

Alternative 1B – Add Horizontal System to Outside Handrail

Alternative 1B would construct a new barrier on top of the outside handrail (and concrete rail at the north anchorage housing and north pylon) consisting of 3/8-inch diameter horizontal steel cables. The new barrier would extend 8 feet above the top of the outside handrail for a total height of 12 feet. The thin horizontal cables are situated between thicker, evenly spaced vertical rail posts on top of the outside handrail. While the horizontal addition to the outside handrail maintains the horizontal line form established by the public safety railing, the horizontal cables contrast with the strong verticality of the Bridge structures, such as the suspender ropes, light posts and Bridge towers. Additionally, transparent panels would be installed at the belvederes on both sides of the Bridge. A transparent winglet would be placed on top of the rail posts, with a slight concave curvature extending across the length of the suicide deterrent barrier. This addition of the transparent panels and winglet would introduce a new visual element to the Bridge. Refer to Chapter 1-Proposed Project, for a detailed description of Alternative 1B.

Views of the Bridge

In regards to the views towards the Bridge, Alternative 1B would primarily have minimally adverse visual impacts. Table 2.2-6 summarizes the overall visual impact of Alternative 1B to views of the Bridge. Figures 2.2-17 through 2.2-22 illustrate Alternative 1B from the views of the Bridge (Viewpoints 1 through 7). However, Alternative 1B would have an adverse visual impact from Viewpoint 4 (Vista Point) because the physical suicide deterrent system would be a co-dominant visual feature in a landscape with high viewer sensitivity, altering views of the Bridge and interfering with views of the larger landscape. Conversely, visual impacts from Viewpoint 2 (Baker Beach) would be negligible for Alternative 1B due to the distant viewing location, which affords low view blockage and high visual compatibility with the Bridge features and surrounding environment.

Due to the viewing distance from the views of the Bridge and the International Orange coloring of Alternative 1B, the horizontal cables would blend into the Bridge span and the existing vertical line form created by the suspender ropes and light posts. While the addition of the horizontal system would slightly elevate the horizontal line of the outside handrail across the entire Bridge span, the overall appearance of the Bridge would not noticeably change from the views of the Bridge. The transparent panels and winglet introduce some reflectivity to views of the Bridge; however, the transparency of these features substantially reduces their visibility at views of the Bridge.

Overall, the primary visual change associated with Alternative 1B to views towards the Bridge would be the appearance of a higher outside railing on the Bridge with the commensurate increased International Orange coloring to the landscape, representing a minimally adverse visual impact.

Table 2.2-6 Alternative 1B: Overall Visual Impact to Views of the Bridge

Viewpoint		Existing Condition		Proposed Condition			Visual Impact
No.	Location	Visual Quality	Viewer Exposure	Visual Compatibility	Visual Dominance	View Blockage	
1	Fort Point	High	High	Moderate	Subordinate	Moderate	Minimally Adverse
2	Baker Beach	Outstanding	High	High	Subordinate	Moderate	Minimally Adverse
3	North Fishing Pier	Moderate	High	Moderate	Subordinate	Low	Minimally Adverse
4	Vista Point	High	High	Moderate	Co-Dominant	Moderate	Adverse
5	Marin Headlands	Outstanding	High	Moderate	Subordinate	Moderate	Minimally Adverse
6	Boat View West	High	Moderate	Moderate	Subordinate	Moderate	Minimally Adverse
7	Boat View East	High	Moderate	Moderate	Subordinate	Moderate	Minimally Adverse



EXISTING



ALTERNATIVE 1B

**FIGURE 2.2-17
VIEWPOINT 1: FORT POINT - ALTERNATIVE 1B**



EXISTING



ALTERNATIVE 1B

FIGURE 2.2-18
VIEWPOINT 2: BAKER BEACH - ALTERNATIVE 1B



EXISTING



ALTERNATIVE 1B

VIEWPOINT 3: NORTH FISHING PIER - ALTERNATIVE 1B

FIGURE 2.2-19



EXISTING



ALTERNATIVE 1B

**FIGURE 2.2-20
VIEWPOINT 4: VISTA POINT - ALTERNATIVE 1B**



EXISTING



ALTERNATIVE 1B

FIGURE 2.2-21
VIEWPOINT 5: MARIN HEADLANDS - ALTERNATIVE 1B



EXISTING



ALTERNATIVE 1B

**FIGURE 2.2-22
VIEWPOINT 6: BOAT VIEW EAST - ALTERNATIVE 1B**

Views from the Bridge

Alternative 1B would primarily have adverse visual impacts to views from the Bridge, with the exception of a strongly adverse visual impact from Viewpoint 11 (Car View East) where the horizontal addition to the outside handrail would introduce the transparent winglet into the view and comprise a larger portion of the field of view than the existing elements. Table 2.2-7 summarizes the visual impacts of Alternative 1B to views from the Bridge. Figures 2.2-23 through 2.2-27 illustrate the visual impacts of Alternative 1B at views from the Bridge (Viewpoints 8 through 13).

Primary visual changes associated Alternative 1B to views from the Bridge include raising the height of the Bridge railing such that it would extend across a viewer's total field of view. The addition of the horizontal system to the outside handrail would be seen in the immediate foreground, representing a co-dominant to dominant visual feature in the landscape, depending on the viewing angle. Overall, Alternative 1B would have moderate view blockage and low visual compatibility with the existing landscape, with the exception of moderate compatibility at Viewpoints 12 and 13 (Sidewalk North and Sidewalk South).

The transparent winglets and transparent panels around the Bridge tower and at the belvederes (24 widened areas located on both the east and west sidewalks) would be visible at views from the Bridge and would contrast with the color and materials of the Bridge. While the horizontal cables are consistent with the horizontal line form established by the natural environment, such as the horizon of the blue green waters of the San Francisco Bay and Pacific Ocean, the horizontal cables contrast with the vertical Bridge towers, suspender ropes and light posts on the Bridge.

Although the horizontal addition to the outside handrail would extend across the an expanded field of view, the natural landscape features, such as the open water of San Francisco Bay and the Marin hills would still be visible through the horizontal addition. The thin horizontal cables, transparent winglet and transparent panels would allow the viewer to see through Alternative 1B.

Table 2.2-7 Alternative 1B: Overall Visual Impact to Views from the Bridge

Viewpoint		Existing Condition		Proposed Condition			Visual Impact
No.	Location	Visual Quality	Viewer Exposure	Visual Compatibility	Visual Dominance	View Blockage	
8	Car View West	Moderate	Moderate	Low	Co-Dominant	Moderate	Adverse
9	Car View Center	High	High	Low	Co-Dominant	Moderate	Adverse
10	Car View North	High	High	Low	Co-Dominant	Moderate	Adverse
11	Car View East	High	High	Low	Dominant	Moderate	Strongly Adverse
12	Sidewalk North	High	High	Moderate	Dominant	Moderate	Adverse
13	Sidewalk South	Outstanding	High	Moderate	Dominant	Moderate	Adverse



EXISTING



ALTERNATIVE 1B

**FIGURE 2.2-23
VIEWPOINT 8: CAR VIEW WEST - ALTERNATIVE 1B**



EXISTING



ALTERNATIVE 1B

**FIGURE 2.2-24
VIEWPOINT 9: CAR VIEW CENTER - ALTERNATIVE 1B**



EXISTING



ALTERNATIVE 1B

**FIGURE 2.2-25
VIEWPOINT 11: CAR VIEW EAST - ALTERNATIVE 1B**



EXISTING



ALTERNATIVE 1B

**FIGURE 2.2-26
VIEWPOINT 12: SIDEWALK VIEW NORTH - ALTERNATIVE 1B**



EXISTING



ALTERNATIVE 1B

**FIGURE 2.2-27
VIEWPOINT 13: SIDEWALK VIEW SOUTH - ALTERNATIVE 1B**

Alternative 2A – Replace Outside Handrail with Vertical System

Alternative 2A would construct a new vertical 12-foot-high barrier consisting of ½-inch diameter vertical steel rods painted International Orange. The replacement of the outside handrail with the vertical system visually thickens the height of the Bridge span across the San Francisco Bay. However, Alternative 2A remains consistent with the strong vertical line form created by the Bridge towers, suspender ropes and light posts on the Bridge. Transparent panels would also be installed along the upper 8 feet at the belvederes and towers on both sides of the Bridge, which would introduce a new visual element to the Bridge. Refer to Chapter 1 - Proposed Project, for a detailed description of Alternative 2A.

Views of the Bridge

In regards to the views towards the Bridge, Alternative 2A would primarily have minimally adverse visual impacts. However, Alternative 2A would have an adverse visual impact from Viewpoint 4 (Vista Point) because the physical suicide deterrent system would be a co-dominant visual feature in a landscape with high viewer sensitivity, altering views of the Bridge and interfering with views of the larger landscape.

Conversely, visual impacts from Viewpoint 2 (Baker Beach) would be negligible for Alternative 2A due to the distant viewing location, which affords low view blockage and high visual compatibility with the Bridge features and surrounding environment. Table 2.2-8 summarizes the overall visual impact of Alternative 2A to views of the Bridge. Figures 2.2-28 through 2.2-33 illustrate the visual impacts of Alternative 2A from views of the Bridge (Viewpoints 1 through 7).

Due to the viewing distance at the views of the Bridge and the International Orange coloring of Alternative 2A, the vertical replacement system would blend into the Bridge span and the existing vertical line form created by the suspender ropes and light posts. While the vertical replacement system would slightly elevate the horizontal line of the outside handrail across the entire Bridge span, the overall appearance of the Bridge would not substantially change.

Overall, the primary visual change associated with Alternative 2A to views towards the Bridge would be the appearance of a higher outside railing on the Bridge with the commensurate increased International Orange coloring to the landscape.

Table 2.2-8 Alternative 2A: Overall Visual Impact to Views of the Bridge

Viewpoint		Existing Condition		Proposed Condition			Visual Impact
No.	Location	Visual Quality	Viewer Exposure	Visual Compatibility	Visual Dominance	View Blockage	
1	Fort Point	High	High	Moderate	Subordinate	Moderate	Minimally Adverse
2	Baker Beach	Outstanding	High	High	Subordinate	Moderate	Minimally Adverse
3	North Fishing Pier	Moderate	High	Moderate	Subordinate	Low	Minimally Adverse
4	Vista Point	High	High	Moderate	Co-Dominant	Moderate	Adverse
5	Marin Headlands	Outstanding	High	Moderate	Subordinate	Moderate	Minimally Adverse
6	Boat View West	High	Moderate	Moderate	Subordinate	Moderate	Minimally Adverse
7	Boat View East	High	Moderate	Moderate	Subordinate	Moderate	Minimally Adverse



EXISTING



ALTERNATIVE 2A

**FIGURE 2.2-28
VIEWPOINT 1: FORT POINT - ALTERNATIVE 2A**



EXISTING



ALTERNATIVE 2A

FIGURE 2.2-29
VIEWPOINT 2: BAKER BEACH - ALTERNATIVE 2A



EXISTING



ALTERNATIVE 2A

VIEWPOINT 3: NORTH FISHING PIER - ALTERNATIVE 2A

FIGURE 2.2-30



EXISTING



ALTERNATIVE 2A

**FIGURE 2.2-31
VIEWPOINT 4: VISTA POINT - ALTERNATIVE 2A**



EXISTING



ALTERNATIVE 2A

FIGURE 2.2-32
VIEWPOINT 5: MARIN HEADLANDS - ALTERNATIVE 2A



EXISTING



ALTERNATIVE 2A

**FIGURE 2.2-33
VIEWPOINT 6: BOAT VIEW WEST - ALTERNATIVE 2A**

Views from the Bridge

Alternative 2A would primarily have adverse visual impacts to views from the Bridge, with the exception of a strongly adverse visual impact from Viewpoint 11 (Car View East) where the horizontal replacement of the outside handrail would comprise a larger portion of the field of view than the existing elements. Table 2.2-9 summarizes the visual impacts of Alternative 1B to views from the Bridge. Figures 2.2-34 through 2.2-38 illustrate visual impacts to views from the Bridge as a result of Alternative 2A.

Primary visual changes associated Alternative 2A to views from the Bridge include raising the height of the outside handrail such that it would extend across a viewer's total field of view. The vertical replacement system of the outside handrail would be seen in the immediate foreground, representing a co-dominant to dominant visual feature in the landscape, depending on the viewing angle.

Overall, Alternative 2A would have moderate view blockage and low visual compatibility with the existing landscape, with the exception of moderate compatibility at Viewpoints 12 and 13 (Sidewalk North and Sidewalk South). The transparent panels at the belvederes (24 widened areas located on both the east and west sidewalks) would also be visible at views from the Bridge and would contrast with the color and materials of the Bridge. While the vertical replacement system maintains consistency with the strong verticality of the Bridge features, such as the suspender ropes, light posts, and Bridge towers, the vertical rods contrast with the horizontal line form established by the natural and built environment seen from the Bridge, such as the blue-green waters of the San Francisco Bay and the cityscape of San Francisco.

Although the vertical replacement of the outside handrail would extend across the expanded field of view, the natural landscape features, such as the open water of San Francisco Bay and the Marin Headlands would still be visible through the vertical replacement system of Alternative 2A.

Table 2.2-9 Alternative 2A: Overall Visual Impact to Views from the Bridge

Viewpoint		Existing Condition		Proposed Condition			Visual Impact
No.	Location	Visual Quality	Viewer Exposure	Visual Compatibility	Visual Dominance	View Blockage	
8	Car View West	Moderate	Moderate	Low	Co-Dominant	Moderate	Adverse
9	Car View Center	High	High	Low	Co-Dominant	Moderate	Adverse
10	Car View North	High	High	Low	Co-Dominant	Moderate	Adverse
11	Car View East	High	High	Low	Dominant	Moderate	Strongly Adverse
12	Sidewalk North	High	High	Moderate	Dominant	Moderate	Adverse
13	Sidewalk South	Outstanding	High	Moderate	Dominant	Moderate	Adverse



EXISTING



ALTERNATIVE 2A

**FIGURE 2.2-34
VIEWPOINT 8: CAR VIEW WEST - ALTERNATIVE 2A**



EXISTING



ALTERNATIVE 2A

**FIGURE 2.2-35
VIEWPOINT 9: CAR VIEW CENTER - ALTERNATIVE 2A**



EXISTING



ALTERNATIVE 2A

**FIGURE 2.2-36
VIEWPOINT 11: CAR VIEW EAST - ALTERNATIVE 2A**



EXISTING



ALTERNATIVE 2A

**FIGURE 2.2-37
VIEWPOINT 12: SIDEWALK VIEW NORTH - ALTERNATIVE 2A**



EXISTING



ALTERNATIVE 2A

**FIGURE 2.2-38
VIEWPOINT 13: SIDEWALK VIEW SOUTH - ALTERNATIVE 2A**