

San Diego–Coronado Bay Bridge Suicide Deterrent Project

State Route 75 & Interstate 5
Caltrans District 11
11-SD-75 PM R20.1/R22.3 & 11-SD-5 PM R13.8/R14.3
Project Number: 11-43063/1119000044
SCH: 2020060290

Initial Study with Mitigated Negative Declaration



Prepared by the
State of California Department of Transportation

June 2022



General Information About This Document

Document prepared by: California Department of Transportation District 11

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SCH No. 2020060290
11-SD-75 & 11-SD-5
1119000044

Suicide Deterrent Installation and Transportation Management System
Upgrades on State Route 75 from post miles R20.1 to R22.3 and
Interstate 5 PM R13.8 to R14.3 in San Diego County

INITIAL STUDY
with Proposed Mitigated Negative Declaration

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

Gustavo Dallarda

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1-24-2022
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Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: 2020060290

District-County-Route-Post Mile: 11-SD-75-R20.1/R22.3 to SD 5 PM R13.8/R14.3

EA/Project Number: 11-43063/1119000044

Project Description

The project proposes to install a physical suicide deterrent on the San Diego-Coronado Bay Bridge (Bridge) in San Diego County. The project also proposes to install minor improvements to the transportation management system elements at the Glorietta Toll Plaza, the Bridge, and the I-5/SR-75 Interchange.

Determination

An Initial Study has been prepared by the California Department of Transportation (Caltrans), District 11.

On the basis of this study, it is determined that the proposed action with the incorporation of the identified mitigation measures will not have a significant effect on the environment for the following reasons:

- Enclosure of the substructure bays and operations and maintenance (O&M) activities under the bridge deck shall to the extent feasible avoid the nesting season of the peregrine falcon (February 1 through August 30) to minimize disruption of nesting behavior. If the nesting season cannot be avoided, pre-construction surveys will be conducted by a qualified biologist to determine if peregrine falcons are present in areas potentially affected by these proposed project activities. If nesting birds are identified, an exclusion zone will be established around the active nest. The size of the exclusion zone will be determined by Caltrans in coordination with the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife, and will take into account existing noise levels at the nest location and the type of construction and O&M activities proposed near the nest. A qualified biologist will monitor construction and O&M activities in the area to confirm nesting falcons and/or their unfledged chicks and/or eggs are not impacted.

A handwritten signature in cursive script that reads 'Gustavo Dallarda'.

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6/23/2022

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA) per 23 United States Code 327, is the lead agency under the National Environmental Policy Act (NEPA) and the lead agency under the California Environmental Quality Act (CEQA).

1.1.1 Project Location

The proposed San Diego-Coronado Bay Bridge Suicide Deterrent Project is located on State Route 75 (SR-75) and Interstate 5 (I-5) in the City of Coronado and the City of San Diego in San Diego County (Figure 0-1). Proposed project limits are approximately SD-75 PM R20.1/R22.3 and SD-5 PM R13.8/R14.3.

Suicide Deterrent Limits

The suicide deterrent would be installed along the entirety of the San Diego-Coronado Bay Bridge (Bridge) starting above the Bayshore Bikeway in the City of Coronado and ending at Newton Avenue in the City of San Diego. The suicide deterrent would be installed on the outside railing on both sides of the Bridge

Transportation Management System Elements Improvements Locations

Several Transportation Management System (TMS) elements would be installed or upgraded throughout the proposed project limits including on the Bridge, the Glorietta Toll Plaza, and the I-5/SR-75 Interchange (Figure 1-2).

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the proposed project is to install a suicide deterrence system in the most timely manner in order to reduce suicides and suicide attempts as soon as is practicable, while also reducing closures of the Bridge due to these events.

1.2.2 Need

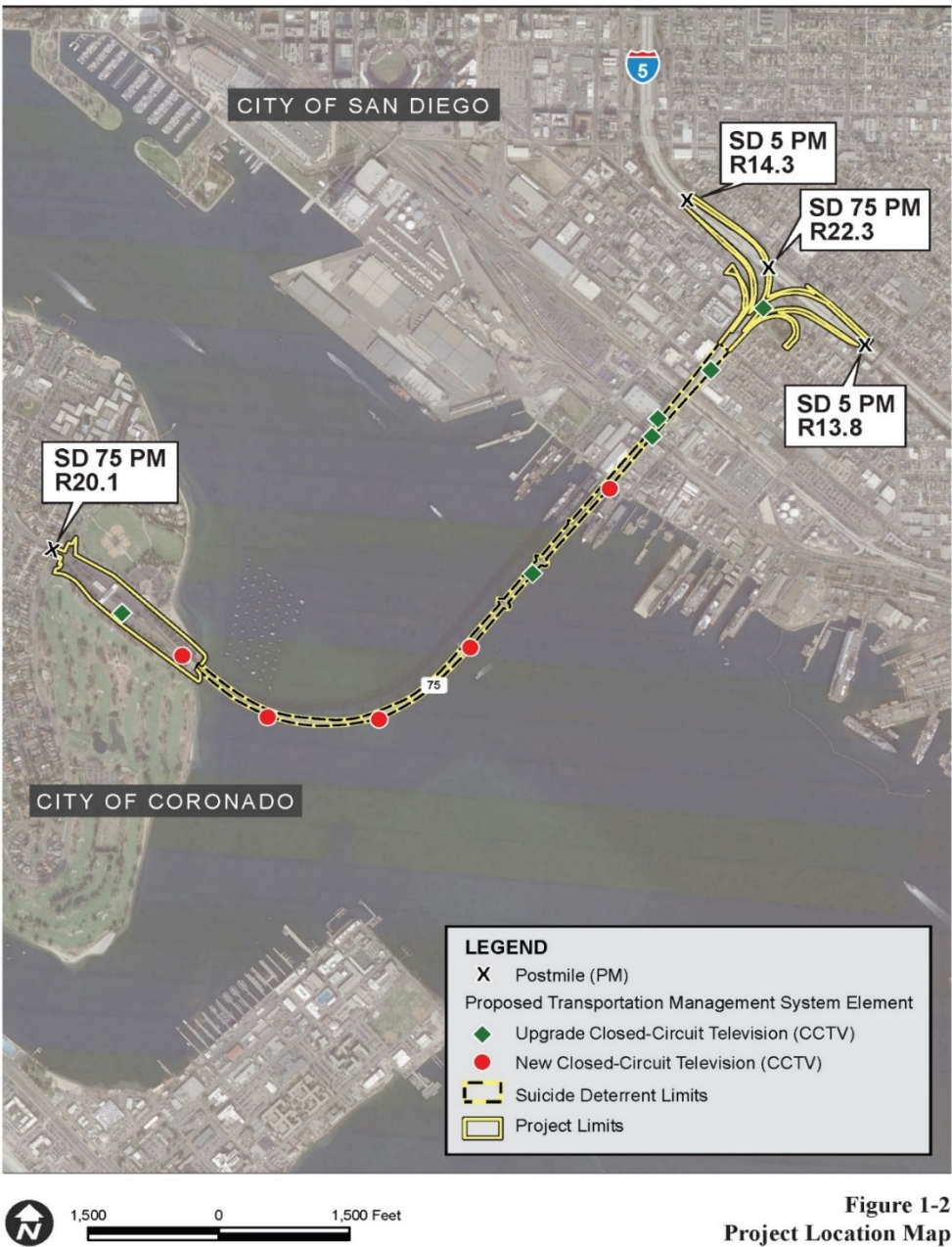
Although official figures have not been maintained since its opening in 1969, it is widely believed that approximately 400 deaths by suicide have occurred from the Bridge on SR-75. Per the San Diego County Medical Examiner's Website, 18 fatalities occurred in 2017, 17 fatalities in 2018, and 15 fatalities in 2019. After the Golden Gate Bridge, it is recognized as the second most frequently used bridge for suicide in the United States. The Bridge does not have a permanent

physical suicide deterrent system. The standard operating procedure for suicide attempts is closure of the Bridge.



San Diego-Coronado Bay Bridge Suicide Deterrent Project Final IS/MND

Figure 0-1 Project Vicinity Map



San Diego-Coronado Bay Bridge Suicide Deterrent Project Final IS/MND

Figure 0-2 Project Location Map

The Bridge has the highest concentration of fatalities for a spot location on the state highway system in Caltrans' District 11 (San Diego and Imperial Counties) due to deaths by suicide. Fatalities caused by suicide do not qualify under current Highway Safety Improvement Program (HSIP) criteria; therefore, suicide deterrent projects are not eligible for HSIP funding.

The existing TMS elements on the Bridge consist of six closed-circuit television (CCTV) cameras controlled exclusively by California Highway Patrol (CHP) staff stationed at the Bridge Glorietta Toll Plaza in Coronado. When CHP staff is not available at the Glorietta Toll Plaza, the CCTV cameras cannot be repositioned and are no longer effective for monitoring activity on the Bridge. In addition, existing camera locations do not provide full coverage of the Bridge and surrounding areas.

Non-physical suicide deterrence measures have been implemented on the Bridge along with the addition of 4-inch spikes, which were installed on top of the bridge rail in early 2019 as an interim measure. Notwithstanding these efforts, multiple suicides and suicide attempts have still occurred from the Bridge. Many of these have resulted in a complete closure of the Bridge, sometimes for hours, requiring those traveling to or from Coronado Island, Naval Air Station North Island, and the Naval Amphibious Base, to reroute by way of the Silver Strand, a 23-mile detour adding 30 to 60 minutes of travel time per vehicle per incident. SR-75 is part of the Strategic Highway Network, which provides defense access, continuity, and emergency capabilities for movement of personnel and equipment in both peace and war times.

1.3 Project Historical Background

During the initial planning phase of the proposed project, a range of potential alternatives was identified for evaluation, including the three physical concepts outlined in the Notice of Preparation (NOP):

- a horizontal barrier alternative,
- a vertical barrier alternative on the existing bridge railings, and
- a vertical barrier alternative on new bridge railings.

Multiple design variations for the vertical barrier alternatives were also included, such as a wire mesh fence, pivoting wire mesh fence, sliding vertical cable fence, reverse folding wave fence, vertical net, and horizontal cable fence. Anticipating that the proposed project may have a significant effect on the environment, the NOP was released to the public on June 15, 2020, identifying preparation of an Environmental Impact Report/Environmental Assessment (EIR/EA) in compliance with CEQA. Subsequent to the scoping period, technical studies were prepared. Technical analyses, consultation, and discussions were conducted with responsible agencies with resources most directly affected by the proposed project. Based on input received during the scoping period and agencies' feedback, which considered feasibility, temporal elements, and environmental resources, the project's design has been refined to minimize impacts associated with the vertical net variation of the vertical barrier on existing bridge railings alternative originally identified in the NOP.

With project refinements, the vertical net design variation of the vertical barrier alternative constructed on the existing bridge railing, as described in the NOP, has been identified as the proposed project. The proposed project, with implementation of avoidance and minimization measures would avoid any significant effect on the environment, and an EIR is no longer required. The public had the opportunity to comment through the public review period of this Initial Study/Mitigated Negative Declaration (IS/MND).

For a discussion of alternatives that were considered but eliminated from further consideration, see Section 1.7.

1.4 Project Description

The project proposes to install a physical suicide deterrent on the Bridge in San Diego County. The project also proposes to install minor improvements to the TMS elements at the Glorietta Toll Plaza, the Bridge, and the I-5/SR-75 Interchange (Figure 0-3).

1.5 Project Alternatives

This section describes the proposed project that was developed to achieve the project purpose and need while reducing environmental impacts. There are currently two alternatives — one build alternative and one no-build alternative.

1.5.1 Build Alternative

The Build Alternative is referred to as the proposed project throughout this document and contains several standardized project elements that are incorporated into most, if not all, Caltrans projects and were not developed as mitigation in response to any specific environmental impact resulting from the proposed project. These measures are listed in Section 1.8, Standard Measures and Best Management Practices.

Proposed Project

The proposed project would affix a vertical net to the outside of the existing bridge railing. A Caltrans Headquarters Division of Engineering Services' Division of Structures Design analysis resulted in a high confidence level that a new bridge railing would not be required to support the net.

The vertical net would be composed of an 8- to 10-foot-tall stainless-steel net affixed to top and bottom perimeter tension cables. The tension cables would be strung through and attached to fixed vertical posts approximately 20 or more feet apart. The vertical net would be offset 4 to 8 inches behind the existing bridge rail. See Figure 0-4 through Figure 0-8.

The proposed project would include the following project features and parameters:

- A metal continuous top plate would be installed on top of the existing railing to provide connection brackets for posts and anchorage for maintenance needs (base plate may be discontinuous at light pole locations).
- Vertical posts would measure no more than 4 by 6 inches in diameter.
- Posts would be similar in visual quality to brushed stainless-steel or brushed aluminum, with ground smooth welds the same color and reflective quality of adjacent material.
- The vertical net would be composed of an unpainted stainless-steel netting, with a maximum 2-millimeter (mm) wire size.
- The net may have a slight angle up to 15 degrees to follow the splay of the existing concrete rail.
- The design would use top tension cables no larger than 19 mm that would hold the woven mesh netting between posts.
- A minimum net transparency of 85 percent would be achieved.

The proposed project would also include minor improvements to the TMS elements at the Glorietta Toll Plaza, the Bridge, and the I-5/SR-75 Interchange. These improvements would include upgrades to the CCTV system using the existing conduit system, along with new CCTV cameras at five locations along the bridge spans and one on the eastern end of the Glorietta Toll Plaza. No other work is anticipated at the Glorietta Toll Plaza except the possibility of staging materials. Signage may be replaced, or new signage installed as needed.



Figure 1-3
Project Components

San Diego-Coronado Bay Bridge Suicide Deterrent Project Final IS/MND

Figure 0-3 Project Components

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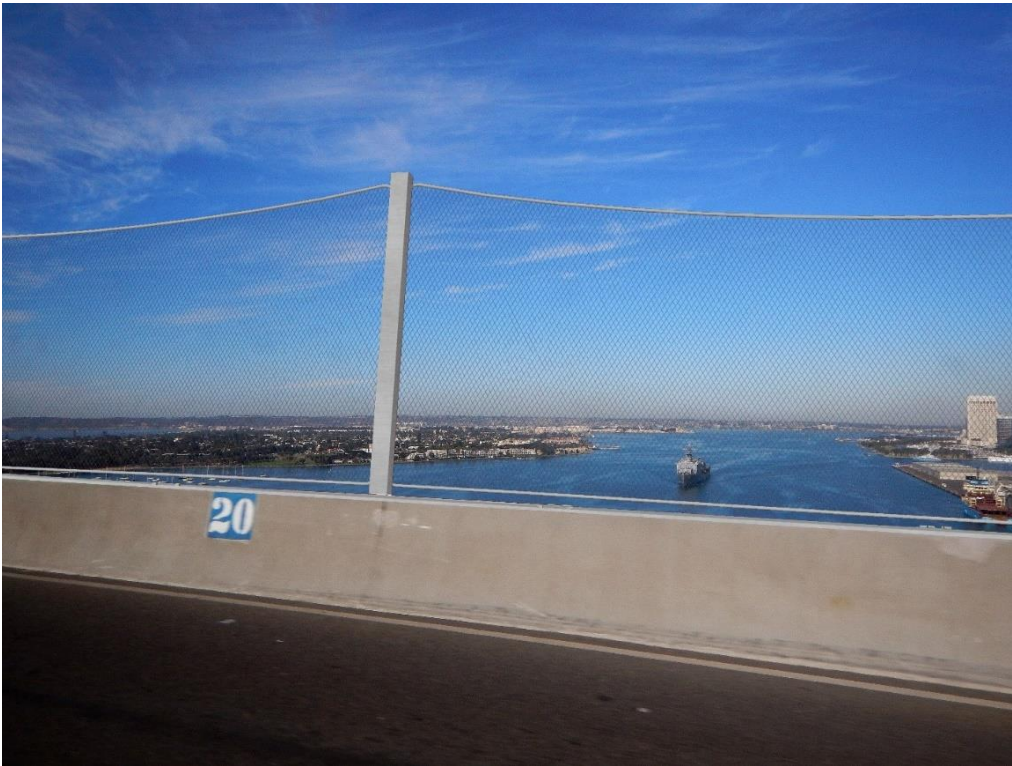


Figure 0-4 Proposed Project – Visual Simulation. Vertical Net Section looking North



Figure 0-5 Proposed Project – Visual Simulation. View of Vertical Net from Bayshore Bikeway



Figure 0-6 Proposed Project – Visual Simulation. View of Vertical Net from Cesar Chavez Pier



Figure 0-7 Proposed Project – Visual Simulation. View of Vertical Net from Barrio Logan Trolley Stations



Figure 0-8 Proposed Project – Rendering of the Vertical Net looking East

The proposed project design would require enclosed substructure bays beneath the Bridge to allow for maintenance of the Bridge, which would no longer be accessible from the bridge deck due to the vertical net (Figure 0-9). Spans 1 through 3 and Spans 18 through 20 (Box Girders) of the Bridge would not require enclosed bays (Figure 0-10). Spans 4 through 15 along with Spans 23 through 27 would require enclosed outer bays. Spans 16, 17, 21, 22, 28, and 29 would require enclosed center and outer bays, as illustrated in Figure 0-9. The enclosure method would be a grating “floor” and supports that would connect to the existing substructure. These bays would be enclosed using fiber-reinforced or non-corrosive metal punched plank grating. The fiber-reinforced grating would be a minimum of 70 percent open and a maximum of 2 inches in height. The fiber-reinforced grating would be a darker color than the existing grating on the structure.

Currently, a driver going in the westbound direction can see the tops of vehicles over the existing outside bridge rail along the curve of the Bridge. With the construction of a vertical net, this existing line of sight would be affected. Speed reduction from the current 50 miles per hour (mph) is being considered for both directions along the Bridge to account for this impact on line of sight. New speed limit signs and pavement delineation may also be needed for this speed limit change.

Existing Suicide Deterrent Programs

Non-physical suicide deterrent measures have been implemented on the Bridge prior to the proposed project. Currently, there are temporary metal spikes on the concrete bridge railings. The purpose of the metal spikes was to implement an interim physical deterrent to suicide attempts until a permanent solution is installed and to provide additional time for First Responder response to suicide attempts.



Figure 0-9 Proposed Project – Visual Simulation. Bay Enclosures



Figure 0-10 Proposed Bay Enclosures of Various Bridge Spans

The 4-inch metal spikes were installed on top of the bridge railing in early 2019. The metal spikes would need to be removed prior to installation of the vertical net. Caltrans has also previously installed suicide deterrence signs in the form of Emergency Counseling phone numbers on the Bridge.

Transportation System Management and Transportation Demand Management

Minor improvements to existing TMS elements would be made along the Bridge, at the Glorietta Toll Plaza, and at the I-5/SR-75 Interchange. These improvements would include upgrading six existing CCTV cameras and installing five new CCTV cameras. CCTV cameras are used to monitor traffic and incidents along the roadway and Bridge.

The existing TMS elements on the Bridge consist of six CCTV cameras controlled exclusively by CHP staff stationed at the Glorietta Toll Plaza in Coronado. When CHP staff is not available at the Glorietta Toll Plaza, the cameras cannot be repositioned and are no longer effective for monitoring activity on the Bridge. In addition, existing camera locations do not provide full coverage of the Bridge and surrounding areas.

Additional CCTV cameras would provide more complete video coverage of the Bridge. At each proposed CCTV camera upgrade location and new installation location, cameras would be able to be controlled by both CHP and operators at the Transportation Management Center (TMC). The TMC includes a team that monitors highway conditions and coordinates construction activity, roadway advisories, and incident management in real time to minimize delays on the road. Cameras would also be upgraded to incorporate the latest technology. Upgrading existing CCTV cameras and installing new CCTV cameras would help the Caltrans TMC identify traffic congestion and backups on the Bridge, monitor and respond to potential incidents on the Bridge, and provide more complete video coverage of the Bridge and surrounding areas.

Table 1 identifies the locations of proposed TMS elements. These locations are shown in Figure 0-3.

Table 1: Proposed TMS Elements and Improvements

Location	Type of Work
Glorietta Toll Plaza	Upgrade 1 CCTV camera
Glorietta Toll Plaza	Install 1 new CCTV camera
Bridge	Upgrade 4 CCTV cameras
Bridge	Install 4 new CCTV cameras
I-5/SR-75 Interchange	Upgrade 1 CCTV camera

New TMS elements on the Bridge may be built on new poles like those currently used for CCTV cameras.

Construction Requirements

Construction of the proposed project could require up to 550 working days.

Temporary Bridge Lane Closures

Temporary bridge lane closures may be needed during construction to facilitate work and/or to create a buffer between construction personnel and traffic. Depending on the construction activity and work windows, closures could require a single lane or multiple lanes, and may extend for relatively short segments or the length of the Bridge. Temporary ramp closures may also be needed during certain construction activities.

Public outreach would be conducted in advance to notify the public of closure times, durations, and locations, and a Traffic Management Plan (TMP) would be implemented to minimize effects to traffic.

Temporary Road Closures

Traffic control would be needed on local roads that pass under the Bridge in the City of San Diego to maintain public safety when there is construction above a street segment. Local roads that may require temporary closures could include Harbor Drive, Main Street, and Newton Avenue. Methods for traffic control could include flagging and queueing, or temporary closure with recommended detours and would be defined in the TMP.

Bicycle Facility Access Restrictions

A segment of the Bayshore Bikeway runs underneath the Bridge beneath piers 1 and 2 in the City of Coronado. This segment is a Class I bike path, a facility physically separated from vehicular traffic. Typical access would be temporarily restricted to protect bicyclists when there is active construction above. During these restricted times, bicyclists would be flagged and directed through the construction zone by the contractor.

In the City of San Diego, there is currently a Class II bike lane, a striped shared roadway facility with delineated areas for non-motorized users, under the Bridge that runs along both directions of Harbor Drive. A Class I bike path is also planned to be constructed adjacent to this existing Class II bike lane. When traffic control is needed on Harbor Drive due to active construction above, bicyclists would be flagged and directed through the construction zone by the contractor.

Signs notifying the public about these restrictions would be posted in the vicinity in advance. Changes in bicycle access around the Bridge would also be a part of the TMP.

Construction and Staging Areas

Construction activities and construction areas, such as staging and laydown areas, would be located within Caltrans right-of-way. Staging and laydown areas could include lanes within which construction is occurring, as well as existing Caltrans maintenance yards located under and/or adjacent to the bridge on the

west and east sides of the bay. No new features or other ground-disturbing activities would occur within Chicano Park, Tidelands Park, or other nearby public areas. There would be no modifications to the bridge footings and columns within the City of San Diego, including those featuring murals associated with Chicano Park.

1.5.2 No-Build (No-Action) Alternative

The No-Build Alternative provides a baseline for consideration of other alternatives. It may be preferred if the other alternatives or variations have substantial impacts on the environment, do not serve the project's purpose and need, or are not economically feasible.

The No-Build Alternative would not affect the bridge structure. It would continue the use of non-physical suicide deterrence measures and may retain the existing 4-inch spikes on top of the bridge railing. The No-Build Alternative would not include new TMS elements, and limitations on management of potential incident response and traffic queueing on the Bridge would continue.

1.6 Identification of a Preferred Alternative

Caltrans has determined that the Build Alternative would meet the purpose of the project to install a suicide deterrence system in the most timely manner in order to reduce suicides and suicide attempts as soon as is practicable, while also reducing closures of the Bridge due to these events. The Build Alternative would install a physical suicide deterrent on the bridge structure that would be designed to reduce opportunity for an individual contemplating suicide from the bridge deck. The vertical net design of the Build Alternative would achieve the purpose of reducing suicide attempts from the Bridge by creating a physical barrier that would reduce the appeal of the bridge as a location for suicide attempts. Fewer suicide attempts would reduce the number of bridge closures currently associated with the response to a suicide attempt.

The Build Alternative was designed to satisfy the project purpose while avoiding adverse impacts to the historic integrity of the Bridge. Implementation of the Build Alternative would retain the historic character of the view corridor as well as the historic character of the structural system. Additionally, the Build Alternative would allow for the ability to properly maintain the Bridge, retain aesthetic value and views, and provide for the safety of emergency responders.

The No-Build Alternative would not meet the purpose of constructing a deterrent as no deterrent would be installed and additional suicides or suicide attempts would likely continue to occur. There would be no associated reduction in bridge closures due to these events.

Therefore, after consideration of the environmental analysis provided in this MND and because the Build Alternative achieves the established purpose and need for the project, the Build Alternative is selected as the Preferred Alternative.

1.7 Alternatives Considered but Eliminated from Further Discussion

1.7.1 Vertical Barrier on Top of Existing Railing

Alternative 1: Vertical Barrier on Top of Existing Railing was one of the alternatives considered during the Feasibility Study and the Project Initiation Document (PID) phase. Within this alternative were six different variations including:

- Design Variation (DV) 1: Wire Mesh Fence
- DV 2: Pivoting Wire Mesh Fence
- DV 3: Sliding Vertical Cable Fence
- DV 4: Reverse Folding Wave Fence
- DV 5: Vertical Net
- DV 6: Horizontal Cable Fence

This alternative, along with the six design variations, was also presented to the public during the public scoping period in the Project Approval and Environmental Document (PA&ED) phase.

Within Alternative 1, five of the six design variations are a type of fence, and one is a type of netting. The Secretary of the Interior's Standards offer four distinct approaches to the treatment of historic properties: preservation, rehabilitation, restoration, and reconstruction, with accompanying guidelines for each. Per the Finding of No Adverse Effect with Standard Conditions for the San Diego-Coronado Bay Bridge Suicide Deterrent Project (October 2021), the five fence types do not meet the Secretary of the Interior's Standards for Rehabilitation and would have an adverse effect on historic resources, as summarized below. Therefore, the five fence types of vertical barriers (DV 1, 2, 3, 4, and 6) have been eliminated from consideration. DV 5: Vertical Net has been identified as the proposed project.

Design Variations

Within Alternative 1, five design variations as noted above have been eliminated from consideration.

1.7.2 Design Variation 1: Wire Mesh Fence

DV 1 would be a stationary fence composed of panels of wire mesh with approximately 1-inch openings that would restrict the ability to climb the fence. Panels would be installed on top of the Continuous Plating Support System.

DV 1 would cause a Direct Adverse Effect to character-defining features of the Bridge and East Approach Connector historic resources through alterations that are not consistent with the Secretary of the Interior's Standards for the Treatment

of Historic Properties for Rehabilitation (36 Code of Federal Regulations [CFR] part 68) and applicable guidelines.

Under the criteria of adverse effect, DV 1 would not conform to the following Rehabilitation Standards:

- Standard 2: DV 1 would cause alteration of character-defining features, spaces, and spatial relationships. The gauge of the proposed wire mesh material limits the user's ability to perceive the setting of the bay, and the rigid framing members every 8 feet obstruct the view to the point of degrading the integrity of the viewshed and feeling of the Bridge.
- Standard 9: the proposed mesh fence design variation destroys historic materials, and character-defining features and spatial relationships. The proposed barrier addition destroys the spatial relationship of the Bridge user to the bay. The posts and wire mesh are visually obtrusive due to their frequency and material, which detracts from the historic railing and fails to protect the integrity of the Bridge.
- Standard 10: the integrity of character-defining features would be more than minimally impaired upon removal of the barrier. If DV 1 were removed in the future, the integrity of the concrete railing, a character-defining feature, would be compromised. This is due to the frequency of the attachment points (every 7 feet 9 inches) directly to the concrete rail.

DV 1 would cause an Indirect Adverse Effect to character-defining features of the Bridge because the viewshed would be adversely impacted through the sizing, frequency of the vertical posts, and lack of transparency of the variation's design. The frequency of the posts (every 8 feet on center), combined with the wire mesh, would create a blurred "moire" effect and flicker effect to users of the resource.

Design Variation 2: Pivoting Wire Mesh Fence

DV 2 would be a pivoting fence composed of panels of wire mesh with 1-inch openings. Each panel would be installed on a modified version of the Continuous Plating Support System with a bracket that would allow the fence to be secured in an upright position. Once released, the fence panels would be able to pivot outwards and down away from the bridge and hang off the side of the railing.

DV 2 would cause a Direct Adverse Effect to character-defining features of the Bridge and East Approach Connector historic resources through alterations that are not consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties for Rehabilitation (36 CFR part 68) and applicable guidelines.

Under the criteria of adverse effect, DV 2 would not conform to the following Rehabilitation Standards:

- Standard 2: DV 2 would cause alteration of character-defining features, spaces, and spatial relationships. The gauge of the proposed wire mesh material limits the user's ability to perceive the setting of the bay, and the

rigid framing members every 8 feet obstruct the view to the point of degrading the integrity of the viewshed and feeling of the Bridge. The pivoting bracket mechanisms affixed to the rear of the historic concrete railing every 8 feet obscure the historic feature from views to the Bridge.

- Standard 9: the proposed mesh fence design variation destroys historic materials, and character-defining features and spatial relationships. The proposed barrier addition destroys the spatial relationship of the bridge user to the bay. The frequency of the posts and wire mesh interrupt the mid-century design of the historic railing and is visually obtrusive due to the frequency of the vertical posts. Overall, this design fails to protect the integrity of the Bridge. Further, the pivoting brackets on the outside of the rail degrade the view of the character-defining rail when viewing the Bridge from land or water.
- Standard 10: the integrity of character-defining features would be more than minimally impaired upon removal of the barrier. If DV 2 were removed in the future, the integrity of the concrete railing, a character-defining feature, would be compromised. This is due to the frequency of the attachment points (every 7 feet 9 inches) directly to the concrete rail.

DV 2 would cause an Indirect Adverse Effect to character-defining features of the Bridge because the viewshed would be adversely impacted through the sizing, visual prominence of the posts and bracketing system, and lack of transparency of the variation's design.

Design Variation 3: Sliding Vertical Cable Fence

DV 3 would be a sliding fence composed of panels of vertical, non-flexible closely spaced bars. The fence panels would be installed on a modified version of the Continuous Plating Support System. This modification would include vertical rails to allow the fence to be secured in an upright position. Once released, the fence panels would be able to slide down along the railing and be flush with the top of the railing.

DV 3 would cause a Direct Adverse Effect to character-defining features of the Bridge and East Approach Connector historic resources through alterations that are not consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties for Rehabilitation (36 CFR part 68) and applicable guidelines.

Under the criteria of adverse effect, DV 3 would not conform to the following Rehabilitation Standards:

- Standard 2: DV 3 would cause alteration of character-defining features, spaces, and spatial relationships. The vertical cable system limits the bridge user's ability to perceive the setting of the bay, and the rigid framing members every 8 feet obstruct the viewshed to the point of degradation of the integrity of the viewshed character-defining feature. The sliding mechanism on the rear of the historic concrete rail also obscures the historic features from views to the Bridge.

- Standard 9: the proposed sliding vertical cable system design variation destroys historic materials, and character-defining features and spatial relationships. The proposed barrier addition destroys the spatial relationship of the bridge user to the bay. The posts and vertical cables are visually obtrusive due to their frequency and material, especially in relation to the mid-century clean line design of the historic railing and fails to protect the integrity of the Bridge. Further, the vertical cable system and frequency (every 8 feet on center) of the vertical posts creates a compounded flicker effect that further disorients the user on their spatial awareness.
- Standard 10: the integrity of character-defining features would be more than minimally impaired upon removal of the barrier. If DV 3 were removed in the future, the integrity of the concrete railing, a character-defining feature, would be compromised. This is due to the frequency of the attachment points (every 7 feet 9 inches) directly to the concrete rail.

DV 3 would cause an Indirect Adverse Effect to character-defining features of the Bridge because the viewshed would be adversely impacted through the sizing, visual obstruction of the posts, and frequency of the vertical posts that can also provide a moving flicker effect.

Design Variation 4: Reverse Folding Wave Fence

DV 4 would be a foldable fence composed of two curved panels of wire mesh with 1-inch openings connected together by a hinge. When this hinge is secured, the two curved parts would form an “S” like fence. When this hinge is released, the top curved section of the fence would be able to fold into the bottom section of the fence into a “C” like position.

The fence panels would be installed on a modified version of the Continuous Plating Support System with a hinge that would attach the fence to the continuous plating and allows the “S” like fence to be secured in an upright position. Once this hinge is released, the “S” like fence would be able to pivot outwards and down away from the bridge and hang off the side of the railing. If both sets of hinges were released, the fence could fold into itself into a “C” like position then pivot outwards and down away from the bridge and hang off the side of the railing.

DV 4 would cause a Direct Adverse Effect to character-defining features of the Bridge and East Approach Connector historic resources through alterations that are not consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties for Rehabilitation (36 CFR part 68) and applicable guidelines.

Under the criteria of adverse effect, DV 4 would not conform to the following Rehabilitation Standards:

- Standard 2: DV 4 would cause alteration of character-defining features, spaces, and spatial relationships. The mesh netting limits the bridge user's ability to perceive the setting of the bay, and the rigid framing members

every 8 feet obstruct the viewshed to the point of degradation of the integrity of the viewshed character-defining feature. The curvature of the design detracts from the historic design of the Bridge.

- Standard 3: DV 4 uses a design that affects the ability of the user to distinguish the physical record of the resource's time. The distinctive mid-century railing and clean line form are obscured using the wave design. While not attempting to be historic, the design is not subservient to the original railing and minimalist bridge design.
- Standard 9: the proposed addition of the reverse folding wave barrier system destroys historic materials, and character-defining features and spatial relationships. The proposed barrier addition destroys the spatial relationship of the bridge user to the bay. The framing system, including the posts and vertical cables that are visually obtrusive due to their frequency and material, especially in relation to the mid-century clean line design of the historic railing, fails to protect the integrity of the Bridge. Further, the system creates a blurred, "moire" effect that further disorients the users on their spatial awareness.
- Standard 10: the integrity of character-defining features would be more than minimally impaired upon removal of the barrier. If DV 4 were removed in the future, the integrity of the concrete railing, a character-defining feature, would be compromised. This is due to the frequency of the attachment points (every 7 feet 9 inches) directly to the concrete rail.

DV 4 would cause an Indirect Adverse Effect to character-defining features of the Bridge because the viewshed would be adversely impacted through the sizing, curved design, scale, and lack of transparency of the variation's design.

Design Variation 6: Horizontal Cable Fence

DV 6 would be a folding fence composed of two panels of closely spaced horizontal taut cables. The two panels would be connected by a hinge. When the hinge is secured, both panels would be able to stand upright. When unsecured, the top panel would be able to fold and rest against the bottom panel.

The fence panels would be installed on a modified version of the Continuous Plating Support System with a hinge that attaches the bottom fence panel to the continuous plating and would allow the fence to be secured in an upright position. When the hinge on the continuous plating is released, the fence would be able to pivot outwards and down away from the bridge to rest along the outside of the railing. If both the hinge between the panels and the hinge between the bottom panel and the continuous plating were released, the fence would be able to fold into itself twice before resting along the outside of the railing.

DV 6 would cause a Direct Adverse Effect to character-defining features of the Bridge and East Approach Connector historic resources through alterations that are not consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties for Rehabilitation (36 CFR part 68) and applicable guidelines.

Under the criteria of adverse effect, DV 6 would not conform to the following Rehabilitation Standards:

- Standard 2: DV 6 would cause alteration of character-defining features, spaces, and spatial relationships. The horizontal cable system limits the bridge user's ability to perceive the setting of the bay, and the rigid framing members every 8 feet obstruct the viewshed to the point of degradation of the integrity of the viewshed character-defining feature. The bracketing mechanism on the rear of the historic concrete rail also obscures the historic features (historic rail and essential mid-century clean line form) from views to the Bridge.
- Standard 9: the new addition of the folding horizontal cable system destroys historic materials, and character-defining features and spatial relationships. The new barrier addition destroys the spatial relationship of the bridge user to the bay. The frequency of the posts and horizontal cables is visually obtrusive and out of scale/design to the historic railing and fails to protect the integrity of the Bridge. Further, the horizontal cable system and the frequency (every 8 feet on center) of the vertical posts creates a visual flicker effect that distracts from the setting, the spatial awareness, and the design intent of the Bridge.
- Standard 10: the integrity of character-defining features would be more than minimally impaired upon removal of the barrier. If DV 6 were removed in the future, the integrity of the concrete railing, a character-defining feature, would be compromised. This is due to the frequency of the attachment points (every 7 feet 9 inches) directly to the concrete rail.

DV 6 would cause an Indirect Adverse Effect to character-defining features of the Bridge because the viewshed would be adversely impacted through the sizing, placement, and frequency of the vertical posts, and the flicker effect associated with the vertical posts.

The five fence design variations within Alternative 1 (DV 1, 2, 3, 4, and 6) would result in an adverse effect on a historic resource. Additionally, an adverse effect determination would require that these Design Variations undergo extensive analysis during the preparation and development of an EIR. Analysis and preparation of the necessary environmental studies and report would require an additional 2 to 5 years of processing. The purpose of installing a suicide deterrent in a timely manner would not be met.

For the reasons listed above, the five fence design variations within Alternative 1 (DV 1, 2, 3, 4, and 6) have been withdrawn from further consideration.

Vertical Barrier on Top of New Railing

This alternative was referred to as Alternative 2 in the technical memorandums and studies prepared prior to its elimination from consideration. This alternative would install a vertical barrier affixed to a new outside railing. The existing railing would be removed and replaced with a new railing to provide additional structural support for the vertical barrier. The replacement railing would be designed to

meet the Manual for Assessing Safety Hardware (MASH) standards. For this alternative, it was assumed that the existing railing removal and replacement would occur on both sides of the Bridge for the length of the suicide deterrent.

This alternative was determined unnecessary because there is a high confidence level that a new railing would not be required to support a vertical barrier based on preliminary structural analysis; thus, the purpose and need of the proposed project could be met without replacement of the railing. Additionally, alteration of the existing railing could compromise the historic integrity of the bridge structure. Therefore, this alternative was eliminated from consideration and no further evaluation was completed.

Horizontal Net

This alternative was referred to as Alternative 3 in the technical memoranda and studies prepared prior to its elimination from consideration. Alternative 3 was considered during the Feasibility Study and the PID phase. It was also presented to the public during the public scoping period in the PA&ED phase.

For this alternative, a horizontal net would be attached to the superstructure section approximately 20 feet below the bridge deck. Outriggers, or horizontal poles, would extend out from the bridge railing approximately 20 feet and would be spanned with a flexible steel net. The purpose of the net would be to deter anyone from jumping off the Bridge and to catch anyone that attempted to jump off the Bridge without adding a new visual element to the Bridge from the perspective of motorists. This alternative assumed that the horizontal net would be constructed on both sides of the Bridge for the length of the suicide deterrent.

While horizontal nets have been installed at other locations for suicide deterrence, for the reasons listed below this alternative has been eliminated from further consideration on the San Diego-Coronado Bay Bridge.

Emergency Response

During a suicide attempt or incident on the Bridge, local first responders often are the first on the scene and are responsible for conducting negotiations and investigations associated with these events. Local first responders include CHP, Coronado Police Department, San Diego Police Department, Coronado Fire Department, San Diego Fire Department, and Port of San Diego Harbor Police. During conversations with the representatives from the local first responder agencies relating to the horizontal barrier concept, serious concerns were raised, including the following:

- In the event of an attempted suicide, emergency response could still be required, resulting in the closure of the Bridge from either direction because the closure is necessary to both ensure the safety of motorists and allow first responder access to the scene. Although fire rescue personnel have the proper training to conduct rescue operations from an extended net, they are not trained in dealing with individuals that are or may become combative or uncooperative. This situation can arise if the

individual is emotionally unstable, violent, combative, suicidal, or has other mental health aspects involved. Conversely, law enforcement agencies are trained to handle combative and uncooperative individuals but do not have the training to conduct this type of rescue operation from the net. In the case of combative or uncooperative individuals, first responders must wait until the individual is trusting and willing to surrender before rescue and retrieval operations can begin.

- An attempted suicide into the horizontal net would require significant emergency responder resources necessary to address the incident. Currently, only two processes require emergency responder resources and time for a suicide attempt on the Bridge: negotiations or investigations on the Bridge and, if needed, body retrieval from the water. If a horizontal net is constructed, a new process would need to be implemented to negotiate with, retrieve, and rescue the individual caught in the net. This new process would require additional emergency responder resources and time. As a result, during the horizontal net retrieval process these resources would not be available or would be diverted from other critical situations occurring elsewhere.
- Also, during the horizontal net rescue and retrieval operation, the Bridge would need to be closed to traffic for the safety of the individual, the traveling public, and the first responders at the scene. Because an individual would need to be rescued and retrieved from a horizontal net, traffic disruptions may be prolonged and create additional traffic delays for users of the Bridge including residents, military personnel, and commuters. Emergency access for other incidents unrelated to the rescue and retrieval would also be impacted.
- The horizontal net alternative would not physically prevent an individual from jumping from the bridge deck because the horizontal net would be located below the bridge deck and would not obstruct access beyond the railing. Negotiating with, rescuing, and retrieving individuals from a horizontal net would still require closure of the entire Bridge so first responders can access the site from both directions of the Bridge because the middle barrier is low enough for personnel to climb over. The Bridge would also be closed to prevent interference from other drivers during negotiations or rescue operations and to maximize personnel safety because drivers could be distracted and collide with first responders, equipment, or other vehicles. The only other method to access the City of Coronado is via the Silver Strand, which is a 23-mile detour that could add 30 to 60 minutes of travel time per vehicle per incident, or by ferry.
- Because the horizontal net is composed of stiff, inflexible metal material and placed many feet below the bridge deck, individuals caught could be potentially injured and could need medical attention. Injuries could also complicate the retrieval process if the individual cannot be easily moved without further injury. A horizontal net may increase closure times because additional time would be needed to retrieve individuals and attend to any immediate medical needs onsite in addition to negotiations and investigations.

Based on the first responder concerns and inferences noted above, a horizontal net would not meet the purpose of reducing closures. Most likely, the opposite would occur and the rescue and retrieval time would be longer.

In addition to the reasons above, a letter received on February 23, 2022, from the City of San Diego on behalf of the San Diego Fire-Rescue Department and the San Diego Police Department stated that they “do not support a horizontal netting option as it would pose a significant risk to personnel during the extrication process” and that “it creates additional risks to both public safety personnel and the person that would have to be extracted from this type of deterrent.”

National Homeland Security

The Bridge is vital for military traffic to and from Coronado and is part of the Strategic Highway Network, which provides defense access, continuity, and emergency capabilities for movement of personnel and equipment in both peace and war times. Any threats to the bridge structure itself are unacceptable from a national security standpoint. Only authorized personnel with security clearance are allowed within the bridge structure. Currently, opportunities for a person to climb from the bridge deck into the bridge superstructure are extremely limited. A horizontal net could cause an increased risk due to new access to the underside of the bridge structure via the net, the net support structures, and other components of a horizontal deterrent system. At certain locations, these new features would create more access connections between the top of the bridge deck to the bottom and inside of the bridge structure. With the new connections, a person on the bridge deck could more easily maneuver around the bridge girder walls to access the bottom and inside of the bridge structure. Because the Bridge is one continuous structure, a person inside the Bridge would have access to all parts of the Bridge and would have unrestricted ability to tamper with or damage the bridge structure. Thus, a horizontal net would result in unacceptable new risk to the bridge structure itself, directly implicating a national security concern.

Deterrent Maintenance

The outriggers and other permanent features necessary to support the net would need to be painted and/or treated to minimize corrosion. Currently, maintenance activities are performed using a suspended modular access system that is built directly under the bridge to give maintenance workers a temporary safe platform to work on. This platform could not be used for the maintenance of the horizontal net because the net would extend 20 feet from the bridge while the platform only has a maximum width of 16 feet. As a result, maintenance of a horizontal net may require special equipment or procedures to be developed or require the procurement of specialized contract work. Similarly, the horizontal net must be regularly inspected and maintained to function as it was intended. Otherwise, the suicide deterrent would not function properly and would not meet the proposed project’s purpose of deterring suicides and suicide attempts. The horizontal net is also considered not prudent because it may result in additional maintenance and

operation costs of extraordinary magnitude as well as create unique operational and maintenance challenges.

Bridge Maintenance

Maintenance of the pier legs and tower caps is an ongoing activity due to exposure to the corrosive marine environment, including contact with salt water. Currently, an Under Bridge Inspection Truck (UBIT) is used for these maintenance activities. The UBIT's reach is 60 to 70 feet down the pier legs. Installation of a horizontal net would prevent a UBIT from accessing the pier legs. Without the UBIT as an option, future maintenance would most likely require regular construction and deconstruction of temporary pier leg scaffolding systems, which are typically secured by drilling into the concrete piers for secure connections. This drilling creates openings in the concrete surface allowing water to enter and has, in the past, resulted in further ongoing bridge maintenance requirements. This work would require several years to complete planning, design, and construction for each scaffolding project. This is because barges would be needed to transport materials to each pier leg and any work in San Diego Bay would require environmental approvals and permits prior to construction. Additional future maintenance projects may also be needed to repair the drilling needed to secure the scaffolding connections. If a horizontal net is installed, future maintenance of the pier legs and caps may require additional maintenance and operational costs of an extraordinary magnitude because a new system of temporary scaffolding may need to be designed and tested and would need to be repeatedly installed and uninstalled.

Like pier leg and tower cap activities, bridge painting is another critical and ongoing maintenance operation that provides the steel structural sections protection from the corrosive marine environment. For painting operations, crane trucks are used to lower materials over the side of the bridge and then onto the maintenance platform. Because the horizontal net would directly obstruct the path of the crane load, it would not be possible to lower or lift materials to and from the maintenance platform. Currently, no alternative means or methods have been identified that would allow for future bridge painting operations if a horizontal net was installed. The inability to paint the steel structural sections would obviously cause permanent and irreparable harm to the Bridge. See Figure 0-11 and Figure 0-12 below for a visual comparison of how a generator is currently lowered from the bridge deck and how a horizontal net could potentially obstruct future access.



Figure 0-11 Current Generator Access During Maintenance Activities

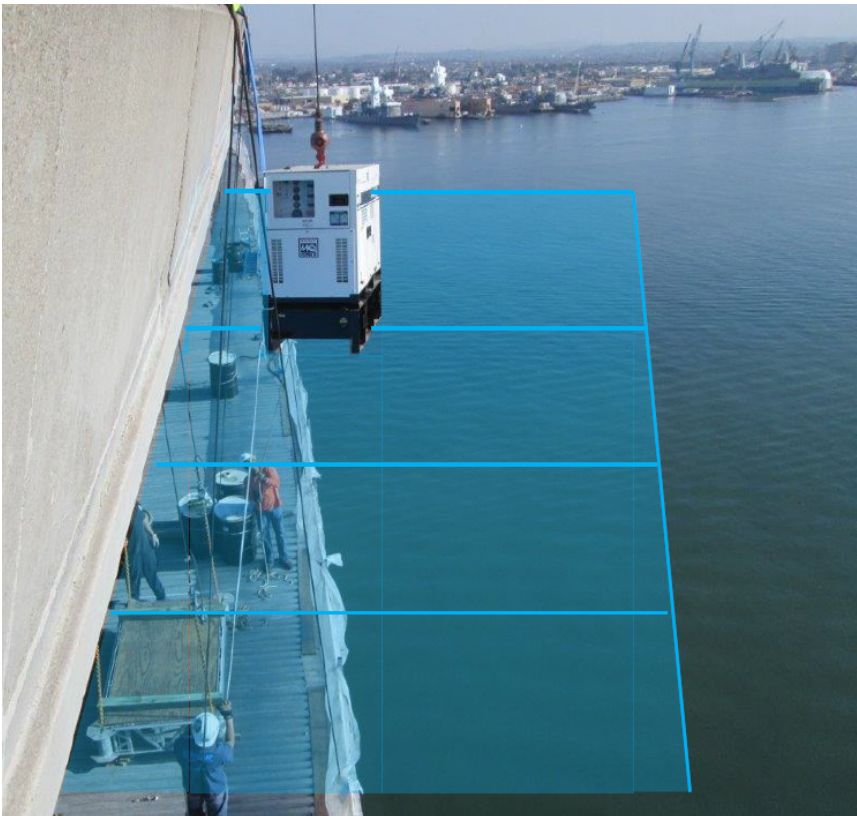


Figure 0-12 Simulated Horizontal Net Obstruction of Generator Access

The only possible method to allow for future maintenance operations is to remove the horizontal net in spans where work is being done. This is not considered a solution because this would create a gap in the horizontal net suicide deterrent system and may result in significant and extraordinary costs. First, a gap in a suicide deterrent system could negatively impact the effectiveness of the suicide deterrent. Research has shown that incomplete coverage or incomplete installation of safety measures resulted in a significantly lower reduction of suicides. Complete interventions were significantly more effective than incomplete safety measures. Second, since the lowering of materials for painting occurs regularly and continuously, and the netting material is subject to damage with frequent removals and may have to be replaced after this operation, this would result in a repeated increase in maintenance cost for the life of the Bridge.

Installation of a horizontal net would require additional maintenance operations that are either extraordinary in magnitude or not able to be identified. The horizontal net is not recommended because it may result in additional maintenance and operation costs of extraordinary magnitude and would create unique problems such as inability to lower equipment and obstructing UBIT access.

Complications in maintenance operations may also affect the historic integrity of the Bridge. If the character-defining features of the Bridge cannot be maintained regularly or properly, then this could lead to an adverse effect of a historic resource.

Easements

The Bridge is located above and adjacent to land owned by others, including a series of private landowners. Currently, Caltrans only has easement rights that allow for certain work within specific limits along the Bridge located in the City of San Diego. The limits needed for the construction and maintenance of a horizontal net would extend beyond the horizontal limits of the existing easements. For the horizontal net, new permanent and temporary easements would be required over multiple privately and publicly owned parcels in the Barrio Logan community in the City of San Diego. These easements would affect industrial, commercial, and residential properties. Obtaining these easements through the acquisition process may delay the proposed project up to 18 months or more. Temporary impediments to businesses below the new easements, such as access restrictions and disruptions, could be considered a community impact and may lead to public controversy. The new easements would be located within minority and low-income populations and it would be necessary to ensure that the acquisition of the new easements would not disproportionately impact these groups. The limits of some easements on the City of San Diego side of the Bridge also extend past the land areas and into San Diego Bay. To avoid new easements, the horizontal net would not be able to start until a location approximately 750 feet over the water from the edge of land on the City of San Diego side near Pier 23. The purpose of constructing a deterrent in the most timely manner would not be met and additional suicides or suicide attempts may likely occur during the additional time needed to obtain these easements.

For all of the reasons explained above, this alternative was eliminated from the discussion and no further evaluation was completed.

Thistle Barrier

The Thistle Barrier would install an alternative fence system that would consist of deterrent spikes installed on top of the existing bridge railing. Materials would be composed of rigid sharp metal and/or hard plastic spines. Thistle fence panels would be installed at the front edge of the bridge railing and result in a minimum effective height from the bridge deck of 6 feet with a minimum height of 3 feet for the thistle fence panel. This alternative was considered based on public input during initial outreach efforts. This alternative was deemed infeasible due to the risk of injury to the public, first responders, and maintenance personnel on the bridge deck. Therefore, this alternative was eliminated from the discussion and no further evaluation was completed.

Wire Mesh Curved Fence

This suicide deterrent concept would construction an 8- to 9-foot modified mesh fence. This barrier concept is based on the barrier installed on Cold Spring Canyon Bridge, along SR 154 in Santa Barbara County, CA. It is not a movable concept and therefore presented additional challenges to accommodate maintenance and First Responder access. Based on information from the Cold Spring Canyon barrier design, it was anticipated to be one of the heavier alternative concepts with a greater potential impact on and need for replacement of the existing bridge rail. Therefore, this alternative was eliminated from the discussion and no further evaluation was completed.

Non-Physical

This suicide deterrent concept was evaluated as a supplemental and interim measure to a physical deterrent and would install or replace a combination of low impact monitoring devices or minor visual additions along the bridge. This barrier concept is not a physical deterrent and does not meet the purpose and need. Therefore, this alternative was eliminated from the discussion and no further evaluation was completed.

Transparent Panel Barrier

This barrier concept was anticipated to be the heaviest of all of the alternatives due to the weight of the transparent paneling and the robust supports needed to hold them. Additionally, due to the solid transparent panels, this barrier concept would have a higher wind load impact on the existing bridge rail. Because of these reasons, this barrier concept would have a greater impact on the existing bridge rail, resulting in the potential need for replacement of this feature. Additionally, the transparent panels would require substantial additional maintenance to keep both sides of the panels clean to provide for the view from the bridge that would be the benefit of installing a transparent panel.

Folding Transparent Panel Barrier

This alternative would install a barrier composed of transparent panels. This barrier system would be 8 to 9 feet in height with perforations in the panels to reduce transverse and wind loading (e.g., forces against the solid surface of the barrier that would compromise structural integrity). The panels would be made of either glass or plexiglass materials. The barrier system would consist of two horizontal panels that could be collapsed and folded down inwards toward the interior of the bridge deck to provide access to the side and underside of the bridge for maintenance. An 8-inch continuous gap at the bottom of the fence would also be included to facilitate maintenance access to anchor bolts, air and water hookups, and ropes used during maintenance operations. This alternative was deemed infeasible due to the encroachment of the folded barrier into the nearest travel lane, potentially requiring additional lane closures during maintenance operations. Additionally, maintenance needs would be substantially increased because the transparent material would require regular cleaning on both sides of the panels. The weight of the transparent panels and wind loading forces that would be associated with this concept was also a concern for this alternative. Therefore, this alternative was eliminated from the discussion and no further evaluation was completed.

Permanent 4-Inch Spikes

Temporary spikes were installed in March 2019 under a separate maintenance project. This alternative would convert the temporary metal spikes on the existing bridge rail into a permanent feature of the bridge. Due to their size, the spikes are not a physical deterrent because they do not create a physical barrier that prevents an individual from gaining access beyond the railing. Negotiating with individuals in distress still requires the entire Bridge to be closed and the purpose of reducing closures on the Bridge is not met. Therefore, this alternative was eliminated from the discussion and no further evaluation was completed.

This list contains other alternatives that were initially considered but later dismissed by the time of the Feasibility Study due to substantial safety, cost, or other potential impacts:

- Electric Wire Fence
- Impassible Buffer to the Railing
- Folding Horizontal Cable Fence

1.8 Standard Measures and Best Management Practices

- Construction equipment and vehicles will be properly tuned and maintained, and will use low sulfur fuel as required by California Code of Regulations Title 17, Section 93114.
- Equipment and materials storage sites will be located as far away from residential and park uses as feasible, and construction areas will be kept clean and orderly.

- To the extent feasible, construction traffic will be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
- Minimization measures to ensure traffic impacts resulting from construction activities will be implemented with the TMP including appropriate staging, timing, and sequencing of activities; maintenance of traffic in both directions; and advanced notification to motorists and nearby communities to inform the public of potential delays.

1.9 Discussion of the NEPA Categorical Exclusion

This document contains information regarding compliance with CEQA and other state laws and regulations. Separate environmental documentation, supporting a Categorical Exclusion determination, will be prepared in accordance with NEPA. When needed for clarity, or as required by CEQA, this document may contain references to federal laws and/or regulations (CEQA, for example, requires consideration of adverse effects on species identified as a candidate, sensitive, or special-status species by the U.S. National Marine Fisheries Service and the U.S. Fish and Wildlife Service (USFWS)—in other words, species protected by the Federal Endangered Species Act [FESA]).

1.10 Permits and Approvals Needed

The following permits, licenses, agreements, and certifications are required for project construction:

Agency	Permit/Approval	Status
California Coastal Commission (CCC)	Coastal Development Permit (CDP)	Would be obtained during the Plans, Specifications, and Estimates phase.
Port of San Diego	CDP	Would be obtained during the Plans, Specifications, and Estimates phase.
City of Coronado	CDP	Would be obtained during the Plans, Specifications, and Estimates phase.
City of San Diego	CDP	Would be obtained during the Plans, Specifications, and Estimates phase.

Chapter 2 CEQA Evaluation

2.1 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. Potential impact determinations include Significant and Unavoidable Impact, Less Than Significant With Mitigation Incorporated, Less Than Significant Impact, and No Impact. In many cases, background studies performed in connection with a project will indicate that there are no impacts to a particular resource. A No Impact answer reflects this determination. The questions in this checklist are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices and measures included in the Standard Plans and Specifications or as SSPs, are considered an integral part of the proposed project and have been considered prior to any significance determinations documented below.

“No Impact” determinations in each section are based on the scope, description, and location of the proposed project as well as the appropriate technical report, and no further discussion is included in this document.

2.1.1 Aesthetics

Considering the information included in the Visual Impact Assessment dated January 2022 (Caltrans 2022), the following significance determinations have been made:

Except as provided in Public Resources Code Section 21099:

Question—Would the project:	CEQA Significance Determinations for Aesthetics
a) Have a substantial adverse effect on a scenic vista?	Less Than Significant Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Less Than Significant Impact

Question—Would the project:	CEQA Significance Determinations for Aesthetics
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Less Than Significant Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No Impact

Regulatory Setting

CEQA establishes that it is the policy of the state to take all action necessary to provide the people of the state “with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities” (California Public Resources Code [PRC] Section 21001[b]).

The following three plans govern scenic quality in the proposed project vicinity:

Senate Bill 1467 added Sections 260 through 263 to the Streets and Highways Code in which the State proclaims intent to: “establish the State's responsibility for the protection and enhancement of California's natural scenic beauty by identifying those portions of the State highway system which, together with adjacent scenic corridors, require special conservation treatment” (Caltrans 2021a). State Highway 75 is an officially designated State Scenic Highway.

The San Diego Unified Port District's Master Plan sections 5.4.3(D)-1 PD4.17 specify to preserve scenic vista areas in accordance with the requirements of Chapter 4, Baywide Development Standards, in the following locations: the view of the bay from the promenade along Cesar Chavez Park, north of the Cesar Chavez Pedestrian Pier; and the view of the bay from the western end of the Cesar Chavez Pedestrian Pier (San Diego Unified Port District 2020).

The City of Coronado Local Coastal Program, Section II. H. Visual Resources and Special Communities, reaffirms the Scenic Highway Element of the City's General Plan, which designates the Silver Strand and bridge portions of SR-75 as Scenic Highway, and the Scenic Highway Modifying Chapter of the City's Zoning Ordinance which regulates land use adjoining Scenic Highways (City of Coronado 2021b).

Affected Environment

This section is summarized from the Visual Impact Assessment, which was completed in November 2021 (Caltrans 2022). The land use within the corridor is

primarily urban with residential, commercial, industrial, and military land use, but also includes areas of recreational land use.

San Diego Bay is a deep-water port that is 12 miles long and 1 to 3 miles wide. It is bordered by five cities: San Diego, Coronado, National City, Chula Vista, and Imperial Beach. The proposed project is within a designated State Scenic Highway. The length of the Bridge is within the designated State Scenic Highway (PM 20.5-21.9). The official designation date was December 17, 1969. The expansive view of the San Diego County coast and Pacific Ocean is the primary scenic resource associated with SR-75 (PM 20.5-21.9).

Scenic Vistas

The scenic vistas identified for the proposed project each have their own visual character and visual quality. The following scenic vistas have been identified:

1. San Diego-Coronado Bay Bridge – From SR-75 looking northwest toward San Diego Bay, City of Coronado, and Point Loma Peninsula. This view is depicted in Figure 0 13.
2. Coronado – San Diego Bay Shore –Figure 0 14 depicts the view from the Bayshore Bikeway near PM 20.5, looking south toward San Diego Bay and San Diego-Coronado Bay Bridge.
3. San Diego Bay – PM 20.5-21.6, Water body bordering San Diego, Coronado, National City, Chula Vista, and Imperial Beach. Figure 0 15 shows the view from Cesar Chavez Park Pier, near PM 21.5, looking south toward San Diego Bay and San Diego-Coronado Bay Bridge.
4. San Diego, Barrio Logan – PM 21.6-22.2, Urbanized waterfront bordered by I-5 and San Diego Bay. Figure 0 16 shows the view from the Barrio Logan Trolley Station, Harbor Drive, near PM 21.9, looking south toward the San Diego-Coronado Bay Bridge. This scenic vista also includes San Diego Bay, south of PM 21.5, looking south toward Coronado.
5. From Vessel in San Diego Bay –
6. Figure 0 17 shows the visual simulation of enclosed center and outer bays beneath the structural system of the Bridge looking south toward Coronado.

In assessing impacts to scenic vistas and scenic resources, the visual character and the visual quality are evaluated for the project corridor before and after the construction of the proposed project. The combination of visual character and visual quality equate to resource change, which is one of the two major variables in the equation that determine visual impacts to scenic resources (the other is viewer response, discussed below).

Visual Character

Visual character includes attributes such as form, line, color, and texture, and is used to describe the proposed project. A change in visual character can be evaluated when it is compared with the viewer response to that change.

Within the proposed project corridor, the Bridge is the dominant structure that spans San Diego Bay from San Diego to Coronado. The bridge is composed of continuous lines that curve across San Diego Bay. The bridge arch columns are the largest vertical elements in the corridor and the columns gradually rise to the highest section of the bridge, as seen in Figure 2-5. The bridge is composed of mostly gray and “San Diego blue.” The bridge rail, light posts, columns, and concrete girders are a similar gray hue with mostly smooth surfaces. The bridge rail is low profile and a less dominant feature within the horizon. Light posts rise from the bridge rail and are the tallest vertical elements on the Bridge.

At the east end of the bridge are various forms, lines, colors, and textures within urbanized San Diego. Buildings vary in size from small houses to large industrial buildings. Piers and docks stretch out horizontally into the bay and large ships and cranes rise above the other built elements and are the dominant vertical elements near the shore.

At the west end of the bridge are various forms, lines, colors, and textures within urbanized Coronado. Street tree canopies mix with a variety of commercial and residential structures. Recreational land use areas create smoother surfaces of grass north and south of the bridge. Hotels and apartment buildings are the larger vertical elements in the background of the city. The Pacific Ocean creates a blue plane beyond the City of Coronado.

The visual character of the proposed project would be somewhat compatible with the existing visual character of the corridor. The visual character along the edge of the bridge deck would change with the introduction of a vertical net. The net and support posts would add new vertical built elements on the existing bridge rail. Diversity would be slightly increased with the new textures and patterns, but the netting would maintain continuity by following the same lines and plane of the existing bridge rail. The vertical netting would have a minimum transparency of 85 percent and would not create a visual obstruction or solid mass appearance. The vertical net would be small in scale when compared to the height of the existing columns and width of the bridge girders. The net would be much shorter than the existing single arc-light poles rising above the bridge deck. The steel posts and brackets would be a similar gray hue because the existing bridge rail and have a subdued reflectivity.



View from the Bridge looking Northwest Before Vertical Net



View from the Bridge looking Northwest After Vertical Net

Figure 2-1
Visual Assessment of Vertical Net Before and After

San Diego-Coronado Bay Bridge Suicide Deterrent Project Final IS/MND

Figure 0-13 Visual Assessment of Vertical Net Before and After



View from Bayshore Bikeway looking South Before Vertical Net



View from Bayshore Bikeway looking South After Vertical Net

Figure 2-2
Visual Assessment of Vertical Net Before and After

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Figure 0-14 Visual Assessment of Vertical Net Before and After



View from Cesar Chavez Pier looking Southwest Before Vertical Net



View from Cesar Chavez Pier looking Southwest After Vertical Net

Figure 2-3
Visual Assessment of Vertical Net Before and After

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Figure 0-15 Visual Assessment of Vertical Net Before and After



View from Barrio Logan Trolley Station looking Southwest Before Vertical Net



View from Barrio Logan Trolley Station looking Southwest After Vertical Net

Figure 2-4
Visual Assessment of Vertical Net Before and After

San Diego-Coronado Bay Bridge Suicide Deterrent Project Final IS/MND

Figure 0-16 Visual Assessment of Vertical Net Before and After



View of the Bridge Bay Understructure looking South.



View of the Bridge Bay Enclosures looking South.

Figure 2-5
Visual Assessment of Bay Enclosures Before and After

San Diego-Coronado Bay Bridge Suicide Deterrent Project Final IS/MND

Figure 0-17 Visual Assessment of Bay Enclosures Before and After

Visual Quality

Visual quality is evaluated by identifying the vividness, intactness, and unity present in the project corridor.

Vividness within the project corridor is high due to the iconic Bridge, large bodies of water, urban skylines, diverse geologic features, and sunsets and sunrises that can be regularly seen from the bridge (Figure 0-13). A variety of marine vessels can also be seen from the bridge. The overall bridge is a distinct element within San Diego Bay. The blue and grays of the bridge blend with the water and sky.

Unity is high within the project corridor due to minimal visual intrusions. The existing bridge rail was designed with a lowered height to minimally obstruct the panoramic views from the Bridge. The bridge deck and bridge rail form a coherent and continuous visual pattern throughout the length of the bridge. Although the proposed project corridor is surrounded by diverse visual elements, they create a coherent visual pattern of an urbanized port.

The visual quality of the existing corridor would be altered by the proposed project. The proposed vertical net would alter the vividness of immediate views from the bridge roadway but have negligible effects on the overall vividness of the project corridor. Intactness and unity are lowered by the introduction of the vertical net and support posts. The proposed vertical net would add another urbanized element within the project corridor but will not be detrimental to the distinctive views from the bridge roadway. The 85 percent net transparency would partly maintain the views from the bridge roadway and would be less visible from other locations as it “fades away” with distance. Although the net would create a new texture and pattern above the bridge rail, it would follow the line and form of the bridge. The proposed net would be compatible with the general shape of the bridge structure, its railings, single-arc light poles, and its materials.

Viewers and Viewer Response

The population affected by the proposed project is composed of viewers. Viewers, or more specifically the response that viewers have to changes in their visual environment, are one of two variables that determine the extent of visual impacts to a scenic vista or scenic resource. The other variable is the change to visual resources discussed above.

Highway Users (Views from the Road)

The average daily traffic volume on the Bridge is 83,000. Daily commuters and residents regularly travel the corridor. These users frequently travel the corridor, but with a speed limit of 50 mph, the duration of viewer exposure is moderate. Commercial, industrial, and military drivers also travel the project corridor daily. These users make single and multiple trips. Their exposure is moderate or moderate-high depending on the traffic flow. Tourists regularly drive the project corridor. Although tourists have less time traveled on the bridge, there are multiple tourist users driving the project corridor year-round. Their exposure is moderate. Traffic congestion affects the level of exposure to visual changes. Dense traffic screens scenic offsite views for travelers in the middle lanes and

lowers their viewer exposure. Dense traffic prolongs viewer exposure to scenic views over the bridge rail for motorists traveling in the outside lanes. For all users, traffic impacts the viewshed down the center of the bridge. The resulting exposure rating for all users is moderate.

Residents use the highway daily and have familiarity with the existing views throughout the highway corridor. The proposed project could disrupt these valued views that these users are accustomed to seeing. Residents will have high sensitivity to changes in the viewshed. The Bridge is a tourist destination. Tourists actively enjoy the panoramic coastal views from the project corridor and awareness is heightened as they focus on the coastal views. Commuters and commercial, industrial, and military drivers are more engaged in reaching their destination and less focused on the surrounding views. Their sensitivity is low. The position of the motorist will affect their sensitivity. Motorists who regularly travel next to the bridge rail have higher sensitivity than motorists who typically travel in the center lanes. The composite viewer sensitivity rating is moderate.

Highway Neighbors (Views to the Road)

Highway neighbors are people who have views to the road. Coronado and Barrio Logan residents that live near the San Diego Bay shoreline have a fixed view of the Bridge. Recreational neighbors are present throughout the surrounding areas of the proposed project corridor. They include users located in the adjacent parks: Coronado Tidelands Park, Coronado Municipal Golf Course, Cesar Chavez Park, and Chicano Park. They are also located in San Diego Bay on a variety of watercrafts. The recreational/tourists neighbors have prolonged view durations due to the proximity of recreational activities adjacent to the bridge. Residents and recreational/tourists groups have moderate-high exposure to the project. Commercial, industrial, and military viewer groups are in multiple locations near the San Diego/Barrio Logan shoreline. They are located directly adjacent to the bridge and surrounding city blocks. Although these viewer groups have direct views of the Bridge, their views are primarily directed internally at the facility where they are working. Commercial, industrial, and military groups have moderate-low exposure to the project. The composite exposure rating is moderate.

Residents and recreational users hold the urban coastal character of the highway corridor in high regard and are engaged with their surroundings.

Residents that live closer to the highway have a more narrow and focused view of the proposed project that leads to high sensitivity. Recreational users have a more general view of the entire corridor and a moderate sensitivity to the proposed project views. Commercial, industrial, military neighbor groups have focused views within their own facilities and are generally engaged in activities within those facilities. The employees and patrons may value the surrounding landscape views, but their primary attention remains inside the industrial facilities. Their sensitivity is low. The composite sensitivity rating is moderate.

The overall viewer response is moderate. The highway users with views from the road would be exposed to the proposed vertical net daily and have higher

sensitivity to the proposed project corridor with the introduction of a built element within a Scenic Highway. The highway neighbors with views to the road would have a lower sensitivity than highway users. The resulting viewer response to the change in scenic vistas and scenic resources is moderate to moderate-low.

Environmental Consequences

Proposed Project

View from SR-75 (Scenic Vista #1)

As seen in Figure 2-1, the proposed vertical net would install additional vertical elements attached to the existing bridge rail. The support posts would be nearly perpendicular to the bridge deck and the proposed netting would create a new pattern and textured plane along the existing bridge rail. The vertical net would become the dominant vertical element on the bridge rail sides of the bridge and would be smaller in scale compared to the existing overall bridge structure. The steel components of the vertical net would have a similar gray hue because the existing bridge rail but a slightly different reflectivity.

Highway users regularly have this view of San Diego Bay and downtown San Diego. Motorists who typically travel near the bridge rail would be more sensitive to changes than motorists who regularly travel in the center lanes. Viewer exposure is moderate for bridge travelers in all lanes, and the duration of their view exposure is short while traveling at 50 mph. Highway users include residents and tourists who are actively engaged with the coastal view but are also distracted from the view as they operate their vehicle and navigate around other vehicles. Commuters and commercial, industrial, and military drivers are more engaged in reaching their destination with less focus and expectation of the surrounding views. Viewer sensitivity is moderate. The view is valued by highway users and the overall viewer response is moderate.

The proposed vertical net would slightly alter coastal views from the roadway. The net and support posts would create new vertical elements on the existing bridge rail and the top tension support would create a gently, scalloped horizontal line through the sky. While noticeable, at this distance and with high rates of travel, the transparency of the netting would allow for the full unobstructed width of the viewshed to remain. The change within the viewshed would include additional poles with a minimum 20-foot spacing and netting. The new elements of the vertical net would not appear out of context or highly dominant in relation to the existing bridge components such as the concrete bridge rail and paved roadway. The netting may be sloped away from traffic up to 15 degrees to avoid a tunnel effect. Bridge travelers would maintain the spatial awareness of San Diego Bay and the sky. The transparency of the net would maintain most of the visibility of San Diego Bay and surrounding urban centers and the overall level of resource change would be moderate-high.

The proposed project has been designed with visual resources in mind. The posts of the proposed vertical net would have a brushed/dull finish to minimize reflectivity. The metal attachment plate would blend with the existing bridge rail.

The stainless-steel net material would consist of maximum 2-mm openings (similar to the diameter of chicken wire). Although the vertical net would introduce a new built element on the Bridge, the vertical net would have a minimum 85 percent transparency.

View from Bayshore Bikeway (Scenic Vista #2):

The view from the Bayshore Bikeway is seen by residents, tourists, and recreational users who regularly view this area as they walk and bike. Highway neighbors highly value views to the bay and the Bridge but are less likely to value this view because of the existing intrusive built elements (fencing, barbwire, asphalt, and drainage grates). The overall viewer response is moderate-low.

The existing bridge structure would remain the dominant visual element. The existing light poles would remain the tallest vertical element, rising more than twice the height of the vertical netting and supports. Views of the bay and the Silver Strand would be unobstructed by the proposed vertical net. The overall level of resource change is moderate-low.

Highway neighbors adjacent to this scenic vista have varied engagement to views of the bridge and the proposed vertical net. Views of the bridge would be altered, but highly valued views of San Diego Bay and surrounding communities would remain unaltered.

View from Cesar Chavez Park Pier (Scenic Vista #3):

From Cesar Chavez Park Pier, the bridge curves over the plane of water below. Several arched columns follow the bridge girders across the bay. The sky is a dominant feature minimally obstructed from the bridge. The coastal view is intact with minimal intrusions.

Residents and tourists regularly use the Cesar Chavez Park Pier and can spend prolonged time walking or sitting on the pier. The quantity of viewers is much less than the roadway users, but the viewers are engaged with their surroundings and highly value the coastal views. The level of viewer response is moderate-high.

The proposed vertical net would follow the line of the existing bridge rail. A fine texture would be created by the net and repeatedly intersected by the solid support posts. The net would be mostly transparent and would not impede views of the sky. The vertical net is not a dominant visual component of the view and is small in scale compared to the water, bridge, sky, and docked boats. Visual quality changes would be negligible, and the overall level of resource change is low.

Views of the Bridge would be altered, but highly valued views of San Diego Bay and surrounding communities would remain unaltered.

View from Barrio Logan Trolley Station (Scenic Vista #4):

From the Barrio Logan Trolley Station, the foreground views include various perpendicular lines of existing trolley rail and electric wires. Midground views include roads running parallel with the trolley tracks. Although the bridge is in the

background of the view, it is the largest visual component. The built features with various colors, shapes, sizes, and textures create a high contrasting view that is low in memorability. Multiple power lines and unmaintained landscape create visual intrusions that block views of the bridge.

Multiple viewers can be at this location throughout the day. Viewers are focused on transportation in the immediate area and less sensitive to the surrounding bridge views. The overall level of viewer response is moderate-low.

The proposed vertical net would add additional texture and lines to the view. The vertical net would be small in scale compared to the bridge structure and would not be a dominant visual element in the view. The overall level of resource change is low.

Highway neighbors have varied engagement to views of the bridge and the proposed vertical net. Viewers are also located various distances from the bridge. Views of the bridge would be altered, but highly valued views of historic Chicano Park and Barrio Logan murals would remain unaltered. Commercial, industrial, and military viewer groups have negligible engagement with bridge views and have a focused awareness within their jobs and duties.

View from Vessel in San Diego Bay (Scenic Vista #5):

The dominant visual component is the bridge structure as it dramatically curves out over the bay. The gray arch columns rise out of the bay and connect to the bridge, and the vertical tilt of the view reveals structural elements underneath the bridge deck. The elements in the foreground view provide continuity because the bridge curves into the background, where it then subtly contrasts with the buildings that rise behind Coronado Tideland Park.

Multiple viewers can be at this location throughout the day; however, those viewers would need to be in a water vessel/boat to experience this view. As such, viewers are likely focused on both the architectural and cultural features of the bridge as well as the surrounding landscape of the bay as the two contrast—both are valued views to viewers. The overall level of viewer response is moderate-low.

The proposed fiber-reinforced grating bay enclosure would remove the harsh texture of the crossed structural elements under the bridge and add smooth, parallel lines to the view. The enclosure would not add another contrasting visual element, but rather would add continuity to the existing bridge structure.

Project Visual Impact Summary

As described for each of the scenic vistas, visual impacts are determined by assessing changes to the visual resources and predicting viewer response to those changes. Visual resource change and viewer response for the selected scenic vistas were rated on a scale of low to high and the combination of these ratings provides the overall composite rated visual impact. The visual impacts of the five scenic vistas ranged from moderate-low to moderate-high; thus, the composite visual impact rating of the proposed project is moderate.

As shown through the analysis of the five scenic vistas, the project would modify views to and from the bridge and result in an overall moderate visual impact rating. Thus, the proposed project would not have a substantial adverse effect on a scenic vista.

The Bridge is a component of a state scenic highway; however, the analysis presented throughout this section indicates a moderate visual impact. Thus, the proposed project would not substantially damage scenic resources and the impact would be less than significant.

Proposed modifications to the existing bridge structure would not conflict with zoning or other visual quality regulations as scenic coastal views would be maintained and the overall viewshed would not be substantially altered. A less than significant impact would result.

Caltrans evaluated properties within the Area of Potential Effects (APE) that are eligible for inclusion in the National Register of Historic Places (NRHP); however, only two of those are buildings: the San Diego-Coronado Bay Bridge Toll Collection Structure (Wing) and the Caltrans Administration Building. Based on the Finding of No Adverse Effect, the vertical net would not cause significant adverse effects to the historic properties and no visual elements are out of character with the historic district or property. The proposed project would not substantially damage any scenic resources, including any historic buildings within a designated State Scenic Highway. There would not be a substantial change to a scenic vista or scenic resource with the implementation of the proposed project and the impact would be less than significant.

No-Build Alternative

The No Build Alternative would not create visual impacts.

Avoidance, Minimization, and/or Mitigation Measures

Implementation of the proposed project would have a less than significant effect on scenic vistas and scenic resources. The stainless-steel netting and the brushed/dull finish of the vertical metal supports would minimize reflectivity. The metal mounting bracket would blend to match the existing bridge rail. Most importantly, the 85 percent transparent vertical net would allow the existing scenic vistas to remain intact. The netting would be sloped away from traffic up to 15 degrees to avoid a tunnel effect. Bridge travelers would maintain the spatial awareness of San Diego Bay and the sky. The new elements of the vertical net would not appear out of context or highly dominant in relation to the existing bridge components of the concrete bridge rail and paved roadway.

Although the proposed project would alter the visual character of a State Scenic Highway, the impact would be less than significant due to the same reasons stated above. The Finding of No Adverse Effect concluded that the vertical net on the existing railing would not cause indirect adverse effects because no visual elements are out of character with the historic district or property.

The three plans that govern scenic quality in the proposed project area require special conservation treatment for State Scenic Highways, require the preservation of scenic vista areas, and regulate land use adjoining Scenic Highways. The proposed project would preserve the Scenic Highway by implementation of an 85 percent transparent vertical net that would allow the existing scenic vistas to remain intact. Viewer response and resource change would be moderate to low and the proposed project would have a less than significant impact on aesthetics.

Avoidance, minimization, and/or mitigation measures are not required for the proposed project.

2.1.2 Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board (ARB).

Question—Would the project:	CEQA Significance Determinations for Agriculture and Forest Resources
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact
c) Conflict with existing zoning, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact

Question—Would the project:	CEQA Significance Determinations for Agriculture and Forest Resources
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	No Impact

2.1.3 Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Considering the information included in the Air Quality Review for SR-75 – Coronado Bridge Suicide Barrier dated January 2021 (Caltrans 2021g), the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Air Quality
a) Conflict with or obstruct implementation of the applicable air quality plan?	Less Than Significant Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	Less Than Significant Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	Less Than Significant Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less Than Significant Impact

Regulatory Setting

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality while the California Clean Air Act is its companion state law. These laws, and related regulations by the United States Environmental Protection Agency (USEPA) and ARB, set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). At the state level, these standards are called California Ambient Air Quality Standards (CAAQS). NAAQS and CAAQS have been established for six criteria pollutants that have been linked to potential health concerns (shown in Table 2 below): carbon monoxide (CO); nitrogen dioxide (NO₂); ozone; particulate matter (PM)—which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM₁₀) and particles of 2.5 micrometers and smaller (PM_{2.5}); lead (Pb); and sulfur dioxide (SO₂). In addition, the CAAQS also include standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. The NAAQS and CAAQS are set at levels that protect public health with a margin of safety, and are subject

to periodic review and revision. Both state and federal regulatory frameworks also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

Table 2: Criteria Air Pollutant Effects and Sources

Pollutant	Principal Health and Atmospheric Effects	Typical Sources
Ozone (O ₃)	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage and cancer. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include many known toxic air contaminants. Biogenic volatile organic compounds (VOCs) may also contribute.	Low-altitude ozone is almost entirely formed from reactive organic gases (ROGs) or VOCs and nitrogen oxides (NO _x) in the presence of sunlight and heat. Common precursor emitters include motor vehicles and other internal combustion engines, solvent evaporation, boilers, furnaces, and industrial processes.
Carbon Monoxide (CO)	CO interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen. CO also is a minor precursor for photochemical ozone. Colorless, odorless.	Combustion sources, especially gasoline-powered engines and motor vehicles. CO is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.
Respirable Particulate Matter (PM ₁₀)	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some toxic air contaminants. Many toxic and other aerosol and solid compounds are part of PM ₁₀ .	Dust- and fume-producing industrial and agricultural operations; combustion smoke and vehicle exhaust; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and re-entrained paved road dust; natural sources.
Fine Particulate Matter (PM _{2.5})	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter—a toxic air contaminant—is in the PM _{2.5} size range. Many toxic and other aerosol and solid compounds are part of PM _{2.5} .	Combustion including motor vehicles, other mobile sources, and industrial activities; residential and agricultural burning; also formed through atmospheric chemical and photochemical reactions involving other pollutants including NO _x , sulfur oxides (SO _x), ammonia, and ROGs.
Nitrogen Dioxide (NO ₂)	Irritating to eyes and respiratory tract. Colors the atmosphere reddish-brown. Contributes to acid rain and nitrate contamination of stormwater. Part of the “NO _x ” group of ozone precursors.	Motor vehicles and other mobile or portable engines, especially diesel; refineries; industrial operations.
Sulfur Dioxide (SO ₂)	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing; some natural sources like active volcanoes. Limited contribution possible from heavy-duty diesel vehicles if ultra-low sulfur fuel not used.

Pollutant	Principal Health and Atmospheric Effects	Typical Sources
Ozone (O ₃)	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage and cancer. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include many known toxic air contaminants. Biogenic volatile organic compounds (VOCs) may also contribute.	Low-altitude ozone is almost entirely formed from reactive organic gases (ROGs) or VOCs and nitrogen oxides (NO _x) in the presence of sunlight and heat. Common precursor emitters include motor vehicles and other internal combustion engines, solvent evaporation, boilers, furnaces, and industrial processes.
Lead (Pb)	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also, a toxic air contaminant and water pollutant.	Lead-based industrial processes like battery production and smelters. Lead paint, leaded gasoline. Aerially deposited lead from older gasoline use may exist in soils along major roads.
Sulfates	Premature mortality and respiratory effects. Contributes to acid rain. Some toxic air contaminants attach to sulfate aerosol particles.	Industrial processes, refineries and oil fields, mines, natural sources like volcanic areas, salt-covered dry lakes, and large sulfide rock areas.
Hydrogen Sulfide (H ₂ S)	Colorless, flammable, poisonous. Respiratory irritant. Neurological damage and premature death. Headache, nausea. Strong odor.	Industrial processes such as refineries and oil fields, asphalt plants, livestock operations, sewage treatment plants, and mines. Some natural sources like volcanic areas and hot springs.
Visibility Reducing Particles (VRP)	Reduces visibility. Produces haze. NOTE: not directly related to the Regional Haze program under the Federal Clean Air Act, which is oriented primarily toward visibility issues in National Parks and other "Class I" areas. However, some issues and measurement methods are similar.	See particulate matter above. May be related more to aerosols than to solid particles.
Vinyl Chloride	Neurological effects, liver damage, cancer. Also considered a toxic air contaminant.	Industrial processes

Federal and state air quality standards and regulations provide the basic scheme for project-level air quality analysis under CEQA. In addition to this environmental analysis, a parallel "Conformity" requirement under the FCAA also applies. The proposed project is considered exempt from conformity requirements because the project type is included in the 40 CFR 93.126 Exempt Projects Criteria (Fencing).

Affected Environment

The proposed project site is located in San Diego County within the San Diego Air Basin (SDAB). Air quality in the SDAB is regulated by USEPA, ARB, and the San Diego Air Pollution Control District (SDAPCD). Each of these agencies develops rules, regulations, or policies, and/or goals to attain the directives imposed through

legislation. SDAPCD regulates most air pollutant sources, except for motor vehicles, marine vessels, aircraft, and agricultural equipment, which are regulated by ARB or USEPA. Included in SDAPCD's tasks are monitoring of air pollution, preparation of the State Implementation Plan (SIP) for the SDAB, and promulgation of rules and regulations. Although USEPA regulation may not be superseded, both state and local regulations may be more stringent.

USEPA has delegated responsibility to air districts to establish local rules to protect air quality. Caltrans' Standard Specification 14-9.02 (Caltrans 2018) requires compliance with applicable air quality laws and regulations including local and air district ordinances and rules.

Both USEPA and ARB use ambient air quality monitoring data to designate areas according to their attainment status for criteria air pollutants. The purpose of these designations is to identify the areas with air quality problems and initiate planning efforts for improvement. The three basic designation categories are nonattainment, attainment, and unclassified. An "attainment" designation for an area signifies that pollutant concentrations did not exceed the established standard.

Table 3 shows attainment designations for the SDAB. The SDAB currently meets the NAAQS for most criteria air pollutants except ozone, and meets the CAAQS for most criteria air pollutants except ozone, PM₁₀, and PM_{2.5}. The SDAB is currently designated as a Serious Nonattainment Area for the 2008 ozone NAAQS and a Moderate Nonattainment Area for the 2015 ozone NAAQS.

ARB is the lead agency responsible for developing the SIP in California. Local air districts and other agencies prepare air quality attainment plans or air quality management plans, and submit them to ARB for review, approval, and incorporation into the applicable SIP. The SIP includes strategies and tactics to be used to attain the federal ozone standard in the county. The SIP elements are taken from the Regional Air Quality Strategy (RAQS), which SDAPCD prepares. The 1991/1992 RAQS was adopted on March 27, 1992 and includes Transportation Control Measures (TCMs) for the air quality plan prepared by the San Diego Association of Governments (SANDAG). The required triennial updates of the RAQS and corresponding TCMs were adopted in 1995, 1998, 2001, 2004, 2009, and 2016. The 2016 RAQS Revision, which identifies emission control measures to provide expeditious progress toward attaining the state ozone standard, was adopted by SDAPCD in December 2016 (SDAPCD 2016). The rules and regulations include procedures and requirements to control the emission of pollutants and to prevent adverse impacts.

Table 3: San Diego Air Basin Attainment Designations

Criteria Pollutant	Federal Designation	State Designation
Ozone (8-Hour)	Nonattainment	Nonattainment
Ozone (1-Hour)	Attainment*	Nonattainment
Carbon Monoxide	Unclassified/Attainment	Attainment
PM ₁₀	Unclassified	Nonattainment

Criteria Pollutant	Federal Designation	State Designation
PM _{2.5}	Unclassified/Attainment	Nonattainment
Nitrogen Dioxide	Unclassified/Attainment	Attainment
Sulfur Dioxide	Unclassified/Attainment	Attainment
Lead	Unclassified/Attainment	Attainment
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Unclassified
Visibility	N/A	Unclassified

Notes:

N/A = not applicable; no standard.

* The federal ozone (1-hour) standard of 12 parts per million was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because this benchmark is addressed in State Implementation Plans.

Source: ARB 2018; SDAPCD 2021

Environmental Consequences

Proposed Project

Construction activities for the proposed project would generate temporary emissions of VOCs, nitrogen oxides (NOX), CO, sulfur oxides (SOX), PM₁₀, and PM_{2.5}. Ozone is a regional pollutant derived from NO_x and VOCs in the presence of sunlight and heat.

Construction-related effects on air quality from the proposed project would be greatest during preparation and mobilization of equipment and materials to the project site due to engine emissions associated with these efforts. Sources of fugitive dust are anticipated to be minimal because installation of the vertical net would not involve cut and fill into soil or transport of soil material to and from the project site; however, fugitive dust could result from securing the net to the existing concrete bridge rail, TMS improvements, and other construction activities. Caltrans' SSP 14-11.04 on dust minimization requires use of water or dust palliative compounds and would reduce potential fugitive dust emissions during construction, as needed.

SO₂ is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Under California law and ARB regulations, off-road diesel fuel used in California must meet the same sulfur and other standards as on-road diesel fuel (not more than 15 parts per million sulfur), so SO₂-related issues due to diesel exhaust would be minimal.

Lead is generally not an air quality issue unless a project involves soil disturbances within areas containing high levels of aerial deposited lead (ADL). The proposed project would not involve cut or fill into existing soils with ADL. Proposed vertical net and TMS improvements would remain on the existing bridge structure and would not disturb soils. However, lead may be present in the paint coating of the bridge. Caltrans' designated Nonstandard Special Provision

(NSSP) 14-11.13 *Disturbance of Existing Paint Systems on Bridges* would be implemented to properly handle potential lead disturbances with removal of paint. Caltrans' Standard Specifications and SSPs for lead paint removal would be adhered to during construction activities as needed.

Emissions associated with construction of the proposed project are shown in Table 4 and compared to the SDAPCD Air Quality Impact Analysis (AQIA) Trigger Levels in Regulation II, Rule 20.2, which are applicable to new or modified stationary sources. Although these trigger levels do not generally apply to mobile sources and construction activities, for comparative purposes these levels may be used to evaluate the increased emissions and demonstrate that a project's emissions would not result in a significant impact on air quality (County of San Diego 2007).

Table 4: Daily Construction Emissions

Phase	VOCs (lbs/day)	NOX (lbs/day)	CO (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)
Project Maximum Daily Emissions	1.52	13.73	7.14	0.70	0.69
Threshold of Significance ¹	--	250	550	100	67
Significant Impact?	--	No	No	No	No

Notes:

VOCs = volatile organic compounds; NO_x = nitrogen oxides; CO = carbon monoxide;
 PM₁₀ = particles 10 micrometers or smaller; PM_{2.5} = particles 2.5 micrometers or smaller
¹SDAPCD Air Quality Impact Analysis Trigger Levels in Regulation II, Rule 20.2

Source: Caltrans 2021b

As shown in Table 4, construction-related emissions would not exceed the SDAPCD AQIA trigger levels. Construction impacts to air quality are short term in duration and, therefore, would not result in long-term adverse conditions or result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

According to the FHWA's Interim Guidance (2016), the proposed project is classified as a category 1 project (Projects with No Meaningful Potential Mobile Source Air Toxics Effects, or Exempt Projects). An asbestos-containing material (ACM) survey was performed to evaluate the presence, location, and quantity of accessible suspect ACMs that may present a potential worker safety hazard. The report results show ACMs were not identified (Kleinfelder 2022). Therefore, implementation of SSP 14-11.16 *Asbestos Containing Construction Material in Bridges* would not be required. Because disturbed structural concrete will exceed 100 square feet, SDAPCD will still need to be notified even though no asbestos have been found in the concrete. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations.

Generation of other emissions, such as those leading to odors, during construction is not anticipated because activities such as asphalt paving are not required. If short-term odors are generated as a result of construction activities, such odors would quickly disperse to below detectable levels as distance from the project site increases. Therefore, the proposed project would not result in other emissions, such as those leading to odors.

Consistency with the RAQS and SIP is based on whether the project would exceed the estimated air basin emissions, which are based in part on projections of population and vehicle miles traveled (VMT). An increase in VMT beyond projections in local plans could result in a significant adverse incremental effect on a region's ability to attain or maintain the NAAQS and CAAQS. The proposed project would not alter the roadway capacity, traffic volumes, vehicle fleet mix, or VMT in the region with installation of the vertical net and TMS elements. A speed reduction is being considered due to the reduction in line of sight with implementation of the proposed project. However, the speed reduction is not anticipated to generate a substantial change in criteria air pollutants from existing conditions. In addition, as a result of the proposed project, suicides and suicide attempts and associated traffic impacts would be reduced. As such, project implementation may result in improved air quality due to decreased congestion and rerouting.

Therefore, the proposed project would not conflict with the applicable air quality plan, result in a cumulatively considerable net increase of any criteria pollutant, expose sensitive receptors to substantial pollutant concentrations, or result in other emissions such as those leading to odors. In addition, the proposed project would comply with construction standards adopted by SDAPCD as well as Caltrans standardized procedures for minimizing air pollutants during construction (as detailed below). Therefore, impacts would be less than significant.

No-Build Alternative

The No-Build Alternative would not change the bridge or roadway capacity; therefore, it is reasonable to assume traffic congestion and required rerouting would continue to occur from incidents on the bridge. Air quality would not improve as compared to existing conditions.

Avoidance, Minimization, and/or Mitigation Measures

To ensure potential temporary effects to air quality during construction are minimized, the following avoidance and minimization measure will be implemented:

- The construction contractor must comply with SDAPCD Rule 55, and Caltrans' Standard Specifications and Standard Special Provisions (14-9). Section 14-9 includes specifications requiring compliance with applicable laws and regulations related to air quality, including air pollution control district, and air quality management district regulations and local ordinances. Per Section 14-9, waste or material generated from

construction activities will not be disposed of by burning. Because disturbed structural concrete will exceed 100 square feet, SDAPCD will need to be notified under *SSP 14-9.02 Air Pollution Control* (NESHAP [National Emission Standards for Hazardous Air Pollutants] notification), even though no asbestos have been found in the concrete per the Asbestos Survey and Sampling Report (Kleinfelder 2022).

Measures discussed in Section 1.8, Standard Measures and Best Management Practices, and Section 2.1.9, Hazards and Hazardous Materials, will also be implemented to address potential air quality impacts during construction including dust control, proper paint disturbance procedures, properly maintained equipment and vehicles, orderly construction and material storage sites, and scheduling and routing construction traffic.

2.1.4 Biological Resources

Considering the information included in the Natural Environment Study dated November 2021 (AECOM 2021), the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Biological Resources
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or National Oceanic and Atmospheric Administration Fisheries?	Less Than Significant with Mitigation
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	No Impact
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	No Impact

Question—Would the project:	CEQA Significance Determinations for Biological Resources
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact

Regulatory Setting

Special-status species, for the purposes of this assessment, are those species listed as threatened or endangered under the California Endangered Species Act (CESA), as well as state fully protected, state rare, and state species of special concern; species listed as threatened or endangered under the FESA, federal proposed, federal candidate, and federal species of concern; and species afforded federal protection under the Migratory Bird Treaty Act (MBTA).

The CESA is a California environmental law intended to conserve, protect, restore, and enhance any species listed as endangered or threatened and its habitat (Fish and Game Code, section 2052). A state-listed species, or any part or product of the plant or animal, may not be imported into the state of California; exported out of the state; or taken, possessed, purchased, or sold within the state without proper authorization (Fish and Game Code, section 2080).

The purpose of the FESA is to conserve the ecosystems upon which threatened and endangered species depend and to conserve and recover listed species. Section 7 of the FESA requires federal action proponents to consult with USFWS to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of designated critical habitat. No critical habitats are present within the proposed project area.

Birds, both migratory and most native-resident bird species, are protected under the MBTA. Under the MBTA, it is unlawful by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, [or] possess migratory birds or their nests or eggs at any time, unless permitted by regulation.

Affected Environment

The proposed project area includes the physical suicide deterrent limits, bays under the bridge deck, and areas where upgrades to the TMS would occur. The bridge is 2.12 miles long, has a total height of roughly 240 feet tall, and is heavily traveled by cars and trucks during commuting hours (Monday through Friday, 7 a.m. to 4 p.m.). This, combined with the lack of natural habitat, deters wildlife from using the bridge, although nesting by some avian species does occasionally occur on the bridge supporting structure.

Potential impacts that have been identified from implementing the suicide deterrent include avian collision risks and reducing potential nesting platforms beneath the bridge deck by enclosing substructure bays.

Available information pertaining to the natural resources of the region was reviewed to identify sensitive biological resources that may be present within the biological study area (BSA). The California Department of Fish and Wildlife's (CDFW) California Natural Diversity Data Base and USFWS databases, aerial imagery, and other available literature were reviewed to determine if there were any special-status species known from the region within the BSA. In addition, a species list from USFWS was obtained on March 23, 2020, and a species list from National Oceanic and Atmospheric Administration (NOAA) Fisheries was obtained on April 14, 2020. Review of the proposed project determined that it would not impact marine habitats and no effects to NOAA Fisheries species are anticipated to occur within the proposed project area. Therefore, marine species are not discussed further in this document.

For the purpose of this CEQA analysis, special-status plant and wildlife species are identified as those listed as endangered, rare, or threatened by the CESA or FESA; or those classified as species of special concern or fully protected species by CDFW. Special-status plant species also include those with a California Native Plant Society California Rare Plant Rank of 1A, 1B, 2A, or 2B.

Vegetation

Habitats and Natural Communities of Special Concern

No critical habitats are present within the BSA; see the Natural Environmental Study (AECOM 2021). The BSA consists of the existing SR-75 bridge structure, which is composed of paved roads not suitable for natural habitats to occur. Therefore, no unique habitats or natural communities of special concern are associated with the proposed project site and they are not discussed further in this document.

Special-Status Plant Species

The BSA consists of the existing SR-75 bridge structure, which is composed of paved roads not suitable for plant species. There is no potential for special-status plant species to occur in the BSA. Therefore, no impacts to special-status plant species are expected as a result of proposed project activities and they are not discussed further in this document.

Wildlife

Federally and State Listed Wildlife Species

Two federal and state-listed avian species are known to be present within the vicinity of the proposed project area: California least tern (federally and state endangered and state fully protected) and western snowy plover (federally threatened and state species of special concern). No other federally and state-listed species have potential to occur in the BSA. A list of species evaluated can be found in the Natural Environmental Study (AECOM 2021).

Nonlisted Special-Status Wildlife Species

One nonlisted special-status avian species is known to be present within the BSA: peregrine falcon (state fully protected). No other nonlisted special-status species have potential to occur in the BSA. A list of species evaluated can be found in the Natural Environmental Study (AECOM 2021).

Avian Species Protected under the Migratory Bird Treaty Act

Avian species protected under the MBTA that are present within the vicinity of the proposed project area based on a review of data from the San Diego Bay Avian Species Surveys include the aforementioned avian species as well as western gull, ring-billed gull, mallard, surf scoter, American crow, marbled godwit, lesser scaup, bufflehead, cliff swallow, and willet (Tierra Data Inc. 2009, 2011, 2018). Each of the species mentioned was observed across San Diego Bay more than 50 times during surveys over the course of a 2-year survey.

Environmental Consequences

Proposed Project

Special-status wildlife with potential to occur within the proposed project area include California least tern, western snowy plover, and peregrine falcon. These species are also protected under the MBTA. In addition, other avian species protected under the MBTA occur in the proposed project area. Potential impacts to these species are discussed in the following sections.

California Least Tern (federally and state endangered and state fully protected)

Based on 6 years of bird count data taken at the base of the bridge on Coronado Island as part of an ongoing survey effort, California least terns have not been observed within 500 meters of the survey point located at the base of the bridge (Tierra Data Inc. 2009, 2011, 2018). The species regularly occurs near San Diego Bay with 1,872 observations documented during the 2016–2017 San Diego Bay Avian Species Surveys; however, most observations were near the ocean shoreline (Tierra Data Inc. 2018). California least terns have historically nested on Naval Base Coronado with 1,039 nests recorded in 2014 (Frost 2015).

Because California least terns nest on open, sandy beaches, installation of a physical suicide deterrent, including enclosed substructure bays, is not expected to affect nesting California least terns. The vertical net is not expected to pose a collision risk for this species for the reasons mentioned above for birds protected under the MBTA. Furthermore, a 2016 San Diego Bay study found that California least terns forage more frequently in the ocean as opposed to San Diego Bay (Keane and Smith 2016). The species may transit under the bridge, closer to the surface of the bay relative to the bridge deck, but it is not expected to occur on the bridge within the proposed project areas. Proposed project-related activities are not expected to impact the California least tern; therefore, no avoidance and minimization efforts, or compensatory mitigation is recommended.

Western Snowy Plover (federally threatened and state species of special concern)

Based on 6 years of bird count data taken at the base of the bridge on Coronado Island as part of an ongoing survey effort, western snowy plovers have not been observed within 500 meters of the survey point located at the base of the bridge (Tierra Data Inc. 2009, 2011, 2018). However, 1,467 western snowy plovers were observed during the 2016–2017 San Diego Bay Avian Species Surveys with most observations occurring near the ocean shoreline (Tierra Data Inc. 2018). According to California State Parks, western snowy plovers commonly nest on Coronado Island near Silver Strand Beach. As of April 28, 2020, there were nine active nests at Silver Strand Beach (California State Parks 2020).

Because this species nests on open, sandy beaches, installation of a physical suicide deterrent is not expected to affect nesting western snowy plover. The vertical net is not expected to pose a collision risk for this species for the reasons mentioned above for birds protected under the MBTA. This species forages on wet sand for crustaceans and sand fleas (California State Parks 2020) and would not be in the vicinity of the bridge. Proposed project-related activities are not expected to impact the western snowy plover; therefore, no avoidance and minimization efforts, or compensatory mitigation is recommended.

Peregrine Falcon (state fully protected)

Peregrine falcons have historically nested under the east end of the bridge (Pavelka 1990) and were observed 71 times in the San Diego Bay area during the 2016–2017 San Diego Bay Avian Species Surveys, with the majority of observations occurring in the southern portion of the bay (Tierra Data Inc. 2018). Peregrine falcon nests have been observed above the maintenance station on the east side of the bridge between Newton Avenue and Main Street, under the bridge deck on a concrete ledge (Scatolini, pers. comm., 2021).

The installation of a vertical net along the bridge would not result in impacts to peregrine falcons flying or foraging in the area for reasons discussed above for birds protected under the MBTA. The vertical net would not substantially raise the profile of the existing bridge, and the bridge is highly visible during the day when this species is active. The vertical net would be supported by vertical posts every 20 to 30 feet, which would help increase its visibility. Peregrine falcons flying at high speeds toward the net are not expected to be an issue because this species is not anticipated to hunt over the bridge as prey are not likely to be on top of the bridge on account of the vehicular traffic. This species is known to nest under the bridge and individuals flying in would approach from below the bridge. Therefore, the vertical net would pose a minimal collision risk to this species.

Specific to nesting, work on the bridge deck would not impact birds nesting under the bridge because the work would be out of the line of sight of nesting individuals and nesting birds are already acclimated to existing noise pollution from current traffic. To provide access for maintenance operations to the underside of the bridge, enclosure of substructure bays beneath the bridge would be required. Enclosure of bays may result in the reduction of potential nesting habitat or create barriers to areas potentially used for nesting by this species. While some of the grating may reduce the availability of nesting locations under

the bridge, there would continue to be areas without grates within some of the bays, and other areas of historical nesting would remain available (e.g., external grating platforms over the water). Historically, the peregrine falcons have been nesting in the concrete girder area above the maintenance station, which would not require bay enclosures. More than one pair of peregrines nesting under the bridge is expected to be a rare occurrence given the total length of the bridge, including approaches, is 2.1 miles (3.4 kilometers [km]). Even in the highest density nesting areas in North America, peregrine falcons generally nest far enough apart that two pairs would not be expected to nest on the bridge at the same time. For example, pairs were spaced 5.4 km apart on average for a 345 linear km section of the Colville River in Alaska; pairs were spaced 5.6 km apart on average for a 265 linear km section of the Yukon River in Alaska; and pairs were spaced 3.3 km apart on average for a 450 square km section of the Canadian Territory of Nunavut (Court et al. 1988). Therefore, the slight reduction in availability of locations is not anticipated to affect nesting rates for this species in the proposed project area.

If a nest is present in the vicinity of work on the underside of the bridge during the breeding season, construction and operations and maintenance (O&M)-related activities could result in the abandonment of nests. Activities under the bridge could result in a potentially significant impact. However, with the implementation of the mitigation measure outlined below, proposed project-related impacts due to activities under the bridge would be reduced to less than significant.

Avian Species Protected under the MBTA

Bird species present within the vicinity of the proposed project area based on a review of data from the San Diego Bay Avian Species Surveys include western gull, ring-billed gull, mallard, surf scoter, American crow, marbled godwit, lesser scaup, bufflehead, cliff swallow, and willet (Tierra Data Inc. 2009, 2011, 2018). Each of the species mentioned was observed across the bay more than 50 times during surveys over the course of a 2-year survey. The data were limited as heights of birds flying in this area were not recorded and it is unknown how many of these species fly near the height of the bridge.

Potential impacts evaluated for avian species protected under the MBTA include risk of collision and entanglement with the proposed vertical net. Installation of the vertical net is expected to result in a minimal risk for avian collisions due to a number of factors. The bridge reaches 240 feet above San Diego Bay and is surrounded by urban development on either end. Land birds flying over the bridge in large numbers are not expected and migrating birds would fly at a much higher altitude than the bridge and associated vertical net. Migrating birds typically fly over 1,000 feet in altitude (Axelson 2021), so the risk of collision with the vertical net is low. This limits risk to waterbirds and raptors that might use the bay. It is unlikely that these birds would fly close enough to the bridge deck to collide with the proposed vertical net because they would fly closer to the water, and those individual birds flying over the bridge are expected to fly much higher than the vertical net height due to the traffic on the bridge and existing light poles. In addition, the vertical net would be supported by vertical posts every 20 to 30 feet, which would help increase its visibility to avian species.

The highest risk for collision would occur at night during inclement weather when birds migrating at night might be pushed down to lower altitudes. However, this is unlikely to occur because the bridge deck is well lit with luminaries, helping to minimize potential visibility issues during inclement weather. In some instances, lighting can attract birds, but this is not anticipated given that the bridge is in an urban area with multiple existing light sources. In addition, no known bird collision issues have been documented due to the existing lighting on the bridge. Regardless of weather conditions, because the vertical net would not substantially raise the profile of the existing bridge beyond that currently created by existing traffic, lights, and poles, the vertical net would not substantially increase the potential for bird collision compared to current conditions.

Entanglement with the vertical net is not expected. The wire mesh used for the net would be stretched taut between the supporting poles; birds that may come in contact with the vertical net would not become entangled, as they might if the net were allowed to hang loose. The net material would consist of a maximum 2-mm stainless-steel wire size (similar to the diameter of chicken wire) and would not be flexible enough to allow for entanglement in the event birds come in contact with the net. The vertical net is also not expected to attract birds as it would not serve as a good perching spot for raptors or provide suitable nesting habitat for birds due to traffic disturbance on the bridge. Therefore, minimal contact with the vertical net is expected.

Collision risk to avian species protected under the MBTA is anticipated to be minimal and no avoidance and minimization efforts, or compensatory mitigation is recommended.

No-Build Alternative

The No-Build Alternative would not alter the existing bridge structure or improve facilities on the bridge.

Avoidance, Minimization, and/or Mitigation Measures

Potential impacts to peregrine falcon from construction during the breeding season would be significant under CEQA. The following measures will be implemented to reduce project impacts to less than significant to the peregrine falcon during the enclosure of substructure bays and O&M activities, if activities occur during the nesting season:

- Enclosure of the substructure bays and O&M activities under the bridge deck shall to the extent feasible avoid the nesting season of the peregrine falcon (February 1 through August 30) to minimize disruption of nesting behavior. If the nesting season cannot be avoided, pre-construction surveys will be conducted by a qualified biologist to determine if peregrine falcons are present in areas potentially affected by these proposed project activities. If nesting birds are identified, an exclusion zone will be established around the active nest. The size of the exclusion zone will be determined by Caltrans in coordination with USFWS and CDFW, and will take into account existing noise levels at the nest location and the type of

construction and O&M activities proposed near the nest. A qualified biologist will monitor construction and O&M activities in the area to confirm nesting falcons and/or their unfledged chicks and eggs are not impacted.

2.1.5 Cultural Resources

Considering the information included in the Finding of No Adverse Effect with Standard Conditions dated October 2021 (Caltrans 2021d), the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Cultural Resources
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	Less than Significant Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	No Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	No Impact

Regulatory Setting

CEQA requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as “unique” archaeological resources. PRC Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1(j). Unique archaeological resources are referenced in PRC Section 21083.2.

PRC Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the eligibility criteria for the NHRP) It further requires Caltrans to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Office (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed in or are eligible for inclusion in the NRHP or are registered or eligible for registration as California Historical Landmarks (CHLs). Procedures for compliance with PRC Section 5024 are outlined in a Memorandum of Understanding (MOU)¹ between Caltrans and the SHPO, effective January 1, 2015. For most federal-aid projects on the State Highway System, compliance with the Section 106 Programmatic Agreement (PA) would satisfy the requirements of PRC Section 5024. The Section 106 PA is allowed by 36 CFR

¹ The MOU is located on the Standard Environmental Reference at <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/5024mou-15-a11y.pdf>.

part 800.14 to be used as an alternative way to comply with Section 106. Formally, an agency official may develop procedures to implement Section 106 and substitute them for all or part of the Section 106 requirements if they are consistent with the Council's regulations pursuant to Section 110(a)(2)(e) of the act. Compliance with the Section 106 PA also meets the responsibilities for reporting under 5024.

Affected Environment

Caltrans prepared the following cultural resource reports for the proposed project: First Supplemental Historic Property Survey Report (HPSR) (Caltrans 2020a), Historical Resources Evaluation Report (Caltrans 2020b), Second Supplemental HPSR (Caltrans 2021c), and Finding of No Adverse Effect with Standard Conditions (Caltrans 2021d). These studies delineated an APE to identify historic properties that may be affected by the proposed project. Due to the nature of the proposed project, no excavation into intact sediments would occur and no impacts to archaeological resources are anticipated. Cultural resources studies focused on the potential impacts on historical resources in the built environment.

Other sources consulted included:

- 2015 Caltrans Historic Bridge Inventory and Department of Parks and Recreation (DPR) forms (Caltrans)
- Caltrans Bridge Inspection Records Information System (BIRIS) records for the San Diego-Coronado Bay Bridge
- As-built drawings (Caltrans)
- NRHP nomination for the Chicano Park (Talamantez 2013)
- CHL listings
- California Historical Resources Information System (CHRIS)

The APE, as defined in 36 CFR Part 800.16(d), is “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist.” In general, the APE encompasses the boundaries of two historic districts, the San Diego-Coronado Bay Bridge Historic District (SDCBB District) and the Chicano Park National Historic Landmark. The western boundary is the east side of Glorietta Boulevard on Coronado Island. The APE boundary follows the outer dimensions of the Toll Plaza Zipper right-of-way, inclusive of the landscaped elements to the north and south along with the footprint of the air intake tower. The APE includes 20 feet to either side of outside extents of the Bridge and the East Approach west of National Avenue. The APE boundary continues east along the extents of the approach connectors. The eastern boundary is the termination of the interchange connector ramps into I-5. The APE extends 10 feet above the variable height of the Bridge and includes the bridge piles below the San Diego Bay waterline and other features. The APE also includes the entire Chicano Park National Historic Landmark, which runs between Cesar E. Chavez Parkway to the west, Evans Street to the east, Newton Avenue to the south, and I-5 on the north.

One NRHP-listed resource—Chicano Park National Historic Landmark—and three individually NRHP-eligible resources—the SDCBB District, the Bridge, and the Caltrans Administration Building—are within the APE. Both the Bridge and the Caltrans Administration Building also contribute to the SDCBB District.

San Diego-Coronado Bay Bridge Historic District

The SDCBB District consists of the Bridge, the San Diego (East) Approach Connector that connects the Bridge to I-5 in San Diego, and the Glorietta Toll Plaza to the west in Coronado. The SDCBB District is the last intact Mid-Century Modern Toll Plaza Complex in California. The contributing elements to the SDCBB District are described in further detail below and include:

- San Diego-Coronado Bay Bridge
- San Diego (East) Approach Connector
- Toll Collection Structure/Wing
- Toll Plaza Zipper
- Caltrans Administration Building and Parking Lots
- Caltrans Storage Yard
- Landscape Elements (Toll Plaza Plantings) and Small-Scale Features

San Diego-Coronado Bay Bridge (Bridge #57-0857)

The Bridge crosses San Diego Bay carrying five lanes of SR-75, connecting the cities of San Diego and Coronado (located on Coronado Island). The Bridge is a complex structure composed of several superstructure elements. The Bridge is constructed with an orthotropic deck structure that is supported on the main spans by steel box girders. The Bridge incorporates the longest three-span continuous box girders, the longest usage of curved girders, and the longest prestressed precast concrete girders in the country at the time of construction. The approach spans are supported by steel plate girders (Blackmore et al. 2015). The roadbed is on average 9 inches thick, and no pedestrian access is available. Caltrans maintenance logs indicate that the Bridge has not undergone any widening or extension since it was completed in 1969. In 1976, the Bridge was retrofitted with special rods to protect against earthquake damage. The latest seismic retrofit of the Bridge was carried out in 1999. During the retrofit, lead-rubber seismic isolation bearings were placed at the top of some of the piers (Caltrans 2020c).

San Diego (East) Approach Connector

The San Diego (East) Approach connector begins at Pier 30, the point at which the bridge superstructure transitions from steel to concrete. The East Approach connects the bridge structure (at Pier 30) with the I-5 connector ramps. The East Approach is an original component of the Bridge, seen in proposed project construction plans and elevations from 1967. Concrete piers support the structure that allows vehicular traffic to cross onto the bridge from various I-5 on/off ramps. The four on/off ramps from I-5 North were completed along with the Bridge by 1969. The two ramps that connect to I-5 South were completed by 1974, based on the years dating the Chicano Park murals. These concrete

supports are the canvas and backdrop for Chicano Park, a National Historic Landmark.

Chicano Park includes a series of murals that were created on the structural piers and abutments of the concrete connectors. As such, the murals located on the East Approach are included within the APE but as features of the East Approach, and they are not significant alone. Although the SDCBB District coincides with Chicano Park at the concrete structural abutments of the East Approach connector ramps, the Bridge is a separate and distinct historical resource that does not derive its significance from Chicano Park or the murals that overlap the SDCBB District.

Although the Approach spans do not have the same visual prominence of the Bridge, the connector was purposely designed for the proposed project, with designers following the arch top pier design with the concrete supports and railings. They allow for the flow of vehicular traffic to and from the bridge and help achieve the correct elevation and grade for the specific 4.47 percent grade and curve of the Bridge. Design features such as railings were carried over from the bridge design. The railings on the approach spans are the same profile and dimensions as those on the bridge, with an original metal component added on top for safety.

Toll Collection Structure/Wing

The main structure of the Toll Plaza is called the Wing. It is a concrete structure supported by four flaring, decoratively scored concrete abutments that rises above the toll collection booths. The underside of the Wing's canopy is curved, and the top of the canopy is angled; this shape is reminiscent of an aircraft wing, giving the structure its common name. There are currently four sets of solar panels on the roof of the structure.

Toll Plaza Zipper

The Toll Plaza Zipper is the eye-shaped widening of the roadway to allow for traffic to filter into the toll booth lanes and the associated narrowing back to normal street width on the other side. The Zipper is approximately 350 feet wide at its widest point and is approximately 1,875 feet long from the foot of the Bridge to Glorietta Boulevard. The Zipper is asphalt paved and currently has three lanes of traffic striped in each direction of travel.

Caltrans Administration Building and Parking Lots

The Caltrans Administration Building is located within the Toll Plaza Zipper, centered between the directions of travel and to the west of the Wing. It is a rectangular building, approximately 50 feet wide and 150 feet long. The building is served by a parking lot to the east of the wing structure, between the directions of travel. The parking lot is accessed via a dedicated westbound lane; all traffic leaving the lots follows a dedicated eastbound lane. The building is Modernist in styling, as appropriate for its 1969 construction date.

Caltrans Storage Yard

The Caltrans storage yard is located within the Toll Plaza Zipper, to the west of the Caltrans Administration Building and between the lanes of travel. The storage yard is asphalt-concrete paved and striped for parking spots. The lot is enclosed with chain-link fencing and accessed by gates at its eastern and western extents.

Landscape Elements and Small-Scale Features

The contributing landscape elements and small-scale features include planting beds and flagpoles. The landscape around the Glorietta Toll Plaza features in-ground planting beds that contain screening vegetation. These beds are located around the perimeter of the Toll Plaza Zipper and between the lanes of traffic and the storage yard and parking lots. The landscape was purposely designed by the firm of Wimmer & Yamada in a minimalist/Modern design. The beds at the edges of the Zipper, in their current states, feature a mix of deciduous and evergreen trees, bushes, and grasses with no discernable planting plan but with the clear intent of creating a visual and noise buffer between the Toll Plaza, a golf course to the south, and a park to the north. The planting beds screening the parking lots and storage yard display a more deliberate planting plan, with regularly spaced deciduous trees. Small-scale landscape elements and small-scale features include planting beds, flagpoles, street signage, and temporary traffic control elements. The street signage and temporary traffic control elements were added later.

NRHP/CRHR Evaluation for the SDCBB District

The SDCBB District is significant under NRHP/CRHR Criterion C/3: embodies the distinctive characteristics of a type period, period, region, or method of construction or represents the work of a master or possesses high artistic values. This qualifies the SDCBB District at the state level for its Mid-Century Modern architectural design embodying the distinctive characteristics of the Modernist toll plaza architecture construction type with a period of significance from 1967 to 1974. Two contributing elements, the Bridge and the Caltrans Administration Building, are also individually significant and eligible for the NRHP/CRHR under Criterion C/3 for their Mid-Century Modern design. The SHPO concurred with this determination on January 25, 2021.

California Historical Landmark (CHL) Evaluation of the SDCBB District

The SDCBB District qualifies for the CHL program as it is the last complete Mid-Century Toll Plaza Complex in the state of California. This qualifies the SDCBB District under Criterion 1: the first, last, only, or most significant historical property of its type in the region.

San Diego-Coronado Bay Bridge (Bridge #57-0857)

As described above, the Bridge crosses San Diego Bay carrying five lanes of SR-75, connecting the cities of San Diego and Coronado. The Bridge is constructed with an orthotropic deck structure that is supported on the main spans by steel box girders. The character-defining features of the Bridge are:

- Finishing paint color (blue paint finish)
- Grade and curve of roadway

- Materials
- Railings
- Road pavement
- Road width
- Reinforced concrete
- Structural system
- View corridor

NRHP/CRHR Evaluation of the San Diego-Coronado Bay Bridge (Individual Element)

The Bridge was evaluated by Caltrans in 1996 and in 2015 during a statewide bridge inventory process. Although previously determined ineligible in 1996 due to its 27-year-old age that fell below the 50-year threshold, the 2015 study determined that the Bridge was eligible for the NRHP. The Bridge is individually significant under Criterion C/3 as an early, long-span, steel box girder bridge with an orthotropic deck, “as well as for its sleek modern bridge aesthetic. The bridge pushed the envelope in terms of technology, incorporating the longest three-span continuous steel box girders, the longest usage of curved girders, the longest prestressed precast concrete girders as well as the third longest orthotropic deck bridge in the country” (Blackmore et al. 2015). The SHPO concurred with this determination in 2016.

CHL Evaluation of the San Diego-Coronado Bay Bridge (Individual Element)

The Bridge also qualifies to be listed as a landmark under the CHL program under Criterion C/3. The Bridge is an excellent example of an early, long-span, steel box girder bridge with an orthotropic deck, with Mid-Century design influences. The Bridge retains integrity of location, along with excellent physical integrity—all of which are critical to eligibility for architectural landmarks under the CHL program.

Caltrans Administration Building

As described above, the Caltrans Administration Building is located within the Toll Plaza Zipper, centered between the directions of travel and to the west of the wing structure. It is a rectangular building, approximately 50 feet wide and 150 feet long. The building is Modernist in styling, as appropriate for its 1969 construction date. The character-defining features of the Caltrans Administration Building are:

- A flat roof with deep overhangs
- Large, aluminum-framed windows
- Non-traditional stucco exterior
- Angular massing
- Horizontal orientation
- “Eyebrow” overhangs
- Integrated signage
- Distinctive triangular, parabolic, or arched forms (visible in the eave curve)
- Concrete pavement outside of administration building

- Use of uplighting

NRHP/CRHR Evaluation of the Caltrans Administration Building (Individual Element)

The Caltrans Administration Building itself contributes to the SDCBB District and is individually significant under Criterion C/3 as displaying the distinctive characteristics of a Contemporary-style building. The style is a subset of the Modernist family that was used for residential, commercial, and government building types from the mid-1950s to the early 1970s.

CHL Evaluation of the Caltrans Administration Building (Individual Element)

The Caltrans Administration Building does not qualify under any CHL criteria.

Chicano Park

Chicano Park is a 7.4-acre park in San Diego's Barrio Logan neighborhood beneath the east-west approach ramps of the Bridge where the Bridge bisects I-5. Its main section is bounded by I-5 to the east and National Avenue to the west, with a smaller panhandle section extending from National Avenue to Newton Avenue and panhandle to the south by Dewey Street. Chicano Park was created in 1970 after residents in Barrio Logan participated in a "takeover" of land that was being prepared for a substation of the CHP. Since April 22, 1970, the park has been utilized by the Chicano community of San Diego as a place for social and political events. The park is known for its monumental murals.

The Chicano Park monumental murals consist of an assemblage of multiple vibrantly colored paintings on the concrete piers and two abutments that support the San Diego end of the Bridge. Forty-nine of these murals were painted on 24 piers, abutments, and ramps during the height of the Chicano Civil Rights movement. These murals and their iconography depict images of Mexican pre-Columbian gods, myths, and legendary icons; botanical elements; animal imagery; and the Mexican colonial experience, among others.

NRHP/CRHR Evaluation for Chicano Park

Chicano Park was listed in the NRHP in 2013 (NRIS ID: 12001192) and was designated a National Historic Landmark in 2016. Chicano Park is also listed on the state and local registers (San Diego Historic Resources Board #143). Based on the information available, including past evaluations, and information received from various agencies and online resources, Chicano Park retains the historical significance and integrity necessary to remain significant under Criterion A for its association with the Chicano Civil Rights Movement in California. Chicano Park is also significant under NRHP Criterion C as a collection of murals painted on the pillars, abutments, and ramps of the San Diego-Coronado Bay Bridge, and structures that represent the Chicano Civil Rights Movement. Chicano Park's period of significance is 1970 to 1989, when the majority of the murals were completed (Talamantez 2013).

Environmental Consequences

Proposed Project

The proposed project has the potential to impact four individually listed/eligible historical resources in the APE: the SDCBB District, the Bridge, the Caltrans Administration Building, and Chicano Park National Historic Landmark. The proposed project would be constructed on the Bridge and on the East Approach Connector, which are contributing elements of the SDCBB District. The proposed project would consist of the addition of a suicide deterrent in the form of poles and metal netting, anchored to the top of the existing Bridge and East Approach Connector bridge rails via a continuous top plate and anchor bolts. Additional components may include TMS elements, enclosure of maintenance bays underneath the Bridge, and the addition of walkways along the piers. Temporary construction staging would likely occur within the boundaries of the Glorietta Toll Plaza adjacent to the Caltrans Administration Building, also contributing elements of the SDCBB District. The proposed project limits would not extend into the boundaries of the Chicano Park National Historic Landmark.

CEQA Section 15064.5(c)(3) states:

Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (2017), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource.

In October 2021, Caltrans prepared an evaluation of the potential impacts of the project in compliance with Section 106 of the National Historic Preservation Act and the implementing regulations of the Advisory Council on Historic Preservation, because these pertain to federally funded undertakings and their impact on historic properties. As detailed in the Finding of No Adverse Effect with Standard Conditions for the San Diego-Coronado Bay Bridge Suicide Deterrent Project (Caltrans 2021d) the proposed project would be a rehabilitation of the Bridge and would be consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR part 68), specifically the Standards for Rehabilitation, as discussed below.

Impacts on the San Diego-Coronado Bay Bridge Historic District

The proposed project would potentially impact several contributing elements of the SDCBB District, including the Bridge, the East Approach Connector, the Toll Plaza, and the Caltrans Administration Building. The following is an assessment of the proposed project under the Secretary of the Interior's Standards for Rehabilitation:

Standard 1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

The SDCBB District would continue to be used as it was historically—as a transportation corridor and connection between Coronado and San Diego. The proposed project would work to reduce suicides, along with traffic impacts, making the Bridge more effective as a corridor.

Standard 2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

Overall, the historic character of the SDCBB District, specifically the Bridge and the East Approach Connector, would be retained and preserved. The proposed project would not remove existing distinctive materials of the historical resource. The proposed project, including the installation of a continuous top plate, poles and netting on the Bridge and East Approach Connector railings, TMS elements, signage, and understructure bay enclosures, would not require the loss of any substantial amount of historic material at connection points where the proposed project elements would be installed.

The proposed project would alter features, spaces, and spatial relationships that characterize the historical resource. The installation of the poles and netting on the railings would alter the character-defining view corridor, which is characterized by its unobstructed width and the ability of passing motorists to view the bay and further surroundings. However, the alteration of the view corridor would be minimized because the 85% transparency of the netting would allow for the continued unobstructed width of the view corridor and the ability of passing motorists to view the natural surroundings. Because the Bridge does not have pedestrian access, the view corridor was analyzed from a vehicular perspective. While moving, the passing motorists would maintain the spatial awareness of the bay and further surroundings. With the pole spacing at a minimum of 20 feet and the netting with 85 percent transparency, the proposed project would not create a “moire” or flickering effect, as determined in the visual studies for the proposed project (see Section 2.1.1). The historic character of the view corridor would be retained.

In addition, the open bays of the Bridge’s understructure between the steel box and steel plate girders of the character-defining structural system would be enclosed with the addition of new grating to provide maintenance access to areas that are currently only accessible from the deck using an aerial access truck over the railings. The alteration of the structural system would be minimized by the appearance and scale of the new grating, which would be in discreet areas of the understructure that are not readily visible and would be compatible but distinctive from existing, similar grating between the girders. The historic character of the structural system would be retained.

Standard 3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development,

such as adding conjectural features or elements from other historic properties, will not be undertaken.

The SDCBB District would be used as it was historically. The proposed project would not require the construction of any conjectural element, and new materials would be differentiated from the historic fabric.

Standard 4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

The proposed project would not impact any changes to the SDCBB District that have acquired significance in their own right, such as the Chicano Park murals.

Standard 5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

The proposed project would preserve distinctive materials, features, finishes, and examples of craftsmanship of the SDCBB District, specifically the Bridge and the East Approach Connector. The proposed project, including the installation of a continuous top plate, poles and netting on the Bridge and East Approach Connector railings, TMS elements, signage, and understructure bay enclosures, would not require the loss of any substantial amount of historic material at connection points where the proposed project elements would be installed. The design team worked to ensure that the character-defining railings would be kept intact.

Standard 6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

The proposed project would not repair or replace any deteriorated historic features.

Standard 7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

The proposed project would not implement chemical treatments on the SDCBB District, specifically the Bridge and the East Approach Connector. All physical treatments would be implemented with the intention to avoid any damage to historic materials.

Standard 8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

The proposed project would not impact archaeological resources; this standard is not applicable.

Standard 9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

The proposed project, including the new additions of a continuous top plate, poles and netting on the Bridge and East Approach Connector railings, TMS elements, signage, and understructure bay enclosures, would not destroy any character-defining historic materials, features, or spatial relationships of the historical resource. The additions would not require the loss of any substantial amount of historic material at connection points where the proposed project elements would be installed. The addition of the continuous top plate, poles, and netting atop the historic railings would impact the character-defining view corridor, but as discussed under Standard 2, the alteration of the view corridor would be minimized because the 85 percent transparency of the netting would allow for the continued unobstructed width of the view corridor and the ability of passing motorists to view the natural surroundings.

The new additions would be differentiated from, yet compatible with, the historic materials, features, and spatial relationships of the historical resource. The new additions would be composed primarily of metal, which would be compatible with the predominantly concrete and steel structure of the Bridge and the East Approach Connector. The new additions would also have sleek, unadorned profiles that would also be compatible with the clean lines and rejection of ornamentation in the design of the Bridge and East Approach Connector. Relative to the monumental size, scale and proportion, and massing of the SDCBB District, specifically the 200-foot-tall Bridge and the East Approach Connector, the new deterrent poles and netting would be diminutive at no more than 20 feet tall atop the railings. The new understructure bay enclosures grating would be similar to but differentiated from the historic grating pattern and would be discreet between the girders and miniscule relative to the scale of the Bridge.

Standard 10. New additions and adjacent or related new construction will be undertaken in a such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

The proposed project, if removed in the future, would not impair the essential form and integrity of the historical resource and its environment. The new additions of the continuous top plate, poles and netting on the Bridge and East Approach Connector railings, TMS elements, signage, and understructure bay enclosures would be removable and reversible. The continuous top plate, which would allow for the attachment of the deterrent, would be installed using existing anchor bolts to avoid creating new connections with the historic railings. If the continuous top plate is removed in the future, any necessary repair of the historic railings would be possible without loss of material integrity because of its attachment to existing anchor bolts. Likewise, the TMS elements, signage, and

understructure bay enclosures would be removable and reversible, because the installation connection points would be minimal.

In summary, the proposed project would be consistent with the Secretary of the Interior's Standards for Rehabilitation, and the proposed project would be considered to have a less than a significant impact on the historical resource, the SDCBB District, pursuant to CEQA Section 15064.5(c)(3).

Impacts on the San Diego-Coronado Bay Bridge (Bridge #57-0857)

As described above, the proposed project would be consistent with the Secretary of the Interior's Standards for Rehabilitation, and the proposed project would be considered to have a less than significant impact on the historical resource, the Bridge, pursuant to CEQA Section 15064.5(c)(3).

Impacts on the Caltrans Administration Building

The physical deterrent consisting of the mesh netting and poles design would not extend into the Toll Plaza and would not alter any element of the Caltrans Administration Building. The TMS elements would not alter elements of the Caltrans Administration Building. Temporary construction staging may occur near the Caltrans Administration Building but would not touch or alter the Caltrans Administration Building. No indirect or direct impacts would occur to the Caltrans Administration Building. The integrity of the Caltrans Administration Building would not be impacted by the proposed project. The proposed project would have no impact on the historical resource, the Caltrans Administration Building.

Impacts on Chicano Park

The proposed project would not introduce any new features within the boundaries of Chicano Park National Historic Landmark. The physical deterrent consisting of mesh netting and poles would not extend over Chicano Park. No new underside grating on the substantial, existing bridge infrastructure directly above the park would occur within the landmark boundaries. Neither the new physical deterrent nor the new understructure grating (also referred to as bay enclosures) on the Bridge would be visible from Chicano Park. The addition of a vertical net on the existing railing, not over the park, would not alter any views of the Chicano Park murals or detract from them or the broader experience of the park. Visual analysis confirmed that no shadows would be cast over the park. Minor TMS improvements would not impact the park. No temporary construction would occur in Chicano Park. The proposed project would not impact any elements or character-defining features nor alter the integrity of Chicano Park. The proposed project would have no impacts on the historical resource, Chicano Park National Historic Landmark.

No-Build Alternative

The No-Build Alternative would not alter the Bridge.

Avoidance, Minimization, and/or Mitigation Measures

To ensure potential effects to cultural resources are minimized, the Secretary of Interior's Standards Action plan will implement the following:

- Pre-construction tasks will include Caltrans Professionally Qualified Staff (PQS) architectural historian oversight over the design refinements, along with documentation of the resources before construction.
- All final designs must be signed off by a Caltrans PQS-qualified architectural historian along with the Caltrans Environmental Branch Chief.
- All members of the design team (including engineers) shall be briefed on the character-defining features and the Secretary of Interior's Standards for Rehabilitation.
- Documentation of all resources within the APE shall occur before construction.
- Before construction, a construction liaison shall be identified and introduced to the Caltrans PQS-qualified architectural historian.
- All engineers, designers, and construction workers shall be introduced to the proper methods of treating and working around historic fabric, according to NPS guidelines.
- During construction, monitoring shall be done during work involving historic properties by a Caltrans PQS-qualified architectural historian. Any work that is found to not meet the Secretary of Interior's Standards (discovery) shall be brought immediately to the Caltrans Cultural Studies Office.
- After construction, monitoring logs and documentation shall be provided by the Caltrans PQS-qualified architectural historian.

2.1.6 Energy

Question—Would the project:	CEQA Significance Determinations for Energy
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No Impact

2.1.7 Geology and Soils

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

2.1.8 Greenhouse Gas Emissions

Considering the information included in the Climate Change Technical Study dated January 2022 (AECOM 2022), the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Greenhouse Gas Emissions
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less Than Significant Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less Than Significant Impact

Regulatory Setting

California has been innovative and proactive in addressing greenhouse gas (GHG) emissions and climate change by passing multiple Senate Bills (SBs), Assembly Bills (ABs), and executive orders (EOs) including, but not limited to, the following:

EO S-3-05 (June 1, 2005): The goal of this EO is to reduce California's GHG emissions to (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of AB 32 in 2006 and SB 32 in 2016.

AB 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals outlined in EO S-3-05, while further mandating that ARB create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Although AB 32 established a statewide GHG emissions limit to be achieved by 2020, the Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

EO S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. ARB readopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 GHG reduction goals.

SB 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires ARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization for each region must then develop a "Sustainable Communities Strategy" that integrates transportation, land-use, and housing policies to plan how it would achieve the emissions target for its region.

SB 391, Chapter 585, 2009, California Transportation Plan: This bill requires California's long-range transportation plan to identify strategies to address California's climate change goals under AB 32.

EO B-16-12 (March 2012) orders state entities under the direction of the Governor, including ARB, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

EO B-30-15 (April 2015) establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO₂e).² Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, *Safeguarding California*, every 3 years, and to ensure that its provisions are fully implemented.

SB 32, Chapter 249, 2016, codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

SB 1386, Chapter 545, 2016, declared “it to be the policy of the state that the protection and management of natural and working lands...is an important strategy in meeting the state's greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands.”

AB 134, Chapter 254, 2017, allocates Greenhouse Gas Reduction Funds and other sources to various clean vehicle programs, demonstration/pilot projects, clean vehicle rebates and projects, and other emissions-reduction programs statewide.

SB 743, Chapter 386 (September 2013): This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative methods focused on vehicle miles travelled, to promote the state's goals of reducing GHG emissions and traffic-related air pollution and promoting multimodal transportation while balancing the needs of congestion management and safety.

SB 150, Chapter 150, 2017, Regional Transportation Plans: This bill requires ARB to prepare a report that assesses progress made by each metropolitan planning organization in meeting their established regional GHG emission reduction targets.

² GHGs differ in how much heat each traps in the atmosphere (global warming potential, or GWP). CO₂ is the most important GHG, so amounts of other gases are expressed relative to CO₂, using a metric called “carbon dioxide equivalent” (CO₂e). The global warming potential of CO₂ is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO₂.

EO B-55-18 (September 2018) sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing GHG emissions.

EO N-19-19 (September 2019) advances California's climate goals in part by directing the California State Transportation Agency to leverage annual transportation spending to reverse the trend of increased fuel consumption and reduce GHG emissions from the transportation sector. It orders a focus on transportation investments near housing, managing congestion, and encouraging alternatives to driving. This EO also directs ARB to encourage automakers to produce more clean vehicles, formulate ways to help Californians purchase them, and propose strategies to increase demand for zero-emission vehicles.

Affected Environment

ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its GHG reduction goals. The 2021 edition of the GHG emissions inventory found total California emissions of 418.2 MMTCO₂e for 2019, with the transportation sector responsible for 40 percent of total GHGs. It also found that overall statewide GHG emissions declined from 2000 to 2019 despite growth in population and state economic output (ARB 2021).

GHG emissions from transportation projects can be divided into those produced during operation of the State Highway System and those produced during construction. The primary GHGs produced by the transportation sector are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and hydrofluorocarbons (HFCs). CO₂ emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of CH₄ and N₂O are emitted during fuel combustion. In addition, a small amount of HFC emissions is included in the transportation sector.

The CEQA Guidelines generally address GHG emissions as a cumulative impact due to the global nature of climate change (PRC Section 21083(b)(2)). As the California Supreme Court explained, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself." (*Cleveland National Forest Foundation v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130).

Environmental Consequences

Proposed Project

Heavy-duty off-road equipment, material transport, and worker commutes during construction of the proposed project would result in exhaust-related GHG emissions. As shown in Table 5, construction of the proposed project would generate approximately 1,328 tons of CO₂e, after accounting for the GWP of

each GHG. Additional details are provided in the Climate Change Technical Study (AECOM 2022).

Table 5: Total Construction-Related GHG Emissions

GHG	Total Emissions (tons)
CO ₂	1,116
N ₂ O	0.083
CH ₄	0.029
BC	0.028
HFCs	0.080
Total CO ₂ e	1,328

Notes:

GHG = greenhouse gas; CO₂ = carbon dioxide; N₂O = nitrous oxide; CH₄ = methane; BC = black carbon; HFCs = hydrofluorocarbons.

Please refer to the Climate Change Technical Study (AECOM 2022) for additional details.

Source: Caltrans 2021b

As shown in Table 6, operation of the proposed project is anticipated to generate slightly higher GHG emissions (an additional 50 tons of CO₂ per year) than the No Build condition due to the speed reduction being considered because of the reduction in line of sight with implementation of the proposed project. However, the proposed project may also reduce traffic congestion and rerouting stemming from incidents on the Bridge after construction is complete. In turn, potential GHG emissions from idling cars and additional travel distances and travel time per vehicle due to rerouting could be reduced, minimizing potential GHG operational emissions.

Table 6: Daily Operational GHG Emissions (tons/year)

GHG	No Build	Build Alternative
CO ₂	11,763	11,813
N ₂ O	0.38	0.39
CH ₄	0.90	0.91

Notes:

GHG = greenhouse gas; CO₂ = carbon dioxide; N₂O = nitrous oxide; CH₄ = methane.

Operational emissions would also include emissions of black carbon (BC) and hydrofluorocarbons (HFCs); however, these emissions are anticipated to be less than 0.0001 ton per day and thus are not presented in the table. Please refer to Climate Change Technical Study (AECOM 2022) for additional details.

Source: Caltrans 2021b

While the proposed project would result in GHG emissions during construction, it is anticipated that VMT and the associated operational GHG emissions would not change substantially beyond existing conditions (as shown in Table 6 above). The proposed project would not change the capacity of the Bridge or alter traffic patterns, and the minor increase in GHG emissions is attributed to the potential

speed reduction associated with project implementation. Furthermore, the proposed project would install minor improvements to the TMS elements, helping the Caltrans TMC identify when there is traffic queueing or backup on the bridge and better monitor and respond to potential incidents on the bridge. The TMS elements are anticipated to smooth traffic flow and increase system efficiency. In addition, the proposed project would comply with Caltrans standardized procedures for minimizing GHG emissions during construction and operation (as detailed below). Thus, the proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. This impact would be less than significant.

Because the purpose of the proposed project is to reduce suicides and suicide attempts while also reducing the closures of the bridge due to these events and to implement TMS elements that would help Caltrans TMC identify when there is traffic queueing or backup on the bridge and better monitor and respond to potential incidents on the bridge, the proposed project would not conflict with existing California legislation that has been adopted to reduce statewide GHG emissions. Additionally, the proposed project would be consistent with SANDAG Regional Transportation Plan vision and strategy for system preservation and safety. Thus, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be less than significant.

No-Build Alternative

The No-Build Alternative would not change the bridge or roadway capacity.

Avoidance, Minimization, and/or Mitigation Measures

To ensure that potential temporary effects to GHG emissions during construction and operation are minimized, the following avoidance and minimization measures will be implemented:

- Implement intelligent transportation systems and TMS elements to smooth traffic flow and increase efficiency.
- TMS elements will be solar powered to the maximum extent feasible.
- The construction contractor shall utilize alternative fuels such as renewable diesel for construction equipment when feasible.
- The contractor shall implement an idling limit of 5 minutes for delivery trucks and other diesel-powered equipment (with some exceptions).
- The contractor shall schedule truck trips outside of peak morning and evening commute hours and implement a TMP to minimize the effects to traffic.
- The construction contractor shall reduce construction waste.
- The construction contractor shall maximize improved fuel efficiency from construction equipment through ensuring that construction equipment is

maintained and properly tuned and equipment has been correctly sized for the job.

- The construction contractor shall provide construction personnel with the knowledge to identify environmental issues and best practice methods to minimize impacts to the human and natural environment. Supplement existing training with information regarding methods to reduce GHG emissions related to construction.

2.1.9 Hazards and Hazardous Materials

Considering the information included in the Hazardous Waste Review (0-Phase) dated October 2021 (Caltrans 2021e) and the Report of Asbestos Survey and Sampling dated April 2022 (Kleinfelder 2022), the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less Than Significant Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less Than Significant Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Less Than Significant Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less Than Significant Impact

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No Impact

Regulatory Setting

Hazardous materials, including hazardous substances and wastes, are regulated by many state laws. Statutes govern the generation, treatment, storage, and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health, and land use.

California regulates hazardous materials, waste, and substances under the authority of the California Health and Safety Code and is also authorized by the federal government to implement the Resource Conservation and Recovery Act in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires cleanup of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and cleanup of contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material are vital if it is found, disturbed, or generated during project construction.

Affected Environment

The Bridge is not included as a hazardous materials site on State of California Hazardous Waste and Substances lists compiled pursuant to Government Code Section 65962.5 (Caltrans 2021e). Caltrans environmental engineering staff reviewed the EnviroStor (Department of Toxic Substances Control) and GeoTracker (State Water Resources Control Board) databases for nearby hazardous waste/unauthorized release facilities that may have impacted the environmental condition of the project area. One facility adjacent to the bridge on the southeast side has been identified for potential contaminants of concern including copper, lead, mercury (elemental), polychlorinated biphenyls, polycyclic aromatic hydrocarbons, and zinc (Caltrans 2021e).

An evaluation of potential contaminants of concern was conducted based on available information to determine the potential presence of hazardous materials on the bridge structure itself. As stated in the technical memorandum titled “Updated Hazardous Waste Review (0-Phase),” dated October 2021, it is

assumed that substances regulated by California under Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, such as zinc and lead, are likely present in the paint used to coat the bridge (Caltrans 2021e). Based on that analysis, an ACM survey was performed to evaluate the presence, location, and quantity of accessible suspect ACMs that may present a potential worker safety hazard. The report results show ACMs were not identified (Kleinfelder 2022).

Environmental Consequences

Proposed Project

No known hazardous material sites are located within the proposed project site. The location identified southeast of the bridge is not within the limits of disturbance for the proposed project, and potential contaminants within this site would not be encountered during construction activities on the elevated bridge structure as it passes over the area. Trenching or excavation would be limited to small areas within the bridge structure itself to connect to existing electrical sources, and is not anticipated in native or disturbed sediments; therefore, potential soil contaminants would not be uncovered during construction. Construction activities would primarily be focused within the existing man-made structures of the bridge consisting mostly of concrete and other hardscape materials. However, if soil disturbance is determined necessary during advanced design phases, a soil investigation for potential Title 22 contaminants would be conducted. If investigations showed evidence of contaminants, a designated *NSSP 14-11.11 Department-Generated Contaminated Soil* would be required to identify and ensure proper handling of the contaminated soils to avoid exposure risks.

Disposal of hazardous materials such as zinc and lead, which may be present in the paint used to coat the bridge, would require special handling, reuse, and disposal because of their potential to harm human health and the environment. To avoid adverse environmental effects related to the accidental release of these toxins into the environment during construction, Caltrans' *NSSP 14-11.13 Disturbance of Existing Paint Systems on Bridges* would be implemented to properly handle the paint material and a "Debris Containment and Collection Plan" would be required under *SSP 14-11.13B(2)* for proper paint containment during disturbance activities. A lead compliance plan would also need to be prepared and implemented during construction activities requiring paint disturbance. The lead compliance plan would comply with Caltrans' Standard Specification 7-1.02K(6)(j)(ii) (Caltrans 2018).

A survey was conducted and no asbestos hazard was found from the bridge material (Kleinfelder 2022). Therefore, implementation of *SSP 14-11.16 Asbestos Containing Construction Material in Bridges* would not be required. Because disturbed structural concrete will exceed 100 square feet, SDAPCD will need to be notified even though no asbestos have been found in the concrete.

Typical hazardous materials used during construction (e.g., solvents, paints, and fuels) would be managed in accordance with Caltrans standardized measures and other regulatory requirements and is not anticipated to compromise workers'

health and safety. Applicable state and federal regulations, permit conditions, and Caltrans standard and nonstandard special provisions for the use, handling, disposal, waste, storage, and transport of potentially hazardous materials during construction of the proposed project would minimize potential for accidental exposure of people or the environment to hazardous materials.

The proposed project could result in a hazard to public or environment through transport, use, and/or disposal of hazardous materials. Release of hazardous materials may occur during equipment maintenance involving fuel, lubricating oil, hydraulic fluid, and other construction-related chemicals from vehicles and equipment.

Concrete, solvents, and paint may be disturbed or removed during construction activities and may potentially present a risk to the public and environment. It is anticipated that paint containing levels of lead and zinc would likely meet thresholds for hazardous waste designation. As required by Caltrans' NSSP *14-11.13 Disturbance of Existing Paint Systems on Bridges*, disturbed paint from the bridge structure would be evaluated and properly disposed of. Additionally, federal and state regulations for disposal of hazardous materials would be adhered to, minimizing the likelihood that contaminants would come in contact with the public and/or environment.

A "Debris Containment and Collection Plan" would be required under Standard Specification *14-11.13B(2)* for proper material containment during disturbance activities on the bridge. This plan would include provisions to ensure that material disturbed during the construction process is not released into the environment and specifically not allowed to enter the waters of the bay below the bridge structure.

Per standard Caltrans construction protocols, staging areas for construction equipment and materials would be within specifically designated areas within the Caltrans right-of-way and/or ownership and a spill prevention plan would be implemented to reduce risk of accidental spills during construction activities. Applicable regulatory requirements regarding hazardous material handling, transport, storage, and disposal would be implemented and would minimize the risk of accidental release or exposure.

With the implementation of the standardized measures above, the proposed project would have a less than significant impact on the public or the environment through handling and potential release of hazardous materials into the environment.

Perkins K-8, King Chavez Academy of Excellence, and Burbank Elementary schools are within one-quarter mile of the proposed project site. However, construction activities would be located within the Caltrans right-of-way associated with the bridge and would not extend to areas adjacent to the school properties, regardless of the design variation implemented. Hazardous materials that may be encountered during construction activities, such as potential lead and zinc that may be in the bridge's coating, would be contained and confined to the construction area and would not influence schools or attending students near the

proposed project site. Staging areas would be on the bridge and within Caltrans maintenance yards below the bridge. Caltrans provisions related to hazardous materials identified above, along with applicable state and federal regulatory requirements specific to hazardous materials, would be incorporated to ensure hazardous materials would be properly contained during construction activities. Therefore, potential impacts from emitting or handling hazardous materials within one-quarter mile of existing schools would be less than significant.

A hazardous site was identified pursuant to Government Code Section 65962.5 at an adjacent area southeast of the bridge as discussed above. This area would not be used or affected by construction on the bridge structure and construction activities would be contained within Caltrans right-of-way. No hazardous material sites were identified as part of the bridge or associated right-of-way; thus, no impact would occur.

The Bridge is not within the vicinity of a private or public airstrip or an airport land use plan. Additionally, the proposed project site is not within 2 miles of the San Diego International Airport located north of the proposed project. However, the proposed project is approximately 2 miles from Naval Air Station North Island, which is on the western portion of Coronado Island and is home to military aircraft operations. Implementation of the proposed project would not create structures of the height or magnitude that could interfere with aircraft safety or require modifications to aircraft operations that could create noise or other safety hazards to aircraft or people working or residing in the area. Therefore, no impacts from safety hazards or excessive noise to people in the area from implementation of the proposed project would occur.

The Bridge is a critical roadway providing one of two access points for Coronado Island. However, the proposed project would not impair implementation of or physically interfere with the San Diego County Emergency Operations Plan because the proposed project anticipates work on the side of the bridge by temporarily closing one lane, which would allow for one or two lanes to remain open to traffic in both directions in the event of an emergency. A TMP would be prepared for the proposed project that would include requirements to ensure continued provision of emergency access throughout the proposed project site during construction. Thus, impacts to emergency response or evacuation would be less than significant.

The proposed project site is in an urbanized and built-up area and is not identified as being within a fire hazard severity zone (CALFIRE 2009). There are minimal opportunities for accidental fire ignition on the bridge or in the areas immediately surrounding that could cause wildland fires due to the urban setting and lack of flammable vegetation, regardless of the design variation implemented. Therefore, the proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires, and no impacts would occur.

No-Build Alternative

The No-Build Alternative would not alter the Bridge. A reduction in incidents associated with suicides and suicide attempts would not occur and closures to vehicular traffic and subsequent delays due to rerouting and congestion resulting from these closures would continue to occur.

Avoidance, Minimization, and/or Mitigation Measures

As described above, to ensure potential effects involving hazardous materials/waste during construction are avoided or reduced, the following avoidance, minimization, and/or mitigation measures will be implemented:

- To prevent disturbed paint from exposing heavy metals, the implementation of Caltrans' designated NSSP 14-11.13 *Disturbance of Existing Paint Systems on Bridges* will be required.
- A Debris Containment and Collection Plan under SSP 14-11.13B(2) will be required.
- A lead compliance plan will be required during construction requiring paint disturbance.
- Water or dust palliative will be applied to the site and equipment as often as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a "no visible dust" criterion either at the point of emissions or at the right-of-way line, depending on local regulations. Dust minimization measures as required by SSP 14-11.04 will be adhered to, as applicable.

By adhering to state and federal regulatory requirements and Caltrans provisions related to the avoidance and minimization of hazardous material risk and exposure, the proposed project would not expose workers, the public, or the environment to hazardous waste or materials during construction or operation.

2.1.10 Hydrology and Water Quality

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality?	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	No Impact

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation onsite or offsite;	No Impact
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	No Impact
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	No Impact
(iv) impede or redirect flood flows?	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact

2.1.11 Land Use and Planning

Question—Would the project:	CEQA Significance Determinations for Land Use and Planning
a) Physically divide an established community?	No Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	No Impact

2.1.12 Mineral Resources

Question—Would the project:	CEQA Significance Determinations for Mineral Resources
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No Impact

Question—Would the project:	CEQA Significance Determinations for Mineral Resources
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	No Impact

2.1.13 Noise

Considering the information included in the Noise and Vibration Review and Determination for EA 11-43063: SR-75- Coronado Bridge Suicide Barrier dated October 2021 (Caltrans 2021f), the following significance determinations have been made:

Question—Would the project result in:	CEQA Significance Determinations for Noise
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	No Impact
b) Generation of excessive ground-borne vibration or ground-borne noise levels?	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No Impact

2.1.14 Population and Housing

Question—Would the project:	CEQA Significance Determinations for Population and Housing
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No Impact

2.1.15 Public Services

Question:	CEQA Significance Determinations for Public Services
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection?	No Impact
Police protection?	No Impact
Schools?	No Impact
Parks?	No Impact
Other public facilities?	No Impact

2.1.16 Recreation

Question—Would the project:	CEQA Significance Determinations for Recreation
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	No Impact

2.1.17 Transportation

Question—Would the project:	CEQA Significance Determinations for Transportation
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Less Than Significant Impact
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Less Than Significant Impact

Question—Would the project:	CEQA Significance Determinations for Transportation
d) Result in inadequate emergency access?	Less Than Significant Impact

Affected Environment

The Bridge is part of SR-75 and has a total length of approximately 11,200 feet including both the western and eastern approaches, located in the cities of Coronado and San Diego, respectively. At its highest point, the middle of the Bridge (i.e., between piers 18 and 19) has 195 feet of vertical clearance above the Mean Lower Low Water tide level above San Diego Bay. This clearance is provided to maintain access for large vessels to U.S. Navy facilities throughout San Diego Bay and to comply with navigable requirements of minimal vertical clearance between the water and bottom of the Bridge. The roadway currently has a five-lane configuration, each lane approximately 12 feet in width, including two eastbound (traveling from Coronado to San Diego), two westbound (traveling from San Diego to Coronado), and a reversible middle lane. In 1993, a moveable median barrier system was installed to allow for a reversible middle lane to facilitate weekday directional traffic demands. The posted speed limit for the Bridge is 50 mph. There are no existing shoulders on the bridge, which curves as it extends across the bay. The existing bridge rail is 34 inches high and is designed to redirect vehicles back onto the roadway if collision with the bridge rail occurs.

The Bridge was not designed for pedestrian or bicycle use. There are no sidewalks, bike lanes, or bike routes on the Bridge. Bicycles and pedestrians are prohibited with the exception of special running/walking and cycling events, which require approval from Caltrans.

SR-75 is designated as part of the National Highway System, consisting of a network of roadways important to the U.S. economy, defense, and mobility, by the FHWA. SR-75 is also part of the Strategic Highway Network (STRAHNET), as designated by the FHWA, which provides routes for defense access, continuity, and emergency capabilities for movement of personnel and equipment both in peace and war times. The Bridge was also officially designated as a State Scenic Highway in 1969.

The Bridge provides an important connection between the cities of Coronado and San Diego and carries a large number of civilian and military commuters between these cities daily. A large number of commuters using the bridge are traveling specifically to Naval Air Station North Island and Naval Amphibious Base in the City of Coronado. A preliminary traffic assessment was conducted for the proposed project during preparation of the Project Initiation Report and was completed in June 2019 (Caltrans 2019). Measurements taken in 2015 indicate the 5-day annual average daily traffic (AADT) on the Bridge was 83,000. Peak-hour volumes occurred in the morning and evening with 6,000 and 7,000 vehicles traveling over the Bridge, respectively. In 2016, traffic volumes peaked eastbound on the Bridge at 2,207 vehicles and 4,045 vehicles westbound, while the evenings peaked 4,856 vehicles eastbound and 2,461 vehicles westbound on

the Bridge. The 5-day AADT on the Bridge is estimated to reach 106,000 by 2040 with peak morning and evening hour volumes estimated to rise to approximately 7,000 and 8,000 vehicles, respectively.

Level of service (LOS) is the term used to denote the different operating conditions that occur on a given roadway segment under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis with designations ranging from A through F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. Based on the 2016 Highway Capacity Manual analysis and 2015 traffic volumes, LOS for the Bridge during both morning and afternoon hours was D. This indicates that, during peak hours, the ability to maneuver is severely restricted due to traffic congestion and speeds are reduced with increased volumes of vehicles traveling across the bridge. By 2040, it is predicted that the LOS for morning hours would remain at D for eastbound traffic and would increase to E for westbound traffic. LOS would increase to E for both directions during afternoon hours by 2040. These increases would be expected with or without the project.

As described in Section 1.4, Project Description, existing TMS elements are found on the bridge at various locations, including the Glorietta Toll Plaza and the I-5/SR-75 Interchange. Current TMS elements consist of CCTV cameras used to monitor traffic and incidents.

Environmental Consequences

Proposed Project

Construction activities may require partial closures of ramps where one lane would be closed at a time to complete installation of the suicide deterrent. Potential lane closures would use the existing movable median barrier wall to accommodate changes in traffic demands, as needed. It is anticipated that approximately 550 working days of active construction would be required to complete the proposed project.

A TMP Data Sheet was developed in March 2021 that provided preliminary TMP elements discussed below. To address potential short-term, temporary impacts that could result from constructing the proposed project, a TMP would be prepared and implemented during construction. The TMP would address issues related to construction staging, lane closures, and other potential traffic disruptions during construction. Implementation of the TMP would provide congestion relief, identify detour routes, and schedule activities that are likely to disrupt traffic during off-peak hours such as equipment mobilization, as feasible. Coordination with signal and ramp metering would occur to minimize traffic circulation impacts within potential closure areas. The TMP would include advanced notification to motorists, bicyclists, and pedestrians of potential delays and alternative routes, as applicable. To ensure safety for workers and motorists during construction, temporary speed reductions across the Bridge would likely be a measure included within the TMP. It would also include accommodation for emergency services to allow access through work zones.

As mentioned above, the TMP would include procedures for conducting outreach and advanced notification to inform motorists and the public of planned disruptions or delays. Brochures, mailers, press releases, and social media/email campaigns would be established to provide information regarding potential traffic disruptions and closure of non-motorized facilities to interested parties including motorists, bicycle and pedestrian organizations, residents, community groups, and school districts, among others. Notifications would also be sent to the Navy Base, California Department of Parks and Recreation (State Beach managers), and Hotel Del Coronado to inform managers of high-use facilities within Coronado of potential delays. Emergency services would be notified of lane closures along with the California Trucking Association and alternative route information provided, as applicable. Outreach efforts would also include notifying schools, community groups and organizations, park groups, historical preservation groups, major venues, retail, and other heavily utilized areas of construction activities that may affect their services and activities. Access considerations and minimized impacts to local streets would be implemented to the extent feasible to limit disruptions to residences and businesses.

It is not anticipated that long-term impacts to recreational access within the vicinity of the bridge would occur. Short-term, temporary traffic circulation delays may result from construction of the proposed project, which would be addressed in the TMP.

Long-term traffic impacts are not anticipated because the proposed project would not alter traffic patterns or capacity on the Bridge. Installation of the suicide deterrent and TMS improvements would not negatively influence items like traffic circulation patterns, LOS, or VMT assumptions during the operational period of the proposed project. Overall, installation of the vertical net would likely decrease bridge closures and the duration of closures would likely improve. Potential traveler delay and rerouting resulting from closures would be lessened by the reduction in suicide and suicide attempts, and the need for emergency responders. Installation and upgrades of CCTV cameras would be used to detect pedestrians or unusual activity on the bridge. These TMS improvements would incorporate the latest transportation management technology and increase video coverage of the bridge compared to existing conditions, thereby improving incident detections and reducing closures associated with suicides and suicide attempts. Circulation would be improved with TMS installations and upgrades by minimizing potential incidents and closures, and providing more accurate, time-sensitive information to emergency responders so response times and bridge closures are minimized.

Installation of the vertical net would have additional safety benefits. A potential benefit includes the reduction in traffic disruptions caused by incidents associated with suicides and suicide attempts. Safety for motorists along the bridge would improve due to more continuous and steady traffic flow resulting from less interruptions during incidents associated with suicides and suicide attempts. Potential lane blocking from an individual's abandoned car, an individual walking on a lane, or emergency response to this situation may further obstruct traffic flow in addition to responding to an incident associated with

suicide and suicide attempts. The proposed project would potentially reduce obstructions to traffic flow from emergency response vehicles and other interferences, thereby improving traffic circulation and safety for travelers on the bridge.

Construction-generated traffic on roadways associated with the proposed project would include delivery of equipment and materials, worker trips to the construction area, and potential lane closures. Parking, staging, and laydown areas for construction activities would be located within closed lanes on the bridge and/or existing Caltrans maintenance yards. During construction, lane closures may be needed to facilitate work and/or create a buffer between construction personnel and traffic. Worker vehicle trips to the proposed project site would be nominal relative to existing traffic on the bridge. Short-term, temporary traffic impacts resulting from construction activities are anticipated due to the confined, high traffic nature of the bridge and the need for temporary lane closures. A TMP would be prepared and implemented, which would outline appropriate traffic control measures intended to accommodate workers within the roadway, while facilitating continued circulation for road users through the work zone. Because the proposed project would not alter traffic patterns or volumes, temporary traffic impacts would cease once construction is complete. Because temporary construction impacts are anticipated with the proposed project and a TMP would be implemented for activities disrupting the transportation system, no conflict would occur with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, and bicycle and pedestrian facilities. Thus, a less than significant impact related to transportation plans and policies would result.

As described above, the proposed project would not generate traffic and would not increase roadway capacity on the bridge. There would be no new land uses or other project elements that would encourage people to travel to the area and increase VMT. Some construction traffic would be necessary during construction activities; however, these trips would be temporary and would occur during construction phases of the proposed project. The intent of SB 743 is to analyze potential transportation impacts for projects utilizing VMT as the most appropriate measure. VMT refers to the amount and distance of automobile travel attributable to a project. Because the project would not change the operational characteristics of the bridge, it is not anticipated to have any change on VMT and the impact on transportation would be less than significant.

The proposed project would not include roadway reconfiguration or other modifications that would create dangerous roadway design features. Currently, a driver going in the westbound direction can see the tops of vehicles over the existing outside bridge rail at the curve of the bridge. With the construction of a vertical net, this existing line of sight would be affected. Speed reduction is being considered for both directions along the bridge to account for this effect in line of sight. New speed limit signs and pavement delineation may also be needed for this speed limit change. The proposed project would not result in new land uses or features that could cause incompatible uses on local roadways or the bridge.

Thus, an increase in hazards due to geometric design feature or incompatible use would be minimal and would result in a less than significant impact.

During construction, lane closures and other traffic disruptions may temporarily affect traffic flows across and in the vicinity of the bridge. A TMP would be prepared to address potential traffic impacts as well as impacts to the surrounding transportation network for motorists, bicycles, or pedestrians, related to construction activities. Safety and emergency procedures would be outlined in the TMP to ensure that adequate emergency access is available through the impacted areas. The TMP would notify emergency service providers in advance about potential lane closures and other traffic disruptions, and would include accommodations for emergency services to allow access through work zones as necessary. Therefore, adequate emergency access would be maintained throughout the construction period. A less than significant impact related to emergency access would result.

No-Build Alternative

The No-Build Alternative would not alter the Bridge. A reduction in incidents associated with suicides and suicide attempts would not occur and closures to vehicular traffic and subsequent delays due to rerouting and congestion resulting from these closures would continue to occur.

Avoidance, Minimization, and/or Mitigation Measures

Temporary ramp and/or lane closures could result in temporary, short-term disruption to motorists during construction. As discussed in Section 1.8, minimization measures to avoid or reduce traffic impacts resulting from construction activities will be implemented with the TMP including appropriate staging, timing, and sequencing of activities; maintenance of traffic in both directions; and advanced notification to motorists and nearby communities to inform the public of potential delays. No additional avoidance, minimization, and/or mitigation measures are required.

2.1.18 Tribal Cultural Resources

Considering the information included in the Finding of No Adverse Effect with Standard Conditions dated October 2021 (Caltrans 2021d), the following significance determinations have been made.

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Question:	CEQA Significance Determinations for Tribal Cultural Resources
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	No Impact
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	No Impact

2.1.19 Utilities and Service Systems

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Less Than Significant Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	No Impact
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	No Impact
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact

Affected Environment

A variety of utility infrastructure traverses the proposed project site. Multiple service providers, jurisdictions, and agencies own and maintain these utilities, such as AT&T and San Diego Gas & Electric (SDG&E). Minor improvements to the existing TMS would utilize existing electrical supplies on the Bridge; no other utility services would be affected.

Emergency services provided by the cities of Coronado and San Diego, and other agencies that monitor both the Bridge and San Diego Bay, are described within this section.

Electricity

Electricity in San Diego County is provided by SDG&E. An existing 12-kilovolt electrical line runs through the inside of the bridge catwalk. Additionally, five electrical lines that support red lighting on piers and fiber for light controls (one) and cameras (two) are located within the catwalk. Primary uses of electricity on the Bridge include existing lighting and TMS facilities, as well as serving the Glorietta Toll Plaza.

On the eastern end of the bridge, a series of overhead and underground electric cables within the adjacent community of Barrio Logan are located primarily perpendicular to the bridge under the structure in between piers. The San Diego Metropolitan Transit System manages a trolley line located between support infrastructure columns. Overhead electrical lines are present within the railroad corridor and provide power to trolley services.

Communications

Within the catwalk on the bridge, several different communications service providers have facilities in this location. These include the following:

- Telephone/optic line and fibers managed by AT&T;
- Fibers managed by Time Warner and military entities; and
- Various telephone/seismic sensors.
- Telecommunication lines are grouped with overhead SDG&E electrical lines within the City of San Diego.

Other Utilities

Water, Wastewater, and Solid Waste

A water and sewer line runs the length of the catwalk on the bridge. These facilities provide water and sewer conveyance between the cities of Coronado and San Diego.

Existing water (e.g., water conveyance infrastructure, water treatment facilities), wastewater (e.g., sewer lines, storm drains, wastewater treatment facilities), and solid waste facilities are managed by the City of Coronado Wastewater Division and City of San Diego's Public Utilities Department on the western and eastern

sides of the bridge, respectively. Within the City of Coronado, the Wastewater Division is responsible for the maintenance of 17 sewer pump stations and more than 45 miles of underground sewer pipelines (City of Coronado 2021a). The City of San Diego's Public Utilities Department operates several major facilities to treat water and wastewater, including treatment plants, reclamation plants, biosolid treatment facilities, and pure water facilities (City of San Diego 2021).

Natural Gas

Natural gas in San Diego County is provided by SDG&E. Existing gas lines within the City of San Diego include various lines ranging in size from 2-, 3-, to 16-inch lines. These natural gas lines generally run underground and perpendicular to the bridge within the City of San Diego. Gas lines on the City of Coronado side are not within the right-of-way and are not located in proximity to the bridge.

Environmental Consequences

Proposed Project

The proposed project would not require relocation of existing utilities or the expansion of these facilities. Installation of the proposed project would rely upon standard equipment to secure the vertical net, TMS improvements, and supporting infrastructure. Existing utilities on the bridge may be sourced for electricity to support lighting and/or TMS improvements. Electricity required to power these improvements is anticipated to be relatively minor and within the current capacity of electrical facilities on the bridge.

Existing electrical facilities within the catwalk service the structure itself and do not include transmission/distribution lines that provide critical services to the City of Coronado or City of San Diego. Water and sewer facilities located inside the bridge convey materials across San Diego Bay to the cities of Coronado and San Diego, and would not be altered or tapped for resources during construction activities or long-term use.

Trenching is not anticipated as part of construction activities; however, if connections to existing electrical sources are required for new TMS elements, before disturbances in areas with potential utilities, Caltrans would contact the appropriate utilities, DigAlert services, and/or other applicable entities to obtain markout information; therefore, facilities would be avoided during construction activities.

Overhead and underground electrical and telecommunication lines as well as water, wastewater, solid waste, and natural gas facilities within the cities of Coronado and San Diego would be avoided. Construction would primarily occur within and on top of the existing bridge rail and roadway, and would not extend into adjacent communities. Additionally, these facilities are not anticipated to be required during short-term construction activities or long-term operational uses of the proposed project. Overall, service interruptions are not anticipated with implementation of the proposed project.

The proposed project would not require the expansion or relocation of water, wastewater treatment, stormwater drainage, natural gas, or telecommunication facilities; thus, development of new or expanded facilities is not proposed. Standard measures would include coordination with utility service providers and other applicable entities prior to the start of ground or bridge deck disturbance to avoid utilities infrastructure. Any ground disturbance would be minor and affect only disturbed soils. Upgrades to existing TMS elements on the bridge structure and installation of new TMS improvements would require electricity to operate. The Bridge has existing electrical facilities located inside the structure that serve electrical purposes on the bridge and do not service adjacent communities. These facilities currently provide power for existing lighting and TMS elements on the bridge, and would be sourced to provide power to TMS improvements. TMS improvements are not anticipated to substantially increase demand beyond a capacity that existing electrical facilities could not accommodate. Therefore, impacts would be less than significant.

The proposed project would not increase the demand for water nor would it require water supplies for long-term, operational uses. Construction activities would require a nominal amount of water consumption and wastewater disposal. Water consumption associated with the proposed project would be minor and primarily required during initial construction activities. These activities are limited and temporary in nature and would not consume water or generate wastewater in quantities that would exceed the capacity of existing treatment facilities. The proposed project would not include other components that would generate solid waste and would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure. Therefore, no impacts would occur.

No-Build Alternative

The No-Build Alternative would not change the Bridge or supporting infrastructure/facilities; therefore, utilities would not be impacted by this alternative. A reduction in incidents associated with suicides or suicide attempts would not occur with the No-Build Alternative. Closures of the bridge, delays due to rerouting, and congestion resulting from these closures would continue to occur, leaving first responder and emergency services response times, responsibilities, and strains on resources similar to existing conditions.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance measures will be implemented to address potential impacts to utilities and emergency services during construction:

- Prior to construction activities, Caltrans will contact utilities, DigAlert services, and/or other applicable entities to mark underground facilities, as needed.
- Emergency service providers and first responders will be notified of construction sequencing and the potential for temporary lane closures and/or changes to traffic circulation, as identified in the TMP.

2.1.20 Wildfire

Question—Would the project:	CEQA Significance Determinations for Wildfire
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	No Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	No Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	No Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No Impact

2.1.21 Mandatory Findings of Significance

Question:	CEQA Significance Determinations for Mandatory Findings of Significance
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	No Impact

2.1.22 Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of the proposed project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

CEQA Guidelines Section 15130 describes when a cumulative impact analysis is necessary and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under CEQA can be found in Section 15355 of the CEQA Guidelines.

a) The proposed project site is located within an urbanized and existing setting, and does not involve any changes to the existing use of the Bridge or surrounding land uses. It would not substantially degrade the environment, affect habitat, affect wildlife, or eliminate important examples of California history. Therefore, there is no impact.

b) Resources Evaluated for Cumulative Impacts

Air Quality

The proposed project site is located in San Diego County within the SDAB and the proposed project is considered exempt from conformity requirements. According to the FHWA's Interim Guidance (2016), the proposed project is classified as a category 1 project (Projects with No Meaningful Potential MSAT Effects, or Exempt Projects).

The proposed project could generate fugitive dust associated with construction equipment from temporary construction activities. These potential impacts contribute to overall impacts to the SDAB. The installation of the suicide deterrent and TMS improvements would not involve extensive disturbance of soils and would require adherence to the existing bridge structure. The proposed project would comply with construction standards adopted by SDAPCD as well as Caltrans standardized procedures for minimizing air pollutants during construction.

The analysis of air quality provided in Section 2.1.3, Air Quality, considers the emissions of traffic generated by existing and future planned land uses and the effects of other future planned transportation improvements. Temporary air quality impacts would be minimized through implementation of dust control and equipment management measures. The proposed project would not contribute to cumulative air quality effects because it would not violate air quality standards, would not contribute substantially to an existing air quality violation, and would not expose sensitive receptors to substantial pollutant concentrations.

Biological Environment

The Bridge is an existing, developed structure that does not support the growth of special-status plant species. Surrounding land uses adjacent to the bridge, and within the project site buffer, are considered developed or are used for recreational purposes and do not provide suitable habitat for special-status plant species. Avian species protected under the federal MBTA occur in the proposed project area. In addition, special-status wildlife species with potential to occur within the proposed project area include California least tern, western snowy plover, and peregrine falcon.

The proposed project may result in potentially significant impacts to nesting peregrine falcon if construction occurs during the breeding season. Mitigation would reduce project impacts to less than significant, and the potential for impacts would be temporary and would occur only during construction and/or maintenance during the breeding season. As such, the proposed project contribution to short-term impacts to biological resources would not be cumulatively considerable.

Cultural Resources

No reasonably foreseeable adverse effects of future projects have been identified. Projects in the planning process include a Port of San Diego pier lighting project called the “Coronado Bridge Lighting Project,” which would illuminate the piers of the Bridge. This project is initiated and funded by the Port of San Diego. This lighting project is not anticipated to cause an adverse effect to the Bridge or SDCBB District. Other cumulative impacts to archaeological resources would be expected to be fully avoided, minimized, or mitigated, and critical information regarding regional prehistory preserved and/or documented. Thus, the proposed project would not make a cumulatively considerable contribution to a significant cumulative impact related to cultural resources. A less than significant impact would result.

Hazardous Waste and Materials

Although potential exposure of hazardous materials may occur during project construction, implementation of standardized and non-standardized measures would minimize and avoid these impacts. Typical hazardous materials used during construction (e.g., solvents, paints, and fuels) would be managed in accordance with Caltrans standard provisions and other regulatory requirements and are not anticipated to compromise worker's health and safety. Applicable state and federal regulations, permit conditions, and Caltrans standard and

nonstandard special provisions for the use, handling, disposal, waste, storage, and transport of potentially hazardous materials during construction of the proposed project would minimize potential for accidental exposure of people or the environment to hazardous materials. As such, the proposed project contribution related to hazardous waste and materials would not be cumulatively considerable.

Traffic and Transportation/Pedestrian and Bicycle Facilities

Impacts on vehicular traffic associated with the proposed project would intermittently and temporarily generate increases in vehicle trips by construction workers, construction vehicles, and traffic congestion during construction within the proposed project site roadways. However, the implementation of a TMP would minimize short-term impacts to vehicular transportation and to non-motorized users in the surrounding areas during construction and impacts would be less than significant. O&M activities for the proposed project would not have a significant cumulative impact on SR-75 traffic or local roads because the proposed project would not change capacity or travel patterns. Therefore, the proposed project contributions to cumulative impacts related to traffic and transportation/pedestrian and bicycle facilities are not considered cumulatively considerable.

Visual/Aesthetics

Section 2.1.1 identified that the visual environment of the proposed project site would alter coastal views both from the bridge and toward the bridge, but the alteration would not be a significant impact. When analyzing cumulative visual impacts, it is important to consider those projects that could alter the existing visual environment with the same viewshed as the proposed project. Other cumulative projects could contribute to short-term visual effects by adding more construction equipment in the general area but this would not be a significant visual intrusion within the overall viewshed and would not be out of place within the urbanized areas at each end of the bridge. The visual effects from various construction projects could be considered noticeable but not out of context with an urban roadway feature and surrounding urban development and would be temporary during the implementation phase and would not be substantial. The vertical net would have a minimum 85 percent transparency to maintain views from the bridge across the viewshed and also to avoid the appearance of a solid mass or strong visual element from neighboring views toward the bridge. Once completed, the vertical net would be a relatively minor component compared to the overall bridge structure itself and would not be a dominant visual element in the viewshed. Thus, the proposed project would not make a cumulatively considerable contribution to a significant cumulative visual impact due to the cumulative projects throughout the proposed project area. A less than significant impact would result.

The analysis above considers the potential cumulative effects for the proposed project. With the implementation of standardized measures, as well as specific avoidance and minimization measures, impacts associated with the proposed project would not be considered cumulatively considerable and cumulative impacts would be less than significant.

Construction of the proposed project would be temporary and short term, and with the inclusion of appropriate avoidance and minimization measures, the proposed project would not have a considerable contribution to cumulative impacts. Therefore, there is no impact.

c) The proposed project would primarily be constructed on the Bridge with TMS improvements along the Bridge and freeway connectors. Construction staging areas would be located within existing and developed Caltrans facilities. No additional right-of-way, either permanent or temporary, would be required for the proposed project.

Avoidance, Minimization, and/or Mitigation Measures

No significant impacts would result from the proposed project, and no mitigation measures are required.

Chapter 3 Policies of the Coastal Act

The proposed project has the potential to affect resources protected by the Coastal Zone Management Act (CZMA) of 1972. The CZMA is the primary federal law enacted to preserve and protect coastal resources. The CZMA sets up a program under which coastal states are encouraged to develop coastal management programs. States with an approved coastal management plan are able to review federal permits and activities to determine if they are consistent with the state's management plan.

California has developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976, to protect the coastline. The policies established by the California Coastal Act are similar to those for the CZMA. They include the protection and expansion of public access and recreation; the protection, enhancement, and restoration of environmentally sensitive areas; the protection of agricultural lands; the protection of scenic beauty; and the protection of property and life from coastal hazards. The California Coastal Commission (CCC) is responsible for implementation and oversight under the California Coastal Act.

The entirety of the Bridge, including I-5 and the Glorietta Toll Plaza, is within the Coastal Zone and is protected by the laws and regulations of the Coastal Act. Proposed work that would alter the structure of the bridge by adding new elements would require a Coastal Development Permit (CDP). Just as the federal CZMA delegates power to coastal states to develop their own coastal management plans, the California Coastal Act delegates power to local governments to enact their own local coastal programs (LCPs). The proposed project is subject to both the City of Coronado LCP and City of San Diego's LCP (City of Coronado 1980; City of San Diego 1978), and is also included in the Port of San Diego Master Plan boundary, which incorporates their LCP (San Diego Unified Port District 2020). LCPs contain the ground rules for development and protection of coastal resources in their jurisdiction consistent with the California Coastal Act goals. Some portions of the project may also remain within the original jurisdiction of the CCC. CDPs would be required from each of the jurisdictions with permitting authority under the California Coastal Act, including the City of San Diego, the City of Coronado, the Port of San Diego, and the CCC. As part of the permitting process, consistency of the proposed project with the various sections of the California Coastal Act would be confirmed.

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Chapter 4 **Comments and Coordination**

4.1 Introduction

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization and/or mitigation measures, and related environmental requirements. Agency and tribal consultation and public participation for the proposed project have been accomplished through a variety of formal and informal methods, including public coordination, NOP, public scoping meeting, social media notifications, focused stakeholder meetings and interagency coordination meetings, Advisory Committee meetings, and Project Development Team (PDT) meetings. Advisory Committee meetings included a suicide prevention specialist who presented information about suicide awareness and prevention and was available to answer questions. This chapter summarizes the results of Caltrans' efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

4.2 Public Coordination

4.2.1 Feasibility Study

Initial development of the various suicide deterrent design concepts involved an iterative process to identify, develop, and refine concepts that would address the purpose of the deterrent while minimizing impacts to traffic, maintenance operations, environmental constraints, and the structure of the Bridge during preparation of the project Feasibility Study. Because of the high level of interest from both community members and elected officials, various meetings were held to inform, educate, solicit input from, and build partnerships with a diverse and comprehensive group of focused stakeholders that were directly or indirectly involved with associated suicides or suicide attempts on the Bridge.

Two sets of public open house meetings were held for the draft San Diego-Coronado Bay Bridge Physical Suicide Deterrent System Feasibility Study Report. Each open house meeting was held on each side of the bridge in an attempt to better serve the two neighboring communities of Barrio Logan within the City of San Diego and the City of Coronado. The first set of meetings was held on August 9 and 10 2017, before the study concepts were developed, and the second on November 14 and 15, 2017, after many of the concepts were identified. During each meeting, electronic and written comment forms were available, and attendees were encouraged to provide their input. The electronic input form also remained available on the Caltrans website for several days after the meetings to allow for others, who could not attend or did not have the time to comment during the meeting, to provide input. The Feasibility Study provided a platform for the public to give their input.

In the 2017 August public outreach meetings, a fact sheet for the Feasibility Study was provided to the attendees and exhibits of other known suicide deterrent projects were displayed as well as an aerial exhibit of the San Diego-Coronado Bay Bridge and a flow chart showing the Caltrans project delivery process.

In the 2017 November public outreach meetings, exhibits included study concepts as well as exhibits highlighting maintenance operations and potential impacts.

Input from agencies that currently respond to and have experience with suicides and suicide attempts associated with the Bridge was also an important factor in developing and evaluating alternatives. Multiple meetings were held with representatives from the CHP, San Diego Police Department, Coronado Police Department, San Diego Harbor Police, U.S. Coast Guard, Coronado Fire Department, U.S. Navy, San Diego County Suicide Prevention Council, and San Diego Fire-Rescue where their experiences with suicide incidents on the Bridge were shared and solutions were discussed. The input from these stakeholders groups helped develop the Final Feasibility Study Report.

The Draft Feasibility Study Report was published on the Caltrans website with an electronic comment form on March 19, 2018. Stakeholders and interested community members were informed, via press release, e-mail, and social media that the Draft Feasibility Study Report was open for review and commenting until April 3, 2018. The review and commenting period was open for 15 days. The Final Feasibility Study Report was published in May 2018.

4.2.2 Notice of Preparation and Public Scoping Meeting

As noted in Section 1.3, prior to refinements, the proposed project was initially anticipated to require preparation of an EIR in compliance with CEQA. While conceptual refinements allow the project to be adequately addressed under CEQA through preparation of this IS/MND, an NOP was originally prepared for the proposed project in English and Spanish. It was sent to resource agencies, elected officials, and other stakeholders by mail on Wednesday, June 10, 2020, and by email on Monday, June 15, 2020. The distribution list included groups, agencies, and individuals such as:

- San Diego County Suicide Prevention Coalition (Community Health Improvement Partners)
- Optum San Diego Access and Crisis Line
- Coronado Police Department
- San Diego Police Department
- CHP – San Diego
- North Island Naval Base
- Save Our Heritage Organization (SOHO)
- Coronado San Diego Bridge Collaborative for Suicide Prevention
- SANDAG
- Port of San Diego
- City of San Diego Historical Resources Board

- Barrio Logan Planning Group
- Chicano Park Steering Committee
- Dr. Alberto Pulido
- Sherman Heights Center
- Chicano Park Museum and Cultural Center
- Greater Logan Heights Neighborhood Council
- Assembly member Gonzalez Fletcher
- Senator Ben Hueso
- Assembly President ProTem Toni Atkins
- Assembly member Todd Gloria
- Councilmember Vivian Moreno
- San Diego Mayor's Office
- City of Coronado
- Coastal Commission
- County Behavioral Health Services

An advertisement was posted in the San Diego Union Tribune on June 11, 2020, in English and on June 13, 2020, in Spanish for the NOP of the Joint Environmental Impact Report/Environmental Assessment and Public Scoping Meeting for the San Diego-Coronado Bay Bridge Suicide Deterrent Project. The advertisements were also posted on the same dates listed above for the printed advertisements on the San Diego Union Tribune website. Both English and Spanish advertisements and English and Spanish NOPs were posted on the project website.

The project website is: <https://dot.ca.gov/caltrans-near-me/district-11/current-projects/coronadobridge>.

Due to concerns relating to the COVID-19 pandemic, a virtual scoping meeting was hosted in lieu of an in-person meeting. The virtual scoping meeting was hosted online by Caltrans on WebEx events and was open to members of the public. The meeting was held on June 25, 2020, from 5:00 p.m. to 7:00 p.m. The 2-hour meeting was in a presentation format and included the following information:

- Housekeeping rules
- Introductions
- Opening statements
- Pre-recorded presentation video
- Closing statements

Except for the presentation video, the majority of the meeting was live. The presentation video was a 30-minute pre-recorded video that played twice during the meeting and discussed the following topics:

- Purpose and need
- Project description
- Considerations
- Alternatives and design variations
- Environmental regulations, resources, and impacts

The meeting was recorded and posted on the Caltrans District 11 YouTube channel on Friday, July 3, 2020. YouTube includes auto-generated subtitles/ closed captions in English and can be translated to the various languages available on the platform. For Americans with Disabilities Act (or ADA) compliance, a transcript of the meeting has been available in English and Spanish upon request.

Comments

The public scoping period was 30 days between June 1, 2020 to July 14, 2020. There were four methods available for the public and agencies to submit comments, including mail, email, voicemail, and WebEx Chat. Comments received by these methods between June 15, 2020 and July 31, 2020, were accepted and considered for the development of the Draft Environmental Document.

Comments were submitted through the WebEx chat box during the June 25, 2020, public scoping meeting. Only written comments through the chat box were allowed because attendees were muted for the duration of the meeting. Select members of the PDT were on-hand to review and answer questions in the chat box. About 60 comments were received during the scoping meeting. A focused meeting was also held to further address comments received by specific community members.

After the public scoping meeting, comments were received through letters, voicemails, and emails. Notifications of the public scoping meeting were also posted on Twitter and Facebook. The notifications directed interested people to the project website for more information about the project and the public scoping meeting. A total of 32 comments about the project were received.

4.2.3 Public Review Period

The public review period for the Draft MND was from January 31, 2022 to March 1, 2022. Caltrans received a total of 74 written comments through email, mail, and online comment cards. These comments and Caltrans responses are included in Appendix C – Comment Letters and Responses. Pursuant to CEQA requirements, Caltrans complied with State Clearinghouse and San Diego County Clerk filing requirements for draft environmental documents. Confirmation that documents were received and posted as required was received from each agency on January 31, 2022, and March 7, 2022, respectively.

The public review period was publicized via notices in the San Diego Union Tribune in English on January 31, 2022, and Spanish on February 5, 2022. A notice in the Spanish newspaper El Latino was also published on February 4, 2022. The CEQA Notice of Intent was mailed and emailed to interested parties and individuals, including elected officials, resource agencies, and stakeholders. Approximately 3,200 informational postcards were also mailed to owners and occupants with available addresses within a ¼-mile radius of the project area. Flyers were posted at public locations in Coronado and Barrio Logan neighborhoods. These locations included Chicano Park, Cesar Chavez Park, North Gate Market, Logan Heights Family Health Center, Sherman Heights Community Center, Dolores Magdaleno

Memorial Recreation, Perkins Elementary School, Our Lady of Guadalupe Church, Burbank Elementary School, Rodriguez Elementary School, Logan Heights Library, The Boys and Girls Club, Coronado Public Library, Coronado Community Center, Glorietta Bay Marina, John D. Spreckels Center and Bowling Green, Coronado Tidelands Park, and Coronado Ferry Center. Each notice and/or informational posting included information on how to attend the virtual public meeting and the timeframe of the public review period. Caltrans also utilized social media such as Facebook, Instagram, and Twitter to notify the public about the public review period and virtual public meeting.

During the public review period, a copy of the draft environmental document was available on the Caltrans website. Hardcopies of the document were also available at the Logan Heights Branch Library, San Diego Central Library, Coronado Public Library, and Caltrans District 11 District Office.

The virtual public meeting was held on February 10, 2022, from 6 p.m. to 8 p.m., using the Zoom platform. Participants were offered the option of listening to the meeting in English or Spanish. The presentation slides also included all content in English and Spanish. In addition, closed captioning in English was available to participants during the meeting. There were 49 participants in attendance. The purpose of the meeting was to provide project updates and the environmental process and analysis, and provide a forum for the public to provide comments on or ask questions about the draft environmental document. The agenda for the meeting included housekeeping rules, opening remarks from District Director Gustavo Dallarda, project updates, live Q/A session, and closing remarks. Attendees had the opportunity to submit questions via the Zoom chat. Questions submitted were read and answered aloud by Caltrans staff. Caltrans received approximately 50 questions during the live meeting. A full recording of the meeting in English is available online at: <https://www.youtube.com/watch?v=avdvXhupJzI>. Select slides from the meeting were available for viewing online for the remainder of the public review period.

4.2.4 External Coordination – Focused Stakeholder Meetings

Focused meetings with resource agencies, stakeholders, and interested parties and individuals have been held throughout the project planning process. During these meetings, the PDT presented project updates and solicited input. These meetings were invite-only and not open to the public.

4.2.5 Design Charette (Summit)

In April 2019, a design charette was held with key stakeholders to advance solutions to implement a physical barrier that would be successful as a suicide deterrent. The goal of the summit was to utilize participant input to evaluate alternatives to be carried forward into the PID, and potentially into the design phase for the proposed project. Charette attendees included public and elected officials, the U.S. Navy, the Port of San Diego, SANDAG, environmental groups, public safety and first responders, and suicide prevention advocates. This interactive summit enabled the key stakeholders to reconvene and provide input on updated

alternatives identified after completion of the Feasibility Study.

4.2.6 Advisory Committee

The project Advisory Committee provides input to Caltrans on the selection of a suicide deterrent system for the Bridge. Caltrans has received input from a variety of members as a part of the committee. Representatives from the agencies and stakeholders listed below are invited to attend and ask questions. BS 656 required attendees included:

- County of San Diego
- Department of the California Highway Patrol
- City of San Diego (representative)
- City of San Diego (resident)
- City of Coronado (representative)
- City of Coronado (resident)
- Mental health advocate
- A member of a local suicide prevention group.
- A representative for each Assembly Member and State Senator whose district includes the San Diego-Coronado Bridge, to be selected by that Assembly Member or State Senator.

Other attendees included:

- California Coastal Commission
- SOHO
- San Diego Fire Rescue
- North Island Naval Base
- Local suicide prevention group
- Coronado Police Department
- Harbor Police Patrol
- U.S. Coast Guard
- San Diego Police Department

The first Advisory Committee meeting was a kick-off meeting on May 21, 2020, that introduced the proposed project, discussed the project history, preliminary visual simulations of the alternative concepts being considered, environmental process, schedule, and next steps of the process. This meeting was recorded; the recording was posted at a later date for the public to view and is available on the Caltrans District 11 YouTube.

Another meeting was held on November 18, 2020, to provide a summary of the public scoping period, environmental process status update, bridge structure constraints, maintenance operations, and preliminary engineering. This meeting was live streamed on the Caltrans District 11 YouTube channel. The recording was posted at a later date for the public to view and is available on the Caltrans District 11 YouTube channel.

A third meeting was held on October 14, 2021, to provide project updates including the proposed build alternative and the resulting streamlined environmental process. First responders also presented or discussed their operations and challenges on the Bridge. The first responders include CHP, San Diego Police Department, and San Diego Fire Rescue. The meeting was live streamed on the Caltrans District 11 YouTube channel. The recording was posted at a later date for the public to view and is available on the Caltrans District 11 YouTube channel.

A fourth meeting was held on May 2, 2022, to summarize the journey to date, provide project updates on the draft environmental document and public review period, and discuss the path forward. The meeting was live streamed on the Caltrans District 11 YouTube Channel. The recording was posted at a later date for the public to view and is available on the Caltrans District 11 YouTube channel.

4.2.7 First Responders

First responders were involved in initial meetings during the Feasibility Study Phase as noted above in Section 4.2.

The PDT has also been coordinating with first responders throughout the project during the PID and PA&ED Phases. In additional meetings, existing operations, procedures, logistics, and general concerns relating to suicides, negotiations, and body retrieval were discussed. This includes a focused meeting held to present updated information on the alternatives and provide a question-and-answer style discussion to document and understand how each alternative would potentially affect first responders' operations.

The first responders on this project include:

- CHP
- Coronado Police Department
- Coronado Fire Department
- San Diego Fire – Rescue Department
- San Diego Harbor Police
- San Diego Police Department

4.2.8 Chicano Park Steering Committee

A meeting was held with the Chicano Park Steering Committee on March 2, 2021, to keep the committee informed of the project updates, maintenance operations and considerations, current phase of the environmental process, and project alternatives. This meeting was streamed as a WebEx teleconference. The meeting provided a platform for the committee members to give their input.

4.2.9 Section 106 PA Historical Groups

As required by the Section 106 PA, Caltrans sent a letter to consulting historical parties about the proposed project on January 19, 2021. Caltrans hosted a virtual meeting with such consulting parties on April 22, 2021, to introduce the build alternative and solicit comments about the ability of the design to meet the Secretary of the Interior's Standards for the Treatment of Historic Properties. As a result of this meeting, the following issues were brought up for discussion: the potential impacts to Bridge character, historical features, and Chicano Park murals. Further, consulting parties vocalized maintaining the visual character of the skyline views from the Bridge. A total of 15 groups were included in the virtual meeting. Caltrans requested written comments from parties, and comments were received from three.

A focused stakeholder group meeting was set up with SOHO on July 14, 2021, to ensure SOHO's input was received by the project team and to allow the project team to communicate the proposed project's ability to meet the Secretary of the Interior's Standards. This meeting was specific to SOHO and not open to the general public. Two representatives from SOHO, along with representatives from Caltrans and IS Architecture, met and discussed the proposed project. SOHO did not submit written comments in response to this meeting.

4.3 Summary of Comments

This section summarizes public and agency comments related to the environmental issues. Public comments received during the public scoping process and public review period are summarized below. Comments not related to environmental impacts of the proposed project were considered but not included in this summary. In addition, comments related to technical issues (i.e., connecting to the meetings) were not added to the summary below.

- Include additional project components such as a phone on the Bridge to direct dial for the suicide prevention hotline, and additional cameras, or other measures to prevent pedestrians accessing the Bridge.
- Ensure project design meets national defense standards and evaluate approval needs.
- Evaluate potential impacts to Bridge character, historical features, parks and art murals, including visual character.
- Evaluate impacts to noise, air quality, wildlife, community, and land use.
- Evaluate feasibility of alternatives considered but eliminated from discussion. including the horizontal net alternative.
- Evaluate potential impacts to the Bridge viewshed aesthetic and view of the Bridge.
- Evaluate potential impacts to emergency services and the safety of first responders.
- Consider options to minimize traffic disruptions and bridge closures.

- Advance the project in an expeditious manner.

4.4 Continued Coordination

Continued external stakeholder involvement is planned for future phases to include members of law enforcement, government agencies, suicide prevention experts, elected officials, and community members.

Chapter 5 References

- AECOM. 2021. Natural Environment Study (Minimal Impacts) for the San Diego Coronado Bay Bridge Suicide Deterrent Project. November.
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List of Technical Studies

Noise and Vibration Review and Determination for EA 11-43063: SR-75 – Coronado Bridge Suicide Barrier. October 2021.

Updated Hazardous Waste Review (0-Phase). October 2021.

Climate Change Technical Study. January 2022.

Environmental Constraints Memorandum – Community Characteristics. November 2021.

Natural Environmental Study (Minimal Impacts). November 2021.

Visual Impact Assessment. January 2022.

Finding of No Adverse Effect with Standard Conditions for the San Diego-Coronado Bay Bridge Suicide Deterrent Project. October 2021.

Section 4(f) De Minimis Determination. January 2022.

Air Quality Review for SR-75-Coronado Bridge Suicide Barrier. January 2021.

To obtain a copy of one or more of these technical studies/reports or the Initial Study, please send your request to:

Matthew Voss
Senior Environmental Planner Department of Transportation
Caltrans District 11
4050 Taylor Street, MS 242
San Diego, CA 92110.

Or send your request via email to: matthew.voss@dot.ca.gov or D11.CoronadoBridge.ED@dot.ca.gov.

Please have “SDCBB Technical Study Request” in the subject and including in your request the name of the technical study, format (i.e., electronic or hardcopy), and the address the technical study should be sent to.

Or call: (858) 289-1276.

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Appendix A Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

Govin Newsom, Governor

DEPARTMENT OF TRANSPORTATION

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*Making Conservation
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September 2021

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

Caltrans will make every effort to ensure nondiscrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a nondiscriminatory manner.

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page:
<https://dot.ca.gov/programs/civil-rights/title-vi>.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at 1823 14th Street, MS-79, Sacramento, CA 95811; PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

A blue ink signature of Toks Omishakin, written in a cursive style.

Toks Omishakin
Director

"Provide a safe and reliable transportation network that serves all people and respects the environment."

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Appendix B Avoidance, Minimization, and/or Mitigation Summary

To be sure that all of the environmental measures identified in this document are executed at the appropriate times, the following mitigation program will be implemented. During project design, avoidance, minimization, and/or mitigation measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the proposed project. During construction, environmental and construction/engineering staff will ensure that the commitments contained in this program are fulfilled. Following construction and appropriate phases of proposed project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. As the following program is a draft, some fields have not been completed, and will be filled out as each of the measures is implemented. Note: Some measures may apply to more than one resource area. Duplicative or redundant measures have not been included in this program. Measures to mitigate a significant impact under CEQA are specifically identified in the text under each header, as appropriate.

Standard Measures and Best Management Practices

- Construction equipment and vehicles will be properly tuned and maintained, and will use low sulfur fuel as required by California Code of Regulations Title 17, Section 93114.
- Equipment and materials storage sites will be located as far away from residential and park uses as feasible, and construction areas will be kept clean and orderly.
- To the extent feasible, construction traffic will be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
- Minimization measures to ensure traffic impacts resulting from construction activities will be implemented with the Traffic Management Plan (TMP) including appropriate staging, timing, and sequencing of activities; maintenance of traffic in both directions; and advanced notification to motorists and nearby communities to inform the public of potential delays.

Air Quality

To ensure potential temporary effects to air quality during construction are minimized, the following avoidance and minimization measures will be implemented:

- The construction contractor must comply with the SDAPCD Rule 55 and Caltrans' Standard Specifications and Standard Special Provisions (SSP) (14-9). Section 14-9 includes specifications requiring compliance with applicable laws and regulations related to air quality, including air pollution control district, and air quality management district regulations and local

ordinances. Per Section 14-9, waste or material generated from construction activities will not be disposed of by burning. Because disturbed structural concrete will exceed 100 square feet, the SDAPCD will need to be notified under *SSP 14-9.02 Air Pollution Control* (NESHAP [National Emission Standards for Hazardous Air Pollutants] notification), even though no asbestos has been found in the concrete per the Asbestos Survey and Sampling Report (Kleinfelder 2022).

Biological Resources

Potential impacts to peregrine falcon from construction during the breeding season would be significant under CEQA. The following mitigation measure will be implemented to reduce project impacts to less than significant to the peregrine falcon during the enclosure of substructure bays and operations and maintenance (O&M) activities, if activities occur during the nesting season:

- Enclosure of the substructure bays and O&M activities under the bridge deck shall, to the extent feasible avoid the nesting season of the peregrine falcon (February 1 through August 30) to minimize disruption of nesting behavior. If the nesting season cannot be avoided, pre-construction surveys will be conducted by a qualified biologist to determine if peregrine falcons are present in areas potentially affected by these proposed project activities. If nesting birds are identified, an exclusion zone will be established around the active nest. The size of the exclusion zone will be determined by Caltrans in coordination with the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife, and will take into account existing noise levels at the nest location and the type of construction and O&M activities proposed near the nest. A qualified biologist will monitor construction and O&M activities in the area to confirm nesting falcons and/or their unfledged chicks and eggs are not impacted.

Cultural Resources

To ensure potential effects to cultural resources are minimized, the Secretary of Interior's Standards Action plan will implement the following:

- Pre-construction tasks will include Caltrans Professionally Qualified Staff (PQS) architectural historian oversight over the design refinements, along with documentation of the resources before construction.
- All final designs must be signed off by a Caltrans PQS-qualified architectural historian along with the Caltrans Environmental Branch Chief.
- All members of the design team (including engineers) shall be briefed on the character-defining features and the Secretary of Interior's Standards for Rehabilitation.
- Documentation of all resources within the APE shall occur before construction.

- Before construction, a construction liaison shall be identified and introduced to the Caltrans PQS-qualified architectural historian.
- All engineers, designers, and construction workers shall be introduced to the proper methods of treating and working around historic fabric, according to NPS guidelines.
- During construction, monitoring shall be done during work involving historic properties by a Caltrans PQS-qualified architectural historian. Any work that is found to not meet the Secretary of Interior's Standards (discovery) shall be brought immediately to the Caltrans Cultural Studies Office.
- After construction, monitoring logs and documentation shall be provided by the Caltrans PQS-qualified architectural historian.

Greenhouse Gas Emissions

To ensure that potential temporary effects to GHG emissions during construction and operation are minimized, the following avoidance and minimization measures will be implemented:

- Implement intelligent transportation systems and TMS elements to smooth traffic flow and increase efficiency.
- TMS elements will be solar powered to the maximum extent feasible.
- The construction contractor shall utilize alternative fuels such as renewable diesel for construction equipment when feasible.
- The contractor shall implement an idling limit of 5 minutes for delivery trucks and other diesel-powered equipment (with some exceptions).
- The contractor shall schedule truck trips outside of peak morning and evening commute hours and implement a TMP to minimize the effects to traffic.
- The construction contractor shall reduce construction waste.
- The construction contractor shall maximize improved fuel efficiency from construction equipment through ensuring that construction equipment is maintained and properly tuned and equipment has been correctly sized for the job.
- The construction contractor shall provide construction personnel with the knowledge to identify environmental issues and best practice methods to minimize impacts to the human and natural environment. Supplement existing training with information regarding methods to reduce GHG emissions related to construction.

Hazards and Hazardous Materials

As described above, to ensure potential effects involving hazardous materials/waste during construction are avoided or reduced, the following avoidance and minimization measures will be implemented:

- To prevent disturbed paint from exposing heavy metals, the implementation of Caltrans' designated Nonstandard Special Provision (NSSP) *14-11.13 Disturbance of Existing Paint Systems on Bridges* will be required.
- A Debris Containment and Collection Plan under SSP *14-11.13B(2)* will be required.
- A lead compliance plan will be required during construction requiring paint disturbance.
- Water or dust palliative will be applied to the site and equipment as often as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a "no visible dust" criterion either at the point of emissions or at the right-of-way line, depending on local regulations. Dust minimization measures as required by SSP *14-11.04* will be adhered to, as applicable.

Utilities and Service Systems

The following avoidance measures will be implemented to address potential impacts to utilities and emergency services during construction:

- Prior to construction activities, Caltrans will contact utilities, DigAlert services, and/or other applicable entities to mark underground facilities, as needed.
- Emergency service providers and first responders will be notified of construction sequencing and the potential for temporary lane closures and/or changes to traffic circulation, as identified in the TMP.

Appendix C Comment Letters and Responses

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