



THE CITY OF SAN DIEGO

MEMORANDUM

DATE: January 30, 2014

TO: Balboa Park Committee Agenda of February 4, 2014

FROM: Mark Nassar, Deputy Director, Public Works, Engineering & Capital Projects  
Department

SUBJECT: Informational Item – California Tower Seismic Retrofit

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SUMMARY

THIS IS AN INFORMATIONAL ITEM ONLY. NO ACTION IS REQUIRED ON THE PART OF THE COMMITTEE.

BACKGROUND

This report provides the current status of the seismic retrofit effort for the California Tower. The historic California Tower, attached to the California Building (the Museum of Man) in Balboa Park, is an iconic San Diego structure. Structural analysis has been conducted and seismic enhancement has been deemed necessary to protect the Tower from major earthquake damage. Previous structural enhancements in 1964 fall far short of the current seismic standards.

This project consists of testing, investigation, seismic evaluation, preparation of construction documents, and construction of seismic upgrades. With the available funds, staff has procured a consultant who has completed the testing, investigation and seismic evaluation of the tower and has prepared construction documents to the 90% level. Staff has also obtained the necessary environmental and historic preservation clearances for the project. The final construction documents will be prepared upon appropriation of



construction funding. After securing the necessary funding and permits, the project will be ready for bidding and construction. Total cost for the seismic enhancement of the California Tower has been estimated at \$1.7M.

All proposed work will comply with *The Secretary of the Interior's Standards for the Treatment of Historic Properties* in order to maintain the historic integrity of the tower. At the completion of the project, the seismic enhancements will be internal and not readily visible from public interior or exterior spaces. Currently, construction is scheduled to commence after the 2015 centennial celebrations, contingent on availability of funding.

Seismic enhancements of the tower are identified to involve the following work:

1. Modification or replacement of the 1964 steel frame that is located within the upper semi-open tiers.
2. Vertical embedment of tensioned reinforcing bars within the cast-stone ornamentation blocks at the top two tiers, with no exterior exposure.
3. Shotcrete enhancement (thickening) of the interior walls of the lower portion of the tower from the base to the sixth tier. The original solid walls of the lower tower shaft were removed and replaced in 1964. The new shotcrete will not be visible to the public.
4. Removal of existing door on the south wall of the tower facing El Prado. This door is not historic and was added when the electrical equipment was installed. Replacement of exterior stucco will be carefully matched for texture and color to be seamless.
5. Removal of non-historic electrical equipment in the base of the tower.

Removal of electrical equipment in the base of the tower is identified as the first necessary step in the overall seismic enhancement of the building. This equipment relocation is necessary for the thickening of the walls and other improvements associated with seismic retrofit work. Construction documents for the electrical equipment relocation have been completed to 100% level. Construction for this phase is scheduled to begin this June and completed in November, 2014.

It must be noted that seismic enhancement of the California Building is not included in the scope of this project. The structural enhancement of the tower has been designed to be compatible with future seismic upgrades to the California Building. Additionally, staff will coordinate all construction activity with the affected stakeholders prior to start of work and will make every effort in completing the project with no or minimum impact on visitors and the stakeholders. Staff can provide update prior to the seismic project construction start date when more information is available.

Currently \$750,000 in Regional Park Improvement Fund (RPIF) is allocated in the project. This funding has been used for the preparation of the testing, investigation, seismic evaluation and preparation of the construction documents for both the seismic retrofit project and the electrical equipment relocation project. This funding will also be used for the construction of the electrical equipment relocation project which is estimated at \$450,000. Approval of additional RPIF in the amount of \$750,000 for fiscal year 2015 is being processed by the Park and Recreation Department with an additional \$750,000 anticipated to be added to the project in fiscal year 2016. Additionally, a Federal Emergency Management Agency (FEMA) grant application is being prepared by the Park and Recreation Department to make the project funding whole. FEMA has earmarked \$1 million in Hazard Mitigation Assistance funding to be received by the City of San Diego through their Pre-Disaster Mitigation grant program. Receipt of this funding depends on the City of San Diego's ability to identify an applicable pre-disaster mitigation project and submit a qualifying application.

The Pre-Disaster Mitigation Program provides funds to communities for hazard mitigation planning and the implementation of mitigation projects prior to a disaster event. Funding these plans and projects reduces overall risks to the population and structures, while also reducing reliance on funding from actual disaster declarations. Earthquake mitigation is identified as one of the eligible categories for this grant funding and the Park and Recreation Department has received confirmation from FEMA to move forward with the grant application.

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