



**COMMISSION
AGENDA MEMORANDUM**

Item No.

8e

ACTION ITEM

Date of Meeting

April 11, 2023

DATE: March 24, 2023

TO: Stephen P. Metruck, Executive Director

FROM: Kenneth Lyles, Director, Maritime Operations and Security
Darrell Dare, Sr. Manager, Recreational Boating
Tim Leonard, Capital Project Manager

SUBJECT: Harbor Island Marina Dock-E Float and North Pier Improvements Project Construction Funding (C800678)

Amount of this request: \$3,955,000

Total estimated project cost: \$5,000,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to advertise and execute a major works construction contract to replace elements of Dock-E at Harbor Island Marina and increase its current vessel loading capacity. Total request for this action will be \$3,955,000 for a project total authorization of \$5,000,000.

EXECUTIVE SUMMARY

This capital improvements construction will replace the southernmost 23 (out of 78 total) existing floats at Dock-E at Harbor Island Marina with heavier duty floats and piles; upgrade the remaining dock portion; and replace the dock's elevated North Pier structure to restore vehicle access to it. These proposed improvements are needed to increase the dock's current vessel loading capacity and improve its operational ability to provide moorage for large commercial tug tenants.

Port Environmental staff are currently in negotiation with the tribes, as well as in discussions with USACE and National Marine Fisheries Service regarding the required USACE permit, but based on current agency backloads and increased regulatory requirements, the permit is not anticipated to be issued until as late as summer 2023. Due to current market conditions though, it's imperative that construction approval is granted in April 2023 to complete the bid/contractual processes necessary to provide the contractor a minimum of five months to procure the materials necessary to subsequently start and complete the first construction phase in-water work within the initial limited 2023-24 "fish window".

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JUSTIFICATION

Dock Structural Integrity

Originally designed and constructed in 1983 for recreational boats, Dock-E at Harbor Island Marina has been providing moorage for large commercial tugs for over a decade and is currently primarily utilized by long-time commercial tenants Global Diving and Western Towboat, as well as other commercial marine vessel tenants on a more limited basis. As a result of the structural load from heavier vessels, up to 94-ton (gross) and 120-feet in length, much of the dock's piles, walers, cleats, bollards, and pile hoops have been severely worn or damaged and these elements have been repaired or upgraded over the last ten years by Marine Maintenance in a continual effort to extend the dock's capability to accommodate the tenant vessels' berthing needs. Additionally, although many of the original timber guide piles have been replaced with steel piles as part of a facility programmatic replacement, some lower load capacity timber piles still remain. All of these factors have contributed to Dock-E currently functioning with a reduced level of structural integrity as well as requiring a higher rate of repairs and maintenance within its remaining service life.

Economic Impact

This improvement project contributes directly to the jobs engine of the local maritime industry cluster. Tugboats and towboats are an essential component of the maritime sector. As just one measure of this value, the 2015 Ties that Bind report by The McDowell Group found that Seattle and Tacoma continue to serve as the "lifeline" to Alaska as they capture 97% of cargo, by weight, moved between Puget Sound and Alaska. This report examined the array of goods and services that Alaska sources from Puget Sound. It found that in 2013 the total value of those goods and services was \$5.4 billion. Additionally, the more recent 2019 Community Attributes "Tri-Port" Economic Impact study identified tug and barge operators that utilize Port of Seattle facilities dockage and moorage leases generated nearly \$2.4 million in revenue for the Port of Seattle in 2017.

DETAILS

Design and Environmental Sustainability

The proposed Dock-E Float and North Pier Improvements project was designated a Tier 2 project under the Port's Sustainable Evaluation Framework Policy Directive. As presented to the Energy and Sustainability committee in 2021, the project team explored material alternatives to minimize adverse environmental impacts, while still meeting determined design goals and objectives. Accordingly, the project's proposed environmentally beneficial improvements include the following:

- Existing treated timber piles to be eliminated, reducing water quality impacts
- New steel piles and dock floats framework to be epoxy coated (rather than galvanized) to reduce leaching of zinc into waterways

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- Fiberglass grated decking on new dock floats to allow light penetration to the water below while maintaining ADA accessibility
- High-density polyethylene (HDPE) pipe filled with buoyant foam material to provide increased durability and corrosion resistance

Permitting

The following required permits have been issued for the project:

- State Environmental Policy Act - Determination of Non-Significance
- Washington Dept. of Fish and Wildlife - Hydraulic Project Approval
- SDCI - Shoreline Substantial Development Permit

The following required permits are currently under review:

- SDCI Construction Permit: The proposed design has been approved by SDCI and the required Construction Permit is anticipated to be issued by, or soon after, the Port scheduled construction authorization date of 4/11/23.
- USACE Section 10 Permit: The required USACE Section 10 permit is pending approval. Port Environmental staff are currently in negotiation with the tribes, as well as in discussions with USACE and National Marine Fisheries Service, but due to agency backloads and increased regulatory requirements, the in-water permit is not anticipated to be issued until as late as summer 2023.

The opportunity and risk identified in conjunction with advertising and executing a major works construction contract for this project prior to the SDCI and USACE permits being issued are as follows:

- The opportunity of this contracting option is the mitigation of schedule risks associated with delaying the bid advertisement, or possibly bid opening. Due to current market conditions, it's imperative that the contractor has a minimum of five months to procure the materials necessary to subsequently start and complete the first construction phase in-water work within the initial limited 2023-24 "fish window". "Advertising & Executing Contract without Permit" provides the means for the contractor to start the materials procurement required to meet the regulatory "fish windows" and ultimately complete full project construction by spring 2025.
- The risk of this contracting option is that of a contract change order or termination, in the event of a permit condition arising that impacts the contracted construction work. Given the comparatively straight forward nature of the project scope, as well as the minimally anticipated potential review agency or tribal concerns, the risk of any design change associated with the pending approval of the USACE permit is considered to be low.

Based on this assessment, the project has been approved to proceed to advertisement and contract execution prior to issuance of all permits.

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Construction

Construction will be performed under a major works contract to complete the proposed improvements. All construction work and materials storage will be performed utilizing barges to the degree possible. As required construction materials to be fabricated and/or procured, include new float dock sections and pier structural elements, as well as steel piles; pre-procurement of these materials by the Port is neither recommended nor planned.

Diversity in Contracting

The project design has been performed by a consultant engineering firm under an existing Port of Seattle IDIQ contract in which a women and minority owned business enterprise (WMBE) participation commitment of 43% has been established. In coordination with the Port's Diversity in Contracting Department, a WMBE aspirational goal of 5% has been determined for the project's construction work.

Scope of Work

The project's construction scope includes the following improvement elements:

- Complete replacement of 23 (out of 78 total) of Dock-E's existing float sections with new heavier duty floats, piles, and appurtenances designed for larger vessel berthing and higher load mooring capability. The existing floats to be replaced are located at the south end of Dock-E.
- Refurbishment of 55 (out of 78 total) of Dock-E's existing float sections consisting of replacing all remaining timber guide piles with higher load capacity steel piles; replacement of damaged walers and cleats; nominal leveling; and concrete surface crack repairs and sealing. The existing floats, to remain in place and be refurbished, comprise the north portion of Dock-E.
- Demolition and replacement of Dock-E's existing elevated timber North Pier, with a new concrete structure and steel pile, to restore vehicle access to it for loading and unloading purposes.

Schedule

The project construction is planned to be completed in two separate phases for the North Pier and south dock section replacements to maintain moorage (not currently available at other Port facilities) at HIM Dock-E for the existing tenants. In-water work for the project, primarily consisting of dock/pier demolition and pile installation, must be performed during the typical permitting "fish window" of October 1st – February 15th of each year at this location. Additionally, to avoid impacting tribal treaty rights, the in-water work will not start until December 15th of each year.

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Given these constraints, in-water work is planned to be performed within two separate abbreviated “fish windows” of December 15th – February 15th in 2023-24 and 2024-25.

Construction Schedule Milestones:

<u>Milestone</u>	<u>Date</u>
Commission construction authorization	4/11/2023
Advertise for construction bids	4/13/2023
Construction bids opening	5/11/2023
USACE in-water permit issuance (anticipated)	June 2023 +/-
Construction Notice of Intent to Award	June 2023
Construction materials procurement start	June 2023
Construction NTP issuance	Aug 2023
Phase I construction start	12/15/2023
Phase 2 construction start	12/15/2024
Substantial construction completion	3/31/2025

Cost Breakdown

	This Request	Total Project
Design and Permitting	\$0	\$1,045,000
Construction	\$3,955,000	\$3,955,000
Total	\$3,955,000	\$5,000,000

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1: Do nothing – continue to repair Dock-E as necessary to maintain current tenant vessels moorage.

Pros

- Retains Port capital for other priority projects and financial initiatives.
- Avoids temporary construction impacts to existing tenant moorage.

Cons

- Dock-E will continue to incur damage due to high impact loading from existing large tenant vessels.
- High ongoing repair and maintenance costs will continue to be incurred in order to keep the dock operational.
- Dock-E will continue to be at greater risk of safety/structural failure due to ongoing heavy commercial vessel berthing loads.

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This is not the recommended alternative

Alternative 2: Perform a full replacement (Level 4) of all Dock-E floats and the north access pier.

Pros

- All-new Dock-E with full 50-year service life for north as well as south floats.
- Reduced maintenance cost for required tenant vessel moorage.
- Eliminates current safety/failure risk for entire dock due to existing tenant large vessel moorage loading impacts.

Cons

- High initial cost for full dock replacement.
- High level of temporary construction disruption to tenant moorage.

This is not the recommended alternative

Alternative 3: Perform proposed combination (Levels 2 and 3) of Dock-E float replacements/repairs as well as replacement of north access pier

Pros

- Extends overall service life of Dock-E while addressing most urgent tenant vessel loading impacts at south end of dock.
- Restores vehicle access capability to north pier in order to better meet tenant business needs.
- Limits temporary construction impacts to existing tenant moorage.
- Maintains ability to extend tenant vessel berthing, with continued maintenance, while limiting overall cost of capital improvements and future maintenance.
- April 2023 construction approval mitigates 1-year schedule delay risk associated with delaying the bid advertisement and subsequent construction contract award.

Cons

- Temporary impact to tenant vessel moorage due to required construction phasing.
- Higher than typical maintenance costs will continue to be incurred with north dock floats in order to keep the dock operational for large vessel moorage.
- Combination of old and new floats will require more complicated maintenance schedule.
- Construction approval prior to issuance of USACE permit creates a low risk of a construction contract change order or termination, in the event of a permit condition arising that impacts the contracted construction work.

This is the recommended alternative

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FINANCIAL IMPLICATIONS

<i>Cost Estimate/Authorization Summary</i>	Capital	Expense	Total
COST ESTIMATE			
Estimate at design funding	\$4,500,000	\$0	\$4,500,000
Current change	\$500,000	0	\$500,000
Revised estimate	\$5,000,000	0	\$5,000,000
AUTHORIZATION			
Previous authorizations	\$1,045,000	0	\$1,045,000
Current request for authorization	\$3,955,000	0	\$3,955,000
Total authorizations, including this request	\$5,000,000	0	\$5,000,000

Annual Budget Status and Source of Funds

This project has been included in the 2023 Capital Plan under C800678 T102 HIM E Dock Rehabilitation for a total project cost of \$4,780,000. The increased estimated cost will be covered by the Maritime CIP Reserve.

This project is funded by the General Fund.

Financial Analysis and Summary

Project cost for analysis	\$5,000,000
Business Unit (BU)	Maritime Operations & Security
Effect on business performance (NOI after depreciation)	This project is not expected to directly generate incremental revenue. Currently, E Dock generates approximately \$77K in annual revenue. It is estimated this project will increase annual depreciation expense by approximately \$100,000.
IRR/NPV (if relevant)	Payback: 28 years
CPE Impact	N/A

ATTACHMENTS TO THIS REQUEST

- (1) Design Approach Paper
- (2) Presentation slides

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

November 17, 2020 – The Commission authorized \$1,045,000 for design funding.