10500 Creston Drive
General Biological Resources Assessment

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List of Abbreviated Terms

AMM	Avoidance and Minimization Measures
BMP	Best Management Practice
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFP	California Fully Protected Species
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CSSC	California Species of Special Concern
CWA	Clean Water Act
FESA	Federal Endangered Species Act
GPS	Global Positioning System
HCP	Habitat Conservation Plan
IPaC	Information for Planning and Consultation
LSAA	Lake and Streambed Alteration Agreement
MBTA	Migratory Bird Treaty Act
NCCP	Natural Community Conservation Plan
NPDES	National Pollution Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
U.S.	United States
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
EPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service

1 Introduction

This report provides an evaluation of biological resources that may be impacted by the proposed removal of a retaining wall along Stevens Creek (project) on a 0.31-acre parcel located at 10550 Creston Drive in a small area of unincorporated Santa Clara County, California (APN 326-12-057) surrounded by the cities of Los Altos and Cupertino (Appendix A, Figures 1 and 2). It identifies sensitive biological resources with potential to occur at the project site, potential impacts to those resources resulting from 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, environmental review, for local land use permits, and in support of applications for resource agency permits, as needed. The report includes the following sections:

- Section 1 Introduction
- Section 2 Project Location and Description, which provides an overview of the project.
- Section 3 Regulatory Setting, which provides a list of the federal, state, and local regulations that pertain to the project.
- Section 4 Methodology, which includes the approach used for the evaluation, including field work and literature review.
- Section 5 Environmental Setting, which provides a description of the environmental conditions at the project site, including vegetation communities and associated wildlife habitats present, and a discussion of 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 and Avoidance Measures, which provides an evaluation of the potential impacts of the project on biological resources; 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 unavoidable impacts under CEQA.

2 Project Location and Description

The parcel is developed with a single-family dwelling including a pool, paved parking area, ornamental vegetation, and a lawn. It is adjacent to Stevens Creek, which flows from its headwaters in the Santa Cruz Mountains to San Francisco Bay. The flows in Stevens Creek are controlled by a dam at the Stevens Creek Reservoir; at this location upstream of Fremont Avenue, the flows are typically perennial, but reaches downstream of the project are not

perennial. The parcel is located in the *Cupertino, California* U.S. Geological Survey (USGS) 7.5-minute quadrangle and is surrounded by dense residential development.

The project includes the demolition of an unpermitted retaining wall and patio located between the lawn and Stevens Creek, subsequent bank stabilization, and replanting of native vegetation. Photographs of the project site are included in Appendix B, and detailed project plans are included in Appendix C. The project description also incorporates National Pollution Discharge Elimination System (NPDES) best management practices (BMPs) to prevent deleterious materials or pollutants from entering Stevens Creek (Appendix C). The project footprint is approximately 0.008 acres (60 feet long and 6 feet wide) and is located adjacent to Stevens Creek (Figure 3).

3 Regulatory Setting

Biological resources in California are protected under federal, state, and local laws, regulations, and ordinances (laws). The laws that may pertain to the biological resources found on the project site are described in this section. The assessment of the permits required for this project is based on the requirements of federal, state and local laws, regulations, and ordinances.

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 major components: (1) provisions for listing species, (2) requirements for consultation with the United States (U.S.) 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 Habitat Conservation Plan.

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 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, 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 the 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

The 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.

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 the 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 Agreement (LSAA) 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 LSAA that includes measures to protect affected fish and wildlife resources, including mitigation for impacts to bats and bat habitat.

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 the FESA or CESA, but which are nonetheless of concern to the 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 the 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 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.

3.2.6 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.

3.2.7 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 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 the CEQA (CCR: Title 14, Div. 6, Chap. 3, Appendix G).

3.2.8 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. dirt) to waters of the State must file a Report of Waste Discharge and receive either waste discharge requirements (WDRs) or a waiver to WDRs before beginning the discharge.

3.3 Local

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

Construction Phase. 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 the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit; Water Board Order No. 2009-0009-DWQ). 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 must be developed and maintained during the project and it must include the use of Best Management Practices (BMPs) to protect water quality until the site is stabilized. Even though the proposed project impacts less than 1.0 acre, the project has incorporated BMPs from the NPDES General Permit.

Standard permit conditions require that the applicant utilize various measures including on-site sediment control BMPs, 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 factors. Additionally, the Construction General Permit does not extend coverage to projects if stormwater discharge-related activities are likely to jeopardize the continued existence or result in take of any federally listed endangered or threatened species.

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 permit 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. In order to meet these permit and policy requirements, projects must incorporate the use of green roofs, impervious surfaces, tree planters, grassy swales, bioretention and/or detention basins, among other factors.

3.3.2 Santa Clara County General Plan

The Resource Conservation chapter of the Santa Clara County General Plan addresses several conservation areas, including water supply and quality, habitat and biodiversity, agricultural resources, mineral resources, heritage resources (including heritage trees) scenic resources, solid waste management, and energy resources. Regarding habitat and biodiversity, the General Plan identifies habitat conservation as key to protecting water supply, and specifically the importance of protecting riparian habitat because it has the greatest diversity of species, minimizes the effects of erosion, and protects water quality.

policies and implementation for overall resource management are outlined in the General Plan. The following policies apply to this project.

Policy C-RC 1: “Natural and heritage resources shall be protected and conserved for their ecological, functional, economic, aesthetic, and recreational values.”

Policy C-RC 4 provides the following five strategies for resource management, conservation, and preservation:

a. Improve and update current knowledge;
b. Emphasize pro-active, preventative measures;
c. Minimize or compensate for adverse human impacts;
d. Restore resources where possible; and
e. Monitor the effectiveness of mitigations.

3.3.3 Santa Clara County Zoning Ordinance

The parcel is located within the Urban Residential Base District (R1-10) of unincorporated Santa Clara County. The purpose of the R1 District, also known as the One-Family Residence District, is to provide for single-family dwellings, and for the orderly and efficient arrangement of dwellings, yards, accessory buildings, and other residential site improvements. The overall purpose of the R1-10 District is to provide for appropriate uses in the unincorporated areas of Santa Clara County that are within the urban service area of the City of Los Altos and to regulate the type and intensity of development in these areas in a manner consistent with the General Plan for Los Altos.

3.3.4 Los Altos General Plan

The Los Altos General Plan was adopted in compliance with the state law requirement that each city and county prepare and adopt a comprehensive and long-range general plan for its physical development (California Government Code Section 65300). The goals and policies set forth by the General Plan that pertain to biological resources are summarized below.

Open Space, Conservation & Community Facilities Element – **Goal 2.** Natural resources in Los Altos include creek channels, mature groves of trees, and remaining orchards. One of the goals of the General Plan is to preserve, protect, and provide for public enjoyment of natural areas, including natural creek channels, topography, and vegetation. Policies within this goal include the protection of creeks, creekside areas, and riparian habitat in their natural state while ensuring public safety and preserving a valuable natural resource; enforcement of local, state, and federal regulations addressing water quality and stormwater quality management; and the establishment of buffers along adjoining land uses to protect the natural state of creeks.

The Implementation Program for Goal 2 identifies actions to implement the adopted goals and policies identified in the Open Space, Conservation & Community Facilities Element, including:

- OCC 3: PROTECT NATURAL RESOURCES. Assess development proposals for potential impacts to significant natural resources pursuant to California Environmental

Quality Act. Require appropriate mitigation for all significant impacts if impact avoidance is not possible.

- OCC 4: WATERCOURSE PROTECTION ORDINANCE. Implement the City's Watercourse Protection Ordinance. Los Altos has adopted regulations to protect the City's watercourses by requiring the maintenance of waterways to keep them free of debris, excessive vegetation and other obstacles that have the potential to pollute, contaminate, or significantly retard water flow. Property owners along the City's watercourses are required to obtain a permit for discharges/deposits into the waterway or to modify the land or structures abutting the waterway.

3.3.5 City of Los Altos Tree Protection Ordinance

The purpose of the Tree Protection Ordinance (Los Altos Municipal Code Chapter 11.08) is to preserve and maintain the City's urban forest and rural character by retaining and/or replacing large mature trees when possible and where appropriate. All trees, regardless of species, that are 48-inches or larger in circumference (approx. 15-inches in diameter) are protected and require a Tree Removal Permit before they can be removed.

The Tree Protection Ordinance also requires tree protection during construction. Trees designated for preservation shall be protected during development of a property by compliance with the following, which may be modified by the planning director:

- Protective fencing shall be installed no closer to the trunk than the dripline, and far enough from the trunk to protect the integrity of the tree. The fence shall be a minimum of four feet in height and shall be set securely in place. The fence shall be of a sturdy but open material (i.e., chainlink), to allow visibility to the trunk for inspections and safety. There shall be no storage of any kind within the protective fencing.
- The existing grade level around a tree shall normally be maintained out to the dripline of the tree. Alternate grade levels may be approved by the planning director.
- Drain wells shall be installed whenever impervious surfaces will be placed over the root system of a tree (the root system generally extends to the outermost edges of the branches).
- Trees that have been damaged by construction shall be repaired in accordance with accepted arboriculture methods.
- No signs, wires, or any other object shall be attached to the tree.

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: Lick Observatory, Isabel Valley, Eylar Mountain, Mount Day, Calaveras Reservoir, San José East, Santa Teresa Hills, Morgan Hill, and Mount Sizer (CNDDB 2019)
- CNPS Rare Plant Program *Inventory of Rare and Endangered Plants of California* record 9-quadrangle search, including: Lick Observatory, Isabel Valley, Eylar Mountain, Mount Day, Calaveras Reservoir, San José East, Santa Teresa Hills, Morgan Hill, and Mount Sizer (CNPS 2019). Quadrangle-level results are not maintained for 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 2019)
- CDFW CNDDB for natural communities of special concern that occur within the project region (CNDDB 2019)
- USFWS Information for Planning and Consultation (IPaC) tool, using default parameters set within the search tool (USFWS 2019)
- USFWS National Wetland Inventory (NWI 2019)
- United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2019)
- Other relevant scientific literature, technical databases, and resource agency reports to assess the current distribution of special-status plants and animals in the project vicinity

4.2 Field Surveys

A reconnaissance-level field survey of the parcel was conducted by MIG senior biologist David Gallagher, M.S. on August 23, 2019. The purpose of this survey was to provide a project-specific impact assessment for the proposed project. Specifically, surveys were conducted to (1) assess existing biotic habitats and plant and animal communities in the parcel; (2) assess the parcel for its potential to support special-status species and their habitats; and (3) identify potential jurisdictional habitats (such as Waters of the U.S./State), although a formal wetland delineation was not conducted. Geospatial data were collected using a tablet with an Arrow 100 sub-meter global positioning system (GPS) receiver and a geo-spatial mobile-device application for recording data points and photographs.

4.2.1 Sensitive Habitats and Aquatic Features

All plant communities observed in the work parcel 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 parcel was 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 federal register 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." Wetlands subject to federal jurisdiction normally exhibit positive indicators for hydrophytic vegetation, hydric soil, and wetland hydrology.

4.2.2 Special-Status Species Habitat Evaluation

During the field survey, Mr. Gallagher evaluated the suitability of the habitat to support special-status species documented within the parcel and nearby. 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 the FESA, those listed or proposed for listing as rare, threatened or endangered by the CDFW under the CESA, animals designated as CFP or CSSC by the CDFW, birds protected by the USFWS under the MTBA and/or by the 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 parcel was evaluated by developing a list of special-status species that are known to or have the potential to occur in the vicinity of the parcel 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 at the project site was then evaluated based on the habitat requirements of each species relative to the habitat conditions documented to occur at the project site. If there are no documented occurrences within 5 miles of the work parcel, if there is clearly no suitable habitat present, and if the parcel 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 parcel according to the following criteria:

Not Expected: CNDDB or other documents do not record the occurrence of the species within or reasonably near the parcel and within the last 10 years, and/or no components of suitable habitat are present within or adjacent to the parcel.

Low Potential: The CNDDB or other documents may or may not record the occurrence of the species within a 5-mile radius of the parcel. However, few components of suitable habitat are present within or adjacent to the parcel.

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 5-mile radius of the parcel, or some of the components representing suitable habitat are present within or adjacent to the parcel, 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 5-mile radius of the parcel and within the last 10 years. All or most of the components representing suitable habitat are present within the parcel.

Present or Assumed Present. Species was observed on the study area, or recent species records (within five years) from literature are known within the work parcel.

5 Existing Land Uses, Natural Communities, and Habitats

5.1 General Study Area Description

The approximately 0.31-acre parcel is in a small unincorporated area of Santa Clara County that is within the Sphere of Influence of the City of Los Altos. The parcel is surrounded by residential development. Stevens Creek flows along the eastern edge of the parcel (Appendix A, Figure 2). Elevation of the study area is approximately 270 feet North American Vertical Datum of 1988 (NAVD88) (Google Inc. 2019).

The parcel is mostly developed and includes a single-family house, swimming pool; yard/landscaped areas; and a small deck and patio area that is located adjacent to Stevens Creek. At the time of the survey, Stevens Creek was flowing and supported mixed riparian woodland. The project site (i.e., limits of disturbance) is confined to the stone retaining wall and stone patio area adjacent to the creek and is elevated approximately seven feet above the creek bed (Appendix A, Figure 3; Appendix B, Photos 1-3).

The climate at the parcel is coastal Mediterranean, with most rain falling in the winter and spring. Mild cool temperatures are common in the winter. Hot to mild temperatures are common in the summer. Climate conditions in the parcel include a 30-year average of approximately 12.4 inches (in) of annual precipitation with an average temperature range from 51ºF to 69ºF (PRISM Climate Group 2019)

The U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI) maps Steven's Creek within the project site as a seasonally flooded, forested/shrub wetland (PFOC) (NWI 2019) (Appendix A, Figure 2).

5.2 Existing Land Uses, Vegetation Communities, and Habitats

The parcel 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). The reconnaissance-level field survey identified two general biotic habitat types in the parcel: urban and mixed riparian woodland.

Vegetation communities and land cover types in the parcel are summarized in Table 1, and are shown in Figure 3 in Appendix A.

Table 1. Summary of Existing Land Cover Types, Natural Communities, and Habitats in the work parcel

Vegetation Communities and Land Cover Types	Area (acres)
Urban	0.258
Mixed Riparian Woodland	0.056
Study Area Total	**0.314**

5.2.1 Urban

The dominant land cover within the parcel is urban, comprising areas where the native vegetation has been cleared for residential structures. These areas include the home, pool, yard/landscaped areas, and other impermeable surfaces. There are several landscaped areas that support vines, shrubs, and mature trees, such as Japanese maple (*Acer palmatum*), paper birch (*Betula papyrifera*), and English ivy (*Hedera helix*).

The urban portions of the parcel provide relatively low-quality habitat for wildlife species. The wildlife most often associated with this land use are tolerant of periodic human disturbances, including introduced species such as the European starling (*Sturnus vulgaris*), mourning dove (*Zenaida macroura*), house mouse (*Mus musculus*), and Norway rat (*Rattus norvegicus*). Several common native species are also able to use this habitat, including the Anna's hummingbird (*Calypte anna*), American crow (*Corvus brachyrhynchos*), black phoebe (*Sayornis nigricans*), northern mockingbird (*Mimus polyglottos*), house finch (*Haemorhous mexicanus*), California towhee (*Melozone crissalis*), and raccoon (*Procyon lotor*).

5.2.2 Riparian Woodland and Stevens Creek

The parcel contains mixed riparian woodland along Steven's Creek (Appendix B, Photos 4 and 5). The mixed riparian woodland habitat is dominated by Fremont's cottonwood (*Populus fremontii*) and western sycamore (*Platanus racemosa*). The understory is dominated by an admixture of English ivy, California blackberry (*Rubus ursinus*), and mint (*Mentha* sp.). Other understory species present included flatsedge (*Cyperus* sp.) and stinging nettle (*Urtica dioica*).

Stevens Creek is a 22-miles long. It originates in the Santa Cruz Mountains on the western flank of Black Mountain in the Monte Bello Open Space Preserve and drains approximately 46 square miles. From its headwaters the creek flows into Stevens Creek Reservoir. Past the reservoir, the creek flows north through dense residential and commercial development through Cupertino, Los Altos, Sunnyvale and Mountain View before emptying into San Francisco Bay at the Whisman Slough. The creek watershed has been modified, and currently includes a portion of the Permanente Creek Watershed, due to the Permanente diversion channel that connects the two creeks downstream of Fremont Avenue. In addition, flows in Stevens Creek are affected by a dam at Stevens Creek Reservoir upstream of the parcel.

Stevens Creek forms a continuous riparian buffer from its headwaters until it enters tidal marsh in San Francisco Bay. Continuous riparian buffers provide important wildlife migration corridors, which are critical "movement highways" for terrestrial species such as mammals and reptiles as well as for water dependent species such as amphibians and waterfowl. Wildlife corridors play an important role in countering habitat fragmentation. A wildlife corridor is a landscape element which serves as a linkage between historically connected habitats or landscapes that are otherwise separated and is meant to provide avenues along which wildlife can travel, migrate, and meet mates; plants can propagate; genetic interchange can occur; populations can move in response to environmental changes and natural disasters; and individuals can re-colonize habitats from which populations have been locally extirpated. Corridors can consist of a sequence of stepping-stones across the landscape (i.e., discontinuous areas of habitat such as isolated wetlands and roadside vegetation), continuous lineal strips of vegetation and habitat (e.g., riparian strips and ridge lines), or they may be parts of larger habitat areas of known or likely importance to local wildlife.

Mixed riparian woodland habitats in California generally support animal communities that contribute disproportionately to landscape-level species diversity. The presence of seasonal water and abundant invertebrate fauna provide foraging opportunities for many species, and the diverse habitat structure provides cover and breeding opportunities. The mixed riparian woodland habitat in the parcel provides cover and foraging habitat for 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), seed-eaters (e.g., finches), and raptors. Cavity-nesting birds (e.g., swallows and woodpeckers) may nest in the large trees in this habitat type.

Several species of amphibians and reptiles occur in the mixed riparian woodland habitats. Leaf litter, downed tree branches, low-growing forbs, and fallen logs provide cover for the ensatina (*Ensatina eschscholtzii*), California newt (*Taricha torosa*), western toad, and Pacific treefrog. Reptile species found in this habitat include the western fence lizard, western skink (*Eumeces skiltonianus*), southern alligator lizard (*Elgaria multicarinata*), and ringneck snake (*Diadophis punctatus*) among others. Among the species of birds that use the mixed riparian woodland habitat on the site for breeding are the Pacific-slope flycatcher (*Empidonax difficilis),* California scrub jay, and bushtit. Trees in this habitat provide also provide nesting opportunities for smaller raptors, such as the Cooper's hawk (*Accipiter cooperii*).

Small mammals, such as the ornate shrew (*Sorex ornatus*) and broad-footed mole (*Scapanus latimanus),* use the mixed riparian woodland for breeding and foraging. Medium-sized mammals such as the raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), bobcat, and nonnative Virginia opossum (*Didelphis virginiana*) are also present in this habitat. Black-tailed deer are common in the surrounding habitats and use mixed riparian woodland areas for access to water and foraging. Several species of bats, including the Yuma myotis (*Myotis yumanensis*) and Mexican free-tailed bat (*Tadarida brasiliensis*), forage over mixed riparian woodland habitats and roost in trees.

5.3 Top of Bank

The top of bank was mapped along the reach of Stevens Creek within the parcel (see) Appendix A, Figure 3) using a sub-meter GPS. The top of bank was determined by identifying the first significant break in slope along the natural areas adjacent to the project site and then interpolating the top of bank across the existing patio and retaining wall that are proposed to be removed. Using this method, the top of bank generally followed the alignment of the existing retaining wall between the yard and patio (Appendix B, Photo 1).

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". A list of special status species was compiled and potential project impacts were assessed for each species. Impacts on these species are regulated by some of the federal, state, and local laws and ordinances described under Regulatory Setting above.

6.1 Special-Status Plants

A list of 74 special-status plant species thought to have some potential for occurrence within the parcel was compiled using the CNPS rare plant inventory (CNPS 2019) and CNDDB records (CNDDB 2019). Analysis of the documented habitat requirements and occurrence records of these plants, and our plant ecologist's knowledge of sensitive species considered, allowed us to

reject all 74 species as not having a reasonable potential to occur within the parcel for at least one of the following reasons: (1) lack of suitable habitat types; (2) absence of specific microhabitat or edaphic requirements(e.g., serpentine or alkaline soils); (3) the species is presumed extirpated or is not expected to occur in the project vicinity due to range; and/or (4) the site is too disturbed to be expected to support the species. As the parcel is largely composed of areas with little habitat value (urban land cover), the parcel does not provide suitable habitat for special-status plants. Therefore, no special-status plant species are expected to occur in the parcel.

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 site, it was determined that eight wildlife species could potentially occur within or near the parcel. This determination was made due to the presence of essential habitat requirements for the species, the presence of known occurrences within 5 miles of the parcel, and/or the parcel's location within the species' known range of distribution. Special-status animal species that are not expected or have a low potential to occur within or near the work parcel were excluded from this analysis.

The legal status and likelihood of occurrence of special-status animal species in the work parcel are presented in Table 3 and discussed in greater detail below.

Table 2. Special-Status Animal Species with Potential to Occur in the Parcel

Common Name	Regulatory Status	Likelihood of Occurrence in the Parcel (including Project SIte)
Central California Coast Steelhead DPS	FT	Assumed Present (non-breeding)
California red-legged frog	FT, CSSC	Moderate (non-breeding)
Western pond turtle	CSSC	High (non-breeding)

Key to Status Abbreviations: Federally Listed as Endangered (FE); Federally Listed as Threatened (FT); Federal Candidate for Listing (FC), Federal Species of Concern (FSC), State Listed as Endangered (SE); State Listed as Threatened (ST); State Candidate for Listing (SC); State Fully Protected (FP); California Species of Special Concern (CSSC)

The following sections include expanded descriptions for those species potentially occurring in the parcel, as well as species for which there are known occurrences close to the project site, but which are not expected to occur within the project site.

6.2.1 Special-Status Fish

Central California Coast Steelhead (*Oncorhynchus mykiss irideus*) Federal Listing Status: Threatened; State Listing Status: None. Central California Coast (CCC) Steelhead DPS is an anadromous fish that is born and rears in streams that flow to San Francisco Bay and

the Pacific Ocean, that swims to the ocean to mature, and that returns to its natal stream to reproduce. Steelhead migrate up freshwater streams to spawn during the late-fall and winter months because these months usually provide high flows and lower water temperatures. Adult female steelhead create a nest (or redd) in a section of stream with gravel and moderate-fast flowing water to provide constant, fresh water to oxygenate the eggs. Once hatched the steelhead rear in the freshwater system they were hatched in (approximately 1-2 years) once large enough they migrate to the ocean to finishing rearing and maturing (approximately 1-2 more years) and return to their natal stream to spawn (Shapovalov and Taft 1954; Barnhart 1986; Busby et al. 1996). CCC Steelhead can spawn multiple times in their lifetime.

The Central California Coast (CCC) Steelhead was listed as a threatened species in August 1997 (NMFS 1997) and the threatened status was reaffirmed in January of 2006 (NMFS 2006). Critical habitat was designated for the CCC steelhead DPS in September 2005 (NMFS 2005), and a final recovery plan was published in October 2016. In many areas, steelhead populations have declined due to habitat fragmentation and degradation of spawning habitat, natural and manmade barriers to upstream breeding grounds, over-harvesting by recreational fisheries and the reduction of winter/spring flow in response to dams and water diversion. In addtion, non-native fish species pose risks to the CCC steelhead through predation, competition and habitat modification. An increase in marine mammal predation on the CCC steelhead DPS have been reported at the ocean confluence while the steelhead wait for access to migrate upstream.

Critical habitat for CCC 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 Unity includes the coastal streams in San Mateo County from San Pedro Creek near Pacifica to Butano Creek near Aṅo Nuevo and the Santa Clara Hydrologic Unit includes South Bay creeks from San Francisquito Creek in Palo Alto eastward to Coyote Creek (NMFS 2006) and includes Stevens Creek.

CCC Steelhead are known to occur in Stevens Creek (Leidy et al. 2005, CNDDB 2019); However, the status of steelhead populations in coastal San Francisco Bay streams, including Stevens Creek, remains highly uncertain, and it has been determined that sections of upper Stevens Creek, including the project site, are periodically inaccessible due to passage barriers (Domenichelli & Associates 2017; Williams et al. 2016).

Stevens Creek has been identified as a priority for steelhead population restoration by the Fisheries and Aquatic Habitat Collaborative Effort (FAHCE), which includes federal, state and local stakeholders. The FAHCE is in the process of developing a Fish Habitat Conservation Plan for three local watersheds, including Stevens Creek.

Habitat conditions in Stevens Creek adjacent to the project site are suitable to support freshwater migration of adult and juvenile CCC steelhead. The reach of Stevens Creek

immediately adjacent to the project site does not support suitable habitat for spawning, rearing, or feeding during most times of the year due to the lack of channel complexity, gravels, or connectivity with an adjacent floodplain. As a result, steelhead are likely only present in the section of Stevens Creek adjacent to the project site during upstream and downstream migration, which occurs late fall into spring.

The project site is located in designated critical habitat for CCC steelhead (NMFS 2005). One of the primary constituent elements (PCEs) of critical habitat essential to the conservation of the species is present within Stevens Creek adjacent to the project site. This PCE consists of freshwater migration corridors free of obstruction with water quantity and quality conditions and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, side channels, and undercut banks supporting juvenile and adult mobility and survival. These features are essential to conservation because without them juveniles cannot use the variety of habitats that allow them to avoid high flows, avoid predators, successfully compete, begin the behavioral and physiological changes needed for life in the ocean, and reach the ocean in a timely manner. Similarly, these features are essential for adults because they allow fish in a nonfeeding condition to successfully swim upstream, avoid predators, and reach spawning areas on limited energy stores. PCEs for CCC steelhead that do not occur near the project site include freshwater spawning and rearing, as well as estuarine and marine habitats. Steelhead were not observed during the field survey.

6.2.2 Special-Status Amphibians and Reptiles

California Tiger Salamander (*Ambystoma californiense).* Federal Listing Status: Threatened (Central Population); State Listing Status: Threatened. Suitable breeding habitat for California tiger salamanders consists of temporarily ponded environments (e.g., vernal pool, ephemeral pool, or human-made pond) that hold water for a minimum of three to four months and are surrounded by uplands that support small mammal burrows. California tiger salamanders will also utilize permanent ponds if aquatic vertebrate predators are not present. Suitable ponds provide breeding and larval habitat, while burrows of small mammals such as California ground squirrels (*Otospermophilus beecheyi*) and Botta's pocket gophers (*Thomomys bottae*) in upland habitats provide refugia for juvenile and adult salamanders during the dry season. Refugia habitat is usually within one mile of water (Jennings and Hayes 1994).

The range of the California tiger salamander is restricted to the Central Valley and the South Coast Range of California, from Butte County south to Santa Barbara County. The tiger salamander has disappeared from a significant portion of its range due to habitat loss from agriculture and urbanization and the introduction of non-native aquatic predators. This species was listed as threatened in August 2004 (USFWS 2004), and critical habitat was designated in August 2005 (USFWS 2005). No critical habitat for this species overlaps the project parcel.

The nearest potentially extant occurrence of tiger salamander to the project parcel is approximately 1.5 miles to the west at Rancho San Antonio Open Space Preserve (CNDDB 2019), which is just outside the potential dispersal distance of this species to the project site (i.e., within one mile for California tiger salamander). Steven's Creek does not provide suitable ponded breeding habitat for California tiger salamander, and there is no suitable upland refugia habitat for tiger salamander within the parcel. Further, California tiger salamander are considered extirpated from the urbanized portion of the Santa Clara Valley floor, including the parcel. Thus, due to the lack of suitable habitat for the California tiger salamander on the parcel, the distance from the parcel to the nearest known occurrences of these species, and the separation of the site from the nearest occurrences and suitable breeding habitat by extensive development and roadways, California tiger salamander is not expected to occur on the parcel or be affected by the project.

Santa Cruz Black Salamander (*Aneides niger*). Federal Listing Status: None; State Listing Status: Species of Special Concern. Santa Cruz black salamander is endemic to California with a limited range in the Santa Cruz Mountains in northern Santa Cruz County, western Santa Clara County, and southern San Mateo County. It was formerly considered a subspecies of the black salamander (*Aneides flavipunctatus*). It is a medium-sized salamander measuring up to 5.5 inches long that is solid black with fine white specks. It is a member of the Plethodontidae or lungless salamanders. Plethodontid salamanders do not breathe through lungs but instead respire through their skin and mouth tissues. It is found in damp environments on land and move only during periods of high humidity (e.g. rain events). The Santa Cruz black salamander is a terrestrial salamander; therefore, it does not live directly in bodies of water but is generally found in moist areas near streams and creeks in deciduous woodland, coniferous forest, and coastal grasslands. It is are also adapted for climbing with long toes and a rounded prehensile tail. This species may be active year-round along streams but will stay in moist underground burrows or under rocks, logs or other objects near streams during dry periods.

Santa Cruz black salamander is known from the upper reaches of Permanente Creek and from Stevens Creek Reservoir, approximately 1.3 miles and 3.5 miles from the parcel, respectively (CNDDB 2019). However, the parcel is separated from Permanente Creek by extensive development and roadways; therefore, black salamander is not expected to disperse to the parcel from this occurrence. Black salamander is not expected to disperse from Stevens Creek reservoir into the lower reach of Stevens Creek due to the lack of habitat complexity (e.g., logs, rocks), lack of upland refugia, and high levels of human disturbance. Due to the lack of suitable habitat, Santa Cruz black salamander is not expected to occur within the riparian habitat in the parcel. Santa Cruz black salamander was not observed during the field survey.

California Giant Salamander (*Dicamptodon ensatus*). Federal Listing Status: None; State Listing Status: Species of Special Concern. California giant salamander is endemic to California and is one of the largest terrestrial salamanders in North America. It can grow up to

one foot in length. It is endemic to California, found in two or three isolated regions from Mendocino County to southern Santa Cruz County, and does not occur east of the San Francisco Bay. It occurs in wet coastal forests in or near clear, cold permanent or semi-permanent streams and seepages. California giant salamander is born in the water and has external kills for breathing while in the larvae stage, later developing lungs to breathe air and develop into fully terrestrial adults. They are active on rainy nights and during daylight in wet periods during winter. They will eat other salamanders, small rodents, slugs, and lizards.

California giant salamander is known to occur in the upper reaches of Permanente Creek and a drainage flowing into Stevens Creek Reservoir, approximately four miles and five miles from the parcel, respectively (CNDDB 2019). The parcel is separated from these locations by extensive development and roadways, including development along the riparian zone of Stevens Creek. The project site does not contain the typical wet forest habitat required by this species. Due to the lack of suitable habitat for the giant salamander on the parcel, the distance from the parcel to the nearest known occurrences of this species, and probably dispersal barriers, California giant salamander is not expected to occur on the parcel or be affected by the project.

California Red-legged Frog (*Rana draytonii*). Federal Listing Status: Threatened; State Listing Status: Species of Special Concern. The California red-legged frog inhabits perennial and seasonal freshwater pools, streams, and ponds throughout the Central California Coast Range as well as isolated portions of the western slopes 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). Non-breeding frogs may be found adjacent to streams and ponds in grasslands and woodlands; and may travel up to 2 miles from their breeding locations across a variety of upland habitats (Bulger et al. 2003, Fellers and Kleeman 2007).

The historic distribution of 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 was listed as threatened in June 1996 (USFWS 1996) based largely on a significant range reduction and continued threats to surviving populations (Miller 1994). Revised critical habitat was designated in March 2010 (USFWS 2010). No critical habitat for this species overlaps the parcel.

There are two extant occurrences of red-legged frog near the parcel: The first is approximately one mile to the west at Permanente Creek near Rancho San Antonio Open Space Preserve, which is within the potential overland dispersal distance of this species to the project site (i.e., within two miles for red-legged frog). However, the parcel is separated from this occurrence by extensive development and roadways; therefore, red-legged frog is not expected to successfully

disperse to the parcel from this occurrence. The second occurrence is approximately four miles south at Picchetti Ranch Open Space Preserve near Stevens Creek Reservoir (CNDDB 2019). California red-legged frog could potentially disperse downstream along Stevens Creek from Stevens Creek Reservoir to the project site, but there are no known documented occurrences of red-legged frog downstream of Stevens Creek Reservoir (CNDDB 2019). Additionally, Steven's Creek adjacent to the project site does not provide suitable breeding habitat for red-legged frog. However, Stevens Creek, including the riparian habitat along the banks, provides suitable foraging and refugia habitat for red-legged frog. Thus, due to suitable dispersal and refugia habitat for the red-legged frog adjacent to the project site and the potential for dispersal to the site from a known occurrence of this species, California red-legged frog could be present in the creek and riparian areas adjacent to the project site. California red-legged frog was not observed during the field survey.

Western Pond Turtle (*Actinemys marmorata*). Federal Listing Status: None; State Listing Status: Species of Special Concern. The western pond turtle occurs in ponds, streams, and other wetland habitats in the Pacific slope drainages of California and northern Baja California, Mexico (Bury and Germano 2008). The central California population was historically present in most drainages on the Pacific slope (Jennings and Hayes 1994), but streambed alterations and other sources of habitat destruction, exacerbated by frequent drought events, have caused substantial population declines throughout most of the species' range (Stebbins 2003). 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 (often south facing) areas up to 0.25 miles from aquatic habitat (Jennings and Hayes 1994). Juveniles feed and grow in shallow aquatic habitats (often creeks) 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. Threats to the western pond turtle include impacts to nesting habitat from agricultural and grazing activities, human development of habitat, and increased predation pressure from native and nonnative predators as a result of human-induced landscape changes.

There are no documented occurrences of western pond turtle in the CNDDB (CNDDB 2019). However, pond turtle is known to occur in Stevens Creek based on personal observations of MIG biologists. Additionally, there are several observations of pond turtle in Stevens Creek, within five miles of the parcel, from the iNaturalist database (accessed in September 2019 from https://www.inaturalist.org/taxa/73592-Actinemys-marmorata). Further, based on a field assessment, Stevens Creek within the parcel provides suitable foraging and dispersal habitat for pond turtle but is too narrow and impacted by human use to allow for turtle nesting; therefore, turtles are not expected to breed in the project area. However, due to suitable foraging and dispersal habitat for pond turtle adjacent to the project site and the potential for dispersal to the site from known occurrences of this species, western pond turtle could be

present in the creek and riparian areas adjacent to the project site. Western pond turtle was not observed during the field survey.

6.2.3 Nesting Birds

Birds may nest within vegetation and man-made structures in and around the parcel. All bird species are protected under California Fish and Game code, and most are protected under the federal Migratory Bird Treaty Act.

6.2.4 Special-Status Animals

Townsend's big-eared bat (*Corynorhinus townsendii*). Federal Listing Status: none; State Listing Status: Species of Special Concern. Townsend's big-eared bat is a medium-sized bat with extremely long, flexible ears, and small yet noticeable lumps on each side of the snout. They are found in a variety of habitats from forests to desert scrub. They prefer to roost in open caves. However, they will use a variety of other roost types, particularly abandoned buildings, mines, tunnels, and tree cavities. When roosting they prefer large open areas and do not tuck themselves into cracks and crevices like many other bat species. This species is sensitive to disturbance and it has been documented that they will abandon roost sites after human interference.

Townsend's big-eared bat hibernates throughout its range during winter months when temperatures are between 0°C and 11.5 degrees Celsius (32-53 degrees Fahrenheit). While hibernating, it hangs alone or in small groups in the open, with fur erect to provide maximum insulation and with ears coiled back. These bats emerge late in the evening to forage and are swift, highly maneuverable fliers. Prey items include small moths, flies, lacewings, dung beetles, and sawflies.

There are several documented CNDDB occurrences of Townsend's big-eared bat in the vicinity of Stevens Creek (CNDDB 2019). This species may roost within large tree cavities (if present) in both riparian and upland habitats. No cavities or structures suitable for roosting were observed in the trees within the parcel as well as adjacent areas. However, the parcel provides foraging habitat. Therefore, Townsend's big-eared bat is not expected to roost within the parcel but may forage in the parcel.

Western red bat (*Lasiurus blossevillii*). Federal Listing Status: none; State Listing Status: Species of Special Concern. The western red bat roosts primarily in tree foliage, especially in cottonwood, sycamore, and other riparian trees or orchards, specifically walnut trees. The bat prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging, including grasslands, shrublands, and open woodlands. They are solitary by nature but will gather in larger nursery roosts during the summer. Red bats are not known to breed in the Bay Area (Pierson et al. 2006).

Western red bat could potentially roost in the riparian trees present in the parcel and is known to occur in riparian areas throughout Santa Clara County. However, suitable foraging habitat is not present within the parcel or adjacent areas. Thus, due to lack of suitable foraging habitat in the parcel and surrounding areas, western red bat is not expected make substantial use of the trees within and adjacent to the parcel as roosting habitat.

Other bat species. Bats tend to forage and roost near water sources. Therefore, bat species have the potential to roost within trees and forage in the project site. A number of other bat species are known from riparian corridors of Santa Clara County, including hoary bat (*Lasiurus cinereus*), California myotis (*Myotis californicus*), Yuma myotis (*Myotis yumanensis*), long-eared myotis (*Myotis evotis*), fringed myotis (*Myotis thysanodes*), long-legged myotis (*Myotis volans*), big brown bat (*Eptesicus fuscus*), and western pipistrelle (*Pipistrellus hesperus*).

Disturbance of maternity colonies of any species of bat could be considered significant under CEQA guidelines. However, no cavities or structures suitable for roosting were observed in the trees within the parcel as well as adjacent areas.

San Francisco Dusky-footed Woodrat (***Neotoma fuscipes annectens).*** **Federal Listing Status: None; State Listing Status: Species of Special Concern.** The San Francisco dusky-footed woodrat occurs in a variety of woodland and scrub habitats from the San Francisco Peninsula south to the Pajaro River in Monterey County and east to the northern Diablo Range (Hall 1981, Zeiner et al. 1990a). Woodrats prefer riparian and oak woodland forests with dense understory cover, or thick chaparral habitat (Lee and Tietje 2005). Although woodrats are locally common in many areas, habitat conversion and increased urbanization, as well as increasing populations of introduced predators, such as domestic cats (*Felis catus*), pose substantial threats to this subspecies. Dusky-footed woodrats build large, complex stick houses in trees and on the ground, which may be maintained by a series of occupants for several years (Carraway and Verts 1991). Woodrats also are adept at making use of human-made structures, and can nest in electrical boxes, pipes, wooden pallets, and even portable storage containers. Woodrat nest densities increase with canopy density and with the presence of poison oak (Carraway and Verts 1991). Although the San Francisco dusky-footed woodrat is described as a generalist omnivore, individuals may specialize on local plants that are available for forage (Haynie et al. 2007). The breeding season for the 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).

San Francisco dusky-footed woodrat is known from Rancho San Antonio Open Space Preserve and the opens space preserves in the upper Stevens Creek area. The riparian forest in the parcel provides marginal habitat for dusky-footed woodrats due the lack of a dense understory and lack of foraging habitat. Additionally, no houses were observed in the parcel during the field visit. Therefore, San Francisco dusky-footed woodrat is not expected to occur within the parcel.

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. The CDFW determines the level of rarity and imperilment of vegetation types; and tracks sensitive communities in its Rarefind database (CNDDB 2019). 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 ac.
- G2/S2: Between 6 and 20 occurrences or 2,000 to 10,000 ac.
- G3/S3: Between 21 and 100 occurrences or 10,000 to 50,000 ac.
- 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, the 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. 2009). If an alliance is marked G1-G3, all the vegetation associations within it will also be of high priority (CDFG 2007). The CDFW provides the Vegetation Classification and Mapping Program's (VegCAMP) currently accepted list of vegetation alliances and associations (CDFW 2019).

Sensitive Natural Communities. There are no CDFW classified sensitive natural communities within the parcel.

Sensitive Vegetation Alliances. Sensitive plant communities identified by CDFW within the parcel include California Sycamore Woodland, which is found within the mixed riparian woodland along Stevens Creek. This plant community has been identified by CDFW as "G3 S3", which means that it is rare and threatened throughout its range in California. This vegetation alliance occurs within the mixed riparian woodland in the parcel.

Waters of the U.S./State. Stevens Creek meets the definition of waters of the U.S./State, a sensitive habitat type. Any impacts to verified waters of the U.S./State would require a Section 404 permit from the USACE and Section 401 Water Quality Certification from the San Francisco RWQCB. Additionally, the RWQCB would also consider the riparian woodland above the OHWM of the creek as waters of the State.

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. Stevens Creek and the associated riparian habitat is subject to CDFW jurisdiction under Section 1600 et seq. of State Fish and Game Code.

Critical Habitat/EFH. Stevens Creek is designated as critical habitat for the federally Threatened Central California Coast Steelhead Distinct Population Segment.

6.4 Wildlife Corridors

Wildlife corridors are segments of land that provide a link between different habitats while also providing cover and foraging opportunities. Development that fragments natural habitats (i.e., breaks them into smaller, disjunct pieces) can impact wildlife by reducing the size of the habitat (patch size), which will be unable to support as many individuals; and the area between habitat patches may be unsuitable for wildlife species to traverse (connectivity).

The parcel is surrounded by existing urban development and therefore does not likely function as a high-quality movement corridor for most species, particularly special-status species. However, the Stevens Creek riparian corridor along the eastern boundary of the parcel functions as a pathway for wildlife movement, particularly for riparian dependent species but also allows for the movement of wildlife avoiding urban development. Additionally, the section of Stevens Creek along the eastern boundary also allows for the movement of steelhead into breeding habitat upstream of the parcel.

7 Biological Impact Assessment and Avoidance Measures

7.1 Overview

This section describes the project's potential impacts to sensitive biological resources—including special-status plants and animals, and waters of the U.S. and the State—that may occur in or near the work parcel.

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, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan"

Direct take of a federally or state listed species is considered a significant impact. 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 would be considered significant due to their protection under California Fish and Game Code and the federal Migratory Bird Treaty Act. Impacts to nesting birds are avoided through AMMs incorporated into the project. Additional measures may also be included as CEQA mitigation measures applied to the project if the AMMs are not sufficient.

7.2 Impacts to Special-Status Species – Less than Significant Impact with Mitigation

7.2.1 Impacts to Special-Status Plants – No Impact

No special-status plant species are expected to occur within the parcel, including the project site 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.

7.2.2 Impacts to Special-Status Fish and Critical Habitat – Less than Significant Impact

Steelhead may be present in Stevens Creek adjacent to the project site. Additionally, Stevens Creek is designated as Critical Habitat for steelhead. Since the project will not occur within Stevens Creek in the parcel, direct impacts of construction related activities are not expected except that during construction, minor and temporary increases in turbidity may occur. In addition, steelhead might be killed or injured as a result of the spill of petrochemicals, hydraulic fluids, or solvents into Stevens Creek. However, implementation of BMPs will minimize potential impacts on steelhead as a result of increased turbidity and spills of hazardous materials into Stevens Creek. Project-related impacts on Critical Habitat or individual steelhead, would be significant under CEQA (Criteria A and B).

During all construction and mitigation implementation near aquatic habitat, the NPDES BMPs incorporated into the project description will be used to minimize erosion and impacts to water quality as well as indirect impacts to special-status fish. The project will also implement several additional BMPs, which will be reviewed and coordinated with the USACE, RWQCB, CDFW as necessary and incorporated into the project description. Also, the implementation of Mitigation Measure 11 Avoidance of Waters will minimize potential impacts on steelhead (section 7.4). In addition to the NPDES BMPs already incorporated into the project description, the project will also add the following BMPs to the project description:

- No vehicles or heavy equipment will operate in open water habitat.
- Work will be restricted to the dry season from April 15 to October 31 to protect water quality and steelhead.
- In the event of rain, all grading work is to cease immediately.
- Equipment staging and parking of vehicles will occur on established areas.
- The integrity and effectiveness of erosion control measures will be inspected on a daily basis. Corrective actions and repairs will be carried out immediately for ineffective BMPs.
- Disturbed soil areas and soil stockpiles will be covered with tarps prior to forecast rain events.
- Fueling, washing, and maintenance of vehicles will occur in the developed habitat, away from open water habitat. Equipment will be regularly maintained to avoid fluid leaks. Any leaks will be captured in containers until equipment is moved to a repair location. Hazardous materials will be stored only within the developed habitat.
- Sediment-laden water will not be allowed to enter Stevens Creek.
- All trash within the work area will be placed in containers with secure lids before the end of work each day in order to reduce the likelihood of predators being attracted to the site by discarded food wrappers and other rubbish that may be left on-site. If containers meeting these criteria are not available, all rubbish will be removed from the project site on a daily basis.

- Absorbent materials designated for spill containment and clean-up activities shall be available on site for use in an accidental spill.
- Unless stipulated otherwise by the County or in the resource agency permit conditions, final erosion control measures will include the removal of unnecessary silt fences and all fiber rolls.

7.2.3 Impacts to the California Red-Legged Frog and Western Pond Turtle – Less than Significant Impact with Mitigation

California red-legged frog and western pond turtle may be present in riparian and aquatic habitat adjacent to the project site.

Project activities would result in the temporary loss of California red-legged frog and western pond turtle foraging and dispersal habitat. Project activities could also potentially result in the loss of individuals (e.g., during construction activities). Due to the rarity of both species, project-related impacts on individual California red-legged frogs and western pond turtle would be significant under CEQA (Criteria A). For example,

- project activities may result in the injury or mortality of individuals as a result of worker foot traffic or equipment use.
- disturbance from project activities may disrupt foraging and dispersal behavior of both species.
- seasonal movements may be temporarily affected during project activities because of disturbance, and substrate vibrations may cause individuals to move out of refugia, exposing them to a greater risk of predation or desiccation.
- petrochemicals, hydraulic fluids, and solvents that are spilled or leaked from construction vehicles or equipment may kill individuals, although BMPs to control releases of such chemicals make this unlikely.
- increases in human concentration and activity in the vicinity of suitable habitat may result in an increase in native and non-native predators that would be attracted to trash left at the work site and that would prey opportunistically on California red-legged frog and western pond turtle.
- movement of project personnel within the site, and between on-site and off-site areas, could also spread pathogens such as chytrid fungus, which can impair the health of amphibians.

Implementation of Mitigation Measures 1 through 6 will reduce project impacts on both the California red-legged frog and western pond turtle due to temporary loss of foraging and dispersal habitat as well as impacts on individuals. With the implementation of these measures the impacts to these species will be less-than-significant.

Mitigation Measure 1. **Conduct Preconstruction Survey**. No more than twenty-four (24) hours prior to the date of initial ground disturbance, a pre-construction survey for California red-legged frog and western pond turtle will be conducted within the impact area by an agency-approved biologist. The survey will consist of walking the limits of impact to ascertain the possible presence of the species. The agency-approved biologist will investigate all potential areas that could be used by California red-legged frog and western pond turtle for feeding, sheltering, movement, and other essential behaviors.

Mitigation Measure 2. Worker Environmental Awareness Program. All construction personnel will participate in a worker environmental awareness program. These personnel will be informed about the possible presence of all special-status species and habitats associated with the species identified here to be potentially present in the parcel and that unlawful take of the animal or destruction of its habitat is a violation of FESA. Prior to construction activities, the agency-approved biologist will instruct all construction personnel about (1) the description and status of the species; (2) the importance of their associated habitats; and (3) a list of measures being taken to reduce impacts on these species during project construction and implementation. A fact sheet conveying this information will be prepared for distribution to the construction crew and anyone else who enters the project site.

Mitigation Measure 3. **Construction Monitoring**. An agency-approved biologist will be onsite during all project activities that may result in take of any special-status species. The agency-approved biologist will be given the authority to freely communicate verbally, by telephone, electronic mail, or in writing at any time with construction personnel, any other person(s) at the project site, otherwise associated with the project, the USFWS, the CDFW, or their designated agents. The agency-approved biologist will have oversight over implementation of all the conservation measures and will have the authority and responsibility to stop project activities if they determine any of the associated requirements are not being fulfilled.

Mitigation Measure 4. Relocation of California Red-legged Frog. If a red-legged frog is found during implementation of Mitigation Measures 1 and 3, an agency-approved biologist will contact the USFWS to determine if moving any of the individuals is appropriate. In making this determination the USFWS will consider if an appropriate relocation site exists. If the USFWS approves moving animals, the project proponent will ensure the agency-approved biologist is given sufficient time to move the animals from the impact area before ground disturbance is initiated. Only agency-approved biologists will capture, handle, and move California red-legged frog. The agency-approved biologist will monitor any relocated frog until it is determined that it is not imperiled by predators or other dangers.

Mitigation Measure 5. Relocation of Western Pond Turtle. If a pond turtle is found during implementation of Mitigation Measures 1 and 3, an agency-approved biologist will contact CDFW to determine if moving any of the individuals is appropriate. In making this determination

CDFW will consider if an appropriate relocation site exists. If CDFW approves moving animals, the project proponent will ensure the agency-approved biologist is given sufficient time to move the animals from the impact area before ground disturbance is initiated. Only agency-approved biologists will capture, handle, and move the western pond turtle. The agency-approved biologist will monitor any relocated turtle until it is determined that it is not imperiled by predators or other dangers.

Mitigation Measure 6. Prohibition of Plastic Mono-filament Netting. Plastic mono-filament netting (erosion control matting), rolled erosion control products or similar material will not be used at the project site to prevent trapping California red-legged frogs or other species.

7.2.4 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.

Construction disturbance during the avian breeding season (February 1 through August 31, 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 foraging behavior, potentially resulting in the abandonment of nest sites.

Implementation of Mitigation Measure 7 would avoid impacts on active nests of birds protected by the MBTA or California Fish and Game Code and reduce impacts to a less than significant level.

Mitigation Measure 7: 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 vegetation removal, fence installation, 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, buildings) 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 1000 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.

7.3 Impacts to Sensitive Communities – Less than Significant Impact with Mitigation

7.3.1 Loss or Temporary Disturbance of Riparian Habitats – Less than Significant Impact

Riparian habitats are very important ecologically due to the high biodiversity they support and the ecological functions they perform. Thus, any permanent loss or temporary disturbance of riparian habitat because of the project would be considered significant under CEQA (Criterion B). Additionally, all ecological systems associated with drainages (i.e., riparian habitat) and drainage and pond features with bed and bank topography may be regulated by Sections 1600-1616 of the California Fish and Game Code; therefore, the riparian habitat along Stevens Creek may require an LSAA from the CDFW prior to project activities. Also, the riparian habitat along Stevens Creek includes the California Sycamore Woodland, which is classified as a sensitive vegetation alliance by CDFW.

The removal of the retaining wall and patio will impact riparian habitat through grading, excavation, trampling of riparian vegetation, fill, alteration of hydrology, soil compaction from access and equipment, trimming for access, and alteration of microhabitat conditions around riparian trees and shrubs. Since the proposed project does not involve the removal of woody vegetation, project impacts within the riparian zone will be temporary. Removal of the retaining wall and patio will foster restoration of riparian habitat.

Mitigation Measure 8. Avoidance of Riparian Habitat. All riparian habitat to be avoided will be shown on project design plans and prior to project activities these areas will be clearly delineated by a CDFW approved biologist. The project will also comply with the project BMPs to prevent increases in peak flow, erosion, or reduction in water quality for downslope waters, which will prevent stream downcutting, riparian bank erosion, or other downstream impacts. If riparian vegetation is impacted, then Mitigation Measure 9 and/or 10 will be implemented.

Mitigation Measure 9. Pruning of Riparian Trees. If project activities require pruning of riparian trees or shrubs, a certified arborist will be retained to perform any necessary pruning to minimize harm to vegetation and ensure rapid regeneration. Pruning will be limited to the minimum area necessary.

Mitigation Measure 10. Riparian Vegetation Removal. The removal of the retaining wall will likely require removal or disturbance of adjacent riparian vegetation. The project description includes mitigation for impacts to riparian habitat through the re-establishment and stabilization of original contours along banks; and seeding with a native seed mix and native tree plantings. The project will also implement these additional measures: (1) a planting plan will be developed by a qualified restoration ecologist, (2) The native seed mix will contain native grass and forb species that occur in the project vicinity, (3) Tree plantings will be native trees, such as arroyo willow, Fremont's cottonwood, or western sycamore. Temporary impact areas will be monitored for a minimum of two years and the criteria for success will be 75% vegetation cover and no more than 5% cover of Cal-IPC-rated moderate and high impact weed species (excluding Cal-IPC-rated annual grasses).

7.4 Impacts to Jurisdictional Waters – Less than Significant with Mitigation

Project activities will not directly impact Stevens Creek since the project footprint is outside of the OHWM. However, project activities have the potential to cause indirect impacts on jurisdictional waters due to changes in water quality. Specifically, project activities could indirectly cause the degradation of surface or ground water quality due to erosion and transport of fine sediments downstream of the construction area, unintentional release of contaminants into jurisdictional waters, trampling of wetland vegetation, vegetation removal, and soil compaction from access and equipment. However, the project has incorporated BMPs to control the discharge of stormwater pollutants under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit; Water Board Order No. 2009-0009-DWQ). Additional BMPs to be incorporated into the project are listed in Section 7.2.2. Additionally, Stevens Creek in the parcel may be subject to the regulatory jurisdiction of the USACE, RWQCB, and CDFW and may require CWA 401/404 permits and a LSAA from the CDFW prior to project activities. These permits may require additional protection measures.

To the extent feasible, the project will design and construct the project to avoid completely impacts on jurisdictional waters. Ultimately the project will result in restoration of riparian habitat and a net benefit to jurisdictional waters. To avoid direct impacts to jurisdictional waters, the following mitigation measure will be implemented:

Mitigation Measure 11. Avoidance of Waters. All aquatic habitat to be avoided will be shown on project design plans and prior to project activities these areas will be protected with environmentally sensitive area (ESA) fencing. The project will also implement the BMPs

incorporated into the project description to prevent increases in peak flow, erosion, or reduction in water quality for downslope waters and wetlands, which will prevent stream downcutting, riparian bank erosion, or other downstream impacts.

7.5 Impacts to Wildlife Movement– Less than Significant

In the project region, the vegetation communities along streams and rivers often function as wildlife corridors. Natural habitats (e.g., riparian woodland) function as pathways for wildlife to avoid developed areas in and around the parcel. In addition, Steven's Creek functions as a wildlife movement corridor for aquatic species, including steelhead.

The project could temporarily restrict some wildlife species from moving between suitable habitat patches during construction. Because project construction will likely not occur at night, when many mammals, reptiles, and amphibians are active, use of the site by dispersing nocturnal animals would not be diminished during construction. Numerous animals breed within and around the project site, but no particularly important wildlife nursery areas are present in or near the parcel and would not be impacted by the project.

Once construction activities are complete, wildlife movement conditions would likely improve over pre-project conditions due to the replacement of the retaining wall and patio with a restored vegetated bank, which will improve the quality of wildlife dispersal habitat for many riparian dependent species within Stevens Creek.

7.6 Impacts due to Conflicts with Local Policies – Less than Significant Impact with Mitigation

The proposed project does not require the removal of protected trees; therefore, a tree removal permit is not required. However, the City of Los Altos has tree protection regulations that protect trees of certain types and sizes during construction. There are two trees that meet the definition of a protected tree adjacent to the retaining wall (Monterey pine and cottonwood – See Appendix A, Figure 3). If heavy equipment or other equipment that could damage the trees is used during the removal of the retaining wall and patio deck, the trees will require protection during construction activities.

Before the start of construction activities, the project will implement Mitigation Measure 12 to protect the two trees adjacent to the retaining wall.

Mitigation Measure 12. Tree Protection. Install tree protection as indicated in the City of Los Altos tree regulations. Compliance with the City of Los Altos tree protection regulations would reduce this impact to less than significant.

7.7 Impact due to Conflicts with an Adopted Habitat Conservation Plan – No Impact

The parcel is not located within an area covered by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the project would not conflict with any such plans.

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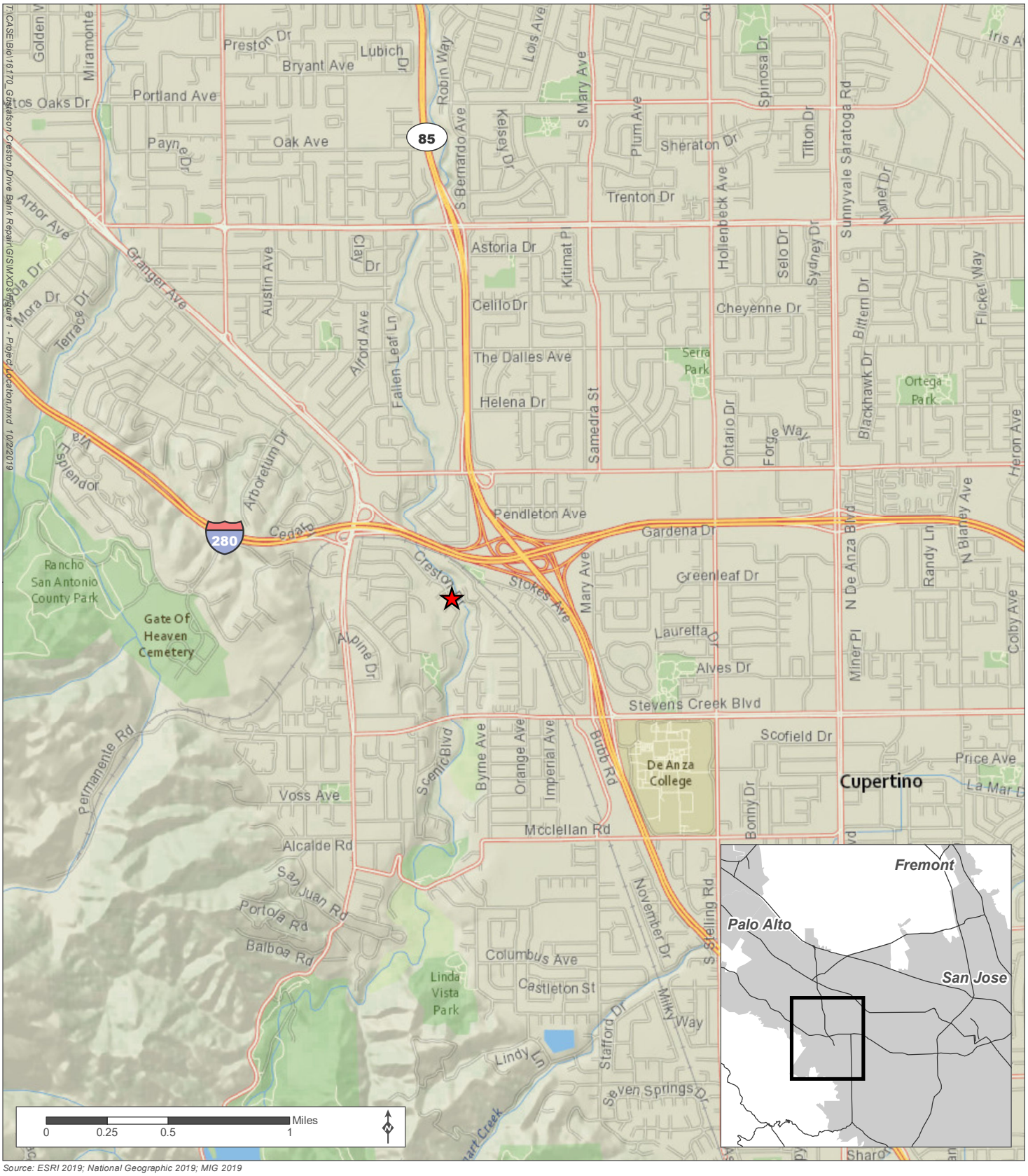
Appendix A Figures



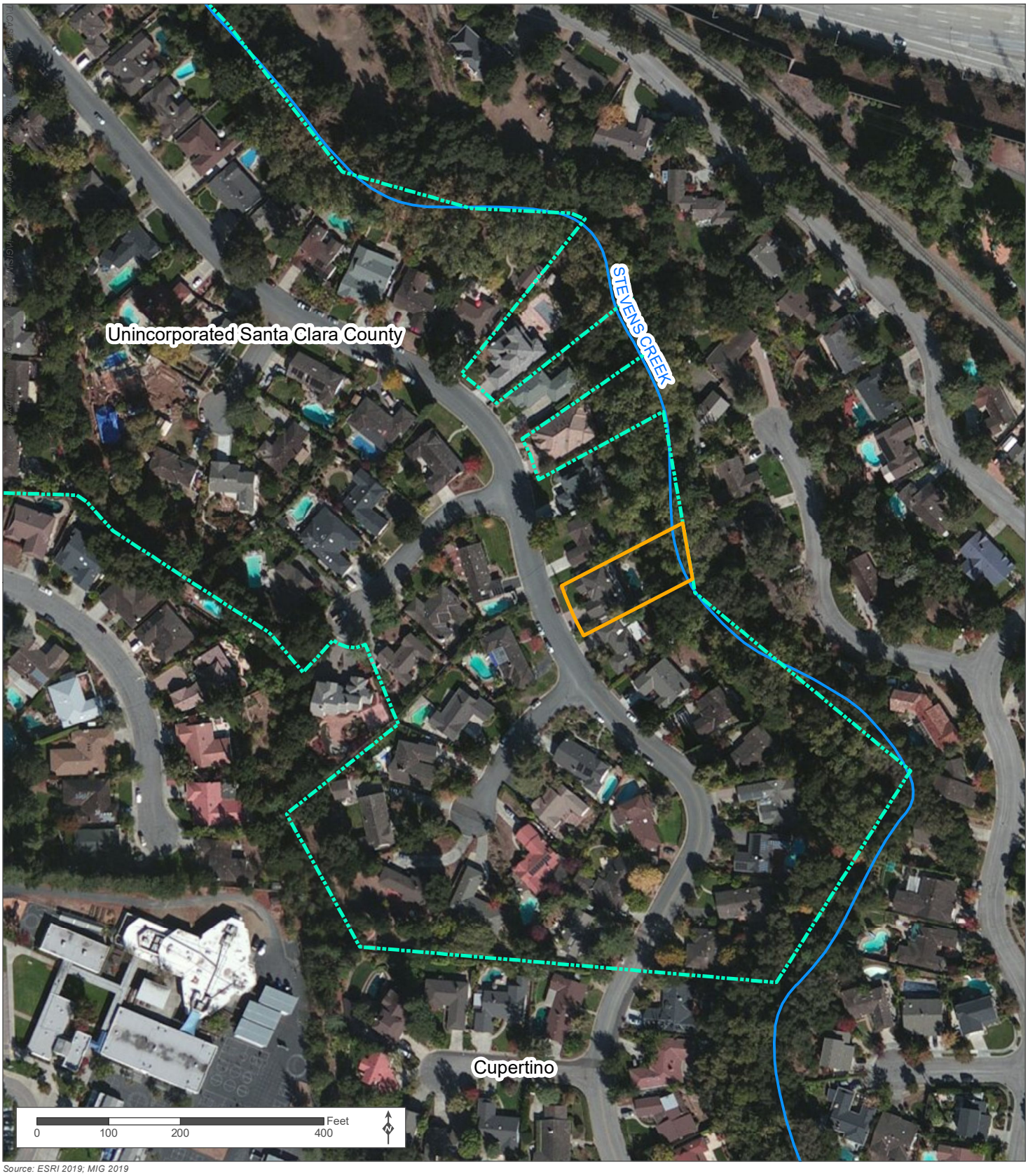
Source: ESRI 2019; National Geographic 2019; MIG 2019

★ Project Location

Figure 1 Project Location

General Biological Resources Assessment

MIG



Source: ESRI 2019; MIG 2019

Project Parcel
City Boundary
Creek

Figure 2 Project Vicinity

General Biological Resources Assessment

Source: ESRI 2019; MIG 2019

- Parcel (0.314 Acres)
- Top of Bank
- OHWM
- Protected Trees
- Proposed Project Footprint (0.008 Acres)
- Mixed Riparian Woodland (0.056 Acres)
- Urban (0.258 Acres)

Figure 3 Vegetation Communities

General Biological Resources Assessment

MIG

Appendix B Photographs

Photo 1. Looking downstream. The stone patio and lower retaining wall are proposed to be removed and the original contours of the bank restored with native riparian vegetation planted along the bank. The upper retaining wall visible in the left of the photo behind the chair is proposed to remain. Stevens Creek is visible in the right side of the photo.

Photo 2. Looking Upstream. The stone patio and lower retaining wall are proposed to be removed and the original contours of the bank restored with native riparian vegetation planted along the bank. Stevens Creek is visible in the left side of the photo.

Photo 3. Looking downstream. The retaining wall visible in the photo is proposed to be removed and the original contours of the bank restored with native riparian vegetation planted along the bank. Stevens Creek is visible in the right side of the photo. The impact area is outside of the OHWM of Stevens Creek.

Photo 4. Looking upstream. Stevens Creek and associated riparian woodland are visible in the photo.

Photo 5. Looking downstream. Stevens Creek and associated riparian woodland are visible in the photo.

Appendix C Project Plans

GENERAL SITE NOTES

1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING ON THIS WORK AND CONSIDER THE EXISTING CONDITIONS AND SITE CONSTRAINTS IN THE BID. CONTRACTOR SHALL BE IN THE POSSESSION OF AND FAMILIAR WITH ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS AND SPECIFICATIONS PRIOR TO SUBMITTING OF A BID.

2. PRIOR TO BEGINNING WORK, AND AFTER INITIAL HORIZONTAL CONTROL STAKING, CONTRACTOR SHALL FIELD CHECK ALL ELEVATIONS MARKED WITH AND REPORT ANY DISCREPANCIES GREATER THAN 0.05' TO CONSTRUCTION PROJECT MANAGER.

3. DAMAGE TO ANY EXISTING SITE IMPROVEMENTS, UTILITIES AND/OR SERVICES TO REMAIN SHALL BE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.

4. CONTRACTOR SHALL REPLACE ALL STRUCTURES AND GRATE LIDS FOR VAULTS, CATCH BASINS, ETC., WITH VEHICULAR-RATED STRUCTURES IN ALL TRAFFIC ACCESSIBLE AREAS. GRATES AND LIDS IN THE PEDESTRIAN TRAVELED WAY SHALL BE NON-SKID, HEEL-PROOF AND ADA COMPLIANT.

5. THE CONTRACTOR SHALL ADJUST TO FINAL GRADE ALL EXISTING AND/OR NEW MANHOLES, CURB INLETS, CATCH BASINS, VALVES, MONUMENT COVERS, AND OTHER CASTINGS WITHIN THE WORK AREA TO FINAL GRADE IN PAVEMENT AND LANDSCAPE AREAS UNLESS NOTED OTHERWSE.

6. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.

7. EXISTING PEDESTRIAN WALKWAYS, BIKE PATHS AND ACCESSIBLE PATHWAYS SHALL BE MAINTAINED, WHERE FEASIBLE, DURING CONSTRUCTION.

8. IF A CONFLICT ARISES BETWEEN THE SPECIFICATIONS AND THE PLAN NOTES, THE MORE STRINGENT QUALITY AND/OR QUANTITY REQUIREMENT SHALL GOVERN.

9. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE INSTALL FACILITIES BY PG&E, AT&T, AND CABLE TV INSTALLATION. VALVE BOXES AND MANHOLES, AND STRUCTURES TO BE SET TO GRADE IN CONCRETE AFTER PAVING.

12. ALL STREET MONUMENTS AND OTHER PERMANENT MONUMENTS DISTURBED DURING THE PROCESS OF CONSTRUCTION SHALL BE REPLACED BEFORE ACCEPTANCE OF THE IMPROVEMENT BY THE CITY ENGINEER.

13. THE CONTRACTOR SHALL GIVE THE CITY ENGINEER AND OWNER TWO (2) WORKING DAYS ADVANCE NOTICE FOR INSPECTION SERVICES.

14. NO TREES 12" IN DIAMETER OR LARGER MEASURED BETWEEN 10" AND 36" ABOVE GRADE, SHALL BE REMOVED WITHOUT THE WRITTEN CONSENT OF THE CITY ENGINEER. TREE REMOVALS, IF NECESSARY, SHALL CONFORM TO THE CITY TREE REMOVAL ORDINANCE.

15. FOR LANE CLOSURES, THE CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN AND OBTAIN APPROVAL OF THE CITY ENGINEER BEFORE COMMENCING WORK. THE CONTRACTOR SHALL ALSO PROVIDE FLAGMEN, CONES OR BARRICADES, AS NECESSARY TO CONTROL TRAFFIC AND PREVENT HAZARDOUS CONDITIONS PER THE CALIFORNIA STANDARD PLANS, SPECIFICATIONS, AND MANUAL ON TRAFFIC CONTROL DEVICES, LATEST EDITION.

16. THE CONTRACTOR SHALL LEAVE A 24-HOUR EMERGENCY TELEPHONE NUMBER WITH POLICE, FIRE AND PUBLIC WORKS DEPARTMENTS, AND KEEP THEM INFORMED DAILY OF DETOURS.

17. STANDARD CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO BETWEEN 8:00 A.M. AND 5:00 P.M., MONDAY THROUGH FRIDAY, CONTRACTOR SHALL REFERENCE CITY OF LOS ALTOS CONSTRUCTION NOISE STANDARDS, TO COMPLY WITH TITLE 20 REQUIREMENTS. FOR ANY EXCEPTIONS, CONTRACTOR SHALL OBTAIN APPROVAL IN WRITING, BY THE OWNER AND CITY.

18. CONSTRUCTION FENCING AND FIBER ROLL SHOWN ON THIS PLAN WILL BE PHASED, AS NEEDED, AND COORDINATED BY THE CONTRACTOR'S QUALIFIED SWPPP DEVELOPER/PRACTIONER.

STATEMENT OF RESPONSIBILITY

1. THE LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIESAS SHOWN ON THIS PLAN WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WLL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES (A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES). CONTRACTOR SHALL VERIFY LOCATION AND DEPTH PRIOR TO ANY EXCAVATION OR IMPROVEMENT.

2. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT ON- PHONE (800) 642-2444. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY WORK ON THIS SITE.

3. THESE DRAWINGS DO NOT ADDRESS CONTRACTOR MEANS, METHODS OR PROCESSES THAT MAY BE ASSOCIATED WITH ANY TOXIC SOILS IF FOUND ON SITE, THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WTH ALL CITY AND COUNTY STANDARDS AND APPROPRIATE REGULATIONS IF TOXIC SOILS ARE ENCOUNTERED. CONTRACTOR MUST NOTIFY THE CONSTRUCTION PROJECT MANAGER IMMEDIATELY IF ANY SOILS ARE EVEN SUSPECTED OF BEING CONTAMINATED.

4. CONTRACTOR AGREES THAT THEY SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND INDEMNIFY AND HOLD THE CONSULTING ENGINEER AND THE CITY HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE CONSULTING ENGINEER.

5. ELEVATIONS AND LOCATIONS OF ALL EXISTING UTILITY CROSSINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO START OF ANY CONSTRUCTION AFFECTING SAID LINES. CONTRACT UNDERGROUND SERVICE ALERT AT (800) 642-2444 AT LEAST TWO (2) WORKING DAYS PRIOR TO EXCAVATION. THE UTILITIES SHOWN ON THE PLANS ARE BASED UPON RECORD INFORMATION. HOWEVER, THE CIML DESIGN ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY OR ACTUAL LOCATIONS.

6. CONTRACTOR SHALL COMPLY WITH STATE, COUNTY AND CITY LAWS AND ORDINANCES; AND REGULATIONS OF THE DEPARTMENT OF INDUSTRIAL RELATIONS, OSHA AND INDUSTRIAL ACCIDENT COMMISSION RELATING TO SAFETY AND CHARACTER OF WORK, EQUIPMENT AND LABOR PERSONNEL.

NPDES REQUIREMENTS

1. ALL CONSTRUCTION OF ON-SITE IMPROVEMENTS SHALL ADHERE TO NPDES (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM) BEST MANAGEMENT PRACTICES TO PREVENT DELETERIOUS MATERIALS OR POLLUTANTS FROM ENTERING THE CITY OR COUNTY STORM DRAIN SYSTEMS.

2. ERODED SEDIMENTS 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, OR WIND.

3. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.

4. FUELS. OILS. SOLVENTS. AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.

5. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC RIGHT-OF-WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.

6. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION AND DISPERSAL BY WIND.

7. SEDIMENTS AND OTHER MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC RIGHT-OF-WAY, ACCIDENTAL DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.

8. ANY SLOPES WTH DISTURBED SOILS OR DEVOID OF VEGETATION MUST BE STABILIZED SO AS TO INHIBIT EROSION BY WND AND WATER.

9. CLEAN UP ALL SPILLS USING DRY METHODS. 10. SWEEP ALL GUTTERS AT THE END OF EACH WORKING DAY. GUTTERS SHALL BE KEPT CLEAN AFTER LEAVING CONSTRUCTION SITE.

11. CALL 911 IN CASE OF A HAZARDOUS SPILL.

12. BMP'S AS OUTLINED IN, BUT NOT LIMITED TO, CALIFORNIA STORM WATER QUALITY TASK FORCE, SACRAMENTO, CALIFORNIA, JANUARY 2003, OR THE LATEST REVISED EDITION, MAY APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY CITY INSPECTORS.

13. UPON SATISFACTORY COMPLETION OF THE WORK. THE ENTIRE WORK SITE SHALL BE CLEANED BY THE CONTRACTOR AND LEFT WITH A SMOOTH AND NEATLY GRADED SURFACE FREE OF CONSTRUCTION WASTE, RUBBISH, AND DEBRIS OF ANY NATURE.

GRADING AND DRAINAGE NOTES

1. ALL PAVED AREAS ARE TO SLOPE A MINIMUM OF 0.5% AND MAXIMUM OF 8%. ACCESSIBLE STALLS AND LOADING ZONES ARE TO SLOPE AT A MAXIMUM OF 2% IN ALL DIRECTIONS, ACCESSIBLE PATHWAYS ARE TO SLOPE AT A MAXIMUM OF 5% IN THE DIRECTION OF TRAVEL AND THE SLOPE CROSSWAYS TO THE DIRECTION OF TRAVEL SHALL BE AT A MAXIMUM OF 2%. ANY AREAS ON THE SITE NOT CONFORMING TO THESE BASIC RULES DUE TO EXISTING CONDITIONS OR DISCREPANCIES IN THE DOCUMENTS ARE TO BE REPORTED TO THE ENGINEER/ARCHITECT PRIOR TO PROCEEDING WITH PLACEMENT OF BASE ROCK, FORM WORK AND/OR FLATWORK.

2. EARTHWORK QUANTITIES SHOWN ON THESE PLANS ARE FOR PERMIT PURPOSES. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF EARTHWORK QUANTITIES FOR BUILDING PURPOSES PRIOR TO BIDDING. FINAL GRADING QUANTITIES ARE DEPENDENT ON FIELD CONDITIONS, CONSTRUCTION TECHNIQUES AND SEQUENCES, FINAL COMPACTION OBTAINED, TRENCHING AND BACKFILL METHODS AND NUMEROUS OTHER FACTORS OUT OF THE CONTROL THE DESIGNER. ANY IMPORT OR EXPORT REQUIRED SHALL BE REFLECTED IN THE BID. NO ADDITIONAL COMPENSATION WILL BE MADE FOR IMPORT OR EXPORT REQUIRED UNLESS NECESSITATED BY UNFORESEEN FIELD CONDITIONS.

3. ALL FILL SHALL BE COMPACTED PER THE GEOTECHNICAL REPORT AND THE CONTRACTOR SHALL COORDINATE AND COMPLY WITH THE CLIENT'S TESTING AGENCY TO TAKE THE APPROPRIATE TESTS TO VERIFY COMPACTION VALUES.

4. IMPORT SOILS SHOULD MEET THE REQUIREMENTS OF THE GEOTECHNICAL REPORT.

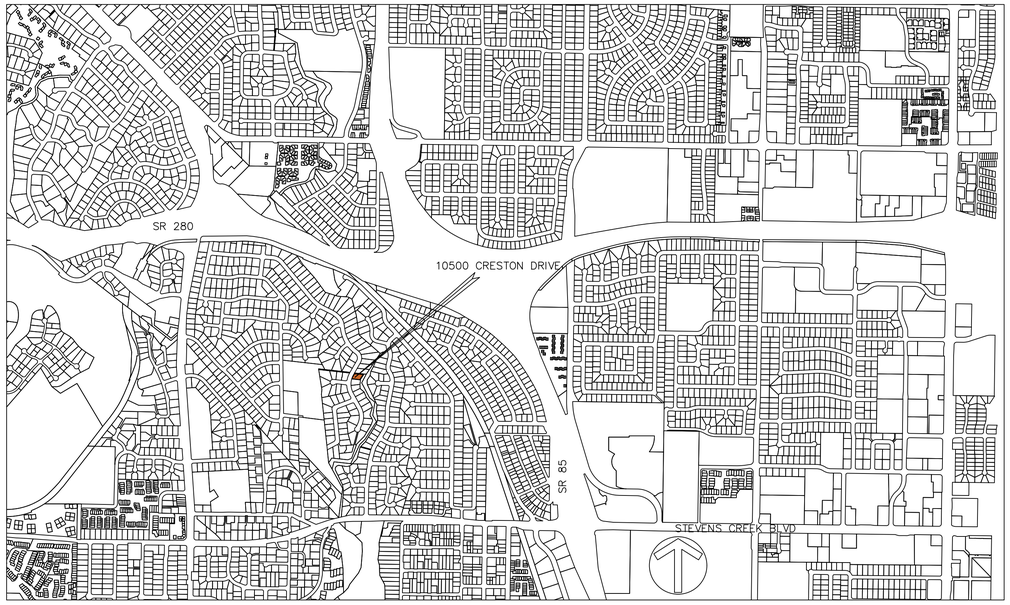
5. DO NOT ADJUST GRADES ON THIS PLAN WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER/ARCHITECT.

6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THE GROUND ELEVATIONS AND OVERALL TOPOGRAPHY PRIOR TO THE START OF CONSTRUCTION AS TO THE ACCURACY BETWEEN THE WORK SET FORTH ON THESE PLANS AND THE WORK IN THE FIELD. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER/ARCHITECT IN WRITING PRIOR TO THE START OF CONSTRUCTION, WHICH MAY REQUIRE CHANGES IN DESIGN AND/OR AFFECT THE EARTHWORK QUANTITIES.

7. TRENCHES SHALL NOT BE LEFT OPEN OVERNIGHT IN EXISTING PUBLIC STREET AREAS. CONTRACTOR SHALL BACKFILL TRENCHES OR PLACE STEEL PLATING WITH ADEQUATE CUTBACK TO PREVENT SHIFTING OF STEEL PLATE AND/OR HOT-MIX ASPHALT REQUIRED TO PROTECT OPEN TRENCHES AT THE END OF THE WORKING DAY.

8. ITS RECOMMENDED THAT A GEOTECHNICAL ENGINEER BE PRESENT AT THE SITE DURING FOOTING EXCAVATION AND OTHER GRADING OPERATIONS TO PERFORM TESTING DEEMED NECESSARY. THE GEOTECHNICAL ENGINEER SHALL OBSERVE GRADING OPERATIONS AND IDENTIFY THOSE CONDITIONS WITH RECOMMENDED CORRECTIVE MEASURES TO THE CONTRACTOR AND THE CONSTRUCTION MANAGER.

9. UPON COMPLETION OF FOOTING EXCAVATION AND OTHER GRADING OPERATIONS, THE GEOTECHNICAL ENGINEER WILL PROVIDE A WRITTEN REPORT DOCUMENTING THE RESULTS OF THE GEOTECHNICAL ENGINEER'S SITE OBSERVATION AND TESTING ACTIVITIES PERFORMED DURING SITE GRADING OPERATIONS.



VICINITY MAP
1' = 100'

GRADING ABATEMENT NOTES

1. COUNTY FILE NUMBER 10225-19-67-11GV

2. THE GRADING ABATEMENT VIOLATION CONSISTED OF THE REMOVAL OF AN EXISTING WOODEN RETAINING WALL AND CONSTRUCTION OF A CONCRETE MASONRY UNIT WALL WITH SUPPORTING CONCRETE FOUNDATION LOCATED IN THE EXACT LOCATION. THE APPROACH WAS USE TO MINIMIZE EARTHWORK THUS RESULTING IN MINIMAL CUT OR FILL MATERIAL.

3. DUE TO THE REPLACEMENT OF A RETAINING WALL, THE EARTHWORK QUANTITIES REFLECT THE INSIGNIFICANT EARTHWORK EFFORT REQUIRED TO CONSTRUCT THE NEW RETAINING WALL. IN OTHER WORDS, THERE ARE NO VOLUMES ASSOCIATED WITH THIS GRADING VIOLATION AND THUS NONE ARE SHOWN ON THESE DRAWINGS.

4. NO TREES WERE REMOVED FROM DURING THE REPLACEMENT OF THE RETAINING WALL PROJECT. IT SHOULD BE NOTED THAT THE GAP IN THE LOWER RETAINING WALL IS THE RESULT OF AN EXISTING TREE.

5. JUSTIFICATION (C12-433) a) LOCATION OF THE WALL IS NECESSARY TO MAINTAIN A USE THAT IS PERMITTED, b) THE WALL WILL NOT ENDANGER PUBLIC OR PRIVATE PROPERTY, PUBLIC HEALTH OR SAFETY AND WILL NOT RESULT IN EXCESSIVE SOIL SEDIMENTS OR IMPAIR ANY WATERCOURSE, c) THE RETAINING WALL WILL NOT NEGATIVELY IMPACT ANY AQUATIC RESOURCES OR EROSION POTENTIAL, d) N/A, e) THE WALL CONFORMS TO THE SHARP DROP ALONG THIS PORTION OF THE CREEK, f) N/A, g) N/A.

UTILITIES:

WATER SUPPLY:	SAN JOSE WATER COMPANY
SEWAGE DISPOSAL:	REGIONAL WASTE WATER PLANT
STORM DRAINAGE:	COUNTY OF SANTA CLARA
GAS/POWER:	PACIFIC GAS & ELECTRIC
TEL/CABLE/NET:	N/A
SOLID WASTE:	N/A

EXISTING CONDITIONS:
THE EXISTING BOUNDARY, TOPOGRAPHIC SURVEY WAS PERFORMED BY KEVIN SMITH LAND SURVEYING OF SANTA CRUZ, CA.

ASSESSOR'S PARCEL NO. 326-12-057, +/- 0.046 ACRES

FLOOD ZONE: MAP PANEL 06085 CO208H, ENTIRE LOT ZONE AE, PORTION LOT FLOODWAY ZONE AE, FLOOD WATER SURFACE ELEVATION 278 FEET MSL

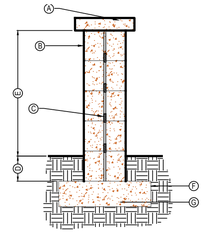
ZONING: RESIDENTIAL R1

EARTHWORK QUANTITIES:

CUT	0 CUBIC YARDS
FILL	0 CUBIC YARDS
EXPORT	0 CUBIC YARDS

NOTE EARTHWORK QUANTITIES ARE APPROXIMATE AND DO NOT TAKE INTO ACCOUNT CERTAIN CONSTRUCTION TECHNIQUES.

GEOTECHNICAL INFORMATION
NO GEOTECHNICAL INVESTIGATION WAS PREPARED FOR THE DEVELOPMENT OF THESE DRAWINGS.



LEGEND:

Ⓐ CAP UNIT SECURED TO UNIT BELOW WITH CONCRETE ADHESIVE
Ⓑ 8" X 16" CONCRETE BLOCK UNIT (BACKFILL WITH CONCRETE
Ⓒ VERTICAL REBAR #5 @ EACH BLOCK
Ⓓ 12-INCH EMBEDMENT AS SHOWN
Ⓔ HEIGHT AS SHOWN ON DRAWINGS
Ⓕ CONCRETE FOUNDATION MIN. 18" WIDTH BY 12" DEPTH, 4000 PSI.
Ⓖ 12-INCH EMBEDMENT AS SHOWN

TYPICAL RETAINING WALL SECTION
NTS

DESCRIPTION	PROPOSED	EXISTING
PROPERTY LINES		
CURB AND GUTTER		
SIDEWALK		
DIRECTION OF FLOW		
SLOPE IN GRADE, % OF GRADE	S=0.02	
SPOT ELEVATION	19.32	+19.32

AB	AGGREGATE BASE
AGG	AGGREGATE
BW	FINISHED GRADE AT BOTTOM OF WALL
C&G	CURB AND GUTTER
CG&S/W	CURB, GUTTER & SIDEWALK
E	EXISTING
FG	FINISHED GRADE (NON PAVEMENT)
FF	FINISHED FLOOR ELEVATION
FS	FINISHED SURFACE (PAVEMENT)
OH	OVERHEAD ELECTRIC
TF	TOP OF FOOTING
TW	TOP OF WALL

SHEET INDEX

Delve
Engineering
& Consulting

3111 Carriker Lane
Soquel, Ca 95073
831-295-7631
www.delveengineeringandconsulting.com

REVISIONS:

SUBMITTALS	DATE:	INT.
FIRST		
SECOND		
THIRD		
FOURTH		

SCALE:

DRAWN BY:

DESIGNED BY:

CHECKED BY: DATE:

APPROVED BY: DATE:

REGISTERED PROFESSIONAL ENGINEER
ROBERT S. SCHNEIDER
No. C42912
EXP. 03-31-20
CIVIL
STATE OF CALIFORNIA

TITLE:

10500 Creston Drive
Los Altos, CA 94024
Grading Abatement Plan

COVER SHEET

DATE:
6/01/2019
PROJECT ID.:
2018_027
DRAWING NO.:
C-1
SHT 1 OF 3

2018027_COVER.dwg
3/19/2007

BENCH MARK:
CITY OF CUPERTINO BENCH MARK 42, A CONCRETE NAIL IN TOP OF CURB ON EAST SIDE OF FOOTHILL BOULEVARD IN FRONT OF 10540 FOOTHILL BOULEVARD, 200 FEET SOUTH OF STARLING DRIVE.
ELEVATION = 357.34

BASIS OF BEARINGS:
THE BASIS OF BEARINGS FOR THIS SURVEY IS BETWEEN FOUND MONUMENTS AS SHOWN ON THAT CERTAIN MAP "TRACT NO. 1456, CRESTON UNIT 3", RECORDED APRIL 5, 1955 IN BOOK 55 OF MAPS, PAGES 40 & 41, SANTA CLARA COUNTY RECORDS.
NORTH 62°12'00" EAST

LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- BUILDING FOOTPRINT

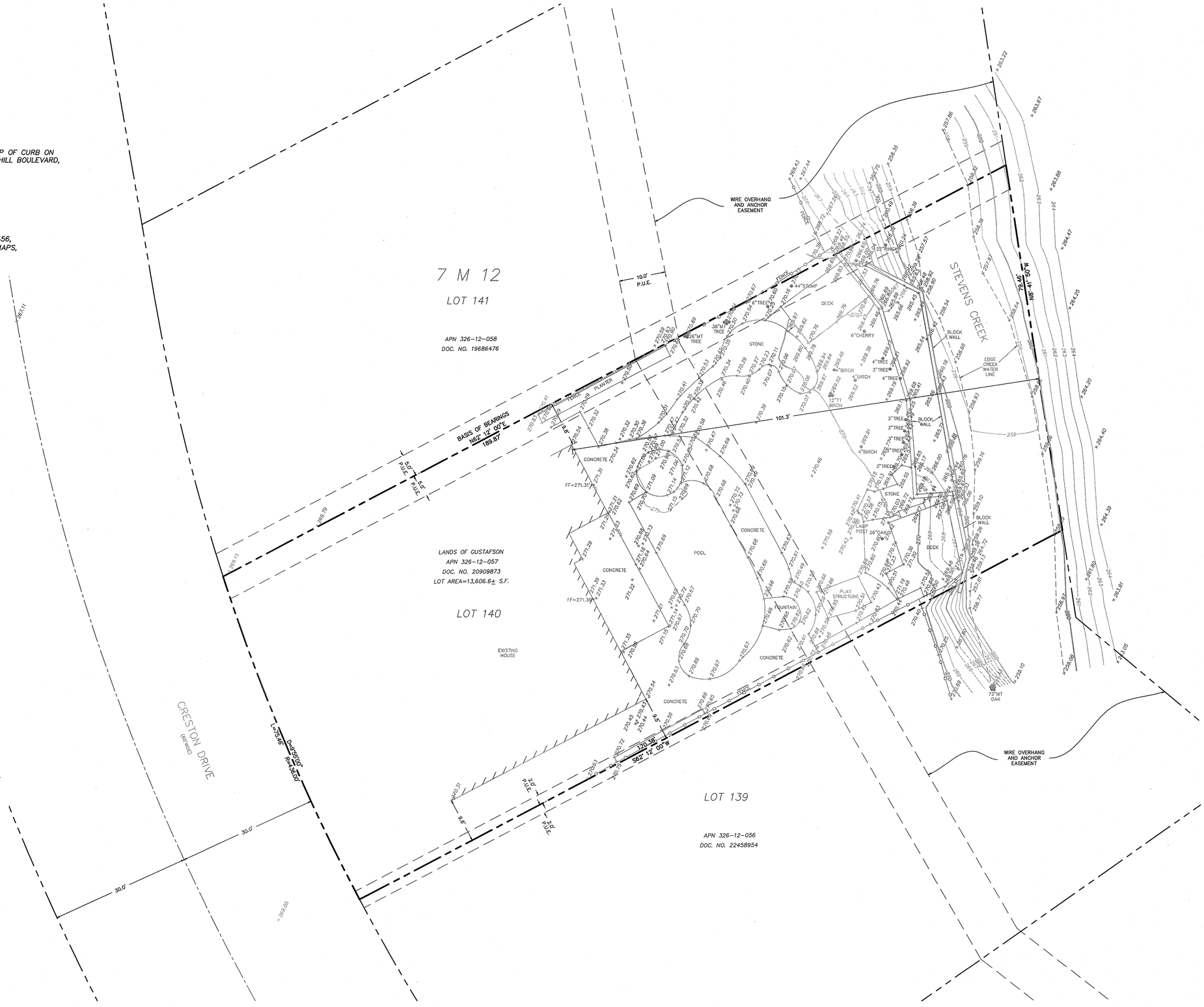
JP	JOINT UTILITY POLE
SSMH	SANITARY SEWER MANHOLE
CO	CLEANOUT
FF	FINISH FLOOR
GFS	GARAGE FINSIH SLAB
AD	AREA DRAIN
WM	WATER METER

P.U.E. PUBLIC UTLITIES EASEMENT

NOTE:
MEASURED DISTANCES FROM SIDE OF THE BUILDING TO THE PROPERTY LINES ARE TO THE FACE OF STUCCO.

NOTE:
THIS TOPOGRAPHIC MAP REPRESENTS THE CONDITIONS OF THE SITE AT THE TIME THE SURVEY WORK WAS COMPLETED AND SHOWS SURFACE OBJECTS ONLY. SUBSURFACE STRUCTURES,IF ANY,INCLUDING BUT NOT LIMITED TO FOUNDATIONS,PILINGS,UNDERGROUND TANKS AND UNDERGROUND UTILITY LINES MAY NOT BE SHOWN.

ATTENTION:
THE DELIVERY OF THIS MAP IN AN ELECTRONIC FILE DOES NOT CONSTITUTE THE DELIVERY OF MY PROFESSIONAL WORK PRODUCT. THE SIGNED PAPER PRINT IS PROVIDED TO THE CLIENT AS AN INSTRUMENT OF SERVICE. IN EVENT THE ELECTRONIC FILE IS ALTERED, THE SAID PAPER PRINT MUST BE REFERRED TO FOR THE ORIGINAL AND CORRECT SURVEY INFORMATION. I SHALL NOT BE RESPONSIBLE FOR ANY MODIFICATIONS MADE, BY OTHERS, TO THE ELECTRONIC FILE, OR ANY PRODUCTS DERIVED FROM THE ELECTRONIC FILE.



KEVIN M. SMITH No. 8237 6/30/19 LICENSED LAND SURVEYOR STATE OF CALIFORNIA

5-20-19
DATE

KEVIN M. SMITH, P.L.S. 8237

KEVIN SMITH LAND SURVEYING
111 DELLVIEW AVENUE
SANTA CRUZ, CA 95062
(831) 588-0154

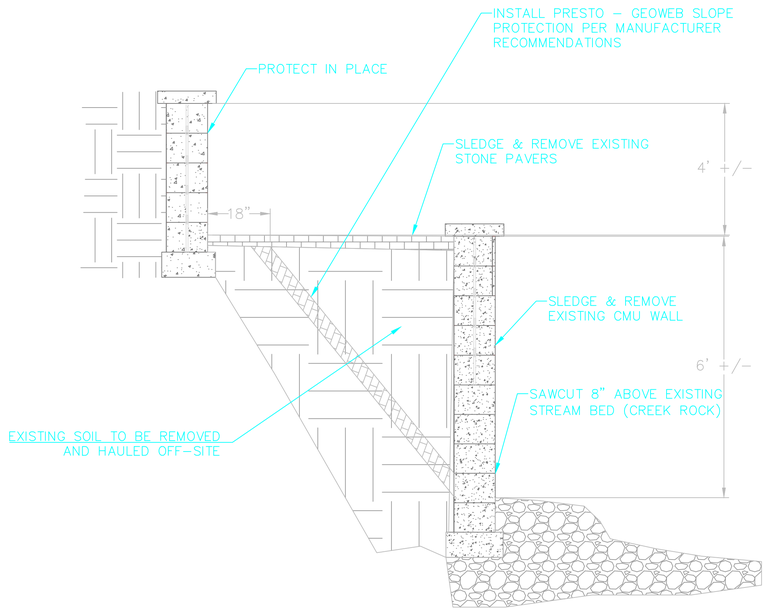
KEVIN SMITH LAND SURVEYING

PARTIAL TOPOGRAPHIC SURVEY

FOR: MICHAEL GUSTAFSON
10500 CRESTON DRIVE, LOS ALTOS, CA 94024
APN 326-12-057

SHEET 1
OF 1
DATE MAY 2019
JOB NO. K19014

TIME DATE STAMP

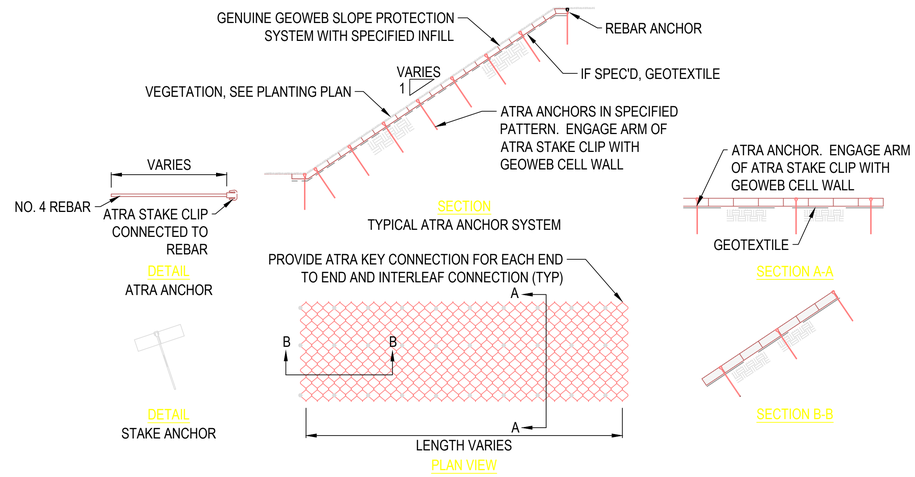


1 PROPOSED CROSS SECTION

GEOWEB SLOPE PROTECTION WITH ATRA ANCHORS - NTS

TENDON DATA		
TENDON TYPE	**WIDTH, IN (MM)**	**BREAK STRENGTH LBF (KN)**
POLYESTER		
TP-31	0.50 (13)	700 (3.11)
TP-67	0.75 (19)	1506 (6.70)
TP-93	0.75 (19)	2090 (9.30)
KELVAR		
TK-89	0.375 (10)	2000 (8.90)
TK-133	0.625 (16)	3000 (13.34)
TK-189	0.75 (19)	4000 (17.8)

PERSPECTIVE



STAKE ANCHOR INSTALLATION STEPS:

1. POSITION THE ATRA ANCHOR NEXT TO THE UP-SLOPE CELL WALL.
2. DRIVE ATRA ANCHOR INTO THE GROUND UNTIL ARM OF ATRA STAKE CLIP IS LOCATED ABOVE GEOWEB CELL WALL.
3. ENGAGE ARM OF ATRA STAKE CLIP TO CELL WALL AND DRIVE UNTIL TIGHT.

MANUFACTURER NOTES:

1. ATRA ANCHORS SHALL CONSIST OF NO. 4 REBAR WITH AN ATRA STAKE CLIP INSERTED INTO THE END OF THE REBAR. LENGTH OF THE ATRA ANCHORS SHALL BE AS SPECIFIED.
2. PRE-ASSEMBLED ATRA GFRP (POLYMER) ARE AVAILABLE FROM PRESTO GEOSYSTEMS.
3. THE GEOWEB SHALL BE FILLED WITH THE SPECIFIED MATERIAL (TOPSOIL, STONE, OR CONCRETE) AND SHALL BE SUITABLE TO WITHSTAND THE APPLICABLE HYDRAULIC CONDITIONS.
4. THE GEOWEB SECTIONS SHALL BE ANCHORED TO RESIST SLIDING DUE DRIVING AND HYDRAULIC FORCES.
5. SINCE VEGETATION IS DESIRED, PROVIDE AN EROSION CONTROL BLANKET OR TURF REINFORCEMENT MAT.
6. THE GEOWEB PANELS SHALL BE CONNECTED WITH ATRA KEYS AT EACH INTERLEAF AND END TO END CONNECTION.

2 GEOWEB® SLOPE PROTECTION SYSTEM

GEOWEB SLOPE PROTECTION WITH ATRA ANCHORS

Delve
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3111 Carriker Lane
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www.delveengineeringandconsulting.com

REVISIONS:

SUBMITTALS	DATE:	INIT.
FIRST		
SECOND		
THIRD		
FOURTH		

SCALE: 1"=5'

DRAWN BY:

DESIGNED BY:

CHECKED BY: DATE:

APPROVED BY: DATE:

REGISTERED PROFESSIONAL ENGINEER ROBERT S. SCHNEIDER No. C42912 EXP. 03-31-20 CIVIL STATE OF CALIFORNIA

TITLE:

10500 Creston Drive
Los Altos, CA 94024
Grading Abatement Plan

DETAILS

DATE: 6/01/2019

PROJECT ID.: 2018_027

DRAWING NO.: C4

SHT 4 OF 4

2018027_DETAILS.dwg

3/19/2007