MANAGING MEMBERS
ACTION ITEM

Item No. 4C

Date of Meeting April 3, 2018

DATE: March 21, 2018

TO: Managing Members, The Northwest Seaport Alliance

FROM: John Wolfe, Chief Executive Officer

Sponsor: Jane Vandenberg, Director, Engineering

Project Manager: Jan Shawyer, Engineering Project Manager I

SUBJECT: Pier 7 Berths A - D Fender Enhancements and Rehabilitation

A. ACTION REQUESTED

As referenced in NWSA Resolution No. 2016-04, Exhibit A, Delegation of Authority Master Policy, Paragraph 8.c.iii., states project costs exceeding $300,000 require approval from Managing Members.

Request project authorization in the amount $2,100,000 for a total authorized amount of $2,300,000, for advance purchase of materials to support the work associated with the Pier 7 Berths A - D Fender Enhancements and Rehabilitation project, Master Identification No. 201048.01.

B. SYNOPSIS

Because of increased cargo volume, larger vessel size, and ongoing deterioration the Pier 7 fender system has not performed well over the last decade.

The main drivers for this recommended upgrade are the existing lease and business obligations. Berth D is under lease and Berths A, B, and C generate revenue directly to the Port from Auto Ships, Military Shipments, and Barge Dockings.

Work is intended to be performed in the latter half of 2018 and requires the advance purchase of long-lead items to maintain a 2018 project completion. Items to be purchased include treated timber piles, shop fabricated steel waler system, and UHMW rub strips for both piles and walers.

C. BACKGROUND

Berths A through D were built sequentially beginning in 1960 before finishing in 1974. The 100% timber fendering systems for Berths A through C remain in service today as they were originally constructed. The vessel size that these systems were intended to accommodate are

no longer calling in significant numbers, while large auto vessels and Panamax Container vessels dominate.

The existing fender system for the three subject berths remains constructed entirely from timber and has been in use since the first wharf was commissioned. The fender system as designed has reached the end of its anticipated useful life.

Tacoma is one of 21 ports identified nationwide as a “Strategic Port” by the U.S. Military and has annually been the port of choice for the Japanese Defense Force to load-in and load out their mechanized units (including tanks and helicopters) during their U.S. based training regimen in Eastern Washington for more than thirty years

D. PROJECT DESCRIPTION AND DETAILS

Work includes demolition of the existing fender systems of Berths A through C including piling, fender system and hardware. The performance of the steel waler system installed at Berth D in 2015 resulted in the proto-type for Advance procurement and installation of piling, steel waler/chock replacement, and UHMW rubstrips for waler and piles.

Project Objectives

Provide a more robust and reliable interface to better withstand the forces imposed by a more diverse group of vessels including larger vessels not anticipated with the original design.

Scope of Work

Includes demolition of existing fender system, including some piling, all the walers and chocks comprising the fender system including hardware.

The immediate scope of work includes:

- Advance procurement of piling, steel waler/chock replacement, hardware, and UHMW rubstrips for waler and piles.

The construction scope of work will include:

- Removal of 1,800 feet of timber wales and chocks with associated hardware for berths A through C.
- A combination of timber pile replacement and fresh-heading (74 former and 27 latter).
- Installation of 1,800 feet (90 pieces) of steel waler with associated hardware.
- Berth D (upgraded to similar system in 2015) will have approximately 20 timber piles replaced to completely remove the remaining fabric wrapped versions that have proved to be so problematic.

Schedule

In-water work window necessitates purchasing long lead items to compensate for 12 to 16 weeks needed for delivery to Tacoma.

Advertise for Bid	June 11, 2018
Bid Opening	July 3, 2018
Substantial Completion	November 6, 2018

E. FINANCIAL IMPLICATIONS

Project Cost Details

	This Request	Total Project Cost	Cost to Date	Remaining Cost
Procurement	$ 2,100,000	$ 2,100,000		$ (2,100,000)
Pre-Design		$ 50,000	$ 418	$ (49,582)
Design		$ 150,000		$ (150,000)
Construction		$ 4,250,000		$ (4,250,000)
Total	**$ 2,100,000**	**$ 6,550,000**	**$ 418**	**$ (6,549,582)**

Source of Funds

The current Capital Investment Plan (CIP) Budget allocates $6,550,000 for this project.

Financial Impact

Project costs will be capitalized and depreciated over an estimated 5-year life resulting in annual depreciation of $1,308,000.

The remaining net book value of existing assets will be approximately $197,000 at substantial completion. This value will be written off when the scope of work is completed. This will be a Home port expense.

This expenditure is considered major maintenance and repair and is necessary to provide continued support to an existing revenue base that includes the auto and military business and the Ports America leased use of terminal 7 berths A-C.

Already in 2018, Port Terminal Operations earned nearly $4 million while International Container income is just shy of $8 million.

Combined income from all operations (Containers, Autos, Barges, Military) at Pier 7 in 2017 was just under $20 million while 2016 numbers were slightly over $20 million.

F. ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS

Alternative 1) Replace all remaining timber fender systems for Berths A, B, C and a portion of D in-kind. This proved to be the second most expensive option and would not help mitigate current problems with the interface between vessels and the fendering.

Alternative 2) Develop a new design for an all steel system similar to one used in the North Harbor. The cost of this system was prohibitive and would not pencil-out for current revenue sources.

Alternative 3) Replicate the engineered hybrid system which employs a steel continuous chock but retains the timber piles. This is the least expensive option and it represents a clear improvement over the original system design and materials.

Alternative 3 is the recommended course.

G. ENVIRONMENTAL IMPACTS/REVIEW

Permitting:

The Port is in the process of renewing the state and federal programmatic governmental approvals and permits under the Port's programmatic pile repair program., The City of Tacoma Shoreline and Critical Area Exemption (SHR2013-40000215154) is still in effect. Staff anticipate obtaining state and federal approvals prior to the opening of the next fish work window (July 16, 2018).

Remediation:

N/A

Water Quality:

Best Management Practices (BMPs) will be implemented to protect water quality during pile replacement, per requirements set forth in Ecology's water quality certification and WDFW's HPA.

Air Quality:

N/A

H. ATTACHMENTS TO THIS REQUEST

- Computer slide presentation.

I. PREVIOUS ACTIONS OR BRIEFINGS

Date	Action	Amount
February 14, 2018	Executive Authorization - NWSA-20180213.01 for Advance Work	$200,000
TOTAL		**$200,000**