



**COMMISSION
AGENDA MEMORANDUM**

Item No. 8e

ACTION ITEM

Date of Meeting May 10, 2022

DATE: May 4, 2022

TO: Stephen P. Metruck, Executive Director

FROM: Kenneth R. Lyles, Director of Maritime Operations and Security
Darrell Dare, Senior Manager, Recreational Boating
Julie Yun, Capital Project Manager
Mark Longridge, Capital Project Manager

SUBJECT: Shilshole Bay Marina X-Dock Rehabilitation Construction Authorization (CIP# C800570)

Amount of this request: \$1,200,000

Total estimated project cost: \$1,650,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to advertise and execute a major public works construction contract for the Shilshole Bay Marina X-Dock Rehabilitation. Total request for this action is \$1,200,000 for a project total authorization of \$1,650,000.

EXECUTIVE SUMMARY

Shilshole Bay Marina serves a broad range of recreational boating customers including moorage tenants, a liveaboard community, youth sailing education, dry boat storage and the public. The X Dock facility at Shilshole Bay Marina is located adjacent to the dry boat storage yard and consists of a fixed pier supported by timber piles, two vessel hoists (“jib cranes”) for launching vessels, a gangway, and a floating dock structure. The fixed pier spanning from the docks to the seawall is the original wooden structure that was built in 1966 as a pair of finger piers, then revised to one solid pier in the mid-1970s. Due to sustained use, the supporting structure of this fixed pier has several piles in poor and deteriorated condition that will need replacement. The superstructure (deck and stringers) of the fixed pier is in working condition and will remain in place to be utilized to the extent of its service life.

This project will remove the 20 creosote-treated timber piles currently supporting the fixed pier and replace them with 13 steel piles. Creosote has been historically used as a treatment to preserve timber in marine environments. It is made from distilled coal tar and known to release harmful particulate matter in marine environments over time. As such, the Port has upheld an

Meeting Date: May 10, 2022

ongoing commitment to the environment by removing approximately 1,161 treated timber pilings and replacing them with steel pile systems over the past decade.

This project is designed to replace the piles and retain the existing superstructure under the Port's Pile Systems Repair & Maintenance Programmatic permit, substantially shortening the local, state, and federal permitting time required for the work. The construction permit for this project has been submitted to the City of Seattle SDCI and is currently under review.

JUSTIFICATION

The jib cranes and fixed pier are used by the over 80 north-end dry storage tenants launching vessels, seasonal racing fleets participating in races hosted at the marina, and the public renting the jib crane. Rehabilitation of the structure will allow long-term continued use of the jib cranes for water access and maintain the viability of the facility.

Over the past decade, the Port has replaced aging treated timber systems at many of its facilities as they reach the end of their service life. Most of these treated timber systems have been replaced with steel systems that are longer lasting, more environmentally friendly, and stronger than treated timber systems. Of the total piles removed Port-wide from 2011 to 2021 under the Pile Systems Repair and Maintenance Programmatic permit, over 95% (1,161) were creosote- or ACZA-treated timber pilings; nearly all pilings replaced under this program were replaced with steel pile systems.

The current fixed pier structure is supported by the original 20 creosote timber piles which are now reaching the end of their service life. Several have been previously repaired or show section loss and deterioration. By replacing this support system with 13 steel piles, we will reduce the total number of piles, improve environmental conditions, and provide a significantly increased service life of over 30 years. The current superstructure and decking are in good condition and will be retained to utilize its full-service life. The supporting structure has been designed to be compatible with the eventual rehabilitation of the superstructure.

Diversity in Contracting

There is a 10% aspirational goal for WMBE utilization for the construction contract. The nature of this work lends itself to an all-or-nothing WMBE utilization, as this work is likely to be performed entirely by the general contractor.

DETAILS

Scope of Work

This project will replace the 20 existing creosote timber support piles with 13 galvanized steel piles and frame system to support the existing wooden superstructure.

Meeting Date: May 10, 2022

Schedule

The project will go to bid upon SDCI building permit issuance which is expected in late-May. All in-water work for the installation of the new piles must be completed within the permitted fish window between July 16 and February 15th of each year, while above water work may continue outside of this time-period (braces, cross beams etc.). Currently, there is no significant risk identified related to material procurement. This project will require galvanized steel piles in relatively small quantity. The pipe size required is common to the industry and readily available in the local market at this time. The project schedule includes float that will absorb up to 6-weeks in delays while still allowing the in-water work to be completed within the permitted timeframe.

While a significant portion of the construction window occurs during the off-peak season for the facility, the project team will work closely with operations staff to minimize impacts to tenants and users. The project team and External Relations have attended the Shilshole Dock Captains’ meeting and will continue outreach through construction to keep tenants and neighbors informed.

Activity

| | |
|---------------------------------------|--------------|
| Commission design authorization | January 2021 |
| Design start | January 2021 |
| Commission construction authorization | May 2022 |
| Design and Permitting Complete | May 2022 |
| Advertise Construction | June 2022 |
| Construction Start | October 2022 |
| In-use date | March 2023 |

Cost Breakdown

| | This Request | Total Project |
|--------------|--------------|---------------|
| Design | \$0 | \$450,000 |
| Construction | \$1,200,000 | \$1,200,000 |
| Total | \$1,200,000 | \$1,650,000 |

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Delayed/No Action.

Cost Implications: Reduced cost for avoiding work but potential for increased maintenance costs related to more advanced repair needs in the future.

Pros:

- (1) Preserve Port capital funding and resources for other priority projects and financial initiatives.

Cons:

- (1) Potential integrity risk to the overall pier structure due to continued deterioration.

Meeting Date: May 10, 2022

- (2) Potential commercial/financial risk due to unplanned maintenance and implementation of load restriction to facility operation.

This is not the recommended alternative.

Alternative 2 – Proceed with rehabilitation of the supporting structure through a major public works construction contract.

Cost Implications: Allocation of \$1,200,000 in the Capital Plan.

Pros:

- (1) Address deterioration of the supporting structure.
- (2) Improved service life with steel piles, as compared to the existing timber piles.
- (3) Replace creosote timber piles with more environmentally friendly steel piles.

Cons:

- (1) Higher upfront capital cost.
- (2) Limited temporary construction impacts.

This is the recommended alternative.

FINANCIAL IMPLICATIONS

| <i>Cost Estimate/Authorization Summary</i> | Capital | Expense | Total |
|--|-------------|---------|-------------|
| COST ESTIMATE | | | |
| Original estimate | \$1,670,000 | \$0 | \$1,670,000 |
| Current change | -\$20,000 | 0 | -\$20,000 |
| Revised estimate | \$1,650,000 | 0 | \$1,650,000 |
| AUTHORIZATION | | | |
| Previous authorizations | \$450,000 | 0 | \$450,000 |
| Current request for authorization | \$1,200,000 | 0 | \$1,200,000 |
| Total authorizations, including this request | \$1,650,000 | 0 | \$1,650,000 |
| Remaining amount to be authorized | \$0 | \$0 | \$0 |

Annual Budget Status and Source of Funds

This project is included in the 2022 Capital Plan under C800570 SBM Dock X Pier Replacement with a total project cost of \$1,573,000. The additional cost of this project will be offset by the Maritime Capital Reserve C800002.

This project will be funded by the General Fund.

Meeting Date: May 10, 2022

Financial Analysis and Summary

| | |
|---|--|
| Project cost for analysis | \$1,650,000 |
| Business Unit (BU) | Recreational Boating |
| Effect on business performance (NOI after depreciation) | This project will maintain current revenue from Recreational Boating. Depreciation will increase by \$82,500 per year for 20 years |
| IRR/NPV (if relevant) | No incremental revenue. The NPV is the present value of the project cost. |
| CPE Impact | N/A |

Future Revenues and Expenses (Total cost of ownership)

Extending the useful service life of our existing assets defers eventual replacement costs for a longer period, supporting the economic vitality of our operations. Other economic benefits include cost effectiveness and minimum disruption to the terminal operations.

ATTACHMENTS TO THIS REQUEST

- (1) Presentation slides

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

January 26, 2021 – The Commission authorized design and permitting for Shilshole Bay Marina X-Dock Rehabilitation