National Park Service
U.S. Department of Interior

NPS Cosco Busan Recreational Use Program

Rehabilitate the Historic Promenade Public Walkway at Aquatic Park
Final Programmatic Report

September, 2019

Recipient Park Unit:	San Francisco Maritime National Historical Park
Project Location:	Aquatic Park, San Francisco, CA
Date Approved:	January 8, 2013
Project Period:	July 2014 – May 2017
Award Amount:	$1,500,000
Funding Allocations:	FY2014 $175,000
	FY2015 $1,325,000
Total Expended:	$1,500,000
Matching Contribution:	$825,075
Fund Source:	National Park Service Historic Leasing
Project Number:	PHP0202335

1. Summary of Accomplishments

This project rehabilitated the Promenade along the shoreline at Aquatic Park within the San Francisco Maritime National Historical Park (SFMNHP), by removing one-quarter mile of historic railroad track and ties, and the associated deteriorated pavement and concrete. The deteriorated track alignment was replaced with a smooth concrete surface, vastly improving safety and accessibility for over a million visitors a year, from all over the world, who use the Promenade for walking, bicycling, swimming, boating, and enjoying the beach and the waterfront scenery.

2. Project Activities & Outcomes

Project Purpose

The purpose of this project was to rehabilitate the Aquatic Park Promenade to improve safety and accessibility for visitors and employees while preserving cultural resources important to retaining the integrity and historic character of the Aquatic Park National Historic Landmark District, which was designated in 1987.

Historic Context

Aquatic Park is a historic designed landscape located within San Francisco Maritime National Historical Park. The Landmark District's period of significance spans from 1920 (initial plan and construction) to 1945 (the end of World War II and military use of the site). It is significant in the areas of community planning and development by the Works Progress Administration (WPA) and the Federal Art Project during the 1930s. The designed landscape of Aquatic Park includes its historic circulation systems, open spaces, planted areas, and several significant structures including piers, retaining walls, unique outbuildings, and the *streamline moderne* bathhouse which now houses the maritime museum.

The historic railroad tracks along the promenade were originally part of the State Belt Railroad of California and extended along the San Francisco waterfront from the Embarcadero, through Aquatic Park and the Fort Mason tunnel to lower Fort Mason and the Presidio. The State Belt Railroad tracks are a contributing feature to both the Aquatic Park National Historic Landmark (NHL) District and to the San Francisco Port of Embarkation, U.S. Army NHL. This railroad was originally constructed as a single standard-gauge track on a trestle over the Aquatic Park lagoon in 1914, but was relocated and incorporated into the Beach Promenade during development of the park in the 1930s. The tracks were paved over in the late 1970s when the railroad was no longer in use. However, the condition of the tracks and the Promenade surface deteriorated over time resulting in an uneven surface for pedestrians, bicyclists and other Promenade users.

Aquatic Park has been an important waterfront recreational destination for San Francisco since the mid 1800's. Located just east of a rocky point that provided shelter from waves, the area occupies the location formerly known as Black Point Cove. Its sandy beaches and proximity to the city made it a favored recreational destination. Calls to formalize the area into a waterfront park began in the 1850's and design proposals from notable architects and designers followed in 1866 (Frederick Law Olmstead) and 1905 (Daniel Burnham). After a short-lived construction effort stalled in 1920, it was another 11 years (1936) until financing and labor provided by the WPA was made available to the city of San Francisco and construction of Aquatic Park began.

Like many San Francisco waterfront locations, Aquatic Park has been dramatically altered by historic land use. Beginning in the 1850s business owners began filling the cove to expand the buildable surface and stabilize the shoreline. Bulkheads and

wharves pushed out into the cove. As the surrounding shoreline was altered and developed, excess materials were dumped into the cove. Even more dramatic changes occurred with extensive dumping of debris following the 1906 San Francisco earthquake and fire. Much of the rock and clay excavated during construction of the Fort Mason railroad tunnel beginning in 1914 was dumped into the cove. In the early 1930s, thousands of yards of fill were placed to form a broad platform to extend Van Ness Avenue, and cobblestones salvaged from reconstructed San Francisco streets were hauled to the site and stockpiled in the park. This was followed by construction of a crude seawall around the shoreline to hold the unconsolidated fill.

Aquatic Park Promenade Use and Issues

Today, Aquatic Park remains a unique recreational and cultural resource along the San Francisco waterfront. The Aquatic Park Promenade is a multi-use, accessible path, open free of charge, 24 hours a day, every day of the year. The Promenade is part of the San Francisco Bay Trail and serves as a critical link for pedestrians and bicyclists between Fishermen's Wharf and other popular destinations including Crissy Field and the Golden Gate Bridge. An estimated 1.5 to 2.5 million visitors a year, from all over the world, use Aquatic Park for walking, bicycling, boating, swimming, enjoying the waterfront scenery, or playing on the beach with children or dogs. Boating and swimming clubs access the water from the Promenade on a daily basis. The Aquatic Park bleachers and the Promenade serve as popular viewing locations for special events such as the 4th of July fireworks, Fleet Week, and running and boating events.

The condition of the Aquatic Park Promenade gradually deteriorated over time due to age, the unconsolidated underlying substrate, water intrusion, general weathering, exposure to the sea and salt environment, and use by vehicles. The deteriorated pavement along the historic State Belt Railroad tracks resulted in an uneven surface for pedestrians, bicyclists and other Promenade users. The mix of uses, including tourists, beachgoers, National Park Service (NPS) employees and vehicles, bicycle rental customers, bicycle commuters and recreationists, and the general public, required users to move out of the way quickly for each other, often unaware of obstacles, such as the uneven railroad tracks and pavement. The tracks were especially hazardous during wet conditions common in San Francisco. Accidents and near misses between bicyclists and pedestrians were a frequent occurrence and several led to legal action against the NPS. A variety of repairs including surface patching with asphalt and signage to highlight the presence of the tracks did not result in long-lasting improvements. Furthermore, a service road route leading west from the Promenade to Van Ness Avenue was difficult for wheelchair users to navigate due to the uneven surface.

Aquatic Park Promenade Rehabilitation Project

Improvements to the Aquatic Park Promenade were funded by a mix of NPS funds and Cosco Busan restoration funds. The Cosco Busan project funded schematic design, hazardous materials testing, construction documents, and most of the construction. This included removal of one-quarter mile of railroad tracks and resurfacing of the track area with asphalt from Jefferson Street to Van Ness Avenue. The project also re-

graded the Service Road route, just south of the West Roundhouse, extending the Promenade west to Van Ness Avenue to meet current accessibility requirements. It also addressed areas where the existing paved surface had subsided by removing the subsided material, preparing the subgrade and resurfacing these areas. The contractor was required to ensure proper hazardous materials controls and disposal during the course of the work. NPS historic leasing funds were used to complete conceptual designs, and conduct National Environmental Policy Act (NEPA), archeological and National Historic Preservation Act (NHPA) compliance. NPS funds were also used to upgrade the final surface material from asphalt to concrete for the entire length of the project.

NHPA compliance resulted in a determination by the State Historic Preservation Officer that the project would have an adverse effect on contributors to the Aquatic Park NHL District and the San Francisco Port of Embarkation NHL. Mitigation of the adverse effects included, among other requirements, recordation by photography and drawings, conducted according to established standards, of the Beltline Railroad tracks within Aquatic Park, and its associated features, prior to construction. The location of the historic railroad tracks is lightly etched into the new concrete surface. The park must also interpret the Beltline Railroad and Port of Embarkation to the public as part of the exhibit program of the Aquatic Park NHL District.

3. Benefits

The removal of the railroad tracks and ties, and resurfacing of the track line with concrete has vastly improved visitor safety for the millions of visitors that use the Promenade every year, reducing accidents and injuries to visitors and park staff. The rehabilitation provides universal accessibility and a greatly improved experience for all visitors. The surface of the path is much more uniform and pleasing in appearance. The new concrete surface will greatly reduce the need for patching and maintenance of the path, and extend the service life of the walkway. Lastly, the project has reduced the liability the NPS sustains when accidents and injuries result in lawsuits against the park.

4. Lessons Learned

The original 2013 scope of the Aquatic Park Promenade project included a much more comprehensive rehabilitation of the Promenade. The larger project would have removed the tracks from the Promenade and the Service Road. To reduce conflicts between pedestrians and bicyclists the project also proposed to realign a narrow bottleneck where the Promenade splits into two forks by removing a portion of retaining wall, adding a new retaining wall, removing some granite edging blocks, making landscape modifications, and repaving the entire width of the Promenade with thicker concrete pavement. While the pavement was removed, the intent was to repair and replace underground infrastructure including stormwater drain lines and electrical conduit between the historic streetlights. An additional $1.5 million had been available from other fund sources to address the original project scope.

The project scope was reduced following soils testing which revealed the presence of hazardous materials. During Title II design work in 2015, the NPS contracted for soils testing to determine if any hazardous materials were present along the tracks. Unfortunately, the site investigations revealed serious lead and hydrocarbon contamination throughout the site that would need to be addressed prior to working on the underground infrastructure. Although the extent of contamination was not surprising given the long history of landscape alterations to Black Point Cove, available project funding was not sufficient to address the issue..

Given the extent of the contamination and the lengthy process and additional costs required to plan for and conduct remediation, the NPS Regional Office withdrew approximately $1 million that had been designated for the project. The project was re-scoped to focus on mitigating the immediate safety hazards to the public and park staff, while minimizing the amount of hazardous materials the project would need to address. The final scope of work was limited to the removal of the asphalt, rails and ties along the rail corridor, and resurfacing of the removal area with concrete. The final project was also able to properly address and remove hazardous materials encountered in the more limited work area. The more extensive subsurface contamination remains in place, but is not a public health and safety issue as long as it remains covered by the Promenade surface. Fortunately, the re-scoped project was similar to Alternative 3 that was analyzed in the Environmental Assessment that was finalized in February 2015, so no additional NEPA or NHPA compliance was required.

5. Funding acknowledgement

Funding for this recreational use restoration project was provided, in part, by the Cosco Busan Trustee Council comprised of the California Department of Fish and Wildlife, the California State Lands Commission, the National Oceanic and Atmospheric Administration, and the Department of the Interior through the U.S. Fish and Wildlife Service and the National Park Service. Cosco Busan funds were used to complete conceptual design and construction documents, as well as track removal, re-grading and resurfacing of the Promenade.

In addition to Cosco Busan funding, SFMNHP historic leasing monies funded contract management by the NPS Denver Service Center, Title 1 Schematic Design, NEPA and NHPA compliance, a circulation management study in support of the project, and upgrading of the final surface from asphalt to concrete.

6. Figures

Figure 1. Map of San Francisco Maritime National Historical Park with the Promenade project area highlighted in blue

Figure 2. Children sitting on the Aquatic Park Promenade along the beach viewing the historic ships

Figure 3. People walking and cycling on the Promenade with rental bikes parked along the shoreline

Figure 4. Some of the many different users of Aquatic Park Promenade – cyclists, walkers, and beachgoers, with a Use Caution sign indicating the railroad tracks

Figure 5. Aquatic Park filled with visitors for a special event – most likely during Fleet Week

Figures 6 and 7. The uneven surface and railroad tracks that visitors had to navigate along the Aquatic Park Promenade

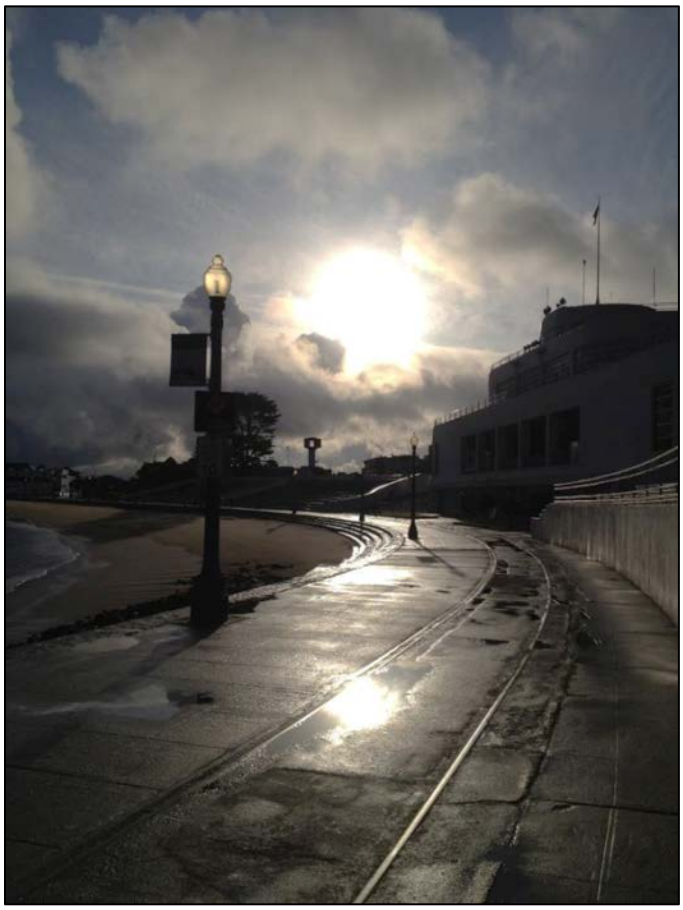
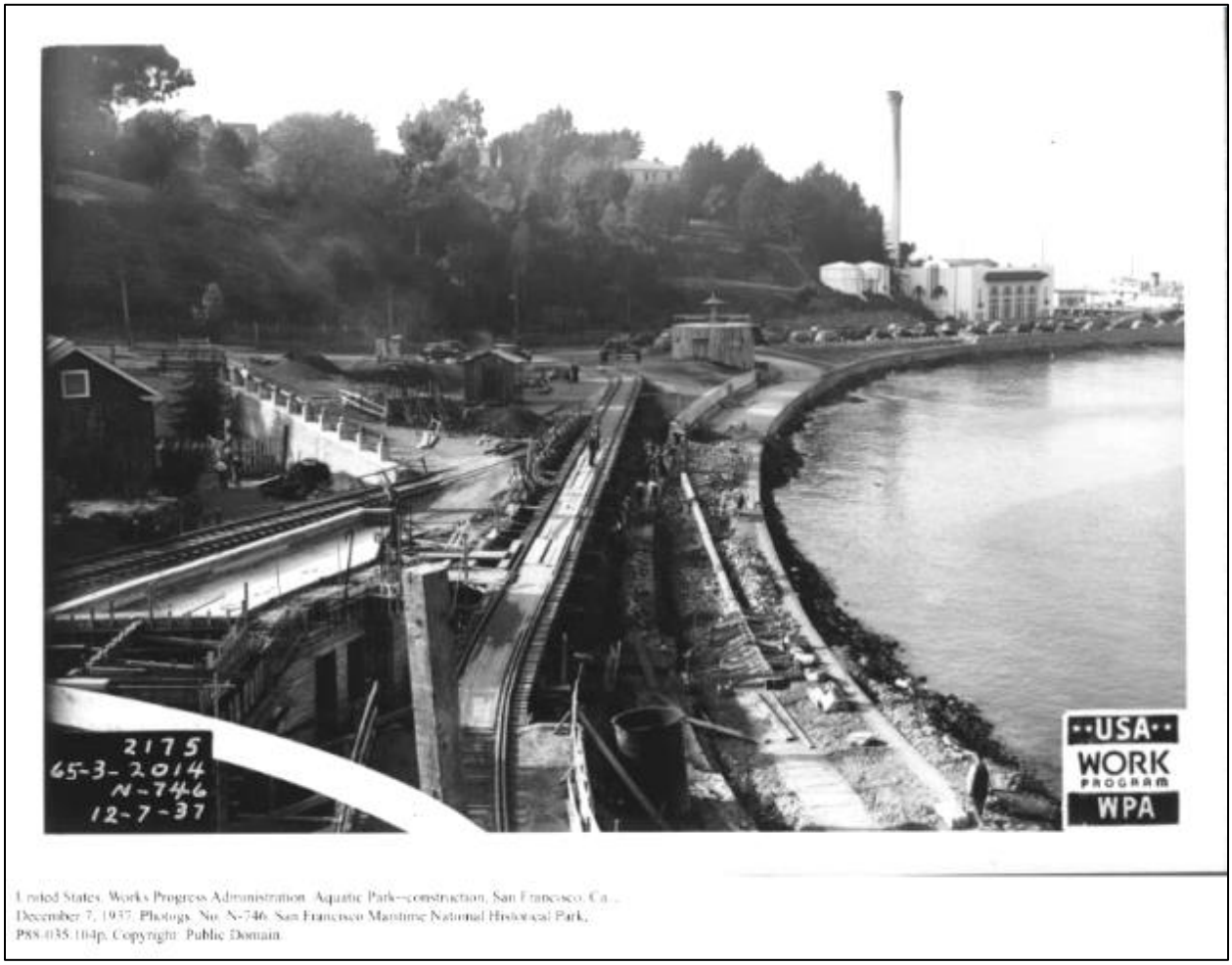


Figure 8. The railroad tracks along the Promenade were even more hazardous when the surface was wet

United States. Works Progress Administration. Aquatic Park--Construction, San Francisco, CA., 12/07/1937
Photogs. No. N-743, San Francisco Maritime National Historical Park, Photo No. P88-035.106p.

Figure 9. WPA construction of the Aquatic Park Bathhouse, Promenade and State Belt Railroad tracks in 1937



United States. Works Progress Administration. Aquatic Park--construction, San Francisco, Ca...
December 7, 1937. Photogs. No. N-746. San Francisco Maritime National Historical Park.
P88.035.104p. Copyright: Public Domain.

Figure 10. WPA construction of the Promenade and State Belt Railroad tracks on the west side of Aquatic Park in 1937

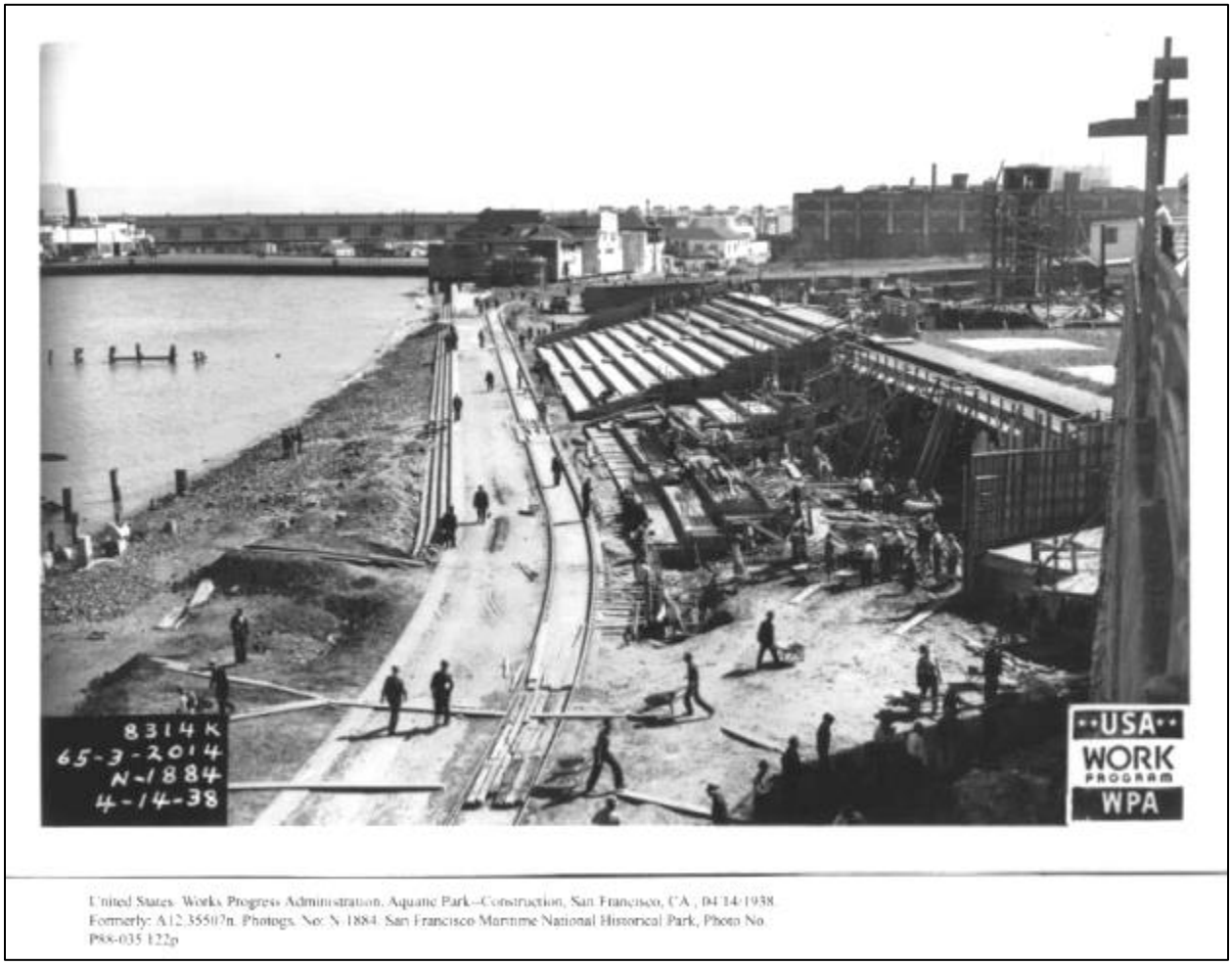


Figure 11. WPA construction of the bleachers, Promenade and State Belt Railroad tracks on the east side of Aquatic Park in 1938

Figure 12. Aquatic Park Promenade rehabilitation – preparing the subgrade of subsided areas in order to resurface with concrete

Figure 13. Promenade rehabilitation – pouring concrete where railroad tracks and ties were removed

Figure 14. Rehabilitation of the Service Road that connects to Van Ness Avenue to meet accessibility standards – regraded and prepared for resurfacing the entire roadway with concrete

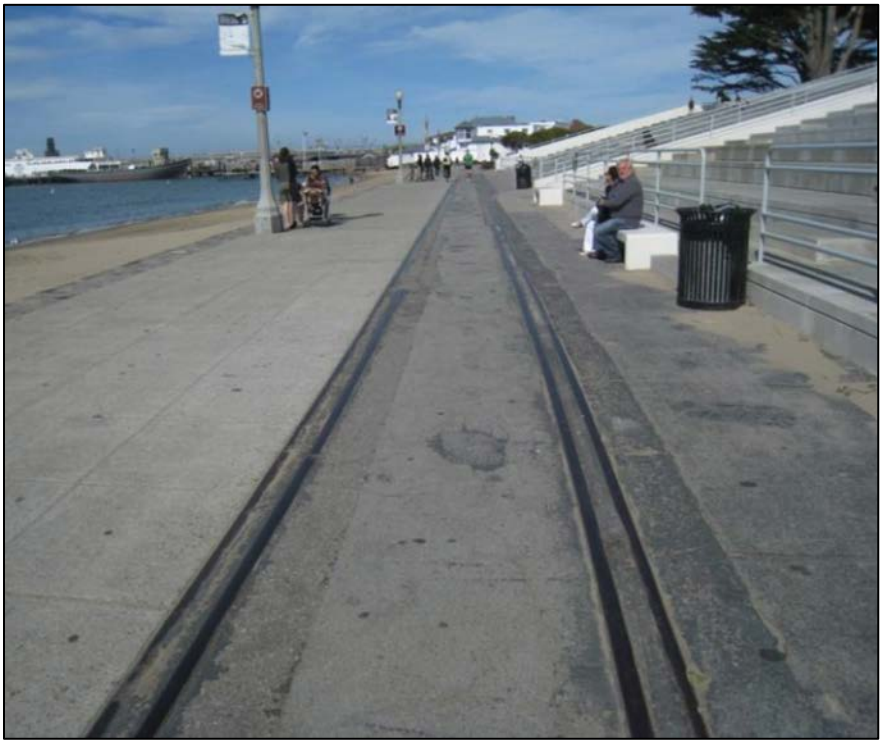


Figure 15. The Promenade in front of the bleachers – before removal of the railroad tracks

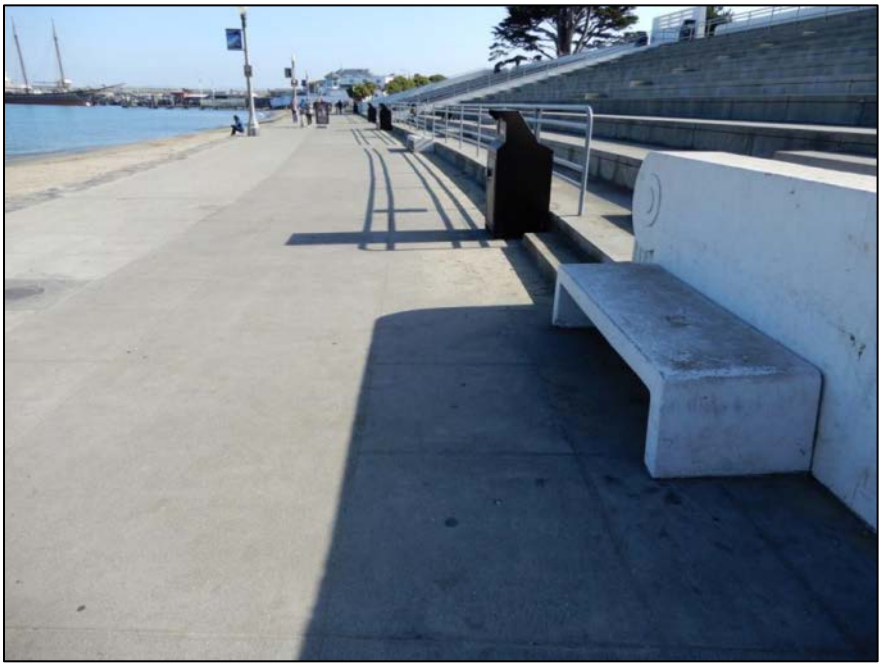


Figure 16. The Promenade in front of the bleachers – after railroad track removal and resurfacing

Figure 17. The Promenade adjacent to the bathhouse – before removal of the railroad tracks

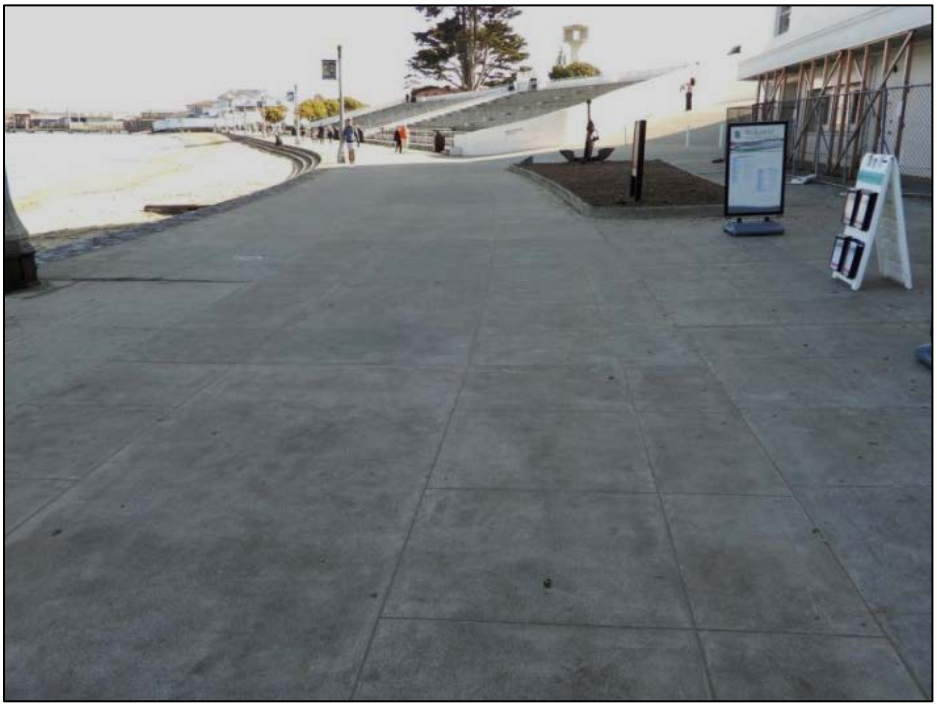


Figure 18. The Promenade adjacent to the bathhouse – after removal of the railroad tracks

Figure 19. The Promenade just west of the bathhouse – before removal of the railroad tracks

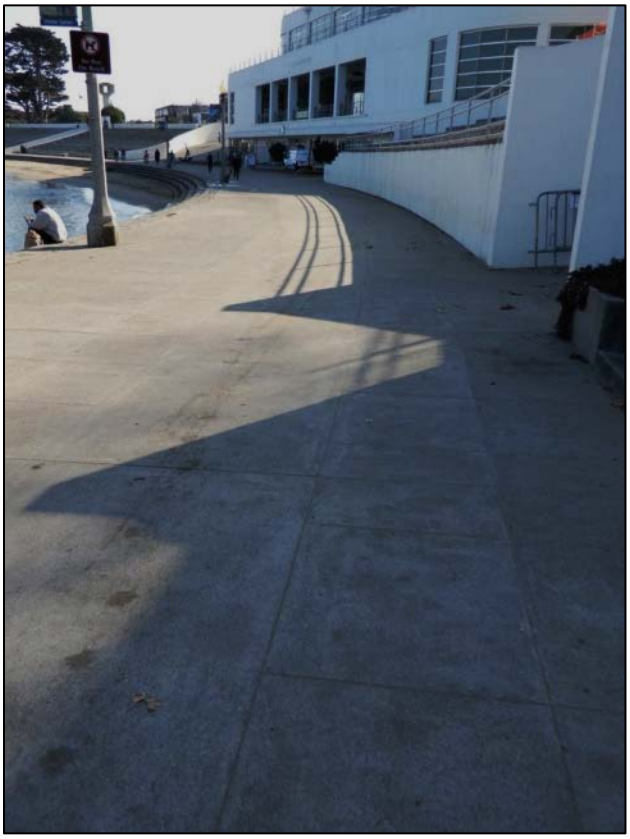


Figure 20. The Promenade just west of the bathhouse – after removal of the railroad tracks and resurfacing

Figure 21. The Service Road to Van Ness Avenue where it splits off from the Promenade – before rehabilitation

Figure 22. The Service Road to Van Ness Avenue where it splits off from the Promenade – after removal of railroad tracks, regrading and resurfacing to meet accessibility standards

Figures 23 and 24. The Service Road to Van Ness Avenue before and after rehabilitation. The location of the historic tracks is etched into the new concrete surface.

Figure 25. The end of the Service Road at Van Ness Avenue before rehabilitation, with a Use Caution sign indicating the railroad tracks.

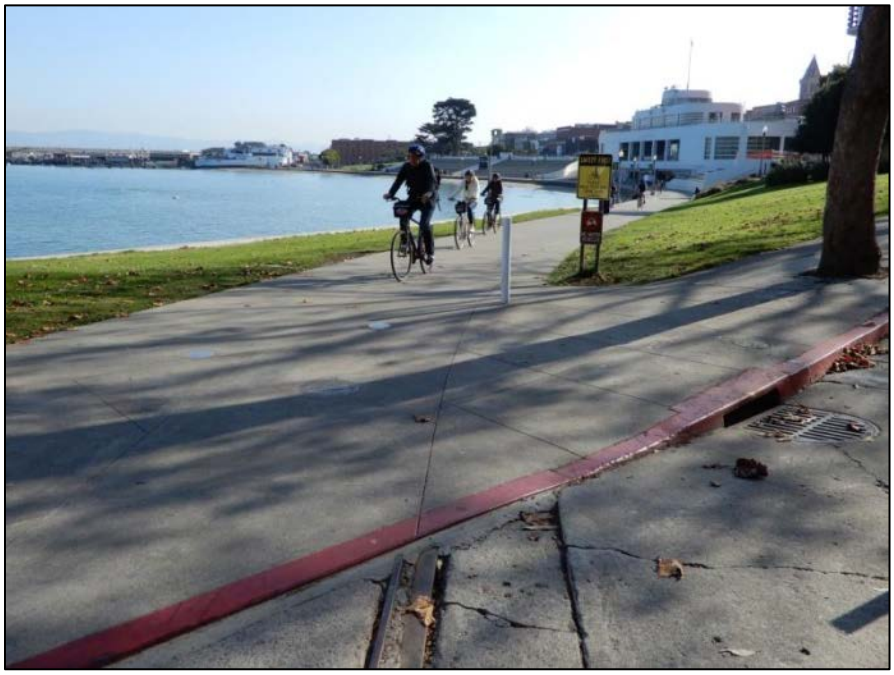


Figure 26. The end of the Service Road at Van Ness Avenue after rehabilitation. The State Belt Railroad tracks are visible at the edge of Van Ness Avenue.