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# Information Item

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Date: May 19, 2009

To: Mayor and City Council

From: Lee E. Swain, Director of Public Works  
Andy Agle, Director of Housing and Economic Development

Subject: Pier Infrastructure Assessment Study

## Introduction

This Information Item describes the findings of the Pier Infrastructure Assessment Study ("Study") prepared by Moffatt & Nichol, November 17, 2008. The Study recommends a ten-year program for undertaking necessary upgrades and funding priorities for future capital projects.

## Background

On [April 10, 2007](#), the City Council authorized a professional services agreement with Moffatt & Nichol to prepare the Santa Monica Pier Infrastructure Assessment Study. The Study examined existing conditions and included special upgrade studies, recommended an urban design program and provided cost estimates and project phasing over a ten-year period. The Santa Monica Pier Restoration Corporation adopted the Study at its meeting March 4, 2009, subject to the Board reviewing various elements of the program before they are implemented. Several of the projects (emergency evacuation gangway, partial funding for Phase IV improvements, utility upgrades, fabrication and installation of the Onion Dome on the Carousel, and necklace lighting) noted in the Study have been funded through the FY 2008-09 Budget, but most of the projects, which total \$26,531,970, remain unfunded.

## Discussion

The Study, available for review at: <http://www01.smgov.net/engineering/index.asp> provides valuable information about the Santa Monica Pier, as follows:

1. GIS Pile Numbering: The Study created a new pile numbering system that is linked to the City's GIS system so that changes in conditions to the Pier's infrastructure can be recorded and updated as needed.
2. Existing Conditions: The Study examined existing conditions of piles, caps and corbels, bracing and stringers and recorded that information electronically according to the new Pile Numbering System. The Study also examined water, sewer and natural gas lines, and the fire protection and electrical systems. The Existing Conditions section of the Study was completed in early 2008, and was the basis for staff requesting CIP funds to upgrade Pier utilities and the fire protection system. Funds are included in the FY 2008-09 Budget to complete this work. Preparation of bid documents is in progress.
3. Upgrade Studies: The Study examined nine special topics to address areas of interest on the Pier including:
  - a. Phase IV: This Upgrade Study involved completion of plans and specifications to replace wood piles with concrete piles along a western portion of the Municipal to increase the load-bearing capacity to 40,000 pounds. The information contained in the report was the basis for funding included in the FY 2008-09 Budget.
  - b. Newcomb Pier Structural Upgrade: This Upgrade Study examined conditions on the Newcomb Pier to determine what upgrades would be needed for the Newcomb Pier to accept loads of up to 30,000 pounds, either for vehicles or for future buildings. The Upgrade Study found that several areas needed repair in the very short term at an estimated cost of \$2,400,000. The total cost to upgrade the Newcomb Pier was estimated at \$12,691,800.
  - c. Aquarium Roof Assessment: Prior to the Study there were questions about the load-bearing capacity of the recently repaired deck above the Santa Monica Aquarium. The Study determined that no upgrades were needed and established standards for use of the area.
  - d. Emergency Evacuation Gangway: This Upgrade Study examined two locations for an emergency evacuation gangway at the southwestern end of the Pier and described two alternative design approaches. The cost estimate contained in the Study was the basis for funding included in the FY 2008-09 Budget. Staff is currently evaluating consultant proposals for the design of the gangway and Phase IV. This work is scheduled to begin January 2010. Design alternatives for the gangway will be reviewed with the Santa Monica Pier Restoration Corporation (PRC) prior to being bid.
  - e. Municipal Pier Concrete Upgrade Study: This Upgrade Study offered alternative methods for increasing the load-bearing capacity of the

wafflecrete portion of the Municipal Pier, and provided cost estimates for completing the work.

- f. Carousel Dome Upgrade Study: This Upgrade Study reviewed plans previously prepared in 1997 and updated the cost estimate. The FY 2008-09 Budget includes funds for this project. Staff retained Pugh+Scarpa to complete the design. Design should be complete by fall 2009 with installation completed by the March 2010.
  - g. Fire Safety Upgrade Study: This Upgrade Study estimated the cost to repair damage and deterioration found during the Conditions Assessment phase of the study, and recommended installation of a dry standpipe system along the entire length of the Pier and installation of isolation valves in the existing fire water system such that a portion of the system may be removed from service without impairing the entire system. This project is funded in FY 2008-09 Budget as part of the Pier Utilities Upgrade project. A Request for Design/Bid will be advertised by June 30, 2009, with Council approval of a contract scheduled for September 2009, and construction to begin early 2010.
  - h. Lighting Upgrade Study: The Conditions Assessment Report identified five different lighting fixture types on the Pier of assorted design, styles and various heights, which create an incoherent image of the Pier. In addition, many of the fixtures were in poor repair and did not effectively serve the purpose for which they were intended. The Lighting Study evaluated the need for different light coverage, light pollution, and energy efficiency and recommended new poles, fixtures and their placement to achieve a better lighting system.
  - i. Urban Furnishing Upgrade Study: The Urban Design Upgrade Study was prepared by Wallace Roberts & Todd, LLC (WRT). WRT's Conditions Assessment of existing furnishing and fixtures on the Pier was the basis for recommendations for a plan that identified new tables, benches, trash cans, improvements to railings, lights, and bike racks and their placement in accordance with a site plan. One of the recommendations that received enthusiastic response from staff and the PRC was to construct a backless seating bench in place of the curb that separates the Municipal Pier from the walking deck. Pier Maintenance is constructing model benches to test the concept.
4. Ten-Year Improvement Plan: Working with City staff and the PRC, Moffatt & Nichol created a ten-year improvement plan that established priorities based on need, with projects necessary for life safety programmed in early years and projects that enhance and improve facilities scheduled for later years. The total cost of all projects is \$26,531,970 in current 2008 dollars. This will be a guide to help plan for future capital projects.

5. Maintenance Guidelines: The last section of the Study is a detailed Maintenance Plan that describes frequencies and methods for inspecting and maintaining the Pier's infrastructure, from piles, caps and braces, to managing traffic based on current load-bearing characteristics of the Pier deck, to testing fire sprinklers, valves and gauges, and water and other utility systems.

The next steps involve implementation of the Study's recommendations. PRC has asked to review designs of the gangway as it progresses and to be advised before any urban furnishings are purchased or installed. City staff will be making a presentation to the Landmarks Commission June 8, 2009. As funds are available in the future, implementation of the recommendations in the Study will help ensure that the Pier's infrastructure is maintained, inspected and repaired on a regular basis, and that upgrades are accomplished in a manner that makes efficient use of the City's limited resources.

**Prepared By:** Miriam Mack, Economic Development Manager