

**MANAGING MEMBERS**

**ACTION ITEM**

**Item No.**

8C

**Date of Meeting**

April 2, 2024

**DATE:** March 25, 2024

**TO:** Managing Members

**FROM:** John Wolfe, CEO

**Sponsor:** Tong Zhu, Chief Commercial & Strategy Officer

**Project Manager:** Marcus Van Valen, Engineering

**SUBJECT:** PCT Strad Maintenance Bay Roof Replacement

**A. ACTION REQUESTED**

Request additional project authorization from the NWSA Managing Members in the amount of \$635,000 for a total authorized amount of \$725,000, for the PCT Strad Maintenance Bay Roof Replacement project, Master Identification No. 201191.01.

**B. SYNOPSIS**

The insulation at the interior roof of the PCT strad maintenance bay was becoming saturated and falling into maintenance area, endangering physical and human assets. An investigation by consultants determined the source of the moisture to be evaporation and warm, humid air, which caused condensation to form on the interior of the metal roof and soak into the insulation.

**C. BACKGROUND**

The PCT maintenance building was constructed in 2004 and opened for use in 2005. Since that time, there have been multiple reports that the insulation in the high-bay area of the PCT strad maintenance bay became saturated and, due to the excess weight, would detach from the roof and fall, often hitting and damaging the lighting fixtures below. In 2017, a fluid-applied roof coating was applied over the existing metal roof deck to resolve the problem, however the condition continued.

In July 2020, on-call consultants hired by the Port of Tacoma performed an assessment at the PCT strad maintenance bay to investigate the source of the moisture, as well as provide recommendations for remediation. The evidence from the investigation determined the most likely source of the water issues to be from excess

water from the straddle carriers evaporating and mixing with the warm air in the high-bay area, forming condensation on the metal deck/roof, and saturating the insulation.

The consultant recommended removing the existing insulation and replacing it with a spray-applied insulation, which is less susceptible to moisture related failure. The consultant also recommended installing de-stratification fans to eliminate the warm air layer directly below the insulation, which was contributing to the moisture problem. The existing insulation was removed, and de-stratification fans were installed, however the spray applied insulation was not installed due to the significant environmental impacts associated with the installation.

#### **D. PROJECT DESCRIPTION AND DETAILS**

The scope of this project is to partially remove the existing roofing system and replace it with a new, insulated roofing membrane, which will bring the building to code and stop the moisture problems in the PCT strad maintenance bay roof area.

##### ***Project Objectives***

The primary objectives of the project are to:

- Resolve roof leaks.
- Ensure safety for the building occupants and maintenance staff.
- Increase efficiency and effectiveness of electrical systems.

##### ***Scope of Work***

The scope of work will include:

- Removal of the existing sheet-metal roofing system.
- Installation of a vapor barrier and new PVC roofing system.
- Replacing existing halogen lighting with new LED lighting.
- Installation of a fall protection system.
- Installation of a maintenance access ladder for the upper roof section.
- Staff time and construction administration costs.

##### ***Schedule***

The schedule for this project is as follows:

Advertise for Bid	April 15, 2024
Open Bids	May 15, 2024
Notice of Award	June 14, 2024
Substantial Completion	October 30, 2024
Final Completion	November 30, 2024

## E. FINANCIAL IMPLICATIONS

### *Project Cost Details*

	<b>This Request</b>	<b>Total Project Cost</b>	<b>Cost to Date</b>	<b>Remaining Cost</b>
Design	\$ -	\$ 90,000	\$ 42,737	\$ 47,263
Construction	\$ 635,000	\$ 635,000	\$ -	\$ 635,000
<b>Total</b>	<b>\$ 635,000</b>	<b>\$ 725,000</b>	<b>\$ 42,737</b>	<b>\$ 682,263</b>

### *Source of Funds*

The current Capital Investment Plan (CIP) Budget allocates \$610,000 for this project.

### *Financial Impact*

With an estimate economic life of twelve years, the annual depreciation of the project is estimated to be \$60,417. The customer at the PCT and PCT Intermodal Yard provides a combined total estimated of \$22.1 million revenue in 2024. The 2024 net income is estimated to be \$16.8 million.

NWSA Commercial is negotiating a Lease extension with Everport Terminals expected to extend the Lease for 10 years out to December 31, 2037. This extension will exceed the estimated life economic life of this project.

## F. ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS

Alternative 1: Replace the roof, including the metal decking, and install a new roofing structure. Proceeding with this option could significantly increase the project cost due to the additional engineering, design, and permitting requirements. Additionally, this option would likely result in the loss of the maintenance shop during the construction phase.

Alternative 2: Re-cover the roof with a PVC roofing system, using foam insulation between the existing metal roof flutes. This option would cause minimal disruptions to the work crews and would use less materials than replacing the roof entirely, with no environmental impacts.

**Alternative 2 is the recommended course of action.**

**G. ENVIRONMENTAL IMPACTS/REVIEW**

Permitting:

Obtain the necessary roofing permit(s), as required.

Stormwater:

Stormwater runoff will be directed to the existing drainage system. No additional stormwater runoff is anticipated as part of this project.

Energy Efficiency:

Upgrade existing lighting with LED lighting at suitable locations, in accordance with the Port's Clean Air Implementation Plan. The lighting upgrades are eligible for a rebate from Tacoma Power.

**H. PREVIOUS ACTIONS OR BRIEFINGS**

<u>Date</u>	<u>Action</u>	<u>Amount</u>
September 26, 2023	Executive Authorization	\$90,000
<b>TOTAL</b>		<b>\$90,000</b>