Berth 607
Asset Condition Case Study

The impacts of limited asset condition information on capital improvements

Tim Van Wormer
Port of Portland Oregon
Existing Asset Management

- Roofs
- Fender Pile
- Pavement
- In-water wood structural piling
Terminal 6 Berth 607 Facility
2006 Project Scope

- New breasting and mooring dolphins
- New 38’± “Pocket” in hull of floating dock
- Upgrade existing 22’ ramp
- New 16’± Ramp
- New 16’± Fixed Bridge
Visual Survey by PM

• During design PM conducted walk through of floating berth
  – Undersized mooring cleats attached to cantilever deck
  – Wooden pile bridge supports, condition?
  – Unique mooring dolphin configuration
Dolphin Shear Plate Repair
Conducted Condition Survey

- Extended engineering design contract
- Designed and estimated necessary improvements
- Re-initiated capital improvement process
2006 Project Scope

- New breasting and mooring dolphins
- New 38’± “Pocket” in hull of floating dock
- Upgrade existing 22’ ramp
- New 16’± Ramp
- New 16’± Fixed Bridge
2007 Project Scope

- Repair existing mooring dolphins
- Apron support repair
- New mooring bollards
- Repair timber pile
## BUDGET - B607
### Apron Bollard, and Dolphin Repairs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
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<tr>
<td><strong>2006 project - construction complete</strong></td>
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<tr>
<td>Construction</td>
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<td><strong>TOTAL ESTIMATED COST</strong></td>
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<td>BUDGET ESTABLISHED 2005 (basis of lease amend)</td>
<td>$5,231,000</td>
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BUDGET ESTABLISHED 2005 (basis of lease amend)
Lessons Learned and Impacts

• Conduct contract negotiations only when facility conditions are known
• Conduct Level 3 facility condition inventory as part of site analysis when making improvements to existing infrastructure

• Caused re-initiation of commission capital improvement approval process
• Created in-water-work permit issues
Unknown Asset Condition Impacts

Where we thought we would be after improvements

Budget phase II

Where we really were

Asset Operational Capacity

Capital Improvement

Budget