

San Francisco Bay Conservation and Development Commission

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TO: Design Review Board Members

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SUBJECT: Public Access Piers at Retained Foundations of Demolished San Francisco–Oakland Bay Bridge East Span (Pier E2/Yerba Buena Island and Piers E21-E23/Oakland); First Pre-Application Review
(For Design Review Board consideration on February 5, 2018)

Project Summary

Project Proponent & Property Owner. California Department of Transportation (“Caltrans”)

Project Representatives. Brian Maroney (Caltrans, Chief Bridge Engineer/Project Manager), Stefan Galvez (Caltrans, Environmental Manager), Blake Sanborn (AECOM, Lead Landscape Architect), Dillon Lennebacker (AECOM, Planner/Permitting Specialist)

Project Site. The proposed project is located on either end of the former San Francisco–Oakland Bay Bridge (SFOBB) East Span, on the east side of Yerba Buena Island (YBI), in the City and County of San Francisco, and at the former Oakland Army Base (OAB), in the City of Oakland, Alameda County. The western limit of the project area is the east portal of the YBI tunnel. The eastern limit of the project area is located approximately 1,300 feet west of the SFOBB toll plaza, where the new and former spans connect with land at the Oakland Touchdown in the City of Oakland. Yerba Buena Island and the former OAB are designated Waterfront Park/Beach Priority Use Areas in the Commission’s San Francisco Bay Plan (“Bay Plan”).

Existing Conditions. *Yerba Buena Island.* Pier E2, a marine foundation of the former SFOBB East Span, is located in the Bay approximately 120 feet east of YBI. Pier E2 is a large concrete structure that bears on rock, and measures approximately 122 feet long, 43 feet wide and 35 feet above mean sea level. The on-land portion of the site is located between the U.S. Coast Guard base and Pier E2. Army Road runs along the shoreline, and is in a semi-improved condition suitable for construction vehicles only. The adjacent shoreline contains sandy beach area, approximately 460 feet long and 25 feet wide (at high tide); the beach is not open to the public because of historic contamination. A portion of the site, including the beach, is part of Installation Restoration Site 11, a former landfill containing soil and groundwater contaminants. On either side of the sandy beach, unengineered riprap has been placed along the shoreline. Approximately 150 feet offshore from the beach, there is a series of mooring dolphins, likely used as navigation buoys for the Coast

Guard. Near Pier E2, the site contains the historic Torpedo Building, which was abandoned in the 1930s and is listed on the National Register of Historic Places. The Torpedo Building is planned for future restoration and reuse by the Treasure Island Development Authority (TIDA), including public programming. Army Road and Pier E2 are subject to shading from the new SFOBB East Span during parts of the day.

Public access is required near the terminus of the Bay Bridge pedestrian/bicycle trail and along Southgate Road, pursuant to the BCDC permit authorizing the construction of the new SFOBB (BCDC Permit No. 2001.008.42). This includes an area connecting the bridge trail with public streets on YBI, a public access trail, landscaping, signage, and public access amenities. These public access improvements are under construction, and would be part of bicycle and pedestrian connections linking the Bay Bridge pedestrian and bicycle trail to the project site. Plan review approval for the SFOBB permit also authorized a maintenance road within the project site.

Former Oakland Army Base. Four marine foundations of the former SFOBB East Span (Piers E19, E20, E21, and E22) are located in the Bay west of the shoreline, spaced approximately 300 feet apart. An additional foundation of the former SFOBB East Span, Pier E23, is located within the 100-foot shoreline band directly adjacent to the shoreline. The site also encompasses a portion of the former OAB bounded by the Oakland Touchdown, and is within a larger area of the former OAB proposed to be repurposed as a waterfront park called "Gateway Park." Planning is underway for the park's development by a consortium of nine agencies. The Gateway Park project was reviewed by the DRB on October 7, 2013 and additional review may occur as the project moves forward.

The existing Bay Bridge permit (BCDC Permit No. 2001.008.42) requires 4.5 acres of public access near the Oakland Touchdown, including a 4.2 acre parcel to become part of Gateway Park, a 43-stall parking lot and vehicle turnaround, a bridge connector path and landing that connects the Bay Bridge bike/pedestrian trail with the parking lot and trail system leading to Emeryville and Oakland, landscaping, and public access signs.

Proposed Project. The proposed project would involve the construction of public access piers atop remaining marine foundations of the demolished SFOBB East Span, as well as associated facilities at the YBI and former OAB locations. The Caltrans' project proposes to retain three marine foundations (Piers E2, E21, and E22) and one land-based foundation (Pier E23) of the former SFOBB East Span, which are required to be demolished under the BCDC Permit (No. 2001.008.42) that authorized construction of the new East Span. The Commission is anticipated to consider this material change to Caltrans' permit this spring.

Yerba Buena Island. On Yerba Buena Island, the proposed project consists of a public access pier (with a 5,246-square-foot observation area connected to land by a 120-foot-long public access bridge), a landing plaza, a shared access path, a parking lot and re-grading of the unimproved Army Road.

Within the Bay jurisdiction, the proposed project includes the following:

1. **Public Access Pier (Exhibits 7, 13-15, 19-21, 25, 31-33, 51-63).** The public access pier would consist of the marine foundation structure (Pier E2) and a 2,280-square-foot (19-foot by 120-foot) pedestrian bridge linking YBI to Pier E2. The top portion of the Pier E2 structure would be removed to bring the structure closer to the grade of Army Road, and allow for a 5,246-square-foot observation deck to be constructed atop the remaining Pier

E2 structure. The proposed observation deck would be 43-feet wide, 122-feet long, and 19 feet above current-day mean sea level. The 42" tall railing around the observation deck and pedestrian bridge would reference the design of the current and former Bay Bridge spans, by reusing the old bridge steel as a portion of the railing and a new railing that compliments the new bridge design. Other elements proposed for the observation deck include: power outlets (to allow for special events), a communal table (30 feet long by 4 feet wide) with an ADA-compliant height along approximately a third of its length, moveable seating, binoculars, interpretive signage, and two types of paving that conceptually divide the pier along the diagonal. Lighting is proposed to be incorporated in the railings.

Within the Shoreline Band jurisdiction, the proposed project includes the following improvements:

2. **Improved Army Road and Shared Access Path (Exhibits 35-37, 51-57).** Army Road would be reconstructed from its intersection with Northgate Road (adjacent to the USCG base entrance) and terminate in a shoreline public parking area. A six-foot-wide concrete sidewalk would run along the uphill (landward) side of road connecting Northgate Road to the public access pier and the Torpedo building. At the terminus of the road, the sidewalk would turn to align with an additional six-foot wide path path, to create a twelve-foot wide shared access path to the pier and the Torpedo building. A gate is proposed for this location to limit vehicle circulation to authorized vehicles, while still allowing bicycle and pedestrian circulation.
The shared access path of concrete and 'granitecrete' would be graded up to an elevation approximately 7 feet higher than its existing grade from approximately +10' to +16.7' NAVD88. A maintenance vehicle turnaround would be provided in front of the Torpedo Building, which will remain at its current grade (10' NAVD88). The shared access path will grade back down to the building's elevation beyond the bridge landing plaza. The hillside edge of the shared access path would be planted.
3. **Plaza and Pier Landing Area (Exhibits 13-21, 27-29, 51-57, 65).** An elevated plaza area would be constructed at the landing of the public access pier. The plaza would sit approximately three feet above the shared access path at +20.3' NAVD88 and would connect to the shared access path with wide stairs and an accessible sloping walkway. The stairs would wrap around two sides of the elevated plaza and include wooden seating areas. Planting areas would be located along the stairs and ramp edge. The elevated plaza would include a planting area with a specimen tree and a high-table seating area facing the water, constructed from re-purposed bridge steel. Bicycle racks and lighting are proposed along the water-side of the sloped walkway.
4. **Public Shoreline Parking (Exhibits 35-37, 51-57).** From Army Road, the site would include a one-way loop 12-space parking lot (including 2 ADA spaces). The parking area would also include stormwater biofiltration planting, four bicycle parking racks, lighting, waste bins, and possibly future overflow parking (16 spaces) within the planting area . The parking lot circulation would also provide vehicular access to a pump station located behind a gate southwest of the parking lot.

5. **Fencing (Exhibits 35-37).** Approximately 750 feet of cyclone fencing would be installed along the shoreline from the USCG security gate to utility buildings located approximately 260 feet southwest of the public access pier. The stated purpose of this fencing is to restrict access to the contaminated soils present at the shoreline beach.
6. **Shoreline Protection (Exhibits 7-8, 18-19).** Rock walls would be constructed along the raised roadway to stabilize the added fill beneath the road bed and minimize erosion. The wall along the shoreline south of the proposed parking area and east of the USCG base, propose to cover the existing 460-foot long beach and rock riprap. The walls on either side of the abutment and wing wall at the base of the public access pier would be 70 feet and 180 feet long, respectively. These walls would match the higher grade of the path and landing area.

Former Oakland Army Base. The portion of the proposed project in Oakland consists of an approximately 600-foot-long public access pier built atop three foundation structures (Piers E21, E22, and E23), and onland improvements to connect to the planned Gateway Park and the Bay Bridge bicycle and pedestrian path. The pier includes a variety of programming and amenities along its length.

In the Bay jurisdiction, the project generally includes the following improvements:

1. **Public Access Pier (Exhibits 85-87, 91, 97-125).** An approximately 600-foot-long public pier would be constructed between the vertical caissons of Piers E21 through E23, comprising of two 290-foot spans that would pile-supported in between the existing foundations. The pier would be approximately 25 feet in width between Piers E21 and E23, with a 45-foot-wide bulb at the end of the walkways over Piers E21 and E23.

Caltrans proposes to develop public programming to activate the pier. Public amenities proposed on the pier include seating, lighting, interpretive exhibits, a fitness element, an activity zone, and public art (Exhibits 97-115).

In the Shoreline Band jurisdiction, the project generally includes the following improvements:

2. **Pier Approach at Gateway Park (Exhibits 85-91, 99, 117).** An approximately 200-foot-long accessible, sloped walkway would be constructed to connect to the pier from existing grade of +10.3' NAVD88 up to the pier elevation at +20.3' NAVD88. The approach would consider the anticipated design of the proposed Gateway Park. Picnic areas would be constructed into the berms on either side of the pier approach.
3. **Kayak Launch.** The project design allows for a kayak launch in the future, but no water access is currently proposed. Water access may be realized by entities that will be operating the amenities.

Operations and Maintenance. Caltrans is coordinating with the Treasure Island Development Authority (TIDA) and the City and County of San Francisco (CCSF) to develop formal commitments requiring TIDA to provide operations and maintenance of the proposed public access facilities on YBI, with funding to be provided by the Bay Area Toll Authority. Until such commitments are in place, Caltrans will be the owner and operator of the proposed facilities.

Caltrans is also working closely with the East Bay Regional Park District (EBRPD) and is in the process of establishing an operations and maintenance agreement with the EBRPD for proposed public access facilities at the former OAB site. Funding for operations and maintenance by EBRPD is planned to be provided through the Bay Area Toll Authority (BATA). During construction and in the interim before those agreements are executed, Caltrans will maintain ownership, management and operations responsibilities. Programming at the Oakland site would be at the discretion of the EBRPD once they have assumed an operations and management role. EBRPD will also be the operator for the planned Gateway Park, and they have provided critical input to the design of this project. They have publicly stated public their interest in operating and managing the proposed amenities as an integral part of Gateway Park.

Anticipated Construction Timeline. Caltrans proposes to start construction operations in June 2018, pending regulatory approvals. In-water work is anticipated to be completed by the end of 2018. Work on land may extend into 2019. In-water impact pile driving would be restricted to the period from June 1 to November 30, to avoid peak salmonid migration periods.

Resilience and Adaptation to Rising Sea Level. *Yerba Buena Island:* According to the Federal Emergency Management Agency (FEMA) current 100-year-flood elevation (BFE) for the project site is +9' NAVD88. As proposed, the developed site elevations along this area of the shoreline would be: +22.3' NAVD88 at the Pier E2 observation deck, between +20.3' and +22.3' NAVD88 for the pedestrian bridge, and +17.2' NAVD88 at the landing area. . The Torpedo Building will remain at existing grade (+10' NAVD88). For site planning purposes, the project proponents have estimated 66 inches of sea level rise by the end of the century (BFE+66"SLR = +14.5' NAVD88).

The proposed Pier E2 observation area and pedestrian bridge have a design life of approximately 75 years and would not be inundated by 66 inches of sea level rise. The road, parking lot, and pathways all have a design life of 20 years. At this time we do not have elevation information for these project areas and cannot determine their resiliency to sea level rise. The portion of the landing area containing the Torpedo Building would be inundated by the end of the century.

Former Oakland Army Base: According to the Federal Emergency Management Agency (FEMA) current 100-year-flood elevation for the project site is +9' NAVD88. As proposed, the top of the deck on Piers E21 through E23 would be at an elevation of +20.3' NAVD88, and the approach from E23 to the landward end where it meets low grade is +10.3' NAVD88.

The proposed pier at Piers E21 through E23 has a design life of 75 years and would not be inundated by 66 inches of sea level rise. The proposed pier approach walkway also has a design life of 75 years, of which portions would be inundated by the end of the century.

Both proposed projects have set the top of deck elevations at a height sufficient such that the bottom side of the structure will not be inundated in a 100 year storm with 66 inches of sea level rise.

Prior DRB Reviews. The DRB received a briefing on this project on November 6, 2017. At that time, Piers E19 and E20 were also considered for retention for habitat purposes; they have since been removed from the project proposal and are planned for implosion. The DRB raised a number of questions and issues about the public access portions of the project, including:

1. The importance of ensuring future maintenance of the sites.
2. The need for additional information on the path cyclists would take from the bridge to Pier E2 on YBI.
3. The importance of ensuring public use of the spaces and making both sites destinations through connections with possible destination points in the area, recreational and educational opportunities, and identity-generating programming.
4. The possibility of using a natural landscape rather than potted plants to reduce ongoing maintenance needs.
5. The need to ensure that materials are durable and provide an appropriate linkage to the former Bay Bridge.
6. Exploring the possibility of water access in the form of a kayak landing.

Commission Findings, Policies & Guidelines

San Francisco Bay Plan Policies. The **Bay Plan Map No. 5**, which designates the shoreline at the project sites as Waterfront Park/Beach Priority Use Areas, Policy No. 25 states that projects on YBI south of the Bay Bridge, including this site, should: “When no longer owned or controlled by the federal government, redevelop for recreational use. Protect harbor seal haul-out and pupping site where harbor seals rest, give birth and nurse their young. Projects allowed only if protective of harbor seals and other sensitive wildlife.” On the Oakland Side, Bay Plan Map No. 5, Policy No. 1 states, for Gateway Park: “Develop gateway park at Bay Bridge touchdown with gracious pedestrian and bicycle access to the Bay Bridge. Incorporate viewing, picnicking, non-motorized small boat launching and interpretation of current and historic transportation infrastructure and natural and cultural factors. Protect eelgrass beds and nearby endangered species habitats.”

The proposed project would develop the YBI site for public access and recreational use by constructing the Pier E2 observation area and associated public access features. The harbor seal haul-out that is located on the southern portion of YBI floats on the far side of the U.S. Coast Guard base away from the project location. In Oakland, the proposed project could help with the development of Gateway Park, and could incorporate unique Bay viewing opportunities including the reuse and interpretation of historic trans-Bay transportation infrastructure.

The Bay Plan **Public Access** policies state, in part, that “...maximum feasible access to and along the waterfront and on any permitted fills should be provided in and through every new development in the Bay or on the shoreline...” and that “[a]ccess to and along the waterfront should be provided by walkways, trails, or other appropriate means and connect to the nearest public thoroughfare where convenient parking or public transportation may be available.” Further, these policies state, in part, that “... improvements should be designed and built to encourage diverse Bay-related activities and movement to and along the shoreline, should permit barrier free access for persons with disabilities to the maximum feasible extent, should include an ongoing maintenance program, and should be identified with appropriate signs.”

Additionally, the policies provide that “[p]ublic access should be sited, designed, managed, and maintained to avoid significant adverse impacts from sea level rise and shoreline flooding,” and that access should be designed consistent with the physical and natural environment.

At both YBI and Oakland, the proposed pier-based public access features would be designed at elevations higher than 66 inches of sea level rise above the current 100-year flood event. It remains unclear at this time, as to whether the surrounding public access would provide the same level of resilience.

The Bay Plan **Appearance, Design, and Scenic Views** policies state, in part, that “all bayfront development should be designed to enhance the pleasure of the user or viewer of the Bay” and that “[m]aximum efforts should be made to provide, enhance, or preserve views of the Bay and shoreline, especially from public areas...” Further more, “[s]tructures and facilities that do not take advantage or complement the Bay should be located and designed so as not to impact visually on the and shoreline. In particular, parking areas should be located away from the shoreline.”

The proposed Pier E2 observation area at YBI and the proposed public pier at the Oakland site could be designed to enhance the pleasure of the user or viewer of the Bay. At the Oakland site, parking areas are located inland of the proposed public access features.

The Bay Plan **Recreation** policies state, in part, that “Diverse and accessible water-oriented recreational facilities...should be provided to meet the needs of a growing and diversifying population and should be...improved to accommodate a broad range of water-oriented recreational activities for people of all races, cultures, ages and income levels.” Additionally, within waterfront parks, “[p]ublic launching facilities for a variety of boats and other water-oriented recreational craft, such as kayaks, canoes and sailboards, should be provided in waterfront parks where feasible...” and “...[p]ublic parking should be provided in a manner that does not diminish the park-like character of the site. Traffic demand management strategies and alternative transportation systems should be developed where appropriate to minimize the need for large parking lots and to ensure parking for recreational uses is sufficient.” Additionally, within waterfront parks, “...parks should emphasize hiking, bicycling, riding trails, picnic facilities, swimming, environmental, historical and cultural education and interpretation, viewpoints, beaches, and fishing facilities.”

The Commission’s **Public Access Design Guidelines** state partly that public access improvements “should be designed for a wide range of users,” should “provide basic public amenities, such as trails, benches, play opportunities, trash containers, drinking fountains, lighting and restrooms that are designed for different ages, interests and physical abilities,” and should be designed for the weather of the site. The guidelines also state that viewing the Bay is the “most widely enjoyed ‘use’ and projects should be designed to “enhance and dramatize views of the Bay.”

The proposed project seeks to enhance views of the Bay for the public through the creation of the Pier E2 observation area and the public pier at Piers E21 through E23, which could allow the public to view the Bay from a vantage point farther over the water. Lighting and seating are provided at both sites, as are public pathways leading to both the observation area at YBI and the public pier at the Oakland site. No fishing facilities or bathrooms have been proposed at either site.

Board Questions

At Yerba Buena Island E2 proposed project site, the Board’s advice and recommendations are sought on the following issues regarding the design of the proposed public access, physical and visual connections, and sea level rise:

1. Would the proposed design for the Pier E2 observation area, and associated public amenities encourage diverse activities and create a “sense of place” at the YBI site, which would be unique and enjoyable? Does the proposed design adhere to the world-class open space and park network designed for Treasure Island and Yerba Buena Island?
2. Does the proposed project provide ample, diverse, and accessible opportunities for water-oriented public use, including picnicking, swimming, non-motorized boating, hiking, windsurfing, and fishing?
 - a. Would the public benefit from water access at the Pier E2 observation area and landing site, such as the provision of a connection point for kayakers from the Clipper Cove Beach and Treasure Island Marina areas and Water Trail sites?
 - b. Would the public benefit from fishing amenities at this site?
3. Are the proposed public amenities at the project sites appropriate and would they be distributed and designed to meet and balance the needs of the public and natural resources?
 - a. Is the proposed communal table an appropriate amenity for the use and enjoyment of the Pier E2 observation area? Is it of an appropriate size and scale?
 - b. Would the public benefit from other public amenities at the YBI site, such as a restroom or drinking fountain, given the location of the site?
 - c. Would the design minimize impacts of the proposed public access on wildlife and sensitive habitats, including the riprap proposed for the beach and shoreline area?
4. Are the proposed public amenities designed appropriately for the microclimate of the site, considering wind, shading, and noise? Are the sites designed appropriately for nighttime safety and visibility?
5. Does the design at the YBI site allow adequately for the future programming of the Torpedo Building?
6. Does the design of the parking lot, public path, and landing area at the YBI site create an appropriate sense of arrival to the Pier E2 observation area?
7. Are the proposed rock retaining walls at the YBI site designed appropriately for the public access use of the site?
8. Are the connections between the various public areas designed appropriately, including the proposed access gates?
9. Are the proposed roads and public sidewalks designed to appropriately and clearly connect to the nearest public thoroughfare and Bay Trail connecting pathways? Are parking facilities for all transit modes sufficient for anticipated use of the site?

10. Are the proposed public areas, paths, road, and landscape features designed to maximize views to and along the shoreline? At YBI, does the proposed cyclone fencing compromise maximum views to and along the shoreline?
11. Are the public areas and amenities appropriately designed to be resilient and adaptive to sea level rise?

At the Oakland Touchdown E21-23 proposed project site, the Board’s advice and recommendations are sought on the following issues regarding the design of the proposed public access, physical and visual connections, and sea level rise:

12. Would the proposed public pier at Piers E21-E23, and associated public amenities encourage diverse activities and create a “sense of place” at the Oakland site, which would be unique and enjoyable? Does the proposed design adhere to the world-class open space and park network proposed for Gateway Park?
13. Does the proposed project provide ample, diverse, and accessible opportunities for water-oriented public use, including picnicking, swimming, non-motorized boating, hiking, windsurfing, and fishing opportunities?
 - a. Would the public benefit from water access at the Oakland site, such as a kayak launch?
 - b. Would the public benefit from fishing amenities at this site?
14. Are the proposed public amenities designed appropriately for the microclimate of the site, considering wind, shading, and noise? Are the sites designed appropriately for nighttime safety and visibility?
15. Does the design at the Oakland site allow for appropriate integration and connections with the future Gateway Park?
 - a. Would the public benefit from temporary amenities, such as a restroom or drinking fountain, before Gateway Park is built?
16. Are the connections between the various public areas designed appropriately, including the proposed access gates and picnic berms?
17. Are the proposed roads and public sidewalks designed to appropriately and clearly connect to the nearest public thoroughfare and Bay Trail connecting pathways? Are parking facilities for all transit modes sufficient for anticipated use of the site?
18. Are the proposed public areas, paths, road, and landscape features designed to maximize views to and along the shoreline?
19. Are the public areas and amenities appropriately designed to be resilient and adaptive to sea level rise?