

ARCHITECTURAL CRITERIA REPORT AUGUST 2008

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This Architectural Criteria Report was prepared as a collaborative effort by historic preservation and planning staff from Caltrans District 4, Presidio Trust, and National Park Service with technical assistance from staff of Jones & Stokes, Parsons Brinckerhoff, Arup, and CirclePoint.

ARCHITECTURAL CRITERIA REPORT

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SECTION 1. INTRODUCTION AND PURPOSE

The Federal Highway Administration (FHWA), the California Department of Transportation (Caltrans), and the San Francisco County Transportation Authority (SFCTA) propose to 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. The undertaking consists of replacing the existing facility with a new 1.5-milelong 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.

Doyle Drive is located in the Presidio of San Francisco, in the northern part of the city of San Francisco. In 1994, when the U.S. Army transferred jurisdiction of the Presidio to the National Park Service (NPS), it became part of the National Park system and the Golden Gate National Recreation Area (GGNRA). In 1998, management of the Presidio was divided between two federal agencies: the Presidio Trust (Trust), the agency responsible for oversight of 80 percent of the Presidio delineated as Area B; and the NPS, which is responsible for management of the coastal portions of the park (the remaining 20 percent) that are delineated as Area A. Doyle Drive lies within the Area B lands managed by the Trust with a small portion at the western end on land operated by the Golden Gate Bridge Highway and Transportation District (GGBHTD) (Figure 1).

The Doyle Drive Project 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. The analysis of these effects can be found in the *Finding of Effect for the South Access to the Golden Gate Bridge Doyle Drive Project, San Francisco, California* (SFCTA December 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 CFR 800, regulations implementing

Section 106 of the National Historic Preservation Act (16 U.S.C. 470f) and with the Secretary of the Interior pursuant to 36 CFR 800.10 with regard to special requirements for protecting National Historic Landmarks. The Secretary has delegated authority for the purposes of commenting on the Doyle Drive Project to the National Park Service. The Trust, as the federally appointed land manager for the areas of the Presidio within the project's designated Area of Potential Effects (APE) (Figure 2), has also been consulted.

The FHWA has consequently developed a Programmatic Agreement (PA) among the consulting parties, pursuant to 36 CFR 800.14, following the regulations regarding the resolution of adverse effects resulting from this project, pursuant to 36 CFR 800.6. The PA outlines the treatment of historic properties that will be affected by the undertaking. Stipulations prescribe two historic-property treatment plans to be completed, one plan to encompass treatments for impacts on archaeological resources, the Archaeological Treatment Plan (ATP), and one to identify treatments for effects on the built environment and cultural landscape, the Built-Environment Treatment Plan (BETP). These treatments will be conducted prior to construction, during construction, and after construction.

One of the measures outlined in the BETP is the development of architectural criteria to be used to guide the design of the project to minimize harm to historic properties. The resulting attachment to the BETP, the Architectural Criteria (AC), is a guide for the design of the new Doyle Drive that includes historic-preservation criteria to be considered as partial mitigation for the project's adverse effect to historic properties, and aesthetic criteria, developed in cooperation with the Trust to ensure that their trail plans and other programs are considered in conjunction with the Doyle Drive planning process. Fulfillment of the aesthetic criteria is not considered to be mitigation for the loss of historic resources under Section 106.

The architectural criteria address how Doyle Drive relates to the existing historic, cultural, and scenic resources of the Presidio as well as integrating the facility within the Presidio's transportation infrastructure. The criteria cover all roadway elements including the alignment, structure type, pedestrian/bicycling classification of the roadway, signage, lighting and landscaping associated with the project. These



Figure 2. Doyle Drive Area of Potential Effect

criteria are a commitment to influence, where feasible, the project design process so that the design is compatible with the overall character of the Presidio NHLD as well as that of the Golden Gate Bridge. The new Doyle Drive facility will be designed and constructed to conform as much as possible to the guidelines provided.

The guidelines presented in this document have been developed in consideration of other guidelines that are already in place including:

- The Secretary of the Interior's Standards and Guidelines for Federal Agency Historic Preservation Programs Pursuant to the National Historic Preservation Act
- The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes
- The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings
- Secretary of the Interior's Standards for Preservation Planning
- Presidio Trust Management Plan (PTMP)
- Presidio Vegetation Management Plan
- Presidio Trails and Bikeways Plan

The following sections describe the process used to develop the architectural criteria for the project, describe the historic properties and their character-defining features for which the architectural criteria were developed, outline the architectural criteria that were developed, and describe how they will be used to inform the design of the project.

SECTION 2. ARCHITECTURAL CRITERIA DEVELOPMENT PROCESS

The architectural-criteria development process involved a series of collaborative meetings that included members of the Doyle Drive design team and key staff from the stakeholder agencies and organizations. The group is identified hereafter as the Architectural Criteria Working Group (ACWG). Tables 1-3 show the participants in the ACWG. Because the architectural criteria needed to be developed within the larger objective of creating an economical and feasible project design, the ACWG was comprised of experts from several fields, including planners, landscape architects, engineers, and historic-preservation specialists. Their objective was to develop the criteria in context with the project engineering constraints.

The ACWG met bi-monthly between August 2007 and July 2008. Initially the group established a framework of landscape units to organize their analysis. At subsequent meetings the group discussed the impacts that would occur in each landscape unit and how design objectives could be met to reduce, minimize or avoid impacts. Early in the process the ACWG realized that these meetings were also an opportunity to consider recreation and visual impacts in the development of the architectural criteria. Consequently a consensus process was adopted and a series of design objectives was developed that addressed both historicpreservation criteria, aesthetic and operational criteria. The landscape units and the resulting Historic-Preservation Criteria and Aesthetic Criteria are described in detail in Section 5.

The ACWG sought interested party and public input on the architectural criteria at a meeting of the Doyle Drive Subcommittee of the Citizens Advisory Committee (CAC) on December 13, 2007. At this meeting the draft AC were provided as handouts in the course of a presentation of preliminary designs for the Doyle Drive project. Subsequently, the ACWG forwarded the draft AC via email to the following representatives of historic-preservation groups: Anthea Hartig (National Trust for Historic Preservation), Bruce Bonacker (SF Architectural Heritage), Charles Chase (SF Architectural Heritage), Gary Widman (California Heritage Council), Lucia Bogatay (Presidio Historical Association, PHA), Redmond Kernan (PHA), and Amanda Hoenigman (San Francisco Planning and Urban Research Association, or SPUR). These

representatives were invited to a February 7, 2008 ACWG meeting at the Presidio; Gary Widman (California Heritage Council), Lucia Bogatay (Presidio Historical Association, PHA), and Redmond Kernan (PHA) attended. The California State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (ACHP) will also review the AC as part of the BETP, in accordance with the PA.

With the AC established, a second series of workshop meetings have begun in order to use the criteria to inform and guide the development of the structures and landscape design throughout the project corridor. Participants in the Design Concepts Working Group (DCWG) are identified in Table 2. The resulting design concepts will be reviewed for consistency with overall project goals by a steering panel representing key stakeholder organizations. The Architectural Steering Panel (ASP) will consist of senior staff from the agencies listed in Table 3.

Table 1. Architectural Criteria Working Group

Organization	Representatives	Role
Presidio Trust	Chandler McCoy	Associate Director of Planning
	Michael Lamb	Historic Landscape Architect
	Lucas Griffith	Historic Architect
	Ric Borjes	Federal Preservation Officer
	Mark Helmbrecht	Project Coordinator
	Rob Thomson	Senior Preservation Specialist
National Park Service: Golden Gate National Recreation Area	Paul Scolari	Chief of Cultural Resources
	Rick Foster	Project Coordinator
San Francisco County Transportation Authority	John Karn	Deputy Project Manager
	Gary Kennerley	Deputy Design Manager
	Dana McGowan	Section 106 Compliance
California Department of Transportation	Keyhan Moghbel	Design Manager
	Lissa McKee	Section 106 Compliance

Organization	Representatives	Role	Structures	Landscape
Presidio Trust	Chandler McCoy	Associate Director of Planning	•	
	Michael Lamb	Historic Landscape Architect		٠
	Lucas Griffith	Historic Architect	•	٠
	Ric Borjes	Federal Preservation Officer	•	٠
	Mark Helmbrecht	Project Coordinator	•	٠
	Rob Thomson	Senior Preservation Specialist	•	٠
National Park Service: Golden Gate National Recreation Area	Rick Foster	Project Coordinator	•	٠
San Francisco County Transportation Authority	John Karn	Deputy Project Manager	•	٠
	Gary Kennerley	Deputy Design Manager	•	٠
	Michael Painter	Lead Landscape Architect	•	٠
	Darcie DeLashmutt	Associate Landscape Designer		٠
	Eugene Lam	Roadway Engineer	•	٠
California Department of Transportation	Keyhan Moghbel	Design Manager	•	٠
	Lorena Wong	Landscape Architect		٠
	Meg Scantlebury	Section 106 Compliance	•	٠
	H. Javier Chavez	Lead Architect	•	
	Majid Madani	Bridges Task Leader	•	

Table 2. Design Concepts Working Group

Table 3. Architectural Steering Panel

Organization	Representatives		
Presidio Trust	Chief of Planning, Projects and Programs		
	Federal Preservation Officer		
National Park Service: Golden Gate National Recreation Area	Chief of Cultural Resources		
San Francisco County Transportation Authority	Project Director		
	Principal Architect		
California Department of Transportation	Project Director		
	Cultural Resources Studies Office Chief		



Figure 3. Architectural Criteria Development Process > Design Concept Process



SECTION 3. SUMMARY OF HISTORIC PROPERTIES

DOYLE DRIVE

Doyle Drive was determined eligible for and listed in the National Register of Historic Places (NRHP) as a contributor to the Presidio National Historic Landmark District (PNHLD); it has also been identified as a contributing element to the Golden Gate Bridge in the draft Golden Gate Bridge National Historic Landmark (NHL) nomination. Additionally, SHPO and FHWA concurred by consensus that Doyle Drive's two viaducts, the Presidio Viaduct (Bridge 34 0019) and the Marina Viaduct (Bridge 34 0014), are eligible for listing in the NRHP.

Doyle Drive was built in 1933-1937 by the Golden Gate Bridge and Highway District as part of the construction of the Golden Gate Bridge. It is 2.4-kilometers (1.5-miles) long with six traffic lanes and has nonstandard design elements including no median, no shoulders, and exit ramps with tight turning radii. There is a 1.5-meter (5-foot) wide walkway extending from Marina Boulevard to the Veterans Boulevard interchange on the north side of the roadway separated from the traffic lanes by a concrete barrier. Although Doyle Drive is the main transportation corridor through the Presidio, the roadway was not designed for direct access into or out of the Presidio. This is because, at the time the bridge and Doyle Drive were constructed, the Army required that access to the base be restricted. The design also responded to the topography including the Presidio's prominent bluff.

From the Golden Gate Bridge Toll Plaza, Doyle Drive carries travelers west along the bluff and then transitions to a high steel-truss viaduct, the Presidio Viaduct (Figure 5). The roadway then returns to an atgrade segment along the bluff near the batteries and the San Francisco National Cemetery. It then switches to an elevated low concrete viaduct, the Marina Viaduct, before returning to an at-grade facility as it passes the Palace of Fine Arts where it merges with surface streets.

The Presidio Viaduct, or high viaduct, is 463-meters (1,520-feet) long and 23 meters (75 feet) from the ground to the bottom of the steel truss at its highest point (Figure 6). The steel truss is 7-meters (20-feet) deep with a concrete road deck on top. The painted steel trusses, which repeat the International Orange color of the Golden Gate Bridge, and gray concrete columns stand out against the green, forested background of the Presidio.



Figure 5: Presidio Viaduct under construction looking west from Lincoln Boulevard toward the stables area



Figure 6: Presidio Viaduct looking northeast from the stables



Figure 7: Marina Viaduct looking south from San Francisco Bay

The Marina Viaduct extends 1,137 meters (3,730 feet) from the Marina Boulevard and Richardson Avenue touchdown areas, west through the Main Post to the bluff where the National Cemetery is located (Figure 7). It is made of reinforced concrete, with a tee-girder design. The dominating visual feature of this low viaduct is the numerous support columns, which are spaced only 9.8-meters (32-feet) apart creating a perceived barrier between Crissy Field, San Francisco Bay and the rest of the Presidio along this stretch of Doyle Drive.

Lighting standards on Doyle Drive are consistent with those found on the Golden Gate Bridge. The lighting standards are painted the same International Orange color as the Golden Gate Bridge and have slender poles which split into two small arches that hang over the edge of the roadway (Figure 8). The arches connect to the rectangular-shaped lampheads.

The guardrails along Doyle Drive stand 1-meter (3-feet) high and are made of solid concrete (Figure 8). The views for lower-riding vehicles are obstructed by the height of the rail but taller vehicles such as sport utility vehicles, trucks, and commercial vehicles are provided unobstructed views. The streetlight base is integrated into the rail, a design element that is common to both the high and low viaducts.

There are three approach ramps to Doyle Drive, two from the east and one from the south. From the east, the Marina approach begins at the intersection of Marina Boulevard and Lyon Street, and the Richardson approach begins at the intersection of Richardson Avenue and Lyon Street. Veterans Boulevard approaches from the south, with the Park Presidio interchange with Doyle Drive located approximately 1.6-kilometers (1-mile) west of the Marina Boulevard approach (Figure 9).



Figure 8: Light standard and guardrail



Figure 9: Veterans Boulevard interchange

PRESIDIO NATIONAL HISTORIC LANDMARK DISTRICT

The Presidio of San Francisco was designated a National Historic Landmark District (NHLD) in 1962. The landmark nomination was updated in 1993 to include the entire 1,491 acre property and documented 662 contributing resources including buildings, sites, structures, and objects related to the Spanish, Mexican, and American military history at the Presidio. Doyle Drive was included as a contributing structure to the NHLD in this landmark update. The Presidio NHLD documentation describes the significance of Doyle Drive as follows:

One structural component of the Presidio landscape that requires special attention in documenting this National Historic Landmark is the Golden Gate Bridge. While the bulk of the Bridge itself lies beyond the reservation, its system of approaches and even part of its principal span course through and over Presidio lands. Further, the Bridge is integral to the history and significance of the Presidio; the 1930s construction of the Bridge very much informed the physical development of the reservation and increased the Post's geographical and functional prominence.

In actuality, the Presidio of San Francisco and the Golden Gate Bridge constitute two separate, but physically overlapping and historically interconnected resources, both of which clearly qualify as National Historic Landmarks... Therefore, for purposes of documenting contributing resources within the Presidio of San Francisco National Historic Landmark district, the portions of the Golden Gate Bridge, including its approaches, that are located within the district are considered contributing because they are part of another overlapping and interconnected property, worthy of designation as a National Historic Landmark. ¹

GOLDEN GATE BRIDGE

The Golden Gate Bridge was determined eligible for listing in the NRHP under Criteria A, B, and C in 1980; Doyle Drive was identified as a contributing element of the historic property. The NPS prepared and submitted a NHL nomination for the Golden Gate Bridge property in 1997. This nomination, though never finalized, recognized Doyle Drive

as a contributor to the nominated bridge property because Doyle Drive is "functionally and aesthetically integral to the Golden Gate Bridge."²

The Golden Gate Bridge and its approaches have also been documented by the Historic American Engineering Record (HAER #CA-31), and the bridge has been recognized by the American Society of Civil Engineers on at least three separate occasions: as one of the Seven [engineering] Wonders of the World in 1955, as a National Civil Engineering Landmark in 1984, and as a Monument of the Millennium in 2001. It was also designated as California State Historic Landmark No. 974 in 1990. Doyle Drive is not cited as a specific component of the Golden Gate Bridge San Francisco City Landmark No. 222.³

Constructed between 1933 and 1937, the bridge structure consists of two anchorages, four pylons, two piers, two towers, the main span, two side suspension spans, two bridge approaches (including the arch over Fort Point), and the Presidio approach road and Toll Plaza. Additionally, two ancillary buildings - the Toll Plaza Building and the Round House - stand in the area of the historic Toll Plaza. Construction of the Round House was not completed until 1938. The length of the bridge, measured from abutment to abutment, is 8,981 feet, the length of the main span is 4,200 feet, the navigation clearance is 220 feet (above mean high water), and the twin towers stand 746 feet above the water. The bridge is constructed primarily of concrete-and-steel foundation, concrete roadway, steel support structure, and steel cable. Architectural features and details associated with styles identified as Art Deco and Streamline Moderne recur throughout the parts of the bridge – tower, pylons, anchorages, railings, and light standards - and unify the design, merging artistry and utility.⁴

The Golden Gate Bridge NHL nomination describes the bridge property as a series of interdependent structures. These basic components are

⁴ NPS, NHL Nomination, "Golden Gate Bridge," 4

¹National Park Service, "Presidio ... Registration Forms," 8-13 through 8-14.

² NPS, NHL Nomination, "Golden Gate Bridge," 1997.

³ NPS, "Presidio ... Registration Forms"; NPS, NHL Nomination, "Golden Gate Bridge," 1997; Golden Gate Bridge, HAER # CA-31 (1984); Presidio of San Francisco, HABS # CA-1100-1114, 1173, 1174, 1212-1216, 1239, and 2269; California SHPO, "Directory of Properties in the Historic Property Data File for San Francisco County," as of February 8, 2001, on file with SHPO, Sacramento; Caltrans, Structure Maintenance and Investigations, "Historical Significance – State Bridges," as of October 1, 2001; Mikesell, HRER, 1987; Snyder, Memorandum to SHPO, 1990; and Nissley, Letter to Markley, 1994.

the bridge, the Presidio approach road (Doyle Drive), and the Round House. The Presidio approach road (Doyle Drive) was identified as a contributor because of its integral importance to the bridge and the fact that Strauss and Paine designed it along with the bridge, under contract to the Bridge District.⁵ The boundary justification for the proposed bridge landmark states:

The Presidio approach road is included because it constitutes a primary part of the historic construction project. Vital to the success of the Bridge, this approach road was built by the Bridge District and the City of San Francisco concurrently with the construction of the bridge proper. The various components of the Presidio approach road exhibit the same design elements as the bridge itself, including the distinctive light standards, curbs, and handrails. The Presidio approach road has been determined to begin at the east boundary of the Presidio of San Francisco (along Lyon Street) based on the historic jurisdiction of the Bridge District and based on the commencement there of the design elements that unify the entire approach road and bridge structure.⁶

SECTION 4. CHARACTER-DEFINING FEATURES

Doyle Drive was designed and constructed in conjunction with the Golden Gate Bridge and is therefore historically, structurally and aesthetically related to the bridge. It does not reflect the military character of the PNHLD. Design features that characterize Doyle Drive are consistent with those found on the Golden Gate Bridge. They include the aesthetic treatment of the piers of the Presidio Viaduct, and distinctive light standards, curbs, and handrails.

Another significant characteristic of Doyle Drive is its alignment, which was influenced by the natural topography of the land as well as the army's requirement that access to the post be restricted. (Figure 10 shows the Presidio bluffs.) The decreasing elevation of the facility from west to east follows the naturally decreasing elevation of the bluffs. This topography necessitated the construction of the two viaducts; the Presidio Viaduct to bridge the valley or natural opening in the bluff where the historic stables stand, and the Marina Viaduct to gradually bring the elevation of Doyle Drive from the bluff portion north of the Main Parade to its conclusion at city-street level.



Figure 10: Presidio bluffs

⁵NPS, NHL Nomination, "Golden Gate Bridge," 10.
⁶NPS, NHL Nomination, "Golden Gate Bridge," 33

SECTION 5. ARCHITECTURAL CRITERIA

The Architectural Criteria is one of the treatments included in the Built-Environment Treatment Plan developed to mitigate the loss of Doyle Drive and mitigate the loss or alteration of historic buildings and landscape caused by the construction of the new facility. Specifically, the Architectural Criteria Working Group created the AC to identify objectives by which the new roadway could be designed to be both sensitive to the historic setting and fulfill the Presidio's recreational and aesthetic requisite. To accomplish this, the Architectural Criteria Working Group developed two categories of criteria that fall under the umbrella of Architectural Criteria: Historic-Preservation Criteria and Aesthetic Criteria.

The Historic-Preservation Criteria identifies the historic characteristics within each landscape unit that need to be protected, enhanced, or otherwise considered in the design. These criteria are not limited to the avoidance of physical alteration of historic resources, but also recommend means to maintain or enhance visual and physical connectivity between resources, and, conversely, screen historic resources from the roadway where appropriate. Historic-Preservation Criteria also include guidelines following the Secretary of the Interior's standards that enable the new structure to achieve some design continuity with the original Doyle Drive while remaining subordinate to the Golden Gate Bridge. They also include context-sensitive replanting specifications for areas that will be exposed when the original Doyle Drive is demolished.

The Aesthetic Criteria address all roadway elements that do not specifically consider the historic association of the structure to the Golden Gate Bridge or the Presidio, but address the new facility's association with the park. This includes criteria guiding the structure type, pedestrian/bicycling classification of the roadway, signage, lighting and median landscape. The criteria also addresses the surrounding landscape treatment in both design and type, as well as the treatment of circulatory systems, including roads and pathways, altered or enabled by the new roadway. These criteria also include guidance for designing the new facility to consider views, sound, and the impact of lighting on the park.



Figure 11: Roadway ribbon to provide visual continuity

ARCHITECTURAL CRITERIA FOR THE DOYLE DRIVE ROADWAY

Mitigated Effect: Demolition of Doyle Drive, which was an integral component of the Golden Gate Bridge original design and construction project.

Design Objective: To provide the driver (user) with a continuous and unified visual experience from the north abutment of the Golden Gate Bridge to the east end of the Parkway.

HISTORIC-PRESERVATION CRITERIA

- Select a distinctive light fixture that is compatible with the historic light fixture of Doyle Drive and the Golden Gate Bridge.
- All light fixture poles shall be International Orange.
- Place light fixtures along the roadway in a similar rhythm and spacing as the historic arrangement.
- Illuminate the roadway in a manner that is compatible with the Golden Gate Bridge and the historic incandescent lamps.
- Integrate the roadway into the existing Presidio landscape and minimize its visual impact to pedestrians and other Presidio users.
- The roadway should create a unified experience for the driver and provide visual continuity from the north abutment of the Golden Gate Bridge to Richardson Avenue (Figures 11 and 12).
- Where required, guardrails shall contribute to the overall continuity of the roadway and be International Orange in color.

- Create a gradual transition from aesthetic lighting to areas requiring safety lighting.
- All landscape adjacent to the roadway shall be shielded from roadway lights to minimize light pollution.
- All roadway surfaces should be designed to minimize noise pollution.
- All roadway appurtenances should exhibit a simple design language that unifies various roadway components like guardrails, abutments, and security fencing.
- All tunnel portals should be similar in appearance and character.
- The guardrail shall be constructed of steel and painted with International Orange color to maintain visual continuity with the Golden Gate Bridge. (See standard Caltrans guardrail type ST-10.)
- Guardrails should maximize views from roadway to Crissy Field and the Golden Gate Bridge and be open in character with no decorative metal embellishments or filigree beyond the basic requirements of the guardrail.
- The form and surfacing of all vertical elements such as abutments, columns, retaining walls and portals along the roadway, should exhibit a consistent aesthetic.
- Design security fencing and access barriers to be compatible with the associated landscape aesthetic and character.







Figure 12: (*top*) Doyle Drive, 1954 (*middle*) Current, looking west towards the Presidio Viaduct (high viaduct) (*bottom*) Doyle Drive south of GGB toll plaza

ARCHITECTURAL CRITERIA FOR EACH LANDSCAPE UNIT

The roadway design for the new Doyle Drive facility will be largely determined by engineering and traffic constraints as well as geographic limitations. As experienced by drivers, it should be visually unified throughout its length to create one seamless experience. As experienced by visitors in the Presidio, however, the new Doyle Drive facility will be perceived as several distinct parts embedded in different landscape settings – geographically discrete areas separated by both natural and built features. Because each of these parts has its own visual character, and in order to create architectural criteria that address this variety of settings, eight landscape units based on location and construction types were defined.

Historic-Preservation Criteria and Aesthetic Criteria, which collectively are the project's Architectural Criteria, were developed for each landscape unit and are presented in the following pages. Additionally, each landscape unit is illustrated with a map that depicts existing features that will be retained, features that are proposed as part of the Doyle Drive project, and features that are proposed in the Presidio Trust Management Plan. The features proposed as part of the Doyle Drive project are a combination of some of those defined by the Architectural Criteria as well as those determined by engineering and traffic constraints. The intent is to provide the reader with a holistic image of the finished Doyle Drive.

Mitigated Effect: Demolition of Doyle Drive, which is a contributing structure to both the Presidio of San Francisco National Historic Landmark District and the proposed Golden Gate Bridge National Historic Landmark District.

Design Objective: To consider the unique context of the Presidio landscape adjacent to the roadway in the design of the project.

HISTORIC-PRESERVATION CRITERIA

- The bluffs east of Calvary Hollow (Battery Bluff and Main Post Bluff) shall be visually consistent with the existing historic bluffs west of Crissy Field (Figure 10).
- The commanding views from the Presidio to San Francisco Bay and vice versa shall be protected and enhanced.

- All landscape areas shall conform to the Presidio Vegetation Management Plan and designated plant community zones.
- All planting associated with the roadway should be durable, drought tolerant, hardy and low maintenance.
- Roadway plantings should not attract native fauna.



Figure 13: Landscape Units of the Presidio National Historic Landmark District

LANDSCAPE UNITS

WEST PARKWAY

The first landscape unit is located in the northern-most corner of the Presidio. It begins at the Golden Gate Bridge Toll Plaza and extends along the high bluff to the Veterans Interchange loop overlooking the Pacific Ocean, San Francisco Bay, and the Golden Gate Bridge.

Mitigated Effect: Project alters or removes a stand of trees and other vegetation, which currently provides screening of roadbed.

Design Objective: Create a parkway character that is distinct from a typical highway experience.

HISTORIC-PRESERVATION CRITERIA

• Portions of the forest affected by construction of new structure shall be replanted in a palate consistent with the Presidio Vegetation Management Plan.

- Provide vegetative screen on west side of Armistead Road.
- Select tree species with a maximum mature height of 30 feet to protect views from Fort Scott and to avoid tree failure into Doyle Drive.



VETERANS BOULEVARD INTERCHANGE

This landscape unit extends to Veterans Boulevard Interchange. The area is a densely vegetated coastal bluff lined with eucalyptus, cypress, Monterey pine trees, and shrubs, most of which were planted or have matured since Doyle Drive was built. There are no views of San Francisco Bay and limited views of adjacent features within the Presidio.

Mitigated Effect: The demolition of the existing structure and enlargement of the new interchange alters or removes of a stand of trees and other vegetation which currently provides screening of the structure. The enlargement of the interchange encroaches closer to the cavalry stables.

Design Objective: Maintain and enhance the vegetative screening that currently exists.

HISTORIC-PRESERVATION CRITERIA

- The International Orange color associated with the Golden Gate Bridge shall not be used on Veterans Boulevard features.
- Portions of the forest affected by construction of new structures shall be replanted consistent with the Presidio Vegetation Management Plan.
- The interchange from northbound Veterans Boulevard to southbound Doyle Drive shall be screened from Calvary Stables.
- The visual qualities of collision cushions at interchange should be minimized as roadway components. The International Orange associated with the Golden Gate Bridge should not be used for the collision cushions. Cushion device to be minimal in mass.
- Replant the portion of the bluff made available with the removal of existing northbound Veterans Boulevard connection to southbound Doyle Drive.
- Screen the interchange from northbound Veterans Boulevard to southbound Doyle Drive. Protect and preserve trees where possible.

- Distinguish Veterans Boulevard from the new Doyle Drive roadway.
- The new guardrails for Veterans Boulevard should be similar in form to new guardrail along Doyle Drive (ST-10 type) but not in color. The guardrail should match existing guardrail.
- Guardrail with International Orange to be located on elevated interchange structures and the main portions of Doyle Drive but not along Veterans Boulevard (Figure 14).
- Provide wide, gracious underpass for Lincoln Boulevard below the high viaduct structure: provide a 50-foot right-of-way clear of columns and 20-foot vertical clearance. If not possible to accommodate 50-foot clear between face of columns, the 50-foot right-of-way could be split into a 34-foot right-of-way for Lincoln Boulevard and a 14-foot right-of-way for the Presidio Promenade multi-use trail (Figure 15). Lincoln Boulevard should be widened on the western edge and cut into hillside.
- Provide a 50-foot right-of-way for Lincoln Boulevard north of Storey Avenue (Figure 16).
- No lights along Veterans Boulevard.
- Minimize the bottom surface of Veterans Boulevard to reduce the massing of the structure when viewed from below.
- When viewed from Lincoln Boulevard the substructures for Veterans Boulevard should be similar in character to the high viaduct structural components.





VETERANS BOULEVARD ANDSCAPE UNIT

EXISTING FEATURES

- (A) Crissy Field Overlook
- (B) Dragonfly Creek Native Plant Community Zone

PROPOSED PROJECT FEATURES

- 4 Preserve Storey Avenue and Schofield Road Under Elevated Structures
- 5 Reconfigure intersection of Lincoln Boulevard and Storey Avenue
- 6 Lincoln Boulevard Realignment (see Figure 15)
- 7 Lincoln Boulevard Underpass (see Figure 16)
- 8 Screen Interchange Structure as Viewed from Cavalry Hollow

PROPOSED PRESIDIO TRUST MANAGEMENT PLAN (PTMP) FEATURES

9 Provide Secondary Trail along Edge of Dragonfly Creek

LEGEND



Historic Forest

Native Plant Zone

Cultural Landscape

••••• Secondary Trail

🚬 Multi-use Trail

1 Section Location





Figure 15: Lincoln Boulevard High Viaduct



Figure 14: International Orange Guardrail Extent

HIGH VIADUCT

This landscape unit extends from the Veterans Boulevard Interchange to the National Cemetery. In this area, Doyle Drive is elevated on a steel and concrete high-viaduct structure as it crosses over McDowell Avenue before heading into a small wooded area on the eastern bluff where it becomes an at-grade structure. On the bluff is the National Cemeterv and Monterey pine forest to the south and woody/shrubby vegetation to the north. As Dovle Drive descends towards the eastern bluff, motorists traveling in the southbound direction are provided views of San Francisco, San Francisco Bay, Crissy Field, and Alcatraz Island. Pedestrian and bicyclists either have paths blocked to Crissy Field and San Francisco Bay, or their views obstructed by Doyle Drive traffic. However, the high viaduct maintains a visual connection to San Francisco Bay for hikers and visitors in Calvary Hollow.

Mitigated Effect: The widening and construction method for the new high viaduct encroaches closer to the cavalry stables. This results in the destruction of Crissy Field Avenue and potentially impairs historic views from the stables to Crissy Field and San Francisco Bay.

Design Objective: Enhance the views from the cavalry stables to Crissy Field and further north to San Francisco Bay and Angel Island.

HISTORIC-PRESERVATION CRITERIA

- Minimize the number of columns for the high viaduct to preserve views to Crissy Field, Stillwell Hall, Angel Island and the Golden Gate Bridge.
- Views to the above landscape features should be preserved at specific viewpoints.
- The new high viaduct should be consistent with existing Doyle Drive structure and subordinate to the Golden Gate Bridge.
- The guardrails and light fixtures of the high viaduct provide the best opportunity to develop continuity with the historic Golden Gate Bridge.
- Light-fixture attachments to the high viaduct structure should coincide with the guardrail attachments.

- structure.
- historic right-of-way.

AESTHETIC CRITERIA

- viaduct structure.

• The materials, colors, form, rhythm, and massing of the high viaduct structure should convey continuity with both the historic Doyle Drive structure and the Golden Gate Bridge.

• The historic Battery Blaney Road from Crissy Field Avenue to Sheridan Avenue should be preserved as a multi-use trail. The alignment may shift slightly when passing under high viaduct

• Articulate the historic width and alignment of Crissy Field Avenue underneath the high viaduct structure. Columns may occur within this

• Battery Baldwin, buried in the western portion of Battery Bluff, shall be protected as a historic resource.

• Consider both steel and concrete as suitable materials for the high

• Columns shall not be placed within the Pet Cemetery.

• All viaducts should be related in design.



HIGH VIADUCT LANDSCAPE UNIT

EXISTING FEATURES

- A Crissy Field Overlook
- © Battery Baldwin (buried)
- D Battery Sherwood
- (E) Pet Cemetery
- (\overline{F}) Horse Paddock

PROPOSED PROJECT FEATURES

- 10 Preserve the Alignment of Crissy Field Avenue
- 11 Preserve and Enhance Views to Crissy Field and the Bay
- 12 Align Presidio Promenade with Incinerator Road
- 13 Restore Battery Blaney Road as Presidio Promenade Trail
- 14 Provide Underpass for Two Traffic Lanes and Two Dedicated Bike Lanes

PROPOSED PRESIDIO TRUST MANAGEMENT PLAN (PTMP) FEATURES

- 15 Parking Area
- 16 Preserve Patten Road as Trail

BATTERY BLUFF

The Battery Bluff landscape unit extends from just east of Battery Baldwin (buried) to just west of Battery Blaney. To the south is the National Cemetery. To the north are views from the batteries over Crissy Field to San Francisco Bay. Both tunnel portals will be located in this landscape unit, separated by a cut and cover tunnel in the middle.

Mitigated Effect: Alteration of the bluff as a historic topographic feature as well as demolition of Battery Blaney Road (the historic covered way of the batteries).

Design Objective: Reestablish the historic connection between the batteries and the greater Presidio landscape and enhance the feeling of the bluff as an observation point.

HISTORIC-PRESERVATION CRITERIA

- Bluff plantings should evoke the feeling of the historic bluff.
- Views from the Batteries to San Francisco Bay should be enhanced by selectively removing plants and trees from the bluff.
- Rehabilitate the historic cultural landscape associated with the batteries and Battery Blaney Road.
- Bluff planting should be low in form and low maintenance, and evoke the feeling of the historic bluff.
- Restore views to National Cemetery.

- Portals should be distinguished from a natural aesthetic and read as an architectural feature disassociated from the historic bluffs.
- Portals should be minimalist in design and not embellished.
- Separate the Presidio Promenade multi-use trail from Lincoln Boulevard and realign with the historic Battery Blaney Road.
- Provide pedestrian and emergency/maintenance vehicle access to the batteries along the Presidio Promenade multi-use trail.
- Conceal the protective fence atop western tunnel portals to preserve views from Lincoln Boulevard to the Golden Gate Bridge.
- Preserve the view of the Golden Gate Bridge from the intersection of Sheridan Avenue and Lincoln Boulevard.
- The tunnel portals should be at least 20 feet from the northern curb of Lincoln Boulevard.





Cultural Landscape

••••• Secondary Trail



View

BATTERY BLUFF LANDSCAPE UNIT

EXISTING FEATURES

- © Battery Baldwin (buried)
- D Battery Sherwood
- G Battery Slaughter

PROPOSED PROJECT FEATURES

- 17 Restore Views to Crissy Field and the Bay
- 18 Restore Battery Blaney Road as Presidio Promenade Trail
- Provide 20-foot Minimum
 Dimension between Tunnel
 Portal and Lincoln Boulevard
- 20 Restore Views to National Cemetery
- 21 Provide Low Plantings with Similar Character to Historic Bluff Vegetaion

PROPOSED PRESIDIO TRUST MANAGEMENT PLAN (PTMP) FEATURES

- 22 Provide Secondary Trail along Edge of Bluff
- 23 Provide Secondary Trail from Crissy Field to top of Bluff
- 24 Align Secondary Trail with National Cemetery Gate

MAIN POST PARKWAY

The Main Post Parkway landscape unit begins just east of the National Cemetery and extends through the Main Post. Doyle Drive passes to the north of the Main Post on a low concrete viaduct structure. More open views for motorists are provided in this more-developed portion of the Presidio, including views of the Main Post, Crissy Field, and the dome of the Palace of Fine Arts. The Main Post includes a mix of medium density housing and commercial buildings. To the north of Doyle Drive are the Commissary and Post Exchange buildings along Mason Street and the open space of Crissy Field salt marsh. The views for pedestrians, bicyclists and motorists on the Presidio grounds are quite obscured by the closely spaced columns at each bent, and the relatively short spans of the deck girders.

Mitigated Effect: Alteration of the bluff as a historic topographic feature.

Design Objective: Create a visual link between the National Cemetery Bluff and the Main Post Bluff when seen from Crissy Field.

HISTORIC-PRESERVATION CRITERIA

- Provide vegetated landform on the northern edge of roadway to screen roadway from Crissy Field and the bluff.
- Restore the historic views of the bluffs from Crissy Field to the pre-Doyle Drive condition.
- Maximize the gradient of the created bluff north of the new roadway.
- Preserve views to Crissy Field, the Golden Gate Bridge and San Francisco Bay

- Minimize the retaining wall south of Doyle Drive as an architectural feature and maximize the landscape character.
- Modulate or step the retaining wall south of Doyle Drive to accommodate vegetation.
- The retaining wall south of Doyle Drive should be vertical.
- Minimize appearance of the guardrails and safety fencing along Lincoln Boulevard and Presidio Promenade.





Cultural Landscape

🚬 Multi-use Trail

••••• Secondary Trail

View

MAIN POST PARKWAY LANDSCAPE UNIT

EXISTING FEATURES

(H) Battery Blaney

PROPOSED PROJECT FEATURES

- 25 Preserve Views to Crissy Field, the Golden Gate Bridge and the Bay
- 26 Protect Historic Ammunition Magazines
- 27 Restore Battery Blaney Road as Presidio Promenade Trail
- 28 Provide 20-foot Minimum Dimension between Building 106 and Doyle Drive
- 29 Provide Low Plantings with Similar Character to Historic Bluff Vegetation
- 30 Maximize Gradient of Bluff

PROPOSED PRESIDIO TRUST MANAGEMENT PLAN (PTMP) FEATURES

31 Maintain a Minimum Parking Count of 450 Spaces

MAIN POST BLUFF

The Main Post Bluff landscape unit extends from just east of the Parade Ground to just west of the Thompson Reach. On the east end, the elevated roadway enters the cut and cover tunnel and exits the tunnel at Halleck Street before traversing the Thompson Reach area. The Crissy Center is located to the south and Crissy Marsh is on the north.

Mitigated Effect: Destruction of the bluff as a historic topographic feature as well as the alteration of Halleck Street and destruction of Bank Street.

Design Objective: Evoke the form of the historic bluff between the Main Parade and Crissy Field and maximize physical and visual connectivity.

HISTORIC-PRESERVATION CRITERIA

- Preserve and enhance historic views from the bluff and the Main Post to Crissy Field and San Francisco Bay (Figure 17).
- Reconstruct Halleck to re-establish 19th-century alignment by straightening and realigning the lower portion nearest Mason Street.
- Retain the historic scale and character of Halleck Street (Figure 18).
- Preserve the historic distinctions between the designed cultural landscape of the Main Parade and the Main Post district and industrial utilitarian character of Halleck Street and the Crissy Field district.
- Use bluff as a vegetative buffer between the upper and lower post (Figure 19).

Figure 17: Main Post, circa 1873



Figure 18: Halleck Street Landform, circa 1883

• Bluff planting should be low in character, low maintenance, and evoke the feeling of the historic bluff.



Preserve historic Figure 19: Halleck Street and Main Post Bluff connections between upper and lawer post along Ualleck and Park Streets.

upper and lower post along Halleck and Bank Streets.

- The top of the bluff should meet the existing grades at the Main Parade.
- Maximize the gradient of Halleck Street.
- Halleck Street width should be informed by its original historic alignment and roadway dimensions.
- Maximize the gradient of the created bluff with the most severe slopes in western portion and less severe near Halleck Street.
- Separate Halleck Street from the bluff landform between Mason Street and the top of the created bluff by using retaining walls (Figure 19).
- Use a combination of retaining walls and sloped landforms around the east portal and Halleck Street.
- Re-establish the 19th century connection between Building 201 loading dock and Halleck Street.

- Provide several pedestrian connections from the Main Post to Crissy Field with at least one an accessible route.
- The De Anza Esplanade shall be the main pedestrian connection from the Main Post to Crissy Field. The maximum slope of the De Anza Esplanade should not exceed a 2½:1.
- Separate the Presidio Promenade multi-use trail from Lincoln Boulevard and align with the top of the bluff.
- Portals should be distinguished from a natural aesthetic and read as an architectural feature disassociated from the created bluffs.
- Portals should be minimalist in design and not embellished.



MAIN POST BLUFF LANDSCAPE UNIT

EXISTING FEATURES

- ① Crissy Field Center
- (J) Transit Center
- 🛞 Thompson Reach

PROPOSED PROJECT FEATURES

- 32 Realign Lower Portion of Halleck Street
- 33 Preserve and Enhance Views to Crissy Field and the Bay
- 34 Montgomery Street and Bank Street Gulley Trail
- 35 Provide Low Plantings with Similar Character to Historic Bluff Vegetation

PROPOSED PRESIDIO TRUST MANAGEMENT PLAN (PTMP) FEATURES

- 36 Presidio Promenade from Lincoln Boulevard to Young Street
- 37 De Anza Esplanade
- 38 Bluff Promontory Trail

LEGEND

- Cultural Landscape
- Native Plant Zone
- 🚬 Multi-use Trail
- •••• Secondary Trail
 - View

QUARTERMASTER

This landscape unit extends from the Halleck Street/Thompson Reach area past Girard Road as the roadway enters the more light-industrial area where the Mason Street Warehouses and the Gorgas Street Warehouses are located.

Mitigated Effect: The alteration and destruction of the historic circulation patterns (including Gorgas Avenue and Girard Road) and the lowering of the roadway alters the association, setting, and feeling of the area and threatens boundary erosion of the north east corner of the Landmark district. Return missing historic features to enhance the cultural landscape and reestablish connectivity.

Design Objective: Establish a connection to Crissy Field and ensure that pedestrian circulation is continued in this area. Establish the hydrologic connection and expand wetland habitat of Crissy Marsh into the lower Tennessee Hollow.

HISTORIC-PRESERVATION CRITERIA

- Maintain and/or reestablish historic systems, patterns, and processes of natural and cultural use.
- Provide several pedestrian connections between the northeast corner of the NHLD and the Letterman District (Figure 20).
- Use the former alignment of the railroad and the firing ranges as a source of inspiration for the design of new landscape features in the Quartermaster Marsh expansion area.
- Maintain historic railroad corridor as pedestrian route free of columns. Maintain 8-foot clearance in horizontal and vertical dimensions.
- Preserve Girard Road's historic curb alignment from Gorgas Avenue to Lincoln Boulevard.
- Maintain industrial character of the Gorgas Avenue warehouses.

- Provide a strong visual connection along Girard Road from Lincoln Boulevard to the East Mason Warehouses.
- Provide wide gracious underpass for Girard Road.
- Consider street trees and pedestrian-scale light fixtures as visual elements along Girard Road.
- For the Girard Road underpass, locate column bents between vehicle traffic lanes and pedestrian walkways (Figure 21).
- Maintain central median free of columns.
- Create a gateway or entrance experience for the 5-corners intersection and the Gorgas Exit.
- Maximize natural light for the portions of Girard Road that pass below Doyle Drive.
- Girard Road should include class II bicycle lanes and pedestrian pathways in each direction (Figure 22).
- Coordinate topographic features of the roadway with design of hydrologic features and its surrounding landscape.
- Maintain a uniform alignment of columns perpendicular to roadway.
- Provide concrete retaining wall along the railroad corridor below the Gorgas exit ramp to protect path from tidal inundation.
- Preserve views to the Palace of Fine Arts.











Figure 23: Girard Road Underpass

*	<u>4</u>	<u>, 11'</u>	24′	<u>, 11'</u>	,11′	4'	65′
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Figure 20: Connecting NE Corner of the NHLD

EAST PARKWAY

This landscape unit extends to the touchdown with Marina Boulevard as Doyle Drive transitions out of the Presidio into the residential area of the Marina. The Palace of Fine Arts sits at the eastern end of Doyle Drive where it splits into Marina Boulevard and Richardson Avenue. This landscape unit also encompasses the touchdown at Richardson Avenue, where Doyle Doyle transitions to higher-density residential and commercial uses in the Marina and Cow Hollow neighborhoods.

Mitigated Effect: Destruction of the existing roadway and widening to accommodate parkway alters the association, setting, and feeling of the area.

Design Objective: Create a "parkway" character that is distinct from a typical highway experience.

HISTORIC-PRESERVATION CRITERIA

AESTHETIC CRITERIA

- not be obscured.
- corners of Lyon Street.
- Street.
- Gorgas Avenue.



Figure 24: Typical Gorgas Avenue Section

• Plantings along the Gorgas Avenue warehouses should reflect the historic utilitarian character of the district.

• Historic circulation at Lyon Gate to be retained but may be reconfigured as pedestrian and/or bicycle route.

• Preserve historic circulation patterns (Figure 23).

• From southbound Doyle Drive views of the Palace of Fine Arts shall

• Provide pedestrian passage across Richardson Boulevard at northwest

• Provide bicycle passage across Richardson Boulevard at Francisco

• Provide bicycle route from Francisco Street to Girard Road along

• Provide safe passenger zone along the northeast side of Gorgas Avenue for the YMCA pool and adjacent buildings.





LEGEND

Cultural Landscape

🚬 Multi-use Trail

1 Section Location

•••• Secondary Trail

EAST PARKWAY LANDSCAPE UNIT

EXISTING FEATURES

- ① Palace of Fine Arts
- N Gorgas Warehouses
- O Letterman Digital Arts Garage Entry

PROPOSED PROJECT FEATURES

- 49 Provide Pedestrain Crossing
- 50 Provide Vehicle Turn-around
- 51 Provide Bicycle Connection from Lyon Street to Gorgas Avenue
- 52 Preserve Industrial Character of Gorgas Avenue Landscape
- 53 Provide Bus Zone and Crosswalk to YMCA Pool
- 54 Provide Contra-flow Bicycle Lane along Gorgas Avenue
- 55 Preserve Gorgas Gate as Key Pedestrian Entry
- 56 Typical Gorgas Avenue (see Figure 24)
- 57 Preserve Parking and Circulation Behind Warehouses
- 58 Extended Bus Stops