



CITY OF LONG BEACH

OFFICE OF THE CITY MANAGER

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May 16, 2017

Mr. Steve Hudson, District Director
California Coastal Commission
South Coast Area Office
200 Oceangate, Suite 1000
Long Beach, CA 90802-4302

Dear Mr. Hudson,

We are in receipt of your letter dated May 11, 2017. Comments from the California Coastal Commission staff are important to the City of Long Beach as we both work to consider and ultimately permit this project. The City of Long Beach staff has reviewed your letter in detail, as well as the former EIR response to the Coastal Commission staff's comments. In response to the letter, City staff will be presenting information to the City Council on the topics you have outlined, including alternative sites, building height, Local Coastal Plan and Coastal Act conformance, sea level rise and wave uprush. These issues and the City's actions in the EIR and project design will be discussed at length in the hearing today to certify the Final EIR. We would like to provide additional written comments and information particularly as it relates to sea level rise and wave uprush, through the responses below.

Comment Page 1, Paragraph 3: *Commission staff believes that the primary issue raised by this project is that...although the beach is currently wide enough that the structure would likely be safe from wave action in the immediate future, given sea level rise, the new pool facility is expected to be subject to wave action and shoreline erosion over structure's expected life. The Commission Sea Level Rise Guidance Document and the hazards and shoreline development policies in Chapter 3 of the Coastal Act provide that new development should not be located in hazardous areas subject to sea level rise if there are feasible alternatives.*

Response:

1. The *Wave Uprush Study* (Moffatt and Nichol, 2014) shows the project structure to be sufficiently protected against sea level rise and a 100-year storm event except for the high-projection year 2100 sea level rise scenario of 5.5 feet; the year 2100 is near the end of the structure design life. Given the uncertainty of the amount of sea level rise, these are worse case projections that have been accommodated into the building's design. It is important to note that much of the urbanized southern California shoreline will be vulnerable to coastal erosion and flooding well before the year 2100 high projection sea level rise scenario, and the *Wave Uprush Study* demonstrates that the project structure will be sufficiently protected, where other beach areas may not.

2. The project is afforded a unique level of present and future protection from wave action and shoreline erosion over its expected design life. The City of Long Beach is very fortunate to have a very wide and stable sand beach ideal for present and future recreation, habitat value, and natural shore protection. This location is unique in that there is no net sand loss within its closed littoral system bounded on the west by the Downtown Shoreline Marina east jetty, and on the east by the Alamitos Bay Marina west jetty. Furthermore, the Federal Breakwater provides significant protection against wave action and shoreline erosion. As such, this is a near ideal location for this facility due to the overall stability of the beach location.
3. As can be seen in Google Earth historic aerial photos, the project is located at a very stable shoreline location near the center of the City's shoreline and near the Belmont Pier. Per the *Wave Uprush Study*, a beach profile centered at the project location shows a dry beach berm width of approximately 200 feet, with a distance between the seaward face of the pool superstructure and the mean high tide line of about 250 feet.
4. As clearly stated in the *Wave Uprush Study*, the vulnerability assessment assumes no future adaptation strategies need to be implemented to reduce coastal flooding and erosion at the pool site. Simply stated, no mitigation measures were required. As depicted in recent sea level rise vulnerability model projections, the project location is much less vulnerable to sea level rise than the eastern portion of the City shoreline, e.g. the Peninsula. Hence, there is a strong likelihood that the City will take effective measures toward enhancing resilience and reducing erosion and flooding risk along the shoreline and within its coastal zone, well before the pool site becomes vulnerable. For example, given the very stable and protected shoreline, Long Beach is an ideal candidate for beach nourishment – a direct and effective response to sea level rise. The City's own 50+ year history of sand management makes this a legitimate existing program that can be implemented should the need arise to protect the structure due to future unknown conditions. The closed littoral system and protected coastal waters eliminate many of the concerns regarding the high cost of beach nourishment. Furthermore, there is a long track record of successful beach nourishment projects in the adjacent City of Seal Beach and the US Army Corps of Engineers' Surfside-Sunset regional programmatic beach nourishment project, in addition to the City's own sand management efforts. To address the Coastal Commission's comments on sea level rise, the City plans to have detailed discussions with the Coastal Commission about this innovative approach to preserve sandy beach, which is not an option in most of California.

Comment Page 1, Paragraph 4: *The project appears to be designed to likely ensure the structure's stability (from an engineering perspective) if the area of the beach where the seaward portion of the structure is located becomes inundated due to sea level rise; this would be achieved by utilizing a substantial foundation that would extend not only below the expected scour level of the beach but would also be built up relatively high in elevation. As a result, this deepened foundation itself could effectively act as a seawall, or result in similar impacts to coastal resources as a seawall, raising potential issues with the hazard and shoreline development policies of the Coastal Act..., which provide that new development should be designed and located in a manner to ensure geologic and engineering stability independent of the need for shoreline protection.*

Response:

5. The Coastal Act states that “new development” does not include: “Improvements to any structure which do not change the intensity of its use, which do not increase either the floor area, height, or bulk of the structure by more than 10 percent, which do not block or impede public access, and which do not result in a seaward encroachment by the structure.” The new pool facility meets this criteria. Additionally, the design of the public pool structure remains in conformance with the Coastal Act and the Coastal Commission’s Sea Level Rise Policy Guidance (2015) which prohibits any future construction of shoreline protection devices when in the future the building is threatened by erosion. Instead, the pool facility relies on its own deep foundation to preclude the need for a seawall to protect against erosion. Furthermore, the structure will not act as a seawall, since it is only subject to the influence of wave uprush under the conditions of a 100-year coastal storm event under the high project sea level rise scenario in the year 2100. There are many examples of structures with significant setback from the shoreline, which may be impacted during a 100-year storm event. Once the storm passes, beaches respond and lateral access is restored.

Comment Page 2, Paragraph 2: Moreover, both the Coastal Act and the City’s LCP set forth policies to protect shoreline areas for public access and recreation. Beaches are particularly vulnerable to the impacts of new development because beaches backed by fixed or permanent development, such as the new pool facility, will not be able to migrate inland as sea level rises, and will become permanently inundated over time, which will in turn present serious concerns for future public access, recreation and habitat protection.

Response:

6. As stated above, the project represents the replacement of an important public access resource in the City of Long Beach – not new development. From the inception of the project, the City’s intention was to create a replacement facility for the Belmont Pool, which was demolished for safety reasons. The City’s coastal development permit for the demolition also contemplated rebuilding the facility in this location. The City took into account the placement on the site as the design was developed. The new pool structure’s seaward footprint is located in the same location as the original pool structure. The new structure is 143 feet narrower in its east to west (beach frontage) dimension. The new structure’s plinth is 1 foot lower than the original pool structure’s plinth, and is oriented as landward as possible within a very stable portion of the City shoreline in terms of erosion and flood risk. As stated in Response #4, the City would like to discuss with the Coastal Commission ways to continue to proactively implement current adaptation strategies such as sand management and beach nourishment and potentially other measures to reduce erosion and flood risk, even though these measures are not needed for the pool facility. Given the fact that the pool location is in much more protected area than the shoreline to the east, these adaptation strategies would most likely be implemented well before the need would arise at the pool location.

HONORABLE MAYOR AND CITY COUNCIL

May 16, 2017

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We appreciate the opportunity to answer these questions and to continue to work proactively with you on this important project.

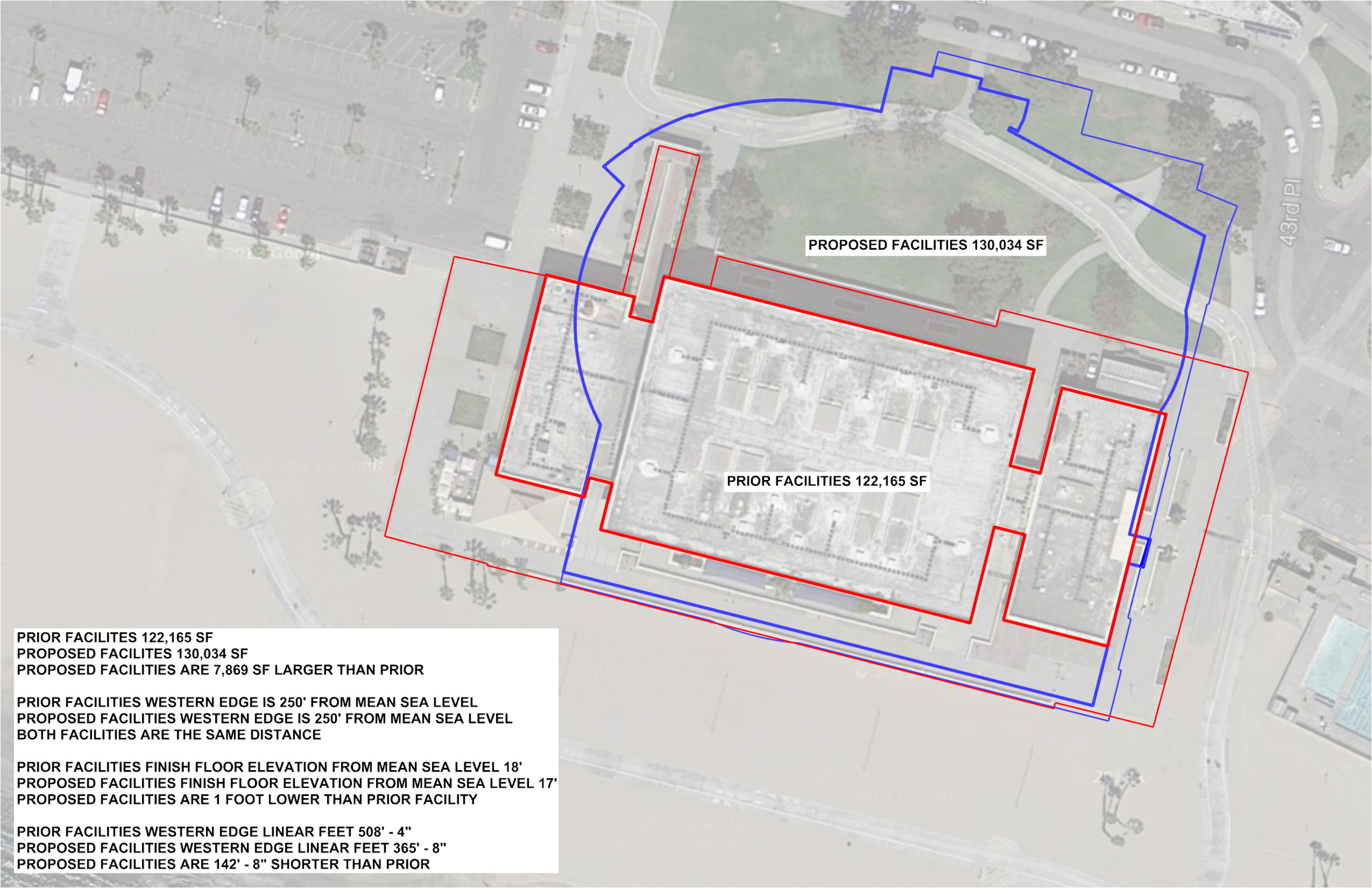
Sincerely,



TOM MODICA

Assistant City Manager

CC: Michael Mais, Assistant City Attorney
Amy Bodek, Development Services Director
Linda Tatum, Planning Bureau Manager
Dino D'Emilia, PE, QSD, AndersonPenna
Russell H. Boudreau, P.E., D.C.E., D.P.E., Moffatt & Nichol



PROPOSED FACILITIES 130,034 SF

PRIOR FACILITIES 122,165 SF

**PRIOR FACILITIES 122,165 SF
PROPOSED FACILITIES 130,034 SF
PROPOSED FACILITIES ARE 7,869 SF LARGER THAN PRIOR**

**PRIOR FACILITIES WESTERN EDGE IS 250' FROM MEAN SEA LEVEL
PROPOSED FACILITIES WESTERN EDGE IS 250' FROM MEAN SEA LEVEL
BOTH FACILITIES ARE THE SAME DISTANCE**

**PRIOR FACILITIES FINISH FLOOR ELEVATION FROM MEAN SEA LEVEL 18'
PROPOSED FACILITIES FINISH FLOOR ELEVATION FROM MEAN SEA LEVEL 17'
PROPOSED FACILITIES ARE 1 FOOT LOWER THAN PRIOR FACILITY**

**PRIOR FACILITIES WESTERN EDGE LINEAR FEET 508' - 4"
PROPOSED FACILITIES WESTERN EDGE LINEAR FEET 365' - 8"
PROPOSED FACILITIES ARE 142' - 8" SHORTER THAN PRIOR**