

JOE'S TRAIL
AT
SARATOGA DE ANZA PROJECT

SARATOGA, CALIFORNIA
CONSTRUCTION DRAWINGS

JANUARY 14, 2010

FEDERAL PROJECT NO. CML 5332(012)

PREPARED BY:

CITY OF SARATOGA PUBLIC WORKS DEPARTMENT

APPROVED BY: _____

Macedonio Nunez

MACEDONIO NUNEZ, P.E.

ASSOCIATE ENGINEER

CITY OF SARATOGA—PUBLIC WORKS

R.C.E. No 67482, LIC. EXP. 06—30—11

DATE: January 14, 2010

CIVIL



SHEETS C-1 TO C-3

CITY OF SARATOGA STANDARD DETAILS

GENERAL CONSTRUCTION SPECIFICATIONS

1. Construction work and operations shall conform to the prevailing State of California Standard Specifications, supplemented by special provisions required by the City of Saratoga Engineer's Office. The performance and completion of all work must be to the satisfaction of the City Engineer.
 2. Construction details shall be in accordance with provision of the current City of Saratoga Standard Details as appropriate. In the event of conflict, the matter shall be resolved by the City Engineer.
 3. Developer shall provide adequate dust control as required by the City Engineer.
 4. All underground installations shall be in place and the trench backfilled and compacted before placing aggregate base material or surface structures. Surface work may be done if the utility company concerned indicates by letter that it will bore. Unless specifically authorized by the City Engineer, gas and water mains shall be installed outside the paved area.
 5. Accurate verification as to size, location and depth of existing underground conduits or facilities shall be the individual contractors responsibility. Plan locations are approximate and for general information only. Contractors shall contact utility companies for exact locations of utilities.
 6. Compaction of all fill areas, trench backfill and approved aggregate base material shall be in accordance with the prevailing State of California Standard Specifications.
 7. Existing trees, roots and foreign matter shall be removed to a minimum depth of two (2) feet beneath the proposed finished grade of streets and removed from the job site.
 8. Concrete used for structural purposes shall be Class "A" (6 sack per c.y.) as specified in the State Standard Specifications. Concrete placed must develop a minimum strength factor of 2200 p.s.i. in a seven day period and 3000 p.s.i. in 28 days.
 9. Drop inlets shall be City Standard Type 1 unless otherwise noted on the plans.
 10. All materials and methods of construction of sanitary sewers shall conform to the specifications of the jurisdiction involved. Inspection of sanitary sewer work shall be done by said jurisdiction.
 11. The City's Surveyor is responsible for the initial placement and replacement of construction grade stakes. The stakes are to be adequately identified, located, stabilized, etc., for the convenience of contractors. Lateral offset of stakes set for curbs and cutters shall not exceed 2 1/2 feet from back of curb. Cut-sheets shall be provided to the inspector before beginning work.
 12. Encroachment permits: Encroachment permits shall be secured from the Santa Clara County Flood Control and Water District in cases where needed. Encroachment permits shall be secured from California Division of Highways where needed.
 13. Wherever possible, driveway locations shall be shown on the improvement plans in detail and with centerline stationings. The minimum thickness of driveway approaches shall be 6 inches throughout. The maximum approach slope shall be 1 1/2 inches per foot.
 14. Utility poles and other obstructions in the way of construction shall be moved or relocated by developer or appropriate utility company.
 15. Street lighting facilities shall be in accordance with Santa Clara County Standard Details and Specifications except as otherwise noted on the plans.
 16. Street tree planting shall be done as per City of Saratoga Ordinance. No existing trees required to be shown on the tentative map shall be removed without a permit to do so from the City Planning Commission.
 17. All R.C.P. pipe to be ASTM C-76, Class II, III or IV.
 18. Contractors must notify the Public Works Department before beginning any of the activities listed below. Failure to do so may provide cause for rejection of the work done and the necessity for either: 1.) removing and redoing the work; 2.) special testing such as coring, etc.; 3.) a long-term performance bond or; 4.) all or any of the above. The critical stages include:
 - A. Commencement of work
 - B. Beginning cut or fill
 - C. Completion of excavation and/or subgrade
 - D. Placement of aggregate base rock
 - E. Application of prime coat or lock coat
 - F. Placement of Portland cement concrete in any structure
 - G. Placement of asphalt concrete or other roadway material
 - H. Completion of any drainage structure
 - I. Backfill of any trench
 - J. Placement of any structure or roadway over a backfill trench
 - K. Completion of a project
- The City requires a minimum of 24 hours advance notice for general inspection, 48 hours for asphalt concrete construction.
19. The Developer and/or his authorized representative must submit written request for final inspection and acceptance. Such requests shall be directed to the City of Saratoga Public Works Dept., 13777 Fruitvale Avenue, Saratoga.
 20. Routes used by construction traffic to be approved by City Engineer.
 21. Field Engineer: Developers or their engineer shall designate or provide a Field Engineer to act as a liaison with the contractors, subcontractors and the City with regard to construction activities. Name(s) and phone number(s) of the individual(s) designated as Field Engineer shall be provided to the City and to all contractors and subcontractors working on the job. All questions as to the meaning and intent of the plans shall be taken to the Field Engineer.

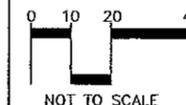
CITY OF SARATOGA STANDARD DETAILS

NOTES

1. Portland Cement Concrete (P.C.C.) shall conform to Section 90 of the State of California Standard Specifications, latest edition, and shall be designated by class as follows:
 - Class A - 6 sack mix with a minimum compressive strength of 3000 p.s.i. at 28 days.
 - Class B - 5 sack mix with a minimum compressive strength of 2500 p.s.i. at 28 days.
- All exposed concrete such as used in sidewalks, curbs and gutters, etc., shall contain 1 pint of lampblack per cubic yard.
2. Asphaltic concrete (A.C.) shall be Type B conforming to Section 39 of the State of California Standard Specifications, latest edition. Aggregate for asphaltic concrete shall be 1/2" maximum medium grade or as specifically approved by the City Engineer. Cross sections of A/C 4" or greater in thickness shall be placed in multiple lifts of not more than 4" thickness.
 3. Reinforced concrete pipe (R.C.P.) for storm drains shall conform to American Society for Testing and Materials (A.S.T.M.) C76 and shall be Class II, III or Class IV as specified.
 4. Street pavements shall be designed on the basis of the R-Value, Traffic Index method, as shown in the State of California, Division of Highways Planning Manual, Part 7. Minimum standard pavement sections are shown on Street Standard Drawings, No's. 16 to 21. These minimum standards may be used only where the design method does not require a thicker structural section.
 5. Weakened plane joints may be formed or saw cut but in any case must be to 1/3 of the depth of the concrete section. Formed joints may be accomplished by insertion of a thin (1/4" or less in thickness) sheet of steel, plastic or other suitable material to the proper depth in workable concrete. This wedge should not be removed until the concrete has "set". The concrete on both sides of this wedge shall be finished with a 1/4" radius edge.

SHEET INDEX:

- COVER
- N-1 SHEET INDEX AND PROJECT NOTES
- C-1 TRAIL PROJECT PLAN
- C-2 & C-3 DETAIL SHEET
- B-1 & B-2 RODEO CREEK BRIDGE PLANS
- B-3 & B-4 SARATOGA CREEK BRIDGE PLANS



JOE'S TRAIL AT SARATOGA DE ANZA

CONSTRUCTION DOCUMENTS
CITY OF SARATOGA, CALIFORNIA

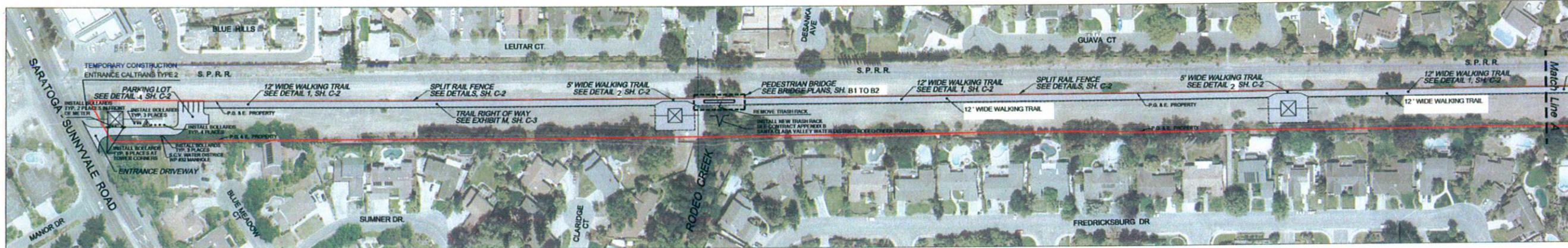
SOURCES:

JOE'S TRAIL
AT SARATOGA DE ANZA

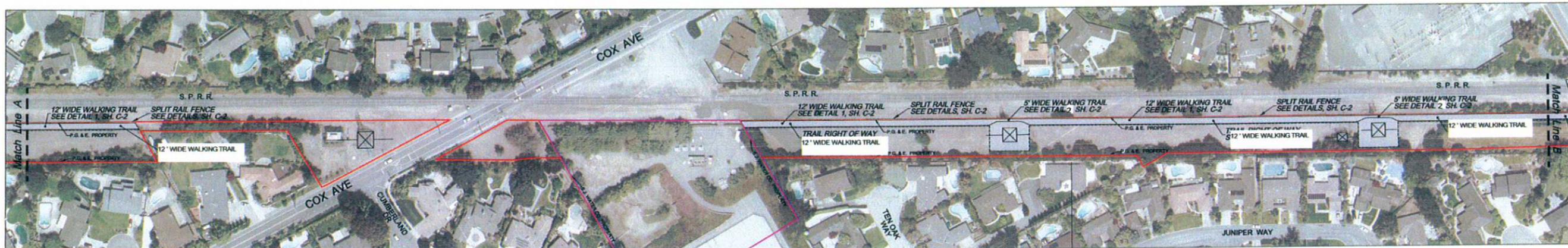
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DRAWN: _____
CHECKED: _____
SCALE: _____
REVISIONS: _____
BY: _____

SHEET NO.

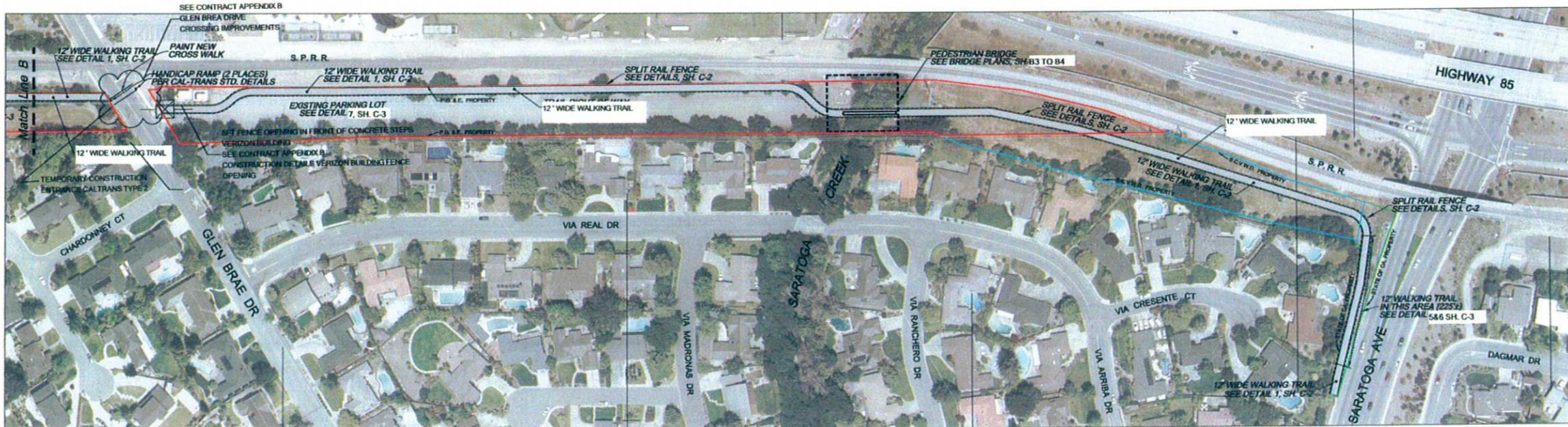
N-1



TRAIL PLAN
SCALE: 1"=100'



TRAIL PLAN
SCALE: 1"=100'

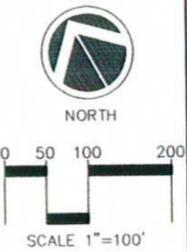


TRAIL PLAN
SCALE: 1"=100'

LEGEND

- WALKING TRAIL RIGHT OF WAY AND TRAIL BOUNDARY
- PG&E PROPERTY BOUNDARY
- SAN JOSE WATER COMPANY PROPERTY BOUNDARY
- SANTA CLARA VALLEY WATER DISTRICT PROPERTY BOUNDARY
- STATE OF CALIFORNIA PROPERTY BOUNDARY
- BOLLARD PAINT WHITE

CITY OF SARATOGA



JOE'S TRAIL AT SARATOGA DE ANZA
 TRIAL PROJECT PLAN
 CITY OF SARATOGA, CALIFORNIA

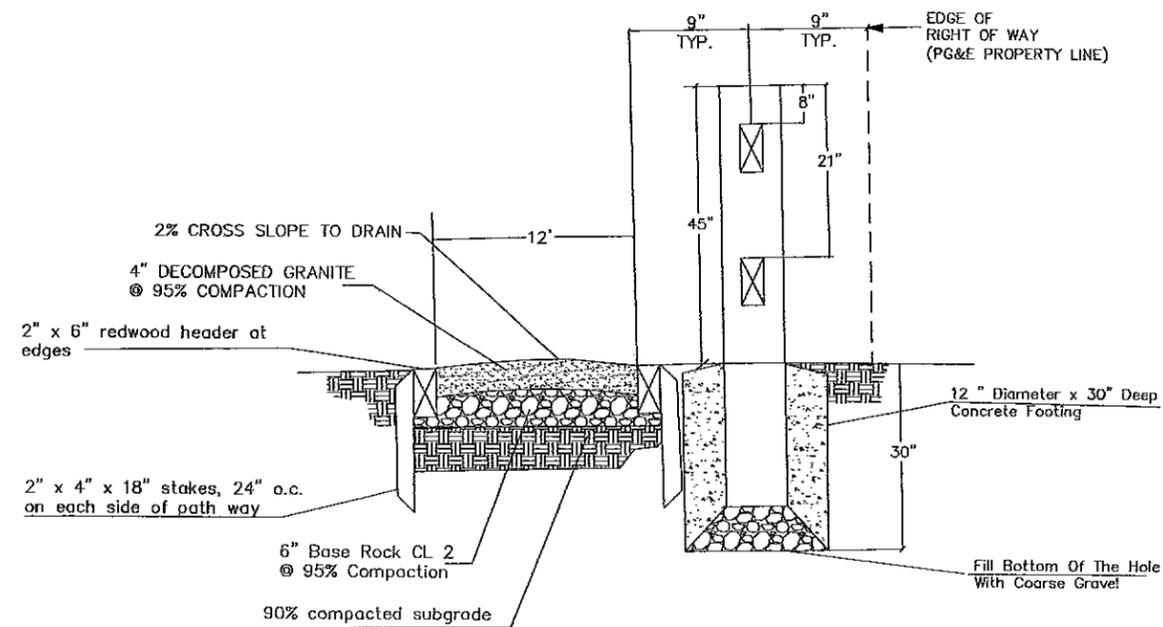
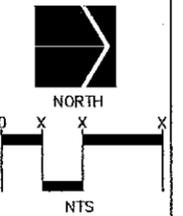
SOURCES:

JOE'S TRAIL AT SARATOGA DE ANZA

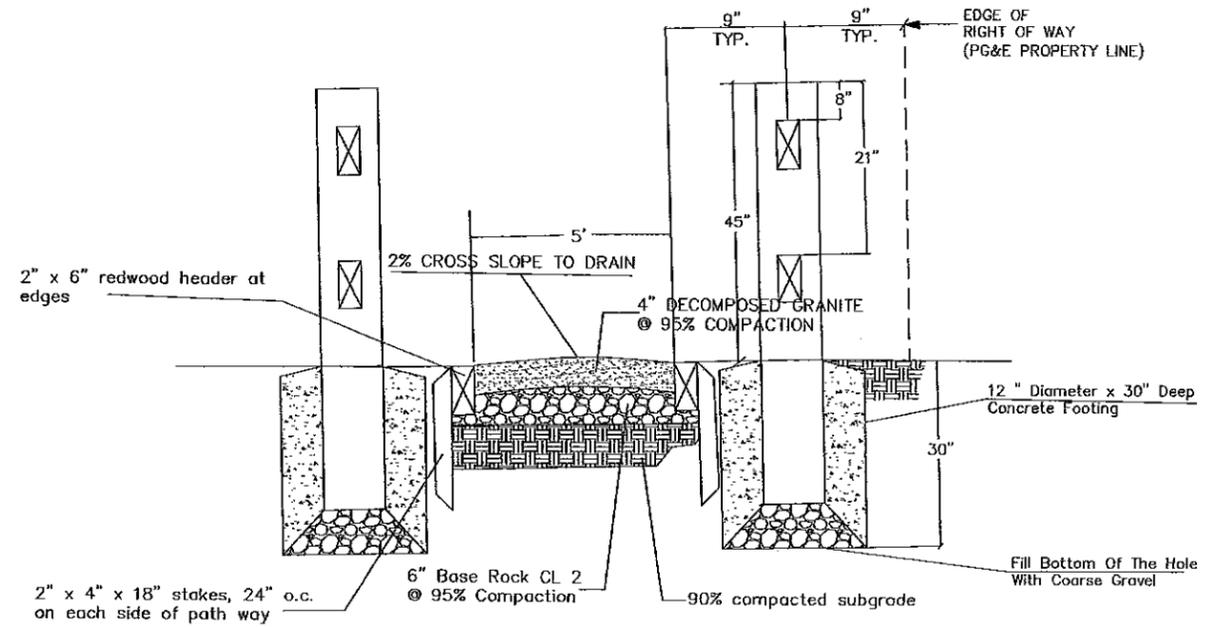
DATE: OCTOBER 2008	DRAWN: City of Saratoga
CHECKED: _____	SCALE: 1" = 100'
REVISIONS	BY
12-08	RLM

SHEET NO.

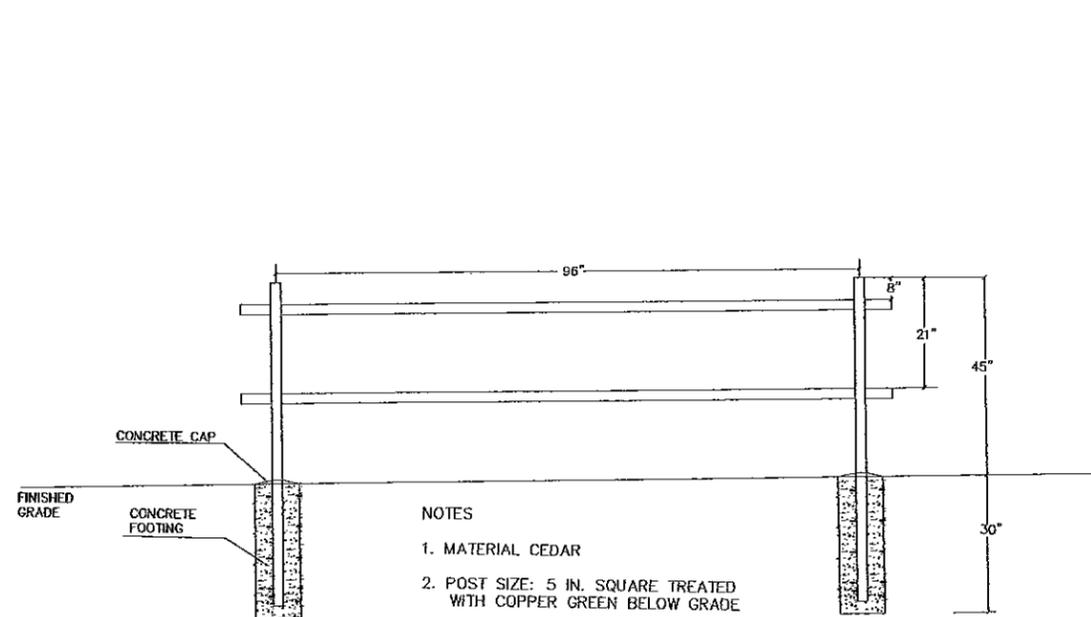
C-1



1 TRAIL CROSS SECTION WITH
C-2 SPLIT RAIL FENCE (GRAPE STAKE FENCE)
NTS

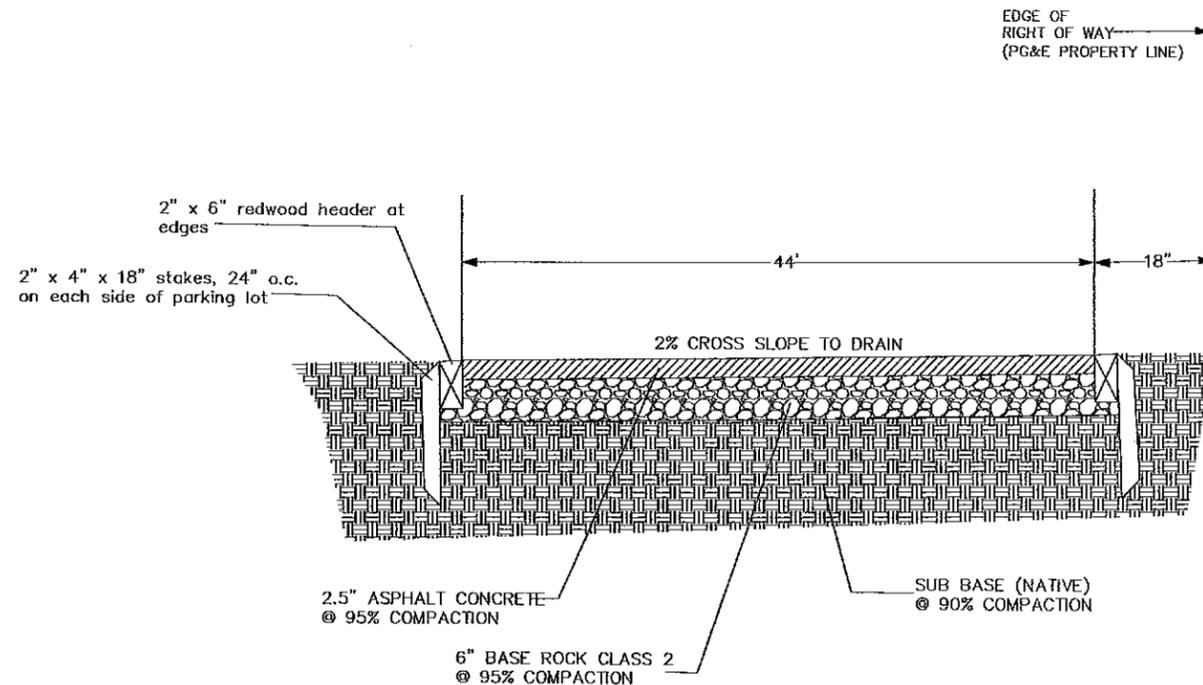


2 TRAIL CROSS SECTION WITH
C-2 SPLIT RAIL FENCE (GRAPE STAKE FENCE)
PARALLEL TO UTILITY TOWER
NTS



- NOTES
1. MATERIAL CEDAR
 2. POST SIZE: 5 IN. SQUARE TREATED WITH COPPER GREEN BELOW GRADE
 3. POST SPACING: 96 IN. ON CENTER
 4. RAIL SIZE: 2 IN BY 4 IN

3 SPLIT RAIL FENCE (GRAPE STAKE FENCE)
C-2 NTS



4 NEW PARKING LOT CROSS SECTION
C-2 NTS

JOE'S TRAIL AT SARATOGA DE ANZA
TRAIL PROJECT PLAN
CITY OF SARATOGA, CALIFORNIA

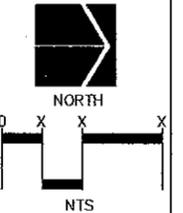
SOURCES:

JOE'S TRAIL
AT SARATOGA DE ANZA

DATE: 01-14-10
DRAWN: MN
CHECKED:
SCALE: NTS
REVISIONS: BY

SHEET NO.

C-2

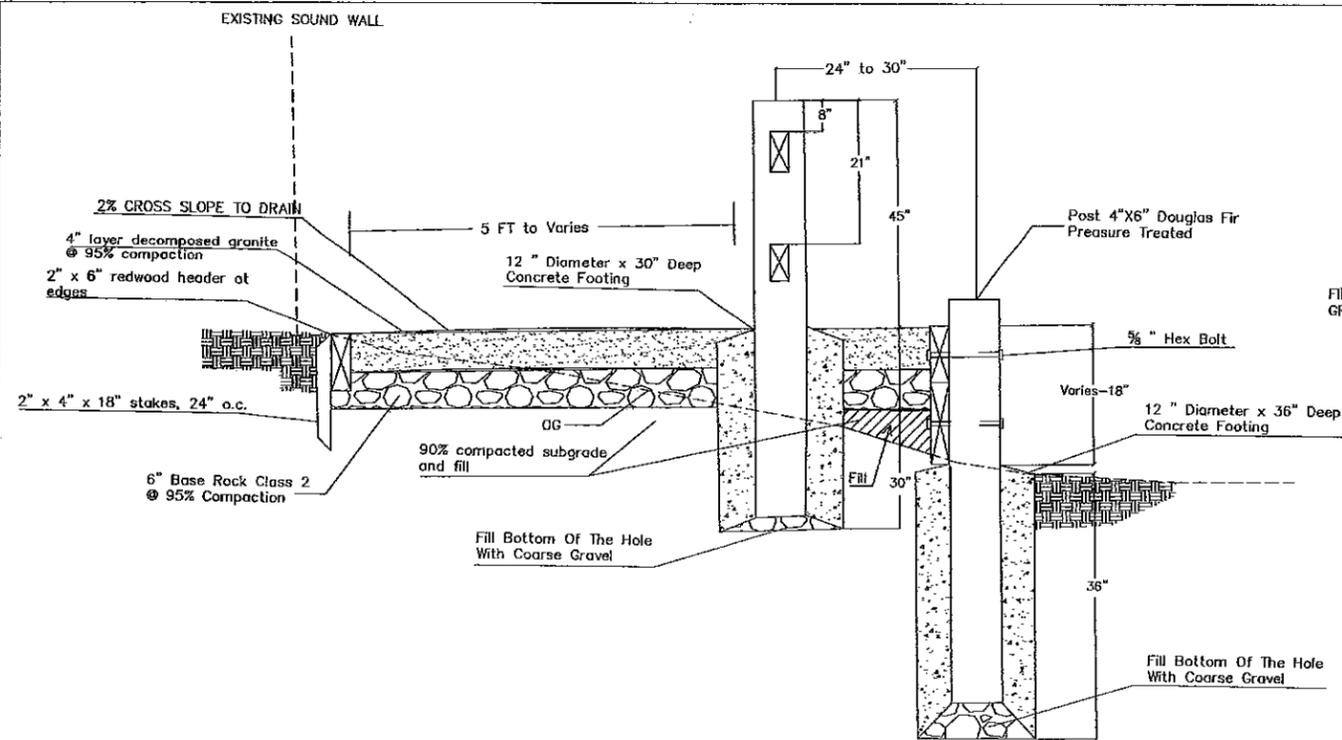


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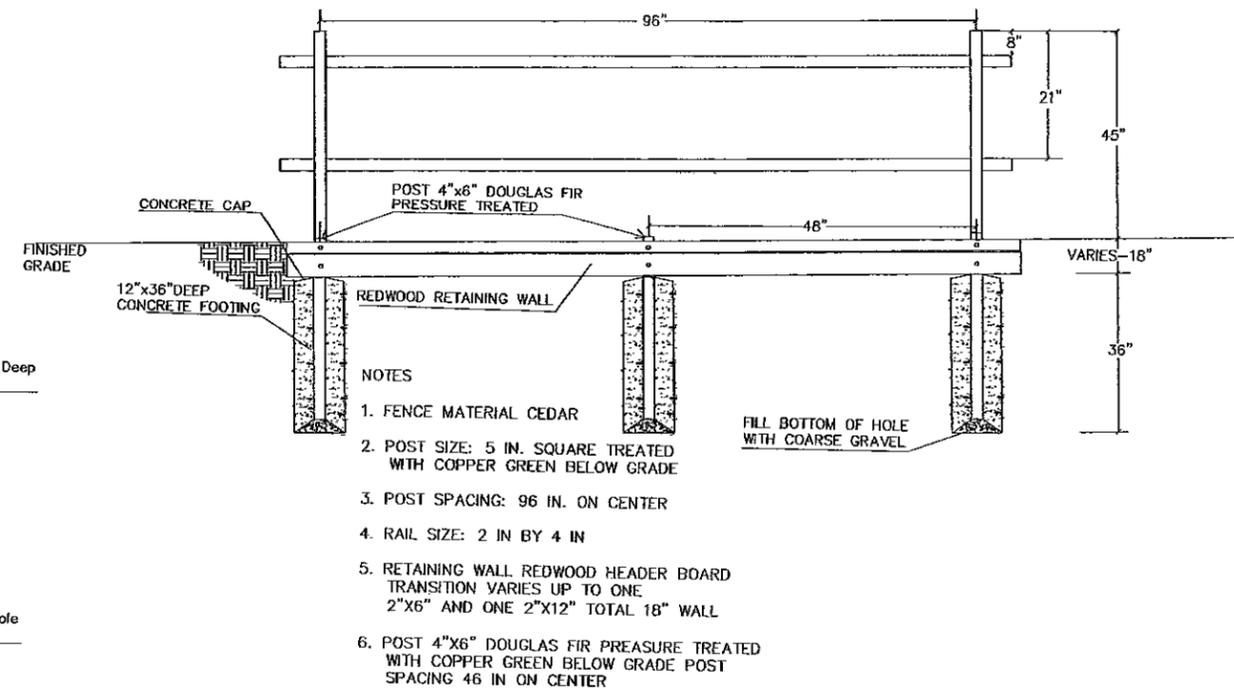
JOE'S TRAIL AT SARATOGA DE ANZA

DATE: 01-14-10
DRAWN: MN
CHECKED:
SCALE: NTS
REVISIONS: BY

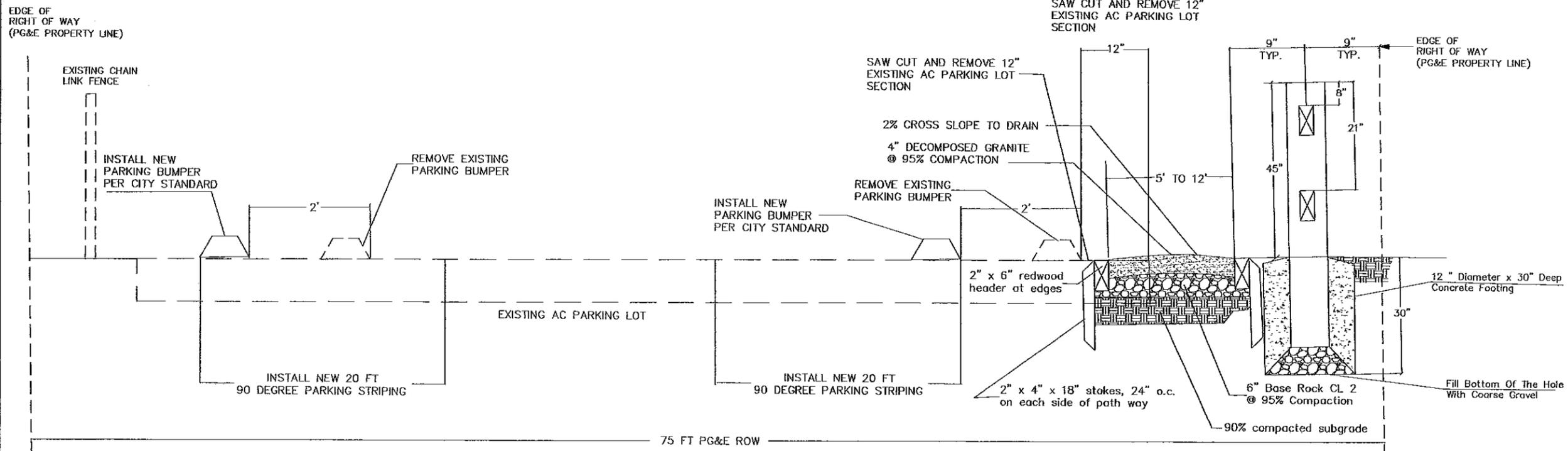
SHEET NO. C-3



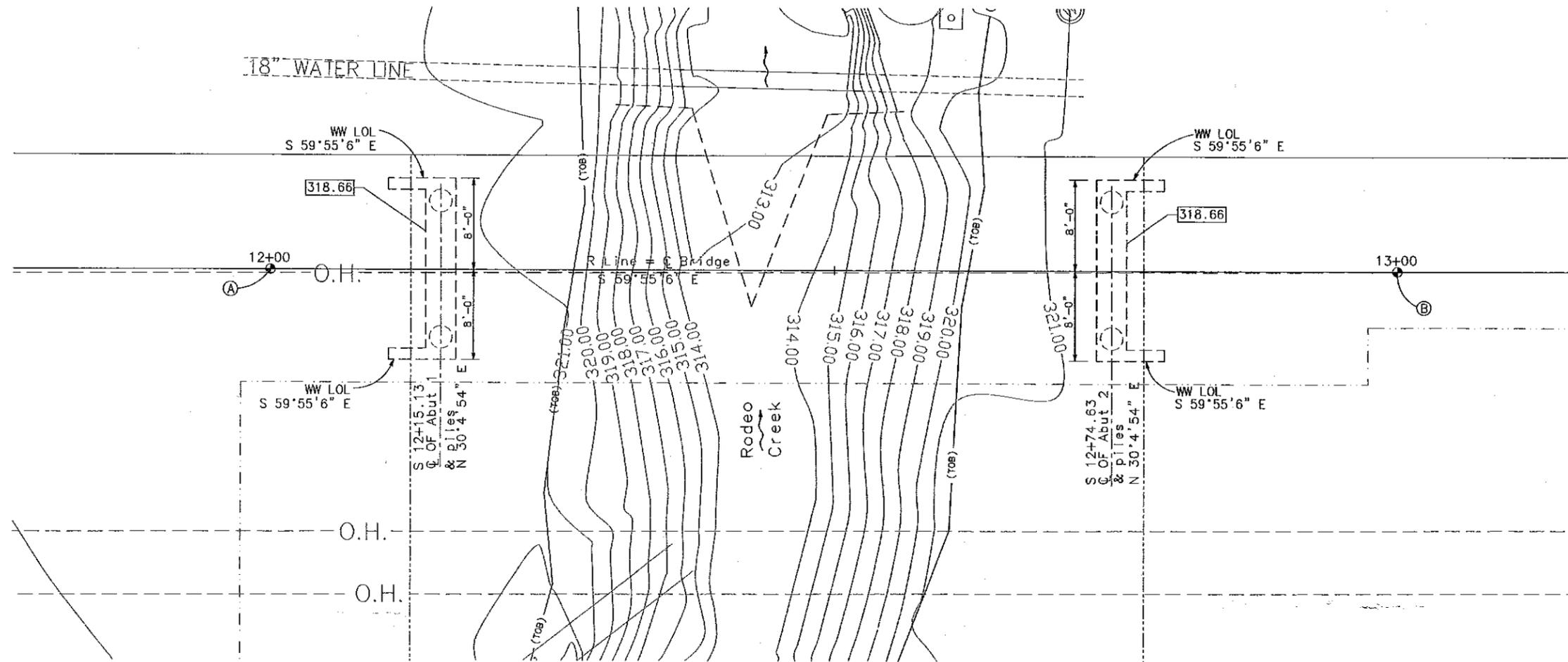
5 TRAIL CROSS SECTION WITH SPLIT RAIL FENCE (GRAPE STAKE FENCE) WITH REDWOOD RETAINING WALL ALONG SARATOGA AVE. ONLY
NTS



6 TRAIL CROSS SECTION WITH REDWOOD RETAINING WALL ALONG SARATOGA AVE. ONLY
NTS



7 EXISTING PARKING LOT MODIFICATION CROSS SECTION
NTS



PLAN
1" = 5'

LEGEND

- x—x— Fence
- O.H. --- Overhead Power Line
- (TOB) --- Top of Bank
- RIGHT-OF-WAY
- SCVWD EASEMENT
- PROPOSED TRAIL EASEMENT
- ~ Direction of Flow
- Indicates bottom of footing elevation
- Construction Survey Control Point
- ⊕ Denotes piles
- ⊕ Denotes tree

ABBREVIATION

- LOL Layout line
- WW Wing Wall

NOTES:

1. Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.
2. After excavation and prior to foundation construction, Contractor shall coordinate the field evaluation by the Geotechnical Engineer of the record for footing excavations, footing limits and depths for exposed fractures, discontinuity of supporting strata, etc.; and carry out suggested lean concrete filling at pockets, if found necessary.

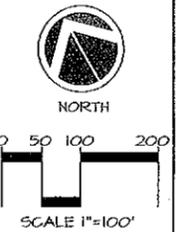
DATUM:

ELEVATIONS ARE BASED ON SANTA CLARA VALLEY WATER DISTRICT BENCH MARK "BM1093" 323.17' NAVD88

R LINE ALIGNMENT DATA:

	STATION	NORTHING	EASTING
(A)	12+00	5000.94	4972.73
(B)	13+00	4950.81	5059.26

CITY OF SARATOGA



JOE'S TRAIL AT SARATOGA DE ANZA
RODEO CREEK BRIDGE
FOUNDATION PLAN
CITY OF SARATOGA, CALIFORNIA

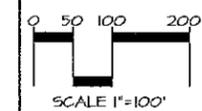
SOURCES:

JOE'S TRAIL AT SARATOGA DE ANZA

DATE: JUNE 8, 2009
DRAWN: TC
CHECKED: PKZ
SCALE: AS SHOWN
REVISIONS BY

SHEET NO.

B2



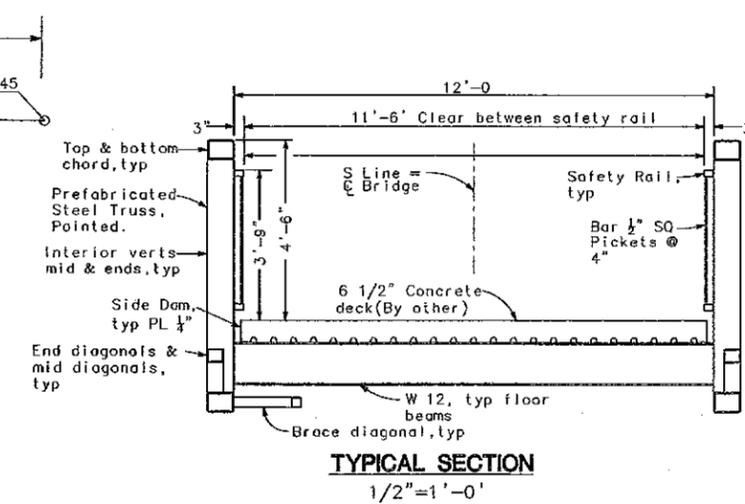
JOE'S TRAIL AT SARATOGA DE ANZA
SARATOGA CREEK BRIDGE
GENERAL PLAN
CITY OF SARATOGA, CALIFORNIA

SOURCES:

JOE'S TRAIL AT SARATOGA DE ANZA

DATE	JUNE 8, 2004
DRAWN BY	TC
CHECKED BY	PEC
SCALE	AS SHOWN
REVISIONS	BY

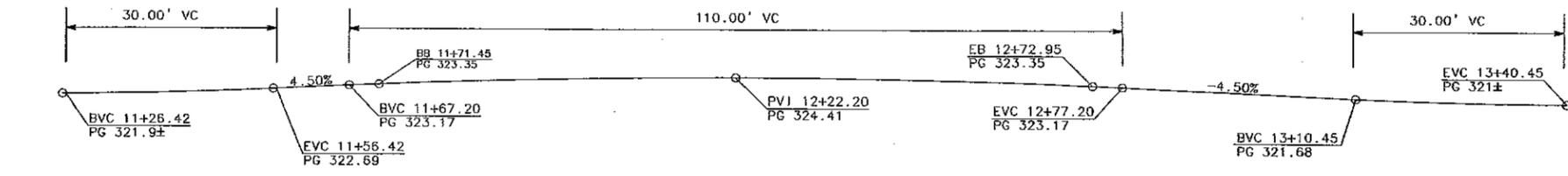
SHEET NO. B3



LEGEND		ABBREVIATION	
---	Fence	BB	Begin Bridge
---	Overhead Power Line	BVC	Begin Vertical Curve
---	(TOB) Top of Bank	EB	End Bridge
---	RIGHT-OF-WAY	Elev	Elevation
---	SCWD Easement	EVC	End Vertical Curve
---	Proposed Trail Easement	FG	Finished Ground
---	Direction of Flow	OG	Original Ground
		PG	Profile Grade
		R/W	Right-of-Way
		SCWD	Santa Clara Valley Water District
		S.P.T	Southern Pacific Transportation
		VC	Vertical Curve

GENERAL NOTES

- Prefabricated steel bridge shall be designed, detailed and fabricated according to the latest provisions of the AASHTO Standard Specifications for Highway Bridges, AISC Manual of Steel Construction and the Structural Welding Code (ANSI/AWS D1.1-88).
- Bridge shall be made from cold formed carbon steel tubing conforming to ASTM A8500 Grade B (Fy = 46,000 psi). Incidental steel angles, plates and shapes steel shall be made from structural steel conforming to ASTM A36 (Fy = 36,000 psi).
- Welding shall be performed with series E80 Electrodes compatible with the base metal being welded. All fabrication, filler materials & Welder's certifications shall be per latest AWS codes.
- All verticals shall be plumbed. All top & bottom chord shop splices to be with complete penetration type welds. Weld between top chord & end vertical shall be full or partial penetration, ground flush.
- Unless otherwise noted, welded connections shall be fillet welds (or have the effective throat of a fillet weld) of a size equal to the thickness of the lightest gage member in the connection. All connections shall be welded all around, full length of all the contacts.
- Bridge design is based on combinations of the following loads which will produce maximum critical member stresses:
 - 85 psf uniform live load on the full deck area and one (posted) 40 Kip vehicle load plus impact. The load shall be distributed as a four-wheel vehicle with 80% of load on the rear wheels. The wheel shall be spaced for a pickup truck driving down the center of the bridge.
 - 35 psf wind load on the full height of the bridge, as if enclosed; or 75 psf wind load on actual surfaces of the members.
 - 20 psf upward force applied at the windward quarter point of the transverse bridge width (AASHTO 3.15.3).
 - Seismic Loading: Caltrans Seismic Design Criteria (SDC), Version 1.4. Caltrans SDC Figure B.9 (Soil Profile D) (Mw=8.0, PBA = 0.5g) with 20% increase of Sa for structural periods.
- The Contractor shall submit four sets of structural design calculations, member calculations, shop plan with all fabrication details, vent/drain holes, welds, splice details, all miscellaneous details, etc. prepared and wet signed by a California Registered Structural/Civil Engineer for City's review, prior to fabrication.
- Dimensions (+) thus marked shall be dependent on 'Bridge manufacturer's Plans'. Contractor shall coordinate these dimensions prior to fabrication and during construction. Any required modifications shall be brought to the Engineer's attention, prior to construction.
- Contractor shall submit all reinforcing bar shop drawings showing all hooks, bends, splices, etc. for the Engineer's review, prior to fabrication. Contractor shall coordinate all inspections by the City of Saratoga and the Geotechnical Engineer with adequate notice to all parties.



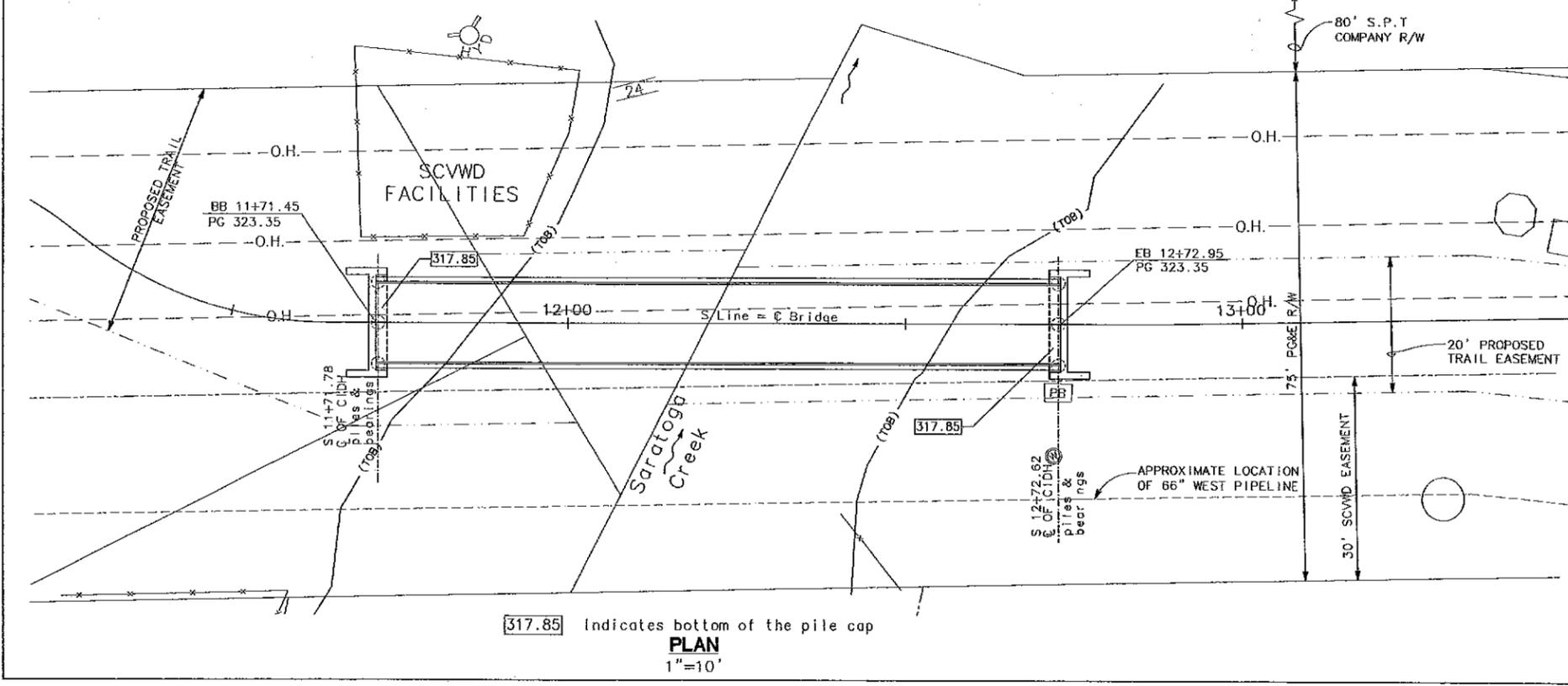
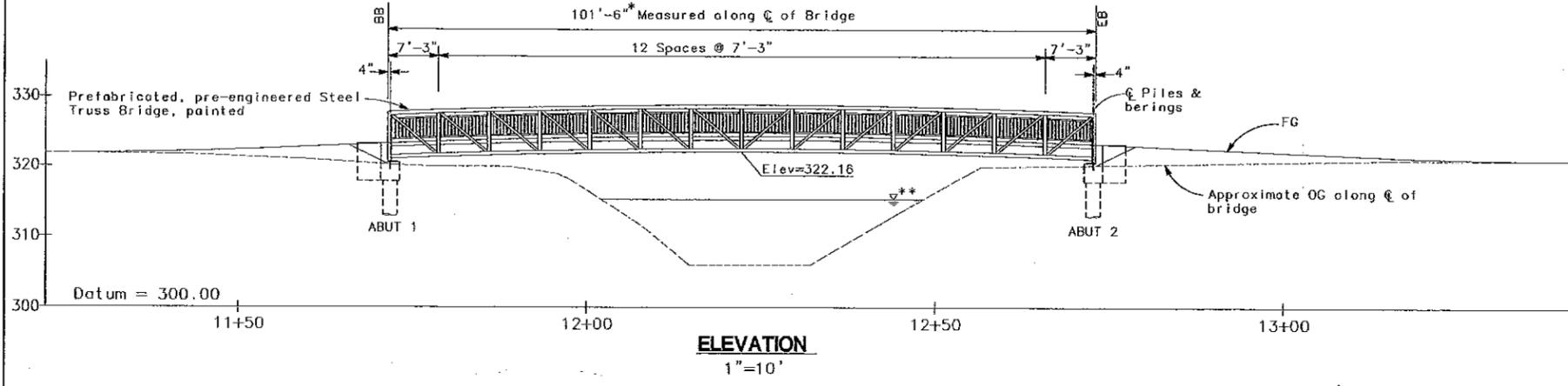
File Data - CIDH Concrete Piles

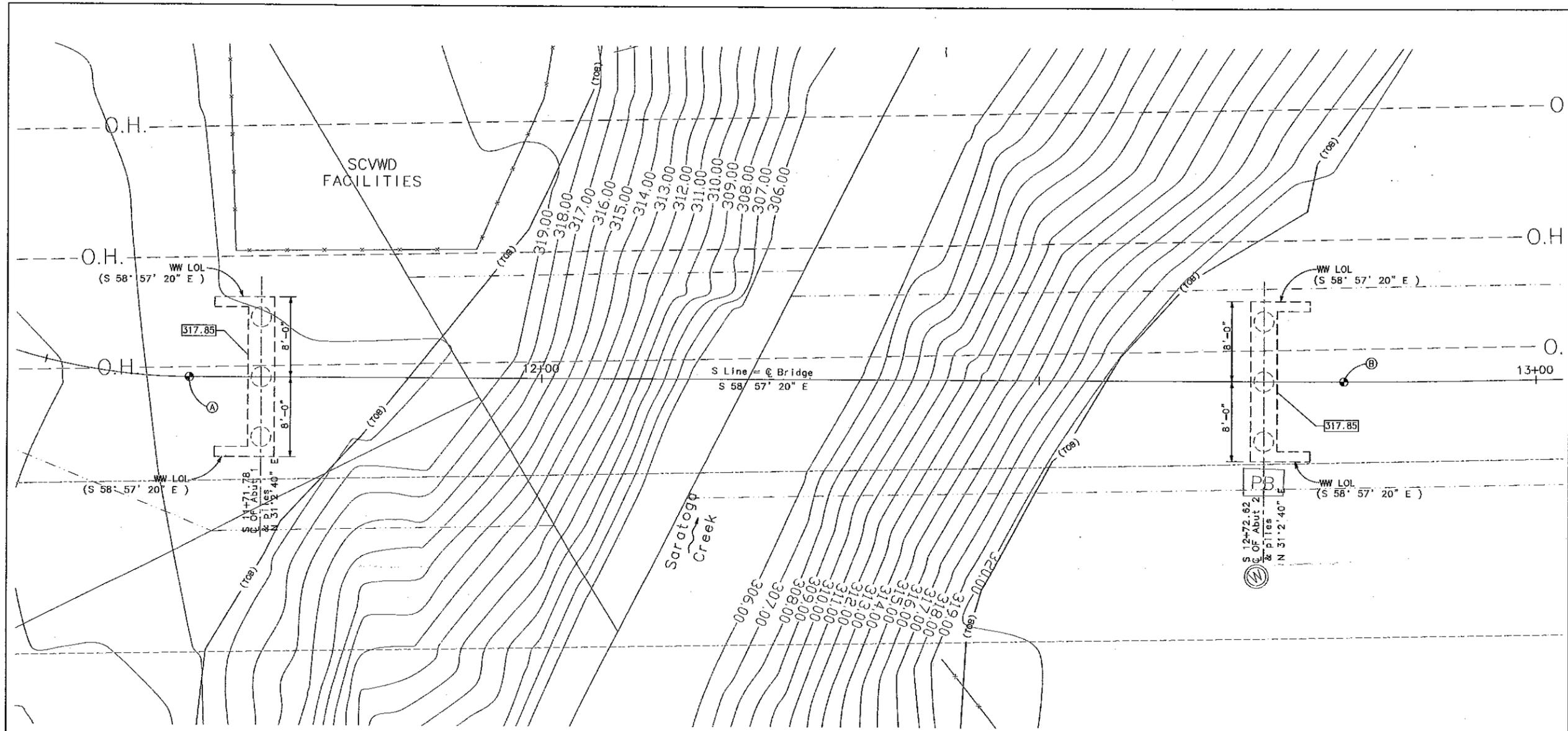
Location	Pile Diameter	Specified Tip Elev (ft)
Abut 1	24"	287.85*
Abut 2	24"	287.85*

*If the drilled pier allowable skin friction of 500 psf as recommended in the Geotechnical Investigation Report prepared by Cotton, Shires & Associates, Inc. cannot be met upon excavation and drilling, immediately notify the engineer.

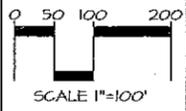
**** HYDROLOGIC SUMMARY**

	Design Flood
Frequency (Year)	100
Discharge (Cubic feet per sec)	400
Water Surface (Elev at Bridge), ft	315.3
Freeboard required, ft	2.1





CITY OF SARATOGA



JOE'S TRAIL AT SARATOGA DE ANZA
 SARATOGA CREEK BRIDGE
 FOUNDATION PLAN
 CITY OF SARATOGA, CALIFORNIA

SOURCES:

JOE'S TRAIL AT SARATOGA DE ANZA
 DATE: JUNE 8, 2001
 DRAWN: TC
 CHECKED: PKG
 SCALE: AS SHOWN
 REVISIONS: BY

SHEET NO.
 B4

LEGEND

- Fence
- O.H. --- Overhead Power Line
- (TOB) --- Top of Bank
- RIGHT-OF-WAY
- SCVWD EASEMENT
- PROPOSED TRAIL EASEMENT
- Direction of Flow
- Indicates bottom of footing elevation
- Construction Survey Control Point
- Denotes piles
- Denotes tree

ABBREVIATION

- LOL Layout line
- SCVWD Santa Clara Valley Water District
- WW Wing Wall

PLAN

1" = 5'

NOTES:

1. Contractor shall verify all controlling field dimensions before ordering or fabricating any materials.
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DATUM:

ELEVATIONS ARE BASED ON SANTA CLARA VALLEY WATER DISTRICT BENCH MARK "BM156" 325.24' NAVD88

S LINE ALIGNMENT DATA:

	STATION	NORTHING	EASTING
(A)	11+64.57	2507.37	4020.57
(B)	12+80.67	2447.50	4120.04



Biological Assessment

Saratoga de Anza Trail
Santa Clara County
04-SCL-0-SAR

February 2008



For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: JoAnn Cullom, P.O. Box 23660, Oakland, CA 94623, (510) 286-5222 Voice, or use the California Relay Service TTY number, (510) 286-4454.

DRAFT

Biological Assessment

Saratoga de Anza Trail

Santa Clara County

04-SCL-0-SAR

February 2008

U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration, and
STATE OF CALIFORNIA
Department of Transportation

Approved By: _____ Date: _____

John Cherbone, Director
(408) 868-1239
Public Works Department
City of Saratoga

Approved By: _____ Date: _____

Jeffrey G. Jensen, Office Chief
(510) 622-8729
Office of Biological Sciences and Permits
District 4
California Department of Transportation

Summary of Findings, Conclusions, and Determinations

The City of Saratoga proposes to construct an approximately 1.3-mile (mi) bicycle/pedestrian trail along an existing 1.6-mi Pacific Gas and Electric (PG&E) easement between Saratoga-Sunnyvale Road and Saratoga Avenue in Saratoga, Santa Clara County. The trail will be located adjacent to and southwest of the Vasona Branch of the Union Pacific Railroad spur, and will cross two creeks (Rodeo Creek and Saratoga Creek). The trail would consist of two discrete segments east and west of an approximately 0.27-mi gap in the trail alignment created by two privately owned residential parcels and a San Jose Water Company parcel in the vicinity of Cox Avenue. The trail will create additional open space and improve regional trail interconnectivity with Bay Area open space and trail networks.

The trail will be approximately 12 feet (ft) in width, and will be comprised primarily of crushed granite. Access will be provided via trailheads at Saratoga-Sunnyvale Road and Saratoga Avenue and street crossings at Cox Avenue and Glen Brea Drive. Prefabricated, 12-ft-wide, steel Pratt truss bridges are proposed for the two creek crossings. At Rodeo Creek, an approximately 40-ft-long bridge will be located parallel to the existing railroad bridge. At Saratoga Creek, an approximately 100-ft-long bridge will be erected parallel to and southwest of the existing railroad bridge. Both bridges will be supported by drilled, cast-in-place reinforced concrete piers located at least 6 ft from the top of the creek banks. No retaining walls, wing walls, or other support structures are anticipated within the creek banks. Both bridges will be designed carefully around existing utilities. The proposed project would support trail user needs by using existing ancillary facilities, such as the existing restrooms, drinking fountains, and picnic tables at Congress Springs Park. Additional facilities may include additional parking, benches, and signage.

Habitats in the Biological Study Area (BSA) include urban/landscaped, non-native annual grassland, and riparian woodland (associated with Rodeo Creek and Saratoga Creek). The BSA is located within a heavily urbanized portion of Saratoga, and is completely surrounded by residential development or public facilities (i.e., Congress Springs Park and Cox Reservoir).

Federally listed species potentially occurring in the vicinity of the BSA include steelhead (*Oncorhynchus mykiss*) and California red-legged frog (*Rana aurora draytonii*), both of which are federally threatened. Due to the presence of a drop structure at the confluence of Saratoga Creek and San Tomas Aquino Creek

downstream of the project area, no anadromous salmonids are expected to occur in the project area. Steelhead that may be present are non-anadromous and thus are not afforded legal protection under the Endangered Species Act. As such, the project is expected to have *no effect* on steelhead. Saratoga Creek contains marginal hydration and dispersal habitat for California red-legged frog, which was observed 2.3 mi upstream of the project area in 1997. Although this species is considered unlikely to occur due to dense urbanization adjacent to and downstream of the project area, its absence cannot be conclusively determined without protocol-level surveys. To avoid potential adverse effects to this species, the project will implement avoidance and minimization measures for all construction activities in the vicinity (within 100 ft) of Saratoga Creek. Proposed measures include a preconstruction survey of the work area by a U.S. Fish and Wildlife Service (USFWS)-approved biologist, a training session for all construction personnel conducted by the biologist, restrictions on the location of access routes and staging areas, and an April 1–November 1 work window. Given that California red-legged frogs are unlikely to occur in the project area and that bridge construction will not result in the permanent loss of aquatic habitat, the project is *not likely to adversely affect* this species with the implementation of avoidance and minimization measures.

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List of Abbreviated Terms

ac	acre
BA	Biological Assessment
BMPs	Best Management Practices
BSA	Biological Study Area
Caltrans	California Department of Transportation
City	City of Saratoga
CNDDDB	California Natural Diversity Database
CRLF	California Red-legged Frog
Corps	U.S. Army Corps of Engineers
ESU	Evolutionarily Significant Unit
ft	foot/feet
mi	mile(s)
NMFS	National Marine Fisheries Service
PG&E	Pacific Gas and Electric
RWQCB	Regional Water Quality Control Board
SWPPP	Stormwater Pollution Prevention Plan
U.S.	United States
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

Chapter 1. Introduction

The purpose of this biological assessment (BA) is to provide technical information and to review the proposed project in sufficient detail to determine to what extent the proposed project may affect threatened, endangered, or proposed species. The BA is prepared in accordance with legal requirements found in Section 7 (a)(2) of the Endangered Species Act (16 U.S. C 1536(c)) and with Federal Highway Administration and California Department of Transportation (Caltrans) regulation, policy and guidance.

The City of Saratoga (City) proposes to construct a 1.3-mile (mi) bicycle/pedestrian trail along an existing Pacific Gas and Electric (PG&E) easement between Saratoga-Sunnyvale Road and Saratoga Avenue in Saratoga, Santa Clara County (Figures 1-1 and 1-2). The trail will be located adjacent to and southwest of the Vasona Branch of the Union Pacific Railroad spur, and will cross two creeks (Rodeo Creek and Saratoga Creek). The trail will create additional open space and improve regional trail interconnectivity with Bay Area open space and trail networks.

1.1. Project History

Plans to develop a multi-use trail along the Vasona Branch were first formalized in the mid-1990s. The Santa Clara Countywide Trails Master Plan, adopted in November 1995, designated the Southern Pacific Rail Trail as a Regional Connector Trail between the Los Gatos Creek Trail and the Juan Bautista de Anza National Historic Trail. In 1996, the City of Saratoga's Bicycle Advisory Committee held preliminary discussions on utilizing the Southern Pacific Railroad right-of-way and adjacent PG&E right-of-way for a multi-use trail, as envisioned in the Countywide Trail Plan.

The Union Pacific Rail Trail Feasibility Study, which assessed the feasibility of developing a multi-use trail along the Vasona Branch, was completed in October 2001. A series of community meetings were held during Summer 2004 to solicit community input on the planning process and design of the proposed trail.

Figure 1-1. Regional Location

Figure 1-2. Project Location

1.2. Project Description

1.2.1. Project Summary

The proposed project consists of the construction of an approximately 1.3-mi bicycle/pedestrian trail along an existing 1.6-mi PG&E easement adjacent to the southwest side of the Union Pacific Railroad spur (Figure 1-3). The trail will be approximately 12 feet (ft) in width, and will be comprised primarily of crushed granite. Access will be provided via trailheads at Saratoga-Sunnyvale Road and Saratoga Avenue. The trail alignment contains an approximately 0.27-mi gap near Cox Avenue created by two privately owned residential parcels and a San Jose Water Company parcel (Figure 1-3). Therefore, the proposed trail would consist of two discrete segments to the east and west of the gap. The west segment (approximately 0.57 mi) would extend from a five-space parking lot adjacent to Saratoga-Sunnyvale Road to parcels 386-44-042 and 345-69-2929. The east segment (approximately 0.74 mi) would extend from the eastern edge of the San Jose Water Company property to Saratoga Avenue.

The proposed project would support trail user needs by using existing ancillary facilities, such as the existing restrooms, drinking fountains, and picnic tables at Congress Springs Park. Additional facilities may include additional parking, benches, and signage. Existing vegetation, especially native trees and shrubs, would be preserved where possible.

1.2.2. Bridge Construction

Prefabricated, 12-ft-wide, steel Pratt truss bridges are proposed for the two creek crossings. At Rodeo Creek, an approximately 40-ft-long bridge will be located parallel to the existing railroad bridge. At Saratoga Creek, an approximately 100-ft-long bridge will be erected parallel to and southwest of the existing railroad bridge. Both bridges will be supported by drilled, cast-in-place reinforced concrete piers located at least 6 ft from the top of the creek banks. No retaining walls, wing walls, or other support structures are anticipated within the creek banks. Both bridges will be designed carefully around existing utilities.

Figure 1-3. Proposed Trail Alignment and Biological Study Area

1.2.3. Avoidance and Minimization Measures

The following avoidance and minimization measures are proposed to avoid or reduce potential effects to California red-legged frog (CRLF) (*Rana draytonii*) and other aquatic species that may occur in Saratoga Creek.

1. At least 15 days prior to the onset of construction activities at Saratoga Creek, the City shall submit the name(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities shall begin until the City has received written approval from the United States (U.S.) Fish and Wildlife Service (USFWS) that the biologist(s) is qualified to conduct the work.
2. A USFWS-approved biologist shall survey the work site 48 hours before the onset of work activities. If any life stage of the CRLF is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the site before work begins. The biologist shall relocate the CRLF from the shortest distance possible to a location that contains suitable habitat and will not be affected by project activities. The biologist shall maintain detailed records of any individuals that are moved (e.g., size, coloration, any distinguishing features, photos) to assist him or her in determining whether translocated animals are returning to their original point of capture.
3. Before any activities begin in the vicinity of Saratoga Creek, the USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the CRLF and its habitat, the specific measures that are being implemented to conserve the CRLF for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.
4. The USFWS-approved biologist shall be present at the work site until all CRLF have been removed, workers have been instructed, and disturbance of habitat has been completed. After this time, the City shall designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist will ensure that this monitor receives the training outlined in measure 3 and in the identification of CRLF. If the monitor or biologist recommends that work be stopped because CRLF would be affected to a degree that exceeds the levels anticipated by Caltrans and the USFWS during review of the proposed action, they

will notify the resident engineer (i.e., the engineer that is directly overseeing and in command of construction activities) immediately. The resident engineer will either resolve the situation by eliminating the effect immediately or require that all actions which are causing these effects be halted. If work is stopped, the USFWS will be notified as soon as is reasonably possible.

5. During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.
6. Equipment maintenance, refueling, and staging areas will occur at least 60 ft from the Saratoga Creek corridor. Prior to the onset of work, the City will ensure that a plan is in place for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
7. The number of access routes, size of staging areas, and total area of the activity will be limited to the minimum necessary to achieve the project goal (i.e., bridge construction). Routes and boundaries shall be clearly demarcated, and these areas shall be outside of riparian habitat.
8. Work activities shall be completed between April 1 and November 1, which roughly corresponds with the dry season when CRLF are less active and mobile.
9. To control erosion during and after project implementation, the contractor shall implement a Stormwater Pollution Prevention Plan (SWPPP) with appropriate Best Management Practices (BMPs), in accordance with San Francisco Bay Regional Water Quality Control Board (RWQCB) guidelines.

1.3. Summary of Consultation to Date

No regulatory agencies have been consulted to date.

1.4. Document Preparation History

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Chapter 2. Study Methods

2.1. Listed and Proposed Species Potentially in the Biological Study Area

Federally listed and proposed species potentially occurring in the vicinity of the Biological Study Area (BSA) are listed in Table 2.1. This list was compiled from a search of the California Natural Diversity Database (CNDDDB) (2007) for records of listed species in the project vicinity (i.e., Cupertino, San Jose West, and Los Gatos U.S. Geological Survey [USGS] 7.5-minute quadrangles), as well as the online database maintained by the Sacramento USFWS office (USFWS 2007). These individual lists are provided in Appendix A.

2.2. Studies Conducted

The above-mentioned species lists were reviewed to determine which species could potentially occur in the vicinity of the BSA, depicted on Figure 1-3. The BSA includes the proposed trail alignment as well as adjacent areas that are expected to be used for ancillary facilities, construction staging, and storage. The species listed in Table 2.1 occur in a wide variety of habitats. The determination of whether a species could potentially occur within the BSA was based on the availability of suitable habitat within the BSA, the proximity of known species occurrences, and knowledge of the species' range and/or mobility. Species requiring specific habitats not present in the vicinity of the BSA (e.g., serpentine soils, chaparral, tidal marsh) were eliminated from consideration and are not discussed further. Species for which potential habitat is present are discussed in Chapter 4.

Plant nomenclature and taxonomy in this BA follows Hickman (1993). Nomenclature for amphibians and reptiles conforms to Crother et al. (2008), while nomenclature for mammals conforms to Baker et al. (2003). Scientific names of bird species are not provided in the text since common names are standardized in the American Ornithologists' Union *Check-list of North American Birds* (AOU 1998) and supplements.

Table 2.1. Federally Listed Species Potentially Occurring or Known to Occur in the Vicinity of the Biological Study Area

Common Name	Scientific Name	Status ^a	General Habitat Description	Habitat Present/ Absent	Rationale
PLANTS					
Robust spineflower	<i>Chorizanthe robusta</i> var. <i>robusta</i>	E	Sandy terraces and bluffs in woodlands, coastal dunes, and scrub	A	No suitable habitat within BSA
Santa Clara Valley dudleya	<i>Dudleya setchellii</i>	E	Rocky serpentine outcrops and rocks within grassland or woodland	A	No suitable habitat within BSA
Metcalf Canyon jewelflower	<i>Streptanthus albidus</i> ssp. <i>albidus</i>	E	Open areas in dry grassy meadows on serpentine soils	A	No suitable habitat within BSA
ANIMALS					
Bay checkerspot butterfly	<i>Euphydryas editha bayensis</i>	T	Shallow, serpentine soils that support larval host plants (<i>Plantago erecta</i>)	A	No suitable habitat within BSA
Tidewater goby	<i>Eucyclogobius newberryi</i>	E	Brackish shallow lagoons and lower stream reaches where water is fairly still but not stagnant	A	No suitable habitat within BSA
Delta smelt	<i>Hypomesus transpacificus</i>	T	Brackish river channels and tidally influenced backwater sloughs of the Sacramento-San Joaquin Delta	A	BSA outside known range of species
Coho salmon (Central California Coast ESU ^b)	<i>Oncorhynchus kisutch</i>	E	Coastal streams from Punta Gorda in northern California down to and including the San Lorenzo River in central California, as well as tributaries to San Francisco Bay	A	Not known from BSA watershed
Steelhead (Central California Coast ESU)	<i>Oncorhynchus mykiss</i>	T, CH	Coastal streams from Russian River south to Aptos Creek (Santa Cruz Co.), including streams tributary to San Francisco and San Pablo Bays	P	Saratoga Creek known to support non-anadromous resident population (Leidy et al. 2005), but drop structure downstream of BSA precludes occurrence of federally listed anadromous individuals; Saratoga Creek not included in nearby Santa Clara Hydrologic Unit of Critical Habitat

Common Name	Scientific Name	Status ^a	General Habitat Description	Habitat Present/ Absent	Rationale
Steelhead (Central Valley ESU)	<i>Oncorhynchus mykiss</i>	T	Sacramento and San Joaquin Rivers and their tributaries	A	BSA outside known range of species
Chinook salmon (Central Valley Spring-run ESU)	<i>Oncorhynchus tshawytscha</i>	T	Sacramento River and its tributaries	A	BSA outside known range of species
Chinook salmon (Sacramento River Winter-run ESU)	<i>Oncorhynchus tshawytscha</i>	E	Sacramento River below Keswick Dam	A	BSA outside known range of species
California tiger salamander	<i>Ambystoma californiense</i>	T	Vernal pools, seasonal ponds, stock ponds, and associated grasslands	A	No suitable habitat within BSA
California red-legged frog	<i>Rana draytonii</i>	T	Ponds, streams, drainages, and associated uplands; requires areas of deep, still, and/or slow-moving water for breeding	P	Saratoga Creek contains marginal dispersal habitat but no breeding habitat; individual observed 2.3 mi upstream of BSA in 1997 (CNDDDB 2007)
Marbled murrelet	<i>Brachyramphus marmoratus</i>	T	Forages at sea, nests in old-growth coniferous forests (e.g., Douglas fir)	A	No suitable habitat within BSA
California clapper rail	<i>Rallus longirostris obsoletus</i>	E	Tidal salt marshes with sloughs and substantial cordgrass (<i>Spartina</i> sp.) cover	A	No suitable habitat within BSA
California least tern	<i>Sternula antillarum browni</i>	E	Nests on sandy beaches, alkali flats, hard-pan surfaces (salt ponds)	A	No suitable habitat within BSA

^a Status: E = federally endangered; T = federally threatened; CH = Critical Habitat designated for this species

^b ESU = Evolutionarily Significant Unit

2.3. Personnel and Survey Dates

LSA wildlife biologist Matt Ricketts visited the BSA on June 15, 2006 to assess current habitat conditions and evaluate its potential to support federally plant and/or animal species. This reconnaissance-level survey consisted of walking the entire trail alignment while recording observations of wildlife, plants, and habitat conditions into field notes and onto a site map. The two creeks (Rodeo and Saratoga) were examined for their habitat suitability for CRLF (e.g., water depth and velocity, channel substrate, and bank characteristics). Additional observations of creek habitat conditions were made outside of the BSA, to add some local context to the site-specific conditions observed at the proposed trail alignment. Specifically, Rodeo Creek was examined at Cox Avenue (0.3 mi south [upstream] of BSA), and Saratoga Creek was examined at Cox Avenue (0.4 mi north [downstream] of BSA) and Via Monte Drive (0.3 mi south [upstream] of BSA).

2.4. Agency Coordination and Professional Contacts

To date, LSA has not met with or contacted any agency personnel regarding listed species or other regulatory considerations in the project area.

2.5. Limitations That May Influence Results

No problems or limitations were encountered during the research, fieldwork, or document preparation that influenced the results presented herein.

Chapter 3. Results: Environmental Setting

3.1. Description of Existing Biological and Physical Conditions

3.1.1. Study Area

For the purposes of this BA, the BSA is defined as an approximately 100-ft-wide corridor extending from Saratoga-Sunnyvale Road on the northwest to Saratoga Avenue on the southeast. The BSA is bordered to the northeast by the southwestern edge of the existing Union Pacific railroad and to the southwest by residential housing. Congress Springs Park is located near the southeastern portion of the BSA and Cox Reservoir is located immediately adjacent to the central portion of the BSA. Several large transmission towers are located within the BSA, which is currently used informally by walkers and joggers. The BSA is located within a heavily urbanized portion of Saratoga, and is completely surrounded by residential development or public facilities (i.e., Congress Springs Park and Cox Reservoir).

3.1.2. Physical Conditions

Topography is generally flat along the entire length of the BSA, which has an average elevation of 330 ft above sea level.

Rodeo Creek and Saratoga Creek flow northeasterly through the BSA. Rodeo Creek is an intermittent stream that is tributary to nearby Calabasas Creek, which is tributary to Guadalupe Slough and ultimately to San Francisco Bay just north of San Jose.

Saratoga Creek is a perennial stream that is also tributary to Guadalupe Slough and San Francisco Bay. Both creeks are channelized for urban flood control and rarely, if ever, flood onto the level trail corridor. Within a reasonable distance of each creek, surface runoff from the level trail corridor most likely drains into the creeks.

Soils in the BSA consist of Zamora-Pleasanton association (USDA 1968). Zamora soils (dark grayish brown loam and clay loam surface soils and dark brown or brown clay loam subsoils) compose approximately 50 percent of the soils; Pleasanton soils (grayish brown loam surface soils, dark grayish brown and brown gravelly clay loam subsoils) make up generally 35 percent; and the remaining 15 percent consists of San Ysidro, Yolo, and Hillgate soils. These soils are medium to moderately fine textured, developed from sedimentary alluvium, are well drained, and are situated on alluvial plains and fans (USDA 1968).

3.1.3. Biological Conditions

3.1.3.1. VEGETATION

Three vegetation/habitat types were identified within the BSA: urban/landscaped, non-native annual grassland, and riparian woodland. The plant species composition and other habitat characteristics of these vegetation types are described below.

Urban/Landscaped

A large portion of the BSA consists of bare ground covered in wood chips, with plant growth limited to sporadic patches of non-native ruderal species such as wild oat (*Avena fatua*), wild radish (*Raphanus sativa*), yellow star thistle (*Centaurea solstitialis*), field bindweed (*Convolvulus arvensis*), and curly dock (*Rumex crispus*). The southwestern boundary of the BSA is characterized by a nearly continuous band of ornamental trees and shrubs that are located in the adjacent residential lots. Most of these trees are non-native to the Saratoga area; these include Brazilian pepper tree (*Schinus terebinthifolius*), almond (*Prunus* sp.), walnut (*Juglans* sp.), edible fig (*Ficus carica*), Monterey pine, (*Pinus radiata*) and coast redwood (*Sequoia sempervirens*). The latter two species, while native to California, are not native to this area and are often planted as ornamental species. Coast live oak (*Quercus agrifolia*) is the most common native tree within the BSA, sometimes forming dense stands along the southwestern boundary. Small, isolated stands of trees and shrubs are also present along the central portion of the proposed trail alignment and around the bases of the existing transmission towers. Dense patches of the non-native Himalayan blackberry (*Rubus discolor*) are scattered along the southwestern BSA boundary as well as along the proposed trail alignment.

Non-native Annual Grassland

This plant community occurs at the southeastern end of the BSA between Saratoga Creek and Saratoga Avenue (see photos in Appendix B). In contrast to the bare ground that characterizes the majority of the BSA, this area is covered by non-native grasses and other ruderal forbs with an average height of 3 ft. Italian ryegrass (*Lolium multiflorum*) and wild oat are the dominant grass species, with small amounts of Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*) and hare barley (*H. murinum* ssp. *leporinum*) also present. Ruderal forbs scattered throughout the grassland include prickly lettuce (*Lactuca serriola*), black mustard (*Brassica nigra*), yellow star thistle, and curly dock. The grassland is bordered to the southwest by coast live oaks of varying size, mixed with a few Monterey pines and coast redwoods.

Riparian Woodland

Riparian woodland occurs within the BSA at the two creek crossings. Vegetation at the two creeks differs in both structure and species composition, largely due to differing stream flows and associated soil moisture. Rodeo Creek was mostly dry at the time of the site visit, and flow appears to be intermittent. The tree cover lacks alders (*Alnus* sp.), willows (*Salix* sp.), and other hydrophytic species typically associated with riparian woodland, and is instead limited to a few mature coast live oaks with no accompanying shrubs. Although the stream banks are mostly devoid of vegetation, English ivy (*Hedera helix*), Smilo grass (*Piptatherum miliaceum*), and Himalayan blackberry occur in a few small patches. Bermuda grass (*Cynodon dactylon*) was observed growing in the channel within a pool of standing water approximately 20 ft upstream (i.e., southwest) of the railroad crossing. This pool appears to have formed from urban wastewater runoff from a nearby drainage pipe, and drains via a concrete-walled culvert that directs flow north under the railroad bridge.

In contrast to the dry, sparsely vegetated conditions along Rodeo Creek, Saratoga Creek supports a dense, multi-layered woodland that more closely resembles typical riparian habitat. The creek contained an average 6 in of rapidly flowing water at the time of the June 15, 2006 site visit and is likely perennial. White alder (*Alnus rhombifolia*) and arroyo willow (*Salix lasiolepis*) comprise the majority of the tree cover, which averages approximately 95 percent. Other riparian tree and shrub species present include shining willow (*Salix lucida*), blue elderberry (*Sambucus mexicana*), vine maple (*Acer circinatum*), and California buckeye (*Aesculus californica*). Scattered individuals of walnut, Brazilian pepper tree, edible fig, and coast live oak also occur within the woodland. A lone Mexican fan palm (*Washingtonia robusta*) is present on the western bank. Dense mats of California (*Rubus ursinus*) and Himalayan blackberry cover a large portion of the ground, with small amounts of California manroot (*Marah fabaceus*), horsetail (*Equisetum* sp.), French broom (*Genista monspessulana*), and Smilo grass comprising the majority of the herbaceous cover.

Representative photographs of habitat conditions at the two creeks are presented in Appendix B.

3.1.3.2. WILDLIFE

Most wildlife species that occur on the BSA are probably generalists that have adapted well to urban landscapes, although many of these (e.g., western scrub-jay, spotted towhee) also occur in natural habitats (e.g., oak woodland). Bird species observed

during the June 15, 2006 site visit include the following: snowy egret (Saratoga Creek), American kestrel, mourning dove, Anna's hummingbird, Nuttall's woodpecker, black phoebe, western scrub-jay, American crow, bushtit, Bewick's wren, northern mockingbird, European starling, spotted towhee, California towhee, house finch, lesser goldfinch, and American goldfinch. California ground squirrel (*Spermophilus beecheyi*), Audubon's cottontail (*Sylvilagus audubonii*), and burrows of Botta's pocket gopher (*Thomomys bottae*) were the only mammals (or mammal sign) observed during the site visit, although the following urban-adapted species are also expected to occur: fox squirrel (*Sciurus niger*), deer mouse (*Peromyscus maniculatus*), house mouse (*Mus musculus*), northern raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and black-tailed deer (*Odocoileus hemionus*). Although none were seen during the site visit, several amphibian and reptile species may occur on the project site within the riparian habitats and in areas where leaf litter and other debris provide sites for cover and foraging. Species potentially present include California slender salamander (*Batrachoseps attenuatus*), arboreal salamander (*Aneides lugubris*), northern Pacific treefrog (*Pseudacris regilla*), western fence lizard (*Sceloporus occidentalis*), southern alligator lizard (*Elgaria multicarinatus*), common garter snake (*Thamnophis sirtalis*), and gopher snake (*Pituophis melanoleucus*).

Although the BSA lacks substantial wildlife movement corridors due to its urban setting, the linear riparian habitats at Rodeo and Saratoga Creeks likely facilitate local movements and dispersal of urban-adapted mammals, reptiles, and amphibians.

Chapter 4. Results: Biological Resources, Discussion of Impacts and Mitigation

4.1. Federally Listed Plant Species

None of the federally listed plant species in Table 2.1 are expected to occur in the BSA due to its urban setting and consequent lack of suitable native habitats (i.e., sandy terraces, serpentine outcrops and soils). As such, the project will have *no effect* on any federally listed plant species.

4.2. Federally Listed Animal Species

Of the 13 federally listed animal species in Table 2.1, only two are considered as potentially occurring in the vicinity of the BSA due to the presence of marginal habitat: steelhead (*Oncorhynchus mykiss*) and California red-legged frog, both of which are listed as federally threatened.

4.2.1. Central California Coast Steelhead

Steelhead are anadromous, migrating from the ocean to freshwater streams to spawn. Juveniles spend one to three years in their natal streams before going to sea as smolts. Most steelhead return to freshwater streams after spending two to three years at sea. Important factors associated with preferred stream channel conditions include temperature, velocity, depth, gravel substrate, and water quality. Shaded banks with overhanging riparian vegetation (termed “shaded riverine aquatic cover” by the USFWS) are also beneficial to salmonids, providing foraging habitat and cover from predators. High water temperatures, low rates of streamflow, low levels of dissolved oxygen, and low sediment input can be detrimental to steelhead populations.

4.2.1.1. SURVEY RESULTS

Although no steelhead were observed in Saratoga Creek during the LSA reconnaissance survey, this creek is known to support a non-anadromous, resident population of this species (Leidy et al. 2005). A drop structure at the confluence of Saratoga Creek and San Tomas Aquino Creek has been identified by the Santa Clara Valley Water District as a complete barrier to upstream migration, precluding the use of Saratoga Creek by

anadromous salmonids (Leidy et al. 2005). In April 1996, Leidy (2002, cited in Leidy et al. 2005), caught 18 steelhead downstream from Via Monte Drive, approximately 0.3 mi south of the BSA. As such, steelhead almost certainly occur in the reach of Saratoga Creek within the BSA. However, since this population is non-anadromous, it has no legal protection under the ESA, which only pertains to naturally spawned anadromous populations below natural and manmade impassable barriers (NMFS 2006).

4.2.1.2. CRITICAL HABITAT

Critical habitat for five Evolutionarily Significant Units (ESU) of steelhead and two ESUs of chinook salmon (*Oncorhynchus tshawytscha*) was issued by the National Marine Fisheries Service (NMFS) on September 2, 2005 (NMFS 2005). Although the BSA is geographically situated in the Santa Clara Hydrologic Unit of designated critical habitat for the Central California Coast ESU of steelhead, neither Rodeo Creek nor Saratoga Creek are included in this designation.

4.2.1.3. AVOIDANCE AND MINIMIZATION EFFORTS

No formal avoidance and/or minimization efforts for steelhead are proposed, since the non-anadromous population in upper Saratoga Creek is not protected by the ESA. Even so, the project is unlikely to adversely affect non-anadromous steelhead since no work will occur within the stream channel, bed, or bank of Saratoga Creek. Moreover, implementation of a SWPPP in accordance with RWQCB guidelines will ensure that impacts to stream water quality are minimized and/or avoided. The SWPPP will include the following major components, at a minimum:

1. A comprehensive erosion and sediment control plan, depicting areas to remain undisturbed, and providing specifications for revegetation of disturbed areas.
2. A list of potential pollutants from building materials, chemicals, and maintenance practices used during construction, and the specific control measures to be implemented to minimize release and transport of these constituents in runoff.
3. Specifications and designs for the appropriate BMPs for controlling drainage and treating runoff in the construction phase.
4. A program for monitoring all control measures that includes schedules for inspection and maintenance, and identifies the party responsible for monitoring.
5. A site map that locates all water quality control measures and restricted areas to be left undisturbed.

4.2.1.4. PROJECT EFFECTS

The project is expected to have *no effect* on the Central California Coast ESU of steelhead. This ESU does not occur within the BSA.

4.2.1.5. CUMULATIVE EFFECTS

The project will not result in cumulative effects to this species.

4.2.2. California Red-legged Frog

CRLF are listed as threatened under the ESA. This species has sustained a 75 percent reduction in its geographic range, especially in the Sierra Nevada foothills and southern California (Jennings et al. 1992). Population declines have been attributed to a variety of factors, with habitat loss and predation by non-native aquatic predators (e.g., bullfrogs, crayfish, other non-native fishes) typically implicated as the primary threats to CRLF (Jennings and Hayes 1994).

CRLF occur in and along freshwater marshes, streams, ponds, and other semi-permanent water sources. Optimal habitat contains dense emergent or shoreline riparian vegetation closely associated with deep (i.e., greater than 2.3 ft), still, or slow-moving water (Jennings and Hayes 1994). Cattails (*Typha* sp.), bulrushes (*Scirpus* sp.), and arroyo willows provide the habitat structure that seems to be most suitable for CRLF (Jennings and Hayes 1994). Although CRLF can occur in intermittent streams and ponds, they are unlikely to persist in streams in which all surface water disappears annually (Jennings and Hayes 1994). Suitable breeding ponds and pools usually have a minimum depth of 20 in, but CRLF do sometimes breed successfully in pools as shallow as 10 in (Fellers 2005). Regardless of water depth, suitable breeding habitat must contain water during the entire development period for eggs and tadpoles (typically March through September).

4.2.2.1. SURVEY RESULTS

The closest known CRLF occurrence to the BSA is a 1997 sighting in Saratoga Creek just east of the Toll Gate Road bridge, approximately 2.3 mi upstream (i.e., southwest) of the BSA (CNDDDB 2007, Occurrence #211) (Figure 4-1), where a single juvenile CRLF was found under a board in a seep next to the creek. Habitat at this location was described as “well-shaded by riparian vegetation,” with the “seep area dominated by horsetail and blackberry plants” (CNDDDB 2007). The only other occurrences within 5 mi of the site are from Calabazas Creek (CNDDDB Occurrence #961), approximately 2.1 mi southwest of the BSA; Permanente Creek (CNDDDB Occurrence #123), approximately 4 mi northwest of the BSA; and an artificially landscaped pond in the Gate of Heaven Cemetery (CNDDDB

Figure 4-1. California Red-legged Frog CNDDB Occurrences

Occurrence #372), also approximately 4 mi to the northwest (Figure 4-1). Details of these occurrences are provided in the CNDDDB report attached as Appendix A.

Potential CRLF habitat within the BSA is limited to Saratoga Creek, which contains marginal aquatic dispersal habitat but no breeding habitat. The channel in the vicinity of the proposed bridge is approximately 15 ft wide with a substrate of mixed cobble and gravel. The creek contained an average of 6 in of rapidly flowing water during the June 15, 2006 site visit, and did not contain any areas of slow-moving water or pools. Although there is substantially more riparian vegetation (e.g., willows and alders) at this location than at Rodeo Creek, the channel itself does not contain any emergent vegetation and the creek margins are mostly bare. Similar habitat conditions were observed along the creek both upstream (Cox Avenue bridge) and downstream (Monte Drive bridge) of the BSA. None of the on-site habitat conditions would be considered suitable for CRLF breeding. The observation of CRLF approximately 2.3 mi upstream of the proposed bridge suggests that individuals could disperse downstream to the BSA. However, given the lack of known breeding sites, increased urbanization, and reduced habitat quality downstream of the BSA, it is unlikely that CRLF would disperse through the BSA from the Toll Gate Road location. Furthermore, there have been no reported CRLF sightings in Saratoga Creek within the last nine years, further reducing the likelihood that they could occur in the vicinity of the proposed bridge. Nevertheless, without conducting protocol-level surveys, this species cannot be presumed absent.

The portion of Rodeo Creek that lies within the BSA is not considered potential CRLF habitat due to its intermittence and its overall degraded condition (i.e., due to manmade bank stabilization and storm flow structures).

4.2.2.2. CRITICAL HABITAT

The BSA is not located within any CRLF critical habitat units as designated by the USFWS (Figure 4-1). The Cañada de Pala critical habitat unit (i.e., Unit STC-1A) is located approximately 13 mi northeast of the BSA.

4.2.2.3. AVOIDANCE AND MINIMIZATION EFFORTS

Although the occurrence of CRLF within the BSA is unlikely, the following avoidance and minimization measures will be implemented to ensure that the species will not be adversely affected by the project. These measures are adapted from those identified by the USFWS in two Programmatic Biological Opinions that have been issued for CRLF: (1) *Programmatic Formal Endangered Species Act Consultation on Issuance of Permits under Section 404 of the Clean Water Act or Authorizations under the Nationwide Permit Program for Projects that May Affect the California Red-legged Frog* (USFWS 1999), and (2) *Programmatic*

Biological Opinion for Projects Funded or Approved under the Federal Aid Program
(USFWS 2003).

1. At least 15 days prior to the onset of construction activities at Saratoga Creek, the City of Saratoga (City) shall submit the name(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities shall begin until the City has received written approval from the USFWS that the biologist(s) is qualified to conduct the work.
2. A USFWS-approved biologist shall survey the work site 48 hours before the onset of work activities. If any life stage of the CRLF is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the site before work begins. The biologist shall relocate the CRLF from the shortest distance possible to a location that contains suitable habitat and will not be affected by project activities. The biologist shall maintain detailed records of any individuals that are moved (e.g., size, coloration, any distinguishing features, photos) to assist him or her in determining whether translocated animals are returning to their original point of capture.
3. Before any activities begin in the vicinity of Saratoga Creek, the USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the CRLF and its habitat, the specific measures that are being implemented to conserve the CRLF for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.
4. The USFWS-approved biologist shall be present at the work site until all CRLF have been removed, workers have been instructed, and disturbance of habitat has been completed. After this time, the City shall designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist will ensure that this monitor receives the training outlined in measure 3 and in the identification of CRLF. If the monitor or biologist recommends that work be stopped because CRLF would be affected to a degree that exceeds the levels anticipated by Caltrans and the USFWS during review of the proposed action, they will notify the resident engineer (i.e., the engineer that is directly overseeing and in command of construction activities) immediately. The resident engineer will either resolve the situation by eliminating the effect immediately or require that all actions which are

causing these effects be halted. If work is stopped, the USFWS will be notified as soon as is reasonably possible.

5. During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.
6. Equipment maintenance, refueling, and staging areas will occur at least 60 ft from the Saratoga Creek corridor. Prior to the onset of work, the City will ensure that a plan is in place for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
7. The number of access routes, size of staging areas, and total area of the activity will be limited to the minimum necessary to achieve the project goal (i.e., bridge construction). Routes and boundaries shall be clearly demarcated, and these areas shall be outside of riparian habitat.
8. Work activities shall be completed between April 1 and November 1, which roughly corresponds with the dry season when CRLF are less active and mobile.
9. To control erosion during and after project implementation, the contractor shall implement BMPs in accordance with RWQCB guidelines (see subsection 4.1.1.2).

4.2.2.4. PROJECT EFFECTS

As described above, CRLF are unlikely to be present within the BSA, despite the presence of marginal aquatic dispersal habitat in Saratoga Creek. If present, individual CRLF may alter their behavioral and/or movement patterns in response to noise generated during construction of the concrete piers and installation (i.e., lowering by crane) of the free-span bridge. Such activities may require that workers enter the riparian corridor and/or creek channel to guide the bridge into place, increasing the likelihood that individual CRLF may be disturbed or injured, if present. However, no permanent structures will be constructed within the existing channel, bed, or banks (the concrete piers will be located at least 6 ft outside the tops of the banks); and the project will not result in permanent alteration of existing aquatic habitat. Given that (1) CRLF are unlikely to occur in the BSA, (2) bridge construction will not result in the permanent loss of aquatic habitat, and (3) the above avoidance and minimization measures will be implemented, the project is *not likely to adversely affect* the CRLF.

4.2.2.5. CUMULATIVE EFFECTS

The project is not expected to result in cumulative effects to this species. Although the pedestrian bridge will result in an increased human presence over Saratoga Creek, intrusions into the creek channel by trail users are expected to be minimal. Moreover, this portion of Saratoga Creek is already somewhat susceptible to human and pet intrusions due to its proximity to a residential neighborhood as well as Congress Springs Park. The project is not expected to significantly increase the likelihood of such intrusions into the creek channel beyond that which is already present.

Chapter 5. Conclusions and Determination

5.1. Conclusions

5.1.1. Central California Coast Steelhead

Saratoga Creek does not support an anadromous run of this species, although non-anadromous individuals are likely present. Since non-anadromous salmonids are not protected under the ESA, the project will not result in direct or indirect effects to the Central California Coast ESU of steelhead.

5.1.2. California Red-legged Frog

The project may result in minor, disturbance-related effects on CRLF, if present within Saratoga Creek. However, as discussed above in section 4.2.2.1, this species is expected to have low potential to occur in the BSA due to the lack of suitable breeding habitat and the extent of surrounding urbanization. Moreover, the proposed avoidance and minimization measures (section 4.2.2.3) are expected to negate any potential direct effects that may occur, if individuals happen to venture into the work area.

Potential indirect effects due to reduced water quality will be avoided through the implementation of a SWPPP and associated BMPs.

5.2. Determination

5.2.1. Central California Coast Steelhead

The project will have *no effect* on the Central California Coast ESU of steelhead. Formal consultation with the NMFS under section 7 of the ESA is not required.

5.2.2. California Red-legged Frog

The project *may affect*, but is *not likely to adversely affect*, California red-legged frog with implementation of the avoidance and minimization measures in Section 4.2.2.3.

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Appendix A CNDDDB Report and USFWS Species List

Appendix B Site Photographs



Natural Environment Study

Saratoga de Anza Trail

Santa Clara County

04-SCL-0-SAR

February 2008



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Natural Environment Study

Saratoga de Anza Trail

Santa Clara County

04-SCL-0-SAR

February 2008

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Summary

The City of Saratoga proposes to construct an approximately 1.3-mile (mi) bicycle/pedestrian trail along an existing 1.6-mi Pacific Gas and Electric (PG&E) easement between Saratoga-Sunnyvale Road and Saratoga Avenue in Saratoga, Santa Clara County. The trail will be located adjacent to and south of the Vasona Branch of the Union Pacific Railroad spur, and will cross two creeks (Rodeo Creek and Saratoga Creek). The trail would consist of two discrete segments east and west of an approximately 0.27-mi gap in the trail alignment created by two privately owned residential parcels and a San Jose Water Company parcel in the vicinity of Cox Avenue. The trail will create additional open space and improve regional trail interconnectivity with Bay Area open space and trail networks.

The trail will be approximately 12 feet (ft) in width, and will be comprised primarily of crushed granite. Access will be provided via trailheads at Saratoga-Sunnyvale Road and Saratoga Avenue and street crossings at Cox Avenue and Glen Brea Drive. Prefabricated, 12-ft-wide, steel Pratt truss bridges are proposed for the two creek crossings. At Rodeo Creek, an approximately 40-ft-long bridge will be located parallel to the existing railroad bridge. At Saratoga Creek, an approximately 100-ft-long bridge will be erected parallel to and southwest of the existing railroad bridge. Both bridges will be supported by drilled, cast-in-place reinforced concrete piers located at least 6 ft from the top of the creek banks. No retaining walls, wing walls, or other support structures are anticipated within the creek banks. Both bridges will be designed carefully around existing utilities. The proposed project would support trail user needs by using existing ancillary facilities, such as the existing restrooms, drinking fountains, and picnic tables at Congress Springs Park. Additional facilities may include additional parking, benches, and signage.

Habitats in the Biological Study Area (BSA) include urban/landscaped, non-native annual grassland, and riparian woodland (associated with Rodeo Creek and Saratoga Creek). The BSA is located within a heavily urbanized portion of Saratoga, and is completely surrounded by residential development or public facilities (i.e., Congress Springs Park and Cox Reservoir).

The project will likely result in the removal and/or trimming of an unknown (i.e., yet to be determined) number of native riparian trees adjacent to Saratoga Creek to facilitate the placement of the pedestrian bridge. The project is not expected to impact any jurisdictional waters of the United States (U.S.) or State.

Although Saratoga Creek contains marginal to suitable habitat for steelhead (federally threatened), California red-legged frog (federally threatened), and Pacific pond turtle (California Species of Special Concern), the project is not expected to impact these species with the implementation of avoidance and minimization measures.

The project may impact Cooper's hawk (California Species of Special Concern) and other nesting birds if construction activities are conducted during the breeding season (i.e., March through August) by removing trees that support active nests. Prolonged loud construction noise could also disturb nesting birds, resulting in nesting failure. However, such impacts will be avoided with the implementation of minimization measures (i.e., preconstruction surveys and construction setbacks from active nests).

Although no work is anticipated within the creek channels, beds, or banks, the removal and/or trimming of riparian trees at Saratoga Creek will require a Streambed Alteration Agreement from the California Department of Fish and Game. In addition, the project may also need to file a report of waste discharge with the San Francisco Bay Regional Water Quality Control Board, under the Porter-Cologne Water Quality Control Act.

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List of Abbreviated Terms

ac	acre(s)
BMPs	Best Management Practices
BSA	Biological Study Area
Caltrans	California Department of Transportation
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
City	City of Saratoga
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	U.S. Army Corps of Engineers
CRLF	California red-legged frog
dbh	diameter at breast height
ESA	Endangered Species Act
ft	foot/feet
in	inch(es)
ISA	International Society of Arboriculture
mi	mile(s)
MBTA	Migratory Bird Treaty Act
NES	Natural Environment Study
PCN	Preconstruction Notification
NWP	Nationwide Permit
PG&E	Pacific Gas and Electric
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SWPPP	Stormwater Pollution Prevention Plan
U.S.	United States
USGS	U.S. Geological Survey
USFWS	U.S. Fish and Wildlife Service

Chapter 1. Introduction

The City of Saratoga proposes to construct a 1.3-mile (mi) bicycle/pedestrian trail along an existing Pacific Gas and Electric (PG&E) easement between Saratoga-Sunnyvale Road and Saratoga Avenue (Figures 1-1 and 1-2) in Saratoga, Santa Clara County. The trail will be located adjacent to and south of the Vasona Branch of the Union Pacific Railroad spur, and will cross two creeks (Rodeo Creek and Saratoga Creek). The trail will create additional open space and improve regional trail interconnectivity with Bay Area open space and trail networks.

1.1. Project History

Plans to develop a multi-use trail along the Vasona Branch were first formalized in the mid-1990s. The Santa Clara Countywide Trails Master Plan, adopted in November 1995, designated the Southern Pacific Rail Trail as a Regional Connector Trail between the Los Gatos Creek Trail and the Juan Bautista de Anza National Historic Trail. In 1996, the City of Saratoga's Bicycle Advisory Committee held preliminary discussions on utilizing the Southern Pacific Railroad right-of-way and adjacent PG&E right-of-way for a multi-use trail, as envisioned in the Countywide Trail Plan.

The Union Pacific Rail Trail Feasibility Study, which assessed the feasibility of developing a multi-use trail along the Vasona Branch, was completed in October 2001. A series of community meetings were held during Summer 2004 to solicit community input on the planning process and design of the proposed trail.

1.2. Project Description

The proposed project consists of the construction of an approximately 1.3-mi bicycle/pedestrian trail along an existing 1.6-mi PG&E easement adjacent to the southwest side of the Union Pacific Railroad spur (Figure 1-3). The trail will be approximately 12 feet (ft) in width, and will be comprised primarily of crushed granite. Access will be provided via trailheads at Saratoga-Sunnyvale Road and Saratoga Avenue.

Figure 1-1. Regional Location

Figure 1-2. Project Location

Figure 1-3. Proposed Trail Alignment and Biological Study Area

The trail alignment contains an approximately 0.27-mi gap near Cox Avenue created by two privately owned residential parcels and a San Jose Water Company parcel (Figure 1-3). Therefore, the proposed trail would consist of two discrete segments to the east and west of the gap. The west segment (approximately 0.57 mi) would extend from a five-space parking lot adjacent to Saratoga-Sunnyvale Road to parcels 386-44-042 and 345-69-2929. The east segment (approximately 0.74 mi) would extend from the eastern edge of the San Jose Water Company property to Saratoga Avenue.

Prefabricated, 12-ft-wide, steel Pratt truss bridges are proposed for the two creek crossings. At Rodeo Creek, an approximately 40-ft-long bridge will be located parallel to the existing railroad bridge. At Saratoga Creek, an approximately 100-ft-long bridge will be erected parallel to and southwest of the existing railroad bridge. Both bridges will be supported by drilled, cast-in-place reinforced concrete piers located at least 6 ft from the top of the creek banks. No retaining walls, wing walls, or other support structures are anticipated within the creek banks. Both bridges will be designed carefully around existing utilities.

The proposed project would support trail user needs by using existing ancillary facilities, such as the existing restrooms, drinking fountains, and picnic tables at Congress Springs Park. Additional facilities may include additional parking, benches, and signage. Existing vegetation, especially native trees and shrubs, would be preserved where possible.

Chapter 2. Study Methods

2.1. Regulatory Requirements

2.1.1. Federal Endangered Species Act

The United States (U.S.) Fish and Wildlife Service (USFWS) has jurisdiction over federally listed threatened and endangered plant and animal species. The federal Endangered Species Act (ESA) protects listed species from harm or “take,” broadly defined as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” Any such activity can be defined as a “take” even if it is unintentional or accidental. Listed plant species are typically provided less protection than listed animals.

An endangered species is one that is considered in danger of becoming extinct throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered in the foreseeable future. Federal agencies involved in permitting projects that may result in take of federally listed species (e.g., U.S. Army Corps of Engineers) are required under Section 7 of the ESA to consult with the USFWS prior to issuing such permits. Any activity that could result in the take of a federally listed species, and is not authorized as part of a Section 7 consultation, requires an ESA Section 10 take permit from the USFWS.

2.1.2. Clean Water Act

The U.S. Army Corps of Engineers (Corps) is responsible under Section 404 of the Clean Water Act to regulate the discharge of fill material into waters of the U.S. Waters of the U.S. and their lateral limits are defined in 33 CFR Part 328.3(a) and include streams that are tributaries to navigable waters and their adjacent wetlands. The lateral limits of jurisdiction for a non-tidal stream are measured at the line of the Ordinary High Water Mark (OHWM) (33 CFR Part 328.3[e]) or the limit of adjacent wetlands (33 CFR Part 328.3[b]). Any permanent extension of the limits of an existing water of the U.S., whether natural or man-made, results in a similar extension of Corps jurisdiction (33 CFR Part 328.5).

Waters of the U.S. fall into two broad categories: wetlands and other waters. Other waters include waterbodies and watercourses such as rivers, streams, lakes, springs, ponds, coastal waters, and estuaries. Wetlands include marshes, wet meadows, seeps,

floodplains, basins, and other areas experiencing extended seasonal soil saturation. Seasonally or intermittently inundated features, such as seasonal ponds, ephemeral streams, and tidal marshes, are categorized as wetlands if they have hydric soils and support wetland plant communities. Seasonally inundated waterbodies or watercourses that do not exhibit wetland characteristics are classified as other waters of the U.S.

Other waters that cannot trace a continuous hydrologic connection to a navigable water of the U.S. are not tributary to waters of the U.S. and are termed “isolated waters.” Wetlands that are not adjacent to other waters are termed “isolated wetlands.” (“Adjacent” means bordering, contiguous or neighboring, and includes wetlands separated from other waters by man-made dikes or barriers, natural river berms, beach dunes and the like.) Isolated wetlands and waters are jurisdictional if their use, degradation, or destruction could affect interstate or foreign commerce (33 CFR Section 328.3[a]). The Corps may or may not take jurisdiction over isolated wetlands, depending on the specific circumstances.

In general, a Section 404 permit must be obtained from the Corps before filling or grading wetlands or other waters of the U.S. Certain projects may qualify for authorization under a Nationwide Permit (NWP). The purpose of the NWP program is to streamline the evaluation and approval process throughout the U.S. for certain types of activities that have only minimal impacts to the aquatic environment. Many NWPs require the applicant to submit a preconstruction notification (PCN) to the appropriate Corps office and to obtain a project-specific authorization. The Corps is required to consult with the USFWS under Section 7 of the ESA if the permitted activity may result in the take of federally listed species.

All Corps permits require state water quality certification under Section 401 of the Clean Water Act. In Santa Clara County, this regulatory program is administered by the San Francisco Bay Regional Water Quality Control Board (RWQCB). Projects that propose to fill wetlands or other waters of the U.S. must apply for water quality certification from the RWQCB. The RWQCB has adopted a policy requiring mitigation for any loss of wetlands, streams, or other waters of the U.S.

2.1.3. Porter-Cologne Water Quality Control Act

Under this Act (California Water Code Sections 13000–14920), the RWQCB is authorized to regulate the discharge of waste that could affect the quality of the waters of the State. Therefore, even if a project does not require a federal permit, it

may still require review and approval by the RWQCB (e.g., for impacts to isolated wetlands and other waters). When reviewing applications, the RWQCB focuses on ensuring that projects do not adversely affect the “beneficial uses” associated with waters of the State. In most cases, the RWQCB seeks to protect these beneficial uses by requiring the integration of water quality control measures into projects that will require discharge into waters of the State. For most construction projects, the RWQCB requires the use of construction and post-construction Best Management Practices (BMPs).

2.1.4. Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) prohibits the taking, hunting, killing, selling, purchasing, etc. of migratory birds, parts of migratory birds, or their eggs and nests. As used in the MBTA, the term “take” is defined as “to pursue, hunt, shoot, capture, collect, kill, or attempt to pursue, hunt, shoot, capture, collect, or kill, unless the context otherwise requires.” Most bird species native to the U.S. are covered by this act.

2.1.5. California Endangered Species Act

The California Department of Fish and Game (CDFG) has jurisdiction over State-listed endangered, threatened, and rare plant and animal species under the California Endangered Species Act (CESA). In addition, species proposed for listing under CESA are protected by its provisions. The CDFG also maintains a list of Species of Special Concern, defined as species that appear to be vulnerable to extinction because of declining populations, limited ranges, and/or continuing threats. Species of Special Concern are not afforded legal protection under CESA.

2.1.6. California Fish and Game Code

The CDFG is also responsible for enforcing the California Fish and Game Code, which contains several provisions potentially relevant to construction projects. For example, Section 1602 of the Fish and Game Code governs the issuance of Lake and Streambed Alteration Agreements by the CDFG. Lake and Streambed Alteration Agreements are required whenever proposed project activities would substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated as such by the CDFG.

The Fish and Game Code also lists animal species designated as Fully Protected or Protected, which may not be taken or possessed without a permit from the Fish and Game Commission and/or the CDFG. These take permits do not allow “incidental take” and are more restrictive than the take allowed under Section 2081 of the CESA. Fully Protected species are listed in Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the Fish and Game Code, while Protected amphibians and reptiles are listed in Chapter 5, Sections 41 and 42.

Section 3503 of the Fish and Game Code prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Subsection 3503.5 specifically prohibits the take, possession, or destruction of any birds in the orders Falconiformes (hawks and eagles) or Strigiformes (owls) and their nests. These provisions, along with the federal MBTA, essentially serve to protect nesting native birds. Non-native species, including European starling, house sparrow, and rock pigeon, are not afforded any protection under the MBTA or California Fish and Game Code.

2.1.7. California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to “projects” proposed to be undertaken or requiring approval by State or local government agencies. Projects are defined as having the potential to adversely affect the environment. Under Section 15380 of CEQA, a species not included on any formal list “shall nevertheless be considered rare or endangered if the species can be shown by a local agency to meet the criteria” for listing. With sufficient documentation, a species could be shown to meet the definition of rare or endangered under CEQA and be considered a “de facto” rare or endangered species.

2.1.8. City of Saratoga Tree Protection Ordinance

Article 15-50 of the City of Saratoga’s Municipal Code (i.e., Tree Protection Ordinance) outlaws the removal, damage, pruning, or encroachment upon any protected tree located on private or public property without first having obtained a tree removal, pruning, or encroachment permit from the City. A protected tree is defined as any of the following:

- Any native tree having a diameter at breast height (dbh) of 6 inches (in) or greater
- Any other tree having a dbh of 10 in or greater
- Any street tree (i.e., within public street or right-of-way)

- Any heritage tree, defined in Article 15.50.020(1) as “any tree of historic significance as a tree having historic value related to the heritage of the City and designated by action of the City Council upon recommendation of the Heritage Preservation Commission”
- Any tree required to be planted, retained, or replaced under other provisions of the Municipal Code

2.2. Studies Conducted

Prior to conducting fieldwork, LSA searched the California Natural Diversity Database (CNDDB) for records of special-status species occurrences in the project vicinity (i.e., Cupertino, San Jose West, and Los Gatos U.S. Geological Survey [USGS] 7.5-minute quadrangles). In addition, lists of potentially occurring rare plants and federally listed species in the same quadrangles were obtained from the California Native Plant Society (CNPS) *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2007) and online database maintained by the Sacramento USFWS office (USFWS 2007). These individual lists are presented in Appendix A. For the purposes of this Natural Environment Study (NES), special-status species are defined as follows:

- Species that are listed, formally proposed, or designated as candidates for listing as threatened or endangered under the federal ESA
- Species that are listed, or designated as candidates for listing, as rare, threatened, or endangered under the CESA
- Plant species on Lists 1B (rare or endangered in California and elsewhere) and 2 (rare or endangered in California but more common elsewhere) in the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2006)
- Animal species designated as Species of Special Concern, Fully Protected, or Protected by the CDFG
- Species that meet the definition of rare, threatened, or endangered under Section 15380 of the CEQA guidelines
- Considered to be a taxon of special concern by the relevant local agencies

Species lists from the above sources were reviewed to determine which species could potentially occur in the vicinity of the Biological Study Area (BSA), depicted on Figure 1-3. The BSA includes the proposed trail alignment as well as adjacent areas that are expected to be used for ancillary facilities, construction staging, and storage.

The cumulative special-status species list (shown in Table 1, Section 3.2) contains numerous species that occur in a wide variety of habitats. The determination of whether a species could potentially occur within the BSA was based on the availability of suitable habitat within the BSA, the proximity of known species occurrences, and knowledge of the species' range and/or mobility. Species requiring specific habitats not present in the vicinity of the BSA (e.g., serpentine soils, chaparral) were eliminated from consideration and are not discussed further. Species for which marginal or suitable habitat is present are discussed in Section 4.3.

Potential wetlands within the BSA were delineated using the routine determination method described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). This methodology entails examination of specific sample sites within suspected wetlands for hydrophytic vegetation, hydric soils, and wetland hydrology. By the federal definition, all three of these parameters must be present for an area to be considered a wetland.

Plant taxonomy and nomenclature within this NES follows Hickman (1993). Nomenclature for amphibians and reptiles conforms to Crother (2008), while nomenclature for mammals conforms to Baker et al. (2003). Scientific names of bird species are not provided in the text since common names are standardized in the American Ornithologists' Union *Check-list of North American Birds* (AOU 1998) and supplements.

2.3. Personnel and Survey Dates

LSA biologist Matt Ricketts visited the BSA on June 15, 2006 to assess current habitat conditions and evaluate its potential to support special-status plant and/or animal species. On the same day, LSA wetland scientist Leslie Allen visited the BSA to identify potential waters of the U.S. subject to Corps jurisdiction and waters of the State subject to RWQCB jurisdiction.

2.4. Agency Coordination and Professional Contacts

To date, LSA has not met with or contacted any agency personnel regarding special-status species or other regulatory considerations in the project area.

2.5. Limitations That May Influence Results

No problems or limitations were encountered during the research, fieldwork, or document preparation that influenced the results presented herein.

Chapter 3. Results: Environmental Setting

3.1. Description of the Existing Biological and Physical Conditions

3.1.1. Study Area

For the purposes of this NES, the BSA is defined as an approximately 100-ft-wide corridor extending from Saratoga-Sunnyvale Road on the northwest to Saratoga Avenue on the southeast. The BSA is bordered to the northeast by the southwestern edge of the existing Union Pacific railroad and to the southwest by residential housing. Congress Springs Park is located near the southeastern portion of the BSA and Cox Reservoir is located immediately adjacent to the central portion of the BSA. Several large transmission towers are located within the BSA, which is currently used informally by walkers and joggers. The BSA is located within a heavily urbanized portion of Saratoga, and is completely surrounded by residential development or public facilities (i.e., Congress Springs Park and Cox Reservoir).

3.1.2. Physical Conditions

Topography is generally flat along the entire length of the BSA, which has an average elevation of 330 ft above sea level.

Rodeo Creek and Saratoga Creek flow northeasterly through the BSA. Rodeo Creek is an intermittent stream that is tributary to nearby Calabazas Creek, which is tributary to Guadalupe Slough and ultimately to San Francisco Bay just north of San Jose. Saratoga Creek is a perennial stream that is also tributary to Guadalupe Slough and San Francisco Bay. Both creeks are channelized for urban flood control and rarely, if ever, flood onto the level trail corridor. Within a reasonable distance of each creek, surface runoff from the level trail corridor most likely drains into the creeks.

Soils in the BSA consist of Zamora-Pleasanton association (USDA 1968). Zamora soils (dark grayish brown loam and clay loam surface soils and dark brown or brown clay loam subsoils) compose approximately 50 percent of the soils; Pleasanton soils (grayish brown loam surface soils, dark grayish brown and brown gravelly clay loam subsoils) make up generally 35 percent; and the remaining 15 percent consists of San Ysidro, Yolo, and Hillgate soils. These soils are medium to moderately fine textured,

developed from sedimentary alluvium, are well drained, and are situated on alluvial plains and fans (USDA 1968).

3.1.3. Biological Conditions in the Biological Study Area

3.1.3.1. VEGETATION

Three vegetation/habitat types were identified within the BSA: urban/landscaped, non-native annual grassland, and riparian woodland. The plant communities and other habitat characteristics of these vegetation types are described below.

Urban/Landscaped

A large portion of the BSA consists of bare ground covered in wood chips, with plant growth limited to sporadic patches of non-native ruderal species such as wild oat (*Avena fatua*), wild radish (*Raphanus sativa*), yellow star thistle (*Centaurea solstitialis*), field bindweed (*Convolvulus arvensis*), and curly dock (*Rumex crispus*). The southwestern boundary of the BSA is characterized by a nearly continuous band of ornamental trees and shrubs that are located in the adjacent residential lots. Most of these trees are non-native to the Saratoga area; these include Brazilian pepper tree (*Schinus terebinthifolius*), almond (*Prunus* sp.), walnut (*Juglans* sp.), edible fig (*Ficus carica*), Monterey pine, (*Pinus radiata*) and coast redwood (*Sequoia sempervirens*). The latter two species, while native to California, are not native to this area and are often planted as ornamental species. Coast live oak (*Quercus agrifolia*) is the most common native tree within the BSA, sometimes forming dense stands along the southwestern boundary. Small, isolated stands of trees and shrubs are also present along the central portion of the proposed trail alignment and around the bases of the existing transmission towers. Dense patches of the non-native Himalayan blackberry (*Rubus discolor*) are scattered along the southwestern BSA boundary as well as along the proposed trail alignment.

Non-native Annual Grassland

This plant community occurs at the southeastern end of the BSA between Saratoga Creek and Saratoga Avenue (see photos in Appendix B). In contrast to the bare ground that characterizes the majority of the BSA, this area is covered by non-native grasses and other ruderal forbs with an average height of 3 ft. Italian ryegrass (*Lolium multiflorum*) and wild oat are the dominant grass species, with small amounts of Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*) and hare barley (*H. murinum* ssp. *leporinum*) also present. Ruderal forbs scattered throughout the grassland include prickly lettuce (*Lactuca serriola*), black mustard (*Brassica nigra*),

yellow star thistle, and curly dock. The grassland is bordered to the southwest by coast live oaks of varying size, mixed with a few Monterey pines and coast redwoods.

Riparian Woodland

Riparian woodland occurs within the BSA at the two creek crossings. Vegetation at the two creeks differs in both structure and species composition, largely due to differing stream flows and associated soil moisture. Rodeo Creek was mostly dry at the time of the site visit, and flow appears to be intermittent. The tree cover lacks alders (*Alnus* sp.), willows (*Salix* sp.), and other hydrophytic species typically associated with riparian woodland, and is instead limited to a few mature coast live oaks with no accompanying shrubs. Although the stream banks are mostly devoid of vegetation, English ivy (*Hedera helix*), Smilo grass (*Piptatherum miliaceum*), and Himalayan blackberry occur in a few small patches. Bermuda grass (*Cynodon dactylon*) was observed growing in the channel within a pool of standing water approximately 20 ft upstream (i.e., southwest) of the railroad crossing. This pool appears to have formed from urban wastewater runoff from a nearby drainage pipe, and drains via a concrete-walled culvert that directs flow under the railroad bridge.

In contrast to the dry, sparsely vegetated conditions along Rodeo Creek, Saratoga Creek supports a dense, multi-layered woodland that more closely resembles typical riparian habitat. The creek contained an average 6 in of rapidly flowing water at the time of the June 15, 2006 site visit and is likely perennial. White alder (*Alnus rhombifolia*) and arroyo willow (*Salix lasiolepis*) comprise the majority of the tree cover, which averages approximately 95 percent. Other riparian tree and shrub species present include shining willow (*Salix lucida*), blue elderberry (*Sambucus mexicana*), vine maple (*Acer circinatum*), and California buckeye (*Aesculus californica*). Scattered individuals of walnut, Brazilian pepper tree, edible fig, and coast live oak also occur within the woodland. A lone Mexican fan palm (*Washingtonia robusta*) is present on the western bank. Dense mats of California (*Rubus ursinus*) and Himalayan blackberry cover a large portion of the ground, with small amounts of California manroot (*Marah fabaceus*), horsetail (*Equisetum* sp.), French broom (*Genista monspessulana*), and Smilo grass comprising the majority of the herbaceous cover.

Representative photographs of habitat conditions at the two creeks are presented in Appendix B.

3.1.3.2. WILDLIFE

Most wildlife species that occur on the BSA are probably generalists that have adapted well to urban landscapes, although many of these (e.g., western scrub-jay, spotted towhee) also occur in natural habitats (e.g., oak woodland). Bird species observed during the June 15, 2006 site visit include the following: snowy egret (Saratoga Creek), American kestrel, mourning dove, Anna's hummingbird, Nuttall's woodpecker, black phoebe, western scrub-jay, American crow, bushtit, Bewick's wren, northern mockingbird, European starling, spotted towhee, California towhee, house finch, lesser goldfinch, and American goldfinch. California ground squirrel (*Spermophilus beecheyi*), Audubon's cottontail (*Sylvilagus audubonii*), and burrows of Botta's pocket gopher (*Thomomys bottae*) were the only mammals (or mammal sign) observed during the site visit, although the following urban-adapted species are also expected to occur: fox squirrel (*Sciurus niger*), deer mouse (*Peromyscus maniculatus*), house mouse (*Mus musculus*), northern raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and black-tailed deer (*Odocoileus hemionus*). Although none were seen during the site visit, several amphibian and reptile species may occur on the project site within the riparian habitats and in areas where leaf litter and other debris provide sites for cover and foraging. Species potentially present include California slender salamander (*Batrachoseps attenuatus*), arboreal salamander (*Aneides lugubris*), northern Pacific treefrog (*Pseudacris regilla*), western fence lizard (*Sceloporus occidentalis*), southern alligator lizard (*Elgaria multicarinatus*), common garter snake (*Thamnophis sirtalis*), and gopher snake (*Pituophis melanoleucus*).

Although the BSA lacks substantial wildlife movement corridors due to its urban setting, the linear riparian habitats at Rodeo and Saratoga Creeks likely facilitate local movements and dispersal of urban-adapted mammals, reptiles, and amphibians.

3.2. Regional Species and Habitats of Concern

Table 1 provides a list of special-status species that could potentially occur in the region surrounding the BSA, and was compiled as described in Section 2.2. Of the 36 species listed in the table, only four are considered as potentially occurring within the BSA due to the presence of marginal or suitable habitat: steelhead (*Oncorhynchus mykiss*), California red-legged frog (*Rana draytonii*), western pond turtle (*Actinemys marmorata*), and Cooper's hawk (*Accipiter cooperi*). These four species are discussed further in Section 4.3.

Table 1: Special-status Species Potentially Occurring in the Vicinity of the Saratoga de Anza Trail Biological Study Area, Santa Clara County

Common Name	Scientific Name	Status ¹	General Habitat Description	Habitat Present/Absent	Rationale
PLANTS					
Santa Cruz manzanita	<i>Arctostaphylos andersonii</i>	1B	Chaparral, open sites within redwood forests	A	No suitable habitat within BSA
Congdon's tarplant	<i>Centromadia parryi</i> ssp. <i>congonii</i>	1B	Alkaline grasslands; occasionally found in disturbed areas	A	No suitable habitat within BSA
Robust spineflower	<i>Chorizanthe robusta</i> var. <i>robusta</i>	FE, 1B	Sandy terraces and bluffs in woodlands, coastal dunes, and scrub	A	No suitable habitat within BSA
Mt. Hamilton thistle	<i>Cirsium fontinale</i> var. <i>campylon</i>	1B	Woodland, chaparral, and grasslands; and drainages on serpentine soils	A	No suitable habitat within BSA
Western leatherwood	<i>Dirca occidentalis</i>	1B	Brushy slopes in mixed evergreen and foothill woodlands	A	No suitable habitat within BSA
Santa Clara Valley dudleya	<i>Dudleya setchellii</i>	FE, 1B	Rocky serpentine outcrops and rocks within grassland or woodland	A	No suitable habitat within BSA
Ben Lomond buckwheat	<i>Eriogonum nudum</i> var. <i>decurrens</i>	1B	Chaparral, coniferous forest	A	No suitable habitat within BSA
Fragrant fritillary	<i>Fritillaria liliacea</i>	1B	Coastal scrub and grassland, usually on serpentine soils	A	No suitable habitat within BSA
Loma Prieta hoita	<i>Hoita strobilna</i>	1B	Serpentine chaparral and woodland	A	No suitable habitat within BSA
Smooth lessingia	<i>Lessingia micradenia</i> var. <i>glabrata</i>	1B	Serpentine chaparral	A	No suitable habitat within BSA
Arcuate bush mallow	<i>Malacothamnus arcuatus</i>	1B	Chaparral	A	No suitable habitat within BSA

¹ FE = Federally listed as endangered; FT = Federally listed as threatened; SE = State-listed as endangered; ST = State-listed as threatened; CSC = California Species of Special Concern; CFP = California Fully Protected Species; 1B = California Native Plant Society List 1B (plant species that are rare or endangered in California and elsewhere)

Common Name	Scientific Name	Status ¹	General Habitat Description	Habitat Present/ Absent	Rationale
Hall's bush mallow	<i>Malacothamnus hallii</i>	1B	Chaparral	A	No suitable habitat within BSA
Robust monardella	<i>Monardella villosa</i> ssp. <i>globosa</i>	1B	Woodland, chaparral, and grassland	A	No suitable habitat within BSA
Metcalf Canyon jewel-flower	<i>Streptanthus albidus</i> ssp. <i>albidus</i>	FE, 1B	Open areas in dry grassy meadows on serpentine soils	A	No suitable habitat within BSA
Most beautiful jewel-flower	<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	1B	Serpentine outcrops in chaparral, grassland, and woodland	A	No suitable habitat within BSA
Caper-fruited tropidocarpum	<i>Tropidocarpum capparideum</i>	1B	Alkaline clay grasslands	A	No suitable habitat within BSA
INVERTEBRATES					
Bay checkerspot butterfly	<i>Euphydryas editha bayensis</i>	FT	Shallow, serpentine soils that support larval host plants (<i>Plantago erecta</i>)	A	No suitable habitat within BSA
FISH					
Tidewater goby	<i>Eucyclogobius newberryi</i>	FE	Brackish shallow lagoons and lower stream reaches where water is fairly still but not stagnant	A	No suitable habitat within BSA
Delta smelt	<i>Hypomesus transpacificus</i>	ST, FT	Brackish river channels and tidally influenced backwater sloughs of the Sacramento-San Joaquin Delta	A	BSA outside known range of species
Coho salmon (Central California Coast ESU ²)	<i>Oncorhynchus kisutch</i>	FE	Coastal streams from Punta Gorda in northern California down to and including the San Lorenzo River in central California, as well as tributaries to San Francisco Bay	A	Not known from BSA watershed

² ESU = Evolutionarily Significant Unit

Common Name	Scientific Name	Status ¹	General Habitat Description	Habitat Present/ Absent	Rationale
Steelhead (Central California Coast ESU)	<i>Oncorhynchus mykiss</i>	FT, CSC	Coastal streams from Russian River south to Aptos Creek (Santa Cruz Co.), including streams tributary to San Francisco and San Pablo Bays	P	Saratoga Creek known to support resident non-anadromous population (Leidy et al. 2005), but drop structure downstream of BSA precludes occurrence of federally listed anadromous individuals
Steelhead (Central Valley ESU)	<i>Oncorhynchus mykiss</i>	FT	Sacramento and San Joaquin Rivers and their tributaries	A	BSA outside known range of species
Chinook salmon (Central Valley Spring-run ESU)	<i>Oncorhynchus tshawytscha</i>	FT, ST	Sacramento River and its tributaries	A	BSA outside known range of species
Chinook salmon (Sacramento River Winter-run ESU)	<i>Oncorhynchus tshawytscha</i>	FE, SE	Sacramento River below Keswick Dam	A	BSA outside known range of species
AMPHIBIANS					
California tiger salamander	<i>Ambystoma californiense</i>	FT, CSC	Vernal pools, seasonal ponds, stock ponds, and associated grasslands	A	No suitable habitat within BSA
California red-legged frog	<i>Rana draytonii</i>	FT, CSC	Ponds, streams, drainages, and associated uplands	P	Saratoga Creek contains marginal dispersal habitat but no breeding habitat; individual observed 2.3 mi upstream of BSA in 1997 (CNDDDB 2007)
REPTILES					
Western pond turtle	<i>Actinemys marmorata</i>	CSC	Ponds, streams, drainages, and associated uplands	P	Marginal habitat present at Saratoga Creek
BIRDS					
Osprey	<i>Pandion haliaetus</i>	CSC	Ocean shorelines, bays, freshwater lakes, and streams; most nest within 15 mi of fish-producing water	A	No suitable habitat within BSA
White-tailed kite	<i>Elanus leucurus</i>	CFP	Open grasslands, meadows, or marshes; require dense-topped trees or shrubs for nesting and perching	A	No suitable habitat within BSA

Common Name	Scientific Name	Status ¹	General Habitat Description	Habitat Present/ Absent	Rationale
Bald eagle	<i>Haliaeetus leucocephalus</i>	FT, SE, CFP	Ocean shorelines, lake margins, and rivers; most nest within 1 mi of water	A	No suitable habitat within BSA
Cooper's hawk	<i>Accipiter cooperi</i>	CSC	Woodlands, as well as urban areas with abundant trees	P	Suitable nesting habitat present along BSA edge and at creek crossings
California clapper rail	<i>Rallus longirostris obsoletus</i>	FE, SE, CFP	Tidal salt marshes with sloughs and substantial cordgrass (<i>Spartina</i> sp.) cover	A	No suitable habitat within BSA
California least tern	<i>Sterna antillarum browni</i>	FE, SE, CFP	Nests on sandy beaches, alkali flats, hard-pan surfaces (salt ponds)	A	No suitable habitat within BSA
Marbled murrelet	<i>Brachyramphus marmoratus</i>	FT, SE	Forages at sea, nests in old-growth coniferous forests (e.g., Douglas fir)	A	No suitable habitat within BSA
Burrowing owl	<i>Athene cunicularia</i>	CSC	Open, dry grasslands that contain abundant small mammal (e.g., California ground squirrel) burrows	A	No suitable habitat within BSA
MAMMALS					
Pallid bat	<i>Antrozous pallidus</i>	CSC	A variety of open arid habitats, chaparral, open woodland, deserts, etc.; roosts in old buildings, under bridges, caves	A	No suitable habitat within BSA

Chapter 4. Results: Biological Resources, Discussion of Impacts and Mitigation

4.1. Natural Communities of Special Concern

4.1.1. Waters of the U.S. and State

4.1.1.1. SURVEY RESULTS

A formal wetland delineation conducted by LSA (2006) identified 0.06 acre (ac) of potential waters of the U.S. within the BSA. This total includes 0.02 ac of intermittent stream (Rodeo Creek) and 0.04 ac of perennial stream (Saratoga Creek). No wetlands were identified within the BSA. The delineation is attached to this NES as Appendix C.

4.1.1.2. AVOIDANCE AND MINIMIZATION EFFORTS

No work will occur within the stream channels, beds, or banks of Rodeo Creek and Saratoga Creek. To reduce potential short-term impacts to waters of the U.S. and state, the contractor will prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) in accordance with RWQCB guidelines. The SWPPP will include the following major components, at a minimum:

1. A comprehensive erosion and sediment control plan, depicting areas to remain undisturbed, and providing specifications for revegetation of disturbed areas.
2. A list of potential pollutants from building materials, chemicals, and maintenance practices used during construction, and the specific control measures to be implemented to minimize release and transport of these constituents in runoff.
3. Specifications and designs for the appropriate best management practices (BMPs) for controlling drainage and treating runoff in the construction phase.
4. A program for monitoring all control measures that includes schedules for inspection and maintenance, and identifies the party responsible for monitoring.
5. A site map that locates all water quality control measures and restricted areas to be left undisturbed.

4.1.1.3. PROJECT IMPACTS

No impacts to jurisdictional waters are expected. Potential indirect impacts (e.g., degraded water quality due to construction-related runoff) will be avoided through the implementation of a SWPPP and BMPs, as summarized above.

4.1.1.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed with implementation of the SWPPP and BMPs.

4.1.1.5. CUMULATIVE IMPACTS

Due to the lack of impacts to waters of the U.S. and State resulting from the project, the project will not result in substantial cumulative effects to this resource.

4.1.2. Protected Trees

4.1.2.1. SURVEY RESULTS

53 trees were tagged during a tree inventory of the project area in August 2006 (City of Saratoga 2006). 28 of these trees are protected by the City's Tree Protection Ordinance and may be adversely affected by the project. These protected trees include three Monterey pines, one white alder, one Mexican fan palm, one cluster of black oaks (*Quercus kelloggii*), and 22 coast live oaks. Trees could be affected via pruning, impacts to root systems, or removal.

4.1.2.2. AVOIDANCE AND MINIMIZATION EFFORTS

The following measures were recommended in the preliminary arborist report (City of Saratoga 2006) and will be implemented by the project:

1. Tree protective fencing shall be installed and established prior to any grading or the arrival of construction equipment or materials on site. Fencing shall comprise 6-ft-high chain link fencing mounted on 8-ft-tall, 2-in-diameter galvanized posts, driven 24 in into the ground and spaced no more than 10 ft apart. Once established, the fencing must remain undisturbed and be maintained throughout the construction process until final inspection.
2. A preconstruction meeting shall be held with the contractor following installation of protective fencing and prior to start of work.

3. Unless otherwise approved, all construction activities must be conducted outside the designated fenced area (even after fencing is removed). These activities include, but are not necessarily limited to, the following: demolition, grading, trenching, equipment cleaning, stockpiling and dumping materials (including soil fill), and equipment/vehicle operation and parking.
4. Any approved grading or trenching beneath tree canopies shall be manually performed using shovels.
5. Any pruning of trees on site must be performed under the supervision of an International Society of Arboriculture (ISA) Certified Arborist and according to ISA standards.
6. The disposal of harmful products (such as chemicals, oil, and gasoline) is prohibited beneath tree canopies or anywhere on site that allows drainage beneath tree canopies. Additionally, fuel shall not be stored nor shall any refueling or maintenance of equipment occur within 20 ft of the tree's trunks.
7. Herbicides shall not be applied beneath the tree canopies. Where used on site, they must be labeled for safe use near trees.

4.1.2.3. PROJECT IMPACTS

Of the 28 protected trees potentially affected by the project, eight appear to be in direct conflict with the proposed trail and bridge alignment, suggesting that they would need to be removed unless the trail and bridge alignment is modified (City of Saratoga 2006). These eight trees include one Mexican fan palm and one white alder growing adjacent to Saratoga Creek, one coast live oak in a dense patch of vegetation on the west side of Glen Brae Drive, and a clump of five young oak trees on the portion of the trail that meets Saratoga-Sunnyvale Road.

4.1.2.4. COMPENSATORY MITIGATION

Any trees proposed for removal will be replaced by new trees equal in value to those removed (based on appraised value in preliminary arborist report).

4.1.2.5. CUMULATIVE IMPACTS

No cumulative impacts are expected.

4.1.3. Riparian Woodland

4.1.3.1. SURVEY RESULTS

During the biological reconnaissance survey of the BSA, LSA identified approximately 0.11 ac of dry oak riparian woodland at the Rodeo Creek crossing and approximately 0.13 ac of mesic willow-alder riparian woodland at the Saratoga Creek crossing. The species composition and structure of these riparian corridors is described above in Section 3.1.3.1.

4.1.3.2. AVOIDANCE AND MINIMIZATION EFFORTS

Prior to any vegetation removal or other work within the riparian corridors, the applicant will apply for a Streambed Alteration Agreement (SAA) from the CDFG. The SAA will include measures to protect fish and wildlife resources during construction.

4.1.3.3. PROJECT IMPACTS

As mentioned above, a white alder (Tag # 10a) growing next to Saratoga Creek is within the proposed trail alignment and will have to be removed.

4.1.3.4. COMPENSATORY MITIGATION

To replace the removed alder, three replacement alders will be planted on site (to the extent feasible) or elsewhere within the Saratoga Creek watershed. Based on LSA's previous project experience, a 3:1 mitigation ratio (no. trees planted: no. trees removed) is typically considered adequate for impacts to riparian trees by the CDFG. Any revegetation efforts will be completed prior to the rainy season. The plantings will be monitored and maintained until successfully established.

4.1.3.5. CUMULATIVE IMPACTS

The loss of a minor amount of riparian vegetation is not expected to contribute to the cumulative loss of this habitat in urban Saratoga. Moreover, all removed trees will be replaced at a 3:1 ratio.

4.2. Special-status Plant Species

No special-status plant species are expected to occur within the BSA, due to the absence of suitable habitat. As such, the project will not affect any special-status plant species.

4.3. Special-status Animal Species

4.3.1. Steelhead – Central California Coast ESU

Steelhead are federally listed as threatened and a California Species of Special Concern. Like other salmonids, steelhead are anadromous, migrating from the ocean to freshwater streams to spawn. Juveniles spend one to three years in their natal streams before going to sea as smolts. Most steelhead return to freshwater streams after spending two to three years at sea. Important factors associated with preferred stream channel conditions include temperature, velocity, depth, gravel substrate, and water quality. Shaded banks with overhanging riparian vegetation (termed “shaded riverine aquatic cover” by the USFWS) are also beneficial to salmonids, providing foraging habitat and cover from predators. High water temperatures, low rates of streamflow, low levels of dissolved oxygen, and low sediment input can be detrimental to steelhead populations.

4.3.1.1. SURVEY RESULTS

Although no steelhead were observed in Saratoga Creek during the LSA reconnaissance survey, this creek is known to support a non-anadromous, resident population of this species (Leidy et al. 2005). A drop structure at the confluence of Saratoga Creek and San Tomas Aquino Creek has been identified by the Santa Clara Valley Water District as a complete barrier to upstream migration, precluding the use of Saratoga Creek by anadromous salmonids (Leidy et al. 2005). In April 1996, Leidy (2002, cited in Leidy et al. 2005), caught 18 steelhead downstream from Via Monte Drive, approximately 0.3 mi south of the BSA. As such, steelhead almost certainly occur in the reach of Saratoga Creek within the BSA. However, since this population is non-anadromous, it has no legal protection under the ESA, which only pertains to naturally spawned anadromous populations below natural and manmade impassable barriers (NMFS 2006).

4.3.1.2. AVOIDANCE AND MINIMIZATION EFFORTS

Implementation of the SWPPP (see section 4.1.1.2 above) and associated BMPs will prevent construction-related runoff from entering the creek and thus will preclude any potential water quality impacts on steelhead.

4.3.1.3. PROJECT IMPACTS

As discussed above in sub-section 4.1.1.2, no work will occur in the stream channel, bed, or banks of Saratoga Creek, avoiding any permanent impacts to aquatic habitat.

As such, the project is expected to have *no effect* on the Central California Coast ESU of steelhead.

4.3.1.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed with implementation of the SWPPP and BMPs.

4.3.1.5. CUMULATIVE EFFECTS

The project will not result in cumulative effects to this species.

4.3.2. California Red-legged Frog

California red-legged frogs (CRLF) are listed as threatened under the federal ESA, and are also a California Species of Special Concern. CRLF have sustained a 75 percent reduction in their geographic range, especially in the Sierra Nevada foothills and southern California (Jennings et al. 1992). Population declines of this species have been attributed to a variety of factors, with habitat loss and predation by non-native aquatic predators (e.g., bullfrogs, crayfish, other non-native fishes) typically implicated as the primary threats to CRLF (Jennings and Hayes 1994).

CRLF occur in and along freshwater marshes, streams, ponds, and other semi-permanent water sources. Optimal habitat contains dense emergent or shoreline riparian vegetation closely associated with deep (i.e., greater than 2.3 ft), still, or slow-moving water (Jennings and Hayes 1994). Cattails (*Typha* sp.), bulrushes (*Scirpus* sp.), and arroyo willows provide the habitat structure that seems to be most suitable for CRLF (Jennings and Hayes 1994). Although CRLF can occur in intermittent streams and ponds, they are unlikely to persist in streams in which all surface water disappears annually (Jennings and Hayes 1994). Suitable breeding ponds and pools usually have a minimum depth of 20 in, but CRLF do sometimes breed successfully in pools as shallow as 10 in (Fellers 2005). Regardless of water depth, suitable breeding habitat must contain water during the entire development period for eggs and tadpoles (typically March through September).

4.3.2.1. SURVEY RESULTS

The closest known CRLF occurrence to the BSA is a 1997 sighting in Saratoga Creek just east of the Toll Gate Road bridge, approximately 2.3 mi upstream (i.e., southwest) of the BSA (CNDDDB 2006, Occurrence #211) (Figure 4-1), where a single juvenile CRLF was found under a board in a seep next to the creek. Habitat at this

Figure 4-1. California Red-legged Frog CNDDB Occurrences

location was described as “well-shaded by riparian vegetation,” with the “seep area dominated by horsetail and blackberry plants” (CNDDDB 2007). The only other occurrences within 5 mi of the site are from Calabasas Creek (CNDDDB Occurrence #961), approximately 2.1 mi southwest of the BSA; Permanente Creek (CNDDDB Occurrence #123), approximately 4 mi northwest of the BSA; and an artificially landscaped pond in the Gate of Heaven Cemetery (CNDDDB Occurrence #372), also approximately 4 mi to the northwest (Figure 4-1). Details of these occurrences are provided in the CNDDDB report attached as Appendix A. The site is not located within any CRLF critical habitat units as designated by the USFWS (Figure 4-1).

Potential CRLF habitat within the BSA is limited to Saratoga Creek, which contains marginal aquatic dispersal habitat but no breeding habitat. The channel in the vicinity of the proposed bridge is approximately 15 ft wide with a substrate of mixed cobble and gravel. The creek contained an average 6 in of rapidly flowing water during the June 15 site visit, and did not contain any areas of slow-moving water or pools. Although there is substantially more riparian vegetation (e.g., willows and alders) at this location than at Rodeo Creek, the channel itself does not contain any emergent vegetation and the creek margins are mostly bare. Similar habitat conditions were observed along the creek both upstream (Cox Avenue bridge) and downstream (Monte Drive bridge) of the BSA. None of the on-site habitat conditions would be considered as suitable for CRLF breeding. The observation of CRLF approximately 2.3 mi upstream of the proposed bridge suggests that individuals could disperse downstream to the BSA. However, given the lack of known breeding sites, increased urbanization, and reduced habitat quality downstream of the BSA, it is unlikely that CRLF would disperse through the BSA from the Toll Gate Road location. Furthermore, there have been no reported CRLF sightings in Saratoga Creek within the last nine years, further reducing the likelihood that they could occur in the vicinity of the proposed bridge. Nevertheless, without conducting protocol-level surveys this species cannot be presumed absent.

The portion of Rodeo Creek that lies within the BSA is not considered potential CRLF habitat due to its intermittence and its overall degraded condition (i.e., due to manmade bank stabilization and storm flow structures).

4.3.2.2. AVOIDANCE AND MINIMIZATION EFFORTS

Although the occurrence of CRLF within the BSA is unlikely, the following avoidance and minimization measures will be implemented to ensure that the species will not be adversely affected by the project. These measures are adapted from those

identified by the USFWS in two Programmatic Biological Opinions that have been issued for CRLF: (1) *Programmatic Formal Endangered Species Act Consultation on Issuance of Permits under Section 404 of the Clean Water Act or Authorizations under the Nationwide Permit Program for Projects that May Affect the California Red-legged Frog* (USFWS 1999), and (2) *Programmatic Biological Opinion for Projects Funded or Approved under the Federal Aid Program* (USFWS 2003).

1. At least 15 days prior to the onset of construction activities at Saratoga Creek, the City of Saratoga (City) shall submit the name(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities shall begin until the City has received written approval from the USFWS that the biologist(s) is qualified to conduct the work.
2. A USFWS-approved biologist shall survey the work site 48 hours before the onset of work activities. If any life stage of the CRLF is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the site before work begins. The biologist shall relocate the CRLF from the shortest distance possible to a location that contains suitable habitat and will not be affected by project activities. The biologist shall maintain detailed records of any individuals that are moved (e.g., size, coloration, any distinguishing features, photos) to assist him or her in determining whether translocated animals are returning to their original point of capture. The preconstruction survey will also include a visual search for Pacific pond turtles in the work area (see section 4.3.3).
3. Before any activities begin in the vicinity of Saratoga Creek, the USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the CRLF and its habitat, the specific measures that are being implemented to conserve the CRLF for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.
4. The USFWS-approved biologist shall be present at the work site until all CRLF have been removed, workers have been instructed, and disturbance of habitat has been completed. After this time, the City shall designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist will ensure that this monitor receives the training outlined in measure 3 and in the

identification of CRLF. If the monitor or biologist recommends that work be stopped because CRLF would be affected to a degree that exceeds the levels anticipated by Caltrans and the USFWS during review of the proposed action, they will notify the resident engineer (i.e., the engineer that is directly overseeing and in command of construction activities) immediately. The resident engineer will either resolve the situation by eliminating the effect immediately or require that all actions which are causing these effects be halted. If work is stopped, the USFWS will be notified as soon as is reasonably possible.

5. During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.
6. Equipment maintenance, refueling, and staging areas will occur at least 60 ft from the Saratoga Creek corridor. Prior to the onset of work, the City will ensure that a plan is in place for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
7. The number of access routes, size of staging areas, and total area of the activity will be limited to the minimum necessary to achieve the project goal (i.e., bridge construction). Routes and boundaries shall be clearly demarcated, and these areas shall be outside of riparian habitat.
8. Work activities shall be completed between April 1 and November 1, which roughly corresponds with the dry season when CRLF are less active and mobile.
9. To control erosion during and after project implementation, the contractor shall implement BMPs in accordance with RWQCB guidelines (see subsection 4.1.1.2).

4.3.2.3. PROJECT IMPACTS

As described above, CRLF are unlikely to be present within the BSA, despite the presence of marginal aquatic dispersal habitat in Saratoga Creek. If present, individual CRLF may alter their behavioral and/or movement patterns in response to noise generated during construction of the concrete piers and installation (i.e., lowering by crane) of the free-span bridge. Such activities may require that workers enter the riparian corridor and/or creek channel to guide the bridge into place, increasing the likelihood that individual CRLF may be disturbed or injured, if present.

However, no permanent structures will be constructed within the existing channel, bed, or banks (the concrete piers will be located at least 6 ft outside the tops of the banks); and the project will not result in permanent alteration of existing aquatic habitat. Given that (1) CRLF are unlikely to occur on the project site, (2) bridge construction will not result in the permanent loss of aquatic habitat, and (3) the above avoidance and minimization measures will be implemented, the project is *not likely to adversely affect* the CRLF.

4.3.2.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed with the implementation of the measures in Sections 4.1.1.2 and 4.3.2.2.

4.3.2.5. CUMULATIVE EFFECTS

The project is not expected to result in cumulative effects to this species. Although the pedestrian bridge will result in an increased human presence over Saratoga Creek, intrusions into the creek channel by trail users are expected to be minimal. Moreover, this portion of Saratoga Creek is already somewhat susceptible to human and pet intrusions due to its proximity to a residential neighborhood as well as Congress Springs Park. The project is not expected to significantly increase the likelihood of such intrusions into the creek channel beyond that which is already present.

4.3.3. Western Pond Turtle

Western pond turtle is a California Species of Special Concern. Pond turtles occur in a wide variety of aquatic habitats, including ponds, lakes, marshes, rivers, streams, and irrigation ditches that typically have a rocky or muddy bottom and contain stands of aquatic vegetation (Stebbins 2003). The presence or absence of pond turtles at a given aquatic site is largely dependent on the availability of suitable basking sites and adjacent upland habitat for egg-laying (e.g., sandy banks or grassy open fields) and over-wintering. Nests are typically dug in dry substrate with a high clay or silt fraction since the female moistens the site where she will excavate the nest prior to egg-laying (Holland 1991, cited in Jennings and Hayes 1994). Hatchlings require shallow water habitat with relatively dense submergent or short emergent vegetation in which to forage (D. Holland, pers. comm., cited in Jennings and Hayes 1994).

4.3.3.1. SURVEY RESULTS

The only known western pond turtle occurrence within 5 mi of the BSA is at the Vasona Reservoir, approximately 3.3 mi southeast of the Saratoga Creek crossing

(CNDDDB 2006, Occurrence #175). One turtle was observed at this location in 1998 and three were observed in 2001.

Saratoga Creek provides marginal aquatic habitat for western pond turtles. Although the site lacks dense emergent vegetation, suitable basking sites are present along the channel (i.e., rocks and sandy banks). The surrounding upland habitat does not appear suitable for nesting, however, given the lack of native soils. The presence of a paved parking lot and highly compacted fill west of the creek further reduces the quality of available upland habitat. As such, western pond turtles have moderate potential to occur in Saratoga Creek in the vicinity of the proposed bridge.

4.3.3.2. AVOIDANCE AND MINIMIZATION EFFORTS

The above minimization measures for CRLF (Section 4.3.2.2) also apply to western pond turtles.

4.3.3.3. PROJECT IMPACTS

Potential project impacts to western pond turtles are the same as those described above for CRLF (Section 4.3.2.3).

4.3.3.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed with the implementation of the measures in Sections 4.1.1.2 and 4.3.2.2.

4.3.3.5. CUMULATIVE EFFECTS

The project will not result in cumulative effects to this species.

4.3.4. Cooper's Hawk and Other Nesting Birds

Cooper's hawk is a California Special of Special Concern, with the special-status designation applying primarily to nest sites. In natural areas, this species nests primarily in dense oak or riparian woodlands, almost always by a stream, pond, or even temporary pool (Peeters and Peeters 2005). Cooper's hawks have also adapted to the urban environment and are known to nest in several central California cities, including San Jose (CNDDDB 2007). High nest-site availability (i.e., tall ornamental trees) and an abundant prey base (e.g., rock pigeons, mourning doves, American robins) are the primary habitat components that attract this species to urban neighborhoods.

4.3.4.1. SURVEY RESULTS

Although no Cooper's hawks were detected during the June 15, 2006 survey, the numerous ornamental trees within and adjacent to the BSA and the riparian trees along both creeks provide suitable nesting habitat for this species. Given that Cooper's hawks forage widely throughout urban neighborhoods, the site may also function as foraging habitat for individuals that may be nesting elsewhere in Saratoga. As such, there is high potential for Cooper's hawks to occur within the BSA.

The numerous trees and shrubs within the BSA also provide nesting habitat for other native birds that are protected by the federal MBTA and California Fish and Game Code. Other species that could potentially nest within the BSA include red-shouldered hawk, American robin, western scrub-jay, black phoebe, and bushtit, among others.

4.3.4.2. AVOIDANCE AND MINIMIZATION EFFORTS

If feasible, all vegetation removal activities shall be conducted during the non-breeding season (i.e., September through February) to avoid direct impacts to Cooper's hawk and other nesting birds. If such work is scheduled during the breeding season (March through August), a qualified ornithologist shall conduct a preconstruction survey of the work area to determine if any birds are nesting in or in the vicinity of vegetation to be removed. The preconstruction survey shall be conducted within 15 days prior to the start of work from March–May (since there is higher potential for birds to initiate nesting during this period), and within 30 days prior to the start of work from June–August. If active nests are found in the work area, the biologist shall determine an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer shall be determined by the biologist in consultation with the CDFG, and will be based to a large extent on the nesting species and its sensitivity to disturbance.

4.3.4.3. PROJECT IMPACTS

The project may result in the removal of up to eight trees (see Section 4.1.2.3). If conducted during the breeding season (i.e., March through August), construction activities could directly impact nesting birds by removing trees that support active nests. Prolonged loud construction noise could also disturb nesting birds, resulting in nesting failure in trees that are not removed. However, with the implementation of the above minimization measures (i.e., preconstruction surveys and buffers), such impacts will be reduced to a less-than-significant level.

4.3.4.4. COMPENSATORY MITIGATION

None proposed.

4.3.4.5. CUMULATIVE EFFECTS

The project will not result in cumulative effects to Cooper's hawks or other native birds.

Chapter 5. Results: Permits and Technical Studies for Special Laws or Conditions

5.1. Federal Endangered Species Act Consultation Summary

Although the project is not likely to adversely affect California red-legged frog (federally listed as threatened), marginal dispersal habitat is present within Saratoga Creek and the species has been observed 2.3 mi upstream of the project area. As such, the USFWS is expected to require formal or informal consultation under Section 7 of the ESA. A focused Biological Assessment has been prepared under separate cover to submit to the USFWS.

5.2. Federal Fisheries and Essential Fish Habitat Consultation Summary

The project is not located in, and will not affect, Essential Fish Habitat.

5.3. California Endangered Species Act Consultation Summary

The project will not affect any species listed as rare, threatened, or endangered under CESA.

5.4. Wetlands and Other Waters Coordination Summary

Waters of the U.S. on the project site (i.e., Rodeo Creek and Saratoga Creek) are regulated by the Corps under Section 404 of the Clean Water Act. Since no work is proposed within Corps jurisdiction, a Section 404 permit from the Corps is not required. However, since work is proposed adjacent to the creeks, the project will likely need to file a report of waste discharge with the RWQCB under California's Porter-Cologne Water Quality Control Act. The RWQCB will then issue Waste Discharge Requirements for the project.

5.5. Invasive Species

To avoid the introduction of invasive species into the BSA during project construction, contract specifications shall include, at a minimum, the following measures:

- All earthmoving equipment to be used during project construction shall be thoroughly cleaned before arriving on the project site.
- All seeding equipment (i.e., hydroseed trucks) shall be thoroughly rinsed at least three times prior to arriving at the project site and beginning seeding work.
- To avoid spreading any non-native invasive species already existing on-site, to off-site areas, all equipment shall be thoroughly cleaned before leaving the site.

Chapter 6. References

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Appendix A CNDDDB, USFWS, and CNPS Species Lists

Appendix B Site Photographs

Appendix C Jurisdictional Delineation
