



**COMMISSION
AGENDA MEMORANDUM**

Item No. 8b

ACTION ITEM

Date of Meeting January 7, 2020

DATE: December 2, 2019
TO: Stephen P. Metruck, Executive Director
FROM: Kenneth R. Lyles, Director, Maritime Operations and Security
Mark Longridge, Capital Project Manager, Seaport Project Management
SUBJECT: Authorization for design and permitting of the redevelopment of Terminal 91 Berths 6 & 8 (CIP #C102475)

Amount of this request: \$4,000,000
Total estimated project cost: \$35 million-\$40 million

ACTION REQUESTED

Request commission authorization for the Executive Director to complete design and permitting of approximately 830 linear feet of concrete pier apron structure at Terminal 91 including (1) execute a consultant contract to prepare design and construction bid documents and (2) use port staff for project management, design support, permitting, and enabling construction activities, all of which in an amount not to exceed \$4,000,000 of a total preliminary estimated project cost between \$35 million and \$40 million.

EXECUTIVE SUMMARY

This project will redevelop the vessel berths and adjoining apron areas of Berths 6 and 8 along the northeast side of Pier 90 at Terminal 91 to help ensure the long-term viability of the port as the home to the North Pacific fishing fleet.

Planned redevelopment would include demolition of approximately 62,250 square feet of condemned existing timber apron and 830 linear feet of seawall (northerly portion of Berth 6 and entire Berth 8), removal and relocation of existing gangway, floats and boathouses, removal or relocation of small office structures, and reconstruction of a concrete apron structure at 600 pounds per square foot along the current alignment. The project assumes no increase in overwater coverage nor will berth dredging be required to accommodate existing vessel classes.

JUSTIFICATION

The redevelopment of Berths 6 and 8 supports the following Maritime Division goals toward achieving Century Agenda objectives:

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1. Continue to grow the economic value of the fishing and maritime cluster including the number of local jobs and business revenue.
2. Prioritize uses that support the commercial fishing industry, with a focus on anchoring the North Pacific fishing fleet in Seattle.
3. Supports the Port's strategy to "be the greenest and most energy-efficient port in North America" by replacing existing creosote piling with cement and recycled steel materials.
4. Supports anticipated growth in cruise ship operations.

DETAILS

Berths 6 and 8 are the last remaining original timber pier at Terminal 91 and are at the end of their service life. Approximately 30% of the apron is condemned, and the remaining sections are posted with severe load limits. Originally built in the 1910s, this section of Pier 90 was most recently rehabilitated in 1985, and little has been done to the structure since then. Redevelopment of Berths 6 and 8 is critical to ensuring the long-term viability of the port as the home to the North Pacific fishing fleet.

The fleet has been modernizing and will continue to do so. New builds are larger than the vessels they are replacing. This means vessels that may have previously been able to moor at Fishermen's Terminal are now too long or draw too much water to remain and are looking to moor at Terminal 91. Fishing companies are also growing. As an example, both the Ocean Peace and O'Hara companies have each added additional vessels to their fleets in the past three years. Critical to the fleet's success while in port is access to laydown areas, heavy lift capability pier side, and ample apron space to perform offloads, backloads, and repair work. This project will replace approximately 62,250 square feet of condemned existing timber pier structure and 830 linear feet of seawall, providing pier apron capable of supporting the fleet's activities and needs.

Several times during the shoulder seasons the space at Terminal 91 proves inadequate to accommodate the needs of the North Pacific fleet. Cruise activity at T-91 is also growing in both number and size of vessels, further increasing the demand on Terminal 91 berth space. This project will alleviate some of the shoulder season pressure by providing space for three 250-foot-plus catcher processors.

As noted in the 2017 Fishing Vessel Moorage Analysis for the Port by S² Strategy, "fishing and seafood processing sector of the maritime industry as a whole has by far the largest revenue impact to the state of any maritime sector. And is at least equal in job production to the other sectors...." Recommendations included providing an additional three to four 200-400 foot berths by 2020 and to plan for berths to accommodate another ten to twelve boats 175-400 feet over the next decade.

Scope of Work

The current authorization is for port staff time and consultant contract work to complete the design, permitting, and project management up to the advertisement of the construction work.

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The work to be designed includes the demolition of the existing pier structure, access bridge, and fencing; the relocation of the current port police, construction, and operations office structures and boat house and floats during construction; demolition of the existing A-310 building; and construction of a pier structure, fender system, and associated utilities to service fishing vessels and other customers.

Dredging is not expected to be required to accommodate the current vessel demand; however, future dredging could be achieved if necessary or desired under a separate project, covered by C800431 -- Dredge P90 East.

Diversity in Contracting

The project team will coordinate with the Diversity in Contracting Department to determine appropriate WMBE aspirational goals for this project.

Sustainability/Community Outreach

This project will replace the existing creosote timber pier with a more environmentally responsible concrete apron. It is expected that most of the existing creosote timber will be removed, and port staff will look for all opportunities to include recycled and environmentally responsible materials in the design.

Port staff will also work with terminal users and community groups during the design to mitigate operational and neighborhood impacts of the construction and keep them apprised of the project plans. The first briefing to the Neighbors Advisory Committee (NAC) is planned for Q1 2020.

Schedule

Schedule assumptions below reflect current expected durations for design and permitting; however, many of these durations are highly variable and controlled by local, state, and federal agencies, which adds schedule risk to the project. The assumptions below are conservative but reasonable. All in-water work associated with the work must be completed within the fish window from August 1 to February 15 of each construction season. This presents another constraint to the project that will need to be closely monitored.

The current schedule milestones are as follows:

Activity

| | |
|---------------------------------------|----------------|
| Commission design authorization | 2020 Quarter 1 |
| Design start | 2020 Quarter 3 |
| Commission construction authorization | 2022 Quarter 2 |
| Construction start | 2022 Quarter 3 |
| In-use date | 2023 Quarter 3 |

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Current cost estimate reflects assumptions that the pier will be constructed in a conventional manner similar to past facilities and has used typical sections from these past designs to inform the estimate.

One significant unknown in this work is the potential impact of updated building codes being implemented by the Seattle Department of Construction and Inspections (SDCI) planned for June 2020. The change to the 2018 International Building Code will add structural requirements for sites susceptible to liquefaction (most of our waterfront sites), along with new criteria for tsunami-resistant design. These new criteria include increased complexity of geotechnical seismic analysis and additional design criteria for foundations, which may increase the size or amount of foundation structure as well as associated costs.

These requirements are new for both the Port and SDCI, which means there will be uncertainty in how they will be implemented and permitted. Design development allowance has been added to the current planning level estimate; however, the actual impact of these changes will not be known until further in design.

| Cost Breakdown | This Request | Total Project |
|---|---------------------|----------------------|
| Design, Permitting, Project & Construction Management | \$4,000,000 | \$5,000,000 |
| Construction (Direct Costs, Including WSST) | \$0 | \$35,000,000 |
| Total | \$4,000,000 | \$40,000,000 |

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Maintain the status quo. Continue to enable limited operations of the berths for workboat moorage and keep the load restrictions and condemnation of dock sections in place.

Cost Implications: This alternative carries significant uncertainty and risk and accordingly much variability in cost potential. Maintenance costs for the berth are not currently high but would expand greatly if a deck failure occurred, for example.

Pros:

- (1) Lower initial capital cost.

Cons:

- (1) Significant risk to the structure if kept in use. Deterioration will continue.
- (2) Current berth space demand from the Pacific fishing fleet not met.
- (3) Revenue for these berths would remain minimal.

This is not the recommended alternative.

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Alternative 2 – Replace the current berth with an alternative type structure (floating dock, offset dolphins for example), providing linear moorage without direct apron access by trucks, forklifts, or other heavy equipment.

Cost Implications: This alternative would cost less than full redevelopment but has many potential options. A reasonable assumption for the floating dock option might be \$15 million-\$20 million or approximately half the cost of the full pier reconstruction, depending on the amenities provided and capacity of the dock.

Pros:

- (1) Lower capital cost.
- (2) Returns the berth to service with equivalent linear berth space.

Cons:

- (1) Would not provide direct apron access or laydown space to fishing and industrial customers, both key requirement for their operations.

This is not the recommended alternative.

Alternative 3 – Replace the deteriorated timber apron with a concrete apron structure.

Cost Implications: Total project cost \$35 million-\$40 million (initial planning level estimate)

Pros:

- (1) Brings the berth back to full operation, replacing the deteriorated creosote pilings and apron.
- (2) Provides much needed berth and staging space for the North Pacific fishing fleet.

Cons:

- (1) Higher initial capital cost.

This is the recommended alternative.

FINANCIAL IMPLICATIONS

| <i>Cost Estimate/Authorization Summary</i> | Capital | Expense | Total |
|--|--------------|---------|--------------|
| COST ESTIMATE | | | |
| Original estimate | \$35,000,000 | \$0 | \$35,000,000 |
| Previous changes – net | \$0 | \$0 | \$0 |
| Current change | \$5,000,000 | \$0 | \$5,000,000 |
| Revised estimate | \$40,000,000 | \$0 | \$40,000,000 |
| AUTHORIZATION | | | |
| Previous authorizations | \$75,000 | \$0 | \$75,000 |
| Current request for authorization | \$4,000,000 | \$0 | \$4,000,000 |
| Total authorizations, including this request | \$4,075,000 | \$0 | \$4,075,000 |
| Remaining amount to be authorized | \$35,925,000 | \$0 | \$35,925,000 |

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Annual Budget Status and Source of Funds

This project is part of the 2020 to 2024 CIP under C102475 Terminal 91 Berth 6 & 8 Redevelopment with a total project cost of \$35,100,000.

Funding for this project will provided by the tax levy.

Financial Analysis and Summary

| | |
|---|--|
| Project cost for analysis | \$40,000,000 The current estimate range for the work at the beginning of design is \$35-40M. For financial analysis purposes the higher figure has been assumed to be conservative. |
| Business Unit (BU) | Elliot Bay Fishing and Commercial Operations |
| Effect on business performance (NOI after depreciation) | The redevelopment of berths 6 & 8 is expected to increase moorage revenue by 5% annually, at the facility, over the next 30 years. Annual revenues are expected to increase \$600,000 in the first full year of operations in 2023. Annual depreciation expense is estimated to increase by approximately \$1.3 million based on an expected useful life of 30 years. |
| IRR/NPV (if relevant) | NPV is (\$16,500,000) using a discount rate of 7.1%; MIRR is 3.99%; Payback in 22 years. |
| CPE Impact | N/A |

ATTACHMENTS TO THIS REQUEST

- (1) Presentation slides

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

None