ROMA

MEMORANDUM

TO: BCDC Design Review Board
Port of San Francisco WDAC

CC: Ellen Miramontes, BCDC
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Dan Hodapp, POSF
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FROM: ROMA Design Group (on behalf of WETA)

DATE: August 19, 2015

RE: Response to BCDC Design Review Board and Port WDAC Comments

In response to comments from the BCDC Design Review Board and the Port Waterfront Design Advisory Committee at their May 11th meeting, the design for the South Basin portion of the Downtown San Francisco Ferry Terminal Expansion project has been further updated and refined. The following summarizes the comments that were received and the proposed design responses. In addition, the updated plan and the materials and finishes were reviewed and unanimously approved by the San Francisco Historic Preservation Commission (HPC) at its meeting on July 1st. Specific comments that the HPC made with respect to the design are also noted below.

In this memo, each of the summary comments recorded in the minutes of the May 11th DRB/WDAC meeting on May 11th are responded to in order as follows.

1) **Response to Public Access Issues Raised by BCDC Staff.** The general consensus of the Board was that the proposed public spaces would create attractive new public access areas and improve existing public access use of the Ferry Building area.

   Noted.

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2) **Southwest Corner of Plaza and Entryway.** The Board noted this entry point appeared too tight and recommended that it be widened and the entryway made "clear and simple" from the Embarcadero.

   In response to these comments, a significant revision was made to the plan in the area between the plaza and the Agriculture Building. This area has been widened and the connection from the Embarcadero simplified. In addition, the geometry of the plaza has been modified to respond to the geometry of the Agriculture Building on the south and Ferry Building promenade on the east. On the south adjacent to the Agriculture Building, a 15-foot wide sloped walkway centered between Gates E and F creates a transition in grade from the Embarcadero, which is at 10.5 NAVD88, to the 14.5 NAVD88 elevation desired for sea level rise for the promenade and plaza. The sloped walkway length allows for a grade of less than 5%, or 1 foot in 20 feet, to create a more gentle and accessible route for pedestrians. In addition, a stair has been provided directly from the plaza to the prevailing grade of the Embarcadero adjacent to the Agriculture Building for those who want to more energetically ascend the 4 feet to access the plaza and traverse it. Between the sloped walkway and the existing Agriculture Building platform on the north, an additional 8 feet has been added at the same elevation as the platform to create a 19-foot wide separation between the sloped walkway and the northern façade of the building. In addition, a 10-foot wide stairway from the 14.5 elevation of the promenade and plaza to the 10.4 elevation of the Agriculture Building platform is proposed to allow a direct connection from future east side activities in the Agriculture Building to the plaza.

   See ***Figure 1*** for the revised and updated plan.

3) **Design Details.** Some Board members expressed a desire to see the project return with more details on the paving materials, railing design, furniture and lighting. One noted that it would make sense for these finishing materials to have a nautical character.

As previously indicated in the DRB/WDAC presentation, the plaza will be paved in granite as will the stepped amphitheater seating on the north and west edges and the walls adjacent to the sloped walkways on the east and south. The compass rose in the center of the plaza defines it spatially and topographically - the center of the compass rose being the high point and each circled end of the compass rose being the low points. The compass rose will be made of three colors of granite – the Rockville White and Mesabi Black, which were used in the mid-Embarcadero and Carnelian granite, which was used in the adjacent Market Street corridor paving.

The points of the compass and the eight circles around the perimeter are well located to be the low points for drainage of the plaza. Each of these will include a circular stainless steel catch basin providing filtration of storm water before it enters the bay. Inlaid stainless steel letters located around each catch basin will identify by general direction each of the major ferry terminal destinations. A center circle in the middle of the compass rose will be the high point of the plaza and will give identity to the Port of San Francisco Downtown Ferry Terminal with inlaid stainless steel elements. A similar compass rose was utilized at the entrances to Gates B and E and will be repeated at a smaller scale for all of the new gates as well to create an identity connection between the maritime role of the ferry terminals and the plaza. It should be noted that the Historic Preservation Commission commented at its meeting on July 1st that the compass rose in the plaza was an appropriate and elegant way of celebrating the maritime history of the area.

The remainder of the public access improvements, that is, the promenade and sloped walkways, would be paved in concrete with a 5-foot grid similar in color and treatment to the Embarcadero for continuity and definition.

The portals will be a similar design to those that exist today. The gates will be clad in Lake Placid Blue granite and with stainless steel bead-blasted canopy roof and doors, consistent with the existing gates at B and E.

The guardrail along the bay edge will take on a new form in response to storm water management requirements and sea level rise. It will be placed on a one-foot high curb and will constructed of vertical fins at approximately five feet on center with horizontal stainless steel tubing at approximately four inches on center. The guardrail will be akin to the more modern guardrail utilized at Pier 14 and on the Brannan Street Wharf recently constructed by the Port. The existing guardrail, which is more traditional in character, will be salvaged and reused along the change in grade between the promenade and the Ag Building and between the Ag Building and the sloped walkway.

See ***Figure 2*** for several views depicting the new guardrail on the bay's edge.

Benches will be provided under the two canopies – 24 back to back under each one, for a total of 48. The benches will be the same bench that is utilized at the Cruise Ship Terminal, which is the Forms + Surfaces Knight Bench, 6 feet in length with backs and arms and renewable hardwood slats.

Two canopies are proposed along the East Promenade. One will be located between Gates E and F and one will be between Gates F and G. They will be 20-foot wide and 125 feet long, each with four columns at 35 feet on center with 10 foot cantilevered ends. The structural elements of the canopies will be made out of steel that is powder-coated or cryolon-coated with a heavy maritime protective finish. The columns, beams and fins will be painted in a metallic silver color. A polished stainless steel base that is approximately 12 inches high will protect the columns at the more vulnerable location where the columns meet the paving. A similar approach was used on the mid-Embarcadero F-line shelters at the foot of Market Street. The roof of the canopies will be glazed in laminated glass with photovoltaic cells with a frit along the edge and between the columns to create a light/dark transition and a more interesting pattern. Rainwater will be collected in the center of the canopy and channeled through downspouts in the columns to filters located in the paving below.

Horizontal linear lighting will be integrated into the canopies to minimize the clutter of vertical elements within the public access areas. The canopy of the

portals will include downlights as well as the NextBus type of signage similar to the ones that are now provided at Gates B and E. Recessed wall lighting will be included adjacent to the walkway on the south side of the plaza. There is no additional lighting proposed in the plaza, since there is adequate ambient lighting from the Embarcadero, the lights on the north façade of the Ag Building and the future lights proposed by the Port of San Francisco as part of the South Bayside Promenade.

Four clusters of BigBelly trash compacters/recycling receptacles will be located at key entry and exit points along the promenade and the two east/west connections between the promenade and the Embarcadero. No smoking will be permitted in this area, and near each of the three terminal entrances, receptacles will be provided for cigarette disposal to prevent them from being extinguished on the ground or tossed into the bay.

See ***Figure 3*** for photographs of typical amphitheater seating, proposed benches, trash receptacles and cigarette receptacles.

4) **Canopy Structures.** The Board generally agreed that the canopy structures are useful and should be retained, that two structures were preferred over one, and that the details and dimensions of the design should be contemplated more closely. The Board recommended that the applicants study the structures' effectiveness in sheltering passengers from the rain and consider possible changes to the height or location, as necessary.

Prior to the May 11th DRB/WDAC meeting, a solar analysis of the canopies was undertaken as requested by BCDC staff. The conclusions of that analysis were that the canopies, as designed with photovoltaics and fritted laminated glass, would create an attractive dappled shade pattern below and would reinforce the sustainability aspects of the ferry terminal project. The analysis also indicated that, in the mid-day summer peak when there is the greatest concentration of visitors, the canopies would provide shade for those who seek it. At the same time, the analysis indicated that in the winter PM peak, when ferry commuters

are most likely to queue and wait, solar access would be available under the canopy when solar heat gain might be most desirable.

During the meeting, it was clearly recognized that the canopies were not intended to create a fully climate-controlled environment, whether in terms of heat gain or wet weather protection, but to ameliorate these conditions. However, the question was raised as to how the canopies would perform in wind-driven rain and whether any adjustments or improvements should be made. Following the meeting, ROMA asked the AECOM meteorologists who had prepared the project environmental review documents to analyze the effects of wind-driven rain on the canopy and to provide input into the design process.

The AECOM meteorologists analyzed monthly averages of wind and rain over a 30-year period in San Francisco, taking into consideration wind speed, rainfall rate, velocity and angle as well as rain drop size. Winds were assumed in the analysis to be from the prevailing westerly wind direction and did not vary throughout the year. Westerly winds represent the worst case condition, since the wind would be directly perpendicular to the canopy, thus exposing a greater area to wind-driven rain than were it oblique, as in the case of the less frequent, but intense storms coming from the southeast direction. The results of the analysis demonstrated that the canopy would provide adequate protection from wet weather. On average, about 70% of the area under the canopy would be protected from wind-driven rain over the year. In addition, the analysis showed that there would be no benefit to moving the shelter further westward, because most of the wind-driven rain comes from the west, not from the east. It should be pointed out that the analysis did not take into a number of site and storm specific factors that could occur that might influence how the canopies perform during rainy weather. In addition, the analysis did not consider the sheltering effect of the surrounding structures, in particular the Agriculture Building, and the further protection against wind-driven rain that they offer. As a result, the canopies are likely to provide an even greater measure of protection against inclement weather than the meteorological analysis would suggest.

On July 1st, the HPC stated that the canopies were appropriately conceived to include photovoltaic cells and fritted glass and metal as a reflection of sustainability values characteristic of this era. They also felt that the sizing and design of the canopy elements did not need to be made more slender, but in fact, were reflective of the robust nature of the buildings in the historic district.

5) **Sequence of Design for Over Time.** The Board suggested that the applicants give further consideration to the nature of the connections to the shoreline between the plaza and the Agriculture Building and along the south side of the Agriculture Building during the period prior to future renovation of the Agriculture Building. There was also discussion about the construction process and how the area would continue to function and remain "whole" through the two-year construction period. It was noted that waterside construction is interesting and the public should be able to fully observe this construction process over time.

   The design of the improvements in the South Basin area have taken into account the need to establish an appropriate relationship to the three principal adjacencies, that is, to the north to the Ferry Plaza and Ferry Building and to the future improvements contemplated by the Port for the South Bayside Promenade; to the existing Embarcadero Promenade and the Embarcadero itself on the west; and to the Agriculture Building and its existing elevation and conditions on the south as well as the future potential for its preservation and adaptive reuse and the need to elevate it on a platform that will provide for sea level rise and an appropriate treatment of the historically significant architectural characteristics of the building. In addition, the planned improvements in the South Basin today also respond to some of the unique requirements of the area on the south side of the Agriculture Building. In this area, a second means of entrance and egress to the Ferry Terminal is desired, but, at the same time, this second means of egress/access must be done on an interim basis on the existing platform extension on the south side so that construction access for a pile-driving barge is not precluded when the renovation of the Agriculture Building takes place.

There are other conditions on the south side of the Agriculture Building which must be taken into account related to future improvements that will be made when the Agriculture Building is renovated and the elevated platform provided. The Port is currently investigating seawall conditions and the need for future measures to enhance seismic stability and protect against flooding which is particularly significant in this area because of its low elevation and vulnerability to storm surges. The design of improvements in this area needs to consider that, in the future, there may be a desire for a better connection between the renovated podium of the Agriculture Building and the significant public access area created by Pier 14 which is at an elevation which already responds to sea level rise.

In designing the South Basin Ferry Terminal and public access improvements, careful consideration has been given so that a positive relationship can be created between the renovated building and the plaza on the north and the promenade on the east. In addition, consideration has also been given as to how the improvements on the south side of the Agriculture Building can be undertaken to create the desired linkages to the Embarcadero and to Pier 14 and the potential upgrade of the seawall in this area as well as the need to maintain accessible paths to the ferry terminal from the Embarcadero Promenade. However, the specific responses cannot be determined until they are designed as part of the future improvements. What can be said is that the design does not foreclose future opportunities and, as further described in this text, takes into account how positive relationships might be developed in the future.

At the same time, however, the planned improvements must and do respond to the realities of the existing conditions at the Agriculture Building today. The uses in the Agriculture Building are temporary in nature and generally on short term leases in response to the poor condition of the building. The Amtrak station has relocated from the Agriculture Building and a future use for this space has not been defined. Other portions of the ground floor area in the Agriculture Building are currently used for storage with no long-term plans in place for alternative uses. The north, south and east sides of building do not open up to the adjacent

exterior spaces and have no activities that enhance public access and use of the area. In addition, service support for the building and utility infrastructure occupy a large portion of what could be public access on the north and south sides. Today, large portions of the east and south platform areas have become leftover spaces that have increasingly fallen into a very poor and unwelcoming condition.

The plan proposes a variety of interim improvements that will improve the existing conditions around the Agriculture Building and enhance opportunities for better interim use of the building in its current condition. On the north side of the Agriculture Building, the plan proposes the addition of approximately eight feet to the existing platform area to provide access past the existing gas valve enclosure. With this extension, an approximately 19-foot separation will be provided between the existing Agriculture Building and the new sloped walkway that transitions in grade between the Embarcadero and the grade of the promenade. On the east side, an approximately seven-foot extension will also be provided to accommodate the existing building's upper level stairway. This extension will result in a 37-foot separation between the major portion of the east elevation of the Agriculture Building and the promenade that is part of this project. These extension areas will be built at the same elevation as the adjacent apron areas and as temporary timber construction that spans between the existing pile-supported structure of the Agriculture Building and the piles along the perimeter supporting the new public access areas associated with the Ferry Terminal expansion. What is also recognized is that there is a significant 4-foot difference in grade between the existing platform and proposed promenade. Therefore, on an interim basis, the plan proposes to adaptively reuse the more traditional guardrail that is a part of the Phase 1 ferry terminal improvements related to Gate E as the guardrail between the promenade and sloped walkway and the platform level of the Agriculture Building.

The plan also includes that a steel stair be constructed at the northeastern corner of the existing platform to create a potential connection to the promenade and plaza. Interim accessible improvements are also proposed between the elevated promenade and the south apron of the Agriculture Building, as previously

mentioned. The plan proposes that access to the Agriculture Building apron on the east and north sides of the Agriculture Building be gated during construction and if, in the short term, the interim uses and activities in the building do not warrant the need for access at all times, access should continue to be limited so that the area does not become a receptor for undesirable activities as it does today. However, if the activities in the building prior to renovation do contribute to creating an active, people-oriented place, then the area should be fully open and publicly accessible at all times.

In response to the second aspect related to the use of the area during the two-year construction period and the creation of opportunities to observe the construction process, it should be noted that WETA will continue to operate its existing services at Gate E during construction. Construction plans will ensure that the area continue to function not only for ferry services, but also for other uses such as circulation and public access and opportunities for viewing the construction process, to the extent feasible.

See ***Figure 4*** for an illustrative depiction of potential future related projects and the requirement to maintain accessibility to the ferry terminal when these projects are designed and implemented.

6) **Pedestrian Circulation Patterns.** The Board recommended that the existing pedestrian circulation patterns in the vicinity of the whole Ferry Building be diagrammed in conjunction with the projected new circulation patterns expected with the proposed project.

A graphic describing the existing and projected circulation patterns in the Ferry Building area in conjunction with those proposed by this project has been prepared.

See ***Figure 5*** for the diagram of the existing and projected circulation patterns in the Ferry Building area.

7) **Sea Level Rise.** The Board recommended that some interpretative information that explains how the project's design responds to sea-level rise will help in educating the public about the issue.

   The Port and WETA concur with the desire to create some interpretative signage related to sea level rise. This project needs to be recognized as the first step in a series of responses that are needed to this issue. The improvement of the South Bayside Promenade, which is not a part of this project but which is being pursued by the Port, is also intended to create a response in the design of the new guardrail to the issue of sea level rise. It is therefore proposed that interpretative signage that addresses sea level rise and the changing physical conditions necessary to respond to it be designed for placement in the grade transition between the Ferry Plaza and the new East Bayside Promenade, and incorporated into the curb wall and railing at that location.

8) **Continuity Between the South Basin, Ferry Plaza, and North Basin.** The Board recommended that continuity of design should be provided between the proposed new south basin, the ferry plaza and the north basin.

   The planned improvements create a continuity between the elements of the Downtown Ferry Terminal by the use of a consistent design of the portal gates, gangways, floats and weather protection as well as the paving at each of the gate entrances with the use of a compass rose. In addition, the project will use granite paving materials for the plaza that is similar in character to that which was used in the mid-Embarcadero and the Market Street crossing. All of these elements form a part of a consistent design vocabulary that gives a strong identity to the Ferry Building area. In addition, the new guardrail design is in a similar vocabulary as the Pier 14 guardrail. Consideration will be given by the Port and WETA in the future design of the North Basin and the Ferry Plaza to create additional elements of continuity, adaptively responding to the unique conditions of each place and the functional and temporal requirements that each must serve.