

**HISTORIC PROPERTY SURVEY REPORT****1. UNDERTAKING DESCRIPTION AND LOCATION**

| District | County | Route<br><i>(Local Agency)</i>   | <i>Local Assistance Project Prefix</i> | Post Miles<br><i>(Project No.)</i> | Charge Unit<br><i>(Agreement)</i> | Expenditure Authorization<br><i>(Location)</i> |
|----------|--------|----------------------------------|----------------------------------------|------------------------------------|-----------------------------------|------------------------------------------------|
| 04       | SF     | City and County of San Francisco |                                        | N/A                                |                                   | EA 04-163700                                   |

*(For Local Assistance projects off the highway system, use headers in italics)*

**Project Description:**

The Federal Highway Administration (FHWA), the California Department of Transportation (Caltrans), and the San Francisco County Transportation Authority (SFCTA) are replacing Doyle Drive, located in the Presidio of San Francisco, within the National Park Service–Golden Gate National Recreation Area and the City and County of San Francisco (Undertaking). The Undertaking consists of replacing the existing facility with a new 1.5-mile-long six-lane facility and an eastbound auxiliary lane, between the toll plaza for the Golden Gate Bridge on the west, and the east end of Doyle Drive where it splits and feeds into Richardson Avenue and Marina Boulevard. The Undertaking requires funding from the FHWA and other federal sources. The project is subject to compliance with the *Programmatic Agreement among the Federal Highway Administration, the California Department of Transportation, the San Francisco County Transportation Authority, the Presidio Trust, the National Park Service, the Department of Veterans Affairs, the California State Historic Preservation Officer, the Advisory Council on Historic Preservation, and the San Francisco Recreation and Parks Department for the South Access to the Golden Gate Bridge, Doyle Drive Replacement Project, San Francisco, California (PA)*, executed October 7, 2008.

The construction of the Doyle Drive project will remove several acres of wetland from the Presidio NHL, causing an adverse effect to biological resources. As partial mitigation for the adverse effect the Presidio Trust identified a number of areas, one of which is lower Dragonfly Creek that will undergo wetland restoration with funding by the San Francisco County Transportation Authority. The proposed project site consists of approximately 4.0 acres of lower Dragonfly Creek, located west of Highway 1 in the Fort Scott area of the Presidio (see Figure 1 of Attachment A).

The Presidio Trust is proposing to revitalize a portion of the lower reaches of Dragonfly Creek in the Presidio of San Francisco, a National Historic Landmark District (PNHLD) and national park site. Proposed enhancements include wetland and habitat restoration, and non-native tree removal. The project tiers off from the Presidio Trust Management Plan and represents one of many watershed revitalization projects that are ongoing at the Presidio. The project will result in approximately 390-linear feet of additional channel length through day-lighting of buried channel, increased sinuosity of existing channels and creation of additional channel branches. The project will also create and/or improve approximately 0.65-acres of floodplain and/or wetland habitat. Much of these gains will be derived from removing fill material and lowering the floodplain/wetland surface to much closer proximity to the groundwater table, creating seasonally and perennially saturated conditions that will sustain wetland and riparian plant communities.

The current project involves two phases: 1) creek channel, floodplain, and riparian corridor enhancements; and 2) tree removal and revegetation of the site (See figure 2 of Attachment A).

**2. AREA OF POTENTIAL EFFECTS**

The focused APE for the project was established in consultation with Meg Scantlebury, Branch Chief, Caltrans District 4 Office of Cultural Resource Studies, and Presidio Trust Natural Resources Department staff. The cultural resources Treatment Oversight Panel, created for the Doyle Drive Undertaking, was also consulted in compliance with the PA. This is a focused APE because the proposed project does not

For the federal undertaking described in Part 1: To minimize redundancy and paperwork for the California Department of Transportation and the State Historic Preservation Officer, and in the spirit intended under the federal Paperwork Reduction Act (U.S.C. 44 Chapter 35), this document also satisfies consideration under California Environmental Quality Act Guidelines Section §15064.5(a) and, as appropriate, Public Resources Code §5024 (a)(b) and (d).

## HISTORIC PROPERTY SURVEY REPORT

have the potential to cause indirect effects to adjacent buildings (i.e. visual, auditory, vibratory effects). The proposed project is designed to restore lower Dragonfly Creek to a degree that more closely resembles its historic appearance, and will retain and protect historic features in the APE. Therefore, changing the visual aspects of the proposed project does not have the potential to effect adjacent properties. The APE map is shown in Figure 2 of Attachment A in this Historic Property Survey Report.

The APE follows the maximum possible area of construction-related effects resulting from the proposed project, including all new construction, easements, and staging areas. The western terminus of the direct APE is located just east of two historic period palm trees straddling Dragonfly Creek. From this point the northern boundary of the APE follows a northeasterly line, skirting the southern edge of Appleton Street, Storey Road, and Rod Road. The northern boundary ends just west of Highway 1, marking the eastern extremity of the APE. The eastern boundary of the APE parallels the western edge of Highway 1 and is located 75 feet west of the highway (measured from Highway 1 bent #5), ending on the south side of Schofield Road and the stone lined curb that bounds the historic forest. At this point the APE swings westward approximately 400 feet, cuts northwest across a recreation trail, and continues southwest along the northern boundary of the trail. The APE then turns northwestward crossing east of the historic palm trees to join the northwest corner of the APE.

The vertical APE will extend no deeper than 7 feet below existing grade in selected areas. Fill material along approximately 400-feet of creek corridor upstream of Schofield Road will be excavated to widen and expand the floodplain and associated wet meadow habitat to a depth of up to 6-feet below existing grade. The south bank downstream of Schofield Road will be excavated and graded to a depth of up to 7-feet below existing grade in order to expand the floodplain.

### 3. CONSULTING PARTIES / PUBLIC PARTICIPATION

- Local Government (*Head of local government, Preservation Office / Planning Department*)
  - Several meetings among: staff members from Presidio Trust Natural Resources Department, Doyle Drive Project cultural resources Treatment Oversight Panel, Caltrans, and the Office of Historic Preservation. Meeting topics included establishing the APE and the scope of cultural resource identification efforts. Presidio Trust and Caltrans conducted a field review of the project in March of 2009.
- Native American Tribes, Groups and Individuals
  - On June 2, 2009, ICF Jones & Stokes mailed letters to the Native American signatories of the PA. The letters included project maps and a description of the proposed Project. The letter requested direct communication about cultural resources information and project concerns. Follow-up telephone calls were placed on June 11, 2009. No responses to the letters or phone calls have been received to date. See Appendix A of Attachment C.

Native American Heritage Commission

  - See above. The Native American heritage Commission was not contacted. Instead, in compliance with the Programmatic Agreement executed for the Doyle Drive project, each of the four Native Americans who participated in the PA was contacted. See Appendix A of Attachment C.
- Local Historical Society/Historic Preservation Group (*also if applicable, city archives, etc.*)  
(*See Appendix A of Attachment B*)
  - Presidio Historical Association
  - San Francisco Architectural Heritage

### 4. SUMMARY OF IDENTIFICATION EFFORTS

For the federal undertaking described in Part 1: To minimize redundancy and paperwork for the California Department of Transportation and the State Historic Preservation Officer, and in the spirit intended under the federal Paperwork Reduction Act (U.S.C. 44 Chapter 35), this document also satisfies consideration under California Environmental Quality Act Guidelines Section §15064.5(a) and, as appropriate, Public Resources Code §5024 (a)(b) and (d).

## HISTORIC PROPERTY SURVEY REPORT

- |                                     |                                                                                                                                                                                                                                                                                                                                           |                                                     |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <input checked="" type="checkbox"/> | National Register of Historic Places                                                                                                                                                                                                                                                                                                      | Month and year: April 24, 2008                      |
| <input checked="" type="checkbox"/> | California Register of Historical Resources                                                                                                                                                                                                                                                                                               | Year: 2008                                          |
| <input checked="" type="checkbox"/> | California Inventory of Historic Resources                                                                                                                                                                                                                                                                                                | Year: 1976                                          |
| <input type="checkbox"/>            | California Historical Landmarks                                                                                                                                                                                                                                                                                                           | Year: 1995 and supplemental information to date     |
| <input type="checkbox"/>            | California Points of Historical Interest                                                                                                                                                                                                                                                                                                  | Year: 1992 and supplemental information to date     |
| <input type="checkbox"/>            | State Historic Resources Commission                                                                                                                                                                                                                                                                                                       | Year: 1980–present, minutes from quarterly meetings |
| <input checked="" type="checkbox"/> | Caltrans Historic Highway Bridge Inventory                                                                                                                                                                                                                                                                                                | Year: 2006 and supplemental information to date     |
| <input checked="" type="checkbox"/> | Archaeological Site Records                                                                                                                                                                                                                                                                                                               |                                                     |
|                                     | • Site Record for CA-SFR-6/26                                                                                                                                                                                                                                                                                                             |                                                     |
| <input checked="" type="checkbox"/> | Other sources consulted [e.g., historical societies, city archives, etc. List names and dates below]                                                                                                                                                                                                                                      |                                                     |
|                                     | • Presidio National Historic Landmark Update (Alley et al. 1993)                                                                                                                                                                                                                                                                          |                                                     |
|                                     | • Cultural resources reports obtained from the Presidio Trust Library, the Presidio Trust Archaeology Center, and the National Park Service Presidio Archives, compiled between May and August, 2009.                                                                                                                                     |                                                     |
|                                     | • Historic infrastructure maps accessed from the National Park service Presidio Archive depicting development within the project focused APE and vicinity, accessed June-August 2009.                                                                                                                                                     |                                                     |
|                                     | • The cut/fill model developed by the Presidio Trust, predicting locations of the army's grading activities in the focused APE, June 2009.                                                                                                                                                                                                |                                                     |
| <input checked="" type="checkbox"/> | Results: (provide a brief summary of records search and research results, as well as inventory findings)                                                                                                                                                                                                                                  |                                                     |
|                                     | • Research indicated that no cultural resources studies had been conducted in the focused APE, and no cultural resources had been recorded in the Focused APE. The records search indicated that 14 previous cultural resource studies relevant to the Project had been conducted on the Presidio. See Attachments B and C for citations. |                                                     |
|                                     | • The cultural resources survey found that Schofield Road, a contributor to the Presidio National Historic Landmark, is located in the focused APE. See Attachment B for details.                                                                                                                                                         |                                                     |
|                                     | • The 2008 cultural resources survey resulted in the identification of one cultural resource: drainage features of lower Dragonfly Creek. See Attachment B for details.                                                                                                                                                                   |                                                     |

### 5. PROPERTIES IDENTIFIED

- Properties **previously listed or determined eligible** for inclusion in the National Register of Historic Places are present within the Project APE. (Include date of listing or determination): Drainage features of lower Dragonfly Creek (see Figure 3 in Attachment B)
- Schofield Road (Road no. 2159) (see Figure 3 in Attachment B)
- On behalf of the FHWA, Caltrans has determined the following property is a contributing resource to the Presidio National Historic Landmark District:
- Drainage features of lower Dragonfly Creek (see Figure 3 in Attachment B)

### 6. LIST OF ATTACHED DOCUMENTATION

- Project Vicinity and APE Maps (Attachment A)
- Historical Resources Evaluation Report (HRER)
- ICF Jones & Stokes, September 2009, prepared by Karen Crawford and Edward Yarbrough; peer-reviewed by Meg Scantlebury, Caltrans, September 2009 (Attachment B)
- Archaeological Survey Report (ASR)
- ICF Jones & Stokes, September 2009, prepared by Karen Crawford; peer-reviewed by Janet Pape, Caltrans, September 2009 (Attachment C)
- Other (Specify below)
- California Department of Parks and Recreation 523 forms (Appendix B of Attachment B)

### HISTORIC PROPERTY SURVEY REPORT

#### 7. HPSR to File

Not applicable.

#### 8. HPSR to SHPO

Under the authority of the FHWA, Caltrans has determined that there are properties evaluated as a result of the project that there are contributing elements to the Presidio National Historic Landmark District the project's focused APE. Under Doyle Drive PA Stipulation III.A.2.d, Caltrans requests the SHPO's concurrence in this determination.

#### 9. Findings for State-Owned Properties

Not applicable; project does not involve Caltrans right-of-way or Caltrans-owned property.

#### 10. CEQA IMPACT FINDINGS

Not applicable; Caltrans is not the lead agency under CEQA.

#### 11. HPSR PREPARATION AND DEPARTMENT APPROVAL

|                             |       |       |
|-----------------------------|-------|-------|
| Prepared by (sign on line): | _____ | _____ |
| District __ Caltrans PQS:   |       | Date  |

|                             |                                                                                    |         |
|-----------------------------|------------------------------------------------------------------------------------|---------|
| Prepared by: (sign on line) |  | 9/22/09 |
| Consultant / discipline:    | <u>Karen L. Crawford, Archaeologist</u>                                            | Date    |
| Affiliation                 | <u>ICF Jones &amp; Stokes, San Francisco, CA</u>                                   |         |

|                                           |                                                                                     |                 |
|-------------------------------------------|-------------------------------------------------------------------------------------|-----------------|
| Reviewed for approval by: (sign on line)  |  | <u>10/12/09</u> |
| District 4 Caltrans PQS discipline/level: | <u>Janet Pape</u>                                                                   | Date            |
|                                           | <u>PQS: Co-PI—Historic Archaeology, PI—Prehistoric Archaeology</u>                  |                 |

|                             |                                                                                     |                |
|-----------------------------|-------------------------------------------------------------------------------------|----------------|
| Approved by: (sign on line) |  | <u>10/9/09</u> |
| District 4 EBC:             | <u>Meg Scanlebury, Branch Chief</u>                                                 | Date           |
|                             | <u>Office of Cultural resources Studies</u>                                         |                |

**ATTACHMENT A: PROJECT VICINITY AND APE MAPS**





San Francisco Bay

Archeological APE

N

0 750 1,500  
Feet

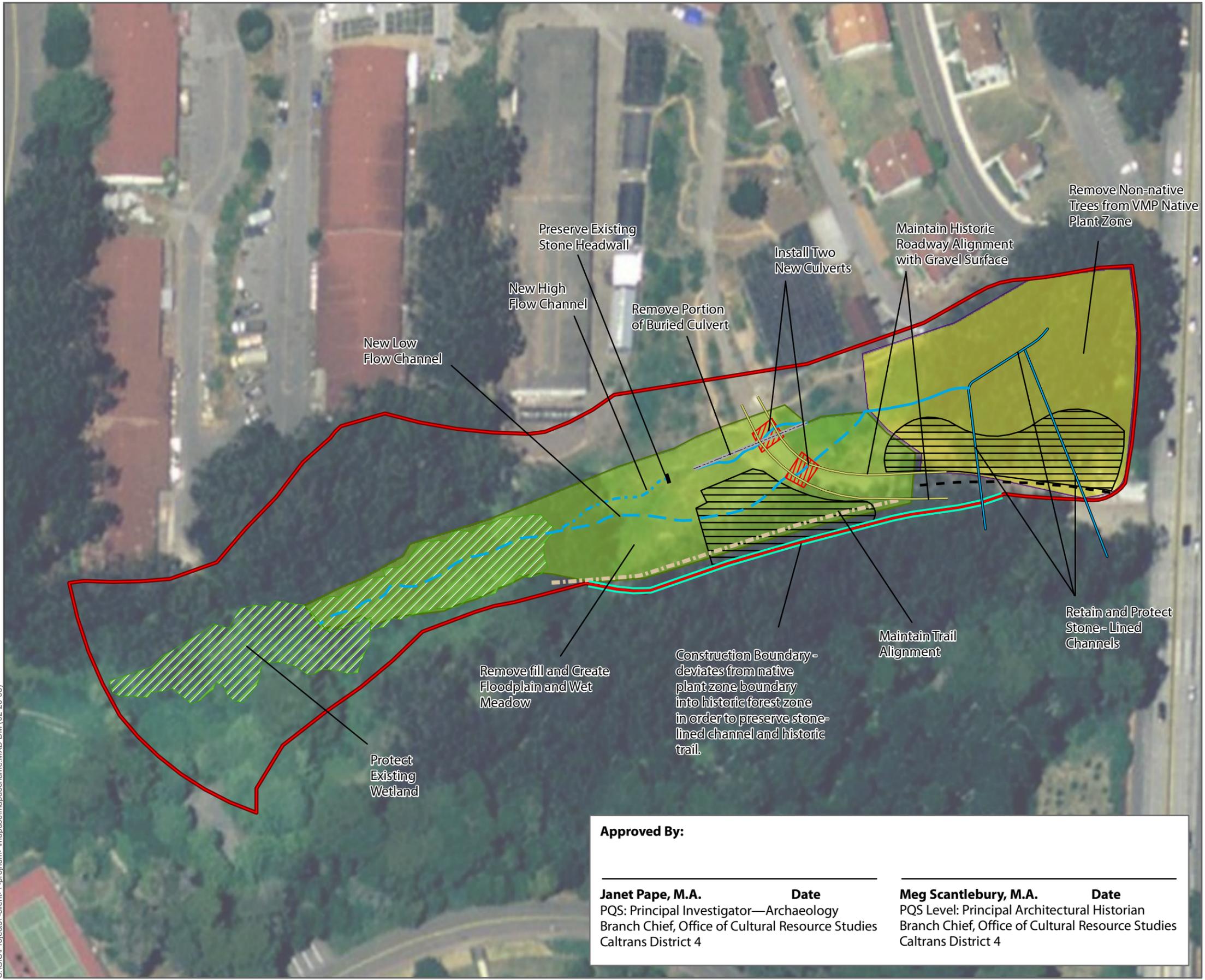
Project Location

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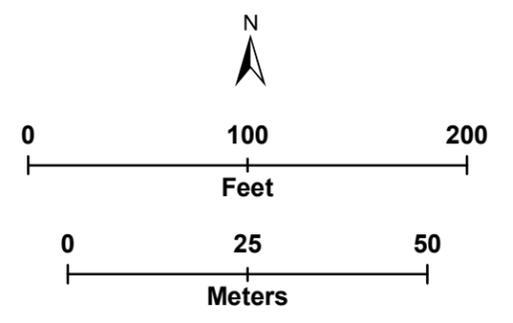
**Figure 1**  
**Project Vicinity**

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**Figure 2**  
**Focused Area of Potential Effects**

- - - Access Road
- Preserve existing stone headwall
- Construction boundary
- Historic roadway
- - - Trail alignment
- Existing stream
- - - New high flow channel
- - - New low flow channel
- Stone-lined channels
- Portion of buried culvert
- ▨ Staging Areas
- ▭ Focused Area of Potential Effects
- ▨ New culvert
- ▨ Wetland
- ▨ Non-native tree removal
- ▨ Proposed floodplain and wet meadow



**Approved By:**

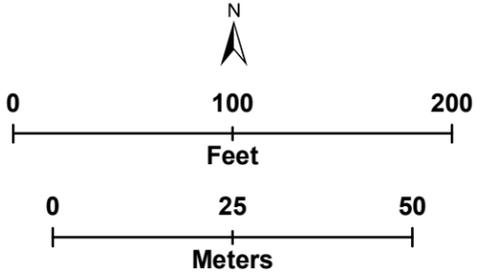
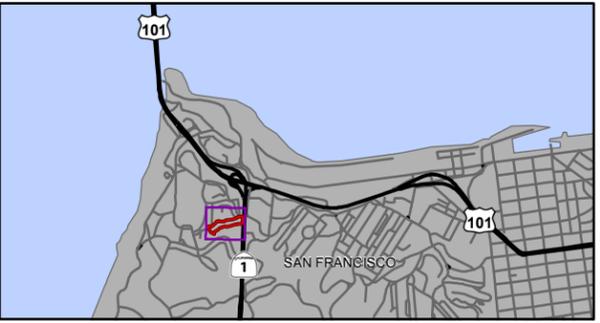
|                                                                                                                                                                                                                 |                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>_____<br/> <b>Janet Pape, M.A.</b>      <b>Date</b><br/>         PQS: Principal Investigator—Archaeology<br/>         Branch Chief, Office of Cultural Resource Studies<br/>         Caltrans District 4</p> | <p>_____<br/> <b>Meg Scantlebury, M.A.</b>      <b>Date</b><br/>         PQS Level: Principal Architectural Historian<br/>         Branch Chief, Office of Cultural Resource Studies<br/>         Caltrans District 4</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Source: PRESIDIO TRUST,  
Kamman Hydrology & Engineering, Inc.

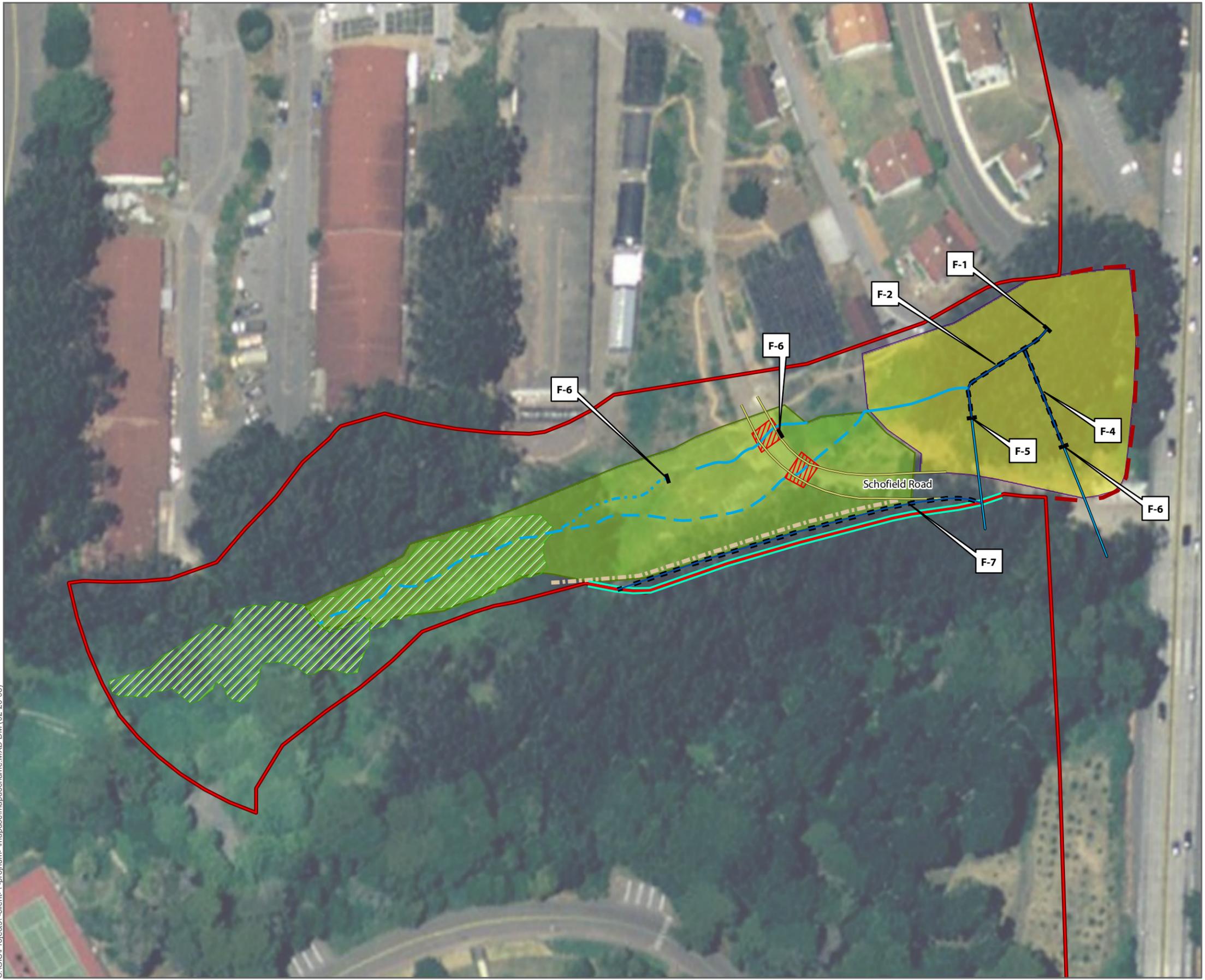
**Figure 3  
Drainage Features of Lower  
Dragonfly Creek**

- F-1. Concrete Drainage Inlet
- F-2. Stone Masonry-Lined Drainage Channel
- F-3. Stone Masonry and Corrugated Metal Drainage Outlet
- F-4. Concrete and Stone-Lined Drainage Channel
- F-5. Stone Masonry and Terra Cotta Pipe Drainage Outlet and Catchment Basin
- F-6. Stone Masonry Inlet
- F-7. Concrete Drainage Channel with Rubble Masonry Segments
- F-8. Corrugated Metal and Concrete Beneath Schofield Road

-  Visible segments of drainage channels recorded during archeological survey
-  Construction boundary
-  Historic roadway
-  Trail alignment
-  Existing stream
-  New high flow channel
-  New low flow channel
-  Stone-lined channels
-  Focused Area of Potential Effects
-  New culvert
-  Wetland
-  Non-native tree removal
-  Proposed floodplain and wet meadow



Source: PRESIDIO TRUST,  
Kamman Hydrology & Engineering, Inc.



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**ATTACHMENT B: HISTORICAL RESOURCES EVALUATION REPORT**



SFCTA Contract Number 99/00-7

SOUTH ACCESS TO THE GOLDEN GATE BRIDGE  
**DOYLE DRIVE**

## **Historical Resources Evaluation Report for the Dragonfly Creek Restoration Project**

San Francisco County, US101 KP 12.8-15.7 (PM 8.0-9.8) / SR1 KP10.9-11.4 (PM 6.8-7.1), EA 04-16370

October 2009

Prepared For:

**Arup**

**San Francisco County Transportation Authority**

**Federal Highway Administration**

**Caltrans District 4**

Prepared By:

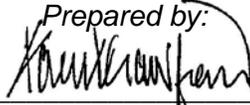
**ICF Jones & Stokes**



**Historical Resources Evaluation Report  
for the Dragonfly Creek Restoration Project**

**South Access to the Golden Gate Bridge Doyle Drive Project  
City and County of San Francisco, California**

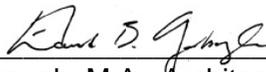
*Prepared by:*



---

Karen L. Crawford, M.A., RPA, Archaeologist  
ICF Jones & Stokes  
620 Folsom Street, Suite 200  
San Francisco, CA 94107

*and*



---

Edward Yarbrough, M.A., Architectural Historian  
ICF Jones & Stokes  
620 Folsom Street, Suite 200  
San Francisco, CA 94107

*Reviewed and Approved by:*



---

Meg Scantlebury  
Branch Chief  
Office of Cultural Resource Studies  
California Department of Transportation, District 4  
111 Grand Avenue  
Oakland, CA 94623-0660  
510 286-5616

October 2009

ICF Jones & Stokes. 2009. *Historical Resources Evaluation Report for the Dragonfly Creek Restoration Project*. October. (ICF J&S 04548.04) Sacramento, CA. Prepared for: Arup, San Francisco Transportation Authority, Federal Highway Administration, Caltrans District 4.

## SUMMARY OF FINDINGS

The Federal Highway Administration (FHWA), the California Department of Transportation (Caltrans), and the San Francisco County Transportation Authority (SFCTA) are replacing Doyle Drive, located in the Presidio of San Francisco, within the National Park Service–Golden Gate National Recreation Area and the City and County of San Francisco (Undertaking). The Undertaking consists of replacing the existing facility with a new 1.5-mile-long six-lane facility and an eastbound auxiliary lane, between the toll plaza for the Golden Gate Bridge on the west, and the east end of Doyle Drive where it splits and feeds into Richardson Avenue and Marina Boulevard. The Undertaking requires funding from the FHWA and other federal sources.

The proposed project is subject to compliance with the *Programmatic Agreement among the Federal Highway Administration, the California Department of Transportation, the San Francisco County Transportation Authority, the Presidio Trust, the National Park Service, the Department of Veterans Affairs, the California State Historic Preservation Officer, the Advisory Council on Historic Preservation, and the San Francisco Recreation and Parks Department for the South Access to the Golden Gate Bridge, Doyle Drive Replacement Project, San Francisco, California (PA)*, executed October 7, 2008.

The construction of the Undertaking will remove several acres of wetland from the Presidio National Historic Landmark District (PNHLD), causing an adverse impact to biological resources. As partial mitigation for the adverse impact the Presidio Trust identified a number of areas, one of which is lower Dragonfly Creek, that will undergo wetland restoration with funding by the SFCTA.

The Presidio Trust is proposing to revitalize 0.65 acres within the lower reaches of Dragonfly Creek (proposed project) in the PNHLD and national park site. Proposed enhancements include wetland and habitat restoration, and nonnative tree removal. The project tiers from the Presidio Trust Management Plan and represents one of many watershed revitalization projects that are ongoing at the Presidio.

The purpose of this Historical Resources Evaluation Report (HRER) is to evaluate the potential for the project to affect historic-era cultural resources identified as potential contributors to the PNHLD or any resources considered historic for the purposes of the California Environmental Quality Act (CEQA). To that end, ICF Jones & Stokes conducted field investigations for this study on June 26, 2009. Studies for the current effort included: an assessment of previously unevaluated resources identified within the area of potential effects (APE) for the project during pedestrian surveys, and a reexamination of those resources previously identified as contributors as a result of the 1966 PNHLD nomination, the 1993 PNHLD update (Alley et al. 1993), or the 2008 PNHLD update (Sucre et al. 2008). Additionally, the HRER serves to identify additional potentially contributing elements and document any changes that might have occurred to those elements previously identified as contributors or as potential contributors to the PNHLD.

The cultural resources located within the focused APE for the proposed project consist of two built environment resources associated with the development and use of Fort Scott. Specifically, the first resource consists of drainage features in Lower Dragonfly Creek, and the second is Schofield Road (no. 2159).

This study concludes that the Lower Dragonfly Creek drainage features appear to meet the criteria for listing in the National Register of Historic Places (NRHP) as contributors to the PNHLD (Table S-1). This resource was recorded on California Department of Parks and Recreation 523 Forms and will be included in the PNHLD update that Caltrans and the SFCTA

have committed to completing after the Undertaking is completed. Schofield Road (no. 2159) was previously listed in the NRHP as a contributor to the PNHLD.

**TABLE S-1. NRHP AND CEQA ELIGIBILITY STATUS**

| Feature Name                               | National Register of Historic Places Status                                                          | Historical Resource for the Purposes of CEQA? |
|--------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Schofield Road (No. 2159)                  | Previously determined <b>eligible</b> as a contributing resource of the PNHLD                        | Yes                                           |
| Drainage Features of Lower Dragonfly Creek | recommended <b>eligible</b> as a contributing resource of the PNHLD as a result of the current study | Yes                                           |

Each of the properties in the APE was also evaluated in accordance with Section 15064.5(a)(2)–(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code. Both Schofield Road and the Lower Dragonfly Creek drainage features are historical resources for the purposes of CEQA.

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## ACRONYMS AND ABBREVIATIONS

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ACHP        | ADVISORY COUNCIL ON HISTORIC PRESERVATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| ATP         | ARCHAEOLOGICAL TREATMENT PLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| CALTRANS    | CALIFORNIA DEPARTMENT OF TRANSPORTATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| CEQA        | CALIFORNIA ENVIRONMENTAL QUALITY ACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| CFR         | CODE OF FEDERAL REGULATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| CRHR        | CALIFORNIA REGISTER OF HISTORICAL RESOURCES                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| EIS/R       | ENVIRONMENTAL IMPACT STATEMENT/REPORT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| FHWA        | FEDERAL HIGHWAY ADMINISTRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| FOE         | FINDING OF EFFECT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| HRER        | HISTORICAL RESOURCES EVALUATION REPORT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| MOA         | MEMORANDUM OF AGREEMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| NEPA        | NATIONAL ENVIRONMENTAL POLICY ACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| NHL         | NATIONAL HISTORIC LANDMARK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| NHPA        | NATIONAL HISTORIC PRESERVATION ACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| NPS         | NATIONAL PARK SERVICE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| NRHP        | NATIONAL REGISTER OF HISTORIC PLACES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| PA          | PROGRAMMATIC AGREEMENT AMONG THE FEDERAL HIGHWAY ADMINISTRATION, THE CALIFORNIA DEPARTMENT OF TRANSPORTATION, THE SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY, THE PRESIDIO TRUST, THE NATIONAL PARK SERVICE, THE DEPARTMENT OF VETERANS AFFAIRS, THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER, THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, AND THE SAN FRANCISCO RECREATION AND PARKS DEPARTMENT FOR THE SOUTH ACCESS TO THE GOLDEN GATE BRIDGE, DOYLE DRIVE REPLACEMENT PROJECT, SAN FRANCISCO, CALIFORNIA |
| PNHLD       | PRESIDIO NATIONAL HISTORIC LANDMARK DISTRICT                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| PTMP        | PRESIDIO TRUST MANAGEMENT PLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| SFCTA       | SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| SHPO        | CALIFORNIA STATE HISTORIC PRESERVATION OFFICER                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| UNDERTAKING | REPLACE DOYLE DRIVE, LOCATED IN THE PRESIDIO OF SAN FRANCISCO, WITHIN THE GOLDEN GATE NATIONAL RECREATION AREA AND THE CITY AND COUNTY OF SAN FRANCISCO                                                                                                                                                                                                                                                                                                                                                                 |
| USC         | U.S. CODE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| VMP         | VEGETATION MANAGEMENT PLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| WPA         | WORKS PROGRESS ADMINISTRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |



## SECTION 1: INTRODUCTION

### 1.1 SOUTH ACCESS TO THE GOLDEN GATE BRIDGE DOYLE DRIVE PROJECT

The Federal Highway Administration (FHWA), the California Department of Transportation (Caltrans), and the San Francisco County Transportation Authority (SFCTA) are replacing Doyle Drive, located in the Presidio of San Francisco, within the National Park Service–Golden Gate National Recreation Area and the City and County of San Francisco (Undertaking) (Figure 1 in Appendix A of this report). The Undertaking consists of replacing the existing Doyle Drive with a new 1.5-mile-long six-lane roadway and an eastbound auxiliary lane between the toll plaza for the Golden Gate Bridge on the west, and the east end of Doyle Drive where it splits and feeds into Richardson Avenue and Marina Boulevard. The Undertaking requires funding from the FHWA and other federal sources.

The Undertaking will adversely affect historic properties listed in or eligible for the National Register of Historic Places (NRHP), including the Presidio National Historic Landmark District (PNHLD) and its contributing historic resources. Analysis of these effects are provided in the Finding of Effect for the South Access to the Golden Gate Bridge Doyle Drive Project, San Francisco, California (San Francisco County Transportation Authority 2005) and the Addendum Finding of Effect for the South Access to the Golden Gate Bridge Doyle Drive Project, San Francisco, California (San Francisco County Transportation Authority 2007).

Consequently, the FHWA has consulted with the California State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (ACHP) pursuant to 36 Code of Federal Regulations (CFR) 800, regulations implementing Section 106 of the National Historic Preservation Act (NHPA) (16 U.S. Code [USC] 470f) and with the Secretary of the Interior pursuant to 36 CFR 800.10 regarding special requirements for protecting national historic landmarks. As the federally appointed land manager for the areas of the Presidio within the Undertaking's designated areas of potential effects (APEs), the Presidio Trust has also been consulted. The Dragonfly Creek Restoration Project (proposed project) is subject to compliance with the *Programmatic Agreement among the Federal Highway Administration, the California Department of Transportation, the San Francisco County Transportation Authority, the Presidio Trust, the National Park Service, the Department of Veterans Affairs, the California State Historic Preservation Officer, the Advisory Council on Historic Preservation, and the San Francisco Recreation and Parks Department for the South Access to the Golden Gate Bridge, Doyle Drive Replacement Project, San Francisco, California (PA)*, executed October 7, 2008.

### 1.2 DRAGONFLY CREEK RESTORATION PROJECT

Construction of the Undertaking will remove several acres of wetland from the PNHLD, causing an adverse effect to biological resources identified in the Final Environmental Impact Statement/Report (EIS/R) for the Undertaking (SFCTA 2008). As partial mitigation for the adverse effect, several areas within the Presidio will undergo wetland restoration. The Trust has identified a number of areas, one of which is Dragonfly Creek, to undergo wetland restoration with funding by the SFCTA.

The Presidio Trust revitalizing 0.65 acres within the lower reaches of Dragonfly Creek in the PNHLD. Proposed enhancements include wetland and habitat restoration, and nonnative tree removal. The proposed project tiers from the Presidio Trust Management Plan (Presidio Trust 2002) and represents one of many watershed revitalization projects ongoing at the Presidio.

The purpose of this Historical Resources Evaluation Report (HRER) is to evaluate the potential for the project to affect historic-era cultural resources identified as potential contributors to the PNHLD or any resources considered historical for the purposes of the California Environmental Quality Act (CEQA). To that end, ICF Jones & Stokes conducted field investigations for this study on June 26, 2009. Studies for the current effort included an assessment of previously unevaluated resources identified within the APE for the project during pedestrian surveys, and a reexamination of those resources previously identified as contributors as a result of the 1966 PNHLD nomination or the 1993 PNHLD update (Alley et al. 1993). Additionally, the HRER serves to identify additional potentially contributing elements and document any changes that might have occurred to those previously identified as potential contributors to the PNHLD.

The proposed project site consists of approximately 4.0 acres of lower Dragonfly Creek, located immediately west of Highway 1 in the Fort Scott area of the Presidio (Figure 1). The project description below is a condensed version of the Presidio Trust's Dragonfly Creek Restoration project description.

The purpose of the Dragonfly Creek Restoration Project is to revitalize the native plant community zone of Dragonfly Creek at Fort Scott from its degraded condition. Restoration will improve the hydrologic and biogeochemical function and enhance biological diversity of the stream and adjacent land. The project will also highlight the historic Presidio landscape features within the project area. Restoration of Dragonfly Creek is identified in the Presidio Vegetation Management Plan (VMP) (National Park Service et al. 2001) and Presidio Trust Management Plan (PTMP) (Presidio Trust 2002).

The proposed project is primarily within the native plant community zone designated in the VMP and PTMP. A small area of the project boundary extends approximately 25 feet into the Historic Forest Zone, along 150 feet of the southern side of the project. This alignment will preserve and protect the existing stone-lined channels and features and historic trail alignment. Only trees within the Native Plant Community Zone, as described in the VMP, will be removed as part of the project. No trees within the Historic Forest Zone will be impacted by the project.

Completion of the proposed project is needed to implement mitigation measures for wetland impacts associated with the Undertaking. Dragonfly Creek is one of the primary wetland restoration sites identified and planned for under the wetland mitigation strategy for the Undertaking that is incorporated into the Final EIS/R. Wetland mitigation is required to occur prior to initiation of the Undertaking to the degree possible. The SFCTA will provide funding for the proposed project.

### **1.3 PROJECT COMPONENTS**

The proposed project will result in approximately 390 linear feet of additional channel length through day-lighting of buried channel, increased sinuosity of existing channels and creation of additional channel branches. The proposed project will also create and/or improve approximately 0.65 acres of floodplain and/or wetland habitat. Much of these gains will be derived from removing fill material and lowering the floodplain/wetland surface so that it is in much closer proximity to the groundwater table, creating seasonally and perennially saturated conditions that will sustain wetland and riparian plant communities.

The habitat restoration objectives, as defined in the Conceptual Wetland Restoration and Enhancement Mitigation Plan in the Final EIS/R for the Undertaking are:

- Restore, to the extent possible, natural stream morphology to the creek.
- Increase microtopographic complexity within the creek.

- Establish a compositionally and structurally complex ecosystem with attributes important to native fauna.
- Restore a native-dominated riparian plant community.
- Improve water quality.

The proposed project involves three phases: 1) creek channel, floodplain, and riparian corridor enhancements; 2) tree removal and revegetation of the site; 3) stream day-lighting of the creek from the drop inlet to Park Boulevard. The current proposed project analyzed as part of this study is comprised only of Phases 1 and 2. Phase 3 will occur in the future and is not associated with the Undertaking. Phases 1 and 2 are described below and are depicted in Figure 2 in Appendix A of this report.

### **1.3.1 Phase 1: Creek Channel, Floodplain and Riparian Corridor Enhancements**

Fill removal and grading will constitute the major components of Phase 1. As part of the project, the existing culvert underneath Schofield Road will be replaced by two prefabricated box culverts. The existing culturally significant resources, including the headwall, stone channel work, and historic alignment and surface of Schofield Road, will be protected and remain in place. Phase 1 consists of the following components:

- Excavate fill material along approximately 400 feet of creek corridor upstream of Schofield Road to widen and expand the floodplain and/or associated wet meadow habitat to a maximum depth of 6 feet below existing grade. No earthwork or disturbance is proposed upstream of this floodplain area in order to preserve existing willow riparian and wetland corridors. Earthwork will include removing and disposing of concrete building foundations that, based on historic aerial map research, are not contributing elements to the PNHLD, as well as considerable rubble, debris and tree stumps within the indicated area, dumped by the U.S. Army from other outside locations.
- Protect and preserve the existing stone headwall around the inlet of the culvert that captures and directs water flow under Schofield Road.
- Remove the remainder of non-historic buried culvert extending downstream of the stone headwall section and beneath Schofield Road, to expand and enhance floodplain and host new creek channels.
- Maintain a high-flow channel to the headwall and remnant culvert to preserve the function of this structure.
- Create new low-flow channel alignments in the expanded floodplain. Grade the channel and floodplain upstream of the stone headwall in a manner that maintains high flows through the headwall.
- Direct channels under Schofield Road through two prefabricated concrete box culverts, each up to 20 feet wide. There would be between 5 and 8 feet of vertical distance between culvert bottoms and road surface. The base of each culvert would be embedded into native soil. Low-flow channels would be free to pass through both culverts while the northern culvert would also accommodate the high-flow bypass directed through the remaining stone headwall and downstream day-lighted channel. Culvert headwalls would likely consist of either segmental block wall or prefabricated wing walls.

- Excavate and grade the south bank downstream of Schofield Road to a maximum depth of 7 feet below existing grade in order to expand the floodplain.
- Protect existing riparian vegetation on the north bank downstream of Schofield Road.
- Maintain the historic alignment, roadbed elevation and road surface of Schofield Road.
- Protect and preserve the surrounding concrete/stone drainage structures in the project area.
- Maintain a 4- to 6-foot wide trail alignment adjacent to the existing stone drainage ditch bordering the south-central portion of the site, consistent with the Trust's Bikeways and Trails Master Plan.
- Establish construction equipment access routes to the site via Park Blvd. to Schofield Road, if feasible. If other construction activities preclude this route, access will occur from Lincoln Blvd to the existing dirt access road under Highway 1. Construction staging for this phase will be restricted to the two areas indicated in Figure 2.

### **1.3.2 Phase 2: Tree Removal and Additional Restoration**

After grading, extensive erosion control measures will be put in place. Nonnative tree removal and native vegetation planting constitute the major components of Phase 2. These components are described below.

- In areas where grading was minimal or where no grading was needed, the remaining nonnative vegetation will be removed. The newly created and stabilized site will be planted with approximately 15,000 native plants planted in holes between 2 inches and 18 inches deep. Freshwater wetland vegetation will grade into an arroyo willow community on the lowest parts of the slope and, as the slope rises away from the swale, into a coast live oak riparian community. In some areas the oaks will grade directly into the adjacent forest. In areas where sandy soil is exposed and the groundwater is not close to the surface a coastal scrub community will be planted.
- Removal of an estimated 35 nonnative trees, mostly eucalyptus, and other nonnative vegetation from within the remaining Native Plant Community Zone area (between Schofield Road and Highway 1). No major grading is planned in this area. Revegetation will focus on willow riparian, riparian scrub, and riparian forest/woodland habitats. If permitted, some eucalyptus tree trunks may be reused on-site as instream structure (or other uses) within the project area.
- Crane-assisted tree felling will be performed for all trees. The crane allows for sectional removal to safely lower sections of the tree and limbs. The crane-assisted removal is the safest way to ensure maximum protection when working within close proximity to the stone- and concrete-lined channels and headwall. This method will ensure that limbs do not fall on the channels and headwall. The tree removal contractor will review the strategy and techniques for tree felling with the Department's Arborist for trees in close proximity to the stone/rock-lined channel and headwall.
- Stump grinding will be the preferred method for treating stumps. Stump grinding will apply to all trees removed except for two trees that are directly adjacent to the stone/concrete-lined channels. Chips generated from stump grinding operations shall be contained and removed from the work area. No stump excavation will be allowed.

- Stump wrapping will be the choice for treating the two trees in close proximity to the stone/concrete-lined channels. These stumps will be cut close to the ground (3-6") and wrapped in black plastic in order to encourage decomposition. The Contractor's and Department's arborist will collaborate in consultation with the Trust's arborist to decide whether herbicidal treatment of the stumps is required. Stumps in close proximity to the stone/rock-lined channel and headwall will be left in place.

#### **1.4 ALTERNATIVES CONSIDERED**

A no-action alternative was considered but rejected because the proposed project is identified in the VMP and PTMP. The proposed project will add ecological value to the area.

An alternative that would remove the culvert and headwall above Schofield Road and restore the creek to that side of the drainage was considered but rejected due to the historic nature of the headwall and the desire to preserve it as part of the history of water use in the area.

An alternative that would create a larger wetland by removing the concrete culvert in the lower end of the creek was considered but rejected. Preserving the historic concrete channel will allow the area to be used to relate to the public the history of water use in the area.

An alternative that would extend the riparian area to the walking bridge past the palm trees (outside of the current project APE) was considered but rejected because this area falls within the historic ornamental landscape zone of the VMP.

This alternative is the selected alternative. It limits the project to Phases 1 and 2 only and provides for protection of the historic-period drainage features in the project area so that no historic resources would be adversely affected. This alternative would provide a lesser degree of enhancement of Dragonfly Creek, and would not fully implement the VMP for this area. However, Phase 3 will be constructed at a later date and will not be associated with the proposed project. Phase 3 will also protect historic-period drainage features.

## **SECTION 2: FOCUSED AREA OF POTENTIAL EFFECTS**

The APE for the project was established in consultation with Caltrans District 4, and Presidio Trust Natural Resources Department staff. The cultural resources Treatment Oversight Panel, created for the Undertaking, was also consulted in compliance with the PA. This APE is a focused APE because the proposed project does not have the potential to cause indirect effects to adjacent buildings (i.e. visual, auditory, vibratory effects). The proposed project is designed to restore lower Dragonfly Creek to a degree that more closely resembles its historic appearance, and retains and protects historic features in the focused APE. Therefore, changing the visual aspects of the proposed project does not have the potential to affect adjacent properties. The APE is shown in Figure 2.

The APE follows the maximum possible area of construction-related effects resulting from the proposed project, including all new construction, easements, and staging areas. The western terminus of the direct APE is located just east of two historic-period palm trees straddling Dragonfly Creek. From this point the northern boundary of the APE follows a northeasterly line, skirting the southern edge of Appleton Street, Storey Road, and Rod Road. The northern boundary ends just west of Highway 1, marking the eastern extremity of the APE. The eastern boundary of the APE parallels the western edge of Highway 1 and is located 75 feet west of the

highway (measured from Highway 1 bent #5), ending on the south side of Schofield Road and the stone-lined curb that bounds the historic forest zone. At this point the APE swings westward approximately 400 feet, cuts northwest across a recreation trail, and continues southwest along the northern boundary of the trail. The APE then turns northwestward crossing east of the historic palm trees to join the northwest corner of the APE.

The vertical APE will extend no deeper than 7 feet below existing grade in selected areas. Fill material along approximately 400 feet of creek corridor upstream of Schofield Road will be excavated to widen and expand the floodplain and associated wet meadow habitat to a maximum depth of 6 feet below existing grade. The south bank downstream of Schofield Road will be excavated and graded to a maximum depth of 7 feet below existing grade in order to expand the floodplain.

### **SECTION 3: REGULATORY FRAMEWORK**

#### **3.1 SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT**

The Undertaking will be assisted in part by the FHWA and is therefore considered a federal undertaking for purposes of environmental compliance under the National Environmental Policy Act (NEPA) and Section 106 of the NHPA. Section 106 of the NHPA requires that, before beginning any federal undertaking (of which the Dragonfly Creek Restoration Project is a part), a federal agency must take into account the effects of the undertaking on historic properties and afford the Advisory Council on Historic Preservation (ACHP) and other interested parties an opportunity to comment on these actions. Specific regulations regarding compliance with Section 106 state that, although the tasks necessary to comply with Section 106 may be delegated to others, the federal agency (in this case, the FHWA) is ultimately responsible for ensuring that the Section 106 process is completed according to statute. The Section 106 process has four basic steps:

1. Identify and evaluate historic properties.
2. Assess adverse effects of the project on historic properties.
3. Resolve any adverse effects of the project on historic properties in consultation with the SHPO, Tribal Historic Preservation Officer, and other interested parties, resulting in a memorandum of agreement (MOA).
4. Proceed in accordance with the MOA.

#### **3.2 CALIFORNIA ENVIRONMENTAL QUALITY ACT**

Because the project is funded by a public agency, CEQA requires the SFCTA to assess the effects of the project on cultural resources. Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance. Under CEQA, an impact on a cultural resource is considered significant if a project would result in an effect that may change the significance of the resource (Pub. Res. Code Section 21084.1).

Demolition, replacement, substantial alteration, and relocation of historic properties are actions that would change the significance of a historic resource. Before the level of significance of impacts can be determined and appropriate mitigation measures developed, the significance of

cultural resources must be determined. The following steps normally are taken in a cultural resources investigation to comply with CEQA:

1. Identify cultural resources.
2. Evaluate the significance of the cultural resources.
3. Evaluate the effects of a project on all cultural resources.
4. Develop and implement measures to mitigate the effects of the project on significant cultural resources.

## **SECTION 4: SIGNIFICANCE CRITERIA**

### **4.1 NATIONAL HISTORIC LANDMARK SIGNIFICANCE**

The Presidio was recognized as a National Historic Landmark in 1962 for its important role in the colonial and military history of the American West. The Presidio was found to be significant under criteria A, C, and D. Properties that contribute to the PNHL include buildings, structures, landscape features, objects, and historic archaeological sites. The period of significance for the PNHL is 1775–1945. Additionally, Criterion Consideration G (less than 50 years) has since been found applicable to the Presidio, and it is considered significant as the location for the 1951 signings of the Australia, New Zealand, United States Security Treaty and the Joint Security Pact between the U.S. and Japan (Alley et al. 1993).

In 2008 the Presidio Trust completed an update to the 1993 PNHL document (Alley et al. 1993) focusing on post-1945 resources that may have become eligible. The 2008 PNHL Update (Sucre, et al. 2008) did identify a number of buildings that are eligible for listing on the National Register, and recommended that the period of significance for the PNHL be expanded to 1776–1958. The 2008 PNHL Update is currently under review by the National Park Service and is considered a “draft” document. The Presidio Trust, is treating the newly-eligible historic properties as contributors to the PNHL, but the period of significance remains 1776-1945 while the update is under review. None of these newly eligible historic properties are within the focused APE for the Dragonfly Creek project.

Four broad research domains identified in the PNHL nomination should be considered when determining whether historic archaeological sites and features contribute to the landmark. These four research domains are integrated with the specific research objectives developed in this document for archaeological property types anticipated in the Undertaking APE. These include:

- Physical layout and design/functional intent.
- Construction techniques and individual building design/function.
- Social and economic history.
- Technological history.

## 4.2 NATIONAL REGISTER OF HISTORIC PLACES CRITERIA

Based on background research conducted to date, only two property types are likely to be encountered in the APE that are not specifically designated as contributing to the NHL. These property types are prehistoric archaeological sites and historic archaeological resources that are not related to the historic military themes for which the Presidio has been determined significant. These resources would need to be evaluated against the NRHP criteria, which define significant resources as properties that embody those qualities of significance in American history, architecture, archaeology, engineering, and culture. Those qualities are present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association; and that:

- A. Are associated with events that have made a significant contribution to the broad patterns of our history.
- B. Are associated with the lives of persons significant in our past.
- C. Embody the distinctive characteristics of a type, period, or method of construction; or that represent the work of a master; or that possess high artistic values; or that represent a significant and distinguishable entity whose components may lack individual distinction.

or

- D. Have yielded or may be likely to yield information important in prehistory or history.

As specified by the PA, the identification, evaluation, and mitigation programs developed for the Undertaking are presented in the Archaeological Treatment Plan (ICF Jones & Stokes 2009) and the Built Environment Treatment Plan (California Department of Transportation 2009). The overall approach presumes that resources not specifically identified as contributing resources to the PNHL but identified during research, fieldwork, and monitoring for the Undertaking are likely to be found to be contributing resources to the PNHL. Other documents being prepared as cultural resources mitigation for the Undertaking (the Historic American Landscape Survey and the Cultural Landscape Study) are based on the presumption that any resource from the period of significance that retains its integrity will be considered a contributing resource to the PNHL.

## 4.3 CALIFORNIA REGISTER OF HISTORICAL RESOURCES CRITERIA

CEQA states that if a project results in adverse effects on significant cultural resources, alternative plans or mitigation measures must be considered. The State CEQA Guidelines define a significant historical resource as a resource listed or eligible for listing on the California Register of Historical Resources (CRHR) (PRC 5024.1). A historical resource may be eligible for inclusion in the CRHR if it meets any of these criteria:

- It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- It is associated with the lives of persons important in our past.
- It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
- It has yielded, or may be likely to yield, information important in prehistory or history.

## **SECTION 5: CONSULTATION**

On June 2, 2009, ICF Jones & Stokes mailed letters to the Native American signatories of the PA. The letters included project maps and a general description of the proposed project. The letter requested direct communication about cultural resources information and project concerns. Follow-up telephone calls were placed on June 11, 2009. No responses to the letters or phone calls have been received to date. All items of correspondence with Native Americans are presented in the Archaeological Survey Report for the proposed project (ICF Jones & Stokes 2009).

On June 2, 2009, ICF Jones & Stokes sent letters to the Presidio Historical Association and San Francisco Architectural Heritage (Appendix B), both participants in the Cultural Resources PA for the Undertaking. The letter included a project map and described the proposed project. A request was made to each organization asking for any information on potential cultural resources in the project area. Follow-up phone calls were made on June 10, 2009. To date, neither organization has responded.

## **SECTION 6: RESEARCH METHODS**

ICF Jones & Stokes performed on-site fieldwork to inspect and record resources in the APE, and background and resource-specific research at the National Park Archive and Presidio Trust library. Archival research for pertinent information on historic sites in and adjacent to the APE was conducted with the assistance of the National Park Presidio archivist Amanda Williford and Presidio Trust librarian Barbara Janis.

The National Park Presidio Archives contained a variety of historic materials that helped to shed light on the development of infrastructure at Fort Scott. Historic maps, historic and aerial photographs, and U.S. Army reports and correspondence regarding improvements to Fort Scott were particularly helpful. Difficulty in accessing unprocessed collections at the Presidio Archives prevented a comprehensive examination of all of its materials that may be pertinent to the proposed project. No specific information about Dragonfly Creek was located, but historic infrastructure maps and annual expenditure reports helped to inform periods of development within the project vicinity. The cut/fill model developed by GIS specialists and archaeology staff from the Presidio Trust and NPS provided useful information about the locations of the army's grading activities in the project APE.

Barbara Janis, the Presidio Trust Librarian, provided useful reports pertaining to Fort Scott, including copies of U.S. Army reports obtained from the National Archives in Washington, D.C., and cultural resources studies completed for the Presidio. Of particular use was the Cultural Landscape Report of the Fort Scott area (Presidio Trust and SMWM 2008). Presidio planning documents provided background information regarding the natural environment as well as future planned actions in the project vicinity.

## SECTION 7: FIELD METHODS

ICF Jones & Stokes surveyed the APE on June 26, 2009. ICF Jones & Stokes archaeologists Karen Crawford and Michelle Jerman and architectural historian Edward Yarbrough performed the formal recordation of properties with digital photographs and handwritten notes. Ms. Crawford and Ms. Jerman meet the Secretary of the Interior's Professional Qualification Standards for Archaeologist and Mr. Yarbrough meets the Secretary of the Interior's Professional Qualification Standards for Architectural Historian.

## SECTION 8: HISTORICAL OVERVIEW

The study area for the project is located on approximately 4 acres within the Fort Winfield Scott portion of the Presidio. The area known today as Dragonfly Creek served as a recreational area for officers and noncommissioned officers at the fort, and geographically separated the officers residences south of the creek from the noncommissioned officers residences north of the creek. The creek also supplied water to Fort Scott and the Main Post.

The following overview begins with a general discussion of the Presidio's early development and setting during the Spanish Period up to the period of Nationalist Expansion, during which Fort Scott was established. Emphasis is placed on the establishment and growth of Fort Scott through World War II, and its associated activities and development within the APE. The overview concludes with a discussion of the post-World War II decline of the fort, and the closing and transfer of the Presidio of San Francisco to the NPS in 1994. The time periods into which the context is organized is based on those defines in the 1993 PNHL Update (Alley et al. 1993).

This historic context is condensed from *Fort Scott: A Cultural Landscape Assessment* (Presidio Trust and SMWM 2008). Parenthetical citations indicate information from additional sources. It should be noted that while the name Dragonfly Creek is used throughout this report, the area known today as Dragonfly Creek remained unnamed during the Spanish and Mexican periods. It remained an unnamed watershed during the Army's occupation of the Presidio but may have been generally known as "Fort Scott Creek". Usage of the name "Dragonfly Creek" began around 2005 when Presidio Trust Natural Resources Department staff began using this name to describe the restoration project site.

### 8.1 SPANISH-MEXICAN SETTLEMENT (1776–1846)

In the late eighteenth century, the Spanish expanded their empire northward from Mexico and Baja (lower) California into Alta (northern) California. In 1769, during the expedition that established a presidio at Monterey, Gaspar de Portola traveled north to the San Francisco Bay. Portola was followed by Juan Bautista de Anza, who in 1774 established a land route from Mexico to California. Then in 1776, Anza led 240 people over this route from Tubac, Mexico, to San Francisco, in order to establish a permanent settlement. Three thousand varas of land were set aside for the Presidio de San Francisco, and the Presidio was constructed during July 1776. In 1793–94, the Castillo de San Juan was built on the bluff overlooking the Golden Gate for the purpose of guarding the entry to the bay. The shift from Spanish to Mexican control in 1820 had little effect on the Presidio de San Francisco, and news of the transfer did not reach the Presidio

until over a year later. The primary difference between these two periods was that, while the Castillo was intermittently manned by the Spanish from 1794 to 1820, it was essentially abandoned during the Mexican Period (from 1820–1846) (NPS 1999 Ch. 2:4).

During this period only two clusters of buildings existed within the boundaries of the present-day Presidio: the Castillo and the Presidio proper, located where the Main Post stands today. The land that would eventually be Fort Scott sloped toward the northern bluffs of the San Francisco peninsula. The water features in the Fort Scott watershed drained to the east and included seeps or springs that fed Dragonfly Creek. The water features remained unaltered during this period, although they may have been utilized by livestock that grazed on Presidio lands.

## **8.2 EARLY UNITED STATES OCCUPATION (1846–1860)**

In 1846 the United States took control of California from Mexico, and in March 1847, troops from the United States army arrived at the deserted Presidio. The United States, just like the Spanish, recognized the importance of the San Francisco Bay and harbor in maintaining its control over California.

The Joint Board of Military Engineers and Naval Officers (of the Pacific Coast), established by Congress in 1849 to review the conditions along the Pacific Coast and to make recommendations for its defense, recommended in its final report that fortifications be built at Fort Point, Lime Point, and Alcatraz to protect the Golden Gate. The construction of Fort Point, begun in 1853 at the location of the Spanish-era Castillo, was considered central to the protection of the San Francisco Bay and harbor, which in turn was the key to the protection of the entire Pacific coast (Thompson 1979:10–12; NPS 1999 Ch. 2:9).

During this period, no structures are known to have existed in the vicinity of the project APE and the Dragonfly Creek watershed remained unchanged. It is possible that grazing and tree cutting (in riparian areas where trees are known to have grown) resulted in the continued removal of native vegetation cover in the area. By 1857, an observer described the western portion of the Presidio as “a wide area...covered by loose, dry sea sand” (NPS and CLA 1993 Pt. 5:1).

## **8.3 CIVIL WAR ERA (1861–1865)**

During the Civil War, protecting San Francisco’s bay and harbor and the navy yard and military arsenal at Benicia was considered critical to protecting the country’s commerce in the Pacific. The physical alterations to Fort Scott were limited to an increase of the number of cannon at Fort Point from 59 to 85. This action was a response to “the fear of a British move to seize California while the United States was preoccupied with the war in the east” (NPS 1999 Ch. 2:11–12). There are no known changes to the project area during this period.

## **8.4 INDIAN AND MILITARY AFFAIRS (1866–1890)**

The expansion of the seacoast fortifications system at Fort Scott and the initial plantings of the Presidio forest, both of which began during this period, resulted in major changes to the landscape that are still evident to this day. This section focuses on the development of the Presidio forest and the resulting changes to the project area.

The large-scale planting project that came to be known as the Presidio forest was one of several similar projects being implemented in San Francisco. During the late nineteenth century, a number of large planting projects resulted in the transformation to forests of large areas of

sand dunes and bare hillsides in the western part of the city. The Presidio forest, Golden Gate Park, the Sutro Forest, and Stern Grove are all examples of these efforts.

By the 1870s the Army was being criticized by San Franciscans for the bleak appearance of the Presidio. In partial response to this sentiment, the army initiated a number of projects in the 1870s and 1880s that included the construction of new buildings, roads, fences, gates, and the introduction of more ornamental landscaping. The planting of the Presidio forest was the most ambitious of these projects (NPS 1993 Section 8:27-28).

In 1883, Major William Jones, a member of the U.S. Army Corps of Engineers, developed a plan for the cultivation of trees on the Presidio. Jones' goals were to stabilize the dunes on the Presidio, provide protection from the prevailing onshore ocean winds that blew across the Presidio, to improve the appearance of the Presidio in the eyes of San Franciscans, and to create a visual boundary between the Presidio and San Francisco. Jones' plan included the fencing off of newly planted trees to protect them from free-roaming grazing cattle, and specifying the species of trees to be planted and how far apart to plant them. Trees were to be planted in irregular groupings that followed the contours of topography.

The earliest record of trees being planted on the Presidio was in 1886. Planting began in earnest following an 1889 appropriation by Congress and by 1892 more than 300,000 trees had been planted. While the majority of the Presidio remained open and undeveloped during this period, the stands of trees became prominent physical features in the landscape as they grew and matured.

William Hammond Hall, on his 1871 survey map of the Presidio, labeled a large area north of Dragonfly Creek as "Drifting Sands." The Presidio forest tree planting helped stabilize this area and became a major feature of the landscape. Dragonfly Creek is also depicted on the map but is not named or labeled. Wheeler's 1870 map of the Presidio (Wheeler 1870) depicts a water pipe connecting a spring at Dragonfly Creek to two buildings (labeled "Officers' Quarters" on Hall's 1871 survey map).

## **8.5 NATIONALISTIC EXPANSION (1891–1914)**

By the 1890s, the country, had survived a civil war and conquered the frontier West. The U.S. sought to forge a national identity that included an expanded place among world powers. There was an increased emphasis on the nation's military power, and the improvement of military facilities, for both practical and symbolic purposes, was undertaken nationwide (NPS 1993 Section 8:34).

During this period, the area that came to be Fort Scott was dramatically transformed. The modernization and expansion of the seacoast fortifications and the related construction at Fort Scott resulted in new topographic features, building clusters, and roads. As the Presidio forest's trees continued to grow, their presence in the landscape became more pronounced.

In 1885, the Endicott Board was established by President Grover Cleveland to make recommendations for the future of the nation's seacoast defense system. The board ranked the importance of the defense of San Francisco's harbor second only to that of New York's. The board developed a plan to modernize San Francisco's seacoast fortifications over the next 15 years. The western portion of the Presidio was situated so that coast artillery could defend both the Pacific coast on the west and the Golden Gate, the entrance to San Francisco Bay. Of the 30 Endicott batteries constructed as part of the San Francisco seacoast fortification system, 15 were placed at Fort Scott.

The construction of Fort Scott resulted from the need to accommodate coast artillery companies. The new batteries were 1.5 miles west of the Presidio Main Post and facilities there were becoming overcrowded. In 1901, the Coast Artillery Corps was established as a separate arm of the service to support the strategic defense system. In 1902, a barracks (No. 682) was built on a hill overlooking the Cavalry Stables area and two officer's quarters were built on the east end of the newly constructed Kobbe Avenue (Nos. 1302 and 1304). In 1906 the War Department decided the new post would be established (Thompson 1997:361). Fort Scott was established as an independent post, separate from the Presidio of San Francisco, on June 19, 1912.

By 1910 the layout of the Parade Ground was established and any unnamed secondary roads were given names (Storey Avenue, for example). Construction continued for three years and consisted of four functional clusters: The barracks and administrative buildings centered around the Parade Ground; the officers' quarters along Kobbe Avenue (constructed between 1902–1912); the noncommissioned officers quarters along Storey and Ruckman Avenues (Nos. 1261, 1262, 1265, 1268, 1272, 1273, 1274 constructed between 1909–1912); and the officers recreational area located along Dragonfly Creek north of Kobbe Avenue. While the buildings located around the Parade Ground were built in the Mission Revival style, the officers quarters and noncommissioned officers quarters were constructed using standard Army plans.

The plan for the new post called for the ravine along Dragonfly Creek to remain largely undeveloped to provide a buffer between the officers' quarters and Parade Ground and the noncommissioned officers' quarters. The trees along the southern side of Dragonfly Creek served as wind protection and privacy for the officers' quarters along Kobbe Avenue. The west end of the ravine was cleared and plans were made to develop the area into a recreational area for the officers. The plans included an officers' club, a tennis court, a bandstand, and a raised boardwalk that spanned Dragonfly Creek, connecting Kobbe Avenue to Upton Avenue (this boardwalk was located in the same vicinity as the stone and concrete walkway that exists today). All of these features, save the officers quarters (which would not be built until 1921), appear on a 1917 map of the post (U.S. Army 1917).

Tree planting at the Presidio continued during this period and by 1902, trees covered 420 acres (Thompson 1997:186). After 1910, portions of the Presidio forest were removed to make way for development. This occurred at Fort Scott during the 1910s when trees were removed to open areas for the construction of the Parade ground and along Kobbe, Storey, and Ruckman Avenues for housing and, again in 1941, south of Appleton Avenue for a group of warehouses.

By 1909, two different water sources were being utilized at Fort Scott. Maps from 1870 and 1903 depict a pipeline running from Dragonfly Creek to a storage reservoir north of Battery Howe-Wagner, and from there to officer quarters located north of Lincoln Boulevard on the bluffs overlooking the marsh (now Crissy Field). By 1909, the reservoir received its water from a source to the south rather than from Dragonfly Creek. Water from Dragonfly Creek then traveled via pipeline to the Main Post area. In the January 1910 post plan the water source is labeled as a well. There was a pipeline from the well to a storage reservoir located just north of Kobbe Avenue in the vicinity of the then-proposed tennis courts. A windmill, located west of the reservoir, provided power to pump the water from the well. A second pipeline ran from the well to the northeast toward the cemetery. A rectangular area around the water system at Dragonfly Creek is depicted as cleared of trees (U.S. Army 1909 and 1910).

## 8.6 WORLD WAR I (1915–1918)

As part of the war effort, artillery were removed from older armaments throughout San Francisco's seacoast fortification system (NPS 1997 Ch 2:22). The spatial organization at Fort Scott remained the same, with the exception of the construction of buildings for two new cantonments, later demolished shortly after the war. No changes to the Dragonfly Creek watershed area appear to have occurred during this period.

## 8.7 MILITARY AFFAIRS BETWEEN WORLD WARS (1919-1940)

During the years between the two world wars there were both large and small scale changes to the landscape of Fort Scott. The construction of the Golden Gate Bridge in the 1930s added major structures to the Fort Scott landscape. The Works Progress Administration (WPA) provided funding for small-scale projects that were designed to improve the appearance and image of the post.

The construction of the Golden Gate Bridge and the viaducts for Doyle Drive (U.S. Highway 101) and Park Presidio Boulevard (State Highway 1) introduced new structures into the landscape at Fort Scott, resulting in the destruction of some batteries, and the alteration of circulation patterns and views. In the Dragonfly Creek area, the construction of Park Presidio viaduct essentially separated Fort Scott from the rest of the Presidio to the east and cut off views to the Bay.

More directly related to the project area, the Works Progress Administration (WPA) undertook a wide range of projects on the Presidio. The WPA was a New Deal program developed to provide work to the urban unemployed and operated from 1935–1943. The WPA provided funding to high-profile projects (largely improvements to parks and recreation facilities) and utilized local labor and materials. WPA projects were also used to complete construction of utility features for the new Golden Gate Bridge.

The Army sponsored a wide range of WPA projects at Fort Scott from 1935–1939. Work included remodeling barracks, the construction of a log cabin and circular bandstand, leveling the lower half of the Parade Ground, widening Lincoln Boulevard, and performing work on secondary roads. In 1938 and 1939, WPA projects at Fort Scott included renovations to barracks and quarters, road repairs, construction of stone walls and gutters, construction of concrete walks and stairs at the Officer Quarters area on Kobbe Avenue and around the Officers Club, and various small landscaping and gardening projects.

During this period, the noncommissioned officers' quarters were expanded along Storey Avenue. In 1921, three new quarters (Nos. 1263, 1266, and 1270) were constructed on the northeast side of the street, facing the existing quarters that had been built in 1909–1910. Additionally, the community and recreational facilities were expanded, and much of the work was associated with WPA projects. The Officer Recreation Center (No. 1331, built in 1921) north of Kobbe Avenue appears to have been expanded from 1935–1936, and a glass porch was added as part of a WPA project in the late 1930s. By 1934 there was a tennis court for noncommissioned officers constructed southwest of the quarters (No. 1261) at the east end of Storey Avenue, just north of Dragonfly Creek. Rod Road, an unpaved service road, was extant by 1934 and was located behind noncommissioned officers' quarters (Nos. 1263, 1266, and 1270) on the northeast side of Storey Avenue. The road provided access to the garages behind these quarters. A service Road, named Appleton Street, was laid out behind the quarters on the southwest side of Story Avenue. The 1993 PNHL Update states this road was built in 1941.

During 1938 and 1939, the WPA built a number of hardscape features at Fort Scott, enhancing pedestrian circulation at the post. Rubble masonry walls were built along Kobbe Avenue, around the parking lot and along the steps north of Kobbe Avenue, at the Officers Club parking lot, and in other areas of Fort Scott. WPA records do not mention the construction of stone walls and paths around the tennis courts, the construction of stone walls, walk, and stairs, or the construction of the stone bridge that spans Dragonfly Creek. However, their appearance is the same as the other stone features that were built by the WPA and it is possible that these features were constructed by the WPA. The construction of concrete retaining walls is mentioned as part of WPA projects at Fort Scott, and the Army took advantage of WPA funding to make general repairs to ditches, culverts, gutters and catch basins; however, the locations of these improvements were not identified in the WPA records (WPA 1938–1940).

## **8.8 WORLD WAR II (1941–1945)**

By World War II, the Endicott-era batteries were becoming obsolete, particularly after the U.S. victory at the Battle of Midway in 1942, after which the threat of a Japanese invasion from the west faded (Thompson 1997:413). At Fort Scott, all but Battery Chamberlain remained armed; the rest of the battery guns were salvaged for wartime scrap. The addition of new buildings to the post during World War II served to infill open areas that had previously provided separation between the Parade Ground and residential neighborhoods. The new warehouse area south of Appleton Street and along Upton Avenue resulted in the blending of the noncommissioned officers quarters and the service areas east of the Parade Ground. The addition of pavement and loss of trees served to open up the area north of Dragonfly Creek along Storey Avenue and Appleton Street. The sloping grade in the area south of Appleton Street was leveled to form three terraces to create sites for the new warehouses built in 1941 (Nos. 1241, 1242, 1243, 1244). Four multi-car garages (Nos. 1246, 1247, 1248, 1250) were built on the south side of Appleton Street for use by noncommissioned officers along Lower Storey and Ruckman Avenues. A new double tennis court was built in 1943 to replace the existing court east of the Officers Club.

## **8.9 POST-1945 ERA**

The advent of missiles made the batteries obsolete. By 1950, all of the weapons had been removed from the batteries in San Francisco's seacoast fortification system. The disarmed batteries were either abandoned or reused for other functions. The Coast Artillery Corps disappeared as a separate arm of the military in 1950 as well. In 1956, Fort Scott lost its status as an independent post and once again became part of the Presidio (NPS 2006). After 200 years of being an active military installation, the Presidio was placed on the base closure list as part of the 1989 Base Realignment and Closure Act. In October 1994, the Army lowered its flag for the last time and the Presidio was transferred to the NPS and became part of the Golden Gate National Recreation Area. Since 1996, the Presidio Trust has managed the Presidio's interior lands, known as Area B. This area includes Fort Scott and the Dragonfly Creek watershed.

## SECTION 9: DESCRIPTION OF CULTURAL RESOURCES

In accordance with Caltrans guidelines for inventorying architectural properties, and in accordance with the significance criteria developed for the PNHLD, ICF Jones & Stokes evaluated the built environment resources in the APE that fall within the PNHLD period of historical significance (1776–1945). The survey population in the APE for the Dragonfly Creek Restoration project is composed of landscape features and engineering features associated with the Dragonfly Creek portion of Fort Scott in the Presidio of San Francisco.

The focused APE for the project contains two resources, one of which was previously listed as a contributing resource to the PNHLD (No. 2159 Schofield Road). The other resource was recorded and evaluated as a result of this study (drainage features of Lower Dragonfly Creek).

### 9.1 CONTRIBUTING RESOURCES

#### 9.1.1 FWS: No. 2159 Schofield Road

Schofield Road was constructed sometime around 1920. It is one of 41 roads listed as contributing resources to the PNHLD in the 1993 NHL update (Alley et al. 1993). The dating of road corridors in the PNHLD was based primarily on historic maps because exact dates of construction are largely unavailable (Alley et al. 1993). It is possible that Storey Road was built to connect the service roads north of Dragonfly Creek, called Appleton Street and Rod Road, to the southern area of Fort Scott. During World War II, when warehouses were built north of Dragonfly Creek, Schofield Road likely provided access to these warehouses while bypassing the residential streets in the vicinity. The 1993 NHL documentation for the Presidio did not consider the integrity of each road, road alignment, surface, or related feature, it simply listed the roads as contributors. As with most of the roads throughout the PNHLD, their significance as contributors to the PNHLD is their historic alignment rather than their material characteristics.

#### 9.1.2 Drainage Features of Lower Dragonfly Creek

This resource is a set of features situated in the eastern portion of the APE from a drainage inlet 85 feet west of Schofield Road to a concrete drainage inlet 80 feet west of Highway 1 (Figure 3 in Appendix A of this report). The resource consists of the following drainage features of lower Dragonfly Creek: main and ancillary drainage channels, two drainage inlets, two drainage outlets, one culvert, and a concrete drainage channel with rubble and mortar segments. The stone in those features containing stone material is composed of blocky cobbles of fine-grained material, which appears to be basalt. In general, the cobbles measure approximately 9 inches by 12 inches by 6 inches in size. The features are described below.

- **Feature 1: Concrete Drainage Inlet:** Feature 1 is a chamfered, two-walled concrete drainage inlet structure on the east end of the Dragonfly Creek project area. The inlet structure is composed of board and dam molded concrete. The walls are placed at a 45-degree angle. Along the top edge and approximately 10 inches below the top of each face, each wing wall is chamfered at a 45-degree angle. The main wall measures 109.5 inches across the top and 105 inches across the base, although accumulated silt obscures the base of the inlet structure. The inlet opening in this wall measures 44 inches high by 22 inches wide and is partially covered by a 36-inch-wide metal grate with vertical elements spaced 1 inch apart. The northern wing wall measures 96.5 inches

along the top edge and 92 inches across the bottom. The ends of the two walls measure 115 inches apart. Dragonfly Creek flows into this inlet structure, which is earthen-covered, and is piped northeast (outside of the APE) under Highway 1 and Lincoln Boulevard.

- **Feature 2: Stone Masonry-Lined Drainage Channel:** Feature 2 is a stone and mortar-lined drainage channel. Large portions of the channel are covered in silt. The channel measures approximately 44 inches across. The depth of the channel is obscured by accumulated silt. Where this silt was removed during field investigation, the bottom of the channel is lined with stone rubble resembling fine-grained basalt. Broad mortar matrix is tooled beyond the joint over portions of the rubble faces. The channel walls measure approximately 12 inches to 12.75 inches wide. The exposed portion of the channel walls are approximately 16 inches deep. The channel begins at the inlet structure (Feature 1) and extends approximately 90 feet up the drainage. Past this point, vegetation and silt obscure the channel to such a degree that, if it exists, it cannot be observed.
- **Feature 3: Stone Masonry and Corrugated Metal Drainage Outlet:** Feature 3 is a drainage outlet consisting of a corrugated and galvanized metal pipe fully encased by stone masonry. The pipe measures 11 inches in diameter and is fully encased by one course of 9-inch-thick stone cobbles and mortar. The drainage outlet is located just north of Schofield Road and drains 89 feet downslope via a concrete and stone-lined drainage channel.
- **Feature 4: Concrete and Stone-Lined Drainage Channel:** Feature 4 is a concrete and stone-lined drainage channel that connects Feature 3 to Feature 2. The channel flows at an angle of 160 degrees into the Feature 2 drainage. This point is 29 feet west of Feature 1. This drainage channel is formed of concrete walls that are 4 inches to 6 inches thick and 7 inches high. The width of the channel is 14 inches wide just below the drainage outlet and runs down slope, tapering to 10 inches wide near the end of the channel. Just before this channel connects to the main drainage channel of Dragonfly Creek, it expands to 22 inches in width. The entire length of the channel is 89 feet. The floor of the drainage channel is constructed of a single course of stone masonry.
- **Feature 5: Stone Masonry and Terra Cotta Pipe Drainage Outlet and Catchment Basin:** Feature 5 is a drainage outlet and catchment basin. The drainage outlet is constructed of a terra cotta pipe, 24 inches in diameter, surrounded by one course of mortared 9-inch-thick cobble. The top and sides of the pipe are surrounded by 14 cobbles, and the cobbles connect to the top of a catchment basin wall. The keystone cobble is broken and the front half if it is missing. The mortar and cobbles around the northern half of the pipe have pulled away from the pipe approximately 3 inches. A patch of mortar is located at the top of the drainage outlet with the inscription "Patrick" and an undecipherable date below the name.

The catchment basin is constructed of four courses of stone and mortar. It is rectangular in shape with its north end remaining open to allow water flow into Dragonfly Creek via a stone masonry-lined channel. The catchment basin is 46 inches wide at the end supporting the drainage outlet pipe. The two sides of the catchment basin extend 52 inches from the drainage outlet where it meets a stone masonry drainage channel. The catchment basin is 25 inches deep. The stone masonry channel is 9 feet long and connects the catchment basin with the main drainage channel of Dragonfly Creek. Silt and vegetation have obscured the channel. Closer inspection of the channel indicates it is intact.

- **Feature 6: Stone Masonry Inlet:** Feature 6 is a two-walled stone masonry drainage inlet and galvanized metal corrugated pipe drainage inlet located 85 feet west of Schofield Road. The two walls are constructed of six visible, vertically stacked courses of stone masonry placed at a 90-degree angle and centered across Dragonfly Creek. Silt obscures the base of the drainage inlet. The northern wall is 34 inches long and 22 inches in height and the southern wall is 32 inches long and 28 inches in height. The ends of the two walls measure 47 inches apart. The pipe is 20 inches in diameter and is set at the point where the walls meet. The drainage floor in front of the culvert is stone-lined for approximately 24 inches; a large amount of silt obscures the drainage and it is possible the stones extend farther upstream from this point.
- **Feature 7: Concrete Drainage Channel with Rubble Masonry Segments:** Feature 7 is an open rubble-and-mortar drainage channel located on the south edge of the project APE. The channel runs along the base of a slope and parallels the south side of a recreational trail. A 260-foot-long segment of this channel lies within the APE; both ends of the segment extend outside of the APE. The channel is constructed of mortared, broken concrete pieces that appear to be recycled sidewalk material. The channel is 14 inches wide and 11 inches deep. Each side of the channel is between 14 inches and 19 inches thick. The mortar and concrete bottom is smeared with a white, epoxy type of substance similar to roofing material.
- **Feature 8: Corrugated Metal and Concrete Culvert Beneath Schofield Road:** Feature 8 lies beneath Schofield Road and is composed of a corrugated, galvanized metal culvert set in concrete. This feature lacks stone masonry and the concrete construction and materials are unremarkable. The concrete is broken and displaced, and the pipe is partially collapsed. Thick vegetation and silt obscure the culvert.

The exact ages of these features are unknown. Water control features in Dragonfly Creek appear as early as 1870 where, on a survey map of the Presidio, a pipe is shown diverting water from a spring in the watershed to two residences (Hall 1871). Since that time, water storage and diversion measures in the Dragonfly Creek watershed have continued, to some degree, throughout the PNHLD period of significance.

These landscape features, particularly the stone masonry and rubble masonry features, appear to have been built contemporaneously with the WPA landscaping projects that occurred at Fort Scott during the late 1930s. During 1938 and 1939, the WPA built a number of hardscape features at Fort Scott. This work enhanced the landscape, reduced water erosion of the sandy soils, and provided better pedestrian circulation. Rubble masonry walls are known to have been built along Kobbe Avenue, at the Officers Club parking lot, and in other areas of Fort Scott.

WPA records do not mention the construction of stone walls, walks, stairs, or drainage features. However, their appearance is quite similar to other stone features that were built by the WPA and it is reasonable to conclude that these features were constructed as WPA projects. In landscape-related projects, stonework was often the tell-tale sign of WPA projects (Martensen 1979:77). Numerous examples of WPA-built stonework exist throughout San Francisco, including examples at Fort Scott, Stern Grove, Mt. Davidson, Buena Vista Park, and the San Francisco Zoo. Although no locations were ever specified, the construction of concrete retaining walls is mentioned among WPA projects at Fort Scott. Additionally, the Army used WPA funding to make general repairs to ditches, culverts, gutters, and catch basins; however, the locations of these improvements are also not identified in the WPA records (WPA 1938–1940, cited from Presidio Trust and SMWM 2008).

To date, many contributing features of the Presidio landscape have remained unrecorded because they are small, often concealed in vegetation or partially buried, and rarely appear in

Army maps or other records. These elements are considered to be contributors to the overall history and landscape of the historic district if they fall within the period of significance, even if they are not included in the PNHL Update (Presidio Trust and SMWM 2008). However, these features are central to the historic and architectural significance of the PNHL and are considered important to the historic development and use of the landscape (Alley et al. 1993). Therefore the drainage features in the Lower Dragonfly Creek watershed are considered to be contributing resources to the PNHL, and are considered historical resources for the purposes of CEQA.

**Integrity**

Features 1–7 each retain integrity of design, workmanship, materials, feeling, setting, location, and association. The drainage features of lower Dragonfly Creek appear to contribute to the significance of the PNHL under A and C for their contribution to the overall history and landscape of the Presidio.

Although Feature 8 still provides a valuable function (conveying water underneath Schofield Road) the culvert lacks integrity of design, workmanship, materials, and feeling. The only uncompromised aspect of the culvert’s integrity is location and association, which is insufficient to warrant an assignment of contributing status to this feature.

**SECTION 10: FINDINGS AND CONCLUSIONS**

**10.1 FINDINGS**

ICF Jones & Stokes identified two properties in the focused APE, each of which was constructed during the PNHL period of significance. The properties fall into the following categories:

- Properties listed in the NRHP as contributing resources to the PNHL that are also historical resources for the purposes of CEQA.
- Properties considered to be contributing resources to the PNHL as a result of the current study that are also historical resources for the purposes of CEQA.

Table 1 lists these resources and their eligibility status.

**TABLE 1. PROPERTIES CONSIDERED IN THE HISTORICAL RESOURCES EVALUATION REPORT AND THEIR NRHP AND CEQA ELIGIBILITY STATUS**

| Name                                       | Year Built | NRHP Status                                              | Historical Resource for the purposes of CEQA? |
|--------------------------------------------|------------|----------------------------------------------------------|-----------------------------------------------|
| Drainage Features of Lower Dragonfly Creek | ca. 1930s  | <b>Contributor</b> to the PNHL as a result of this study | <b>Yes</b>                                    |
| Road No. 2159 (Schofield Rd.)              | ca. 1920   | Previously determined a <b>contributor</b> to the PNHL   | <b>Yes</b>                                    |

## 10.2 CONCLUSIONS

One property in the focused APE for the Dragonfly Creek Restoration Project (Schofield Road No. 2159) was previously listed in the NRHP as a contributing resource to the PNHL. One previously unevaluated feature of the project (drainage features of Lower Dragonfly Creek) has been determined to be a contributing feature to the PNHL as a result of the current study. The properties also were evaluated in accordance with State CEQA Guidelines Section 15064.5(a)(2–3), using criteria outlined in California PRC Section 5024.1.

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## SECTION 12: PREPARERS' QUALIFICATIONS

Karen L. Crawford is an archaeologist with more than 13 years of experience in California archaeology and cultural resources management. Ms. Crawford completed her B.A. in Anthropology at California State University, Long Beach, and her M.A. in Anthropology (Archaeology) from the University of California, Davis. Her previous work has been completed for a wide range of clients, including federal, state, and local agencies. Ms. Crawford meets the Secretary of the Interior's Qualification Standards for work in Archaeology and she is a Registered Professional Archaeologist. Ms. Crawford evaluates cultural resources for significance for the NRHP, and the CRHR, and is the author of numerous Caltrans technical reports, including HPSRs, ASRs, HRERs, XPIs, and FOE documentation.

Edward Yarbrough, Assoc. AIA, is an architectural historian with 20 years of professional experience. Mr. Yarbrough completed his B.A. in Classical Architecture at the University of California Berkeley and his M.S. in Historic Preservation from the College of Architecture & Allied Arts, University of Oregon. He meets the Secretary of the Interior's standards for work in history and architectural history. Mr. Yarbrough has more than 18 years of experience in historic research, field inventory, and site assessment for NHPA Section 106 and CEQA compliance. He is experienced in research methods of primary and secondary documentation, and conducts historical research at various local, state, and federal repositories. Mr. Yarbrough evaluates cultural resources for significance for the CRHR, and the NRHP, and is co-author of Caltrans technical reports, including HPSRs, HASRs, HRERs, and FOE documentation.

**APPENDIX A: FIGURES 1–3**





San Francisco Bay

Archeological APE

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Feet

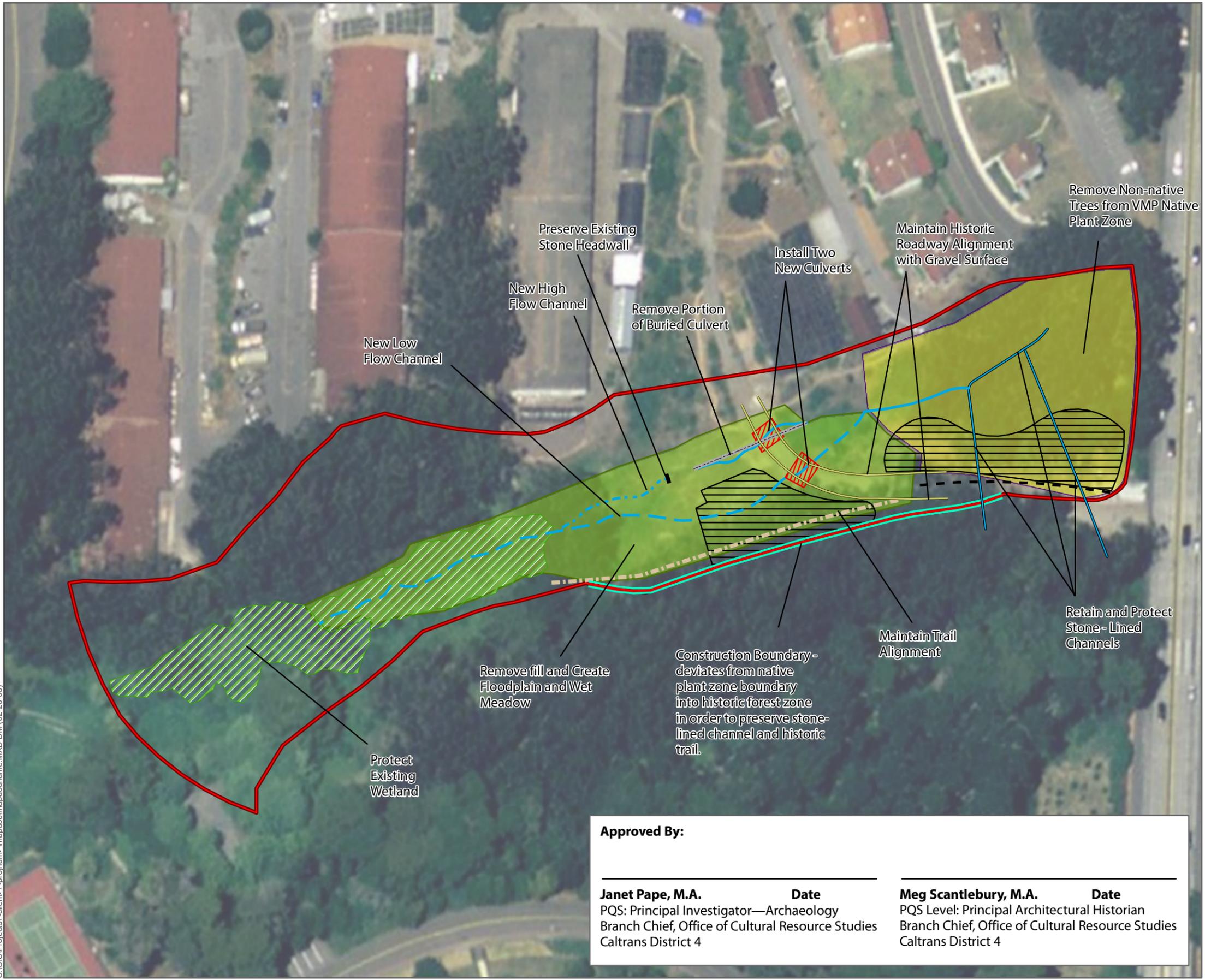
Project Location

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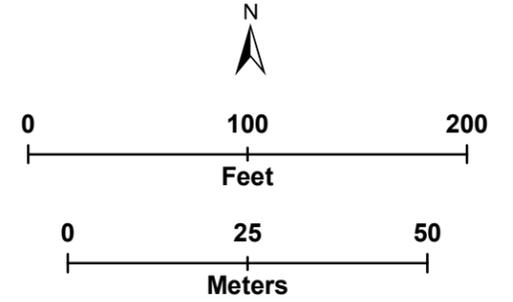
**Figure 1**  
**Project Vicinity**

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**Figure 2**  
**Focused Area of Potential Effects**

- - - Access Road
- Preserve existing stone headwall
- Construction boundary
- Historic roadway
- - - Trail alignment
- Existing stream
- - - New high flow channel
- - - New low flow channel
- Stone-lined channels
- Portion of buried culvert
- ▨ Staging Areas
- ▭ Focused Area of Potential Effects
- ▨ New culvert
- ▨ Wetland
- ▨ Non-native tree removal
- ▨ Proposed floodplain and wet meadow



Source: PRESIDIO TRUST,  
Kamman Hydrology & Engineering, Inc.

**Approved By:**

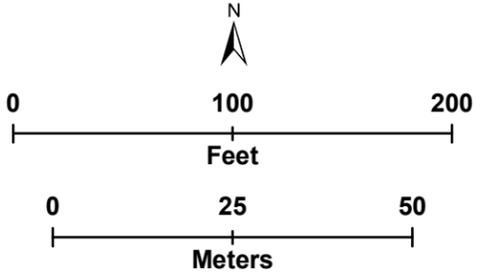
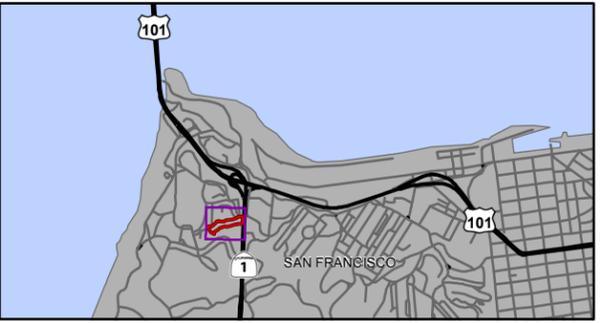
**Janet Pape, M.A.**      **Date**  
 PQS: Principal Investigator—Archaeology  
 Branch Chief, Office of Cultural Resource Studies  
 Caltrans District 4

**Meg Scantlebury, M.A.**      **Date**  
 PQS Level: Principal Architectural Historian  
 Branch Chief, Office of Cultural Resource Studies  
 Caltrans District 4

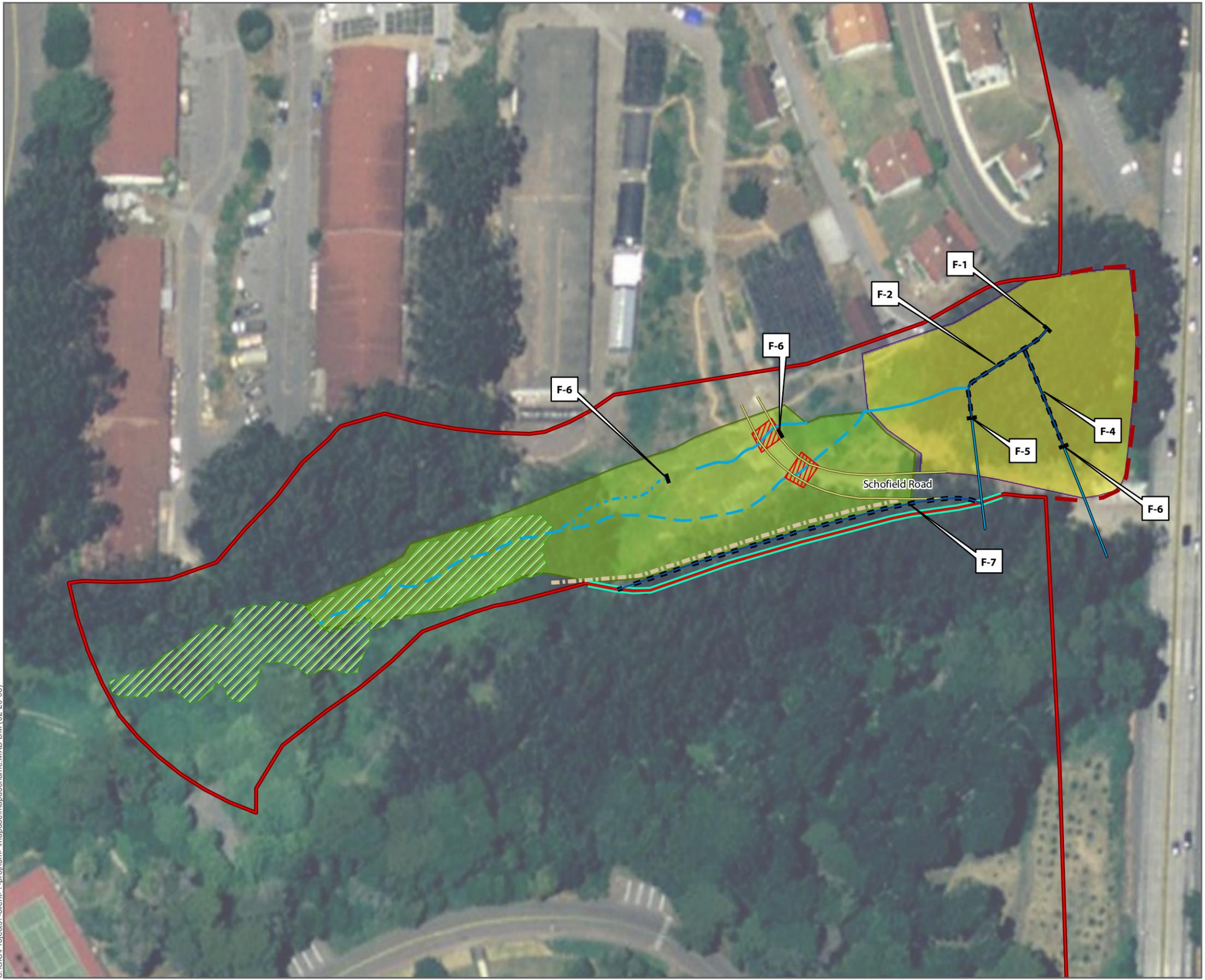
**Figure 3  
Drainage Features of Lower  
Dragonfly Creek**

- F-1. Concrete Drainage Inlet
- F-2. Stone Masonry-Lined Drainage Channel
- F-3. Stone Masonry and Corrugated Metal Drainage Outlet
- F-4. Concrete and Stone-Lined Drainage Channel
- F-5. Stone Masonry and Terra Cotta Pipe Drainage Outlet and Catchment Basin
- F-6. Stone Masonry Inlet
- F-7. Concrete Drainage Channel with Rubble Masonry Segments
- F-8. Corrugated Metal and Concrete Beneath Schofield Road

-  Visible segments of drainage channels recorded during archeological survey
-  Construction boundary
-  Historic roadway
-  Trail alignment
-  Existing stream
-  New high flow channel
-  New low flow channel
-  Stone-lined channels
-  Focused Area of Potential Effects
-  New culvert
-  Wetland
-  Non-native tree removal
-  Proposed floodplain and wet meadow



Source: PRESIDIO TRUST,  
Kamman Hydrology & Engineering, Inc.



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## **APPENDIX B: HISTORICAL SOCIETY CONTACTS**





June 2, 2009

Presidio Historical Association  
PO Box 29163  
San Francisco CA 94129  
415 921-8193

**Subject: Cultural Resources Inventory for the Dragonfly Creek Biological Mitigation Area, Doyle Drive Project, Presidio of San Francisco, California**

Dear Presidio Historical Association:

ICF Jones & Stokes is assisting the Federal Highway Administration, Caltrans, and the San Francisco County Transportation Authority with consultation and technical tasks associated with Section 106 of the National Historic Preservation Act. The proposed project is the Dragonfly Creek Biological Mitigation project (project) which is receiving federal and state funding as partial mitigation for the South Access to the Golden Gate Bridge Doyle Drive Project (undertaking).

The Presidio Trust is proposing to revitalize 0.65 acres within the lower reaches of Dragonfly Creek in the Fort Scott area of the Presidio of San Francisco, a National Historic Landmark District (PNHLD) and national park site. Proposed enhancements include wetland and habitat restoration, and non-native tree removal. The project tiers off from the Presidio Trust Management Plan and represents one of many watershed revitalization projects that are ongoing at the Presidio. Historic period stone masonry drainage features along Dragonfly Creek in the area of potential effects will be protected and preserved as part of the project.

As part of our efforts to identify cultural resources in the area of potential effects, all interested parties who participated in the development of the cultural resources Programmatic Agreement for the Doyle Drive undertaking are being consulted regarding any historic resources that may be affected by the proposed project. Your effort in this process provides valuable information for the proper identification and treatment of cultural resources. The location of the project is depicted on the enclosed map. If you have any questions or comments please contact me at (415) 296-0524 extension 3032 or send a letter expressing your concerns at your earliest convenience. You may also send email to me at [kcrawford@jsanet.com](mailto:kcrawford@jsanet.com). Thanks you for your assistance.

Sincerely,

Karen L. Crawford  
Senior Archaeologist





June 2, 2009

San Francisco Architectural Heritage  
2007 Franklin Street  
San Francisco CA 94109  
415 441-3000

**Subject: Cultural Resources Inventory for the Dragonfly Creek Biological Mitigation Area, Doyle Drive Project, Presidio of San Francisco, California**

Dear San Francisco Architectural Heritage:

ICF Jones & Stokes is assisting the Federal Highway Administration, Caltrans, and the San Francisco County Transportation Authority with consultation and technical tasks associated with Section 106 of the National Historic Preservation Act. The proposed project is the Dragonfly Creek Biological Mitigation project (project) which is receiving federal and state funding as partial mitigation for the South Access to the Golden Gate Bridge Doyle Drive Project (undertaking).

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Sincerely,

Karen L. Crawford  
Senior Archaeologist



**APPENDIX C: CA DPR 523 FORMS**



Other Listings  
Review Code

Reviewer

Date

Page 1 of 9

\*Resource Name or #: Drainage Features of Lower Dragonfly Creek

**P1. Other Identifier:**

\*P2. Location:  Not for Publication  Unrestricted

\*a. County: San Francisco

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad: San Francisco North, CA Date: 1993 Unsectioned ; M.D. B.M.  
c. Address: Presidio of San Francisco City: San Francisco Zip: n/a  
d. UTM: Zone: 10S; 546603 mE/ 4183816 mN (G.P.S.)(measured at Scofield Road culvert over Dragonfly Creek)  
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: 130-200 ft amsl

The resource is located in the Fort Scott area of the Presidio of San Francisco in the lower Dragonfly Creek Watershed, east of Highway 1, south of Appleton Street and Storey Road, east of Uptin Street, and north of Kobbe Avenue. The eastern end of this resource is 75 feet west of Highway 1 and extends west/southwest for 310 feet, ending directly south of Presidio NHLD building no. 1242.

\*P3a. **Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)  
This resource is a set of eight drainage features, situated along lower Dragonfly Creek, consisting of: concrete drainage inlet (Feature 1); stone masonry-lined drainage channel (Feature 2); Stone Masonry and Corrugated Metal Drainage Outlet (Feature 3); Concrete and Stone-Lined Drainage Channel (Feature 4); Stone Masonry and Terra Cotta Pipe Drainage Outlet and Catchment Basin (Feature 5); Stone Masonry Inlet (Feature 6); Concrete Drainage Channel with Rubble Masonry Segments (Feature 7); and Corrugated Metal and Concrete Culvert Beneath Schofield Road (Feature 8). The stone in those features containing stone material is composed of blocky cobbles of fine-grained material that appears to be basalt. The cobbles generally measure approximately 9" x 12" x 6" in size. The features are described below.  
(see p. 5 Continuation Sheet)

\*P3b. **Resource Attributes:** AH6 Water Conveyance System; HP 34 Military-Owned Property; HP35 WPA project (likely)

\*P4. **Resources Present:**  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



\*P5b. **Description of Photo:** (View, date, accession #)  
Photo # 9. Dragonfly Creek Feature 2 (drainage channel) and Feature 5 (drainage outlet), facing southwest. 6/26/09

\*P6. **Date Constructed/Age and Sources:**  
 Historic  Prehistoric  Both

\*P7. **Owner and Address:**  
Presidio of San Francisco, National Park Service--  
Golden Gate National Recreation Area

\*P8. **Recorded by:** (Name, affiliation, and address)  
K. Crawford, E. Yarbrough, M. Jerman

**ICF Jones & Stokes**  
620 Folsom St. Suite 200  
San Francisco CA 94107

\*P9. **Date Recorded:** 6/26/09

\*P10. **Survey Type:** (Describe)  
Intensive Pedestrian Survey

\*P11. **Report Citation:** ICF Jones & Stokes.

2009. *Historical Resources Evaluation Report for the Dragonfly Creek Restoration Project, South Access to the Golden Gate Bridge Doyle Drive Project City and County of San Francisco, California.* Prepared for Caltrans and the San Francisco County Transportation Authority.

\*Attachments:  NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other (List):

**BUILDING, STRUCTURE, AND OBJECT RECORD**

\*Resource Name or # Drainage Features of Lower Dragonfly Creek

- B1. Historic Name: n/a
- B2. Common Name: n/a
- B3. Original Use: water control features
- B4. Present Use: same

\*B5. **Architectural Style:** Stone masonry—rustic style

\*B6. **Construction History:** (Construction date, alterations, and date of alterations)

The exact age of these features is unknown. These landscape features, particularly the stone masonry and rubble masonry features, appear to have been built contemporaneously with the Works Progress Administration (WPA) landscaping projects that occurred at Fort Scott during the late 1930s. During 1938 and 1939, the WPA built a number of hardscape features at Fort Scott. This work enhanced the landscape, reduced water erosion of the sandy soils, and provided better pedestrian circulation. Rubble masonry walls are known to have been built nearby along Kobbe Avenue, at the Officers Club parking lot, and in other areas of Fort Scott. Concrete features built by the WPA were also built in this area.

\*B7. **Moved?** No Yes Unknown **Date:** **Original Location:** n/a

\*B8. **Related Features:** n/a

B9a. Architect: n/a

b. Builder: likely WPA

\*B10. **Significance: Theme:** Military- infrastructure, landscape improvements **Area:** Fort Scott, Presidio of San Francisco

**Period of Significance:** ca. 1934-1939, (WPA projects at the Presidio) **Property Type:** water conveyance

**Applicable Criteria:** Contributing resource to the Presidio National Historic Landmark District

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

(see P6 Continuation Sheet)

B11. Additional Resource Attributes: (List attributes and codes) n/a

\*B12. **References:**

Alley, P., L. Barker, G. Chappell, C. Feierabend, J. P. Langellier, D. Quitevis, and S. A. Dean. 1993. *National Register of Historic Places Registration Form. Presidio of San Francisco National Historic Landmark District.* United States Department of the Interior, National Register Programs, National Park Service, Western Regional Office, San Francisco, California.

Presidio Trust and SMWM. 2008. *Fort Scott: A Cultural Landscape Assessment.* Prepared for the Presidio Trust.

U.S. Army. 1917 (1919). [Map of] Fort Winfield Scott, Cal. Central Part, Lighting System. Revised February 1919.

Works Progress Administration. 1938-1940. Records for the Works Progress Administration Projects at Fort Winfield Scott. Obtained from the Presidio Trust.

B13. Remarks: n/a

\*B14. **Evaluator:** K. Crawford, E. Yarbrough

\*Date of Evaluation: 9/1/09

State of California — The Resources Agency  
Pri

(This space reserved for official comments.)

mary #

**L1. Historic and/or Common Name:** none

**L2a. Portion Described:**  Entire Resource  Segment  Point Observation **Designation:**

**b. Location of point or segment:** (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map)

East end of segment: UTM Zone 10S, 546692mE/4183839mN; West end of segment: 546575mE/4183805mN

**L3. Description:** (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

Feature 1: board formed concrete; Feature 2: stone masonry with rubble stone cobbles appearing to be basalt; Feature 3: 11-inch galvanized metal corrugated pipe encased by stone masonry; Feature 4: stone masonry and concrete; Feature 5: 24-inch terra cotta pipe encased by stone masonry, above stone masonry catchment basin; Feature 6: 20-inch galvanized metal corrugated pipe encased in u-shaped, stone masonry drainage inlet structure; Feature 7: concrete with segments of stone masonry; Feature 8: galvanized metal corrugated pipe encased in concrete. See plan drawing below (L8a).

**L4. Dimensions:** (In feet for historic features and meters for prehistoric features)

**a. Top Width:** variable

**b. Bottom Width:** variable

**c. Height or Depth:** variable

**d. Length of Segment:** 310 feet from Feature 1 to Feature 6

**L5. Associated Resources:** unknown

**L4e. Sketch of Cross-Section** (include scale) **Facing:**

**L6. Setting:** (Describe natural features, landscape characteristics, slope, etc., as appropriate.)  
(see Continuation Sheet)

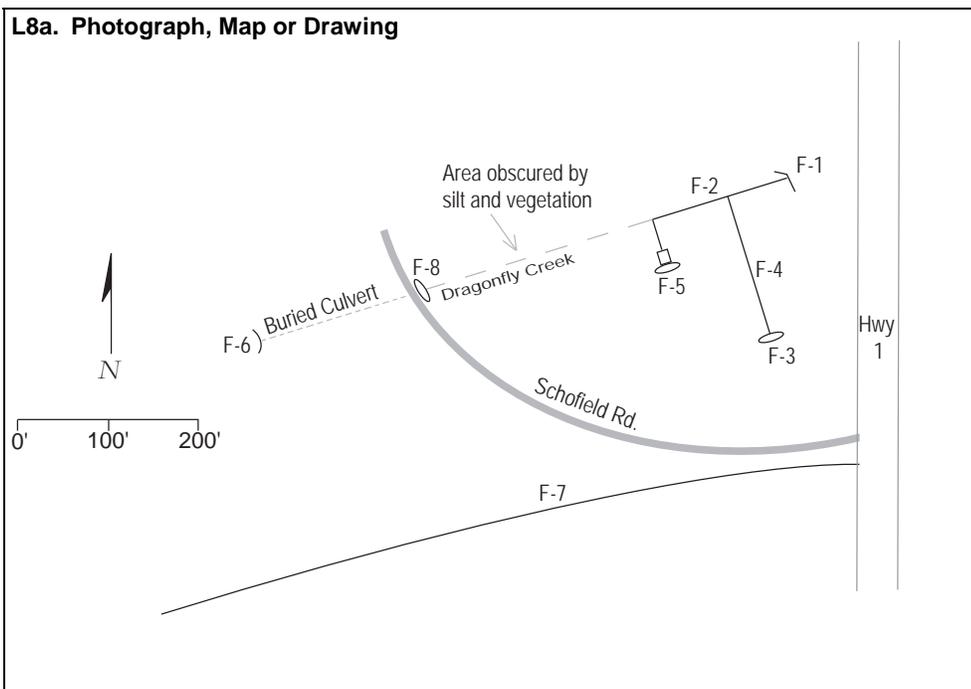
**L7. Integrity Considerations:**

Features 1-8 retain integrity;

Feature 8 (F-8) lacks integrity of design, workmanship, materials, and feeling.

**L8b. Description of Photo, Map, or Drawing** (View, scale, etc.)

Plan view schematic of drainage features (f-1 through F-8 recorded in lower Dragonfly Creek



**L9. Remarks:** n/a

**L10. Form Prepared by:** (Name, affiliation, and address)

K. Crawford, E. Yarbrough  
ICF Jones & Stokes  
620 Folsom St Suite 200  
San Francisco CA 94107

**L11. Date:** 9/1/09

**CONTINUATION SHEET**

Trinomial

Page 4 of 9

\*Resource Name or # Drainage features of Lower Dragonfly Creek

\*Recorded by: K. Crawford; E. Yarbrough, M. Jerman

\*Date: 6/26/09

X Continuation

Update

**P3a. (Cont.)**

Feature 1 is a chamfered, two-walled concrete drainage inlet structure on the east end of the Dragonfly Creek project area. The inlet structure is composed of board and dam molded concrete. The walls are placed at a 45 degree angle. Along the top edge and approximately 10" below the top each face, each wing wall is chamfered at a 45 degree angle. The main wall measures 109.5" across the top and 105" across the base, although accumulated silt obscures the base of the inlet structure. The inlet opening in this wall measures 44" high by 22" wide and is partially covered by a 36"-wide metal grate with vertical elements spaced 1" apart. The northern wing wall measures 96.5" along the top edge and 92" across the bottom. The ends of the two walls measure 115" apart. Dragonfly Creek flows into this inlet structure, which is earthen-covered, and is piped northeast (outside of the APE) under Highway 1 and Lincoln Boulevard.

Feature 2 is a stone and mortar-lined drainage channel. Large portions of the channel are covered in silt. The channel measures approximately 44" across. The depth of the channel is obscured by accumulated silt. Where this silt was removed during field investigation, the bottom of the channel is lined with stone rubble resembling fine-grained basalt. Broad mortar matrix is tooled beyond the joint over portions of the rubble faces. The channel walls measure approximately 12" to 12 3/4" wide. The exposed portion of the channel walls are approximately 16" deep. The channel begins at the inlet structure (Feature 1) and extends approximately 90 feet up the drainage. Past this point, vegetation and silt obscure the channel to such a degree that, if it exists, it cannot be observed.

Feature 3 is a drainage outlet consisting of a corrugated, galvanized metal pipe fully encased by stone masonry. The pipe measures 11" in diameter and is fully encased by one course of 9"-thick stone cobbles and mortar. The drainage outlet is located just north of Schofield Road and drains 89' down slope via a concrete and stone-lined drainage channel.

Feature 4 is a concrete and stone-lined drainage channel that connects Feature 3 to Feature 2. The channel flows at an angle of 160 degrees into the Feature 2 drainage. This point is 29' west of Feature 1. This drainage channel is formed of concrete walls that are 4" to 6" thick and 7" high. The width of the channel is 14" wide just below the drainage outlet and runs down slope, tapering to 10" wide near the end of the channel. Just before this channel connects to the main drainage channel of Dragonfly Creek, it expands to 22" in width. The entire length of the channel is 89'. The floor of the drainage channel is constructed of a single course of stone masonry.

Feature 5 is a drainage outlet and catchment basin. The drainage outlet is constructed of a terra cotta pipe, 24" in diameter, surrounded by one course of mortared, 9" thick cobble. Fourteen cobbles surround the top and sides of the pipe and connect to the top of a catchment basin walls. The keystone cobble is broken and the front half if it is missing. The mortar and cobbles around the northern half of the pipe have pulled away approximately 3" from the pipe. A patch of mortar is located at the top of the drainage outlet with the inscription "Patrick" and an undecipherable date below the name.

The catchment basin is constructed of four courses of stone and mortar. It is rectangular in shape with its north end remaining open to allow water flow into Dragonfly Creek via a stone masonry-lined channel. The catchment basin is 46" wide at the end supporting the drainage outlet pipe. The two sides of the catchment basin extend 52" from the drainage outlet, where it meets a stone masonry drainage channel. The catchment basin is 25" deep. The stone masonry channel is 9' long and connects the catchment basin with the main drainage channel of Dragonfly Creek. Silt and vegetation have obscured the channel Creek. Closer inspection of the channel indicated it is intact.

Feature 6 is a two-walled stone masonry drainage inlet and galvanized metal corrugated pipe drainage inlet located 85' west of Schofield Road. The two walls are constructed of six visible, vertically stacked courses of stone masonry placed at a 90 degree angle and centered across Dragonfly Creek. Silt obscures the base of the drainage inlet. The northern wall is 34" long and 22" in height and the southern wall is 32" long and 28" in height. The ends of the two walls measure 47" apart. The pipe is 20" in diameter and is set at the point where the walls meet. The drainage floor in front of the culvert is stone-lined for approximately 24"; a large amount of silt obscures the drainage and it is possible the stones extend farther upstream from this point.

Feature 7 is an open, rubble and mortar drainage channel located on the south edge of the project APE. The channel runs along the base of a slope and parallels the south side of a recreational trail. A 260'-long segment of this channel lies within the APE; both ends of the segment extend outside of the APE. The channel is constructed of mortared, broken concrete pieces that appear to be recycled sidewalk material. The channel is 14" wide, and 11" deep. Each side of the channel is between 14" and 19" thick. The mortar and concrete bottom is smeared with a white, epoxy type of substance similar to roofing material.

**P3a. (Cont.)**

Feature 8 lies beneath Schofield Road and is composed of a corrugated, galvanized metal culvert set in concrete. This feature lacks stone masonry and the concrete construction and materials are unremarkable. The concrete is broken and displaced, and the pipe is partially collapsed. Thick vegetation and silt obscure the culvert.

**B10. (Cont.)** The exact age of these features is unknown. Water control features in Dragonfly Creek appear as early as 1870 where, on a survey map of the Presidio, a pipe is shown diverting water from a spring in the watershed to two residences (Hall 1871). Since that time, water storage and diversion measures in the Dragonfly Creek watershed have continued, to some degree, throughout the PNHL D period of significance.

These landscape features, particularly the stone masonry and rubble masonry features, appear to have been built contemporaneously with the WPA landscaping projects that occurred at Fort Scott during the late 1930s. During 1938 and 1939, the WPA built a number of hardscape features at Fort Scott. This work enhanced the landscape, reduced water erosion of the sandy soils, and provided better pedestrian circulation. Rubble masonry walls are known to have been built along Kobbe Avenue, at the Officers Club parking lot, and in other areas of Fort Scott. WPA records do not mention the construction of stone walls, walks, stairs, or drainage features. However, their appearance is quite similar to other stone features that were built by the WPA and it is reasonable to conclude that these features were constructed as WPA projects. In landscape related projects, stonework was often the tell-tale sign of WPA projects (Martensen 1979:77). Numerous examples of WPA-built stonework exist throughout San Francisco, including examples at Fort Scott, Stern Grove, Mt. Davidson, Buena Vista Park, and the San Francisco Zoo. Although no locations were ever specified, the construction of concrete retaining walls is mentioned among WPA projects at Fort Scott. Additionally, the Army used WPA funding to make general repairs to ditches, culverts, gutters and catch basins; however, the locations of these improvements are also not identified in the WPA records (WPA 1939, cited from Presidio Trust and SMWM 2008).

To date, many contributing features of the Presidio landscape have remained unrecorded because they are small, often concealed in vegetation or partially buried, and rarely appear in Army maps or other records. These elements are considered to be significant to the overall history and landscape of the historic district if they fall within the period of significance, even if they are not included in the PNHL D Update (Presidio Trust and SMWM 2008). However, these features are central to the historic and architectural significance of the PNHL D and are considered important to the historic development and use of the landscape (Alley et al. 1993). Therefore the drainage features in the Lower Dragonfly Creek watershed are considered to be eligible for listing in the NRHP as contributing resources to the PNHL D.

Features 1-7 each retain integrity of design, workmanship, materials, feeling, setting, location, and association. The drainage features of lower Dragonfly Creek appear to contribute to the significance of the PNHL D under A and C for their contribution to the overall history and landscape of the Presidio.

Although Feature 8 still provides a valuable function (conveying water underneath Schofield Road) the culvert lacks integrity of design, workmanship, materials, and feeling. The only uncompromised aspect of the culvert's integrity is location and association, which is insufficient to warrant an assignment of contributing status to this feature.

**L6. (Cont.)** Dragonfly Creek lies within the highlands of the Fort Scott watershed. The Fort Scott watershed, along with the Tennessee Hollow watershed, drains the northeastern half of the Presidio into the San Francisco Bay. Springs within the Fort Scott watershed supply Dragonfly Creek, a perennial stream located southeast of the Fort Scott parade Ground and west of Highway 1/Veteran's Boulevard. The stream flows over a natural sandy substrate before entering a section of concrete channel leading to an underground culvert where it discharges to the bay. The hydrologic properties of Dragonfly Creek have been substantially altered by the cutting away of soil and the placement of fill, as well as the alteration of native vegetation through either removal or planting of non-native species.



Feature 1. Chamfered concrete drainage inlet.



Feature 2. Stone masonry drainage channel.



Feature 5. Stone masonry and terra cotta pipe drainage outlet above stone masonry catchment basin.



Feature 5. Detail "Patrick" and unreadable date.



inlet.

Feature 6. Stone masonry and metal pipe drainage





**ATTACHMENT C: ARCHAEOLOGICAL SURVEY REPORT**



SFCTA Contract Number 99/00-7

SOUTH ACCESS TO THE GOLDEN GATE BRIDGE  
**DOYLE DRIVE**

# **Archaeological Survey Report for the Dragonfly Creek Restoration Project**

San Francisco County, US101 KP 12.8-15.7 (PM 8.0-9.8) / SR1 KP10.9-11.4 (PM 6.8-7.1), EA 04-16370

October 2009

Prepared For:

**Arup**

**San Francisco County Transportation Authority**

**Federal Highway Administration**

**Caltrans District 4**

Prepared By:

**ICF Jones & Stokes**



**Archaeological Survey Report  
for the Dragonfly Creek Restoration Project**

**South Access to the Golden Gate Bridge Doyle Drive Project  
City and County of San Francisco, California**

04-SF-101/1

PM n/a

EA 04-163700

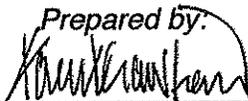
*South Access to the Golden Gate Bridge Doyle Drive*

*USGS 7.5-minute Quadrangle: San Francisco North, CA (PR1995)*

*Size of Study Area is approximately 4 acres*

*Keywords: T 2 S, R 5 W, M.D.B.M.; City of San Francisco; San Francisco County;  
archaeological survey; Presidio of San Francisco; Fort Winfield Scott; Dragonfly Creek*

*Prepared by:*



---

Karen L. Crawford, M.A., RPA, Archaeologist  
ICF Jones & Stokes  
620 Folsom Street, Suite 200  
San Francisco, CA, 94107

*Reviewed by:*



---

Janet Pape  
PQS: Co-PI--Historic Archaeology; Lead PI--Prehistoric Archaeology  
Office of Cultural Resource Studies  
California Department of Transportation, District 4  
111 Grand Avenue  
Oakland, CA 94623-0660  
510 286-5615

*Approved by:*



---

Meg Scantlebury  
Branch Chief, Office of Cultural Resource Studies  
California Department of Transportation, District 4  
111 Grand Avenue  
Oakland, CA 94623-0660  
510 286-5616

October 2009

ICF Jones & Stokes. 2009. *Archaeological Survey Report for the Dragonfly Creek Restoration Project*. October. (ICF J&S 04548.04) Sacramento, CA. Prepared for: Arup, San Francisco Transportation Authority, Federal Highway Administration, Caltrans District 4.

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## ACRONYMS AND ABBREVIATIONS

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ACHP     | ADVISORY COUNCIL ON HISTORIC PRESERVATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| APE      | AREA OF POTENTIAL EFFECT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ASR      | ARCHAEOLOGICAL SURVEY REPORT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| ATP      | ARCHAEOLOGICAL TREATMENT PLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| BETP     | BUILT ENVIRONMENT TREATMENT PLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| CALTRANS | CALIFORNIA DEPARTMENT OF TRANSPORTATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| CEQA     | CALIFORNIA ENVIRONMENTAL QUALITY ACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| CFR      | CODE OF FEDERAL REGULATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| CRHR     | CALIFORNIA REGISTER OF HISTORICAL RESOURCES                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| EIS/R    | ENVIRONMENTAL IMPACT STATEMENT/REPORT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| FHWA     | FEDERAL HIGHWAY ADMINISTRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| FOE      | FINDING OF EFFECT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| MIP      | MITIGATION IMPLEMENTATION PLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| NEPA     | NATIONAL ENVIRONMENTAL PROTECTION ACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| NHPA     | NATIONAL HISTORIC PRESERVATION ACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| NPS-GOGA | NATIONAL PARK SERVICE—GOLDEN GATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| NRHP     | NATIONAL REGISTER OF HISTORIC PLACES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| NAGPRA   | NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| PA       | PROGRAMMATIC AGREEMENT AMONG THE FEDERAL HIGHWAY ADMINISTRATION, THE CALIFORNIA DEPARTMENT OF TRANSPORTATION, THE SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY, THE PRESIDIO TRUST, THE NATIONAL PARK SERVICE, THE DEPARTMENT OF VETERANS AFFAIRS, THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER, THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, AND THE SAN FRANCISCO RECREATION AND PARKS DEPARTMENT FOR THE SOUTH ACCESS TO THE GOLDEN GATE BRIDGE, DOYLE DRIVE REPLACEMENT PROJECT, SAN FRANCISCO, CALIFORNIA |
| PNLHD    | PRESIDIO NATIONAL HISTORIC LANDMARK DISTRICT                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| PTMP     | PRESIDIO TRUST MANAGEMENT PLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| SFCTA    | SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| SHPO     | CALIFORNIA STATE HISTORIC PRESERVATION OFFICER                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| TRUST    | PRESIDIO TRUST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

|             |                                                                                                                                                               |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UNDERTAKING | REPLACE DOYLE DRIVE, LOCATED IN THE PRESIDIO OF SAN FRANCISCO,<br>WITHIN THE GOLDEN GATE NATIONAL RECREATION AREA AND THE CITY<br>AND COUNTY OF SAN FRANCISCO |
| USC         | U.S. CODE                                                                                                                                                     |
| VMP         | VEGETATION MANAGEMENT PLAN                                                                                                                                    |

## **SECTION 1: SUMMARY OF FINDINGS**

The Federal Highway Administration (FHWA), the California Department of Transportation (Caltrans), and the San Francisco County Transportation Authority (SFCTA) are replacing Doyle Drive, located in the Presidio of San Francisco, within the Golden Gate National Recreation Area and the City and County of San Francisco (Undertaking). Construction of the Undertaking will cause an adverse impact to biological resources. As partial mitigation for the adverse effect the Presidio Trust (Trust) proposes to revitalize 0.65 acres within the lower reaches of Dragonfly Creek (proposed project) in the Presidio of San Francisco (Figure 1 in Appendix A of this report). The proposed project tiers from the Presidio Trust Management Plan (PTMP) (Presidio Trust 2002a). SFCTA will fund the proposed project.

This Archaeological Survey Report (ASR) documents the results of archival research at the National Park Service–Golden Gate (NPS–GOGA) Archive, literature review, Native American consultation, and an intensive pedestrian survey of the area of potential effects (APE) conducted June 26, 2009, by ICF Jones & Stokes professional archaeologists Karen Crawford and Michelle Jerman.

No archaeological resources were identified as a result of archival research, literature review, and archaeological survey of the APEs for the proposed project. Built environment resources are described in a Historical Resources Evaluation Report prepared for this project (ICF Jones & Stokes 2009a).

It is the California Department of Transportation's (Caltrans') policy to avoid cultural resources whenever possible. If cultural resources cannot be avoided, additional work may be necessary. If buried cultural materials are encountered during construction, it is Caltrans' policy that work in that area must halt until a qualified archaeologist can evaluate the nature and significance of the find (California Department of Transportation 2001).

An Archaeological Treatment Plan (ATP) has been developed and approved for the Undertaking. In the event of an archaeological discovery, procedures discussed in the ATP will be followed. Additional archaeological survey will be needed if the project limits are extended beyond the present survey limits.

## **SECTION 2: INTRODUCTION**

### **2.1 SOUTH ACCESS TO THE GOLDEN GATE BRIDGE DOYLE DRIVE PROJECT**

The Undertaking consists of replacing the existing Doyle Drive with a new 1.5-mile-long six-lane roadway and an eastbound auxiliary lane between the toll plaza for the Golden Gate Bridge on the west, and the east end of Doyle Drive where it splits and feeds into Richardson Avenue and Marina Boulevard. The Undertaking requires funding from the FHWA and other federal sources.

The Undertaking will adversely affect historic properties listed in or eligible for the National Register of Historic Places (NRHP), including the Presidio National Historic Landmark District (PNHLD) and its contributing historic resources. Analysis of these effects are provided in the Finding of Effect for the South Access to the Golden Gate Bridge Doyle Drive Project, San Francisco, California (San Francisco County Transportation Authority 2005) and the Addendum

Finding of Effect for the South Access to the Golden Gate Bridge Doyle Drive Project, San Francisco, California (SFCTA February 2007).

Consequently, the FHWA has consulted with the California State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (ACHP) pursuant to 36 Code of Federal Regulations (CFR) 800, regulations implementing Section 106 of the National Historic Preservation Act (NHPA) (16 U.S. Code [USC] 470f) and with the Secretary of the Interior pursuant to 36 CFR 800.10 regarding special requirements for protecting National Historic Landmarks. As the federally appointed land manager for the areas of the Presidio within the Undertaking's designated APEs, the Presidio Trust has also been consulted. The Dragonfly Creek Restoration Project (proposed project) is subject to compliance with the *Programmatic Agreement among the Federal Highway Administration, the California Department of Transportation, the San Francisco County Transportation Authority, the Presidio Trust, the National Park Service, the Department of Veterans Affairs, the California State Historic Preservation Officer, the Advisory Council on Historic Preservation, and the San Francisco Recreation and Parks Department for the South Access to the Golden Gate Bridge, Doyle Drive Replacement Project, San Francisco, California (PA)*, executed October 7, 2008.

## **2.2 DRAGONFLY CREEK RESTORATION PROJECT**

Construction of the Undertaking will remove several acres of wetland from the PNHL, causing an adverse impact to biological resources identified in the Final Environmental Impact Statement/Report (EIS/R) for the Undertaking (SFCTA 2008). As partial mitigation for the adverse effect, several areas within the Presidio will undergo wetland restoration.

The Trust has identified a number of areas, one of which is Dragonfly Creek, to undergo wetland restoration with funding by the SFCTA. The purpose of the Dragonfly Creek Restoration Project is to revitalize the native plant community zone of Dragonfly Creek at Fort Scott from its degraded condition. Restoration will improve the hydrologic and biogeochemical function and enhance biological diversity of the stream and adjacent land. Proposed enhancements include wetland and habitat restoration and nonnative tree removal (Figure 2 in Appendix A of this report). The project will also highlight the historic Presidio landscape features within the project area. The proposed project tiers from the Presidio Trust Management Plan (PTMP) (Presidio Trust 2002a) and represents one of many watershed revitalization projects ongoing at the Presidio. Restoration of Dragonfly Creek is identified in the Presidio Vegetation Management Plan (VMP) (National Park Service et al. 2001) and the PTMP (Presidio Trust 2002a).

The purpose of this ASR is to evaluate the potential for the project to affect potential contributing elements to the PNHL or any resources considered historical for the purposes of the California Environmental Quality Act (CEQA) and/or the National Environmental Protection Act (NEPA). To that end, ICF Jones & Stokes conducted field investigations for this study on June 26, 2009. This report documents the results of archival research at the NPS-GOGA Archive, literature review, Native American consultation, and an intensive pedestrian survey of the proposed project's APE conducted on June 26, 2009, by ICF Jones & Stokes professional archaeologists Karen Crawford and Michelle Jerman.

## SECTION 3: PROJECT DESCRIPTION AND LOCATION

The project site consists of approximately 4.0 acres of lower Dragonfly Creek, located immediately west of Highway 1 in the Fort Scott area of the Presidio (Figure 1). Within this larger area, approximately 0.65 acres of enhancement are planned. The project description is condensed from the project description being prepared for the draft Environmental Assessment document being prepared for the proposed project (Presidio Trust 2009).

The proposed project is primarily within the native plant community zone designated in the VMP and PTMP. A small area of the project boundary extends approximately 25 feet into the historic forest zone, along 150 feet of the southern side of the project. This alignment will preserve and protect the existing stone-lined channels and features and historic trail alignment. No trees occur within the historic forest zone portion of the project area and no trees within the historic forest zone will be affected by the project.

Completion of the proposed project is needed to implement mitigation measures for wetland impacts associated with the Undertaking. Dragonfly Creek is one of the primary wetland restoration sites identified and planned for under the wetland mitigation strategy for the Undertaking that is incorporated into the Final EIS/R. Wetland mitigation is required to occur prior to initiation of the Undertaking to the degree possible. The SFCTA will provide funding for the proposed project.

### 3.1 PROJECT COMPONENTS

The proposed project will result in approximately 390 linear feet of additional channel length through day-lighting of buried channel, increased sinuosity of existing channels and creation of additional channel branches. The proposed project will also create and/or improve approximately 0.65 acres of floodplain and/or wetland habitat. Much of these gains will be derived from removing fill material and lowering the floodplain/wetland surface so that it is in much closer proximity to the groundwater table, creating seasonally and perennially saturated conditions that will sustain wetland and riparian plant communities.

The habitat restoration objectives, as defined in the Conceptual Wetland Restoration and Enhancement Mitigation Plan in the Final EIS/R for the Undertaking are:

- Restore, to the extent possible, natural stream morphology to the Creek.
- Increase microtopographic complexity within the Creek.
- Establish a compositionally and structurally complex ecosystem with attributes important to native fauna.
- Restore a native-dominated riparian plant community.
- Improve water quality.

This project involves three phases: 1) creek channel, floodplain, and riparian corridor enhancements; 2) tree removal and revegetation of the site, 3) stream day-lighting of the creek from the drop inlet to Park Boulevard. The current proposed project analyzed as part of this study is comprised only of Phases 1 and 2. Phase 3 will be implemented by the Trust in the future and is not associated with the Undertaking. Phases 1 and 2 are described below and depicted in Figure 2.

### **3.1.1 Phase 1: Creek Channel, Floodplain and Riparian Corridor Enhancements**

Fill removal and grading will constitute the major components of Phase 1. As part of the project, the existing culvert underneath Schofield Road will be replaced by two pre-fabricated box culverts. The existing culturally significant resources, including the headwall, stone channel work, and historic alignment and surface of Schofield Road, will be protected and remain in place. Phase 1 consists of the following components:

- Excavate fill material along approximately 400 feet of creek corridor upstream of Schofield Road to widen and expand the floodplain and/or associated wet meadow habitat to a maximum depth of 6 feet below existing grade. No earth work or disturbance is proposed upstream of this floodplain area in order to preserve existing willow riparian and wetland corridors. Earthwork will include removing and disposing of considerable concrete building foundation rubble, debris and tree stumps within the indicated area, dumped by the U.S. Army from other outside locations.
- Protect and preserve the existing stone headwall around the inlet of the culvert that captures and directs water flow under Schofield Road.
- Remove the remainder of non-historic buried culvert extending downstream of the stone headwall section and beneath Schofield Road, to expand and enhance floodplain and host new creek channels.
- Maintain a high-flow channel to the headwall and remnant culvert to preserve the function of this structure.
- Create new low-flow channel alignments in the expanded floodplain. Grade the channel and floodplain upstream of the stone headwall in a manner that maintains high flows through the headwall.
- Direct channels under Schofield Road through two prefabricated concrete box culverts, each up to 20 feet wide. There would be between 5 and 8 feet of vertical distance between culvert bottoms and road surface. The base of each culvert would be embedded into native soil. Low-flow channels would be free to pass through both culverts while the northern culvert would also accommodate the high-flow bypass directed through the remaining stone headwall and downstream day-lighted channel. Culvert headwalls would likely consist of either segmental block wall or prefabricated wing walls.
- Excavate and grade the south bank downstream of Schofield Road to a maximum depth of 7 feet below existing grade in order to expand the floodplain.
- Protect existing riparian vegetation on the north bank downstream of Schofield Road.
- Maintain the historic alignment, roadbed elevation and road surface of Schofield Road.
- Protect and preserve the surrounding concrete/stone drainage structures in the project area.
- Maintain a 4- to 6-foot wide trail alignment adjacent to the existing stone drainage ditch bordering the south-central portion of the site, consistent with the Trust's Bikeways and Trails Master Plan.
- Establish construction equipment access routes to the site via Park Blvd. to Schofield Road, if feasible. If other construction activities preclude this route, access will occur

from Lincoln Blvd to the existing dirt access road under Highway 1. Construction staging for this phase will be restricted to the two areas indicated in Figure 2.

### **3.1.2 Phase 2: Tree Removal and Additional Restoration**

After grading, extensive erosion control measures will be put in place. Nonnative tree removal and native vegetation planting constitute the major components of Phase 2. These components are described below.

- In areas where grading was minimal or where no grading was needed, the remaining nonnative vegetation will be removed. The newly created and stabilized site will be planted with approximately 15,000 native plants planted in holes between 2 inches to 18 inches deep. Freshwater wetland vegetation will grade into an arroyo willow community on the lowest parts of the slope and, as the slope rises away from the swale, into a coast live oak riparian community. In some areas the oaks will grade directly into the adjacent forest. In areas where sandy soil is exposed and the groundwater is not close to the surface a coastal scrub community will be planted.
- Removal of an estimated 35 nonnative trees, mostly eucalyptus, and other nonnative vegetation from within the remaining native plant community zone area (between Schofield Road and Highway 1). No major grading is planned in this area. Revegetation will focus on willow riparian, riparian scrub, and riparian forest/woodland habitats. If permitted, some eucalyptus tree trunks may be reused on-site as instream structure (or other uses) within the project area.
- Crane-assisted tree felling will be performed for all trees. The crane allows for sectional removal to safely lower sections of the tree and limbs. The crane-assisted removal is the safest way to ensure maximum protection when working within close proximity to the stone- and concrete-lined channels and headwall. This method will ensure that limbs do not fall on the channels and headwall. The tree removal contractor will review the strategy and techniques for tree felling with the Trust Natural Resources Department Arborist for trees in close proximity to the stone/rock-lined channel and headwall.
- Stump grinding will be the preferred method for treating stumps. Stump grinding will apply to all trees removed except for two trees that are directly adjacent to the stone/concrete-lined channels. Chips generated from stump grinding operations shall be contained and removed from the work area. No stump excavation will be allowed.
- Stump wrapping will be the choice for treating the two trees in close proximity to the stone/concrete-lined channels. These stumps will be cut close to the ground (3–6 inches) and wrapped in black plastic in order to encourage decomposition. The Contractor and the Department's arborist will collaborate in consultation with the Trust's arborist to decide whether herbicidal treatment of the stumps is required. Stumps in close proximity to the stone/rock-lined channel and headwall will be left in place.

## **3.2 ALTERNATIVES CONSIDERED**

A no-action alternative was considered but rejected because the proposed project is identified in the VMP and PTMP. The proposed project will add ecological value to the area.

An alternative that would remove the culvert and headwall above Schofield Road and restore the creek to that side of the drainage was considered but rejected due to the historic nature of the headwall and the desire to preserve it as part of the history of water use in the area.

An alternative that would create a larger wetland by removing the concrete culvert in the lower end of the creek was considered but rejected. Preserving the historic concrete channel will allow the area to be used to relate to the public the history of water use in the area.

An alternative that would extend the riparian area to the walking bridge past the palm trees (outside of the proposed project's APE) was considered but rejected because this area falls within the historic ornamental landscape zone of the VMP.

This alternative is the selected alternative, described in Section 3.1. It limits the project to Phases 1 and 2 only and provides for protection of the historic-period drainage features in the project area so that no historic resources would be adversely affected. This alternative would provide a lesser degree of enhancement of Dragonfly Creek, and would not fully implement the VMP for this area. However, Phase 3 will be constructed at a later date and will not be associated with the proposed project. Phase 3 will also protect historic-period drainage features.

#### **SECTION 4: AREA OF POTENTIAL EFFECTS**

The APE for the project was established in consultation with Caltrans District 4, and Presidio Trust Natural Resources Department staff. The cultural resources Treatment Oversight Panel, created for the Undertaking, was also consulted in compliance with the PA. This APE is a focused APE because the proposed project does not have the potential to cause indirect effects to adjacent buildings (i.e. visual, auditory, vibratory effects). The proposed project is designed to restore lower Dragonfly Creek to a degree that more closely resembles its historic appearance, and retains and protects historic features in the focused APE. Therefore, changing the visual aspects of the proposed project does not have the potential to affect adjacent properties. The focused APE is shown in Figure 2.

The focused APE follows the maximum possible area of construction-related effects resulting from the proposed project, including all new construction, easements, and staging areas. The western terminus of the focused APE is located just east of two historic-period palm trees straddling Dragonfly Creek. From this point the northern boundary of the focused APE follows a northeasterly line, skirting the southern edge of Appleton Street, Storey Road, and Rod Road. The northern boundary ends just west of Highway 1, marking the eastern extremity of the APE. The eastern boundary of the focused APE parallels the western edge of Highway 1 and is located 75 feet west of the highway (measured from Highway 1 bent #5), ending on the south side of Schofield Road and the stone-lined curb that bounds the historic forest zone. At this point the focused APE swings westward approximately 400 feet, cuts northwest across a recreation trail, and continues southwest along the northern boundary of the trail. The focused APE then turns northwestward crossing east of the historic palm trees to join the northwest corner of the focused APE.

The vertical APE will extend no deeper than 7 feet below existing grade in selected areas. Fill material along approximately 400 feet of creek corridor upstream of Schofield Road will be excavated to widen and expand the floodplain and associated wet meadow habitat to a maximum depth of 6 feet below existing grade. Excavation of fill is not expected to reach native soil. This assumption is based on the geomorphology of the creek as compared to the Hall's 1871 topographical survey of the Presidio (Hall 1871). The south bank downstream of Schofield Road will be excavated and graded to a maximum depth of 7 feet below existing grade in order to expand the floodplain.

## **SECTION 5: REGULATORY FRAMEWORK**

### **5.1 COMPLIANCE WITH THE NATIONAL ENVIRONMENTAL POLICY ACT AND SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT**

The Undertaking will be funded in part by the FHWA and is therefore considered a federal undertaking for purposes of environmental compliance under NEPA and Section 106 of the NHPA.

NEPA requires that federal agencies use all practicable means to preserve important historic, cultural, and natural aspects of the environment. According to the NEPA regulations, in considering whether an action will “significantly affect the quality of the human environment,” an agency must consider, among other things, unique characteristics of the geographic area such as proximity to historic or cultural resources and the degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP.

Section 106 compliance to date for the Undertaking is detailed below.

An archaeological survey report and a historic architectural survey report were produced to identify historic resources within the Undertaking’s project area, and a finding of effect (the final FOE plus the first FOE Addendum) was produced to determine the effects of the proposed project on the identified historical resources. Following completion and approval of the final FOE, the SFCTA continued the Section 106 process with Caltrans, cooperating agencies, responsible agencies, and other interested parties working toward the PA to resolve adverse effects that the proposed project will have on historic properties in the Undertaking’s APE. The FOE Addendum supplemented the Section 106 activities by identifying and clarifying the nature of the potential adverse effects of subsequent project refinements on historic properties. The final FOE and the first FOE Addendum outlined in detail the effects of the proposed project on historic properties.

On August 27, 2008 a PA was executed among the FHWA, the Trust, the NPS, the SHPO, and the ACHP, as well as invited signatories Caltrans, the Veterans Administration, the SFCTA, and the San Francisco Recreation and Parks Department. The PA called for a built environment treatment plan (BETP) and an ATP to be developed. Both treatment plans were finalized in February 2009.

The PA also required completion of a mitigation implementation plan (MIP) that outlines how the treatment plans will be implemented as the details of project design become available. The MIP was finalized in July 2009. In September of 2009, the first biannual status report outlining the process for complying with stipulations of the PA was completed. Both the biannual status report and the MIP were sent to the signatories of the PA in September 2009.

### **5.2 COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

Because the project is funded by a public agency, CEQA requires the SFCTA to assess the effects of the project on cultural resources. Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance. Under CEQA, an impact on a cultural resource is considered significant if a project would result in an effect that may change the significance of the resource (Pub. Res. Code Section 21084.1).

### 5.3 NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT

The Native American Graves Protection and Repatriation Act (NAGPRA) specifies the procedures that federal agencies must follow when burials of Native American origin are found on federal land (43 CFR 10, Subpart B, Section 10.4). If human remains of Native American origin are discovered on the PNHLD during archaeological excavation and trenching activities or construction-related ground-disturbing activities, the following provisions will be followed to comply with NAGPRA regulations:

- Cease activity in the area of discovery and protect the human remains.
- Notify in writing the responsible federal agency.

Upon notification that human remains have been discovered on federal land, the responsible federal agencies (NPS and Presidio Trust) should:

- Certify receipt of the notification.
- Take steps to secure and protect the remains.
- Notify the Native American tribes or tribes likely to be culturally affiliated with the discovered human remains within 1 working day.
- Initiate consultation with the Native American tribe or tribes in accordance with regulations described in 43 CFR 10, Subpart B, Section 10.5.

### 5.4 SIGNIFICANCE CRITERIA

#### 5.4.1 National Historic Landmark Significance

The Presidio was recognized as a National Historic Landmark in 1962 for its important role in the colonial and military history of the American West. The Presidio was found to be significant under criteria A, C, and D. Properties that contribute to the PNHLD include buildings, structures, landscape features, objects, and historic archaeological sites. The period of significance for the PNHLD is 1775–1945. Additionally, Criterion Consideration G (less than 50 years) has since been found applicable to the Presidio, and it is considered significant as the location for the 1951 signings of the Australia, New Zealand United States Security Treaty and the Joint Security Pact between the U.S. and Japan (Alley et al. 1993).

Four broad research domains identified in the PNHLD nomination should be considered when determining whether historic archaeological sites and features contribute to the landmark. These four research domains are integrated with the specific research objectives developed in this document for archaeological property types anticipated in the focused APE. These include:

- Physical layout and design/functional intent.
- Construction techniques and individual building design/function.
- Social and economic history.
- Technological history.

#### **5.4.2 National Register of Historic Places Criteria**

Based on background research conducted to date, only two property types are likely to be encountered in the APE that are not specifically designated as contributing to the NHL. These property types are prehistoric archaeological sites and historic archaeological resources that are not related to the historic military themes for which the Presidio has been determined significant. These resources would need to be evaluated against the NRHP criteria, which define significant resources as properties that embody those qualities of significance in American history, architecture, archaeology, engineering, and culture. Those qualities are present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association; and that:

- A. Are associated with events that have made a significant contribution to the broad patterns of our history.
- B. Are associated with the lives of persons significant in our past.
- C. Embody the distinctive characteristics of a type, period, or method of construction; or that represent the work of a master; or that possess high artistic values; or that represent a significant and distinguishable entity whose components may lack individual distinction.

or

- D. Have yielded or may be likely to yield information important in prehistory or history.

As specified by the PA, the identification, evaluation, and mitigation programs developed for the Undertaking are presented in the Archaeological Treatment Plan (Jones & Stokes 2009) and the Built Environment Treatment Plan (Caltrans 2009). The overall approach presumes that resources not specifically identified as contributing resources to the PNHL but identified during the Undertaking are likely to be found to be contributing resources to the PNHL. Other documents being prepared as cultural resources mitigation for the Undertaking (the Historic American Landscape Survey and the Cultural Landscape Study) are based on the presumption that any resource from the period of significance that retains its integrity will be considered a contributing resource to the PNHL.

#### **5.4.3 California Register of Historical Resources Criteria**

CEQA states that if a project results in adverse effects on significant cultural resources, alternative plans or mitigation measures must be considered. The State CEQA Guidelines define a significant historical resource as a resource listed or eligible for listing on the California Register of Historical Resources (CRHR) (PRC 5024.1). A historical resource may be eligible for inclusion in the CRHR if it meets any of these criteria:

- 1. It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- 2. It is associated with the lives of persons important in our past.
- 3. It embodies the distinctive characteristics of a type, period, region, or method of construction; or represents the work of an important creative individual, or possesses high artistic values.
- 4. It has yielded, or may be likely to yield, information important in prehistory or history.

**SECTION 6: SOURCES CONSULTED**

ICF Jones & Stokes performed on-site fieldwork to inspect and record resources in the APE, and background and resource-specific research at the National Park Archive and Presidio Trust library. Previous archival research for pertinent information on potential historic sites in APE was conducted with the assistance of the National Park Presidio archivist Amanda Williford and Presidio Trust librarian Barbara Janis. Pertinent literature was also reviewed, including previous cultural resources reports prepared for the Undertaking and other projects within the PNHLD.

**6.1 ARCHIVAL RESEARCH**

The Park Archives and Record Center contained a variety of historic materials that helped to shed light on the development of infrastructure at Fort Scott. Historic maps, historic and aerial photographs, and U.S. Army reports and correspondence regarding improvements to Fort Scott were particularly helpful. Difficulty in accessing unprocessed collections at the Presidio Archives prevented a comprehensive examination of all of its materials that may be pertinent to the proposed project. No specific information about Dragonfly Creek was located, but historic infrastructure maps (Table 1) helped to inform periods of development within the project vicinity.

**TABLE 1. HISTORIC MAPS PERTINENT TO THE DRAGONFLY CREEK RESTORATION PROJECT**

| Author/Reference                      | Date                   | Map Title                                                 | Notes                                                            |
|---------------------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------------------|
| U.S. Army                             | 1942                   | Fort Winfield Scott Plan of Buildings and Utilities       | Electric line and 4-inch oil pipe crossing APE at Schofield Road |
| U.S. Army                             | n.d. (circa 1910–1940) | No title (map of Fort Scott)                              | Electric line and 4-inch oil pipe crossing APE                   |
| U.S. Army Office of the Quartermaster | 1920                   | Fort Winfield Scott Electrical Distribution Lines         | “Electrical Lighting” crossing APE                               |
| U.S. Army Engineer Corps              | 1909                   | Fort Winfield Scott (traced from Major W.W. Harts survey) | 2-inch water pipe adjacent to APE                                |

Barbara Janis, the Presidio Trust Librarian, provided useful reports pertaining to Fort Scott, including copies of U.S. Army reports obtained from the National Archives in Washington, D.C., and cultural resources studies completed for the Presidio. Of particular use was the Cultural Landscape Report of the Fort Scott area (Presidio Trust and SMWM 2008). Presidio planning documents provided background information regarding the natural environment as well as future planned actions in the project vicinity.

**6.2 PREVIOUS CULTURAL RESOURCES STUDIES**

Previous cultural resources studies completed for the Undertaking and other projects on the PNHLD are numerous. No cultural resources studies have been conducted specifically for the Dragonfly Creek area, but the extant studies addressing archaeological resources in other areas of the PNHLD serve to inform expectations for the presence of cultural resources in the focused

APE. Studies completed at the Presidio are described later in this report. Table 2 lists the studies consulted for this ASR.

**TABLE 2. PREVIOUS CULTURAL RESOURCE STUDIES PERTINENT TO THE DRAGONFLY CREEK RESTORATION PROJECT**

| Author/Reference                              | Location                | Type of Study                                      |
|-----------------------------------------------|-------------------------|----------------------------------------------------|
| Alley et al. 1993                             | Presidio wide           | National Historic Landmark Update                  |
| Milliken 1996                                 | San Francisco           | Ethnographic study                                 |
| Woodward-Clyde 1998                           | Crissy Field area       | Summary monitoring report                          |
| Dalldorf et al. 2006                          | Building 207/231 area   | Geoarchaeological survey                           |
| Origer 2005                                   | Presidio                | Obsidian analysis study                            |
| Milliken et al. 2007 (draft)                  | San Francisco Peninsula | Ethnographic study                                 |
| Jones & Stokes and Albion Environmental 2002a | Doyle Drive Corridor    | Archaeological/Historical Survey Report            |
| Jones & Stokes and Albion Environmental 2002b | Doyle Drive Corridor    | Phase I Extended Survey/Phase II Evaluation Report |
| Meyer 2002                                    | Doyle Drive Corridor    | Geoarchaeological survey                           |
| Barnaal 2007                                  | Presidio wide           | Cut/Fill Model                                     |
| West 2008                                     | Dragonfly Creek         | Pollen analysis                                    |
| ICF Jones & Stokes 2009b                      | Doyle Drive Corridor    | Archaeological Treatment Plan                      |
| Caltrans 2009                                 | Doyle Drive Corridor    | Built Environment Treatment Plan                   |

## 6.3 OTHER PERTINENT STUDIES

### **6.3.1 Presidio Cut/Fill Model**

The Presidio Cut/Fill Model was developed by the Presidio Trust in 2005 in an effort to better identify the potential for archaeological deposits within the PNHLD. This model was developed by overlaying current elevation readings over Hall's 1871 historic topographic map to identify which areas within the Presidio have been cut and where fill soils have been placed (Hall 1871). The model also included calculations of how much cut and how much fill has affected the native ground surface. The Model has been recognized by both the archaeological and the remediation departments at the Presidio Trust to generally correspond to observations made in the field. Several episodes of excavation have supported the accuracy of the model.

The model indicates that extensive cutting and filling occurred in the proposed project. Cutting episodes are located along the north edge of the focused APE and much of the rest of the focused APE contains fill material.

### **6.3.2 Dragonfly Creek Pollen Analysis**

As part of ongoing vegetation restoration efforts conducted by the Presidio Trust, a pollen analysis study was completed for Dragonfly Creek (West 2008). The analysis was designed to assist in clarifying the vegetation history of the Dragonfly Creek drainage. Ten samples of alluvium were taken from various parts of the drainage, pollen was extracted from the samples, and the pollen was counted for relative frequency.

Sediment samples were taken every 10 centimeters from a trench excavated 1.7 meters to the water table. Sediments consisted of fine sand (consistent with wind-blown dune sand) with small amounts of silt and clay. While pollen preservation in the samples was poor, enough pollen was extracted to gain a sense of the vegetation history of the drainage (West 2008). West examined the change in relative pollen frequencies over time and identified three temporal periods, Prehistoric, Transitional, and Historic, reflecting significant vegetation change.

The sequence displays a move away from native grasses and shrubs, dominant during the prehistoric period, to a habitat dominated by nonnative trees and invasive herbaceous plants. The pollen data suggest Dragonfly Creek supported a thriving coastal sage community that covered the sandy dunes in the drainage prior to the arrival of the Spanish; a slightly mixed coastal sage community with the expansion in willow and some nonnative trees during the Transitional period; and a sweeping transformation of the landscape dominated by eucalyptus, cypress, and pine during the U.S. Historic period, when the Presidio's historic forest was planted (West 2008). This planting program effectively wiped out the native coastal sage community on the Dragonfly Creek drainage.

## **6.4 NATIVE AMERICAN CONTACTS**

On June 2, 2009, ICF Jones & Stokes mailed letters to the Native American signatories of the PA (Appendix B). The letters included project maps and a description of the proposed project. The letter requested direct communication about cultural resources information and project concerns. Follow-up telephone calls were placed on June 11, 2009. No responses to the letters or phone calls have been received to date. All items of correspondence with Native Americans are presented in this report.

## **6.5 HISTORICAL SOCIETY CONTACTS**

Historical society contacts are described in the HRER for the proposed project (ICF Jones & Stokes 2009a).

## **SECTION 7: INVESTIGATIVE RESUME**

ICF Jones & Stokes archaeologist Karen Crawford prepared this ASR. Ms. Crawford and Ms. Jerman conducted an archaeological reconnaissance of the focused APE on June 26, 2009. Ms. Crawford holds an M.A. in anthropology (archaeological emphasis) from the University of California, Davis, and has 13 years of professional experience in California archaeology and cultural resources management. She is a Registered Professional Archaeologist and meets the Secretary of the Interior's Qualification Standards for Professional Archaeologist. Ms. Jerman holds an M.A. in anthropology (archaeological emphasis) from The College of William and Mary

in Virginia. Ms. Jerman has 8 years of professional experience in California archaeological and cultural resources management. She is a Registered Professional Archaeologist and meets the Secretary of the Interior's Qualification Standards for Professional Archaeologist.

## SECTION 8: SETTING

### 8.1 ENVIRONMENT

The proposed project is at the northern tip of the San Francisco Peninsula, near the mouth of the San Francisco Bay. The Bay Area has a Mediterranean climate, with mild winters and warm, dry summers. Warmer summer and colder winter temperatures are found inland, while more moderate temperatures prevail near the coast due to wind and fog from the west. Annual rainfall, most of which falls between November and March, averages between 15 to 18 inches (381 to 457 millimeters) (Wells 1995). In this landscape, many of the smaller streams are seasonal, and the availability of fresh water, particularly fresh water sources, has been significant both prehistorically and historically in the selection of places for settlement.

Dragonfly Creek is the smallest of the major surface water bodies present within the Presidio. Although the creek and its watershed have undergone significant human alteration from its natural state, it existed at the Presidio prior to European settlement and development (Presidio Trust 2002b).

Dragonfly Creek lies within the highlands of the Ft. Scott watershed. The Ft. Scott watershed, along with the Tennessee Hollow watershed, drains the northeastern half of the Presidio into the San Francisco Bay. Springs within the Ft. Scott watershed supply Dragonfly Creek, a perennial stream located southeast of the Ft. Scott Parade Ground and west of Highway 1/Veteran's Boulevard. The stream flows over a natural sandy substrate before entering a section of concrete channel leading to an underground culvert where it discharges to the bay.

Dragonfly Creek lies on stratigraphy consisting primarily of the Colma formation, which overlies a complex assemblage of sandstone, siltstone, shale, and metamorphic rock known as the Franciscan Formation. Groundwater occurs in both the Colma and Franciscan Formations, although it is believed that aquifers in the Colma Formation produce higher yields than bedrock aquifers. The Dragonfly Creek groundwater basin is the result of alluvial and aeolian sediments deposited in a depression above the Franciscan Formation. A spring emerges at the western edge of the watershed, producing water that flows in a northeasterly direction. (Presidio Trust 2002b).

The hydrologic properties of Dragonfly Creek have been substantially altered by the cutting away of soil and the placement of fill, as well as the alteration of native vegetation through either removal or planting of nonnative species (National Park Service 2001).

#### **8.1.1 Geology and Soils in the Project Area**

Modern Bay Area local landforms result from tectonic movements of the San Andreas Fault and related structures, global sea-level fluctuations, and alluvial filling. The geology surrounding the APE contains rocks of the Franciscan Assemblage, formed 100–200 million years ago and overlain by the late Pleistocene Colma Formation and other quaternary deposits. Franciscan rocks form the headlands and are dominated by sheared sandstones and shales with inclusions of greenstone, cherts, greywacke, and serpentinite that can be seen in cliffs and artificial cuts in

the project vicinity. These rocks were utilized by both prehistoric and modern peoples. Geologic mapping indicates that the APE, which consists of upland hillslope portions of the Presidio, are underlain by bedrock and Pleistocene-age alluvium, which are mantled in by Holocene-age sand dunes and artificial fill deposits (Meyer 2002).

## 8.2 PREHISTORY

Detailed prehistoric contexts have been described in technical reports prepared for the Undertaking (ICF Jones & Stokes 2009b; Jones & Stokes and Albion Environmental 2002). An in-depth discussion of Bay Area cultural chronology is presented in the ATP prepared for the Undertaking (ICF Jones & Stokes 2009b) and is not replicated here. The following discussion, focusing on San Francisco prehistory is excerpted below from the *Final Archaeological Survey Report/Historical Report for the Doyle Drive Corridor Project, Presidio of San Francisco National Historic Landmark District, City of County of San Francisco, Volume 2 of 4*. (Jones & Stokes and Albion Environmental 2002a).

The prehistoric record of the San Francisco Bay Area indicates that occupations began at least 5,000 years ago. Although few sites predate 4000–3800 B.P. (Broughton 1999; Jones 1992; Lightfoot 1997; Moss and Erlandson 1995), it is likely that older sites once situated in bayshore contexts have been submerged due to post-Pleistocene glacial melt and resulting sea-level rise. Atwater et al. (1977) and Fairbanks (1989) suggested that sea levels in the Bay raised an average of 2 cm per year between 9500–8000 B.P. and that seawater may have advanced into the Bay as fast as 30 meters per year during this period.

Concerning the known archaeological record, evidence of human adaptations before about 4000 B.P. derives from isolated burials like the Bay Area Rapid Transit (BART) site (Henn et al. 1972) and Stanford Man II (Gerow 1991), or from burials at sites like Stone Valley (Fredrickson 1965) and CCo-308 (Fredrickson 1966). The earliest occupations of Bay Area shellmounds date to 4000 B.P. or a bit thereafter. Notable examples are found at Ala-307 (Wallace and Lathrap 1975) and at SMa-77 (Gerow and Force 1968). Burials in these components contained rich grave goods associations and artifact assemblages that included stemmed points, mortars and pestles, notched net sinkers, perforated charmstones, and a variety of bone tools.

Subsistence remains indicate the exploitation of both coastal and inland faunal species, fish, and shellfish, although the first were more prevalent at S Ma-77 and the last of significance at Ala-307. Among shellfish remains, both sites showed an early importance of oyster, although mussel and clam were dominant in the upper levels at Ala-307.

Jones (1992) noted that all identified early components on the central coast represent residential deposits on sites occupied either seasonally or year-round. According to Moratto (1984:263), sedentary villages may have been established in the San Francisco Bay Area as early as 2500 B.C. (4500 B.P.), and Wallace (1978:35) might allow for an even earlier date. Both Simons (1992:74) and Jones (1992:12) suggested that mammal exploitation at bayshore sites before about 2500 B.P. focused on terrestrial game, particularly large artiodactyls like antelope, deer, and elk. Simons (1992:74) also noted a lessened emphasis on marine mammals and inland carnivores at this time.

According to Jones (1992), occupations between about 2500 and 2000 B.P. are well represented at bayshore sites and include at least three locations in San Francisco: SFr-7 (McCrossin 1982), SFr-112 (Pastron and Walsh 1988a), and SFr-113 (Pastron and Walsh 1988b). Jones (1992:13) argued that Bay Area faunal assemblages show an increase in the use of marine taxa, particularly sea otter. Hildebrandt and Jones (1992:383) suggested that this increase is due in part to the overexploitation of larger pinnipeds (e.g., sea lions and seals). At the Emeryville Shellmound, Broughton (1999)

viewed this same shift as the result of intensified artiodactyl predation and a subsequent decrease in foraging efficiency; he offers that native peoples solved this problem by more often targeting lower-ranked marine prey.

After about 2000 B.P., the number of coastal sites in the southern San Francisco Bay and on the open coast may have decreased, whereas the number of inland locations increased (Jones 1992:13).

Specialized processing camps on the coast still were used to exploit marine resources, but such places were only satellites of larger, inland residential bases. Recent excavations at SFr-129 (Clark 2001) may testify to the characteristics of such specialized, short-term camps. Hildebrandt and Jones (1992) suggested that open coast faunal assemblages show a rise in the use of terrestrial animals, and Hildebrandt (1997) has also recognized a late shift toward the use of inland over coastal resources in the southern Santa Clara Valley.

However, the gradual abandonment of coastal bases during the previous interval continued during the last thousand years of Bay prehistory, and few shellmound sites provide evidence of recent occupations. SFr-129 is one exception, evidently dating to the Late Horizon/Augustine Pattern (Clark 2001:123), although it probably represents a short-term processing camp rather than an extended residential locus. Broughton (1999:32), however, raised the possibility that the archaeological record of San Francisco Bay shellmounds is biased against the discovery of recent occupations. He rightly pointed out that the upper layers of many shellmounds (e.g., West Berkeley, Ellis Landing, and Stege) were removed or leveled for construction purposes before being examined archaeologically, and that components dating to recent prehistoric times would have been affected by such activities. Thus, their scarcity in the archaeological record of the San Francisco Bay may be more a result of historical fact than of prehistoric abandonment.

### **8.2.1 Previous Studies at the Presidio**

Prior to 1989, the Presidio was an active military installation with few important archaeological projects taking place there. However, a few notable excavations were conducted during the U.S. Army's use and are noted in the PNHL study (Alley 1993).

Barbara Voss's recent book, *The Archaeology of Ethnogenesis: Race and Sexuality in Colonial San Francisco* (Voss 2008) contains an excellent summary of the previous work conducted within the Presidio to date. In general, archaeological research at the Presidio has been limited to minimal excavation and observations made during monitoring for construction projects and environmental cleanup efforts. Not all of these efforts have been formally documented in study, survey, or monitoring reports. The following discussion, focusing on San Francisco prehistory is excerpted below from the *Archaeological Treatment Plan for the South Access to the Golden Gate Bridge Doyle Drive Project, City and County of San Francisco, California* (ICF Jones & Stokes 2009b).

The first known archaeological work within the Undertaking's APE was conducted by Woodward-Clyde Consultants (1996) for the Defense Environment Restoration Program Related Archaeological Monitoring Services. Archaeological monitoring during soils sampling undertaken at Building 637, and archaeological monitoring and soils bore inspections for well installations at Building 231, were negative for archaeological resources. In 2001, Basin Research Associates conducted a coring program within the Undertaking's APE primarily to determine local stratigraphy in order to assist in future test excavations associated with the Doyle Drive Corridor Project (Jones & Stokes and Albion Environmental 2002a) and secondarily to determine the presence or absence of cultural material at the sample locations. One hundred

potential locations were intuitively and systematically selected for coring in the Undertaking's APE; however, only 88 were cored because of the presence of underground utilities, dangerous traffic patterns, and hazardous materials at some locations.

In September 2001, a second review of 20 selected core samples was conducted by geoarchaeologist Jack Meyer, then of the Anthropological Studies Center, which provided information for the project regarding buried archaeological site potential and testing in the Undertaking's APE (Meyer 2002). An ASR/HSR was prepared for the focused archaeological APE of the Doyle Drive Corridor by Jones & Stokes and Albion Environmental (2002a), followed by an archaeological testing program throughout the Undertaking APE in November and December 2001. The objectives of the testing program were to identify archaeological resources in the Undertaking APE, delineate their boundaries, and assess their eligibility for inclusion in the NRHP and the CRHR. The Phase I Extended Survey/Phase II Evaluation Report (Jones & Stokes and Albion Environmental 2002b) documents the findings and results of the program. The report provides a comprehensive research design for historic and prehistoric sites, which provides some of the same information for the current project.

Prehistoric sites in the focused APE include the remains of prehistoric shellmound CA-SFR-6, the Presidio Mound, first identified and recorded in 1912 by L.L. Loud, when it was unearthed during marshland reclamation for the Panama-Pacific International Exposition. It was covered over shortly thereafter and not relocated until archaeological testing of the Undertaking APE. The site is set near the base of steep cliffs. A human burial, designated CA-SFR-26, had been recovered in the 1970s from the same location (Moratto and Heglar 1972); at that time the midden site was not encountered, and the burial, including a cut-and-polished bird-bone fragment, was considered an isolated find (Moratto 1984:267). Trenching was conducted at CA-SFR-6 as part of the Undertaking (Giambastiani and Fitzgerald 2001). A radiocarbon sample from the midden of CA-SFR-6 and a sample of human remains (CA-SFR-26) yielded similar radiocarbon dates in the late prehistoric period. No other evidence of archaeological deposits was identified during the testing program. CA-SFR-6 was evaluated as eligible for the NHRP under Criterion D for its potential to make important contributions to various research issues identified in the research design; it may also be eligible under Criterion A for traditional or other values attributed to ancestral sites by the modern Ohlone community. According to the authors, CA-SFR-6 also appeared to constitute a historical resource for the purposes of CEQA (Jones & Stokes and Albion Environmental 2002b).

Although not within the focused APE, CA-SFR-129, known as the Crissy Field site, is in the immediate vicinity of the proposed project. The site was investigated by Holman & Associates for NPS's Crissy Field marshland restoration project (Clark 2001). CA-SFR-129 is an intensively used site that dates to Phase 2 of the Late Period (ca. A.D. 1500); it yielded a large faunal assemblage of shellfish, marine mammals, marine birds, migratory birds, terrestrial mammals, and fish. The site was determined to be eligible for listing in the NRHP and was avoided for marshland restoration (Jones & Stokes and Albion Environmental 2002b).

Also investigated for the Crissy Field Restoration Project was the Presidio's historic-era Quartermaster's Dump (Holman & Associates 1999). Test-phase investigations revealed the presence of a large deposit of material relating to the Presidio's organized system of dumping from the 1880s to 1912. In 1912, the area was covered with dredged bay sands in preparation for construction of buildings for the Panama-Pacific International Exhibition. Based on the findings of the test excavations, several areas within Crissy Field were evaluated as potentially contributing to the PNHL, and data recovery excavations were undertaken (Ambro and Clark 2003). More than 500,000 artifacts were recovered. The artifacts represent a variety of military and domestic activities, as well as those associated with a port city on the Pacific.

The Presidio was designated an NHL District in 1993 (Alley et al. 1993): several historic sites and features were found to be contributing elements to the district (see Table 2 in Jones & Stokes and Albion Environmental 2002a). None of these were identified by the 2001 testing program by Jones & Stokes, probably due to the extensive grading and fill removal that have occurred in this area. Jones & Stokes archaeologists concluded that the few historic-period features and objects identified during the testing program do not contribute to the NHL district.

In 2006, the Anthropological Studies Center at Sonoma State University conducted a subsurface geoarchaeological survey in the Building 207/231 area of the Presidio (Dalldorf et al. 2006) within the Undertaking APE. Nine backhoe trenches ranging from 10 to 20 feet (3.1 to 6.2 meters) in length and 4 to 15 feet (1.2 to 4.6 meters) in depth were excavated in the project area. No prehistoric artifacts were identified, but two paleosols (or *old soil* representing stable land surfaces in the past) were revealed: an upper and lower dune dating to the Holocene/historic era and Holocene, respectively. The soils were poorly formed, suggesting that they were available for human use for only a limited period of time. The historic surface soils were also identified under fill. Several historic-era artifacts were identified within fill deposits; all were judged to lack research value.

In June and July, 2008, as part of an ongoing environmental remediation program by the Trust to remove landfills, tanks, pipelines, and other contaminated materials and debris resulting from Army activities at the military post, the site of a buried historic-period dump was located in the open space adjacent to the former incinerator buildings (No. 669). The dump lies within the Undertaking APE, just east of the focused APE, and is bounded by Incinerator Road to the east, Crissy Field Avenue to the north, McDowell Avenue to the west, and Cowles Street to the south.

The goal of the Trust project was to define the extent of the dump and remove the potentially hazardous contents. Excavations for the remediation project focused on the eastern half of the open space where a tractor-mounted backhoe created a large open exposure (0.39 acres [~ 1,576.59 square meters]) as the dump's contents were removed. To the west of the exposure, a series of 10 trenches were excavated, presumably to delimit the boundaries of the materials. A site inspection and recording were undertaken by Caltrans archaeologist Christopher Caputo on July 16 and 23, 2008, in an attempt to identify the nature (i.e., age, integrity, and artifact quantities) and extent (i.e., length, width, and depth) of cultural deposits within the exposed portions of the site.

Site deposits were found to extend over most of the open exposure and were present in more than half of the trenches excavated to the west of the exposure. A relatively arbitrary site boundary based on the areas excavated for the project indicates that the site has a lateral limit of just over 197 feet (60 meters) east to west and 148 feet (45 meters) north to south within the Undertaking APE. However, it should be noted that observations were constrained by the areas exposed for the remediation project and deposits were observed to extend beyond these boundaries to the east, south, and west. Furthermore, a large portion of the site's deposit had been previously removed for the remediation project and was not available for inspection. In most areas, the deposits appeared in densely deposited stratigraphic packages averaging a meter thick with some areas as thick as 6.5 feet (2 meters). In other areas, excavations did not appear to go deeper than the deposit. The entire deposit appeared to be capped by at least 3.3 feet (1 meter) of imported soil and as much as 6.5 feet (2 meters) in some locations.

The artifact assemblage indicates that the historic-period deposit in this location may be characterized as an early twentieth-century dump composed of a diverse range of variably fragmented and incinerated domestic, military, and medical refuse. Horizontal and/or vertical patterning across the site was not readily apparent, but one location (Trench 8) appeared to exhibit a spatially isolated deposit of military ceramics. In addition, a partially intact architectural

feature may represent the remains of an incinerator or associated structure that predates the existing incinerator building (ca. 1936) and is depicted near this location on maps dating to 1912.

### 8.3 ETHNOGRAPHY

For a detailed description of the ethnographic context of the Presidio, see the *Archaeological Treatment Plan for the South Access to the Golden Gate Bridge Doyle Drive Project*, City and County of San Francisco, California (ICF Jones & Stokes 2009b). The following discussion is condensed from the Archaeological Treatment Plan.

At the time of Euroamerican contact, the area now occupied by the Presidio was part of a larger cultural region long inhabited by the Ohlone (also referred to as Costanoan), an aggregation of tribal bands united through intermarriage and shared culture, and who spoke dialects of a common mother tongue, stretching from what is now Marin County south to Monterey. In general, the population density of Ohlones ranged from about 6 people per square mile along the inland northern and southern bay shores to as low as 2 people per square mile in the dry interior areas and along the wet Pacific coast and entrance to the Bay (Milliken 1995: 20).

Spanish explorers first traversed the San Francisco peninsula in the late 1760s to late 1770s, making what were often initial contacts with its inhabitants and frequently recording some details of the events that took place. Unlike other parts of California, native lands on the San Francisco peninsula were rapidly populated by Spanish and other European settlers. This drastic influx of foreigners, combined with the pressures of forced missionization, resulted in the swift collapse of native populations and the near end of traditional cultures in the Bay Area. Today, the modern Ohlone community continues many of its traditional practices and endeavors to restore and preserve other aspects of its traditional culture.

Estimates of total Costanoan populations during the contact period vary from 7,000–11,000. The territory of each tribe included several seasonal villages and camps. The “tribes” can best be described as independent associations of families that worked together to harvest wild plant and animal resources within fixed territories and to maintain yearly ceremonial cycles. Tribal villages were probably occupied for several months each year, with groups of families moving between different locations as food resources became seasonally available. Groups of families coalesced during winter to share food stores and engage in annual ceremonial activities.

Milliken (1995) proposed the term Yelamu as a tentative name for the tribe living on the northern tip of the San Francisco peninsula. This tribe may have comprised as many as 160 individuals who were divided for most of the year into three semi-sedentary groups, one of which included a cluster of families that made seasonal use of “the beach area facing the sea and the Golden Gate.” This location, referred to as Petlenuc (Milliken 1995:261; 1996), was “perhaps near the site of the Spanish Presidio compound” and was supposedly one of five villages (Chutchui, Sitlintac, Tubsinte, Amutac, and Petlenuc) in what is now the city of San Francisco.

One group (band) of Yelamu families in the San Francisco area may have used the sites of Sitlintac and Chuchui at different times of the year because these sites were “only a mile or two [1.6 to 3.2 km] apart in the valley of Mission Creek” (Milliken 1995:261), and another band may have alternated between Amutac and the village of Tubsinte in the Visitation Valley area. As for Petlenuc, Milliken (1983, 1995) indicated that this site may have been used seasonally by a smaller, third band. Milliken’s claim that the northern end of the San Francisco peninsula held few subsistence resources implies that Petlenuc may have been a less significant habitation. As he notes, “much of the area was covered with windswept sand dunes and the scrubbiest of grasslands. Its creeks were small and it lacked extensive oak groves” (Milliken 1995:61). The

extensive slough present near the shore at that time, however, provided some marsh and sea resources.

After the establishment of Mission San Francisco, the years between 1777 and 1810 saw a complete transformation of Yelamu culture. In all, 131 Yelamu people were baptized at Mission San Francisco (Milliken 1996:24). The last Yelamu couples joined the mission in 1786, and two older Yelamu women were converted in 1787. Their conversions effectively marked the end of tribal life on the northern San Francisco peninsula. Indeed, by about 1805, the native population at Mission San Francisco was completely mixed and included individuals from many different Costanoan tribes, from Bay Miwok tribes in the East Bay, and from Coast Miwok tribes on the Marin peninsula.

Today, modern descendants of Ohlone groups now identify themselves collectively using the name "Ohlone." Since the 1980s the modern Ohlone community has undergone a period of revitalization based on familial ties and former rancheria affiliations (Albion Environmental 2001). Although they have yet to receive formal recognition from the federal government, Ohlones are becoming increasingly organized as a political unit and have developed an active interest in preserving their ancestral heritage. Descendants of Ohlones still live in the area, and many are active in maintaining their traditions and advocating for Native American issues.

## **8.4 HISTORY**

Periods of significance in Presidio history have been established for the Presidio NHL: Spanish-Mexican Settlement (1776–1846); Early United States Occupation (1846–1860); Civil War (1861–1865); Indian and Military Affairs (1866–1890); Nationalistic Expansion (1891–1914); World War I (1915–1918); Military Affairs between the Wars (1919–1940); World War II (1941–1945); and 1945 to the present (Alley et al. 1993). A historic context is provided in the HRER prepared for this project (ICF Jones & Stokes 2009a) and will not be reproduced here.

## **8.5 EXPECTED PREHISTORIC ARCHAEOLOGICAL HISTORIC PROPERTY TYPES**

### **8.5.1 Prehistoric Archaeological Property Types**

Previous studies in the project vicinity provide reasonable expectations of the range of prehistoric archaeological property types relevant to the proposed project. These property types are classified here in terms of constituents and features. Because significant historic and modern landscape modifications in the focused APE have resulted in a proliferation of fill and large areas of grading, the original (prehistoric) ground surface is completely altered throughout the vast majority of the focused APE. Based on our knowledge of the natural topography of the focused APE as well as the pollen studies completed by West (2008), five prehistoric archaeological property types have the potential to be present within subsurface deposits in the focused APE: midden sites, multiple-constituent sites, isolated burials and features, lithic scatters, and isolated artifacts. Archaeological constituents are described in detail in the ATP prepared for the Undertaking (ICF Jones & Stokes 2009b) and are summarized in Table 3.

**TABLE 3. PREHISTORIC ARCHAEOLOGICAL PROPERTY TYPES**

| Property Type                 | Characteristics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Midden sites                  | Midden soils in conjunction with evidence of long- or short-term residence (house floors, fire-affected rock, or rock concentrations); ash, shell, and faunal material; flaked-stone artifacts; groundstone artifacts, including mortars, pestles, manos, and milling slabs; and shell beads and other ornaments. Dark, friable, or greasy soil midden constituents may include all or some of the following: shell, bone ash, charcoal, fire-affected rock, baked clay, worked bone, flaked stone and groundstone, house floors, and human burials. |
| Multiple-constituent sites    | Discrete occurrences of shell, bone, ash, charcoal, fire-affected rock, worked bone, flaked stone and groundstone, and human burials.                                                                                                                                                                                                                                                                                                                                                                                                                |
| Isolated burials and features | Deliberately interred burials, cremations, or human bone; beads and other ornaments (e.g., charmstones and pendants) may be interred with burials.                                                                                                                                                                                                                                                                                                                                                                                                   |
| Lithic scatters               | Flaked-stone debitage, projectile points, and flaked-stone tools; may also include some groundstone.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Isolated artifacts            | Artifacts that are found without association with other artifacts or features; they frequently lack stratigraphic integrity and significant spatial patterning.                                                                                                                                                                                                                                                                                                                                                                                      |
| Contact Sites                 | A contact site is an example of any of the above property types that was created, occupied, or used by Native Americans after contact with non-Indian travelers or settlers but prior to major alteration of traditional lifeways. (More recent Native American sites that are dominated by nonnative housing, tools, and mass-produced domestic goods should be tested and treated using the methods of historical archaeology.)                                                                                                                    |
| Property Type                 | Characteristics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

**8.5.2 Expected Historic Archaeological Property Types**

Archival research suggests that the focused APE and the Dragonfly Creek vicinity have the potential to contain a number of historic archaeological property types. These property types are: urban infrastructure; domestic and commercial refuse sites; domestic, commercial, and industrial architecture; industrial refuse sites; and isolated artifacts. Potential historic archaeological property types are described in detail in the ATP prepared for the Undertaking (ICF Jones & Stokes 2009b) and are summarized in Table 4.

**TABLE 4. HISTORIC ARCHAEOLOGICAL PROPERTY TYPES**

| Property Type                                     | Feature Type                                         | Attributes                                                                                                                                                      |
|---------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Domestic and commercial refuse sites              | Hollow-filled features (pits, privies, and/or wells) | Discrete deposits                                                                                                                                               |
|                                                   | Sheet refuse (ephemeral versus massive)              | Thin layer of refuse that may have accumulated over time versus large discrete layer of refuse representing one event                                           |
| Domestic, commercial, and industrial architecture | Foundations                                          | Brick alignments, concrete slabs, piers                                                                                                                         |
|                                                   | Builder's trenches                                   | Trenches                                                                                                                                                        |
|                                                   | Walls                                                | Concrete, brick, or wooden; in situ or collapsed                                                                                                                |
| Industrial refuse sites                           | Hollow-filled features (pits, privies, kilns)        | Discrete deposits of industrial waste                                                                                                                           |
|                                                   | Sheet refuse (ephemeral versus massive)              | In the project vicinity, typically extensive, thick deposits of slag, granite blocks, wood, etc.                                                                |
| Urban infrastructure                              | Sewer pipes                                          | Metal or clay                                                                                                                                                   |
|                                                   | Power lines                                          | Postholes                                                                                                                                                       |
|                                                   | Fill                                                 | Gravel, nonnative soils, mixed refuse                                                                                                                           |
| Isolated artifacts                                | Not applicable                                       | Artifacts that are found without association with other artifacts or features; they frequently lack stratigraphic integrity and significant spatial patterning. |

### Mapped Historic Archaeological Features in the Direct APE

Historic maps do not indicate the presence of subsurface historic archaeological manifestations in the focused APE, with one exception. An examination of historic U.S. Army maps indicates that several infrastructure features were once located in the focused APE.

A 1909 Army map shows that water from Dragonfly Creek traveled via pipeline to the Main Post area. There was a pipeline from the well to a storage reservoir located just north of Kobbe Avenue in the vicinity of the then-proposed tennis courts. A windmill, located west of the reservoir, provided power to pump the water from the well. A second 2-inch pipeline ran from the well to the northeast toward the cemetery. This pipeline is located just southwest of the focused APE and runs northeast toward the National Cemetery (U.S. Army Engineer Corps 1909).

An undated Army map depicts an "electric line" and a "4" oil line", crossing the focused APE at a 135/125 degree angle essentially following the footprint of Schofield Road. There is an additional electrical line extends from the main line, originating at a point south of the focused APE and running northeast at a 45-degree angle. This line appears to run just outside of the focused APE or to cut across the southeast corner of the focused APE (U.S. Army n.d.).

Although this map is undated, the presence of noncommissioned officers' quarters built by 1912 and the absence of warehouses built in 1941 indicate the map was created sometime between 1912 and 1941. The electrical line is also depicted on Army maps dating from 1920 and 1942 (U.S. Army Office of the Quartermaster 1920, U.S. Army 1942).

It is unknown if these features were abandoned in place or if they were removed. It is possible these remain in place. Army infrastructure is well documented in many parts of the Presidio and typically, if encountered, the feature is photographed and mapped and no other treatment is required.

## **SECTION 9: FIELD METHODS**

ICF Jones & Stokes archaeologists Karen Crawford and Michelle Jerman conducted an intensive pedestrian survey of the focused APE on June 26, 2009. They were assisted by architectural historian Edward Yarbrough. Research indicated that prehistoric archaeological manifestations would not be found on the current ground surface due to extensive earthwork (grading and filling) conducted by the U.S. Army in this area.

All accessible areas of the focused APE were intensively inspected by walking transects approximately 3 meters apart. Dense vegetation prevented access to approximately 50% of the study area. Exposed areas of ground surface in the focused APE were examined for archaeological remains, including rodent back dirt piles, graded slopes, and creek banks. These areas were inspected for indicators of surface or subsurface archaeological deposits. In particular, areas within the focused APE were inspected for surface materials wherever documented infrastructure was noted on U.S. Army maps (U.S. Army Engineer Corps 1909; U.S. Army Office of the Quartermaster 1920; U.S. Army n.d., 1942). No archaeological resources were identified as a result of the pedestrian survey of the focused APE. One built environment resource, a set of drainage features associated with Dragonfly Creek, was recorded. This resource is addressed in the HRER prepared for this project (ICF Jones & Stokes 2009a).

## **SECTION 10: IDENTIFIED CULTURAL RESOURCES**

No archaeological resources were observed in the APE as a result of the archaeological survey, and literature review reported in this ASR. Archival map research indicates there is a possibility that infrastructure features, namely water pipe, electrical lines, or oil pipe, may be present in or adjacent to the focused APE. One set of drainage features associated with Dragonfly creek was observed. This set of features constitutes elements of the historic built environment and are evaluated in the project HRER (ICF Jones & Stokes 2009a). DPR 523 forms for the drainage features are provided in the project HRER because this resource is evaluated in that report, which provides the necessary supporting documentation for the evaluation.

## SECTION 11: STUDY FINDINGS AND CONCLUSIONS

No archaeological resources were observed in the focused APE as a result of the archaeological survey and no archaeological sites have been identified in the literature reviewed for this study. Archival map research indicates there is a possibility that infrastructure features, namely water pipe, electrical lines, or oil pipe, may be present in or adjacent to the focused APE. One set of built environment resource, consisting of a set of drainage features associated with Dragonfly Creek, is located in the APE. This resource is evaluated in the project HRER (ICF Jones & Stokes 2009a).

### 11.1 POTENTIAL FOR LATE DISCOVERIES

The review of historic maps, described earlier in this ASR, indicates the potential that historic archaeological infrastructure features may be present in the focused APE for the proposed project. Although no other specific locations in the focused APE can be identified as containing historic archaeological deposits, some potential exists for inadvertent historic archaeological discoveries to occur during project construction. The potential for inadvertent prehistoric archaeological discoveries cannot be discounted, even though extensive cutting and filling has occurred in the focused APE. Therefore in the event of an archaeological discovery during project construction, the archaeological monitor will follow discovery procedures detailed in the ATP developed for the Undertaking (ICF Jones & Stokes 2009b).

It is Caltrans' policy to avoid cultural resources whenever possible. If cultural resources cannot be avoided, additional work may be necessary. If buried cultural materials are encountered during construction, it is Caltrans' policy that work in that area must halt until a qualified archaeologist can evaluate the nature and significance of the find (California Department of Transportation 2001). Additional archaeological survey will be needed if project limits are extended beyond the present survey limits.

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**APPENDIX A: FIGURES 1–2**





San Francisco Bay

Archeological APE

N

0 750 1,500  
Feet

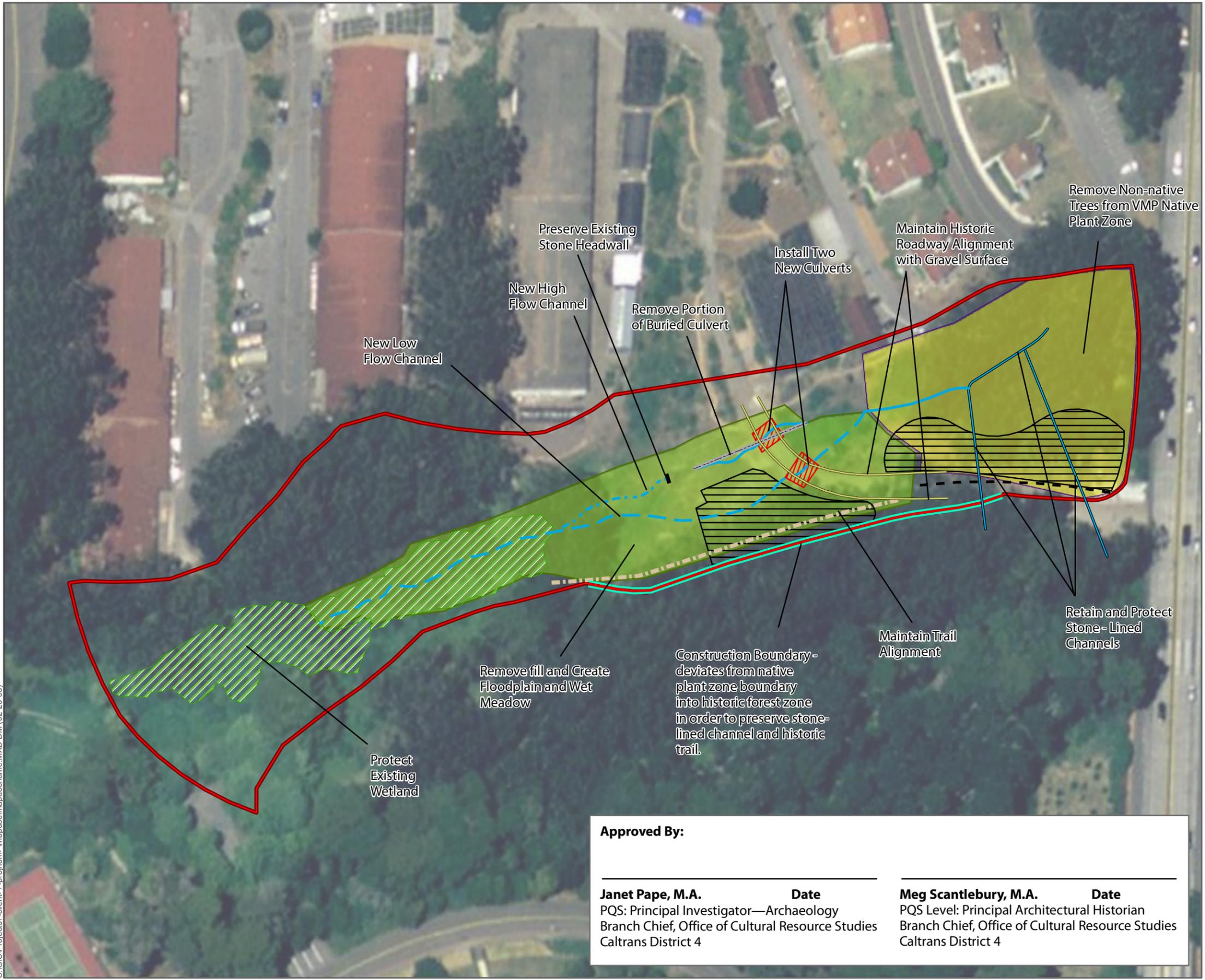
Project Location

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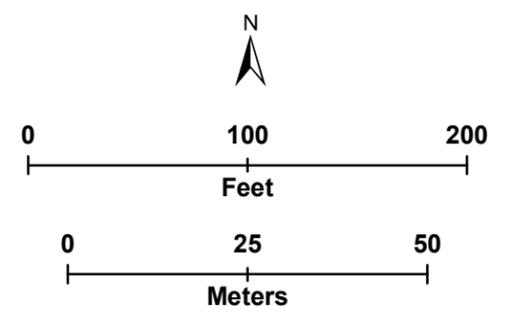
**Figure 1**  
**Project Vicinity**

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**Figure 2**  
**Focused Area of Potential Effects**

- - - Access Road
- Preserve existing stone headwall
- Construction boundary
- Historic roadway
- - - Trail alignment
- Existing stream
- - - New high flow channel
- - - New low flow channel
- Stone-lined channels
- Portion of buried culvert
- ▨ Staging Areas
- ▭ Focused Area of Potential Effects
- ▨ New culvert
- ▨ Wetland
- ▨ Non-native tree removal
- ▨ Proposed floodplain and wet meadow



Source: PRESIDIO TRUST,  
Kamman Hydrology & Engineering, Inc.

**Approved By:**

**Janet Pape, M.A.**      **Date**  
 PQS: Principal Investigator—Archaeology  
 Branch Chief, Office of Cultural Resource Studies  
 Caltrans District 4

**Meg Scantlebury, M.A.**      **Date**  
 PQS Level: Principal Architectural Historian  
 Branch Chief, Office of Cultural Resource Studies  
 Caltrans District 4

## **APPENDIX B: NATIVE AMERICAN CONTACTS**





June 2, 2009

Rosemary Cambra, Chairperson  
Muwekma Ohlone Tribe  
PO Box 360791  
Milpitas CA 95036  
408 434-1668

**Subject: Cultural Resources Inventory for the Dragonfly Creek Biological Mitigation Area, Doyle Drive Project, Presidio of San Francisco, California**

Dear Chairperson Cambra:

ICF Jones & Stokes is assisting the Federal Highway Administration, Caltrans, and the San Francisco County Transportation Authority with consultation and technical tasks associated with Section 106 of the National Historic Preservation Act. The proposed project is the Dragonfly Creek Biological Mitigation project (project) which is receiving federal and state funding as partial mitigation for the South Access to the Golden Gate Bridge Doyle Drive Project (undertaking).

The Presidio Trust is proposing to revitalize 0.65 acres within the lower reaches of Dragonfly Creek in the Fort Scott area of the Presidio of San Francisco, a National Historic Landmark District (PNHLD) and national park site. Proposed enhancements include wetland and habitat restoration, and non-native tree removal. The project tiers off from the Presidio Trust Management Plan and represents one of many watershed revitalization projects that are ongoing at the Presidio. Historic period stone masonry drainage features along Dragonfly Creek in the area of potential effects will be protected and preserved as part of the project.

As part of our efforts to identify cultural resources in the area of potential effects, all interested parties who participated in the development of the cultural resources Programmatic Agreement for the Doyle Drive undertaking are being consulted regarding any historic resources that may be affected by the proposed project. Your effort in this process provides valuable information for the proper identification and treatment of cultural resources. The location of the project is depicted on the enclosed map.

If you have any comment regarding this project, or if you have any concerns regarding Native American issues related to the undertaking, please contact me at (415) 296-0524 extension 3032 or send a letter expressing your concerns at your earliest convenience. You may also send email to me at [kcrawford@jsanet.com](mailto:kcrawford@jsanet.com). Please be aware that your project comments and concerns are

Andrew Galvan  
June 2, 2009  
Page 2

very important and are part of the successful completion of this project. I look forward to hearing from you in the near future. Thank you for your assistance.

Sincerely,

Karen L. Crawford  
Senior Archaeologist

Enclosure: Location Map



June 2, 2009

Andrew Galvan, President  
The Ohlone Indian Tribe  
PO Box 3152  
Mission San Jose CA 94539  
510 656-0787

**Subject: Cultural Resources Inventory for the Dragonfly Creek Biological Mitigation Area, Doyle Drive Project, Presidio of San Francisco, California**

Dear President Galvan:

ICF Jones & Stokes is assisting the Federal Highway Administration, Caltrans, and the San Francisco County Transportation Authority with consultation and technical tasks associated with Section 106 of the National Historic Preservation Act. The proposed project is the Dragonfly Creek Biological Mitigation project (project) which is receiving federal and state funding as partial mitigation for the South Access to the Golden Gate Bridge Doyle Drive Project (undertaking).

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Andrew Galvan  
June 2, 2009  
Page 2

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Sincerely,

Karen L. Crawford  
Senior Archaeologist

Enclosure: Location Map



June 2, 2009

Ms. Jacqueline Kehl  
5461 Beaver Street  
Byron CA 94514  
510 701-3975

**Subject: Cultural Resources Inventory for the Dragonfly Creek Biological Mitigation Area, Doyle Drive Project, Presidio of San Francisco, California**

Dear Ms. Kehl:

ICF Jones & Stokes is assisting the Federal Highway Administration, Caltrans, and the San Francisco County Transportation Authority with consultation and technical tasks associated with Section 106 of the National Historic Preservation Act. The proposed project is the Dragonfly Creek Biological Mitigation project (project) which is receiving federal and state funding as partial mitigation for the South Access to the Golden Gate Bridge Doyle Drive Project (undertaking).

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Andrew Galvan  
June 2, 2009  
Page 2

Sincerely,

Karen L. Crawford  
Senior Archaeologist

Enclosure: Location Map



June 2, 2009

Ms. Jacqueline Kehl  
720 North 2<sup>nd</sup> Street  
Patterson CA 95363

209 892-2436

**Subject: Cultural Resources Inventory for the Dragonfly Creek Biological Mitigation Area, Doyle Drive Project, Presidio of San Francisco, California**

Dear Ms. Kehl:

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Andrew Galvan  
June 2, 2009  
Page 2

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Sincerely,

Karen L. Crawford  
Senior Archaeologist

Enclosure: Location Map



June 2, 2009

Irene Zwierlein, Chairperson  
Amah Mutsun Band of Ohlone/Costanoan Indians  
789 Canada Road  
Woodside CA 94062  
415 851-7747

**Subject: Cultural Resources Inventory for the Dragonfly Creek Biological Mitigation Area, Doyle Drive Project, Presidio of San Francisco, California**

Dear Chairperson Zweirlein:

ICF Jones & Stokes is assisting the Federal Highway Administration, Caltrans, and the San Francisco County Transportation Authority with consultation and technical tasks associated with Section 106 of the National Historic Preservation Act. The proposed project is the Dragonfly Creek Biological Mitigation project (project) which is receiving federal and state funding as partial mitigation for the South Access to the Golden Gate Bridge Doyle Drive Project (undertaking).

The Presidio Trust is proposing to revitalize 0.65 acres within the lower reaches of Dragonfly Creek in the Fort Scott area of the Presidio of San Francisco, a National Historic Landmark District (PNHLD) and national park site. Proposed enhancements include wetland and habitat restoration, and non-native tree removal. The project tiers off from the Presidio Trust Management Plan and represents one of many watershed revitalization projects that are ongoing at the Presidio. Historic period stone masonry drainage features along Dragonfly Creek in the area of potential effects will be protected and preserved as part of the project.

As part of our efforts to identify cultural resources in the area of potential effects, all interested parties who participated in the development of the cultural resources Programmatic Agreement for the Doyle Drive undertaking are being consulted regarding any historic resources that may be affected by the proposed project. Your effort in this process provides valuable information for the proper identification and treatment of cultural resources. The location of the project is depicted on the enclosed map.

If you have any comment regarding this project, or if you have any concerns regarding Native American issues related to the undertaking, please contact me at (415) 296-0524 extension 3032 or send a letter expressing your concerns at your earliest convenience. You may also send email to me at [kcrawford@jsanet.com](mailto:kcrawford@jsanet.com). Please be aware that your project comments and concerns are

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very important and are part of the successful completion of this project. I look forward to hearing from you in the near future. Thank you for your assistance.

Sincerely,

Karen L. Crawford  
Senior Archaeologist

Enclosure: Location Map