

Port of Richmond Point Potrero Marine Terminal Assessment

Tuesday, May 6, 2025



moffatt & nichol



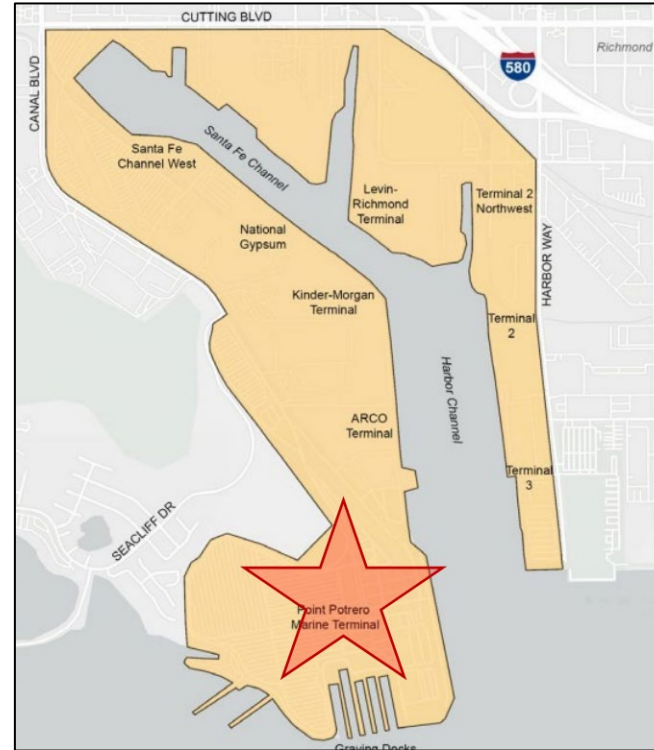
Presentation Outline

- › Project Background
- › Purpose
- › Team Introductions
- › Team Experience
- › Inspection Schedule
- › Inspection Status / Findings
- › Inspection Summary
- › Key Findings
- › Path Forward



Project Background

- › Henry J. Kaiser developed four shipyards in Richmond during World War II
- › In 2009, Shipyard No. 3 was rehabilitated into a state-of-the-art Roll On/ Roll Off (RoRo) terminal for the import of automobiles
- › Facility is now called the Point Potrero Marine Terminal (PPMT)



Port of Richmond's Point Potrero Marine Terminal



Port of Richmond's Point Potrero Marine Terminal, 1945

Project Background

- › Berths 5 & 6
 - › Limited use over the last 40 years, primarily as lay berthing
- › Berths 7 & 8:
 - › Active area, currently leased to Auto Warehousing Company for import of vehicles from Korea and Japan
- › Graving Basins and Finger Piers
 - › Used for berthing of vessels such as Red Oak Victory ship and other operating commercial vessels
 - › Piers on West side of facility constructed in the 1940s and have been updated by Port and tenants over the years



Outline of Areas to be Studied

Project Purpose

- › Assess general condition of all structures
- › Evaluate potential alternative use options in the future
- › Provide costs to design and construct improvements to continue and enhance operations
- › Develop prioritized list of projects that can be completed over the next 5 to 10 years
- › Provide input on sequencing of repairs and upgrades in terms of highest need and accommodation of current operational activities and variables



Primary Use for Berths 7 and 8, Roll on/off Cargo, Winter 2024

Team Introductions and Experience



Prime Consultant
Inspection and Assessment of
Graving Basins & Finger Piers



Inspection and Assessment
of Berths 5-8 & Whirley
Crane



Geotechnical Assessment



Provide Inspection Access
(Inspection Boat & Confined Space Entry),
Constructability Review and Cost
Estimating

- › Moffatt & Nichol
 - › Experience modernizing former shipyards
 - › Mare Island Graving Docks, Vallejo, CA – recertification of WWII graving docks for future uses
 - › Hunter's Point Shipyard, San Francisco, CA– redevelopment of graving docks for a mixed-use development
- › Liftech
 - › History with Berths 7-8 as EOR for 2012 repair project
- › Engeo
 - › Familiarity with geotechnical characteristics of site through past projects
- › Power Engineering Construction
 - › Marine construction contractor, familiar with Bay Area projects

Inspection Schedule

› February 27 – March 27, 2025:

› Inspection team (M&N) completed above-water inspection of Graving Basins and Finger Piers

› March 18-19, 2025:

› Inspection team (Liftech/Power/Engeo) completed inspection of Berths 5-8

› March 27, 2025:

› Inspection team (Liftech) completed visual assessment of Whirley Crane



Mayor Martinez taking part in inspections of Berths 5-8

Inspection Status / Findings

Berths 5-8 (Liftech)

› Berths 5-6

- › Slab sagging caused by beam failure below
- › Many damaged and missing timber piles
- › Pavement failure caused by soil erosion
- › Exposed reinforcing and corrosion damage below deck

› Berths 7-8

- › Corrosion damage with exposed reinforcing at face beams and soffit
- › Repaired piles in good condition; non-repaired piles are getting worse
- › Concrete piles at seismic tie #7 cracked due to overload from missing adjacent piles



Damage at Berths 5-6

Inspection Status / Findings

Graving Basins and Finger Piers (M&N)



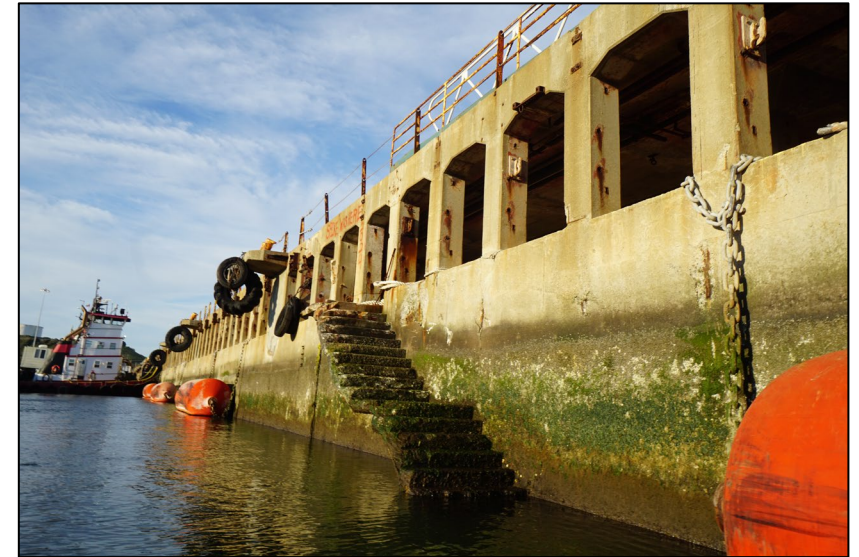
Interior columns



Exterior columns



Outside face of basins



Exterior columns used in fender systems

› Graving Basins

- › Interior columns generally in good condition
- › Exterior columns typically exhibit moderate to major damage
- › Cracks, exposed reinforcing steel, delaminations on outside face of basins

Inspection Status / Findings

Graving Basins and Finger Piers (M&N)



Severe pile



Typical pile damage at internal row



Exposed reinforcing at deep beam



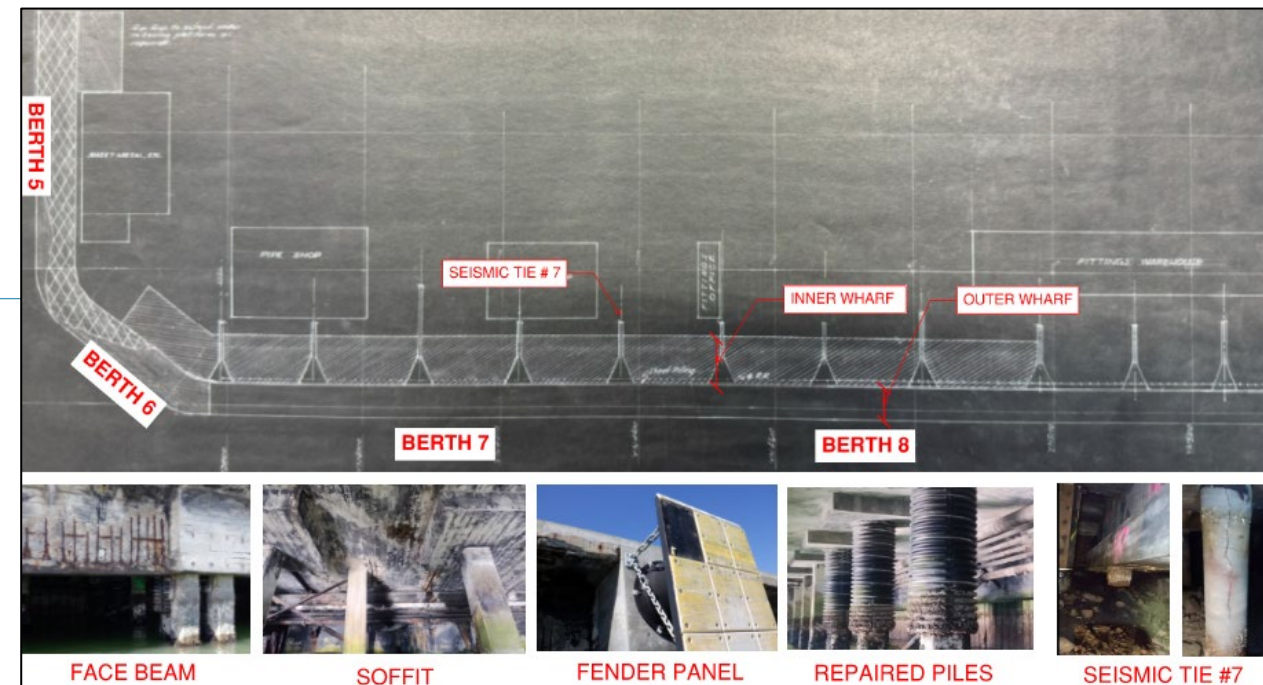
Deck soffit

› Finger Piers

- › Pile clusters typically in minor to moderate condition
 - › Major or severe damage at (2) piles likely due to impact
- › Internal row of piles typically in moderate to major condition
- › Deep beams are typically delaminated and spalled with exposed reinforcing
- › Deck soffit has no / very little damage

Inspection Summary

- › Berths 5-8
 - › Condition: Poor to Critical
 - › Action Needed: Critical repairs— restore beam under Berth 6 to original position and strength, tie beam repair, pavement failure repair
- › Graving Basins
 - › Condition: Fair
 - › Action Needed: Address potential environmental and safety hazards, develop mooring/fender system to reduce damage to structure, restrict loading at areas where columns are in serious condition
- › Finger Piers
 - › Condition: Fair to Poor
 - › Action Needed: Develop pier load ratings, consider upgrading of fender systems depending on projected use, restore edge beams to prevent further structural deterioration and decrease in capacity



Damage at Berths 7-8 (above)
Columns in Serious condition at Graving Basin (below)



Path Forward

- › Develop condition assessment report for structures inspected
- › Prioritize list of potential projects based on inspection findings. These will include:
 - › Critical safety repairs
 - › Recommended repairs to support ongoing Port operations
 - › Recommended improvements to increase Port revenue
 - › Grant funding strategy
 - › Develop an Inspection and Maintenance Program



View of Finger Pier



View of Graving Basin 1

Thank you

