

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

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TO: All Design Review Board Members

FROM: Will Travis, Executive Director [415/352-3653 travis@bcdc.ca.gov]
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**SUBJECT: Exploratorium Relocation Project – Piers 15 and 17, City and County of San Francisco;
Fourth Review**
(For Board consideration on September 8, 2008)

Project Summary

Project Applicants: The Port of San Francisco and The Exploratorium

Project Representatives: Kristina Woolsey, Project Director, Exploratorium; Marc L'Italien, Principal, EHDD Architecture; Janice Thacher, Project Executive, and James Suh, Project Manager, Wilson Meany Sullivan.

Project Site. The proposed project would be located on Piers 15 and 17, along the San Francisco waterfront, near the intersection of Green Street and the Embarcadero, within the City and County of San Francisco. The site consists of the Pier 15 shed and bulkhead building, the Pier 17 shed, a paved parking area between the two piers known as the "valley", the north, south and east apron areas, a building on the eastern end of the valley that physically connects the two pier sheds known as the "connector building", and an approximately 1,579-square-foot free-standing office building within the western portion of the valley. Piers 15 and 17 are contributing resources to the San Francisco Embarcadero National Register Historic District. Currently, Baydelta Maritime leases space at Pier 15 and berths its tugboats along the southern apron of Pier 15.

Proposed Project. The proposed project involves the relocation of the Exploratorium from the Palace of Fine Arts in San Francisco to Piers 15 and 17 in two phases. The project applicants are in discussions with Baydelta Maritime about its future location within the project site. The proposed project assumes the possible relocation of Baydelta Maritime to Pier 17. The Exploratorium is seeking authorization only for Phase 1 at this time although aspects of the Phase 2 proposal have been presented for context. Authorization for Phase 2 would require a permit amendment and further review and approval.

Under Phase 1, the project applicants would repair, renovate and seismically upgrade the Pier 15 substructure and Pier 15 shed and bulkhead building to house the Exploratorium's exhibits, restaurant, museum store, classrooms, theatre and administrative offices. The project applicants would remove a small office building within the valley and approximately 34,300 square feet of the 98,350-square-foot pile-supported deck that comprises the valley floor. The remaining valley floor would be re-designed as a "courtyard" for public access with a portion reserved as an outdoor exhibit area for paying customers. The project applicants also propose to remove the existing 27-foot-tall connector building at the east end of the valley and to construct a new 31-foot-tall "Observatory" (formerly known as the "Bridge Building") that could link the Pier 15 and Pier 17 buildings in the future. The Observatory would house additional exhibits, a cafeteria, and be used for multi-purpose events.



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As part of the seismic upgrade of Pier 15, new piles would be driven adjacent to the pier's south apron on the west and east side, that would allow for a wider apron to accommodate public access. A possible water taxi dock along the south apron may be included as Phase 1 to the project. Ceremonial berthing and temporary berthing of naval vessels by the Port are contemplated to remain along the east apron of Piers 15 and 17.

In order to accommodate the relocation of Baydelta Maritime's tug and tow operations to Pier 17, the project applicants would build new warehouse/office space within Pier 17 and repair the substructure and deck of the Pier 17 north apron, which is currently red-tagged and unusable. The Pier 17/Pier 19 water basin would also be dredged to accommodate the berthing of Baydelta Maritime's tugboats along the north apron of Pier 17.

The project applicants are also proposing various curb pull-outs along the Embarcadero sidewalk in front of Piers 15 and 17 and the use of golf carts along the south side of Pier 17 to shuttle patrons to the east end of the piers.

If the Exploratorium decides to undertake Phase 2 of the project, it would expand its museum operations into Pier 17 and conduct a similar rehabilitation of the Pier 17 facility. Under the terms of its most recent agreement with the Port of San Francisco, the Exploratorium is required by the 16th year of its lease to occupy at least two-thirds of Pier 17 as a museum or risk losing the lease on that pier.

1. **Revisions to Public Access Plan Since Board's Last Review.** Since the Board last reviewed the project, the public access proposal and the design of the "courtyard" have changed (see pages 24 - 25 of the applicants' booklet). On August 12th the Port Commission granted the Exploratorium an early lease on Pier 17 to commence to-terminus with the lease on Pier 15 thereby allowing the Exploratorium to become the master tenant on both piers during Phase I. However, according to the project applicants, rising costs from both inflation and market escalation of material costs have forced the Exploratorium "to decrease the initial scope of its project both internally and externally to stay within their budget". The following changes have been made:
 - a. The public access pathway along the south side of Pier 17 has been reduced to the width of the current vehicle dock overhang (approximately 13 feet). When the Exploratorium decides to expand into Pier 17 as part of Phase 2 in the future, it proposes to widen the pathway as originally designed.
 - b. The center bridge over the water has been simplified to include one direct bridge (previous plan showed two interconnected bridges).
 - c. The linear planting strip that was proposed along the western edge of the open water pile garden has been removed.
 - d. A portion of the lowered deck within the ticketed outdoor exhibit area has been removed and the entire ticketed area has been extended further west towards the Embarcadero, reducing the public access area of the Pier 15 north apron.
 - e. The Exploratorium has indicated that vehicular access by catering and service trucks along the south edge of Pier 17 is no longer proposed during Phase 1 of the project and would be accommodated within the Pier 17 shed. However, the Exploratorium is still proposing to drive "golf-cart" vehicles along the 13-foot-wide public access area of the south edge of Pier 17 to shuttle patrons from the Embarcadero to the east end of the pier, throughout parts of the day when events are occurring in the new Observatory Building. As part of Phase 2 of the project

when the Exploratorium expands the museum into Pier 17, they propose to expand vehicular use along the south edge of Pier 17 to catering and service trucks as presented in May. Phase 2 is not being authorized at this time so any proposal for Phase 2 would need to be reviewed in the future.

- f. Mooring cleats and a railing are proposed along the east apron of the pier to accommodate occasional berthing of navy and ceremonial ships. The mooring cleats are proposed Bayward of the railing (with the railing set-in several feet from the pier's edge) to allow for easier tie-up of ships. Outdoor dining is proposed at the east end of pier, adjacent to the Observatory building.

2. **Public Access Issues.** The staff requests that the Board evaluate the revised public access proposal and courtyard design, in light of the following questions:
- a. Does the proposed courtyard provide a flexible and adaptable layout that accommodates the number of individuals and variety of uses that would likely use this area and provide usable and inviting public spaces that are oriented to the Bay?
 - b. Are the public access spaces and corridors on and around the courtyard designed to provide adequate circulation around the pier? Specifically, are there adequate connections that allow for public access from the Embarcadero promenade to the open water area in the courtyard, towards the east end of the pier and along the south apron?
 - c. Does the site layout adequately balance private and public uses? Specifically, does the outdoor ticketed area still allow the non-paying public to smoothly transition in and around the courtyard area and the remaining public access area?
 - d. The Waterfront Special Area Plan (WSAP) requires non-public access uses that extend to the platform edge to “enhance the total design of the project, serve to make the public access more interesting, and not divert the public way along more than twenty percent (20%) of the total platform edge.” Does the interruption of perimeter access on Pier 15 meet these conditions?
 - e. Does the proposed use of the southern edge of Pier 17 by golf carts throughout the day to shuttle patrons, conflict with the public access use of this area?
 - f. Does the public access plan provide perimeter access, a Bayside History Walk and a special public access feature, such as a high quality open space? The WSAP requires that the Bayside History Walk “provide public access to the Bay’s intimate and quiet spaces behind historic bulkhead and connector buildings, provide views of the inner structure of the pier sheds and the bulkhead buildings, and to provide interpretation of, and make accessible to the public, these unique physical assets of San Francisco’s maritime history.” Does it accomplish these goals?
 - g. The site furnishings currently proposed include guardrail and lamppost design (see pages 28-29 of the applicants’ booklet) and benches and seating areas (see page 24). Are the proposed site furnishings adequate to accommodate the number of public access users at the site? Do they provide a variety of seating choices and experiences ranging from communal spaces and quiet areas located away from crowds, and allow for intermittent resting spots in between long stretches of the pier? Are they designed to complement and enhance the proposed public access spaces?
3. **Prior Board Review and Comments.** The Design Review Board (Board) first reviewed the project at its January 7, 2008 meeting and commented on six particular aspects of the public access design: (1) Embarcadero curb pull-outs and bus drop-off area for school children; (2) use of trees along the Embarcadero; (3) design of the courtyard; (4) views out to the Bay; (5) circulation around the project site; and (6) incorporation of boats and research vessels into the public access design. On March 10, 2008, the project applicants presented their response to the Board’s first comment regarding the proposed Embarcadero curb pull-outs and bus drop-off area for school children. At that meeting, the Board made additional comments on this issue and requested that the applicants return with further revisions. At the Board’s May 5, 2008, meeting, the project applicants presented their response to the Board’s remaining five comments raised at the January 7, 2008 meeting. The Board commented on aspects of the Observatory (formerly known as the “bridge building”), circulation around the proposed project site, and the mooring of ships along the east

end of the Pier, and asked for more detail on proposed Phase 2 of the project. In addition, the Board asked specifically about the seismic joint along Pier 15. The following are the Board's prior comments and the project applicants' response.

- a. **Embarcadero Curb Indents and Bus Drop-off Area for School Children.** The Board generally supported the use of new curb indents for bus drop-off but was concerned about some of the design aspects. The Board expressed that the number of buses was less important than the size of the overall space for buses. The Board was also concerned about the safety of the current crosswalk across the Embarcadero roadway and the length of the curb indent in front of Pier 15 to accommodate car drop-offs.

Prior Board Comments. At its May 5, 2008 meeting, the Board made the following recommendations:

- Limit the curb indent for bus drop-off from the “open water” north of Pier 17 to the crosswalk to minimize obstruction to bay views.
- Create a deeper curb indent to allow for more clearance for the bicycle lane.
- Remove the raised art ribbon along the Embarcadero.
- Straighten out the Embarcadero crosswalk, provide safe refuges for pedestrians in the middle of the intersection, delete the south-bound left-turn pocket, and revise timing of the traffic signals to accommodate pedestrians.
- Re-evaluate the length of the curb indent in front of Pier 15 for passenger car drop-offs.

Applicants’ Response: The following is an excerpt of the project applicants’ response, found on pages 3, 26 and 27 of their exhibit booklet:

- Reduction of overall bus indent length to 225’ (previously 233’). Minimized obstruction to basin and courtyard bay views. (Note: the large gate at Pier 17 north apron will be retained for BayDelta Maritime. Truck parking currently occurs just north of new indent between hours of 6am-6pm M-F for the Foreign Trade Zone in Piers 19/23; therefore basin views are currently obstructed for short periods of time.)
- Confirmed that width of bus curb pull-out can be 9’-0” measured from face of existing curb to new curb (typical indents are 8’-0”) while maintaining 2’-0” clear from the curb to the lamppost for bus and mirror clearance. (Wider indent would require moving the lamp posts).
- Bicycle lane is 5’-3” outside paint to outside paint (previously quoted as 4’-6”). Paint inside line on bicycle lane and specify the bus loading area as only for Exploratorium use with proper signage.
- Provide signs warning of “bus pull out ahead” (City and Port to confirm exact text and locations). Designate that a transportation monitor will be stationed curb-side for traffic control.
- Accommodated visual and turning clearance for trucks coming out of the Pier 17 shed access lane.
- Exploratorium’s traffic consultant concluded that the extended Pier 15 indent (for 5 vehicles) will be insufficient to accommodate the number of drop-offs expected at the Exploratorium, but the intent is to not grow the indent any longer than currently shown at 148.’ The Exploratorium believes deterring long term parking at this indent will require diligent enforcement by the Port and the Exploratorium. The Exploratorium plans to use signs and the ability to call on towing companies to help accomplish this.
- Exploratorium acknowledges that a straightened crosswalk would be beneficial and convenient to the project but it is not required by the project for safety reasons. The Exploratorium sought the expertise of a professional traffic consultant for this assessment.

- Flattening of the art ribbons was found by the ticketing/crowd consultant to not affect the pedestrian flow. As stated in March 2008, pedestrian, bicycle, counts were conducted to empirically verify this. In addition, the area in front of Pier 17 is being removed of parked cars to allow an additional 46'+ pedestrian circulation zone – the singular raised Art Ribbon is 5'x5'; see the March design booklet for all other dimensions and clearances to understand that there remains no issue with the art ribbon.
 - On the subject of the crosswalk straightening and the art ribbon flattening, the Exploratorium supports the Port and BCDC in pursuing this separate cause. The Exploratorium encourages and will support these agencies as it looks to find sources of public monies that can make this happen at a future date.
- b. **The Observatory.** The Board questioned the height, massing and volume of the Observatory building, particularly as it relates to views of the Bay and its presence on the proposed open space. In particular, the Board was concerned about the mechanical equipment on top of the building, the façade materials, and the possible future connection of the building to Pier 17. The Board agreed that the Bay view should be strongly considered.

Prior Board Comments. At its May 5, 2008 meeting, the Board made the following recommendations:

- Re-evaluate the height, bulk and materials of the Observatory building to maximize views to the Bay.
- Consider providing public access on the roof deck of the Observatory building.
- Provide more information on the future connection of the Observatory to Pier 17 and its possible impacts to the view corridor.

Applicants' Response: The following is the project applicants' response, excerpted from their exhibit booklet (pages 3 and 4-22):

- The Observatory is a crucial piece of the experience of the Exploratorium. The name 'observatory' was not derived to simply describe the activity of peering out to the skyline or the bay, it refers to what the Exploratorium is at its core – teaching through observation of the natural phenomena around us. The roof top exhibit area is the culmination of the experience a visitor receives after moving from entry, through the shed, through the second floor Observatory Building, and finally to the roof.
- Building mass is pulled back from the monitor of the Pier 15 shed so that the Pier 15 roof profile and monitor window is maintained. More of the existing roof is retained and the 72' wide overlapping roof on an 800' long shed becomes even more minimal (see pages 7-8 of exhibit booklet). The 60' wide view and access corridor between Pier 17 has been retained.
- All solid elements (elevator, stair and mechanical equipment) have been grouped together and located away from the view corridor to have minimal visual impact (see page 9).
- The height limit is 40.' Roof guardrail is glass, making the "perceived" height of the roof deck level 32'-6" (to parapet), which is lower than the existing bulk head building of 35'-4."
- Second floor is setback from the east shed wall 10' and on the ground floor 18' to re-emphasize the profile of the historic Pier 15 east elevation.
- Exterior material for the rest of the core has changed from wood to weathered steel. The wall changes from solid to transparent as it turns the corner to the north to reveal an exterior stair winding up to the Observatory roof (see page 10-11).

- Glass curtain wall is used in-lieu of wood siding at the connection point to Pier 15 to visually separate the historic from non-historic building (see page 9). The glass continues to the north to clad the west elevation of the core creating a simplified and unified whole (see pages 11-14).
 - Pages 15-18 show the new building's simplified form and roof profile, choice of material, and smaller footprint makes for a smaller structure than what presently exists.
- c. **Mooring of Ships Along East End of Pier.** The project applicants have proposed allowing navy ships and large research vessels to dock along the east apron. While these ships are docked, the entire east apron would be closed to public access and there would be no access to the south apron from the courtyard.

Prior Board Comments. At its May 5, 2008 meeting, the Board asked for greater clarification about the timing and frequency of ship mooring at the east end of Pier 15 and its possible impacts to public access.

Applicants' Response: The project applicants have included a diagram showing the location of the proposed guardrails and mooring cleats along the east apron (see page 30). However, no additional information on the timing and frequency of ship mooring at the east end of the pier and its possible impacts to public access has been provided.

- d. **Clarification of Phase 2 Design.** The Exploratorium has revised its term sheet with the Port of San Francisco to lease both Pier 15 and Pier 17 during Phase 1 of the project. When the Exploratorium decides to expand its operations into Pier 17, this would be conducted under a proposed Phase 2 project.

Prior Board Comments. At its May 5, 2008 meeting, the Board requested that the project applicants provide more detail of the Phase 2 proposal to gain a better understanding of the future public access, view and circulation issues. In particular, the Board was interested in seeing how the "Observatory" would likely connect to Pier 17, how views might be affected, and how the public access areas might likely change in the future.

Applicants' Response: The project applicants have included a proposed Phase 2 site plan (see page 25 of the applicants' booklet) that shows new entries into Pier 17, an expanded deck along the southern edge of Pier 17, and proposed vehicular use along the southern edge of Pier 17 by delivery and catering trucks, and loading/unloading along the east apron. No additional exhibits of the expansion of the Observatory building in Phase 2 have been provided.

- e. **Clarification on Pier 15 Seismic Retrofit.** This project will also be reviewed by BCDC's Engineering Criteria Review Board (ECRB).

Prior Board Comments. At its May 5, 2008 meeting, the Board asked for clarification on why the seismic joint for Pier 15 is located such that it cuts the bulkhead in half.

Applicants' Response: The following is an excerpt of the project applicants' response, found on page 23 of their exhibit booklet: "The joint has been placed along the waterfront line, which is where the pier abuts the peripheral wharf. Structurally the presence of the seawall makes the wharf much stiffer than the pier and this is the natural location for the joint. The seismic joint at Pier One is similarly located. If the joint were to be relocated eastward, the portion of the pier deck on the west side of the joint would have to be structurally connected to the wharf, and the wharf would be required to provide lateral support to it. This would likely result in a

need for new lateral force resisting elements at the wharf that are not otherwise required. The large diameter piles used for this purpose at the pier would not be compatible with the stiffness of the seawall, therefore another type of element, such as another wall element, would be required. It is unlikely that this approach would be cost effective.”