

### **3 ALTERNATIVES**

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Two alternatives to the proposed Beacon's Beach Access Project (project) have been identified and developed at a conceptual level. A third, the No Project Alternative, will also be discussed as required by the California Environmental Quality Act (CEQA). A description of these alternatives, followed by an analysis of potential environmental impacts, is presented in this section.

#### **3.1 ALTERNATIVE A—ELEVATED WOOD STAIRS, NO SHORELINE PROTECTION**

Alternative A is shown on Figure 3.1-1. Under this alternative, an elevated stairway across the southern portion of the bluff face is proposed to provide access to the beach. The elevated stairway would be constructed of wood beginning at a point approximately 20 feet beyond the edge of the walkway at the top of the bluff, and would continue to the toe of the bluff at the beach. A series of landings would be installed along the wood stairway to allow for construction along the steep bluff face. The stairway would terminate at a landing at the beach. This alternative does not include shoreline protection, such as a seawall or other structure. It also does not include a lifeguard tower or public shower. All other aspects of this alternative are similar to the proposed project.

This alternative would not meet the project objectives of protecting public access, stabilizing the bluff, and minimizing the risk of landslides because no bluff protection wall is proposed. This alternative would meet the project objective of restoring public access to the beach; however, even this objective would be compromised and temporary due to the lack of shoreline protection and bluff stabilization.

##### **3.1.1 Geology and Soils**

The reconfiguration of the parking lot at the top of the bluff along Neptune Avenue is designed such that the new parking area would be set back approximately 5 to 15 feet from the existing seaward extent of the parking lot. Accordingly, this aspect of Alternative A would not cause significant impact to the geologic environment. Furthermore, the drainage improvements associated with this alternative would decrease the potential for groundwater to build up and cause activation of the landslide, as well as reduce the potential for surficial erosion of the reconstructed slope face.

The proposed trail improvements associated with this alternative would essentially confine the new landings and elevated stairway to the southern portion of the existing slope. No additional fill is proposed to stabilize the bluff face and to prevent erosion of the toe of the landslide. Accordingly, no significant impact to the geologic environment would be created.

The proposed drainage improvements include the addition of storm drain inlets and pipelines. These are not anticipated to create a significant impact to the geologic environment.

This alternative would have less impact on beach erosion than the proposed project because no bluff protection wall would be constructed. Impacts caused by the bluff protection wall, such as passive erosion of the beach, end scour, and erosion of the tidal terrace, would not occur under this alternative.

### **3.1.2 Visual Quality/Aesthetics**

Because the parking lot would be reconfigured in the same manner as the proposed project, visual impacts for this aspect of Alternative A would be the same. The visual impact of the elevated wood stairway and landings along the southern portion of the bluff face would be greater than the compacted earth pathway proposed under the proposed project. The elevated wood stairway would provide a higher degree of contrast compared to a natural earth pathway. However, because the stairway would be positioned along the southern portion of the bluff face and there are stairways along bluff faces in nearby visual character units, this impact would not be considered significant. Because Alternative A does not include shoreline protection, no visual impact from a seawall would occur under this alternative. Similarly, a lifeguard tower and public shower are not proposed under this alternative and no visual impacts would occur from these facilities. Therefore, this alternative would result in less visual impacts than the proposed project.

### **3.1.3 Water Quality**

Water quality impacts for Alternative A would be similar to those described for the proposed project because no change in drainage or stormwater retention or treatment is proposed under this alternative.

### **3.1.4 Recreation**

Impacts to recreation as a result of Alternative A would be similar to the proposed project because the time to construct the project would be similar. Public access to the project site would be precluded for the nine-month construction period. Recreational users would need to access the beach via alternative routes and no public parking would be provided during this time. There would be five fewer parking spaces following completion of construction of this alternative. These impacts are the same as for the proposed project. However, because the bluff would not be stabilized through the use of a bluff protection wall, recreational impacts would be greater than the proposed project due to the potential for bluff failures to impede beach access and cause safety concerns for recreational users. Consequently, this project alternative would have greater recreation impacts.

### **3.1.5 Public Safety**

Public safety impacts would be similar under Alternative A to the proposed project because construction activities would be similar in nature. Because no seawall would be constructed under this alternative, less intensive construction activities would occur on the beach compared to the proposed project. However, construction of the elevated stairway would require beach access and the use of a safety zone at the beach during construction activities similar to that required for the proposed project. As with the case for recreational use, the lack of a bluff

**Figure 3.1-1: Alternative A—Elevated Stairs with No Shoreline Protection**

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protection wall and the potential for continued bluff instability would continue to be a public safety concern. Consequently, this project alternative would have greater public safety impacts.

### **3.1.6 Paleontological Resources**

Impacts to paleontological resources would be similar to the proposed project because excavation would be required for pilings and other subsurface structures. However, less excavation would be anticipated in the Santiago formation compared to the proposed project because no seawall is proposed.

## **3.2 ALTERNATIVE B—ADA-ACCESSIBLE PATH AND SHORELINE PROTECTION**

Alternative B includes an Americans with Disabilities Act (ADA)-compliant concrete path traversing the bluff face in a zigzag manner from the parking area to the beach (see Figure 3.2-1). To meet ADA requirements, the slope of the path would be a constant 8.33 percent for the length of the path. This alternative would also feature concrete stairs combined with a series of landings traversing the center of the bluff face from the parking area to the beach. Other features of this alternative would be similar to the proposed project.

This alternative would meet all project objectives because it would restore and protect public access to the beach, improve public safety by stabilizing the bluff, and minimize the risk of landslides.

### **3.2.1 Geology and Soils**

The reconfiguration of the parking lot at the top of the bluff along Neptune Avenue is designed such that the new parking area would be set back approximately 5 to 15 feet from the existing seaward extent of the parking lot. Accordingly, this portion of Alternative B would not cause significant impact to the geologic environment. Furthermore, the drainage improvements associated with this alternative would decrease the potential for groundwater to build up and cause activation of the landslide, as well as reduce the potential for surficial erosion of the reconstructed slope face.

The proposed trail improvements associated with this alternative would essentially return the pathway to the current location but would incorporate more switchbacks since the gradient of the ADA pathway would have to be less steep than the non-ADA trail proposed under the proposed project. Additional fill is proposed landward of the seawall. This fill would essentially return the slope inclination to its pre-landslide configuration. The fill would also cover up the existing earth materials composing the bluff face. These earth materials do not possess unique geologic features of unusual scientific value for study or interpretation (Kennedy, 1975). Accordingly, no significant impact to the geologic environment would be created, although the ADA pathway would create a greater potential for erosion at the endpoint of the switchbacks, but less potential for overall erosion along the pathways (since the gradient would be less than in the proposed project).

The proposed drainage improvements include the addition of storm drain inlets and pipelines. These are not anticipated to create a significant impact to the geologic environment.

For a discussion of the impacts of a shoreline protection device associated with this alternative, see Chapter 2—Environmental Impact Analysis. Impacts to shoreline erosion from this alternative are the same as for the proposed project.

### **3.2.2 Visual Quality/Aesthetics**

Because the parking lot would be reconfigured in the same manner as the proposed project, visual impacts for this aspect of Alternative B would be the same as for the proposed project. The visual impact of the elevated concrete stairway and landings across the middle portion of the bluff face would be greater than the compacted earth pathway proposed under the proposed project because the concrete structure would be more visible from virtually all key viewpoints. The concrete path traversing the bluff face would also result in greater contrast to the bluff face than the compacted earth pathway. The elevated concrete stairway would provide a higher degree of contrast with the bluff face compared to a natural earth pathway. The visual impacts of this alternative would be considered significant because the line, form, and contrast of the stairway through the middle portion of the bluff and the concrete path traversing the bluff would conflict with the natural appearance of the bluff face. The use of colored concrete to match the natural bluff coloration would minimize visual the impact of this alternative; however, this mitigation would not reduce the visual impact of this alternative to less than significant levels.

### **3.2.3 Water Quality**

Water quality impacts for Alternative B would be similar to those described for the proposed project because no change in drainage or stormwater retention or treatment is proposed under this alternative.

### **3.2.4 Recreation**

Impacts to recreation would be similar for this alternative to the proposed project because the time to construct the project would be similar. Public access to the project site would be precluded for the nine-month construction period. Recreational users would need to access the beach via alternative routes and no public parking would be provided during this time. There would be five fewer parking spaces following completion of construction of this alternative. These impacts are the same as for the proposed project.

### **3.2.5 Public Safety**

Public safety impacts resulting from Alternative B would be similar to the proposed project because construction activities would be similar in nature. There would be more truck traffic compared to the proposed project due to the construction of the concrete stairway and pathway. However, this increased traffic would be managed in accordance with traffic safety measures implemented for the project and would not result in significant impacts.

**FIGURE 3.2-1: Alternative B—ADA-Accessible Path with Shoreline Protection**

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### **3.2.6 Paleontological Resources**

Impacts to paleontological resources would be similar to the proposed project because excavation would be required for pilings and other subsurface structures in the Santiago formation.

### **3.3 ALTERNATIVE C—NO PROJECT**

The No Project Alternative would maintain the status quo with respect to the parking area, bluff landscaping and drainage, and beach access. No bluff stabilization measures would be implemented and erosion and bluff failures would continue unabated at a rate similar to the historical frequency of these events. If erosion and bluff failure continue to occur, parking facilities may be undermined and the bluff face may become too unstable to allow continued access by the public. Based on an estimated average rate of erosion of sea cliffs and bluffs with characteristics found at Beacon's Beach, an additional 5 to 10 feet of bluff retreat would undermine the existing sidewalk adjacent to the parking lot within approximately 10 to 20+ years (see Appendix B for a description of bluff retreat rate estimation methods).

This alternative would not meet project objectives because it would not restore and protect public access to the beach, improve public safety by stabilizing the bluff, or minimize the risk of landslides.

#### **3.3.1 Geology and Soils**

The No Project Alternative would allow an unstable geologic situation at the site to continue with a resulting decrease in safety of the landslide due to erosion at the toe of the landslide from undercutting and wave action. This would ultimately cause sloughing of the terrace materials and undermining of the street and parking areas. As erosion of the base of the bluff progresses, block falls of the Ardath Shale, as well as activation of the Beacon's Beach Landslide, would become more likely. Without the drainage improvements of the proposed project, surface erosion, and ultimately, large-scale failure of the terrace deposits and parking area would likely follow. Since this alternative would result in a potential slope failure, this would be considered a significant impact.

In general, the No Project Alternative would not be affected by geohazards, such as ground rupture or liquefaction. However, earthquake-induced ground shaking, flooding, and tsunamis would have a significant (negative) effect on the bluff toe area and bluff face if a shoreline protective structure was not constructed. Warning signs or buffer zones would have to be established near the base of the bluff and top of the slope to reduce the potential for injury to the public by eroding soil or block falls. The parking area along Neptune Avenue would eventually have to be closed to vehicular access. As bluffs crumbled or otherwise gave way to the forces of coastal erosion, people along the beach would be exposed to the risk of injury or possibly even death. Safe buffer zones would need to be established at the base of the bluff for public safety. Additional signage and lifeguard patrol services may be necessary to warn the public and monitor these safe buffer zones. The parking area along Neptune Avenue, as well as utilities in

the street, may have to be removed so that bluff retreat would not cause a safety hazard when the bluff (and the improvements supported by the bluffs) would eventually fail.

This alternative would have less impact on beach erosion than the proposed project because no bluff protection wall would be constructed. Impacts caused by the bluff protection wall, such as passive erosion of the beach, end scour, and erosion of the tidal terrace, would not occur under this alternative.

### **3.3.2 Visual Quality/Aesthetics**

There would be no short-term change to visual quality as a result of the No Project Alternative. However, because it is likely that bluff failures would continue to occur, eventually resulting in the closure of the parking area and the potential abandonment of the bluff access path, the bluff face would resemble naturally eroding bluffs without evidence of manmade facilities. Erosion of the bluff face would continue to cause rills and gullies in the bluff and hinder the reestablishment of vegetation. This alternative would result in less visual impact compared to the proposed project.

### **3.3.3 Water Quality**

No change in water quality would occur as a result of the No Project Alternative. Drainage of stormwater from the parking area and discharge to the base of the bluff would continue to occur as under current conditions. No improvement in water quality would result from this alternative compared to the proposed project. Therefore, impacts to water quality are greater for this alternative than the proposed project.

### **3.3.4 Recreation**

Because it is likely that bluff failures would continue to occur, eventually resulting in the closure of the parking area and the potential abandonment of the bluff access path, recreational use of the bluff top and face could be significantly impacted. This would also extend to the beach because buffer zones would need to be established near the base of the bluff to protect the public from landslides and reduce the beach available for public use (see discussion in Section 3.3.1). Therefore, impacts from this alternative are significantly greater than for the proposed project.

### **3.3.5 Public Safety**

Because it is likely that bluff failures would continue to occur, precautions would need to be taken to warn the public and limit access to portions or the entire parking area and bluff face, as well as a sufficient buffer area at the base of the bluff. Therefore, impacts from this alternative are significantly greater than for the proposed project.

### **3.3.6 Paleontological Resources**

No impact to paleontological resources would occur as a result of the No Project Alternative.

### 3.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

In accordance with CEQA Guidelines Section 15126.6(e)(2), a comparison of the alternatives has been conducted to determine the environmentally superior alternative. The comparison of the alternatives is summarized in Table 3.4-1. The method used to compare the alternatives is a qualitative assessment of the impacts of each alternative relative to the proposed project. Impacts are categorized as being “greater”, “lesser”, or “similar” compared to the proposed project. Based on this system, Alternative A would have two lesser impact categories (Geology/Soils and Visual Quality/Aesthetics) compared to the proposed project and two greater impact categories (Recreation and Public Safety). Alternatives B and C have the same number of greater impact categories (two) and are considered inferior to Alternative A from an impact standpoint. Therefore, Alternative A is rated as the best performing of the three alternatives considered. However, Alternative A does not meet most of the project objectives because no bluff protection wall is proposed that would serve to stabilize the bluff and minimize the risk of landslides.

**Table 3.4-1: Comparison of Alternatives**

<b>Project Alternative</b>	<b>Geology/ Soils</b>	<b>Visual Quality/ Aesthetics</b>	<b>Water Quality</b>	<b>Recreation</b>	<b>Public Safety</b>	<b>Paleontological Resources</b>
Alternative A	Lesser	Lesser	Similar	Greater	Greater	Similar
Alternative B	Similar	Greater	Similar	Similar	Similar	Greater
Alternative C	Lesser	Lesser	Lesser	Greater	Greater	Lesser

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