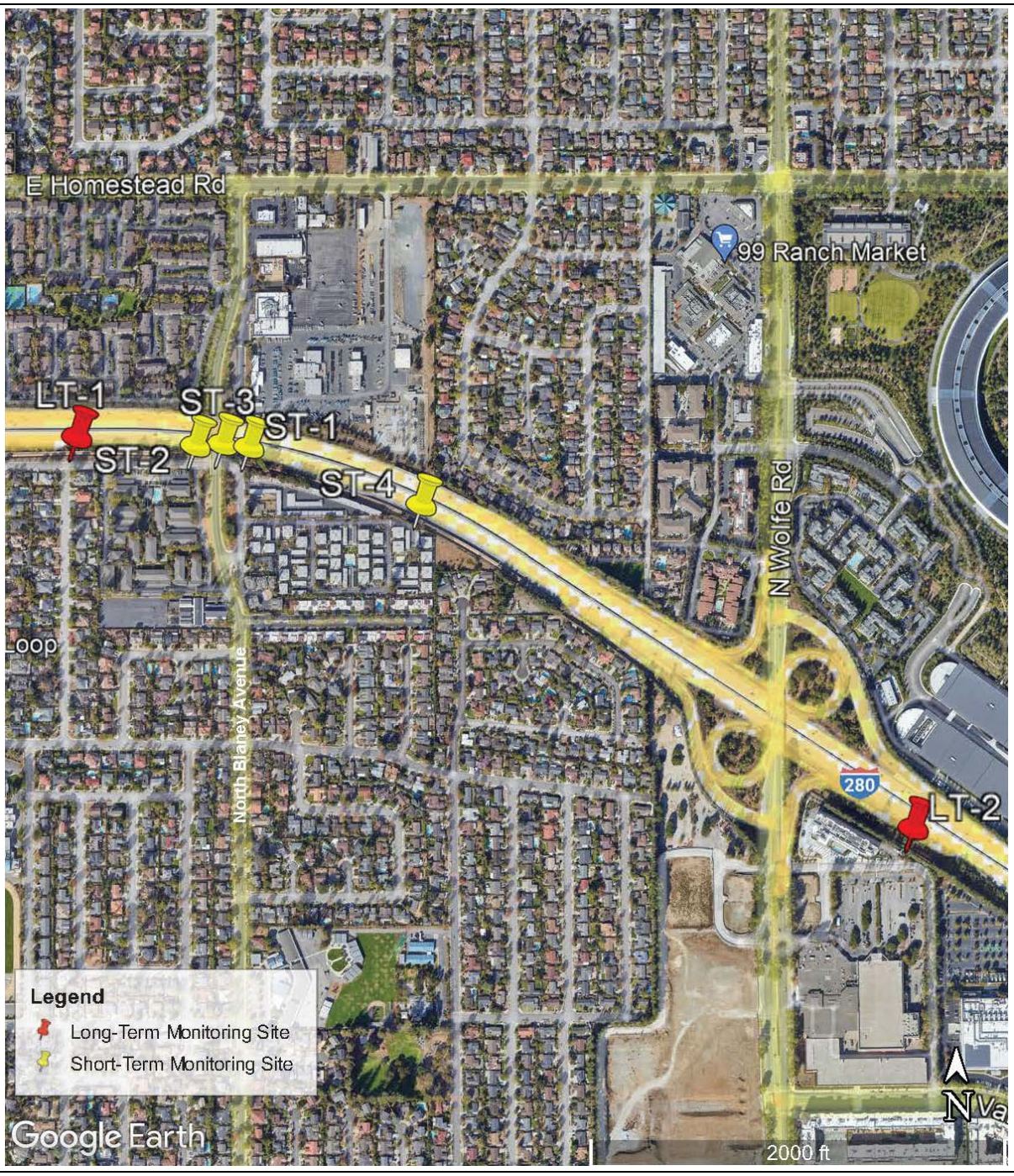
Day / Site	Duration(B)	Measured Noise Level(A)		
		L_{eq}	L_{min}	L_{max}
Tuesday, January 4th (ST-1 – 10 AM to 11 AM)				
ST-1	60 Minutes	74.9	67.0	82.6
LT-1	60 Minutes	63.8	58.1	70.3
LT-2	60 Minutes	72.5	65.7	80.0
Tuesday, January 4th (ST-2 – 11:04 AM to 11:24 AM)				
ST-2	20 Minutes	68.8	60.4	74.7
LT-1	20 Minutes	64.1	58.8	79.7
LT-2	20 Minutes	72.6	64.5	77.7
Tuesday, January 4th (ST-3 – 11:25 AM to 11:35 AM)				
ST-3	10 Minutes	76.9	66.9	83.3
LT-1	10 Minutes	63.2	60.2	66.7
LT-2	10 Minutes	72.4	65.7	77.0
Tuesday, January 4th (ST-4 – 11:43 AM to 11:53 AM)				
ST-4	10 Minutes	66.5	60.7	72.9
LT-1	10 Minutes	63.3	59.7	68.4
LT-2	10 Minutes	72.3	66.0	78.4

Source: MIG 2022
(A) Values are the period average (L_{eq}) and the lowest and highest measurement over the interval period.

The results of the monitoring confirm that noise levels are lower at locations that are shielded by the existing noise barrier between the project site and I-280. For example, as shown in Table 3-4, the calculated CNEL at LT-2 with no noise barrier (74.3 dBA) is more than 8 dB higher than the calculated CNEL at LT-1 (66.2 dBA) where a noise barrier is present (14-foot-tall). Similarly, as shown in Table 3-5, hourly L_{eq} noise levels at ST-1 (74.9 dBA) with no noise barrier were more

than 11 dBA higher than the same hourly L_{eq} at LT-1 (63.8 dBA). It is noted noise levels at ST-1 are likely influenced by the nearby overpass. The existing noise barriers between I-280 and the residential receptor properties on Lucille Avenue are estimated to attenuate highway noise by approximately 9 to 12 dBA for most properties on Lucille Avenue.

Figure 16 Ambient Noise Monitoring Locations



The results of the monitoring also confirm that project site proximity to other north-south oriented roadways (e.g., N Blaney Avenue) have an appreciable effect on ambient noise levels. As shown in Table 3-5, noise levels at ST-2 (68.8 dBA L_{eq}), which was located 105 feet west of the North Blaney Avenue overpass and behind the 14-foot-tall noise barrier along Lucille Avenue, are higher than at LT-1 (64.1 dBA L_{eq}).

Finally, and in summary, based on the ambient noise monitoring conducted for the project, segments of the I-280Trail alignment that are shielded from I-280 traffic noise by an existing noise barrier are not likely to be exposed to hourly noise levels above 70 dBA L_{eq}. in contrast, segments of the trail that are not shielded from I-280 traffic noise levels by an existing barrier are likely to be exposed to hourly noise levels between 70 dBA to 80 dBA.

Sensitive Receptors

Noise sensitive receptors are areas where unwanted sound or increases in sound may have an adverse effect on people or land uses. Residential areas, hospitals, schools, and parks are examples of noise receptors that could be sensitive to changes in existing environmental noise levels. Sensitive noise receptors in proximity of the project site include:

- Multi-family residential receptors located at the southwest corner of the I-280 on- and off-ramp intersection with N De Anza Boulevard, approximately 180 feet southwest of the I-280 Central alignment's western terminus.
- Single- and multi-family residential receptors, just south of the I-280 Central alignment on Lucille Avenue. These receptors also include residences that are located on streets that run in a north-south orientation and intersect Lucille Avenue, including Larry Way and Randy Lane. The closest of these receptors are approximately 30 feet from the Valley Water ROW (and project site).
- Multi-family residential receptors at "The Pointe at Cupertino Apartments" along Olivewood Street and Rosewood Road. The closest of these receptors are approximately 10 feet from the Valley Water ROW (and project site).
- Single-family residences on N Portal Avenue; the closest of these receptors are approximately 10 feet from the Valley Water ROW (and project site).
- Single-family residences on Drake Drive; the closest of these receptors are approximately 20 feet from the Valley Water ROW (and project site).
- Multi-family residential receptors at the "Main Street Cupertino Lofts", at the corner of Vallco Parkway and Main Street Driveway, approximately 150 feet southwest of the I-280 East alignments' eastern terminus.

3.13.2 Regulatory Setting

State Regulations

California Department of Transportation

The California Department of Transportation' (Caltrans) *Transportation and Construction Vibration Guidance Manual* provides a summary of vibration criteria that have been reported by researchers, organizations, and governmental agencies (Caltrans, 2018). Chapters six and seven of this manual summarize vibration detection and annoyance criteria from various agencies and provide criteria for evaluating potential vibration impacts on buildings and humans from transportation and construction projects. These criteria are summarized in Table 3-6 and Table 3-7.

Table 3-6: Caltrans' Vibration Criteria for Building Damage		
Structural Integrity	**Maximum PPV (in/sec)**	
	Transient	**Continuous**
Historic and some older buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial and commercial structures	2.00	0.50
Source: Caltrans, 2018		

Table 3-7: Caltrans' Vibration Criteria for Human Response		
Human Response	**Maximum PPV (in/sec)**	
	Transient	**Continuous**
Barely perceptible	0.035	0.012
Distinctly perceptible	0.24	0.035
Strongly perceptible	0.90	0.10
Severely perceptible	2.00	0.40
Source: Caltrans, 2018		

Local Regulations

General Plan

The Health and Safety Element of the City's General Plan includes goals, policies, and strategies to ensure that the community continues to enjoy a high quality of life through reduced noise pollution, effective project design and noise management operations. The following goals, policies, and strategies from the General Plan apply to the Master Plan:

- *Goal HS-8*. Minimize noise impacts on the community and maintain a compatible noise environment for existing and future land use.
- *Policy HS-8.3 Construction and Maintenance Activities.* Regulate construction and maintenance activities. Establish and enforce reasonable allowable periods of the day, during weekdays, weekends and holidays for construction activities. Require construction contractors to use the best available technology to minimize excessive noise and vibration from construction equipment such as pile drivers, jack hammers, and vibratory rollers.
- *Policy HS-8.5 Neighborhoods.* Review residents' needs for convenience and safety and prioritize them over the convenient movement of commute or through traffic where practical.

Municipal Code

The City's Municipal Code sets forth the following requirements that may be relevant to the proposed project:

- Chapter 10.48, Community Noise Control
  - Section 10.48.010, Definitions, defines "Noise disturbance" as any sound which:
    1. Endangers or injures the safety or health of humans or animals; or

2. Annoys or disturbs a reasonable person of normal sensitivities; or
3. Endangers or damages personal or real property.

- Section 10.48.040, Daytime and Nighttime Maximum Noise Levels, sets forth that individual noise sources, or groups of noise sources, shall not produce a noise level that exceeds the levels set forth in Table 3-8. (It should be noted that the Municipal Code does not establish noise levels for trails).

Table 3-8: Daytime and Nighttime Maximum Noise Levels		
Land Use at Point of Origin	**Maximum Noise Level**	
	Daytime	**Nighttime**
Residential	60 dBA	50 dBA
Nonresidential	65 dBA	55 dBA
Source: Section 10.48.040 of the City Municipal Code (City of Cupertino, 2022)		

- Section 10.48.050, Brief Daytime Incidents, sets forth that during the daytime period only, brief noise incidents exceeding the limits in Chapter 10.48 are allowed providing that the sum of the noise duration in minutes plus the excess noise level does not exceed twenty in a two-hour period, as shown in Table 3-9.

Table 3-9: Brief Daytime Noise Incident Levels	
Noise Increment Above Normal Standard	**Noise Duration in 2-Hour Period**
5 dBA	15 minutes
10 dBA	10 minutes
15 dBA	5 minutes
19 dBA	1 minute
Source: Section 10.48.050 of the City Municipal Code (City of Cupertino, 2022)	

- Section 10.48.051, Landscape Maintenance Activities, sets forth that the use of motorized equipment for landscape maintenance activities for public schools, public and private golf courses, and public facilities is limited to the hours of 7 AM to 8 PM on weekdays and 7 AM to 6 PM on weekends and holidays. The section also states that the use of motorized equipment for landscape maintenance activities is exempt from the noise limits set forth in Section 10.48.040 (see Table 3.13-4) provided reasonable efforts are made by the user to minimize disturbances to nearby residents by, for example, installation of appropriate mufflers or noise baffles, running equipment only the minimal period necessary, and locating equipment so as to generate minimum noise levels on adjoining properties.
- Section 10.48.053, Grading, Construction, and Demolition sets forth standards for construction-related noise:

1. Grading, construction and demolition activities shall be allowed to exceed the noise limits of Section 10.48.040 during daytime hours (7 AM to 8 PM on weekdays and

9 AM to 6 PM on weekends) provided that the equipment utilized has high-quality noise muffler and abatement devices installed and in good condition, and the activity meets one of the following two criteria: 1) No individual device produces a noise level more than 87 dBA at a distance of 25 feet; or 2) The noise level on any nearby property does not exceed 80 dBA.

2. Grading, street construction, demolition, and underground utility work are prohibited within 750 feet of a residential area on weekends, holidays, and during the nighttime period (8 PM to 7 AM on weekdays and 6 PM to 9 AM on weekends). This restriction does not apply to emergency work activities as defined by Section 10.48.030 of the Municipal Code.
3. Construction, other than street construction (and certain emergency work activities), is prohibited on holidays.
4. Construction, other than street construction (and certain emergency work activities) is prohibited during nighttime periods unless it meets the nighttime standards in Section 10.48.040 (see Table 3.13-4).

- Chapter 13.04, Parks
  - Section 13.04.190, Closing Hours – Prohibitions, states that no person shall remain, stay, or loiter in any public park between the hours of 10 PM and 6 AM, unless otherwise posted at the public park.

3.13.3 Impact Discussion

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 in other applicable local, state, or federal standards?

Less than Significant Impact with Mitigation Incorporated. Implementation of the proposed project would result in construction noise as the trail segments are developed and operational noise from people recreating along the new trail segments. As described below, the project would not generate substantial temporary or permanent increase in ambient noise levels that would be in excess of applicable standards. This impact would be less than significant after the implementation of Mitigation Measure NOI-1.

<u>Construction Noise</u>

The proposed project consists of developing approximately 1.68 miles of trail. The first segment, I-280 East, would be approximately 0.53 miles long, be initiated in December 2022, and take approximately 100 working days (or slightly less than half a year of cumulative time) to construct. The second segment, I-280 Central, would be approximately 1.15 miles long, be initiated in March 2024, and take approximately 150 working days (or slightly more than half a year of cumulative time) to construct. The project would result generate construction noise from on-road construction vehicles (e.g., haul trucks, concrete deliveries, and other vendor deliveries) and heavy-duty off-road construction equipment (e.g., bulldozers, backhoes, etc.). These construction activities would temporarily increase noise levels at properties adjacent to construction; however, the noise levels received at receptor locations would not be the same day after day, because construction equipment would be required to operate at various points along the trail segments. Typical noise levels that could be generated by equipment at the site are presented below in Table 3-10.

As shown in Table 3-10, the worst case Leq and Lmax construction equipment noise levels associated with the project are predicted to be approximately 82 and 85 dBA, respectively, at 50 feet (e.g., noise levels associated with the operation of a bulldozer). When two or more pieces of equipment are operating in close proximity, construction noise levels could be approximately 85 dBA Leq and 88 dBA Lmax at a distance of 50 feet. At distances closer than 50 feet (e.g., 15 feet – the approximate closest distance between construction equipment and receptor locations) noise levels from a single piece of equipment could approach 91 dBA.[6] These are considered to be worst-case noise levels, as the actual magnitude of the project's temporary and periodic increase in ambient noise levels would depend on the nature of the construction activity (e.g., site preparation, excavation, grading, etc.) and the distance between the construction activity and receptor areas. As noted before, due to the nature of construction activities equipment would move along the various trail segments and not expose the same receptor to elevated noise levels day after day.

Table 3-10: Typical Construction Equipment Noise Levels

Equipment	Noise Level at 50 feet (Lmax)(A)	Percent Usage Factor(B)	Predicted Equipment Noise Levels (Leq)(C)					
			50 Feet	100 Feet	150 Feet	200 Feet	250 Feet	300 Feet
Backhoe	80	40	76	70	66	64	62	60
Bulldozer	85	40	81	75	71	69	67	65
Crane	85	16	77	71	67	65	63	61
Pneumatic tools	85	50	82	76	72	70	68	66
Delivery Truck	85	40	81	75	71	69	67	65
Vibratory Roller	80	20	73	67	63	61	59	57

Sources: Caltrans, 2013; FHWA, 2010

(A) L_{max} noise levels based on manufacturer's specifications.

(B) Usage factor refers to the amount (percent) of time the equipment produces noise over the time period

(C) Estimate does not account for any atmospheric or ground attenuation factors. Calculated noise levels based on Caltrans, 2009: L_{eq} (hourly) = L_{max} at 50 feet – 20log (D/50) + 10log (UF), where: L_{max} = reference L_{max} from manufacturer or other source; D = distance of interest; UF = usage fraction or fraction of time period of interest equipment is in use.

Section 10.48.053 of the City's Municipal Code exempts construction noise from the noise limits defined in Section 10.48.040 if activities occur during daytime hours (7:00 AM to 8:00 PM on weekdays and 9:00 AM to 6:00 PM on weekends), provided that the equipment utilized has high-quality noise muffler and abatement devices installed and are in good condition. Activities associated with grading and water utility work (for irrigation) that would occur within 750 feet of residential areas also would not be allowed to occur on Saturdays, Sundays, holidays, or nighttime hours consistent with the provisions of Municipal Code Section 10.48.053(B). The construction activities also need to meet the following two criteria:

1) No individual device shall produce noise levels exceeding 87 dBA at a distance of 25 feet; or
2) The noise level measured at any nearby property shall not exceed 80 dBA.

Based on construction equipment information available from Caltrans, default heavy-duty off-road construction equipment available on the market may generate noise levels of 87 dBA at a distance

[6] Although the project site would be as close as 10 feet from receptor locations, equipment would be required to operate further into the site (i.e., toward the center of the proposed trail) due to site constraints.

of 25 feet.[7] The City would implement Mitigation Measure NOI-1 to ensure compliance with Municipal Code Section 10.48.053 and further reduce the potential for construction noise to adversely affect receptors in proximity of the proposed trail segments.

Impact NOI-1: The proposed project could result in the generation of a substantial temporary noise increase in ambient noise levels in the vicinity of the project during construction that would be in excess of standards established in the City's General Plan and/or Municipal Code.

Mitigation Measure NOI-1: The following shall be incorporated in all grading and construction plans: Construction hours shall be limited to the hours between 7:00 AM and 5:00 PM on weekdays, and 9:00 AM and 4:00 PM on weekends. This is more restrictive of the Municipal Code requirements which restrict construction activities to the daytime hours of 7:00 AM and 8:00 PM on weekdays, and 9:00 AM to 6:00 PM on weekends. Further, grading activities and underground utility work (e.g., water infrastructure for irrigation) that occur within 750 feet of a residential area shall not occur on Saturdays, Sundays, holidays, or during the nighttime period, consistent with the provisions of Municipal Code Section 10.48.053(B). In addition, the construction crew shall adhere to the following best management practices shall be observed:

- At least 30 days prior to the state of any construction or grading activities, all off-site businesses and residents within 300 feet of construction activities shall be notified of the planned construction activities. The notification shall include a brief description of the project, the activities that would occur, the hours when activity would occur, and the construction period's overall duration. The notification shall include the telephone numbers of the contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. Such notification is required per the Special Provisions in the Project Manual prepared by the City and included as part of the construction documents for the project.
- The City and/or its construction contractors shall prepare a Construction Noise Control Plan that demonstrates equipment used for the project will comply with the City's performance standard of 87 dBA at a distance of 25 feet, as provided for in Municipal Code Section 10.48.053(A)(1). Such documentation may include, but is not limited to, manufactures cut sheets for the equipment that will be used for construction activities demonstrating that the equipment would meet the performance standards and/or the equipment has been equipped with a muffler that would reduce noise generated by the equipment to a level that is lower than 87 dBA at a distance of 25 feet. The Construction Noise Plan shall also contain the following measures, at a minimum, to further reduce the potential for construction noise to adversely affect receptors in proximity of construction activities. These measures will be implemented by the on-site Construction Manager, Manager's designated contractors, contractor's representatives, or other appropriate personnel:
    - At least 10 days prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, which includes permitted construction days and hours, as well as the telephone numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. If the

[7] This estimated noise level can be calculated using the equation provided in footnote (C) of Table 3-10.

authorized contractor's representative receives a complaint, he/she will investigate, take appropriate corrective action, and report the action to the City.

- During the entire active construction period, equipment and trucks used for project construction will utilize the best available noise control techniques (e.g., improved mufflers, equipment re-design, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds), wherever feasible.
- Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.
- Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.
- During the entire active construction period, stationary noise sources (e.g., generators) shall be located as far from sensitive receptors as possible, and they will be muffled and enclosed within temporary sheds, or insulation barriers or other measures will be incorporated to the extent feasible.
- Haul routes shall be identified and utilized that avoid the greatest amount of sensitive use areas.
- Signs will be posted at the job site entrance(s), within the on-site construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All other equipment shall be turned off if not in use for more than five minutes.
- During the entire active construction period and to the extent feasible, the use of noise producing signals, including horns, whistles, alarms, and bells shall be for safety warning purposes only. The construction equipment shall use smart back-up alarms that adjust the alarm level based on the background noise level or switch off back-up alarms and replace with human spotters in compliance with all safety requirements and laws.

Implementation of Mitigation Measure NOI-1 would ensure compliance with applicable noise standards adopted by the City and minimize the potential for construction noise to result in disruption and annoyance. Project construction would also last less than a year for both trail segments, and not expose the same receptors to elevated construction noise for prolonged periods of time (e.g., weeks). Given the above, construction noise associated with the project would be less than significant.

Operational Noise

Once operational, the proposed trail segments would provide space for active recreation. Activities along the proposed trail segments would include bicycling, walking, and jogging. Noise levels generated by activity along the trail would be minimal. Typical noise levels generated by people talking or laughing would range from 50 to 55 dBA at 20 feet. The loudest noise sources would include warning whistles or bells from bicycles or a person shouting, which would typically range from 65 to 70 dBA at 20 feet. As described in the Environmental Setting (see discussion related to Table 3-4 and Table 3-5) noise levels in proximity of the proposed trail segments are already elevated. The passing and temporary noise sources that could occur from use of the proposed trail would not have a material effect on long-term ambient noise levels in proximity of the trail. Furthermore, any landscaping and/or maintenance activities required for the trail would

be required to comply with Municipal Code Section 10.48.051. This impact would be less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. The potential for groundborne vibration is typically greatest when vibratory or large equipment such as rollers, impact drivers, or bulldozers are in operation. For the proposed project, the largest earthmoving equipment are anticipated to operate primarily during the site preparation, excavation, and grading phases. The overall use of heavy-duty earthmoving equipment would be relatively limited, with a bulldozer and roller operating for 15 out of the 100 days for East and 20 out of the 150 days for Central. Over the length of 0.53 and 1.15 miles for East and Central, respectively, these pieces of equipment would not operate in the same place for extended periods of time. These pieces of equipment would, at worst case, operate at a receptor location for a few hours out of the entirety of project construction.

Table 3-11 lists the typical vibration levels generated by the type of heavy-duty construction equipment most likely to be used during project construction, as well as the estimated vibration levels at distances of 15 feet and 25 feet from the project site.

As shown in Table 3-11, construction equipment vibration levels for the operation of a vibratory roller at 15 feet would generate groundborne vibration of 0.368 in/sec PPV, which would be "distinctly perceptible" based on Caltrans' vibration detection criteria (0.24 in/sec PPV; see Table 3-7). This is not considered to be excessive, because any equipment operation near property lines would be short in duration and intermittent (lasting less than an hour in work areas closest to building locations). Furthermore, these vibration levels are estimated based on receptor location to the nearest project boundary. In actuality, equipment would move along the trail segment and therefore the ability for vibration to be felt at any one location would be limited. As required by Mitigation Measure NOI-1, receptors in proximity of the project site would be required to be notified prior to construction activities occurring in their proximity. Construction activities would only occur during the daytime hours, consistent with Municipal Code Section 10.48.053, meaning that potential vibration would not be felt during more sensitive times of the day (i.e., early morning and evening). Groundborne vibration from construction also would not cause damage to adjacent structures (i.e., older, or newer residential structures – 0.5 and 1.0 in/sec PPV, respectively – or modern industrial/commercial structures – 2.00 in/sec PPV). As such, short-term, intermittent construction equipment vibration levels would not be excessive.

Table 3-11: Potential Groundborne Vibration Levels

Equipment	Peak Particle Velocity[(A)] (Inches/Second) at Distance	
	15 Feet	**25 Feet**
Vibratory Roller	0.368	0.21
Small Bulldozer	0.053	0.03
Loaded Truck	0.133	0.076

Sources: Caltrans 2013 and FTA 2006.
(A) Estimated PPV calculated as: PPV(D)=PPV(ref*(25/D^1.3 where PPV(D)= Estimated PPV at distance; PPVref= Reference PPV at 25 ft; D= Distance from equipment to receiver; and n= ground attenuation rate (1.3 for competent sands, sandy clays, silty clays, and silts).

Once operational, the proposed project would result in the operation of sources that would generate substantial groundborne vibration levels. This impact would be less than significant.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport

or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. There are no public or private airports in the City of Cupertino. The nearest airport, San José International Airport, is located approximately five (5) miles east-northeast of the project site. The project would not people recreating along the proposed trail segments to excessive aircraft noise levels. No impact would occur.

3.13.4 References

California Department of Transportation (Caltrans) 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol.* Sacramento, California. September 2013.

2018. *Transportation and Construction Vibration Guidance Manual*. Sacramento, California. April 2018.

City of Cupertino. 2020. Cupertino General Plan: Community Vision 2015-2040 (General Plan). Adopted October. Amended March 3, 2020 by Ordinance Number CC 20-006.

2022. Municipal Code. Chapter 10.48: Community Noise Control. Web: https://codelibrary.amlegal.com/codes/cupertino/latest/cupertino_ca/0-0-0-85884 Accessed February 22, 2022.

U.S. Federal Highway Administration (FHWA) 2010. "Construction Noise Handbook, Chapter 9 Construction Equipment Noise Levels and Ranges." *U.S. Department of Transportation FHWA*. August 24, 2017. Accessed April 1, 2018 at: http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm

U.S. Federal Transit Administration (FTA) 2006. *Transit Noise and Vibration Assessment*. FTA-VA-90-1003-06. Washington, DC. May 2006.

3.14 POPULATION AND HOUSING

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

3.14.1 Environmental Setting

Based on information from the U.S. Census Bureau, the City of Cupertino population was estimated to be approximately 60,381 in 2020 (U.S. Census Bureau 2020). The average number of persons per household in Cupertino in 2019 was 2.85. Approximately 24,490 jobs were provided within the City of Cupertino in 2010, and ABAG Projections 2040 shows a projected increase to 37,980 jobs by the year 2040 (ABAG/MTC 2017).

3.14.2 Regulatory Setting

<u>State</u>

Housing-Element Law

State requirements mandating that housing be included as an element of each jurisdiction's general plan is known as housing-element law. The Regional Housing Need Allocation (RHNA) is the state-mandated process to identify the total number of housing units (by affordability level) that each jurisdiction must accommodate in its housing element. California housing-element law requires cities to 1) zone adequate lands to accommodate its RHNA; 2) produce an inventory of sites that can accommodate its share of the RHNA; 3) identify governmental and non-governmental constraints to residential development; 4) develop strategies and a work plan to mitigate or eliminate those constraints; and 5) adopt a housing element and update it on a regular basis.

<u>Regional</u>

Plan Bay Area 2040

Plan Bay Area 2040 is a long-range transportation, land-use, and housing plan intended support a growing economy, provide more housing and transportation choices, and reduce transportation-related pollution and GHG emissions in the Bay Area. Plan Bay Area 2040 promotes compact, mixed-use residential and commercial neighborhoods near transit, particularly within identified

PDAs. ABAG allocates regional housing needs to each city and county within the nine-county San Francisco Bay Area, based on statewide goals. ABAG also develops forecasts for population, households, and economic activity in the Bay Area. ABAG, MTC, and local jurisdiction planning staff created the Regional Forecast of Jobs, Population, and Housing, which is an integrated land use and transportation plan through the year 2040 (upon which Plan Bay Area 2040 is based).

3.14.3 Impact Discussion

Would the project:

a) **Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

b) **Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

No Impact. (Responses a – b). The project would construct trail segments for pedestrian and cyclist use in a Valley Water right-of way along the Junipero Serra Channel and Calabazas Creek. The proposed trail would not include any facilities that would induce job population growth, either directly or indirectly.

The proposed trail alignment is located along Valley Water right-of-way; therefore, the project would not remove any existing housing or people. No impact would occur.

3.14.4 References

Association of Bay Area Governments (ABAG)/Metropolitan Transportation Commission (MTC). 2017. Plan Bay Area 2040. July 26, 2017.

U.S. Census Bureau. 2020. QuickFacts. Cupertino city, California. Accessed February 14, 2022 at https://www.census.gov/quickfacts/fact/table/cupertinocitycalifornia/PST045221.

3.15 PUBLIC SERVICES

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

3.15.1 Environmental Setting

Fire Protection

Fire protection services for the project area are provided by the Santa Clara County Fire Department. The Santa Clara County Fire Department provides fire suppression, emergency medical and fire marshal services, hazardous materials regulation and response, rescue and extrication, public education, and fire investigation services in the City of Cupertino (City of Cupertino 2020). The closest station to the proposed trail alignment is Cupertino Fire Station #1, located approximately 0.72 miles south of the site.

Police Protection

Police protection services for the project area are provided by the Santa Clara County Sheriff's Office, West Valley Division, located at 1601 South De Anza Boulevard (City of Cupertino 2020). The West Valley Division provides routine law enforcement and community-oriented services to the City of Cupertino. There are 28 deputies allocated to the City of Cupertino.

Schools

The project area is located in the Cupertino Union School District. The school district operates 21 elementary schools and seven middle schools (City of Cupertino 2020). The site is also within the Fremont Union High School District, which operates five high schools.

Parks

The City of Cupertino owns or manages approximately 224 acres of parks, trails, creek corridors, sports fields, and recreation facilities at 32 sites located throughout the City. Recreational opportunities include community parks, neighborhood parks, special use sites, trail corridors, and school fields managed by the City. There are also a number of Santa Clara County and regional open space parks along the Montebello foothills and Santa Cruz Mountains within the City's sphere of influence; County and regional facilities also provide recreation opportunities for Cupertino residents.

Other Public Facilities

The Cupertino Civic Center complex (Cupertino Library, Community Hall, City Hall, and Library Field) is located approximately one mile south of the proposed Central segment.

3.15.2 Regulatory Setting

Local

Cupertino Parks and Recreation System Master Plan

The 2020 Cupertino Parks and Recreation Master Plan creates a cohesive strategy to guide future development, renovation, and management of City parks, recreation facilities, and trails. The Master Plan provides direction for the City as it improves and enhances the City's parks through the year 2040. The Master Plan was developed after an extensive public engagement process that helped assess community needs and goals while identifying opportunities to meet those needs in the future. The Master Plan includes the implementation of the Cupertino Loop Trail over the next two to four years. As discussed previously, the Loop Trail would include the I-280Trail segments.

Cupertino Bicycle Transportation Plan

In June 2016, the City Council adopted the 2016 Bicycle Transportation Plan. The Plan is a long-range planning document designed to encourage bicycling as a safe, practical, and healthy alternative to motor vehicles. It addresses present and future needs of the bicycling community, lays the groundwork for grant funding eligibility for bicycle projects, and is in close alignment with the goals set by the Cupertino Bicycle Pedestrian Commission to significantly increase the attractiveness and safety of bicycling throughout the City, with a particular focus on safe connectivity to schools. A goal of the Cupertino Bicycle Transportation Plan that relates to the project is as follows:

- Goal 3: Increase and improve bicycle access to community destinations across the City of Cupertino for all ages and abilities.

The Plan recommended a series of Class I shared use paths. When joined together with low-stress on-street facilities, this would form the "Cupertino Loop Trail", providing access around Cupertino, largely separated from vehicle traffic. This network would support recreational riders and long-range bicycle trips. The I-280Trail would form a segment of the Loop Trail.

Cupertino Pedestrian Transportation Plan

To encourage walking as a viable way to get around Cupertino, the City Council adopted the 2018 Pedestrian Transportation Plan in February 2018. The Plan outlines physical improvements to the City that will provide improved access for all ages and abilities. The following goals of the plan apply to the project:

- Goal 1: Improve pedestrian safety and reduce the number and severity of pedestrian-related collisions, injuries, and fatalities.
- Goal 2: Increase and improve pedestrian access to community destinations across the City of Cupertino for people of all ages and abilities.
- Goal 3: Continue to develop a connected pedestrian network that fosters an enjoyable walking experience.

The Plan identifies the "I-280 Channel Trail" as a Tier I project that would benefit pedestrians.

3.15.3 Impact Discussion

Would the project:

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i) Fire protection?

Less than Significant Impact. The project would draw users to the site, which does not currently allow public access. As a result, the project may slightly increase the need for fire protection services. The project would be designed in accordance with current fire codes and would provide for emergency access to the trail alignment. The project would not require the construction of new fire stations. The project's impact on fire protection services would be less than significant.

ii) Police?

Less than Significant Impact. The project would draw users to the site, which does not currently allow public access. As a result, calls for emergency services may increase, thereby increasing the need for police services, though only marginally. The project would not require the construction of new police facilities. The project's impact on police services would be less than significant.

iii) Schools?

No Impact. The project does not include housing and would not induce population growth; therefore, the project would not increase the demand for school services.

iv) Parks?

Less than Significant Impact. The project would potentially decrease existing demand on City trails facilities by providing new trail facilities. The project may increase the use of local parks and amenities in the area due to improved access to these facilities, including through an addition to the planned Loop Trail. It is not anticipated that the project would increase recreational use to the extent that new facilities would be needed. Therefore, the project's impact on parks would be less than significant.

v) Other public facilities?

Less than Significant Impact. The project may increase the use of public facilities in the vicinity be improving pedestrian and cycling access to these facilities. It is not anticipated that the project would increase use of public facilities to the extent that new facilities would be needed. Therefore, the project's impact on other public facilities would be less than significant.

3.15.4 References

City of Cupertino. 2020. Initial Study/Mitigated Negative Declaration Regnart Creek Trail. February 2020. Prepared in consultation with David J. Powers & Associates.

3.16 RECREATION

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

3.16.1 Environmental Setting

The City of Cupertino owns or manages approximately 224 acres of parks, trails, creek corridors, sports fields, and recreation facilities at 32 sites located throughout the City (City of Cupertino 2022). Recreational opportunities include community parks, neighborhood parks, special use sites, trail corridors, and school fields managed by the City. There are also a number of Santa Clara County and regional open space parks along the Montebello foothills and Santa Cruz Mountains within the City's sphere of influence; County and regional facilities also provide recreation opportunities for Cupertino residents.

3.16.2 Regulatory Setting

<u>State</u>

Government Code Section 66477

The Quimby Act (included within Government Code Section 66477) requires local governments to set aside parkland and open space for recreational purposes. It provides provisions for the dedication of parkland and/or payment of fees in lieu of parkland dedication to help mitigate the impacts from new residential developments. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions to dedicate parks, pay a fee in lieu of parkland dedication, or perform a combination of the two.

<u>Local</u>

City of Cupertino General Plan

The Cupertino General Plan: Community Vision 2015 - 2040 (2014) sets the City's policy direction in a number of areas including land use, mobility, housing, open space, infrastructure, public health and safety, and sustainability. Policies from the General Plan's Environmental Resources and Sustainability Element and Recreation, Parks, and Community Service Element that are relevant to the proposed project include:

Policy ES-7.5: Groundwater Recharge Sites. Support the Santa Clara Valley Water District efforts to find and develop groundwater recharge sites within Cupertino and provide public recreation where possible.
Policy RPC-2.1: Parkland Acquisition. The City's parkland acquisition strategy should be based upon three broad objectives:

- Distributing parks equitably throughout the City;
- Connecting and providing access by providing paths, improved pedestrian and bike connectivity and signage; and
- Obtaining creek lands and restoring creeks and other natural open space areas, including strips of land adjacent to creeks that may be utilized in creating buffer areas, trails and trail amenities.

Policy RPC-2.3: Parkland Distribution. Strive for an equitable distribution of parks and recreational facilities throughout the City. Park acquisition should be based on the following priority list. Accessibility to parks should be a component of the acquisition plan.

- High Priority: Parks in neighborhoods or areas that have few or no park and recreational areas.
- Medium Priority: Parks in neighborhoods that have other agency facilities such as school fields and district facilities, but no City parks.
- Low Priority: Neighborhoods and areas that have park and recreational areas which may be slightly less than the adopted City's park land standard.
- Private Development: Consider pocket parks in new and renovated projects to provide opportunities for publicly-accessible park areas.

Policy RPC-2.4: Connectivity and Access. Ensure that each home is within a half-mile walk of a neighborhood park or community park with neighborhood facilities; ensure that walking and biking routes are reasonably free of physical barriers, including streets with heavy traffic; provide pedestrian links between parks, wherever possible; and provide adequate directional and site signage to identify public parks.

Policy RPC-2.5: Range of Park Amenities. Provide parks and recreational facilities for a variety of recreational activities.

Policy RPC-4.1: Recreational Intensity. Design parks appropriately to address the facility and recreational programming required by each special area and neighborhood based on current and future plans for the areas.

Policy RPC-5.1: Open Space and Trail Linkages. Dedicate or acquire open space land along creeks and utility through regional cooperation, grants and private development review.

Policy RPC-5.2: Pedestrian and Bicycle Paths. Develop a citywide network of pedestrian and bicycle pathways to connect employment centers, shopping areas and neighborhoods to services including parks, schools, libraries and neighborhood centers.

Policy RPC-7.1: Sustainable Design. Ensure that City facilities are sustainably designed to minimize impacts on the environment.

Policy RPC-7.3: Maintenance. Design facilities to reduce maintenance and ensure that facilities are maintained and upgraded adequately.

Cupertino Parks and Recreation System Master Plan

The 2020 Cupertino Parks and Recreation Master Plan creates a cohesive strategy to guide future development, renovation, and management of City parks, recreation facilities, and trails. The Master Plan provides direction for the City as it improves and enhances the City's parks through the year 2040. The Master Plan was developed after an extensive public engagement process that helped assess community needs and goals while identifying opportunities to meet those needs in the future. The Master Plan includes the implementation of the Cupertino Loop Trail over the next two to four years. As discussed previously, the Loop Trail would include the I-280 Trail segments.

Cupertino Bicycle Transportation Plan

In June 2016, the City Council adopted the 2016 Bicycle Transportation Plan. The Plan is a long-range planning document designed to encourage bicycling as a safe, practical, and healthy alternative to motor vehicles. It addresses present and future needs of the bicycling community, lays the groundwork for grant funding eligibility for bicycle projects, and is in close alignment with the goals set by the Cupertino Bicycle Pedestrian Commission to significantly increase the attractiveness and safety of bicycling throughout the City, with a particular focus on safe connectivity to schools. A goal of the Cupertino Bicycle Transportation Plan that relates to the project is as follows:

- Goal 3: Increase and improve bicycle access to community destinations across the City of Cupertino for all ages and abilities.

The Plan recommended a series of Class I shared use paths. When joined together with low-stress on-street facilities, this would form the "Cupertino Loop Trail", providing access around Cupertino, largely separated from vehicle traffic. This network would supports recreational riders and long-range bicycle trips. The I-280 Trail would form a segment of the Loop Trail.

Cupertino Pedestrian Transportation Plan

To encourage walking as a viable way to get around Cupertino, the City Council adopted the 2018 Pedestrian Transportation Plan in February 2018. The Plan outlines physical improvements to the City that will provide improved access for all ages and abilities. The following goals of the plan apply to the project:

- Goal 1: Improve pedestrian safety and reduce the number and severity of pedestrian-related collisions, injuries, and fatalities.

- Goal 2: Increase and improve pedestrian access to community destinations across the

City of Cupertino for people of all ages and abilities.

- Goal 3: Continue to develop a connected pedestrian network that fosters an enjoyable walking experience.

The Plan identifies the "I-280 Channel Trail" as a Tier I project that would benefit pedestrians.

3.16.3 Impact Discussion

Would the project:

a) Increase the use of existing neighborhood or regional parks or other recreational facilities such that significant physical deterioration of the facility would occur or be accelerated?

Less than Significant Impact. The project consists of the development of two trail segments within an existing Valley Water right-of-way along the Junipero Serra Channel and Calabazas Creek. The proposed project would not induce population growth (see Response 3.14.3a); therefore, it would not substantially increase the use of existing neighborhood and regional parks or other recreational facilities. However, by improving pedestrian and bicycle access to local parks and amenities in the site vicinity, the project may marginally increase the use of nearby parks and recreation facilities. The project may also alleviate demand at existing trail facilities in the area by adding a new pedestrian and cycling path. The potential small increase in use of City parks and recreational facilities would not result in substantial physical deterioration of these facilities.

b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less than Significant Impact. The project includes the construction of two new I-280 Trail segments (Central and East), which would become a segment of the Loop Trail. Construction of the two trail segments would occur in a Valley Water right-of-way adjacent to the Junipero Serra Channel and Calabazas Creek. Construction of the project could potentially have adverse physical effects on the environment, as discussed throughout this Initial Study. However, project compliance with the standard design and construction measures contained in Table 2-2 and Mitigation Measures presented in this Initial Study, any potentially significant environmental impacts would be reduced to less than significant. As such, the project would not have an adverse physical effect on the environment through construction of new trail facilities.

3.16.4 References

City of Cupertino. 2014. Cupertino General Plan: Community Vision 2015 – 2040. February 7, 2022.

2016. City of Cupertino 2016 Bicycle Transportation Plan. June 2016.

2018. City of Cupertino Pedestrian Transportation Plan. February 2018.

2020. Initial Study/Mitigated Negative Declaration Regnart Creek Trail. February 2020. Prepared in consultation with David J. Powers & Associates.

3.17 TRANSPORTATION

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

A Trail Access Analysis was prepared by Hexagon Transportation Consultants (February 2022) for this project. Relevant information from this report has been incorporated into the project description and below and is included as Appendix D.

3.17.1 Environmental Setting

Regional access is to the project site is provided by I- 280 and State Route 85. I- 280 is an eight-lane freeway aligned in an east-west direction in the vicinity of the site. Site access to and from I-280 is provided by North De Anza Boulevard and North Wolfe Road interchanges. State Route 85 is a six-lane freeway aligned in a north-south direction in the vicinity of the project and provides access via the Stevens Creek Boulevard and South De Anza Boulevard interchanges. Local access to the site is provided by North De Anza Boulevard, Lucille Avenue, North Blaney Avenue, Perimeter Road, North Wolfe Road, Vallco Parkway, and North Tantau Avenue. The project alignment is generally aligned in an east-west direction between North De Anza Boulevard between N. De Anza Boulevard and North Tantau Avenue/Vallco Parkway.

Local bus service is provided by the Valley Transportation Authority (VTA). Several bus stops are located within 0.5 mile of the project on N. De Anza Boulevard, N. Wolfe Road, Stevens Creek Boulevard, and Perimeter Road. Bus routes in the area include buses 23, 55, 56, Rapid 523 and Express 101.

Pedestrian facilities in the project area consist primarily of sidewalks along streets. Some roads in the area including N. De Anza Boulevard, N. Wolfe Road, Stevens Creek Boulevard, and N. Blaney Avenue have marked bicycle lanes.

3.17.2 Impact Discussion

Would the project:

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

No Impact. The proposed project consists of the construction a new recreational trail primarily that is included in and consistent with the City's Pedestrian Transportation Plan and Bicycle Transportation Plan. The proposed project would reduce vehicle trips by providing a bicycle and pedestrian connection between local residential, recreational, and public facility uses. The proposed project also includes pedestrian and bicycle improvements to provide better trail access from the surrounding public street network. For these reasons, the project would not conflict with a program, plan, ordinance or policy addressing the circulation system including transit, roadway, bicycle, and pedestrian facilities.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?

Less Than Significant Impact. CEQA Guidelines Section 15064.3(b) states that transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. The project consists of the construction of a trail that would connect to other bicycle and pedestrian routes and would be expected to increase bicycle commuting and travel within the project area, thereby reducing vehicle miles traveled. Therefore, the project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b).

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

Less Than Significant Impact. The trail would be located in areas that Valley Water utilizes for maintenance of the waterways. The trail would be closed to pedestrians and bicyclists during Valley Water maintenance operations.

The project includes safety features such as railings and high visibility roadway crossings to improve safety for trail users. As previously described, the project would install curb ramps and a high visibility crosswalk at Lucille Avenue and Villa De Anza Avenue just west of the Blaney Avenue overpass, which would improve pedestrian visibility within the proposed crosswalks. Parking would be restricted on both sides of Lucille Avenue in the vicinity of the crosswalk, which would provide safe sight distances for pedestrians and drivers. The project would include Americans with Disabilities Act (ADA) ramp and curb improvements at trail intersections with local roadways. A new sidewalk, as well as a new driveway to provide access to the trail will be constructed on Blaney Avenue, and the curved section of the roadway at the trail entrance in this location will be modified to accommodate the proposed trail alignment.

d) Result in inadequate emergency access?

Less than Significant Impact. As described in Section 4.9, Hazards and Hazardous Materials, the proposed project would not interfere with emergency response access in the project area. During construction of the proposed trail, access would be restricted on Lucille Avenue and Perimeter Road. However, construction of the project would not prevent emergency vehicles from accessing the project area. The contractor will be required to prepare a Traffic Control Plan to manage traffic during construction, including pedestrian and bicyclists, and maintain access to emergency vehicles and residents' access to their homes during construction. The impact is considered less than significant.

3.17.3 References

Hexagon Transportation Consultants. 2022. Junipero Serra Trail Trailhead Access Analysis. February 3, 2022.

Valley Transportation Authority. 2022. VTA System Maps: Main Map. Accessed on February 17, 2022 at: https://www.vta.org/sites/default/files/2022-02/MainMap-021422.pdf

3.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
Cause a substantial adverse change in the significance of a tribal cultural resources, 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:				
i) 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)?	☐	☒	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	☐	☒	☐	☐

The following discussion is based on an Archaeological Resources Assessment Report prepared for the project by Basin Research Associates (Basin). A copy of the Assessment, dated January 27, 2022, is kept on file at the Cupertino Community Development Department, Planning Division, located at 10300 Torre Ave, Cupertino, California, 95014.

3.18.1 Regulatory Setting

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

Native American Heritage Commission, Public Resources Code Sections 5097.9 – 5097.991

Section 5097.91 of the Public Resources Code (PRC) established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.9 of the PRC, a state policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites or sacred shrines located on public property. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner. Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

California Native American Graves Protection and Repatriation Act of 2001

Codified in the California Health and Safety Code Sections 8010–8030, the California Native American Graves Protection Act (NAGPRA) is consistent with the federal NAGPRA. Intended to "provide a seamless and consistent state policy to ensure that all California Indian human remains and cultural items be treated with dignity and respect," the California NAGPRA also encourages and provides a mechanism for the return of remains and cultural items to lineal descendants. Section 8025 established a Repatriation Oversight Commission to oversee this process. The act also provides a process for non–federally recognized tribes to file claims with agencies and museums for repatriation of human remains and cultural items.

Assembly Bill 52

Assembly Bill (AB) 52 specifies that a project that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. AB 52 requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requests in writing to the lead agency, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project.

3.18.2 Impact Discussion

Would the project:

a) Cause a substantial adverse change in the significance of a tribal cultural resources, 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:

i) 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)?

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the

lead agency shall consider the significance of the resource to a California Native American Tribe?

a) Less Than Significant with Mitigation Incorporated. Under CEQA, a significant resource is one that is listed in a California or local historic register or is eligible to be listed. As such, lead agencies have a responsibility to evaluate such resources against the California Register criteria prior to making a finding as to a proposed project's impacts to historical resources (PRC § 21084.1, 20174, 14 CCR § 15064.5(3). It is possible for a lead agency to determine that an artifact, site, or feature is considered significant to a local tribe, without necessarily being eligible for the CRHR. A determination of such by a lead agency would make an artifact a significant resource under CEQA.

The Native American Heritage Commission (NAHC) was contacted for a review of the Sacred Lands File. Letters and/or emails were sent to the 13 knowledgeable Native American individuals/organizations identified by the NAHC, and responses were received via email from Quirina Luna Geary, Chairperson for the Tamien Nation. The Chairperson noted that there are known Tribal Cultural Resources (TCR) southwest of the project area and expressed concern that the project may impact TCRs. She recommended a Tamien Nation Tribal monitor be present during any ground disturbing actives on the west portion of the project; Tribal Cultural Sensitivity Training be given to all construction crews; and an archaeologist be retained on an on-call basis to assess any finds. As noted previously, the NAHC review of the SLF was negative for registered tribal resources. Archaeological and/or Native American monitoring was not recommended by the Basin, due to the lack of known resources within the trail alignment. However, Mitigation Measures CUL-1a and CUL-1b (see Section 3.5 Cultural Resources) require the City to retain a professional archaeologist on an on-call basis during ground disturbing construction activities to review, identify and evaluate any potential cultural resources that may be inadvertently exposed during construction, and implement a Worker Awareness Training (WAT) program for cultural resources prior to the start of ground disturbing construction activities, consistent with the Chairperson's recommendations.

The implementation of Mitigation Measures CUL-1a and CUL-1b would reduce potential impacts to TCRs to a less than significant level.

3.18.3 References

California State Parks. 2021. Office of Historic Preservation. Built Environment Resource Directory. Accessed February 16, 2022, at https://ohp.parks.ca.gov/

National Park Service. 2021. National Register of Historic Places NPGallery Database. Accessed on February 16, 2022, at https://npgallery.nps.gov/nrhp.

Basin Research Associates. Archaeological Resources Assessment Report – Junipero Serra Trail Project (East and Central Segments), City of Cupertino, Santa Clara County. January 27, 2022.

3.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

3.19.1 Environmental Setting

Water Service

The San José Water Company (SJWC) and the California Water Service Company primarily provide water service the project site vicinity (City of Cupertino 2020). The California Water Service Company also maintains the water system. The project site does not currently generate a demand for water services.

Storm Drainage

There are no structures or buildings within the proposed trail alignment. Stormwater runoff from the paved portions of the trail either percolates into the ground or flows toward the vegetated swale and overflows into existing drainage inlets.

Wastewater/Sanitary Sewer Service

The Cupertino Sanitary District provides sanitary sewer service to the project vicinity (City of Cupertino 2020). The Cupertino Sanitary District collects and transports wastewater to the San José/Santa Clara Regional Wastewater Facility (RWF) located in north San José. The Cupertino Sanitary District purchases 7.85 million gallons per day of water treatment capacity from the RWF. Approximately five million gallons of wastewater a day is generated within the Cupertino Sanitary District and conveyed to the RWF. The project site does not currently generate wastewater.

Solid Waste

Garbage and recycling collection services in the City of Cupertino are provided by Recology (City of Cupertino 2020). Solid waste collected from the City is delivered to Newby Island Sanitary Landfill (NISL). The project site does not currently generate solid waste.

3.19.2 Regulatory Setting

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.

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.

3.19.3 Impact Discussion

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 telecommunication facilities, the construction or relocation of which could cause significant environmental effects?**

Less than Significant Impact. The project includes the construction of two trail segments for pedestrian and cyclist use and associated trail amenities. The project would use water temporarily in the short-term for construction and irrigation of new landscape plantings at Lucille Avenue and Vallco Parkway trailheads. The project would not use water over the long-term, as the project does not propose water fountains, restrooms, or other plumbed water facilities.
The proposed trail consists of an asphalt path and shoulders of unpaved decomposed granite. The project would minimally increase stormwater runoff levels through the addition of impervious surfaces where there is currently bare dirt. Stormwater runoff generated on-site would drain by sheet flow into the vegetated swale and overflow into exisitng drainage inlets.

The project would not generate wastewater or use electric power, natural gas, or telecommunications facilities. The project would not require or result in the relocation or construction of new or expanded facilities.

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

Less than Significant Impact. As discussed under criterion 3.19.3 a), the project would use water temporarily for construction and irrigation purposes. The project does not propose long-term water use. Operation of the project would not result in a permanent increase in water demand.

c) **Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

No Impact. The project proposal does not include restroom facilities. The project would not generate wastewater.

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?**

Less than Significant Impact. The project would generate construction debris during the construction period. During project operation, trail users would generate solid waste. As such, the project would generate solid waste from trail cleaning and trash collection activities. Solid waste generated by the project during the construction period and operations would be disposed in

accordance with City requirements. The project would not generate solid wase in excess of local infrastructure nor would it impair attainment of solid waste reduction goals.

e) Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?

No Impact. The project would not conflict with any federal, state, or local statutes and regulations related to solid waste.

3.19.4 References

City of Cupertino. 2020. Initial Study/Mitigated Negative Declaration Regnart Creek Trail. February 2020. Prepared in consultation with David J. Powers & Associates.

3.20 WILDFIRE

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

3.20.1 Environmental Setting

The project site is located in the City of Cupertino in a fully urbanized area. The site is not located in an area designated as a very high fire hazard severity zone (CAL FIRE 2022). The nearest area with a very high fire hazard designation is located in and directly adjacent to the Fremont Older Open Space Preserve, approximately 2.35 miles south of the project site.

3.20.2 Impact Discussion

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

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

c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact (a through d). As discussed in the Environmental Setting section provided above, the project site is not located in a very high fire hazard severity zone. The nearest such zone is located over 2.35 miles to the south of the project site.

3.20.3 References

California Department of Forestry and Fire Protection (CAL FIRE). 2022. Fire Hazard Severity Zone Viewer. Accessed February 14, 2022 at https://egis.fire.ca.gov/FHSZ/.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 the incremental effects of a project are considerable when viewed in connection with the efforts 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?	☐	☒	☐	☐

3.21.1 Discussion

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant with Mitigation Incorporated. As discussed in the previous sections of this Initial Study, the proposed project would not degrade the quality of the environment with the implementation of the identified mitigation measures and Standard Permit Conditions. As discussed in Section 3.4 Biological Resources, with implementation of the identified mitigation measures (MM BIO-1a, -1b, -2a, -2b, -2c, and BIO-3) and Standard Permit Conditions, the project would not significantly impact sensitive habitats or species. As discussed in Section 3.5 Cultural Resources and Section 3.7 Geology and Soils, with implementation of the identified mitigation measures (MM CUL-1a, -1b, -2a and -2b) and Standard Permit Conditions, the project would result in a less than significant impact on archaeological, historic, and paleontological resources.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means the incremental effects of a project are considerable when viewed in connection with the efforts of past projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant Impact. 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." Using this definition, a project that has no impact in a given impact category cannot have a cumulatively considerable contribution because its contribution is zero.

The project evaluated in this Initial Study is limited to the construction of an off-street trail and bicycle and pedestrian improvements. Due to the nature of this proposed project, many types of impacts that are frequently associated with development projects (e.g., housing, offices, commercial uses, etc.) would not occur. For example, as described in Section 3 of this Initial Study, operation of the trail and bicycle and pedestrian improvements would have no adverse impacts on agriculture and forestry resources, land use, mineral resources, population and housing, and wildfire.

There are no other projects proposed or that would be under construction in the same general area as the proposed project. Therefore, short-term, construction related impacts of the project (e.g., dust, potential soil contamination, noise and vibration, nesting bird disturbance, and water quality) would not combine with the impacts of other projects and would not be cumulatively considerable Furthermore, mitigation measures and/or Standard Permit Conditions are included in the project to reduce construction-related impacts to a less than significant level.

As described in Section 3.13 Noise, the passing and temporary noise sources that could occur from use of the proposed trail would not have a material effect on long-term ambient noise levels in proximity of the trail. Because noises would be localized, intermittent, and at low levels that would not significantly affect many nearby residences, they would not be cumulatively considerable.

As described in Section 3.4 Biological Resources, the project could affect sensitive biological resources in both the short- and long-term. These impacts, however, would not result in a cumulatively significant loss of such resources, because there are no other proposed projects or projects that would be under construction in the same general area as the proposed project. In addition, the project would implement a number of measures to reduce impacts on both common and special-status species, as described in Section 3.4. Therefore, the project would not contribute to cumulative impacts on biological resources.

The project would increase the number of bicyclists and pedestrians using local bicycle and pedestrian facilities, which could increase the inherent risk due to more people on the street at any given time. However, the improvements proposed as part of the project, including improvements at road crossings and construction of a trail, would reduce the risks associated with traditional bicycle and pedestrian use.

There are no planned or proposed developments in the project area that could contribute to cumulative aesthetic, air quality, hydrology and water quality, public services, recreation, or utilities and service systems impacts. The project's archaeological and biological resources and geology and soils impacts are specific to the project alignment and would not contribute to cumulative impacts elsewhere.

The project's impacts to GHG emissions are discussed in Section 3.8, and it was concluded that the project would have a less than significant impact on GHG emissions.

Based on the discussion above, the project would not result in cumulatively considerable impacts.

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

Less Than Significant with Mitigation Incorporated. 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 construction-related air quality, hazardous materials, and noise. Implementation of mitigation measures identified in Section 3, however, would reduce these impacts to a less than significant level. No other direct or indirect adverse effects on human beings have been identified.

Chapter 4. List of Preparers

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Marc Powell – Senior Associate

I-280Trail Project

Appendix A: CalEEMod Results

Junipero Serra Trail Project
Appendix A
CalEEMod Construction Input Assumptions and Derivations: JST East
Prepared by MIG, Inc.

Table 1: Project Characteristics and Land Use Information

Construction Days	100
Length (mi)	0.7
Length (feet)	3696
Area of Disturbance (KSF)	44.4
Area of Disturbance (Acres)	1.02

Note: Area calculated based on a 12-foot-wide path

Table 2: Construction Phasing and Worker Information Provided by BKF

Phase	Weeks	Construction Workers	Worker Trips / Week
Site Prep	2	4	48
Excavation	2	4	48
Grading	4	6	144
Trail Const	8	8	384
Trailhead Imp	6	4	144
Signing and Striping	2	3	36
Landscaping	3	3	54
Total	27		858
		Avg Workers / Day	11

Notes: 1) Assumes 6 day work week.

2) Total average workers per day accounts for two (2) F-250 trucks used on site.

3) Total average workers divided by 100 total work days to derive average rate.

Table 3: Construction Equipment Information and Runtime

Equipment	Numer of Pieces	Days in Use	Daily Runtime (hrs)	Total Runtime (hrs)
Loader	1	75	8	600
Paver	1	15	8	120
Roller	1	15	8	120
End Dump Trucks	1	25	8	200
Dozer	1	15	8	120
Backhoe	1	20	8	160
Striping Machine	1	10	8	80
Power Auger	1	5	8	40
Generator	2	75	8	600

Table 4: Macro Construction Phasing for CalEEMod Input

Phase	Weeks	Days Per Week	Total Days
Grading	15	5	75
Paving	3	5	15
Architectural Coating	2	5	10

Note: Grading phase includes all non-paving phases.

Table 5: Grading Phase Equipment Assignment for CalEEMod Input

Equipment	Number of Pieces	Daily Runtime
Loader	1	8
End Dump Trucks	1	2.7
Dozer	1	1.6
Backhoe	1	2.2
Generator	1	8.0

Table 6: Paving Phase Equipment Assignment for CalEEMod Input

Equipment	Number of Pieces	Daily Runtime
Paver	1	8
Roller	1	8
Power Auger	1	2.7

Table 7: Architectural Coating Phase Equipment Assignment for CalEEMod Input

Equipment	Number of Pieces	Daily Runtime
Striping Machine	1	8

Table 8: Vendor Trip Details by Construction Phase

Phase	Vendor Trips
Grading	6
Paving	7
Architectural Coating	2

Notes: 1) Grading Phase: One (1) trip per day for water, 4 for aggregate, 1 for other materials (e.g., pipes)

2) Paving Phase: Five (5) trips per day for concrete, 2 additional trips for materials delivery (e.g., benches)

3) Architectural Coating Phase: Assumes two (2) trips per day for materials delivery (e.g., benches).

Table 9: Vendor Materials Estimates

Asphalt Required (CY)	548
Aggregate Required (CY)	2464

Note: 2" Hot Mix over 6" Class II Aggregate Base for entire length of trail segment

Table 10: Vendor Trips and Phase Assigment Based on Materials Estimates

Material	Deliveries (9 CY Trucks)	Phase	Trips Per Day
Concrete	61	Paving	5
Aggregate	274	Grading	4

Table 11: Hauling Details

Cut/ Fill	Cubic Yards	Haul trips (9 CY trucks)
Soil Cut	4928	548
Soil Fill	0	0

Note: Assumes 1 foot of excacation across area of disturbance

Junipero Serra Trail Project
Appendix A
CalEEMod Construction Input Assumptions and Derivations: JST Central
Prepared by MIG, Inc.

Table 1: Project Characteristics and Land Use Information

Construction Days	150
Length (mi)	1.2
Length (feet)	6336
Area of Disturbance (KSF)	76.0
Area of Disturbance (Acres)	1.75

Note: Area calculated based on a 12-foot-wide path

Table 2: Construction Phasing and Worker Information Provided by BKF

Phase	Weeks	Construction Workers	Workers / Week
Site Prep	2	6	72
Excavation	2	6	72
Grading	6	8	288
Trail Const	12	10	720
Struct Culv	8	6	288
Trailhead Imp	8	6	288
Signing and Striping	2	4	48
Landscaping	4	4	96
Total	44		1872
		Avg Workers / Day	17

Notes: 1) Assumes 6 day work week.

2) Total average workers per day accounts for four (4) F-250 trucks used on site.

3) Total average workers divided by 150 total work days to derive average rate.

Table 3: Construction Equipment Information and Runtime

Equipment	Numer of Pieces	Days in Use	Daily Runtime (hrs)	Total Runtime (hrs)
Loader	1	100	8	800
Paver	1	20	8	160
Roller	1	20	8	160
End Dump Trucks	1	40	8	320
Dozer	1	20	8	160
Backhoe	1	30	8	240
Striping Machine	1	10	8	80
Power Auger	1	5	8	40
Generator	2	120	8	960
Concrete Mixer	1	2	8	16
Concrete Pump	1	2	8	16
Concrete Vibrator	1	2	8	16

Table 4: Macro Construction Phasing for CalEEMod Input

Phase	Weeks	Days Per Week	Total Days
Grading	24	5	120
Paving	4	5	20
Architectural Coating	2	5	10

Note: Grading phase includes all non-paving phases.

Table 5: Grading Phase Equipment Assignment for CalEEMod Input

Equipment	Number of Pieces	Daily Runtime
Loader	1	6.7
End Dump Trucks	1	2.7
Dozer	1	1.4
Backhoe	1	2.0
Generator	1	8.0

Table 6: Paving Phase Equipment Assignment for CalEEMod Input

Equipment	Number of Pieces	Daily Runtime
Paver	1	8
Roller	1	8
Power Auger	1	2
Concrete Mixer	1	0.8
Concrete Pump	1	0.8
Concrete Vibrator	1	0.8

Table 7: Architectural Coating Phase Equipment Assignment for CalEEMod Input

Equipment	Number of Pieces	Daily Runtime
Striping Machine	1	8

Table 8: Vendor Trip Details by Construction Phase

Phase	Vendor Trips
Grading	7
Paving	8
Architectural Coating	2

Notes: 1) Grading Phase: One (1) trip per day for water, 4 for aggregate, 2 for other materials (e.g., pipes, culvert)

2) Paving Phase: Six (6) trips per day for concrete, 2 additional trips for materials delivery (e.g., benches)

3) Architectural Coating Phase: Assumes two (2) trips per day for materials delivery (e.g., benches).

Table 9: Vendor Materials Estimates

Asphalt Required (CY)	939
Aggregate Required (CY)	4224

Note: 2" Hot Mix over 6" Class II Aggregate Base for entire length of trail segment

Table 10: Vendor Trips and Phase Assigment Based on Materials Estimates

Material	Deliveries (9 CY Trucks)	Phase	Trips Per Day
Concrete	104	Paving	6
Aggregate	469	Grading	4

Table 11: Hauling Details

Cut/ Fill	Cubic Yards	Haul trips (9 CY trucks)
Cut CY	8448	939
Fill	0	0

Note: Assumes 1 foot of excacation across area of disturbance

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Junipero Serra Trail East

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	44.40	1000sqft	1.02	44,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2024
Utility Company	Silicon Valley Clean Energy				
CO2 Intensity (lb/MWhr)	2	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Phil Gleason.

Land Use - Other asphalt surface selected to reflect paved trail (0.7 mile trail at 12 foot width).

Construction Phase - Construction phasing updated to relfect project conditions; grading phase includes site prep, excavation, grading, trail const, trailhead imp, and landscaping. Signing and striping reflected paving and arch coating.

Off-road Equipment - Grading Equipment - updated to reflect the equipment that would be used for construction. Average daily runtime reflects macro-construction phase.

Off-road Equipment -

Off-road Equipment - Paving Equipment - updated to reflect the equipment that would be used for construction. Average daily runtime reflects macro-construction phase. TLB used for power auger.

Off-road Equipment - Arch Coating Equipment - updated to reflect the equipment that would be used for construction. Average daily runtime reflects macro-construction phase. Air compressor used for striping machine.

Grading - Hauling: Updated to reflect the site would have 1 foot of excavation across the entire length and width of the project site.

Trips and VMT - Trips and VMT: Average of 11 construction workers per day across 100 day (includes F-250s); vendors updated to reflect use of water trucks, material delivery, and aggregate and asphalt deliveries (9 CY truck); hauling with 9 CY truck.

Junipero Serra Trail East - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Construction Off-road Equipment Mitigation - Construction Mit: Watering two times per day, consistent with standard design and construction measures.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	200.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	4.00	75.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	2.00	0.00
tblConstructionPhase	PhaseEndDate	12/12/2022	6/10/2022
tblConstructionPhase	PhaseEndDate	11/14/2022	2/7/2022
tblConstructionPhase	PhaseEndDate	1/28/2022	1/2/2022
tblConstructionPhase	PhaseEndDate	2/7/2022	4/15/2022
tblConstructionPhase	PhaseEndDate	11/28/2022	5/6/2022
tblConstructionPhase	PhaseEndDate	2/1/2022	1/28/2022
tblConstructionPhase	PhaseStartDate	11/29/2022	5/29/2022
tblConstructionPhase	PhaseStartDate	2/2/2022	1/3/2022
tblConstructionPhase	PhaseStartDate	11/15/2022	4/16/2022
tblGrading	MaterialExported	0.00	4,928.00
tblOffRoadEquipment	OffRoadEquipmentType	Graders	Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	1.60
tblOffRoadEquipment	UsageHours	7.00	8.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	UsageHours	8.00	2.70
tblOffRoadEquipment	UsageHours	7.00	2.20
tblTripsAndVMT	HaulingTripNumber	616.00	1,096.00
tblTripsAndVMT	HaulingVehicleClass	HHDT	MHDT
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	7.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	11.00
tblTripsAndVMT	WorkerTripNumber	8.00	11.00
tblTripsAndVMT	WorkerTripNumber	4.00	11.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0534	0.4187	0.3992	1.0700e-003	0.0661	0.0182	0.0842	0.0301	0.0172	0.0474	0.0000	96.1992	96.1992	0.0141	4.2600e-003	97.8213
Maximum	**0.0534**	**0.4187**	**0.3992**	**1.0700e-003**	**0.0661**	**0.0182**	**0.0842**	**0.0301**	**0.0172**	**0.0474**	**0.0000**	**96.1992**	**96.1992**	**0.0141**	**4.2600e-003**	**97.8213**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0534	0.4187	0.3992	1.0700e-003	0.0389	0.0182	0.0571	0.0162	0.0172	0.0335	0.0000	96.1991	96.1991	0.0141	4.2600e-003	97.8212
Maximum	**0.0534**	**0.4187**	**0.3992**	**1.0700e-003**	**0.0389**	**0.0182**	**0.0571**	**0.0162**	**0.0172**	**0.0335**	**0.0000**	**96.1991**	**96.1991**	**0.0141**	**4.2600e-003**	**97.8212**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**41.13**	**0.00**	**32.26**	**46.15**	**0.00**	**29.37**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-3-2022**	**4-2-2022**	0.3527	0.3527
2	**4-3-2022**	**7-2-2022**	0.1107	0.1107
		Highest	0.3527	0.3527

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.8300e-003	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.9000e-004	7.9000e-004	0.0000	0.0000	8.5000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.8300e-003**	**0.0000**	**4.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.9000e-004**	**7.9000e-004**	**0.0000**	**0.0000**	**8.5000e-004**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.8300e-003	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.9000e-004	7.9000e-004	0.0000	0.0000	8.5000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.8300e-003**	**0.0000**	**4.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.9000e-004**	**7.9000e-004**	**0.0000**	**0.0000**	**8.5000e-004**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/3/2022	1/2/2022	5	0	
2	Site Preparation	Site Preparation	1/29/2022	1/28/2022	5	0	
3	Grading	Grading	1/3/2022	4/15/2022	5	75	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	2/8/2022	2/7/2022	5	0	
5	Paving	Paving	4/16/2022	5/6/2022	5	15	
6	Architectural Coating	Architectural Coating	5/29/2022	6/10/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7.5

Acres of Paving: 1.02

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,664 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Off-Highway Trucks	1	2.70	402	0.38
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	1.60	247	0.40
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	Tractors/Loaders/Backhoes	1	2.70	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Grading	Tractors/Loaders/Backhoes	1	2.20	97	0.37
Grading	Generator Sets	1	8.00	84	0.74

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	11.00	6.00	1,096.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	MHDT
Building Construction	7	19.00	7.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	11.00	7.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0494	0.0000	0.0494	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0332	0.3067	0.3142	6.3000e-004		0.0148	0.0148		0.0141	0.0141	0.0000	54.5733	54.5733	0.0118	0.0000	54.8683
Total	**0.0332**	**0.3067**	**0.3142**	**6.3000e-004**	**0.0494**	**0.0148**	**0.0642**	**0.0253**	**0.0141**	**0.0394**	**0.0000**	**54.5733**	**54.5733**	**0.0118**	**0.0000**	**54.8683**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9100e-003	0.0524	0.0136	2.6000e-004	0.0104	9.0000e-004	0.0113	3.1400e-003	8.6000e-004	3.9900e-003	0.0000	25.0154	25.0154	1.4000e-004	3.2800e-003	25.9971
Vendor	5.0000e-004	0.0127	3.7100e-003	5.0000e-005	1.4800e-003	1.3000e-004	1.6100e-003	4.3000e-004	1.3000e-004	5.6000e-004	0.0000	4.6668	4.6668	1.1000e-004	6.9000e-004	4.8746
Worker	1.1000e-003	8.1000e-004	9.9400e-003	3.0000e-005	3.2700e-003	2.0000e-005	3.2900e-003	8.7000e-004	2.0000e-005	8.9000e-004	0.0000	2.5703	2.5703	8.0000e-005	7.0000e-005	2.5946
Total	**4.5100e-003**	**0.0659**	**0.0273**	**3.4000e-004**	**0.0152**	**1.0500e-003**	**0.0162**	**4.4400e-003**	**1.0100e-003**	**5.4400e-003**	**0.0000**	**32.2525**	**32.2525**	**3.3000e-004**	**4.0400e-003**	**33.4664**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0222	0.0000	0.0222	0.0114	0.0000	0.0114	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0332	0.3067	0.3142	6.3000e-004		0.0148	0.0148		0.0141	0.0141	0.0000	54.5732	54.5732	0.0118	0.0000	54.8682
Total	**0.0332**	**0.3067**	**0.3142**	**6.3000e-004**	**0.0222**	**0.0148**	**0.0370**	**0.0114**	**0.0141**	**0.0254**	**0.0000**	**54.5732**	**54.5732**	**0.0118**	**0.0000**	**54.8682**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9100e-003	0.0524	0.0136	2.6000e-004	0.0104	9.0000e-004	0.0113	3.1400e-003	8.6000e-004	3.9900e-003	0.0000	25.0154	25.0154	1.4000e-004	3.2800e-003	25.9971
Vendor	5.0000e-004	0.0127	3.7100e-003	5.0000e-005	1.4800e-003	1.3000e-004	1.6100e-003	4.3000e-004	1.3000e-004	5.6000e-004	0.0000	4.6668	4.6668	1.1000e-004	6.9000e-004	4.8746
Worker	1.1000e-003	8.1000e-004	9.9400e-003	3.0000e-005	3.2700e-003	2.0000e-005	3.2900e-003	8.7000e-004	2.0000e-005	8.9000e-004	0.0000	2.5703	2.5703	8.0000e-005	7.0000e-005	2.5946
Total	**4.5100e-003**	**0.0659**	**0.0273**	**3.4000e-004**	**0.0152**	**1.0500e-003**	**0.0162**	**4.4400e-003**	**1.0100e-003**	**5.4400e-003**	**0.0000**	**32.2525**	**32.2525**	**3.3000e-004**	**4.0400e-003**	**33.4664**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2022

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2022

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2200e-003	0.0329	0.0413	6.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	5.5182	5.5182	1.7800e-003	0.0000	5.5628
Paving	1.3400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.5600e-003**	**0.0329**	**0.0413**	**6.0000e-005**		**1.7200e-003**	**1.7200e-003**		**1.5800e-003**	**1.5800e-003**	**0.0000**	**5.5182**	**5.5182**	**1.7800e-003**	**0.0000**	**5.5628**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	2.9600e-003	8.7000e-004	1.0000e-005	3.5000e-004	3.0000e-005	3.8000e-004	1.0000e-004	3.0000e-005	1.3000e-004	0.0000	1.0889	1.0889	2.0000e-005	1.6000e-004	1.1374
Worker	2.2000e-004	1.6000e-004	1.9900e-003	1.0000e-005	6.5000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5141	0.5141	2.0000e-005	1.0000e-005	0.5189
Total	**3.4000e-004**	**3.1200e-003**	**2.8600e-003**	**2.0000e-005**	**1.0000e-003**	**3.0000e-005**	**1.0400e-003**	**2.7000e-004**	**3.0000e-005**	**3.1000e-004**	**0.0000**	**1.6030**	**1.6030**	**4.0000e-005**	**1.7000e-004**	**1.6563**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2200e-003	0.0329	0.0413	6.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	5.5182	5.5182	1.7800e-003	0.0000	5.5628
Paving	1.3400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.5600e-003**	**0.0329**	**0.0413**	**6.0000e-005**		**1.7200e-003**	**1.7200e-003**		**1.5800e-003**	**1.5800e-003**	**0.0000**	**5.5182**	**5.5182**	**1.7800e-003**	**0.0000**	**5.5628**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	2.9600e-003	8.7000e-004	1.0000e-005	3.5000e-004	3.0000e-005	3.8000e-004	1.0000e-004	3.0000e-005	1.3000e-004	0.0000	1.0889	1.0889	2.0000e-005	1.6000e-004	1.1374
Worker	2.2000e-004	1.6000e-004	1.9900e-003	1.0000e-005	6.5000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5141	0.5141	2.0000e-005	1.0000e-005	0.5189
Total	**3.4000e-004**	**3.1200e-003**	**2.8600e-003**	**2.0000e-005**	**1.0000e-003**	**3.0000e-005**	**1.0400e-003**	**2.7000e-004**	**3.0000e-005**	**3.1000e-004**	**0.0000**	**1.6030**	**1.6030**	**4.0000e-005**	**1.7000e-004**	**1.6563**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.2600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3600e-003	9.3900e-003	0.0121	2.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	1.7022	1.7022	1.1000e-004	0.0000	1.7049
Total	**0.0106**	**9.3900e-003**	**0.0121**	**2.0000e-005**		**5.4000e-004**	**5.4000e-004**		**5.4000e-004**	**5.4000e-004**	**0.0000**	**1.7022**	**1.7022**	**1.1000e-004**	**0.0000**	**1.7049**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	5.6000e-004	1.6000e-004	0.0000	7.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2074	0.2074	0.0000	3.0000e-005	0.2167
Worker	1.5000e-004	1.1000e-004	1.3300e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3427	0.3427	1.0000e-005	1.0000e-005	0.3459
Total	**1.7000e-004**	**6.7000e-004**	**1.4900e-003**	**0.0000**	**5.1000e-004**	**1.0000e-005**	**5.1000e-004**	**1.4000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.5501**	**0.5501**	**1.0000e-005**	**4.0000e-005**	**0.5626**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.2600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3600e-003	9.3900e-003	0.0121	2.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	1.7022	1.7022	1.1000e-004	0.0000	1.7049
Total	**0.0106**	**9.3900e-003**	**0.0121**	**2.0000e-005**		**5.4000e-004**	**5.4000e-004**		**5.4000e-004**	**5.4000e-004**	**0.0000**	**1.7022**	**1.7022**	**1.1000e-004**	**0.0000**	**1.7049**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	5.6000e-004	1.6000e-004	0.0000	7.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2074	0.2074	0.0000	3.0000e-005	0.2167
Worker	1.5000e-004	1.1000e-004	1.3300e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3427	0.3427	1.0000e-005	1.0000e-005	0.3459
Total	**1.7000e-004**	**6.7000e-004**	**1.4900e-003**	**0.0000**	**5.1000e-004**	**1.0000e-005**	**5.1000e-004**	**1.4000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.5501**	**0.5501**	**1.0000e-005**	**4.0000e-005**	**0.5626**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.572464	0.055653	0.187060	0.115672	0.020329	0.005102	0.007934	0.006404	0.000900	0.000380	0.024412	0.000914	0.002776

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.8300e-003	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.9000e-004	7.9000e-004	0.0000	0.0000	8.5000e-004
Unmitigated	3.8300e-003	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.9000e-004	7.9000e-004	0.0000	0.0000	8.5000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	9.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.9000e-004	7.9000e-004	0.0000	0.0000	8.5000e-004
Total	**3.8400e-003**	**0.0000**	**4.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**7.9000e-004**	**7.9000e-004**	**0.0000**	**0.0000**	**8.5000e-004**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	9.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.9000e-004	7.9000e-004	0.0000	0.0000	8.5000e-004
Total	**3.8400e-003**	**0.0000**	**4.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**7.9000e-004**	**7.9000e-004**	**0.0000**	**0.0000**	**8.5000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Junipero Serra Trail Central

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	76.00	1000sqft	1.74	76,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2024
Utility Company	Silicon Valley Clean Energy				
CO2 Intensity (lb/MWhr)	2	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - MIG Modeler: Phil Gleason.

Land Use - Other asphalt surface selected to reflect paved trail (1.2 mile trail at 12 foot width).

Construction Phase - Construction phasing updated to relfect project conditions; grading phase includes site prep, excavation, grading, trail const, trailhead imp, struct culv, and landscaping. Signing and striping reflected paving and arch coating.

Off-road Equipment - Arch Coating Equipment - updated to reflect the equipment that would be used for construction. Average daily runtime reflects macro-construction phase. Air compressor used for striping machine.

Off-road Equipment -

Off-road Equipment - Grading Equipment - updated to reflect the equipment that would be used for construction. Average daily runtime reflects macro-construction phase.

Off-road Equipment - Paving Equipment - updated to reflect the equipment that would be used for construction. Average daily runtime reflects macro-construction phase. TLB used for power auger. Paving equipment = concrete pump and vibrator.

Trips and VMT - Trips and VMT: Average of 17 construction workers per day across 150 day (includes F-250s); vendors updated to reflect use of water trucks, material delivery, and aggregate and asphalt deliveries (9 CY truck); hauling with 9 CY truck.

Grading - Hauling: Updated to reflect the site would have 1 foot of excavation across the entire length and width of the project site.

Junipero Serra Trail Central - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Construction Off-road Equipment Mitigation - Construction Mit: Watering two times per day, consistent with standard design and construction measures.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	4.00	120.00
tblConstructionPhase	NumDays	2.00	0.00
tblConstructionPhase	NumDays	200.00	0.00
tblConstructionPhase	NumDays	10.00	20.00
tblGrading	MaterialExported	0.00	8,488.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	0.80
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	0.80
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	1.40
tblOffRoadEquipment	UsageHours	7.00	6.70
tblOffRoadEquipment	UsageHours	7.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblTripsAndVMT	HaulingTripNumber	1,061.00	1,878.00
tblTripsAndVMT	HaulingVehicleClass	HHDT	MHDT
tblTripsAndVMT	VendorTripNumber	0.00	7.00
tblTripsAndVMT	VendorTripNumber	0.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	17.00
tblTripsAndVMT	WorkerTripNumber	15.00	17.00
tblTripsAndVMT	WorkerTripNumber	6.00	17.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0724	0.5265	0.5812	1.6800e-003	0.1006	0.0196	0.1202	0.0445	0.0186	0.0631	0.0000	151.1484	151.1484	0.0204	6.9500e-003	153.7318
Maximum	**0.0724**	**0.5265**	**0.5812**	**1.6800e-003**	**0.1006**	**0.0196**	**0.1202**	**0.0445**	**0.0186**	**0.0631**	**0.0000**	**151.1484**	**151.1484**	**0.0204**	**6.9500e-003**	**153.7318**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0724	0.5265	0.5812	1.6800e-003	0.0625	0.0196	0.0821	0.0250	0.0186	0.0436	0.0000	151.1483	151.1483	0.0204	6.9500e-003	153.7317
Maximum	**0.0724**	**0.5265**	**0.5812**	**1.6800e-003**	**0.0625**	**0.0196**	**0.0821**	**0.0250**	**0.0186**	**0.0436**	**0.0000**	**151.1483**	**151.1483**	**0.0204**	**6.9500e-003**	**153.7317**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**37.88**	**0.00**	**31.71**	**43.83**	**0.00**	**30.88**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2024**	**3-31-2024**	0.2842	0.2842
2	**4-1-2024**	**6-30-2024**	0.2606	0.2606
3	**7-1-2024**	**9-30-2024**	0.0474	0.0474
		Highest	0.2842	0.2842

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.5600e-003	1.0000e-005	7.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3600e-003	1.3600e-003	0.0000	0.0000	1.4500e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.5600e-003**	**1.0000e-005**	**7.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.3600e-003**	**1.3600e-003**	**0.0000**	**0.0000**	**1.4500e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.5600e-003	1.0000e-005	7.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3600e-003	1.3600e-003	0.0000	0.0000	1.4500e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.5600e-003**	**1.0000e-005**	**7.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.3600e-003**	**1.3600e-003**	**0.0000**	**0.0000**	**1.4500e-003**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2024	12/31/2023	5	20	
2	Grading	Grading	1/1/2024	6/14/2024	5	120	
3	Site Preparation	Site Preparation	1/27/2024	1/26/2024	5	0	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	2/6/2024	2/5/2024	5	0	
5	Paving	Paving	6/15/2024	7/12/2024	5	20	
6	Architectural Coating	Architectural Coating	7/13/2024	7/26/2024	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10.5

Acres of Paving: 1.74

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 4,560 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Generator Sets	1	8.00	84	0.74
Grading	Off-Highway Trucks	1	2.70	402	0.38
Grading	Rubber Tired Dozers	1	1.40	247	0.40
Grading	Tractors/Loaders/Backhoes	1	6.70	97	0.37
Grading	Tractors/Loaders/Backhoes	1	2.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	0.80	9	0.56

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	0.80	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	2.00	97	0.37
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	17.00	7.00	1,878.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	MHDT
Building Construction	7	32.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	17.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	17.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0693	0.0000	0.0693	0.0354	0.0000	0.0354	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0439	0.3894	0.4644	9.6000e-004		0.0168	0.0168		0.0160	0.0160	0.0000	83.1732	83.1732	0.0173	0.0000	83.6058
Total	**0.0439**	**0.3894**	**0.4644**	**9.6000e-004**	**0.0693**	**0.0168**	**0.0861**	**0.0354**	**0.0160**	**0.0514**	**0.0000**	**83.1732**	**83.1732**	**0.0173**	**0.0000**	**83.6058**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6700e-003	0.0646	0.0127	4.3000e-004	0.0178	2.9000e-004	0.0181	5.3800e-003	2.8000e-004	5.6600e-003	0.0000	40.9489	40.9489	9.0000e-005	5.2900e-003	42.5272
Vendor	4.5000e-004	0.0187	5.7800e-003	8.0000e-005	2.7600e-003	1.1000e-004	2.8800e-003	8.0000e-004	1.1000e-004	9.1000e-004	0.0000	8.2281	8.2281	1.7000e-004	1.2100e-003	8.5920
Worker	2.3900e-003	1.5900e-003	0.0213	7.0000e-005	8.0900e-003	4.0000e-005	8.1300e-003	2.1500e-003	4.0000e-005	2.1900e-003	0.0000	5.9618	5.9618	1.6000e-004	1.6000e-004	6.0135
Total	**4.5100e-003**	**0.0849**	**0.0397**	**5.8000e-004**	**0.0287**	**4.4000e-004**	**0.0292**	**8.3300e-003**	**4.3000e-004**	**8.7600e-003**	**0.0000**	**55.1388**	**55.1388**	**4.2000e-004**	**6.6600e-003**	**57.1327**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0312	0.0000	0.0312	0.0159	0.0000	0.0159	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0439	0.3894	0.4644	9.6000e-004		0.0168	0.0168		0.0160	0.0160	0.0000	83.1731	83.1731	0.0173	0.0000	83.6057
Total	**0.0439**	**0.3894**	**0.4644**	**9.6000e-004**	**0.0312**	**0.0168**	**0.0480**	**0.0159**	**0.0160**	**0.0319**	**0.0000**	**83.1731**	**83.1731**	**0.0173**	**0.0000**	**83.6057**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6700e-003	0.0646	0.0127	4.3000e-004	0.0178	2.9000e-004	0.0181	5.3800e-003	2.8000e-004	5.6600e-003	0.0000	40.9489	40.9489	9.0000e-005	5.2900e-003	42.5272
Vendor	4.5000e-004	0.0187	5.7800e-003	8.0000e-005	2.7600e-003	1.1000e-004	2.8800e-003	8.0000e-004	1.1000e-004	9.1000e-004	0.0000	8.2281	8.2281	1.7000e-004	1.2100e-003	8.5920
Worker	2.3900e-003	1.5900e-003	0.0213	7.0000e-005	8.0900e-003	4.0000e-005	8.1300e-003	2.1500e-003	4.0000e-005	2.1900e-003	0.0000	5.9618	5.9618	1.6000e-004	1.6000e-004	6.0135
Total	**4.5100e-003**	**0.0849**	**0.0397**	**5.8000e-004**	**0.0287**	**4.4000e-004**	**0.0292**	**8.3300e-003**	**4.3000e-004**	**8.7600e-003**	**0.0000**	**55.1388**	**55.1388**	**4.2000e-004**	**6.6600e-003**	**57.1327**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Site Preparation - 2024

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Site Preparation - 2024

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.0400e-003	0.0396	0.0585	9.0000e-005		1.9500e-003	1.9500e-003		1.7900e-003	1.7900e-003	0.0000	7.8807	7.8807	2.5400e-003	0.0000	7.9441
Paving	2.2800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.3200e-003**	**0.0396**	**0.0585**	**9.0000e-005**		**1.9500e-003**	**1.9500e-003**		**1.7900e-003**	**1.7900e-003**	**0.0000**	**7.8807**	**7.8807**	**2.5400e-003**	**0.0000**	**7.9441**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.0000e-005	3.5600e-003	1.1000e-003	2.0000e-005	5.3000e-004	2.0000e-005	5.5000e-004	1.5000e-004	2.0000e-005	1.7000e-004	0.0000	1.5673	1.5673	3.0000e-005	2.3000e-004	1.6366
Worker	4.0000e-004	2.6000e-004	3.5400e-003	1.0000e-005	1.3500e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.6000e-004	0.0000	0.9936	0.9936	3.0000e-005	3.0000e-005	1.0023
Total	**4.9000e-004**	**3.8200e-003**	**4.6400e-003**	**3.0000e-005**	**1.8800e-003**	**3.0000e-005**	**1.9000e-003**	**5.1000e-004**	**3.0000e-005**	**5.3000e-004**	**0.0000**	**2.5609**	**2.5609**	**6.0000e-005**	**2.6000e-004**	**2.6388**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.0400e-003	0.0396	0.0585	9.0000e-005		1.9500e-003	1.9500e-003		1.7900e-003	1.7900e-003	0.0000	7.8807	7.8807	2.5400e-003	0.0000	7.9441
Paving	2.2800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.3200e-003**	**0.0396**	**0.0585**	**9.0000e-005**		**1.9500e-003**	**1.9500e-003**		**1.7900e-003**	**1.7900e-003**	**0.0000**	**7.8807**	**7.8807**	**2.5400e-003**	**0.0000**	**7.9441**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.0000e-005	3.5600e-003	1.1000e-003	2.0000e-005	5.3000e-004	2.0000e-005	5.5000e-004	1.5000e-004	2.0000e-005	1.7000e-004	0.0000	1.5673	1.5673	3.0000e-005	2.3000e-004	1.6366
Worker	4.0000e-004	2.6000e-004	3.5400e-003	1.0000e-005	1.3500e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.6000e-004	0.0000	0.9936	0.9936	3.0000e-005	3.0000e-005	1.0023
Total	**4.9000e-004**	**3.8200e-003**	**4.6400e-003**	**3.0000e-005**	**1.8800e-003**	**3.0000e-005**	**1.9000e-003**	**5.1000e-004**	**3.0000e-005**	**5.3000e-004**	**0.0000**	**2.5609**	**2.5609**	**6.0000e-005**	**2.6000e-004**	**2.6388**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0159					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.1300e-003	0.0121	2.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.7022	1.7022	1.0000e-004	0.0000	1.7046
Total	**0.0171**	**8.1300e-003**	**0.0121**	**2.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.7022**	**1.7022**	**1.0000e-004**	**0.0000**	**1.7046**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	4.5000e-004	1.4000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1959	0.1959	0.0000	3.0000e-005	0.2046
Worker	2.0000e-004	1.3000e-004	1.7700e-003	1.0000e-005	6.7000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.4968	0.4968	1.0000e-005	1.0000e-005	0.5011
Total	**2.1000e-004**	**5.8000e-004**	**1.9100e-003**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6927**	**0.6927**	**1.0000e-005**	**4.0000e-005**	**0.7057**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0159					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.1300e-003	0.0121	2.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.7022	1.7022	1.0000e-004	0.0000	1.7046
Total	**0.0171**	**8.1300e-003**	**0.0121**	**2.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.7022**	**1.7022**	**1.0000e-004**	**0.0000**	**1.7046**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	4.5000e-004	1.4000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1959	0.1959	0.0000	3.0000e-005	0.2046
Worker	2.0000e-004	1.3000e-004	1.7700e-003	1.0000e-005	6.7000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.4968	0.4968	1.0000e-005	1.0000e-005	0.5011
Total	**2.1000e-004**	**5.8000e-004**	**1.9100e-003**	**1.0000e-005**	**7.4000e-004**	**0.0000**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6927**	**0.6927**	**1.0000e-005**	**4.0000e-005**	**0.7057**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.572464	0.055653	0.187060	0.115672	0.020329	0.005102	0.007934	0.006404	0.000900	0.000380	0.024412	0.000914	0.002776

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.5600e-003	1.0000e-005	7.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3600e-003	1.3600e-003	0.0000	0.0000	1.4500e-003
Unmitigated	6.5600e-003	1.0000e-005	7.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3600e-003	1.3600e-003	0.0000	0.0000	1.4500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	7.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3600e-003	1.3600e-003	0.0000	0.0000	1.4500e-003
Total	**6.5600e-003**	**1.0000e-005**	**7.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3600e-003**	**1.3600e-003**	**0.0000**	**0.0000**	**1.4500e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	7.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3600e-003	1.3600e-003	0.0000	0.0000	1.4500e-003
Total	**6.5600e-003**	**1.0000e-005**	**7.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3600e-003**	**1.3600e-003**	**0.0000**	**0.0000**	**1.4500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

I-280 Trail Project

Appendix B: Biological Resources Report

Junipero Serra Trail Project
Cupertino, CA

Biological Resources Report

Prepared for:
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Table of Contents

1 Introduction

This report provides an evaluation of biological resources that may be impacted by the proposed Junipero Serra Trail Project (project) in the City of Cupertino, Santa Clara County, California. It identifies sensitive biological resources with the potential to be impacted by the project, and recommended measures to avoid significant impacts defined by the California Environmental Quality Act (CEQA).

The report will be used during project planning and to support the CEQA documentation. The report includes the following sections:

- Section 2 Project Location and Description: provides an overview of the activities proposed under the project.
- Section 3 Regulatory Setting: provides a brief explanation of the federal, state, and local regulations that pertain to the project.
- Section 4 Methods: explains the approach used for the evaluation, including field work and literature review.
- Section 5 Environmental Setting: provides a description of the environmental conditions in the project area, including vegetation communities and associated wildlife habitats present.
- Section 6 Special-status Species and Sensitive Habitats: describes special-status plant and animal species, and sensitive communities that are known to occur or that could potentially occur in the project area.
- Section 7 Biological Impact Assessment: provides an evaluation of the potential impacts to biological resources that may occur as a result of the project; and responses to the CEQA Guidelines Appendix G questions related to biological resources; and provides recommendations to avoid or minimize impacts to biological resources, as needed, to ensure that the project remains in compliance with all applicable federal, state, and local regulatory requirements and avoids significant impacts under CEQA.

2 Project Location and Description

The project is located in the City of Cupertino almost entirely within Valley Water rights-of-way along the existing maintenance road that follows the Junipero Serra Channel on the south side of Interstate 280 from Mary Avenue at the western extent to the intersection of Calabazas Creek and Vallco Parkway at the eastern extent (Appendix A, Figures 1 and 2).

The Junipero Serra Trail was originally approved in 2016 as part of the City's Bicycle Transportation Plan (City of Cupertino 2016) and supplemented in 2018 with the City's

Pedestrian Transportation Plan (City of Cupertino 2018) and is intended to be the northern segment of a larger community-wide loop of on- and off-street bicycle facilities (currently referred to as, “The Loop”). The trail would create an important east-west off-street trail across the heart of the City of Cupertino that serves recreational users, commuters, school children, and bicyclists. The segment of the trail included in this analysis extends from De Anza Boulevard on the west to Calabasas Creek/Vallco Parkway on the east. These are known as the Junipero Serra Central (De Anza Boulevard to Wolfe Road) and Junipero Serra East (Wolfe to Calabazas Creek/Vallco Parkway Trail segments of the Loop Trail.

The trail is proposed as a 12-foot wide Class I Shared Use path with an 8-foot wide asphalt path with up to 2-foot shoulders of unpaved decomposed granite. Four-foot to six-foot high guard rails (e.g., split-rail fencing) would be installed as needed to separate trail users when near the Valley Water Channel top of bank or Caltrans right-of-way. Bench seating, decorative paving, boardwalk decking, and interpretive and wayfinding signage, and landscaping are also proposed the various trailheads along the trail.

Blaney Avenue Alternative. BKF Engineers prepared a memo in 2021 that studied an alternative trail alignment adjacent to North Blaney Avenue. The proposed alternative at this trail location included a trail alignment that does not encroach into North Blaney Avenue. Where Lucille Avenue transitions into North Blaney Avenue, the trail is configured to run parallel to existing guard rail, which will require realignment and extension of an existing sound wall and chain link fence along Caltrans right-of-way, will pass next to a utility pole and underneath its guy wire. Additionally, a structure and/or fill would need to be placed over the existing channel and the culvert along with the reconfiguration of related storm drain piping.

3 Regulatory Setting

Biological resources in California are protected under federal, state, and local laws. The laws that may pertain to the biological resources affected by the project are described in this section.

3.1 Federal

3.1.1 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, as amended, provides the regulatory framework for the protection of plant and animal species (and their associated critical habitats), which are formally listed, proposed for listing, or candidates for listing as endangered or threatened under FESA. FESA has the following four primary components: (1) provisions for listing species, (2) requirements for consultation with the United States Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA Fisheries), (3) prohibitions against “taking” (i.e., harassing, harming, hunting, shooting, wounding, killing, trapping, capturing, or collecting, or attempting to engage in any

such conduct) of listed species, and (4) provisions for permits that allow incidental “take”. FESA also discusses recovery plans and the designation of critical habitat for listed species.

Both the USFWS and NOAA Fisheries share the responsibility for administration of FESA. Section 7 requires federal agencies, in consultation with, and with the assistance of the USFWS or NOAA Fisheries, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. Non-federal agencies and private entities can seek authorization for take of federally listed species under Section 10 of FESA, which requires the preparation of a HCP.

3.1.2 U.S. Migratory Bird Treaty Act

The U.S. Migratory Bird Treaty Act (MBTA; 16 USC §§ 703 et seq., Title 50 Code of Federal Regulations [CFR] Part 10) states it is “unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill; attempt to take, capture or kill; possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or in part, of any such bird or any part, nest or egg thereof…” In short, under MBTA it is illegal to disturb a nest that is in active use, since this could result in killing a bird, destroying a nest, or destroying an egg. The USFWS enforces MBTA. The MBTA does not protect some birds that are non-native or human-introduced or that belong to families that are not covered by any of the conventions implemented by MBTA. In 2017, the USFWS issued a memorandum stating that the MBTA does not prohibit incidental take; therefore, the MBTA is currently limited to purposeful actions, such as directly and knowingly removing a nest to construct a project, hunting, and poaching.

3.1.3 Clean Water Act

The Clean Water Act (CWA) is the primary federal law regulating water quality. The implementation of the CWA is the responsibility of the U.S. Environmental Protection Agency (EPA). However, the EPA depends on other agencies, such as the individual states and the U.S. Army Corps of Engineers (USACE), to assist in implementing the CWA. The objective of the CWA is to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” Section 404 and 401 of the CWA apply to activities that would impact waters of the U.S. The USACE enforces Section 404 of the CWA and the California State Water Resources Control Board enforces Section 401.

Section 404

As part of its mandate under Section 404 of the CWA, the EPA regulates the discharge of dredged or fill material into “waters of the United States” (U.S.). “Waters of the U.S.” include territorial seas, tidal waters, and non-tidal waters in addition to wetlands and drainages that support wetland vegetation, exhibit ponding or scouring, show obvious signs of channeling, or have discernible banks and high-water marks. Wetlands are defined as those areas “that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3(b)). The discharge of dredged or fill material into waters of the U.S. is prohibited under the CWA except when it is in compliance with Section 404 of the CWA. Enforcement authority for Section 404 was given to the USACE, which it accomplishes under its regulatory branch. The EPA has veto authority over the USACE’s administration of the Section 404 program and may override a USACE decision with respect to permitting.

Substantial impacts to waters of the U.S. may require an Individual Permit. Projects that only minimally affect waters of the U.S. may meet the conditions of one of the existing Nationwide Permits, provided that such permits’ other respective conditions are satisfied. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions (see below).

Section 401

Any applicant for a federal permit to impact waters of the U.S. under Section 404 of the CWA, including Nationwide Permits where pre-construction notification is required, must also provide to the USACE a certification or waiver from the State of California. The “401 Certification” is provided by the State Water Resources Control Board through the local Regional Water Quality Control Board (RWQCB).

The RWQCB issues and enforces permits for discharge of treated water, landfills, stormwater runoff, filling of any surface waters or wetlands, dredging, agricultural activities and wastewater recycling. The RWQCB recommends the “401 Certification” application be made at the same time that any applications are provided to other agencies, such as the USACE, USFWS, or NOAA Fisheries. The application is not final until completion of environmental review under CEQA. The application to the RWQCB is similar to the pre-construction notification that is required by the USACE. It must include a description of the habitat that is being impacted, a description of how the impact is proposed to be minimized and proposed mitigation measures with goals, schedules, and performance standards. Mitigation must include a replacement of functions and values, and replacement of wetland at a minimum ratio of 2:1, or twice as many acres of wetlands provided as are removed. The RWQCB looks for mitigation that is on site and

in-kind, with functions and values as good as or better than the water-based habitat that is being removed.

3.2 State

3.2.1 California Environmental Quality Act (CEQA)

CEQA (Public Resources Code Sections 21000 et. seq.) requires public agencies to review activities which may affect the quality of the environment so that consideration is given to preventing damage to the environment. When a lead agency issues a permit for development that could affect the environment, it must disclose the potential environmental effects of the project. This is done with an “Initial Study and Negative Declaration” (or Mitigated Negative Declaration) or with an “Environmental Impact Report”. Certain classes of projects are exempt from detailed analysis under CEQA if they meet specific criteria and are eligible for a Categorical Exemption.

CEQA Guidelines Section 15380 defines endangered, threatened, and rare species for purposes of CEQA and clarifies that CEQA review extends to other species that are not formally listed under the state or federal Endangered Species acts but that meet specified criteria. The state maintains a list of sensitive, or “special-status”, biological resources, including those listed by the state or federal government or the California Native Plant Society (CNPS) as endangered, threatened, rare or of special concern due to declining populations. During CEQA analysis for a proposed project, the California Natural Diversity Data Base (CNDDB) is usually consulted. CNDDB relies on information provided by the California Department of Fish and Wildlife (CDFW), USFWS, and CNPS, among others. Under CEQA, the lists kept by these, and any other widely recognized organizations are considered when determining the impact of a project.

3.2.1 California Endangered Species Act

The California Endangered Species Act (CESA; Fish and Game Code 2050 et seq.) generally parallels FESA. It establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. Section 2080 of the California Fish and Game Code prohibits the take, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or by the regulations. “Take” is defined in Section 86 of the California Fish and Game Code as to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” This definition differs from the definition of “take” under FESA. CESA is administered by CDFW. CESA allows for take incidental to otherwise lawful projects but mandates that State lead agencies consult with the CDFW to ensure that a project would not jeopardize the continued existence of threatened or endangered species.

3.2.2 California Fish and Game Code Sections 1600-1607

Sections 1600-1607 of the California Fish and Game Code require that a Notification of Lake or Streambed Alteration application be submitted to CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” CDFW reviews the proposed actions in the application and, if necessary, prepares a Lake or Streambed Alteration Agreement (LSAA or SAA), that includes measures to protect affected fish and wildlife resources.

3.2.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA) was created in 1977 with the intent to preserve, protect, and enhance rare and endangered plants in California (California Fish and Game Code sections 1900 to 1913). The NPPA is administered by CDFW, which has the authority to designate native plants as endangered or rare and to protect them from “take.” CDFW maintains a list of plant species that have been officially classified as endangered, threatened, or rare. These special-status plants have special protection under California law and projects that directly impact them may not qualify for a categorical exemption under CEQA guidelines.

3.2.4 Fully Protected Species and Species of Special Concern

The classification of California fully protected (CFP) species was the CDFW’s initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The Fish and Game Code sections (§5515 for fish, §5050 for amphibian and reptiles, §3511 for birds, §4700 for mammals) deal with CFP species and state that these species “…may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species” (CDFW Fish and Game Commission 1998). “Take” of these species may be authorized for necessary scientific research. This language makes the CFP designation the strongest and most restrictive regarding the “take” of these species. In 2003, the code sections dealing with CFP species were amended to allow the CDFW to authorize take resulting from recovery activities for state-listed species.

California species of special concern (CSSC) are broadly defined as animals not listed under FESA or CESA, but which are nonetheless of concern to CDFW because they are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by CDFW, land managers, consulting biologists, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA, and cumbersome recovery efforts that might ultimately be required. This designation also is

intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under CEQA during project review.

3.2.5 California Migratory Bird Protection Act

Fish & Game Code section 3513 states that federal authorization of take or possession is no longer lawful under the state Fish & Game Code if the federal rules or regulations are inconsistent with state law. The California Migratory Bird Protection Act (MBPA) was passed in September 2019 to provide a level of protection to migratory birds in California consistent with the U.S. MBTA prior to the 2017 rule change limiting protection of migratory birds under the U.S. MBTA to purposeful actions (i.e., directly and knowingly removing a nest to construct a project, hunting, and poaching). Thus, under the MBPA, protections for migratory birds in California are consistent with rules and regulations adopted by the United States Secretary of the Interior under the U.S. MBTA before January 1, 2017. The MBPA reverts to existing provisions of the U.S. MBTA on January 20, 2025.

3.2.6 Nesting Birds

Nesting birds, including raptors, are protected under California Fish and Game Code Section 3503, which reads, “It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.” In addition, under California Fish and Game Code Section 3503.5, “it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto”. Passerines and non-passerine land birds are further protected under California Fish and Game Code 3513. As such, CDFW typically recommends surveys for nesting birds that could potentially be directly (e.g., actual removal of trees/vegetation) or indirectly (e.g., noise disturbance) impacted by project-related activities. Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “take” by CDFW.

3.2.7 Non-Game Mammals

Sections 4150-4155 of the California Fish and Game Code protects non-game mammals, including bats. Section 4150 states “A mammal occurring naturally in California that is not a game mammal, fully protected mammal, or fur-bearing mammal is a nongame mammal. A non-game mammal may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission”. The non-game mammals that may be taken or possessed are primarily those that cause crop or property damage. Bats are classified as a non-

game mammal and are protected under California Fish and Game Code, in addition to being protected if they are a listed species (e.g., CSSC, CFP, state or federal threatened, or state or federal endangered).

3.2.8 Sensitive Vegetation Communities

Sensitive vegetation communities are natural communities and habitats that are either unique in constituent components, of relatively limited distribution in the region, or are of particularly high wildlife value. These communities may or may not necessarily contain special-status species. Sensitive natural communities are usually identified in local or regional plans, policies, or regulations, or by the CDFW (i.e., CNDDB) or the USFWS. The CNDDB identifies a number of natural communities as rare, which are given the highest inventory priority (Holland 1986; CDFW 2016). Impacts to sensitive natural communities and habitats must be considered and evaluated under CEQA (CCR: Title 14, Div. 6, Chap. 3, Appendix G).

3.2.9 Porter-Cologne Water Quality Control Act

The intent of the Porter-Cologne Water Quality Control Act (Porter-Cologne) is to protect water quality and the beneficial uses of water, and it applies to both surface and ground water. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the RWQCBs develop basin plans, which identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under Porter-Cologne, referred to as “waters of the State,” include isolated waters that are not regulated by the USACE. Projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State are required to comply with the terms of the Water Quality Certification Program. If a proposed project does not require a federal license or permit, any person discharging, or proposing to discharge, waste (e.g., soil) to waters of the State must file a Notice of Intent (NOI) or a Report of Waste Discharge and receive either waste discharge requirements (WDRs) or a waiver to WDRs before beginning the discharge.

3.2.10 State and Local Requirements to Control Construction-Phase and Post-Construction Water Quality Impacts

Construction Phase. The CWA has nationally regulated the discharge of pollutants to the waters of the U.S. from any point source since 1972. In 1987, amendments to the CWA added Section 402(p), which established a framework for regulating nonpoint source storm water discharges under the National Pollutant Discharge Elimination System (NPDES). The NPDES is a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the U.S. In California, this permit program is administered by the RWQCBs. The NPDES General Construction Permit requirements apply to clearing, grading, and disturbances to the ground such as excavation. Construction activities on one or more acres are subject to a

series of permitting requirements contained in the NPDES General Construction Permit. This permit requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) to be implemented during project construction. The project sponsor is also required to submit a Notice of Intent (NOI) with the State Water Resources Control Board Division of Water Quality. The NOI includes general information on the types of construction activities that would occur on the site.

Post-Construction Phase. In many Bay Area counties, including Santa Clara County, projects must also comply with the *California Regional Water Quality Control Board, San Francisco Bay Region, Municipal Regional Stormwater NPDES Permit* (MRP) (Water Board Order No. R2-2009-0074). This MRP requires that all projects implement BMPs and incorporate Low Impact Development practices into the design that prevents stormwater runoff pollution, promotes infiltration, and holds/slows down the volume of water coming from a site. To meet these permit and policy requirements, projects must incorporate the use of green roofs, pervious surfaces, tree planters, bioretention and/or detention basins, among other methods.

3.3 Local

3.3.1 City of Cupertino Municipal Code

The following provisions of the City of Cupertino Municipal Code (CMC) help to minimize adverse effects to biological resources as a result of development in Cupertino:

Chapter 14.15, Landscape Ordinance, implements the California Water Conservation in Landscaping Act of 2006 by establishing new water-efficient landscaping and irrigation requirements. In general, any building or landscape projects that involve more than 2,500 square feet of landscape area are required to submit a Landscape Project Submittal to the Director of Community Development for approval. Existing and established landscapes over one acre, including cemeteries, are required to submit water budget calculations and audits of established landscapes.

Chapter 14.18, Protected Trees, provides regulations for the protection, preservation, and maintenance of trees of certain species and sizes. Removal of a protected tree requires a permit from the City of Cupertino. “Protected” trees include trees of a certain species and size in all zoning districts; heritage trees in all zoning districts; any tree required to be planted or retained as part of an approved development application, building permit, tree removal permit, or code enforcement action in all zoning districts; and approved privacy protection planting in R-1 zoning districts. Protected trees include trees of the following species that have a minimum single trunk diameter of 12 inches (38-inch circumference) or a minimum multi-trunk diameter of 24 inches (75-inch circumference) measured as 4.5 feet from the natural grade: native oak tree species (*Quercus* spp.), including coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), black oak (*Quercus kelloggii*), blue oak (Quercus douglasii), and interior live oak

(*Quercus wislizeni*); California buckeye (*Aesculus californica*); big leaf maple (*Acer macrophyllum*); deodar cedar (*Cedrus deodara*); blue atlas cedar (*Cedrus atlantica* 'Glauca'); bay laurel or California bay (*Umbellularia californica*); and western sycamore (*Platanus racemosa).*

3.3.2 Town of Cupertino General Plan

The Cupertino General Plan (City of Cupertino 2015) includes policies that are relevant to the protection of biological resources and applicable to the proposed project. The policies are identified in Chapter 6, Environmental Resources and Sustainability, of the General Plan and are listed below.

Policy ES-5.2 Development Near Sensitive Areas. Encourage the clustering of new development away from sensitive areas such as riparian corridors, wildlife habitat and corridors, public open space preserves and ridgelines. New developments in these areas must have a harmonious landscaping plan approved prior to development.

Policy ES-5.3 Landscaping in and Near Natural Vegetation. Preserve and enhance existing natural vegetation, landscape features and open space when new development is proposed within existing natural areas. When development is proposed near natural vegetation, encourage the landscaping to be consistent with the palate of vegetation found in the natural vegetation.

Policy ES-5.6 Recreation and Wildlife. Provide open space linkages within and between properties for both recreational and wildlife activities, most specifically for the benefit of wildlife that is threatened, endangered, or designated as species of special concern.

3.3.3 Valley Water – Water Resources Protection Ordinance

This ordinance protects water resources managed by the Santa Clara Valley Water District (Valley Water) by regulating modifications, entry, use or access to water district facilities and/or water district easements. Valley Water uses the Water Resources Protection Manual to administer the Water Resources Protection Ordinance. The manual includes requirements, recommendations, and design guides for protection of riparian corridors, native landscaping, temporary erosion control options, encroachment between top of bank, trail construction, and flood protection. Both the Junipero Serra Trail and Calabazas Creek within the project area are subject to Valley Water jurisdiction.

4 Methods

This section describes the methods used to complete the general biological resources assessment. Methods include a database and literature review, field survey, an assessment of

plant communities and wildlife habitats and corridors, an assessment of sensitive habitats and aquatic features, and a habitat evaluation for special-status species.

4.1 Background Review

Available background information pertaining to the biological resources on and near the project was reviewed prior to conducting field surveys. Information was compiled and subsequently compared against site conditions during field surveys. The following sources were consulted:

- CNDDB record search for 9-quadrangles including: *Cupertino*, *San Jose West*, *Milpitas*, *Mountain View*, *Palo Alto*, *Mindego Hill, Big Basin, Castle Rock Ridge,* and *Los Gatos* (CNDDB 2021),
- CNPS Rare Plant Program *Inventory of Rare and Endangered Plants of California* record 9-quadrangle search, including: *Cupertino*, *San Jose West*, *Milpitas*, *Mountain View*, *Palo Alto*, *Mindego Hill, Big Basin, Castle Rock Ridge,* and *Los Gatos* (CNPS 2021) Quadrangle-level results are not maintained for California Rare Plant Rank (CRPR) 3 and 4 species, so we also conducted a search of the CNPS Inventory records for these species occurring in Santa Clara County (CNPS 2021),
- CDFW CNDDB for natural communities of special concern that occur within the project region (CNDDB 2021),
- USFWS Information for Planning and Consultation (IPaC) tool (USFWS 2021), and
- Other relevant scientific literature, technical databases, resource agency reports, and Federal Register notices and other information published by USFWS and NMFS to assess the current distribution of special-status plants and animals in the project vicinity.

4.2 Field Surveys

Field surveys of the project area were conducted by MIG senior biologist Tay Peterson, B.A. on November 9, 2021, and MIG senior biologist David Gallagher, M.S. on December 1, 2021. (Appendix A, Figure 2). The surveys were conducted to provide a project-specific impact assessment for the development of the site as described in the project description. Specifically, surveys were conducted to (1) assess existing biotic habitats and plant and animal communities in the parcel, (2) assess the project area for its potential to support special-status species and their habitats, and (3) identify potential jurisdictional habitats (e.g., waters of the U.S./state), and other sensitive biological resources.

4.2.1 Sensitive Habitats and Aquatic Features

All plant communities observed in the project area were evaluated to determine if they are considered sensitive. Sensitive natural communities are communities that are especially diverse; regionally uncommon; or of special concern to local, state, and federal agencies.

Elimination or substantial degradation of these communities would constitute a significant impact under CEQA.

The project area was also inspected for the presence of wetlands, drainages, streams, coastal waterways, and other aquatic features, including those that support stream-dependent (i.e., riparian) plant species that could be subject to jurisdiction by the USACE, RWQCB, and/or CDFW. Wetlands are defined for regulatory purposes in the 33 CFR 328.3 and 40 CFR 230.3 as “areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” To be considered subject to federal jurisdiction, a wetland must be located within the project area and normally exhibit positive indicators for hydrophytic vegetation, hydric soil, and wetland hydrology.

4.2.2 Special-Status Species Habitat Evaluation

During the field surveys, Ms. Peterson and Mr. Gallagher evaluated the suitability of the habitat to support special-status species documented in the project area. For the purposes of this assessment, special-status species include those plant and animals listed, proposed for listing or candidates for listing as threatened or endangered by the USFWS or NOAA Fisheries under FESA, those listed or proposed for listing as rare, threatened or endangered by the CDFW under CESA, animals designated as CFP or CSSC by CDFW, birds protected by USFWS under the MBTA and/or by CDFW under Fish and Game Code Sections 3503 and 3513, and plants listed as Rank 1A, 1B, 2, 3 and 4 of the CNPS Inventory.

The potential occurrence of special-status plant and animal species in the project area was initially evaluated by developing a list of special-status species that are known to or have the potential to occur in the vicinity of the project area based on a 9-quad search of current database records (e.g., CNDDB and CNPS Electronic Inventory records) and review of the USFWS list of federal endangered and threatened species (i.e., IPaC). The potential for occurrence of those species included on the 9-quad list was then evaluated based on the habitat requirements of each species relative to the habitat conditions documented in the project area. If there are no documented occurrences within five miles of the project area, if there is clearly no suitable habitat present, and if the project area is clearly outside of the expected range of the species, these species were eliminated from consideration and are not discussed further. All remaining species were then evaluated for the potential to occur on or in the immediate vicinity of the project area according to the following criteria:

> *Not Expected:* CNDDB or other documents do not record the occurrence of the species within or reasonably near the project area and within the last 10 years, and/or no components of suitable habitat are present within or adjacent to the project area.

Low Potential: The CNDDB or other documents may or may not record the occurrence of the species within a five-mile radius of the project area. However, few components of suitable habitat are present within or adjacent to the project area.

Moderate Potential. Species does not meet all terms of High or Low category. For example: CNDDB or other reputable documents may record the occurrence of the species near but beyond a five-mile radius of the project area, or some of the components representing suitable habitat are present within or adjacent to the project area, but the habitat is substantially degraded or fragmented.

High Potential: The CNDDB or other reputable documents record the occurrence of the species off-site, but within a five-mile radius of the project area and within the last 10 years. All or most of the components representing suitable habitat are present within the project area.

Present or Assumed Present. Species was observed on the project area, or recent species records (within five years) from literature or other sources are known within the project area.

5 Existing Land Uses, Natural Communities, and Habitats

5.1 General Project Area Description

The 9.12-acre project area is an approximately 1.7-mile linear alignment bordering the Junipero Serra Channel and Calabazas Creek, located in the *Cupertino*, California 7.5-minute USGS quadrangle. Approximately 1,000 feet of the proposed alignment adjacent to the Interstate 280 South off-ramp for Wolfe Road was not surveyed since it is on private property (Appendix A, Figures 3a to 3c). The project area is located within an urban area bordered by Interstate 280 to the north with residential and commercial development bordering the remaining project area. The Junipero Serra Channel is located along the northern edge of the proposed trail and Calabazas Creek is located along the eastern edge of the proposed trail where it turns south to join Vallco Parkway. The project area is mainly flat with elevations ranging from approximately 174 feet to 221 feet North American Vertical Datum of 1988 (NAVD88) (Google Inc. 2021).

5.2 Existing Land Uses, Vegetation Communities, and Habitats

The project area is located within the San Francisco Bay Area Subregion of the Central Western Californian Region, both of which are contained within the larger California Floristic Province (Baldwin et al. 2012). Where applicable, vegetation communities were mapped using CDFW's Vegetation Classification and Mapping Program's (VegCAMP) currently accepted list of vegetation alliances and associations (CDFW 2021). The reconnaissance-level field survey identified three vegetation communities, habitats, and land cover types in the project area: (1)

developed, (2) Coast Live Oak Woodland and Forest (*Quercus agrifolia – Heteromeles arbutifolia* Alliance), and (3) stream. Existing land cover types, vegetation communities, and habitats in the project area are summarized in Table 1, and their distribution is depicted in Appendix A, Figures 3a to 3c.

Table 1. Summary of Existing Land Cover Types, Vegetation Communities, and Habitats in the Project Area.

Land Cover Types, Vegetation Communities, and Habitats	Area (acres)
Developed	4.82
Coast Live Oak Woodland and Forest (*Quercus agrifolia – Heteromeles arbutifolia* Alliance)	0.88
Stream	3.42
Project Area Total	**9.12**

5.2.1 Developed

The dominant land cover within the project area is developed and includes the hard pack dirt access roads, chain link fencing, utility poles, building walls, and masonry sound walls. Most areas within this land cover type are devoid of vegetation, but there are scattered areas of vegetation dominated by ornamental and ruderal (i.e., disturbed) species, mostly along the perimeter of the project area (Appendix B, Photo 1). Based on aerial imagery, the approximately 1,000 feet of the proposed alignment not surveyed on foot was mapped as developed land cover.

Trees observed included holly oak (*Quercus ilex*), Chinese elm (*Ulmus parvifolia*), sweetgum (*Liquidambar styraciflua*), blue gum (*Eucalyptus globulus*), Monterey pine (*Pinus radiata*), Peruvian pepper tree (*Schinus molle*), coast live oak (*Quercus agrifolia*), and coast redwood (*Sequoia sempervirens*). Vines and shrubs observed included English ivy (*Hedera helix*), scarlet firethorn (*Pyracantha coccinea*), trumpet creeper (*Campsis radicans*), and mission cactus (*Opuntia ficus-indica*). Herbaceous plants observed included stinkwort (*Dittrichia graveolens*) and wild radish (*Raphanus sativus*). These areas are regularly cleared of understory vegetation, which precludes the establishment of native vegetation and wildlife habitat.

Due to the scarcity of vegetation, the developed portions of the project area provide relatively low-quality habitat for wildlife species. However, a wide variety of wildlife, including the wildlife described in Section 5.2.2 and 5.2.3, may move through developed areas en route to other habitats, especially since the developed areas border streams (see Section 5.2.3 below). The wildlife most often associated with developed areas are those that are tolerant of human disturbance, including introduced species such as the house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), rock pigeon (*Columba livia*), house mouse (*Mus*

musculus), and Norway rat (Rattus norvegicus). Several common native species are also able to use this habitat and several native birds may nest on the site, including raccoon (*Procyon lotor*), Anna's hummingbird (*Calypte anna*), dark-eyed junco (*Junco hyemalis*), house finch (*Haemorhous mexicanus*), and California towhee (*Melozone crissalis*).

5.2.2 Coast Live Oak Woodland and Forest (*Quercus agrifolia – Heteromeles arbutifolia* Alliance)

The project area includes native coast oak woodland along Calabazas Creek. Coast live oak and toyon (*Heteromeles arbutifolia*) are the dominant woody species present (Appendix B, Photo 2). Other trees and shrubs present in small numbers included valley oak (*Quercus lobata*) and big berry manzanita (*Arctostaphylos glauca*). The understory was dominated by Bermuda buttercup (*Oxalis pes-caprae*), slender oat (*Avena barbata*), and ripgut brome (*Bromus diandrus*).

Woodlands dominated by oaks typically support diverse animal communities in California and can contribute disproportionately to landscape-level species diversity especially when a stream is nearby. The presence of water during a portion of the year provides abundant food resources, including a wide range of invertebrates; and coast live oaks provide substantial shelter for animals in the form of cavities, crevices in bark, and complex branching growth. However, the oak woodland in the project area is limited in extent and surrounded by urban development, and therefore is not expected to support large numbers of woodland-associated species. Nevertheless, a variety of common wildlife species may occur here, including a wide variety of terrestrial vertebrates (e.g., amphibians, reptiles, and mammals), as well as several guilds of birds, including insectivores (e.g., warblers, flycatchers), seedeaters (e.g., finches), and raptors.

Leaf litter, downed tree branches, low-growing forbs, and fallen logs provide cover for amphibians and reptiles, including California slender salamander (*Batrachoseps attenuatus*), western fence lizard (*Sceloporus occidentalis*), and the San Francisco alligator lizard (*Elgaria coerulea coerulea*). The trees and shrubs may provide habitat for breeding birds such as the bushtit (*Psaltriparus minimus*), Bewick's wren (*Thryomanes bewickii*), chestnut-backed chickadee (*Poecile rufescens),* Anna's hummingbird, dark-eyed junco, California scrub-jay (*Aphelocoma californica*), oak titmouse (*Baeolophus inornatus*), Hutton's vireo (*Vireo huttoni*), and spotted towhee (*Pipilo maculatus*), as well as wintering birds including the hermit thrush (*Catharus guttatus*), ruby-crowned kinglet (*Regulus calendula*), and Townsend's warbler (*Setophaga townsendi*). Trees provide nesting opportunities for smaller raptors, such as the Cooper's hawk (*Accipiter cooperii*) and red-shouldered hawk (*Buteo lineatus*). Mammals, including the native raccoon, striped skunk (*Mephitis mephitis),* and black-tail deer (*Odocoileus hemionus columbianus*), as well as the non-native Virginia opossum (*Didelphis virginiana*) and eastern fox squirrel (*Sciurus niger*) may occur in the coast live oak woodland. Several non-native eastern gray squirrel (*Sciurus carolinensis*) individuals were observed in the woodland along with several California ground squirrel (*Otospermophilus beecheyi*) burrows along the

bank of Calabazas Creek. Additionally, oak trees and culverts may support roost habitat for crevice-roosting bats, including Yuma myotis (*Myotis yumanensis*), California myotis (*Myotis californicus*) and Mexican free-tailed bat (*Tadarida brasiliensis*).

5.2.3 Stream

The project area contains sections of the Junipero Serra Channel and Calabazas Creek (Appendix B, Photos 3 and 4). Within the project area, the Junipero Serra Channel is an engineered trapezoidal concrete storm drain channel that is culverted at roadway crossings, except from Wolfe Road to its confluence with Calabazas Creek, which is an earthen engineered storm drain with a concrete outfall, with an approximately 4-foot drop, at the confluence with Calabazas Creek (Appendix B, Photos 5 and 6). Within the project area, Calabazas Creek flows through a natural channel. However, downstream of the project area, Calabazas Creek enters an engineered channel and just upstream of the project area, Calabazas Creek exits a large box culvert (Appendix B, Photo 7). Within the project area, both the Juniper Serra Channel and Calabazas Creek were mapped up to the top of bank.

Junipero Serra Channel is an intermittent storm drain channel that conveys stormwater runoff from the surrounding urban area into Calabazas Creek. An intermittent storm drain channel in an urban area generally only flows during certain times of the year when runoff from rainfall or other sources of runoff (e.g., irrigation runoff) flow into the channel. During dry periods, storm drain channels may not have flowing surface water. At the time of the site visit, there were small sections of the channel that had standing water (< 1 inch) and patches of wetland vegetation were sediment had accumulated, including common smartweed (*Persicaria hydropiper*), dallis grass (*Paspalum dilatatum*), barnyard grass (*Echinochloa crus-galli*), tall flatsedge (*Cyperus eragrostis*), and bristly ox-tongue (*Helminthotheca echioides*) (Appendix B, Photo 8). The earthen section of the channel, including the banks was vegetated. Species observed within the channel included common smartweed, bristly ox-tongue, watercress (*Nasturtium officinale*), and bull mallow (*Malva nicaeensis*). Trees observed on the banks included coast live oak, sweetgum, and bay laurel (*Umbellularia californica*). Herbaceous species observed on the banks included stinkwort, common bedstraw (*Galium aparine*), vetch (*Vicia* sp.), wild radish, and field hedge parsley (*Torilis arvensis*).

Calabazas Creek is a 13.3-mile-long northeast by northward-flowing intermittent to perennial stream originating on Table Mountain in Santa Clara County, California and flows into the San Francisco Bay via the Guadalupe Slough. The Calabazas Creek watershed covers an area of approximately 20 square miles. Major tributaries to Calabazas Creek include Prospect, Rodeo, and Regnart Creeks, the El Camino Storm Drain, and the Junipero Serra Channel. The Creek flows through the cities of Saratoga, Cupertino, Sunnyvale, San Jose, and Santa Clara. Within the urban areas, the creek is mostly an engineered channel. However, the upper reaches of the creek, where it passes through unincorporated County jurisdiction and into Saratoga, flows through a natural channel. At the time of the site visit, there was no surface water present. The

channel was mostly unvegetated, but small patches of wetland vegetation were observed along the margins of the creek, including mule fat (*Baccharis salicifolia*). The Coast Live Oak Woodland and Forest was present along the banks of the creek (see Section 5.2.2 above).

Calabazas Creek contains suitable habitat for native fishes, including California roach (*Hesperoleucus symmetricus*), Sacramento sucker (*Catostomus occidentalis*), Three-spined stickleback (*Gasterosteus aculeatus*) as well as non-native fishes, including Western mosquitofish (*Gambusia affinis*). Central California Coast steelhead (*Oncorhynchus mykiss*) occurred historically in Calabazas Creek but are now considered extirpated (Leidy 2007; Leidy et al. 2005) (see Section 6.2.1 below). Due to the outfall structure on the Junipero Serra Channel, fish are likely only present during very high flow events even if flowing water is present in Calabazas Creek.

6 Special-Status Species and Sensitive Habitats

CEQA requires assessment of the effects of a project on species that are “threatened, rare, or endangered”; such species are typically described as “special-status species”. Impacts on these species are regulated by federal and state laws described under the Regulatory Setting above.

6.1 Special-Status Plants

The CNPS (2021) and CNDDB (2021) identify 91 special-status plant species as potentially occurring in the nine 7.5-minute quadrangles containing and/or surrounding the project area. All 91 of those potentially occurring special-status plant species were determined to be absent from the project area for at least one of the following reasons: (1) a lack of specific habitat (e.g., freshwater marsh) and/or edaphic requirements (e.g., serpentine soils) for the species in question, (2) the geographic range of the species does not overlap the project area, (3) the species is known to be extirpated from the site vicinity, and/or (4) the habitats within the project area are too degraded to reasonably expect any special-status species to occur there.

6.2 Special-Status Animals

Based on a review of the USFWS and CNDDB databases, the biologist’s knowledge of sensitive species, and an assessment of the types of habitats within the project area, it was determined that one wildlife species could potentially occur within or near the project area. This determination was made due to the presence of essential habitat requirements for the species, the presence of known occurrences within five miles of the project area, and/or the project area’s location within the species’ known range of distribution. The legal status and likelihood of occurrence of special-status animal species in the project area are discussed in greater detail below.

Special-status species that are not expected to occur in the project area because it lacks suitable habitat, is outside the known range of the species, and/or is isolated from the nearest known extant populations by development or otherwise unsuitable habitat were excluded from the analysis.

Animal species not expected to occur in the project area for these reasons include California giant salamander (*Dicamptodon ensatus)*, California tiger salamander (*Ambystoma californiense*), foothill yellow-legged frog (*Rana boylii*), Santa Cruz black salamander (*Aneides flavipunctatus niger*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), burrowing owl (*Athene cunicularia*), long-eared owl (*Asio otus*), peregrine falcon (*Falco peregrinus*), white-tailed kite (*Elanus leucurus*), yellow warbler (*Setophaga petechia*), pallid bat (*Antrozous pallidus*), and Townsend's big-eared bat (*Corynorhinus townsendii*).

6.2.1 Special-Status Fish

Central California Coast Steelhead (*Oncorhynchus mykiss irideus*). Federal Listing Status: Threatened; State Listing Status: None. The Central California Coast (CCC) steelhead Distinct Population Segment (DPS) was listed as a threatened species on August 18, 1997 (NMFS 1997), and the threatened status was reaffirmed on January 5, 2006 (NMFS 2006). Critical habitat was designated for the CCC steelhead DPS on September 2, 2005 (NMFS 2005), and a final recovery plan was published in October 2016. Like CCC coho salmon, steelhead populations in many areas have declined due to degradation of spawning habitat, introduction of barriers to upstream migration, over-harvesting by recreational fisheries, and reduction in winter flows due to damming and reduction of spring flows due to water diversions (NMFS 1997). In addition, non-native fish species, such as striped bass (*Morone saxatilis*), common carp (*Cyprinus carpio*), and white catfish (*Ameiurus catus*), may pose risks to native steelhead populations through predation, competition, and habitat modification. Increasing predation pressure at river mouths and in the ocean from the growing California sea lion population is also posing significant risk to CCC steelhead.

Steelhead are found along the entire Pacific Coast of the United States. The CCC steelhead DPS includes all naturally spawned populations of steelhead in coastal streams from the Russian River (inclusive) to Aptos Creek (inclusive), and the drainages of San Francisco, San Pablo, and Suisun bays eastward to Chipps Island at the confluence of the Sacramento and San Joaquin Rivers; and tributary streams to Suisun Marsh including Suisun Creek, Green Valley Creek, and an unnamed tributary to Cordelia Slough (commonly referred to as Red Top Creek), exclusive of the Sacramento-San Joaquin River Basin of the California Central Valley.

Steelhead in the CCC DPS are winter-spawning steelhead, maturing in the ocean and spawning shortly after entering freshwater. Winter steelhead enter rivers and streams in the late fall and winter months when higher flows and associated lower water temperatures occur. Adult female steelhead will prepare a redd (or nest) in a gravel-bottomed, fast-flowing, well-oxygenated rivers

and streams. Preferred streams typically support dense canopy cover that provides shade, woody debris, and organic matter, and are usually free of rooted or aquatic vegetation. The length of the incubation period is dependent on water temperature. Fry emerge from the gravel, and rear along the stream margins, moving gradually into pools and riffles as they grow larger. Young juveniles feed primarily on aquatic invertebrate drift.

In California, juveniles usually live in freshwater for 1 to 3 years (Shapovalov and Taft 1954; Barnhart 1986; Busby et al. 1996) then smolt and migrate to the sea; because of this multi-year rearing period, steelhead can only spawn in tributaries that maintain suitable temperature and other water quality parameters year-round. Most downstream smolt migration takes place between February and June, with peak timing of steelhead smolt outmigration in Central California occurring from March to May (Barnhart 1986; Fukushima and Lesh 1998).

Critical habitat for the Central California Coast steelhead DPS was designated on September 2, 2005, and includes all river reaches and estuarine areas accessible to listed steelhead in coastal river basins from the Russian River in Sonoma County to Aptos Creek in Santa Cruz County. The San Mateo Hydrologic Unit includes the coastal streams in San Mateo County from San Pedro Creek near Pacifica to Butano Creek near Año Nuevo and the Santa Clara Hydrologic Unit including San Francisquito Creek, Stevens Creek, Guadalupe River, Coyote Creek, and Penitencia Creek (NMFS 2006).

Steelhead in most tributaries to San Francisco and San Pablo bays have been virtually extirpated, including Calabazas Creek (McEwan and Jackson 1996). Steelhead occurred historically in Calabazas Creek but have not been observed since the 1970s and there are several impassable barriers to migration upstream from the San Francisco Bay (Leidy 2005; Leidy et al. 2007). Therefore, CCC steelhead are not expected to occur in Calabazas Creek in the project area.

6.2.2 Special-Status Amphibians

California Red-legged Frog *(Rana draytonii)*. Federal status: Threatened; State status: Species of Special Concern. The California red-legged frog was federally listed as threatened in June 1996 (USFWS 1996) based largely on a significant range reduction and continued threats to surviving populations. Critical habitat was most recently designated in March 2010 (USFWS 2010). Designated critical habitat is not present in the project area. The historical distribution of the California red-legged frog extended from the city of Redding in the Central Valley and Point Reyes National Seashore along the coast, south to Baja California, Mexico. The species' current distribution includes isolated locations in the Sierra Nevada and the San Francisco Bay area, and along the central coast (USFWS 2002).

The California red-legged frog inhabits freshwater pools, streams, and ponds throughout the Central California Coast Range and isolated portions of the western slope of the Sierra Nevada

(Fellers 2005). Its preferred breeding habitat consists of deep perennial pools with emergent vegetation for attaching egg clusters (Fellers 2005), as well as shallow benches to act as nurseries for juveniles (Jennings and Hayes 1994). However, red-legged frogs will also breed in small, shallow pools as well as intermittent streams. Non-breeding frogs may be found adjacent to streams and ponds and may travel up to two miles from their breeding locations across a variety of upland habitats to other suitable non-breeding habitats (Bulger et al. 2003; Fellers and Kleeman 2007). However, the distance moved is highly site-dependent and is influenced by the local landscape (Fellers and Kleeman 2007). California red-legged frogs generally disperse during the wet season from mid-October to mid-April.

The Junipero Serra Channel within the project area lacks suitable aquatic breeding habitat (i.e., long-lived pools or slow-moving streams with emergent vegetation or other egg mass attachment sites) for the California red-legged frog. However, the earthen portion of the channel between Wolfe Road and Calabazas Creek does provide suitable foraging and dispersal habitat, including the presence of small mammal burrows, which are used for aestivation during the non-breeding season. Additionally, Calabazas Creek, within the project area, provides suitable foraging and dispersal habitat and may provide suitable breeding habitat if water and emergent vegetation are present for sufficient periods of time. The nearest known breeding populations of red-legged frogs are located in Permanente Creek in Rancho San Antonio County and Open Space Preserve, approximately four miles west of the project area; and in the upper reaches of Calabazas Creek, approximately five miles upstream of the project area (CNDDB 2021). However, there are no documented occurrences of red-legged frog in the urbanized reaches, including the entire downstream section of Calabazas Creek (CNDDB 2021).

Even though the project area contains suitable habitat for California red-legged frog, it is highly unlikely that red-legged frogs would breed or disperse into the project area due to the high levels of disturbance and isolation from natural habitats in the region. Further, the surrounding urbanization precludes overland dispersal onto the site from potential off-site habitat and it is extremely unlikely that an individual from Permanent Creek and the remote upstream portions of Calabazas Creek would disperse downstream as far as the project site. Therefore, California red-legged frog are not expected to occur within the project area, and none were observed during the field visits.

6.2.3 Special-Status Reptiles

Western Pond Turtle (*Actinemys marmorata*). Federal status: None; State status: Species of Special Concern. The western pond turtle occurs in ponds, streams, and other wetland habitats in the Pacific slope drainages of California (Bury and Germano 2008). Ponds or slack-water pools with suitable basking sites (such as logs) are an important habitat component for this species, and western pond turtles do not occur commonly along high-gradient streams. Females lay eggs in upland habitats, in clay or silty soils in unshaded areas. Juveniles occur in

shallow aquatic habitats with emergent vegetation and ample invertebrate prey. Nesting habitat is typically found within 600 feet of aquatic habitat (Jennings and Hayes 1994), but if no suitable nesting habitat can be found close by, adults may travel overland considerable distances to nest.

The Junipero Serra Channel within the project area does not provide suitable aquatic habitat due to ephemeral flows and the lack of substantial emergent vegetation along most of its length. However, Calabazas Creek may provide suitable aquatic habitat if water is present for sufficient periods of time. Also, if present in Calabazas Creek, western pond turtle could potentially move into the adjacent upland areas within the project area. The nearest known documented occurrences of western pond turtle are from Saratoga Creek near its confluence with Calabazas Creek at Guadalupe Slough; the salt ponds, marshes, and channels along the Bay trail to the west, both approximately seven miles downstream of the project area; and Vasona Lake County Park in Los Gatos, approximately six miles south of the project area (CNDDB 2021).

Even though the project area contains suitable habitat for western pond turtle, it is highly unlikely that pond turtles would breed or disperse into the project area due to the high levels of disturbance and isolation from natural habitats in the region. Further, the surrounding urbanization precludes overland dispersal onto the site from potential off-site habitat and it is extremely unlikely that an individual from Vasona Lake and the downstream portions of Calabazas Creek would disperse upstream as far as the project site. Therefore, western pond turtle is not expected to occur within the project area, and none were observed during the field visits.

6.2.4 Special-status Mammals

San Francisco Dusky-footed Woodrat (*Neotoma fuscipes annectens*). Federal status: None; State status: Species of Special Concern. The San Francisco dusky-footed woodrat occurs in a variety of woodland and scrub habitats throughout San Mateo County and the adjacent Central Coast Range, south to the Pajaro River in Monterey County (Hall 1981, Zeiner et al. 1990). San Francisco dusky-footed woodrats prefer riparian and oak woodland forests with dense understory cover, or thick chaparral habitat, and build large, complex houses of sticks and other woody debris, which may be maintained by a series of occupants for several generations (Carraway and Verts 1991; Lee and Tietje 2005). Also, they will often build these stick houses in the canopy of trees. Woodrats also use human-made structures, and can nest in electrical boxes, sheds, pipes, abandoned vehicles, wooden pallets, and portable storage containers. The breeding season for dusky-footed woodrat begins in February and sometimes continues through September, with females bearing a single brood of one to four young per year (Carraway and Verts 1991).

No woodrat houses were observed during the field surveys. However, at least five woodrat nests were observed along the north bank of the Junipero Serra drainage channel between

Wolfe Road and Calabazas Creek in 2019 (H.T. Harvey & Associates 2019). Additionally, there is suitable habitat for dusky-footed woodrat in the Coast Live Oak Woodland and Forest along Calabazas Creek. Therefore, San Francisco dusky-footed woodrat as a high potential to be present in the project area.

6.2.5 Bat Colonies

Bats tend to forage and roost near freshwater sources. Both Calabazas Creek and Junipero Serra Channel provide a seasonal source of freshwater within and adjacent to the project area. Cavities within trees as well as culverts in and adjacent to the project area may provide suitable day and maternity roost habitat for many species of bats.

Roost sites play a critical role in mating, hibernation, rearing young, conserving energy, and protection from adverse weather and predators. Selection of roost sites is influenced by distribution and abundance of food resources, risks of predation, as well as the physical attributes of the roost itself. Roost selection is paramount to the success of a species and the removal of roost habitat could adversely impact the survivorship of a species (Kunz 1982).

Depending upon species, maternity roosts can host from a few to thousands of reproductive female bats that congregate during spring and summer months to give birth and nurse their young. In California, maternity roosts may remain active from April through August. As a potentially uncommon and limited resource, maternity roosts may be the limiting resource for a local population of bats, and thus may be essential to the survival of a local bat population. Maternity roosts tend to have sensitivity to disturbance, with documented instances of abandonment even during the presence of flightless young. As bats have a low reproductive rate of typically one pup per year, negative impacts to maternity roosts can have profound impacts on a local population of bats (Szewczak 2013).

Disturbance of roosting habitat of any bat species would be considered significant under CEQA guidelines. No suitable tree cavities were observed within the project area. However, the culverted sections of Junipero Serra Channel and Calabazas Creek in or adjacent to the project area provide potential roosting habitat for bats.

6.2.6 Nesting Birds

Nesting birds may occur in trees, shrubs, understory vegetation, shallow scrapes on bare ground, and in culverts in and around the project area. All migratory bird species are protected under the California Fish and Game Code.

6.3 Sensitive and Regulated Plant Communities and Habitats

Natural communities have been considered part of the Natural Heritage Conservation triad, along with plants and animals of conservation significance since the state inception of the

Natural Heritage Program in 1979. CDFW determines the level of rarity and imperilment of vegetation types; and tracks sensitive communities in its Rarefind database (CNDDB 2021). Global rankings (G) of natural communities reflect the overall condition (rarity and endangerment) of a habitat throughout its range, whereas state (S) rankings reflect the condition of a habitat within California. Natural communities are defined using NatureServe's standard heritage program methodology as follows (CDFG 2007):

- G1/S1: Less than 6 viable occurrences or less than 2,000 acres.
- G2/S2: Between 6 and 20 occurrences or 2,000 to 10,000 acres.
- G3/S3: Between 21 and 100 occurrences or 10,000 to 50,000 acres.
- G4/S4: The community is apparently secure, but factors and threats exist to cause some concern.
- G5/S4: The community is demonstrably secure to ineradicable due to being common throughout the world (for global rank) or the state of California (for state rank).

State rankings are further described by the following threat code extensions:

- S1.1: Very threatened.
- S1.2: Threatened.
- S1.3: No current threats known.

In addition to tracking sensitive natural communities, CDFW also ranks vegetation alliances, defined by repeating patterns of plants across a landscape that reflect climate, soil, water, disturbance, and other environmental factors (Sawyer et al. 1995). If an alliance is marked G1-G3, all the vegetation associations within it will also be of high priority (CDFG 2007). CDFW provides the Vegetation Classification and Mapping Program's (VegCAMP) currently accepted list of vegetation alliances and associations (CDFW 2020).

Natural Communities of Special Concern. There are no CDFW classified sensitive natural communities within the project area.

Sensitive Vegetation Alliances. There are no CDFW classified sensitive plant communities within the project area.

CDFW Stream/Riparian Habitat. As described above under Regulatory Setting, the California Fish and Game Code includes regulations governing the use of, or impacts to, many of the state's fish, wildlife, and sensitive habitats, including the bed and banks of rivers, lakes, and streams. Both the Junipero Serra Channel and Calabazas Creek and its associated riparian habitat up to the top of bank is subject to CDFW jurisdiction under Section 1600 et seq. of State Fish and Game Code (Appendix A, Figures 3a to 3c).

Critical Habitat/EFH. There is no designated critical habitat or essential fish habitat within the project area.

Waters of the U.S./State. Both the Junipero Serra Channel and Calabazas Creek meet the definition of waters of the U.S/state and any impacts to verified waters of the U.S./state within the project area would be subject to jurisdiction by the USACE and RWQCB. Waters of the state generally extend to the top of the bank (Appendix A, Figures 3a to 3c).

6.4 Wildlife Corridors

Wildlife corridors are segments of land that provide a link between these different habitats while also providing cover. Development that fragments natural habitats (i.e., breaks them into smaller, disjunct pieces) can have a twofold impact on wildlife: first, as habitat patches become smaller, they are unable to support as many individuals (patch size); and second, the area between habitat patches may be unsuitable for wildlife species to traverse (connectivity).

Due to habitat fragmentation in the project region, the vegetation communities along streams and other aquatic features often function as environmental corridors that allow animals to move among habitat patches. Both the Junipero Serra Channel and Calabazas Creek within the project area likely function as wildlife movement corridors. However, the project area is in an urban setting and is not adjacent to or connects open space areas. Therefore, the project area likely functions as an isolated wildlife corridor that provides movement and refugia for wildlife that are commonly found in developed areas.

7 Biological Impact Assessment

This section describes potential impacts to sensitive biological resources—including special-status plants and animals, and waters of the U.S. and the state—that may occur as a result of implementing the project.

The CEQA Guidelines define which impacts are considered significant. The Act defines “significant effect on the environment” as “a substantial adverse change in the physical conditions which exist in the area affected by the proposed project.” Potential impacts to biological resources were determined in accordance with Appendix G of the CEQA Guidelines. Impacts would be considered potentially significant if the proposed project will:

A. "have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service".
B. "have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service".

C. "have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means".
D. "interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites".
E. "conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance".
F. "conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan".

Direct take of a federally or state listed species is considered a significant impact. Per Section 3(18) of FESA, the term take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Temporary and/or permanent habitat loss is not considered a significant impact to sensitive species (other than for listed or candidate species under the FESA and CESA), unless a significant percentage of total suitable habitat throughout the species' range is degraded or somehow made unsuitable, or areas supporting a large proportion of the species' population are substantially and adversely impacted. Potential impacts to nesting bird species and bat colonies would be considered significant due to their protection under California Fish and Game Code.

7.1 Impacts to Special-Status Plant Species – No Impact

No special-status plant species are expected to occur within the project are due to the lack of suitable habitat. Therefore, the proposed project would not result in a substantial adverse effect on any special-status plant species.

7.2 Impacts to Special-status Mammals – Less than Significant with Mitigation

The San Francisco dusky-footed woodrat may occur year-round in the riparian corridor of the Junipero Serra Channel between Wolfe Road and Calabazas Creek as well as the riparian corridor of Calabazas Creek and the adjacent Coast Live Oak Woodland and Forest. Project activities could result in injury to or mortality of dusky-footed woodrats due to clearing, grading, and worker foot traffic. In addition, indirect impacts could occur as a result of over-crowding (from individuals in disturbed habitat moving to areas that are already occupied) and increased risk of predation. Project construction would also result in the temporary impact on foraging individuals through the alteration of foraging patterns (e.g., avoidance of work areas because of increased noise and activity levels during project activities). Additionally, dusky-footed woodrats are very important ecologically in that they provide an important prey source, and their nests also provide habitat for a wide variety of small mammals, reptiles, and amphibians. Therefore,

project-related impacts to dusky-footed woodrats would be considered significant under CEQA. With the Implementation of Mitigation Measure BIO-1A and BIO-1B, impacts to San Francisco dusky-footed woodrats will be less than significant.

Mitigation Measure BIO-1A: Pre-Construction Survey for San Francisco Dusky-Footed Woodrats. Within 30 days prior to the start of construction activities, a qualified biologist will map all San Francisco dusky-footed woodrat houses within a 25-foot buffer around the project footprint. Environmentally sensitive habitat fencing will be placed to protect the houses with a minimum 25-foot buffer. If a 25-foot buffer is not feasible, a smaller buffer may be allowable based on advice from a qualified biologist with knowledge of woodrat ecology and behavior, or Mitigation Measure BIO-1B may be implemented.

Mitigation Measure BIO-1B: Relocation of Woodrat Houses. In the unlikely event that one or more woodrat houses are determined to be present and physical disturbance or destruction of the houses cannot be avoided, then the woodrats will be evicted from their houses and the nest material relocated outside of the disturbance area, prior to onset of activities that would disturb the house, to avoid injury or mortality of the woodrats. The reproductive season for San Francisco dusky-footed woodrats typically starts in February or March and breeding activity usually continues to July but can extend into September. Thus, relocation efforts should be completed in the fall to minimize the potential for impacts on young woodrats in the house. Additionally, it is recommended that the period between the completion of the relocation efforts and the start of construction activities be minimized to reduce the potential for woodrats to reconstruct houses in the project footprint prior to the start of construction activities.

Relocation generally involves first choosing an alternate location for the house material based on the following criteria: 1) proximity to current nest location; 2) safe buffer distance from planned work; 3) availability of food resources; and 4) availability of cover. An alternate house structure will then be built at the chosen location. Subsequently, during the evening hours (i.e., within 1 hour prior to sunset), a qualified biologist will slowly dismantle the existing woodrat house to allow any woodrats to flee and seek cover. All sticks from the nest will be collected and spread over the alternate structure. However, alternative relocation measures can be employed as advised by a qualified wildlife biologist in consultation with CDFW.

7.3 Impacts to Roosting Bats – Less than Significant Impact with Mitigation

Construction disturbance could result in the disturbance of active maternity or day roosts. In addition, noise and increased construction activity could temporarily alter foraging behavior, potentially resulting in the abandonment of nest sites. Therefore, project-related impacts to roosting habitat for bats would be considered significant under CEQA. However, with the implementation of Mitigation Measures BIO-2A to BIO-2C below, impacts to roosting bats will be less than significant.

Mitigation Measure BIO-2A: Pre-Construction Survey for Roosting Bats. A survey of culverts within the project site, including a 50-foot buffer (as feasible) shall be conducted by a qualified bat biologist no less than 30 days before the start of construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, tree removal, vegetation removal, fence installation, demolition, and grading). If construction activities are delayed by more than 30 days, an additional bat survey shall be performed. The survey may be conducted at any time of year but should be conducted in such a way to allow sufficient time to determine if special-status bats or maternity colonies are present on the site. The results of the survey shall be documented.

If no habitat or signs of bats are detected during the habitat suitability survey, no further surveys are warranted. If suitable habitat is present and signs of bat occupancy (e.g., guano pellets or urine staining) are detected, Mitigation Measure BIO-1B shall apply.

Mitigation Measure BIO-2B: Acoustic Survey. If suitable habitat is present and signs of bat occupancy are detected, a follow-up dusk emergence survey shall be conducted no less than 30 days prior to construction activities. A dusk survey will determine the number of bats present and will also include the use of acoustic equipment to determine the species of bats present. The results of the survey shall be documented. If an active roost is observed within the project site, Mitigation Measure BIO-2C shall apply.

Mitigation Measure BIO-2C: Roost Buffer. If a day roost or a maternity colony is detected and is found sufficiently close to work areas to be disturbed by construction activities, the qualified biologist shall determine the extent of a construction-free buffer zone to be established around the roost in consultation with CDFW. Within the buffer zone, no site disturbance and mobilization of heavy equipment, including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, demolition, and grading shall be permitted. Monitoring shall be required to ensure compliance with relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented.

7.4 Impacts to Nesting Birds – Less than Significant Impact with Mitigation

All migratory bird species and their nests are protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. Project activities must comply with the provisions of the MBTA and California Fish and Game Code (i.e., avoid take of protected nesting birds). Therefore, project-related impacts to nesting birds would be considered significant under CEQA.

Construction disturbance during the avian breeding season (February 1 through September 15, for most species) could result in the incidental loss of eggs or nestlings, either directly through the destruction or disturbance of active nests or indirectly by causing the abandonment of nests. In addition, noise and increased construction activity could temporarily alter foraging behavior,

potentially resulting in the abandonment of nest sites. However, with the implementation of Mitigation Measure BIO-3 below, impacts to nesting birds will be less than significant.

Mitigation Measure BIO-3: Pre-Construction/Pre-Disturbance Survey for Nesting Birds

Avoidance. To the extent feasible, construction activities should be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts to nesting birds protected under the MBTA and California Fish and Game Code would be avoided. The nesting season for most birds in Santa Clara County extends from February 1 through August 31.

Pre-Construction Surveys. If it is not possible to schedule construction activities between September 1 and January 31, then preconstruction surveys for nesting birds will be conducted by a qualified biologist to ensure that no nests would be disturbed during project implementation. These surveys will be conducted no more than five days prior to the initiation of any site disturbance activities and equipment mobilization, including tree, shrub, or vegetation removal, fence installation, grading, etc. If project activities are delayed by more than five days, an additional nesting bird survey will be performed. During this survey, the biologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, culverts) in and immediately adjacent to the impact area for nests. Active nesting is present if a bird is building a nest, sitting in a nest, a nest has eggs or chicks in it, or adults are observed carrying food to the nest. The results of the surveys will be documented.

If an active nest is found sufficiently close to work areas to be disturbed by these activities, the biologist will determine the extent of a construction-free buffer zone to be established around the nest (typically up to 1,000 feet for raptors and up to 250 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation. Within the buffer zone, no site disturbance and mobilization of heavy equipment, including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, demolition, and grading will be permitted until the chicks have fledged. Monitoring will be required to ensure compliance with MBTA and relevant California Fish and Game Code requirements. Monitoring dates and findings will be documented.

7.5 Impacts to Sensitive Communities – No Impact

7.6 Impacts to Jurisdictional Waters – Less than Significant Impact

The Junipero Serra Channel and Calabazas Creek are subject to the regulatory jurisdiction of the USACE, RWQCB and CDFW, and will require CWA 401/404 and LSAA permits, if impacted. The project proposes to install an asphalt path trail along the top of bank. The top of bank was mapped during the December 2021 site visit and based on the proposed trail location and site

conditions, the proposed trial alignment may require work within the top of bank, which may require authorization from the RWQCB and CDFW. However, the proposed trail alignment occurs outside of the active channel and will not require authorization from the USACE. The construction of the trail may result in the removal of vegetation as well as placement of fill within the top of bank for both the Juniper Serra Channel and Calabazas Creek. However, the work within the top of bank will not alter the hydrology of the channel and creek, or adversely affect the movement of native wildlife, or adversely impact any special-status species or sensitive plant communities.

The Blaney Avenue alternative includes modifying the existing Junipero Serra Channel by extending an existing 72-inch culvert for 38 feet and the realignment of an existing storm drain at Blaney Avenue. At this location, the Junipero Serra Channel is an engineered trapezoidal concrete channel with concrete banks and no associated riparian vegetation. The extension of the culvert will not likely alter the hydrology of the downstream reach of the channel and will not remove woody riparian vegetation from the top of bank. Also, the extension of the culvert will not adversely affect the movement of native wildlife or adversely impact any special-status species or sensitive plant communities. In addition to RWQCB and CDFW permits, the Blaney Avenue alternative would require authorization from the USACE for impacts within the active channel below the ordinary high water mark (OHWM).

The proposed project includes the creation of impervious surfaces due to the use of asphalt in trail construction, which will result in an increase in stormwater runoff into stream habitat. Runoff may contain harmful pollutants like trash, chemicals, and dirt/sediment which may adversely affect water quality and wildlife. Additionally, construction activities for the proposed alignment, including the Blaney Avenue alternative, could cause the degradation of surface or ground water quality in the Junipero Serra Channel and Calabazas Creek due to erosion and transport of fine sediments or unintentional release of contaminants. Therefore, project-related impacts to stream habitat would be considered significant under CEQA.

Construction projects in California causing land disturbances that are equal to 1.0 acre or greater must comply with State requirements to control the discharge of stormwater pollutants under National Pollutant Discharge Elimination System (NPDES)/Construction General Permit. Prior to the start of construction/demolition, a Notice of Intent must be filed with the State Water Board describing the project. A Storm Water Pollution Prevention Plan (SWPPP) must be developed and maintained during the project, and it must include the use of BMPs to protect water quality until the site is stabilized. Standard permit conditions under the NPDES/Construction General Permit require that the applicant utilize various measures including on-site sediment control best management practices, damp street sweeping, temporary cover of disturbed land surfaces to control erosion during construction, and utilization of stabilized construction entrances and/or wash racks, among other measures.

A stormwater management plan will be developed to ensure that, during rain events, construction activities do not increase the levels of erosion and sedimentation. This plan will include the use of erosion-control materials (e.g., baffles, fiber rolls, or hay bales; temporary containment berms) and erosion-control measures such as straw application or hydroseeding with native grasses on disturbed slopes; and floating sediment booms and/or curtains to minimize any impacts that may occur due to increased mobilization of sediments. Suitable erosion control, sediment control, source control, treatment control, material management, and non-stormwater management best management practices will be implemented.

A list of example BMPs include:

- Work areas that are temporarily impacted will be restored with respect to pre-existing contours and conditions, to the extent feasible, upon completion of work. Restoration work including re-vegetation and soil stabilization will be evaluated upon completion of work and performed, as needed.
- Implement a dewatering plan for the Blaney Avenue alternative. For work within the channel, the work area will be isolated from the channel using water control structures such as temporary coffer dams.
- Store, handle, and dispose of construction materials and wastes properly, so as to prevent their contact with stormwater.
- Control and prevent the discharge of all potential pollutants, including solid wastes, paints, concrete, petroleum products, chemicals, wash water or sediment and non-stormwater discharges to storm drains and water courses.
- Avoid cleaning, fueling, or maintaining vehicles on site, except in a designated area in which run-off is contained and treated.
- Perform clearing and earth moving activities during dry weather to the maximum extent practical.
- Remove spoils promptly and avoid stockpiling of fill materials when rain is forecast. Cover soil stockpiles and other materials with a tarp or other waterproof material during qualifying rain events.
- Trash and construction related solid wastes must be deposited into a covered receptacle to prevent contamination and dispersal by wind.
- In the event of rain, all grading work is to cease immediately.
- Implement an erosion control plan during the wet season (October 15 through April 15), including, at a minimum, the following:
    - All paved areas will be kept clear of earth material and debris
    - Inlet protection will be installed at open inlets to prevent sediment from entering the storm drain system.
    - Straw rolls will be placed at the toe of slopes, and along the down slope perimeter of the project area.

    - To prevent trapping of animals, plastic mono-filament netting (erosion control matting), rolled erosion control products or similar material will not be used at the project site.
- Implement an approved accidental spill plan, including. The plan will describe what actions will be taken in the event of a spill. The plan will also incorporate preventative measures to be implemented, such as vehicle and equipment staging, cleaning, maintenance, and refueling; and contaminant (including fuel) management and storage. In the event of a contaminant spill, work at the site will immediately cease until the contractor has contained and mitigated the spill. The contractor will immediately prevent further contamination and notify appropriate authorities and mitigate damage as appropriate. Adequate spill containment materials, such as oil diapers and hydrocarbon cleanup kits, shall always be available on site. Containers for storage, transportation, and disposal of contaminated absorbent materials will be provided in the project site.

In addition to construction-phase requirements, new and redevelopment projects in many Bay Area counties, including Santa Clara County, must also comply with the post-construction site design, source control and on-site runoff treatment control provisions of the San Francisco Bay Regional Water Quality Control Board's Municipal Regional Stormwater NPDES Permit (MRP). The MRP requires that projects implement BMPs and incorporate Low Impact Development practices into the design that prevents stormwater runoff pollution, promotes infiltration, and holds/slows down the volume of stormwater runoff coming from a site. In order to meet these permit and policy requirements, projects must incorporate the use of green roofs, impervious surfaces, tree planters, bioretention and/or detention basins, among other on-site treatment controls.

During the construction phase, compliance with the requirements to control the discharge of stormwater pollutants under the NPDES Construction General Permit and MRP will reduce impacts to stream habitat to a less than significant level. In addition, the project may require permits from the RWQCB and CDFW for impacts on creek habitat during construction. The Blaney Avenue alternative would also require authorization from the USACE for impacts within the active channel below the OHWM. Generally, the resource agencies require mitigation for project related impacts to stream habitat.

7.7 Impacts to Wildlife Movement– Less than Significant Impact

Construction activities could temporarily restrict some wildlife species from moving between suitable habitat patches during project implementation. In addition, noise and disturbance associated with construction activities could cause a temporary reduction in habitat connectivity through the site for species that commonly use habitats in the project area.

However, due to the type of construction activities, e.g., light grading on existing access roads, installation of wildlife friendly split-rail fencing and landscaping, or in the case of the Blaney

Avenue alternative, the extension of an existing culvert along an engineered storm drain channel, impacts on wildlife movement are less than significant. Furthermore, because project construction will not occur at night, when many mammals, reptiles, and amphibians are active, use of the project area by dispersing nocturnal animals would not be diminished during construction.

Numerous animals likely breed within and around the project area, but no particularly important wildlife nursery areas are present in the project area or would be impacted by the project. Once construction activities are complete, wildlife movement conditions would be similar to pre-project conditions in upland and riparian habitats, and wildlife dispersal through the project area is expected to return to existing conditions. Therefore, impacts to wildlife movement from construction activities are expected to be less than significant.

7.8 Impacts due to Conflicts with Local Policies – No Impact

Since the project occurs on land managed by Valley Water, the project will comply with the conditions of the Water Resources Protection Ordinance as it pertains to the project, including work within the top of bank, landscaping, trail construction, etc. (see Section 3.3.3 above). Also, if protected trees need to be removed as part of the project, the City of Cupertino will comply with the guidelines for the removal of protected trees as described in the City of Cupertino Municipal Code (see Section 3.3.1 above).

7.9 Impact due to Conflicts with an Adopted Habitat Conservation Plan – No Impact

The proposed project does not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

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[USFWS] U.S. Fish and Wildlife Service. 2021. IPaC Information for Planning and Conservation. Accessed December 2021 from https://ecos.fws.gov/ipac/t69.

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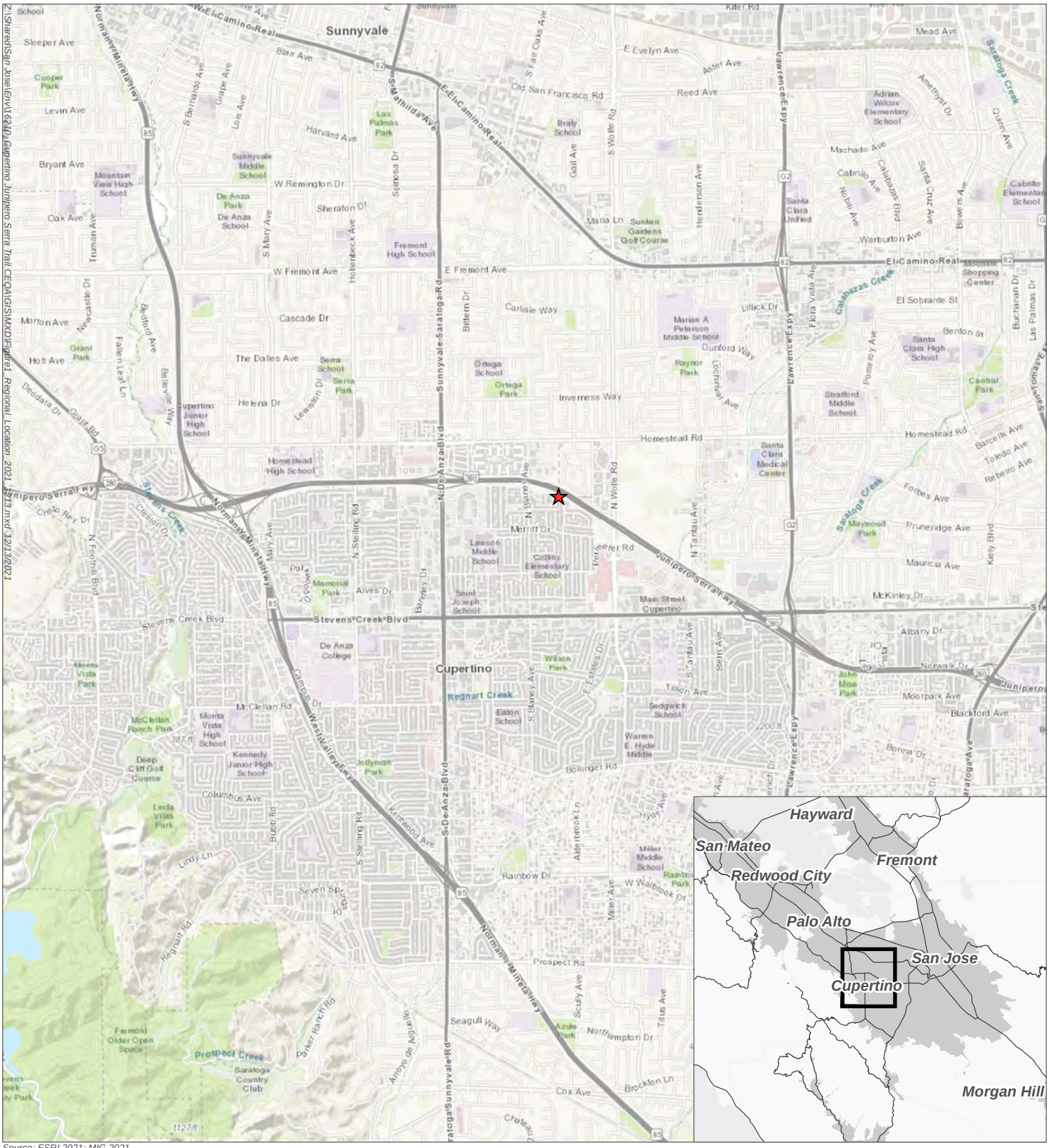
Appendix A Figures



Source: ESRI 2021; MIG 2021

Figure 1 Regional Location

Junipero Serra Trail Project

Source: ESRI 2021; MIG 2021

0 0.125 0.25 0.5 Miles

Project Area (9.12 acres)

Figure 2 Project Area Map

Junipero Serra Trail Project

MIG

Source: ESRI 2021; MIG 2021

0 250 500 1,000 Feet

Project Area (9.12 acres)

Stream Habitat (3.42 acres)

Developed (4.82 acres)

Figure 3a Vegetation Communities

Junipero Serra Trail Project

MIG

Source: ESRI 2021; MIG 2021

0 225 450 900 Feet

Project Area (9.12 acres)

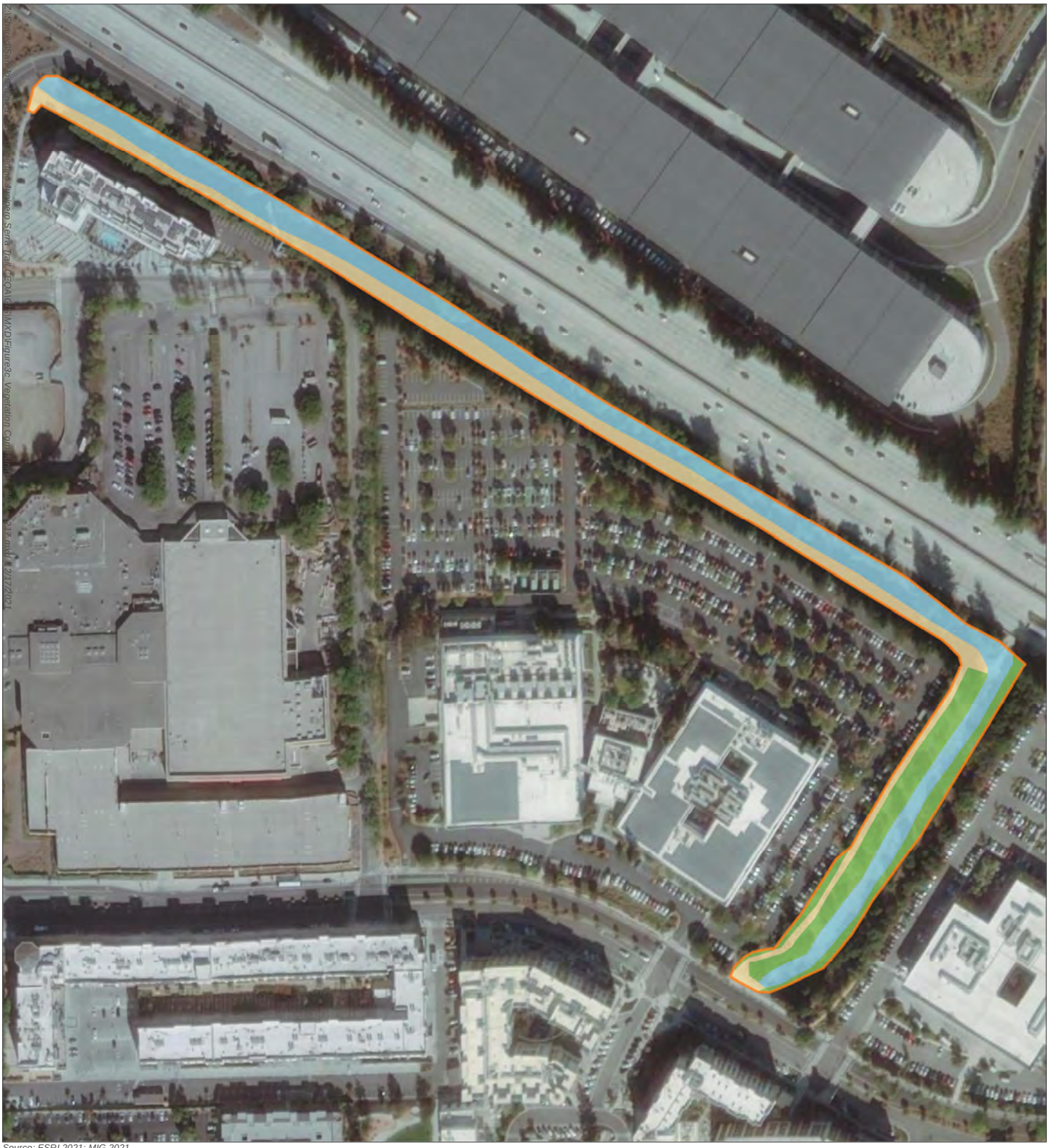
Stream Habitat (3.42 acres)

Developed (4.82 acres)

Figure 3c Vegetation Communities

Junipero Serra Trail Project

MIG



Source: ESRI 2021; MIG 2021

0 150 300 600 Feet

- Project Area (9.12 acres)
- Coast Live Oak Woodland and Forest (0.88 acre)
- Stream Habitat (3.42 acres)
- Developed (4.82 acres)

Figure 3c Vegetation Communities

Junipero Serra Trail Project

MIG

Appendix B Photographs

Photo 1. Developed land cover within the project area. Junipero Serra Channel with hardpack access road, chain link fence, and sound wall.

Photo 2. Coast Live Oak Woodland and Forest within the project area.

Photo 3. The Junipero Serra Channel within the project area. Surface water was present along portions of the channel.

Photo 4. Calabazas Creek within the project area.

Photo 5. The Junipero Serra Channel, between Wolfe Road and Calabazas Creek, is a vegetated engineered earthen channel.

Photo 6. The confluence of the Junipero Serra Channel and Calabazas Creek within the project area.

Photo 7. Box culvert where Calabazas Creek enters the project area.

Photo 8. The Junipero Serra Channel within the project area. Surface water and wetland vegetation was present along portions of the channel.

I-280 Trail Project

Appendix C: Noise Monitoring Results

Junipero Serra Trail Ambient Noise Monitoring
City of Cupertino, CA
Appendix: Ambient Noise Monitoring Data
Prepared by MIG, January 2022

TABLE 1: SUMMARY OF SITE ST-1 NOISE MONITORING DATA					
Date	Start Time	Duration	Leq	Lmin	Lmax
1/4/2022	9:40 AM	10-min	74.9	69.4	81.2
1/4/2022	9:50 AM	10-min	74.7	67.2	79.3
1/4/2022	10:00 AM	10-min	74.7	68.0	79.0
1/4/2022	10:10 AM	10-min	74.5	67.7	79.6
1/4/2022	10:20 AM	10-min	74.5	67.0	78.3
1/4/2022	10:30 AM	10-min	75.1	69.2	82.6
1/4/2022	10:40 AM	10-min	75.2	67.3	79.8
1/4/2022	10:50 AM	10-min	75.0	67.3	78.7
10:00 AM to 11:00 AM		*1-hr*	*74.9*	*69.2*	*78.3*

TABLE 2: SUMMARY OF SITE ST-2 NOISE MONITORING DATA					
Date	Start Time	Duration	Leq	Lmin	Lmax
1/4/2022	11:04 AM	10-min	68.8	60.4	73.9
1/4/2022	11:14 AM	10-min	68.7	62.0	74.7

TABLE 3: SUMMARY OF SITE ST-3 NOISE MONITORING DATA					
Date	Start Time	Duration	Leq	Lmin	Lmax
1/4/2022	11:25 AM	10-min	76.9	66.9	83.3

TABLE 4: SUMMARY OF SITE ST-4 NOISE MONITORING DATA					
Date	Start Time	Duration	Leq	Lmin	Lmax
1/4/2022	11:43 AM	10-min	66.5	60.7	72.9

TABLE 5: SUMMARY OF SITE LT-1 NOISE MONITORING DATA												
Date	Time	Duration	Leq	CNEL	Lmin	Lmax	L(1.67)	L(8.33)	L(16.67)	L(25.00)	L(50.00)	L(90.00)
1/4/2022	9:00 AM	1-hour	64.4	64.4	59.5	76.8	67.4	66.3	65.7	65.2	63.9	62.4
1/4/2022	10:00 AM	1-hour	63.8	63.8	58.1	70.3	65.9	65.2	64.7	64.4	63.7	62.2
1/4/2022	11:00 AM	1-hour	63.8	63.8	58.5	79.7	66.9	65.2	64.6	64.3	63.5	62.0
1/4/2022	12:00 PM	1-hour	63.8	63.8	57.3	72.3	66.4	65.4	64.8	64.4	63.6	62.2
1/4/2022	1:00 PM	1-hour	63.5	63.5	59.2	73.5	65.7	64.9	64.3	64.1	63.4	62.0
1/4/2022	2:00 PM	1-hour	65.2	65.2	61.0	72.1	67.7	66.6	66.0	65.7	65.0	63.8
1/4/2022	3:00 PM	1-hour	65.5	65.5	62.3	76.5	68.0	67.0	66.2	65.9	65.3	64.3
1/4/2022	4:00 PM	1-hour	65.3	65.3	61.8	74.7	67.5	66.4	65.9	65.6	65.1	64.2
1/4/2022	5:00 PM	1-hour	64.5	64.5	61.4	76.0	67.0	65.9	65.2	64.9	64.3	63.4
1/4/2022	6:00 PM	1-hour	63.4	63.4	58.9	71.6	65.4	64.6	64.2	64.0	63.4	62.1
1/4/2022	7:00 PM	1-hour	62.1	67.1	56.8	67.4	64.4	63.7	63.2	62.8	61.9	60.1
1/4/2022	8:00 PM	1-hour	61.2	66.2	54.7	69.7	64.1	62.9	62.3	62.0	61.0	59.1
1/4/2022	9:00 PM	1-hour	60.0	65.0	49.0	76.3	64.5	62.4	61.3	60.6	59.5	57.1
1/4/2022	10:00 PM	1-hour	57.9	67.9	46.2	66.1	61.5	60.4	59.5	58.8	57.3	54.5
1/4/2022	11:00 PM	1-hour	56.2	66.2	41.3	67.8	60.5	59.2	58.2	57.4	55.5	51.7
1/5/2022	12:00 AM	1-hour	53.5	63.5	30.9	64.2	58.2	56.9	55.9	55.0	52.5	47.7
1/5/2022	1:00 AM	1-hour	50.6	60.6	33.9	65.9	56.4	54.7	53.0	52.0	48.9	43.5
1/5/2022	2:00 AM	1-hour	51.3	61.3	33.8	65.0	56.9	55.3	53.7	52.6	49.7	45.2
1/5/2022	3:00 AM	1-hour	52.7	62.7	36.3	73.4	59.5	56.5	54.2	53.1	50.9	47.5
1/5/2022	4:00 AM	1-hour	55.8	65.8	42.5	69.2	60.0	58.7	57.4	56.7	55.1	52.4
1/5/2022	5:00 AM	1-hour	60.8	70.8	52.2	73.0	63.8	62.6	61.9	61.5	60.5	59.0
1/5/2022	6:00 AM	1-hour	62.6	72.6	57.3	69.9	65.0	64.1	63.5	63.2	62.4	61.2
1/5/2022	7:00 AM	1-hour	65.7	65.7	59.3	87.3	71.6	69.0	66.3	65.3	64.4	63.2
1/5/2022	8:00 AM	1-hour	66.8	66.8	59.9	90.3	73.8	70.3	67.6	66.2	64.8	63.5
1/5/2022	9:00 AM	1-hour	64.0	64.0	59.2	73.1	67.4	65.8	65.0	64.6	63.6	62.1
Daytime (7 AM to 10 PM)			*64.0*	*--*	*41.3*	*90.3*	*67.5*	*65.8*	*64.9*	*64.4*	*63.5*	*62.2*
Evening (7 PM to 10 PM)			*61.2*	*--*	*39.6*	*82.4*	*69.1*	*67.5*	*64.6*	*61.9*	*60.0*	*56.7*
Nightime (10 PM to 7 AM)			*57.6*	*--*	*30.9*	*73.4*	*61.1*	*59.8*	*58.9*	*58.3*	*57.1*	*55.0*
24-hour CNEL (1/4 9 AM to 1/5 9 AM)			*--*	*66.2*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*

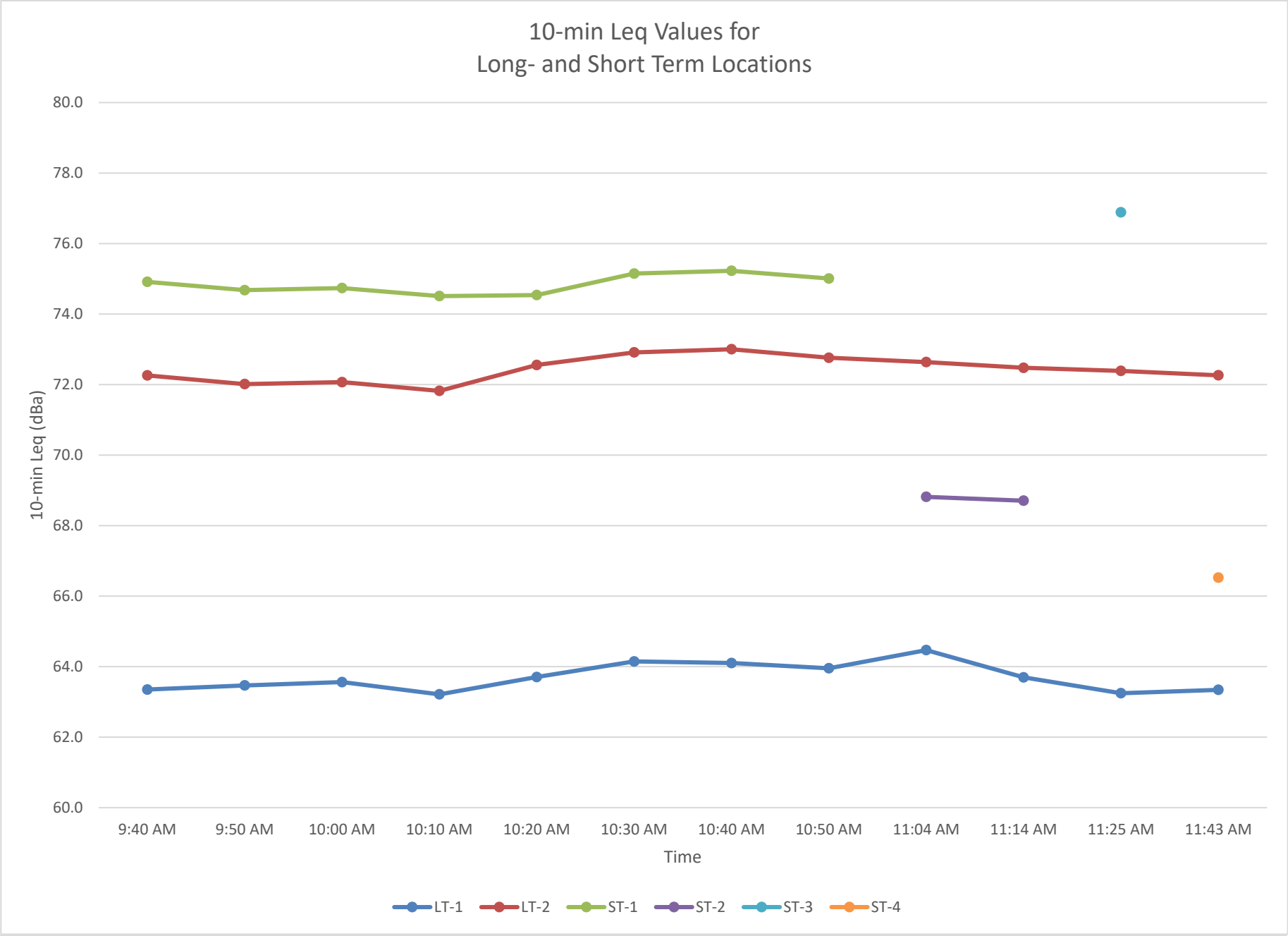
TABLE 6: SUMMARY OF SITE LT-2 NOISE MONITORING DATA												
Date	Time	Duration	Leq	CNEL	Lmin	Lmax	L(1.67)	L(8.33)	L(16.67)	L(25.00)	L(50.00)	L(90.00)
1/4/2022	9:00 AM	1-hour	72.6	72.6	64.6	91.7	77.2	74.5	73.6	73.2	72.1	70.1
1/4/2022	10:00 AM	1-hour	72.5	72.5	65.7	80.0	75.3	74.4	73.8	73.4	72.3	70.2
1/4/2022	11:00 AM	1-hour	72.4	72.4	63.6	78.4	75.1	74.3	73.6	73.3	72.3	70.1
1/4/2022	12:00 PM	1-hour	73.0	73.0	66.5	80.1	75.7	74.7	74.1	73.7	72.8	70.8
1/4/2022	1:00 PM	1-hour	73.1	73.1	66.5	89.2	77.1	74.9	74.1	73.7	72.8	71.0
1/4/2022	2:00 PM	1-hour	74.1	74.1	67.1	85.3	76.7	75.6	75.0	74.7	73.9	72.2
1/4/2022	3:00 PM	1-hour	74.5	74.5	69.8	85.3	76.8	75.8	75.3	75.0	74.3	72.9
1/4/2022	4:00 PM	1-hour	74.3	74.3	69.5	80.3	76.5	75.7	75.1	74.9	74.2	72.8
1/4/2022	5:00 PM	1-hour	73.6	73.6	68.6	78.6	75.7	74.9	74.5	74.2	73.5	72.1
1/4/2022	6:00 PM	1-hour	72.5	72.5	65.5	78.6	74.8	74.1	73.6	73.2	72.4	70.6
1/4/2022	7:00 PM	1-hour	71.2	76.2	62.2	78.0	74.3	73.3	72.6	72.1	71.0	68.6
1/4/2022	8:00 PM	1-hour	70.3	75.3	59.5	81.5	73.7	72.6	71.8	71.3	69.9	67.2
1/4/2022	9:00 PM	1-hour	69.0	74.0	52.7	79.6	73.0	71.5	70.8	70.1	68.6	65.0
1/4/2022	10:00 PM	1-hour	68.0	78.0	51.2	82.4	73.1	71.0	69.8	69.0	67.2	63.1
1/4/2022	11:00 PM	1-hour	65.8	75.8	47.2	77.0	71.0	69.4	68.1	67.1	64.6	59.5
1/5/2022	12:00 AM	1-hour	62.5	72.5	41.4	75.9	68.8	66.9	65.3	63.9	60.2	53.8
1/5/2022	1:00 AM	1-hour	59.4	69.4	40.4	74.8	66.9	64.5	62.1	60.1	55.4	48.7
1/5/2022	2:00 AM	1-hour	60.6	70.6	40.5	72.4	67.3	65.3	63.2	61.7	58.0	51.4
1/5/2022	3:00 AM	1-hour	59.5	69.5	40.9	74.3	66.7	64.5	62.0	60.3	56.5	50.6
1/5/2022	4:00 AM	1-hour	61.9	71.9	42.7	77.2	68.3	66.0	64.1	62.8	59.8	55.7
1/5/2022	5:00 AM	1-hour	66.6	76.6	52.8	76.4	71.2	69.5	68.4	67.7	65.7	62.5
1/5/2022	6:00 AM	1-hour	69.7	79.7	59.1	78.6	73.8	72.2	71.1	70.5	69.2	66.3
1/5/2022	7:00 AM	1-hour	72.0	72.0	64.3	79.5	74.7	73.9	73.3	72.8	71.8	69.7
1/5/2022	8:00 AM	1-hour	73.0	73.0	66.8	77.7	75.3	74.6	74.1	73.7	72.9	70.9
1/5/2022	9:00 AM	1-hour	72.5	72.5	65.6	79.9	75.2	74.3	73.7	73.3	72.3	70.1
Daytime (7 AM to 10 PM)			*72.7*	*--*	*47.2*	*91.7*	*75.6*	*74.4*	*73.7*	*73.3*	*72.4*	*70.6*
Evening (7 PM to 10 PM)			*70.3*	*--*	*52.7*	*81.5*	*73.7*	*72.6*	*71.8*	*71.3*	*69.9*	*67.2*
Nightime (10 PM to 7 AM)			*65.2*	*--*	*40.4*	*82.4*	*70.4*	*68.6*	*67.2*	*66.3*	*64.2*	*60.4*
24-hour CNEL (1/4 9 AM to 1/5 9 AM)			*--*	*74.3*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*

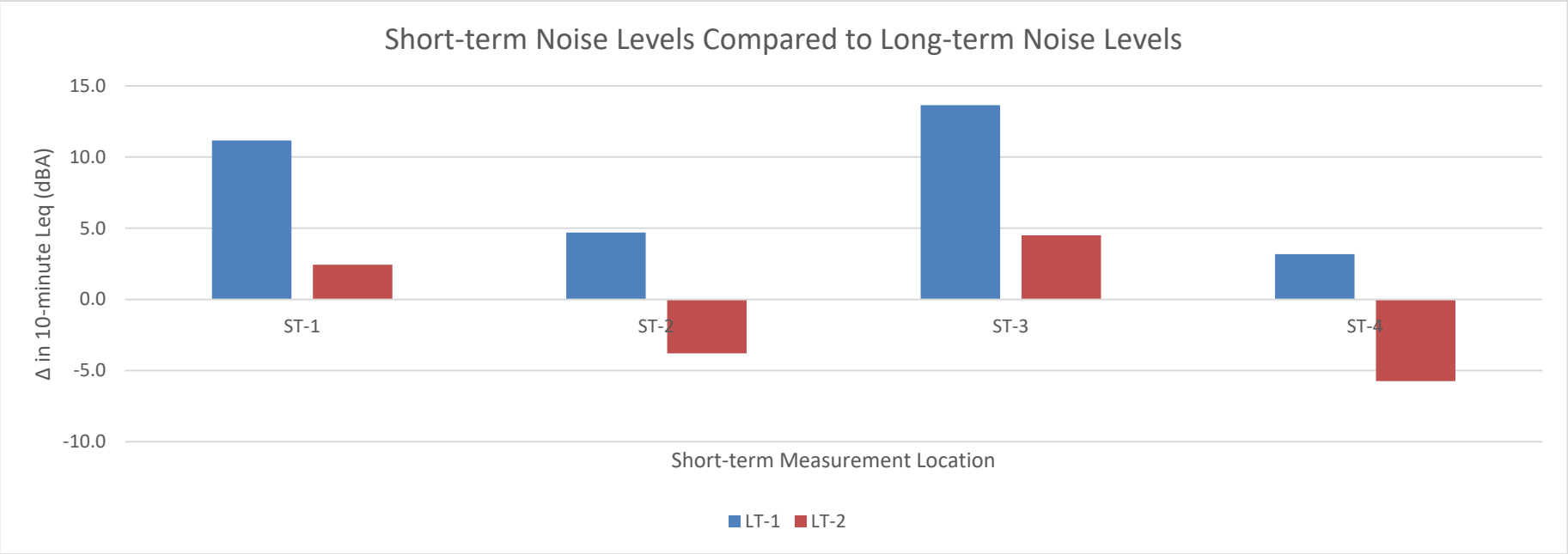
TABLE 7: NOISE LEVEL COMPARISON FOR ST-1							
Date	Start Time	Duration	Leq (dBA)			ST Δ from	
			LT-1	LT-2	ST	LT-1	LT-2
1/4/2022	9:40 AM	10-min	63.3	72.3	74.9	11.6	2.7
1/4/2022	9:50 AM	10-min	63.5	72.0	74.7	11.2	2.7
1/4/2022	10:00 AM	10-min	63.6	72.1	74.7	11.2	2.7
1/4/2022	10:10 AM	10-min	63.2	71.8	74.5	11.3	2.7
1/4/2022	10:20 AM	10-min	63.7	72.6	74.5	10.8	2.0
1/4/2022	10:30 AM	10-min	64.1	72.9	75.1	11.0	2.2
1/4/2022	10:40 AM	10-min	64.1	73.0	75.2	11.1	2.2
1/4/2022	10:50 AM	10-min	64.0	72.8	75.0	11.1	2.2
		Averages	*63.7*	*72.4*	*74.9*	*11.2*	*2.4*

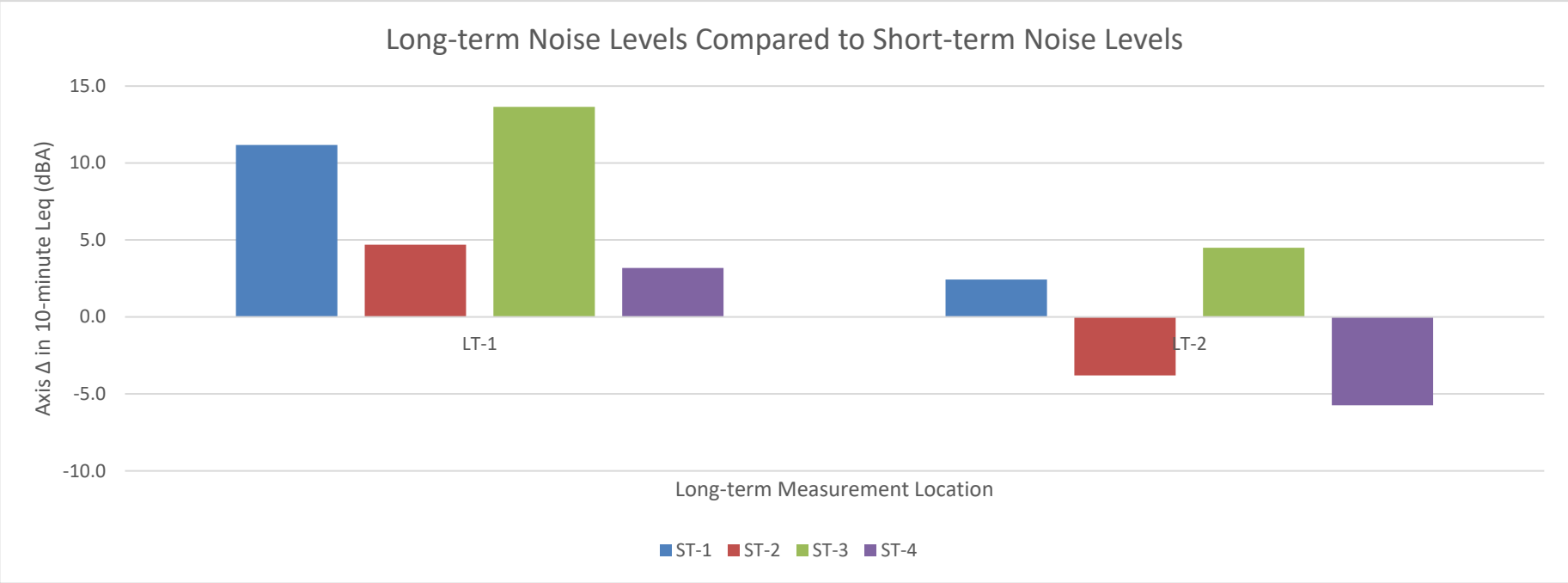
TABLE 8: NOISE LEVEL COMPARISON FOR ST-2							
Date	Start Time	Duration	Leq (dBA)			ST Δ from	
			LT-1	LT-2	ST	LT-1	LT-2
1/4/2022	11:04 AM	10-min	64.5	72.6	68.8	4.3	-3.8
1/4/2022	11:14 AM	10-min	63.7	72.5	68.7	5.0	-3.8
		Averages	64.1	72.6	68.8	4.7	-3.8

TABLE 9: NOISE LEVEL COMPARISON FOR ST-3							
Date	Start Time	Duration	Leq (dBA)			ST Δ from	
			LT-1	LT-2	ST	LT-1	LT-2
1/4/2022	11:25 AM	10-min	63.2	72.4	76.9	13.6	4.5

TABLE 10: NOISE LEVEL COMPARISON FOR ST-4							
Date	Start Time	Duration	Leq (dBA)			ST Δ from	
			LT-1	LT-2	ST	LT-1	LT-2
1/4/2022	11:43 AM	10-min	63.3	72.3	66.5	3.2	-5.7


10-min Leq Values for
Long- and Short Term Locations
80.0
78.0
76.0
74.0
72.0
70.0
68.0
66.0
64.0
62.0
60.0
10-min Leq (dBa)
9:40 AM
9:50 AM
10:00 AM
10:10 AM
10:20 AM
10:30 AM
10:40 AM
10:50 AM
11:04 AM
11:14 AM
11:25 AM
11:43 AM
Time
LT-1
LT-2
ST-1
ST-2
ST-3
ST-4


Short-term Noise Levels Compared to Long-term Noise Levels
15.0
10.0
5.0
0.0
-5.0
-10.0
Δ in 10-minute Leq (dBA)
ST-1
ST-2
ST-3
ST-4
Short-term Measurement Location
LT-1
LT-2


Long-term Noise Levels Compared to Short-term Noise Levels
15.0
10.0
5.0
0.0
-5.0
-10.0
Axis Δ in 10-minute Leq (dBA)
LT-1
LT-2
Long-term Measurement Location
ST-1
ST-2
ST-3
ST-4

I-280 Trail Project

Appendix D: Trail Access Analysis

HEXAGON TRANSPORTATION CONSULTANTS, INC.

Memorandum

Date: February 3, 2022

To: Mr. Mike Campbell, MIG

From: Gary Black, Marc Powell

Subject: Junipero Serra Trail Trailhead Access Analysis

Based on conceptual improvement plans prepared by the project engineer and landscaping architect, the three proposed trailhead locations for the Junipero Serra Trail in Cupertino, California were analyzed with regard to bicycle and pedestrian accessibility. The locations and Hexagon's findings are as described below and as shown on the attached sketches.

LUCILLE AVENUE TRAILHEAD

The proposed Lucille Avenue Trailhead is located at the intersection of Lucille Avenue and Villa de Anza Avenue, just west of the Blaney Avenue overpass. The project will install curb ramps and a high-visibility crosswalk on the west leg of the intersection. The area is residential with mostly single-family homes and a large apartment complex on the southwest corner of the intersection. Trail users can park on both sides of Lucille Avenue west of the crosswalk or on the west side of Villa De Anza Avenue. However, it is recommended that parking be prohibited for at least 50 feet on approaches to the crosswalk to provide unrestricted sightlines for pedestrians and motorists.

North Blaney Avenue has on-street bike lanes in both directions but lacks a median island or left turn lanes. In order to facilitate safe bicycle access to the trailhead, it is therefore recommended that northbound bicyclists on Blaney Avenue be directed by signage to turn right onto a frontage road (also called "North Blaney Avenue") and southbound bicyclists be directed to turn right onto Villa de Anza Avenue.

At the curve where the North Blaney Avenue frontage road connects to Lucille Avenue there is a metal beam guardrail that protects motorists from multiple hazards including a sound wall, a drainage channel and a high-voltage power transmission tower guy anchor. Since the piling for the guy anchor is located only about three feet from the north curb line on Blaney Avenue, it is recommended that the curved section of roadway be reconstructed at a slightly longer radius to provide sufficient room for the trail and the relocated guardrail. It is also recommended that a driveway be provided on the curve to serve trail maintenance vehicles and to provide access to the trail for northbound bicyclists on North Blaney Avenue. For improved pedestrian access, it is recommended that about 210 feet of sidewalk be installed on the east side of North Blaney Avenue with curb ramps at the Olivewood Street intersection. The recommended improvements are shown on the attached sketches.

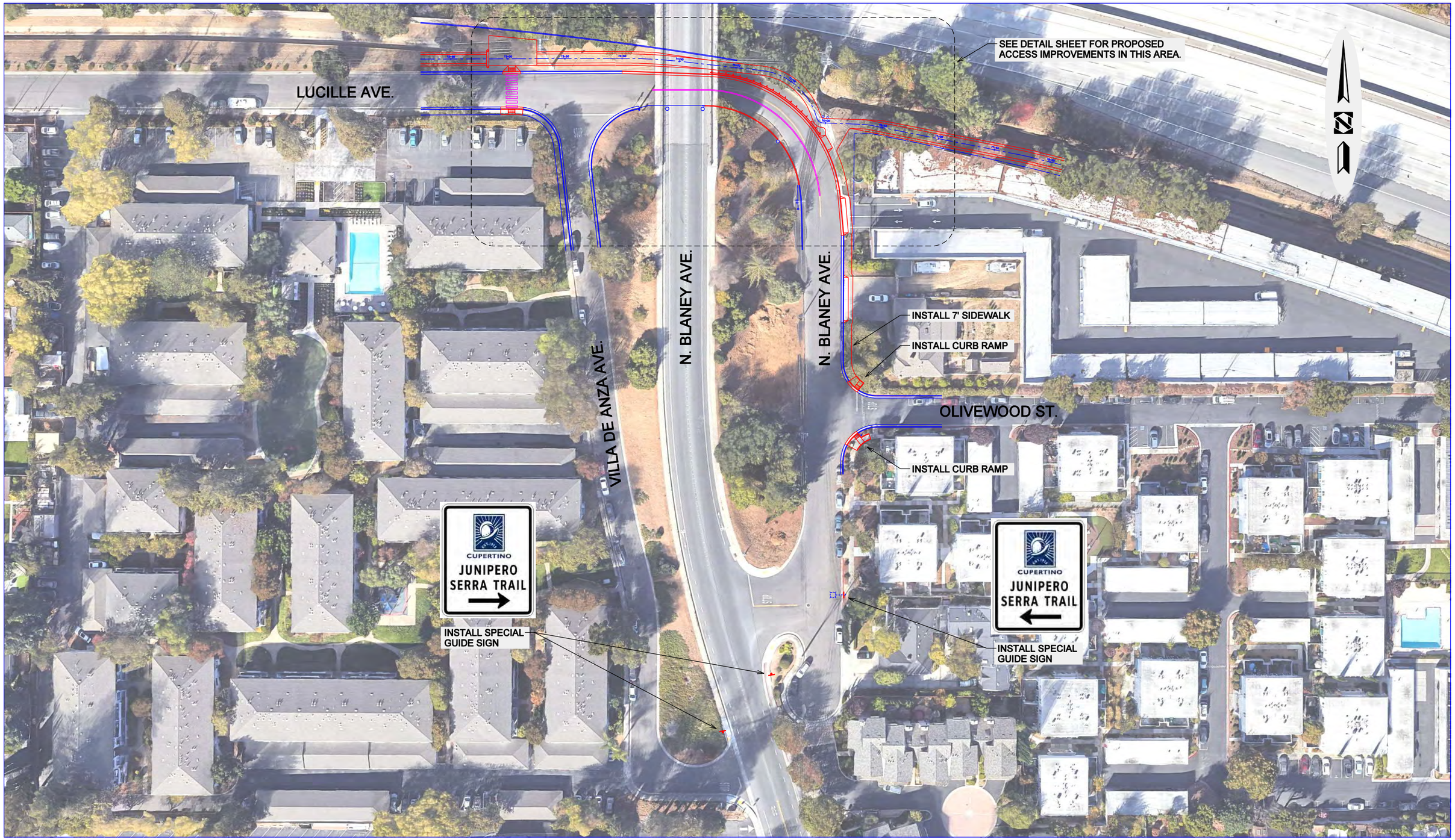
VALLCO TRAILHEAD

The Vallco Trailhead is located at the northwest corner of the future Vallco Mall development. The segment of trail west of the trailhead is to be connected to the segment to the east by a wide

sidewalk along the north side of the Perimeter Road where it passes under Wolfe Road. It is recommended that the sidewalk have a centerline stripe and guide signs to direct bicyclists onto the trail. Also, as with Blaney Avenue, it is recommended that guide signs be installed at intersections on Wolfe Road to direct bicyclists to the trailhead location. On-street parking for trail users will not be available which may result in them making use of spaces in commercial parking lots in the area. Recommended improvements in the vicinity of the trailhead are shown on the attached sketch.

VALLCO PARKWAY TRAILHEAD

The trailhead is located on the north side of Vallco Parkway about 80 feet east of its intersection with driveways that serve the Main Street development to the south and Apple Computer offices to the north. There is an existing driveway on the north side of the street that will provide access for trail maintenance vehicles. It is recommended that signage be installed directing westbound bicyclists on Vallco Parkway to use the driveway to access the trail. In addition, it is recommended that signage be installed on the southwest corner of the intersection to direct eastbound bicyclists to turn left onto the Apple Computer driveway for access to the trailhead on the northeast corner. On-street parking for trail users is not available near the trailhead which may result in them making use of spaces in commercial parking lots at the Main Street development. Recommended signage improvements are shown on the attached sketch.



Hexagon Transportation Consultants, Inc.

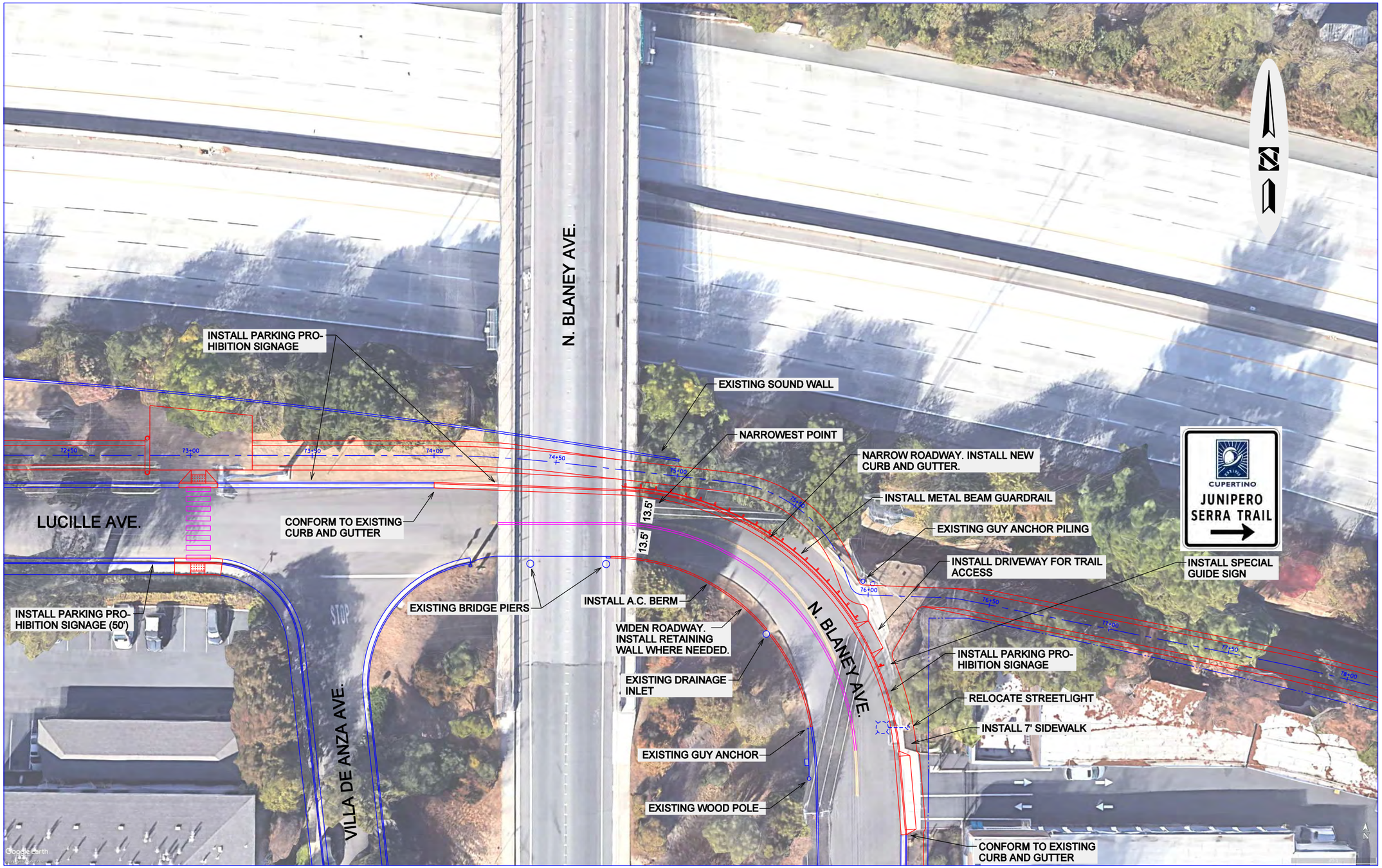
100 Century Center Court, Suite 501
San Jose, California 95112
Phone: (408) 971–6100
www.hextrans.com

JUNIPERO SERRA TRAIL
LUCILLE AVE. TRAILHEAD
CONCEPTUAL ACCESS IMPROVEMENTS

DESIGNED BY: M. POWELL

DATE: 2/1/2022

GRAPHIC SCALE
0 80 120 160
1 INCH = 80 FEET



Hexagon Transportation Consultants, Inc.

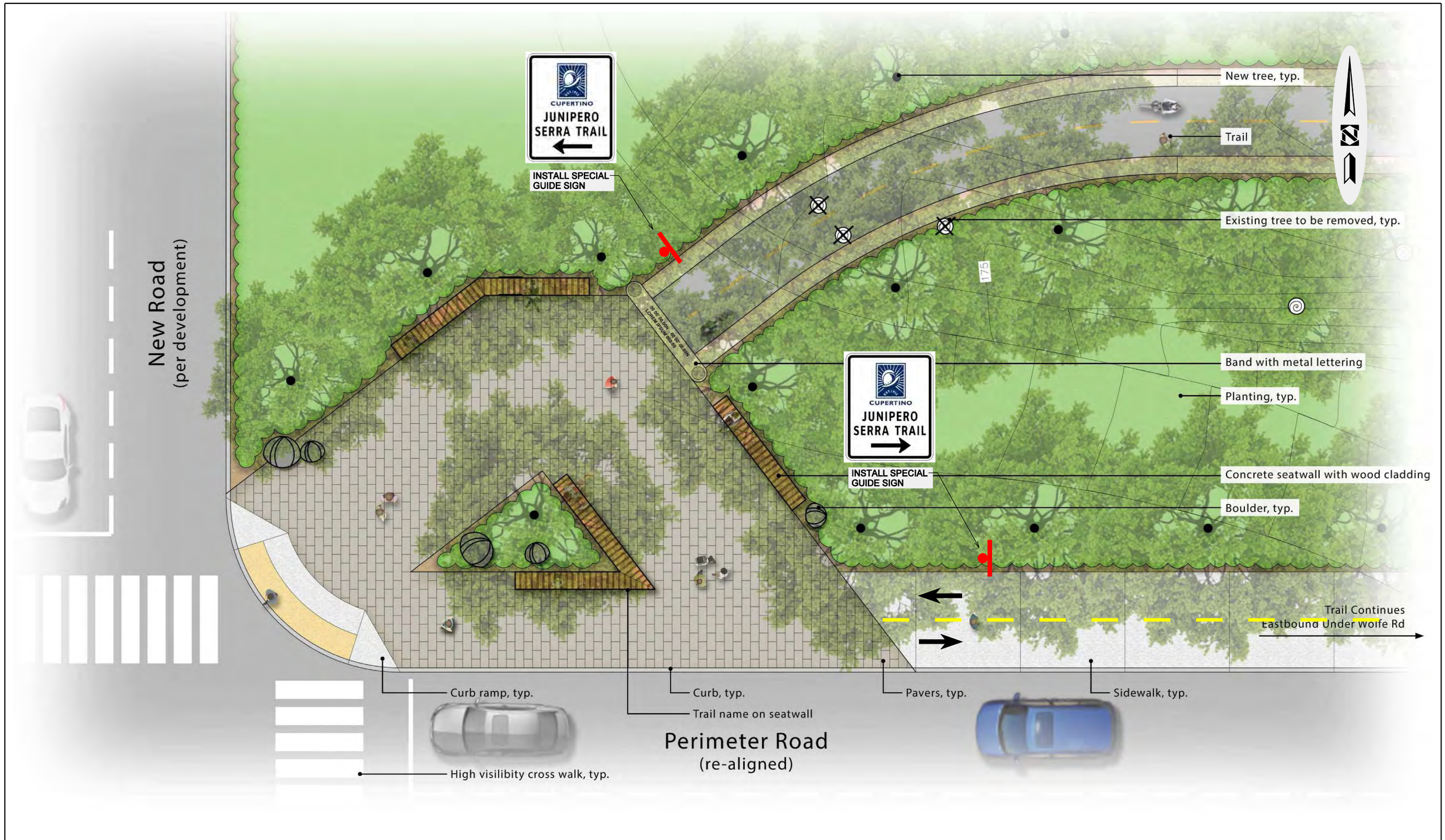
100 Century Center Court, Suite 501
San Jose, California 95112
Phone: (408) 971–6100
www.hextrans.com

JUNIPERO SERRA TRAIL
LUCILLE AVE. TRAILHEAD
CONCEPTUAL ACCESS IMPROVEMENTS DETAIL

DESIGNED BY: M. POWELL

DATE: 2/1/2022

GRAPHIC SCALE
0 40 60 80
1 INCH = 40 FEET



Hexagon Transportation Consultants, Inc.

100 Century Center Court, Suite 501
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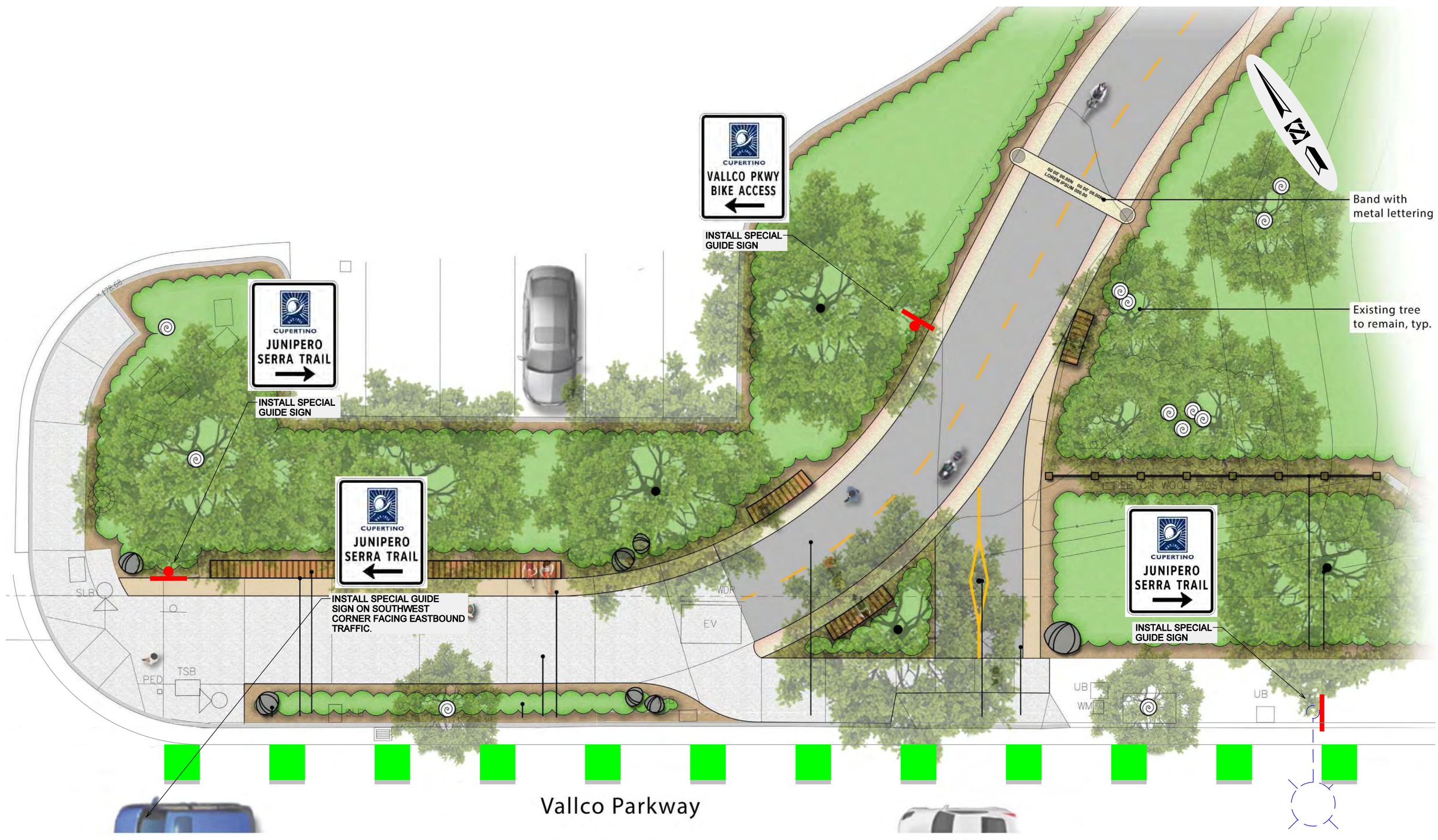
Phone: (408) 971–6100
www.hextrans.com

JUNIPERO SERRA TRAIL
VALLCO TRAILHEAD
CONCEPTUAL ACCESS IMPROVEMENTS

DESIGNED BY: M. POWELL

DATE: 2/1/2022

GRAPHIC SCALE
0 10 15 20
1 INCH = 10 FEET



Hexagon Transportation Consultants, Inc.

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Phone: (408) 971–6100
www.hextrans.com

JUNIPERO SERRA TRAIL
VALLCO PARKWAY TRAILHEAD
CONCEPTUAL ACCESS IMPROVEMENTS

DESIGNED BY: M. POWELL

DATE: 2/1/2022

GRAPHIC SCALE
0 10 15 20
1 INCH = 10 FEET

Cupertino I-280 Trail Public Draft IS 2022_0616_wAppendices.

Final Audit Report 2022-06-17

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By:	Julia Kinst (juliak@cupertino.org)
Status:	Signed
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