THE NORTHWEST SEAPORT ALLIANCE
MEMORANDUM

MANAGING MEMBERS
ACTION ITEM

Item No. 9C
Date of Meeting May 2, 2023

DATE: April 21, 2023

TO: Managing Members

FROM: John Wolfe, CEO

Sponsor: Tong Zhu, Chief Commercial & Strategy Officer

Project Manager: Brett Ozolin, Project Manager II

SUBJECT: PCT Operating Pavement Repair 2023 – 2027 Project Authorization

A. ACTION REQUESTED

As referenced in NWSA Resolution No. 2020-02, Exhibit A, Delegation of Authority Master Policy, Paragraph 8.c.iii., Managing Member authorization is required for Projects where the total estimated Project cost exceeds $300,000 or when actual costs of a previously approved Project exceed $300,000, including Projects previously authorized by the CEO.

Request project authorization in the amount of $7,492,500, for a total authorized amount of $7,500,000, for work associated with the PCT Operating Pavement Repair 2023-2027, Master Identification No. 201038.02.

B. SYNOPSIS

The pavement at Pierce County Terminal (PCT) was installed in 2004. Since 2005, the Port has completed frequent pavement repairs and maintenance. While initial deficiencies in the pavement section design and construction have contributed to earlier and more significant maintenance, the pavement section is approaching 20 years of age and has been very heavily used.

The Port of Tacoma began an approximately $900,000 per year annual maintenance program starting in 2012. The NWSA continued this program in 2018 with a 5-year $4,500,000 authorization. The current request is to fund another five-year maintenance program at $1,500,000 per year, for a total authorized amount of $7,500,000. This request would continue the previous maintenance program.

The funding increase covers higher labor and material costs and greater pavement deterioration due to aging.

C. BACKGROUND

The pavement at PCT was installed in 2004. Due to design deficiencies, the resulting paving section and pavement plan was not as thorough as required to support operational loading. The pavement started exhibiting areas of distress as early as 2005 when the facility opened. The Port worked diligently with the contractor and design team over the following few years to resolve the issues and determine the reason for the failures. During this period, localized areas of distress were generally repaired with isolated patches.

In 2010 the Port contracted with a consulting team that included nationally recognized experts in the asphalt mix design field to determine the cause of the failures and to develop a pavement mix that could be used to minimize ongoing repairs and extend the pavement life to 20 years. It was determined that the pavement was primarily suffering from failure caused by asphalt stripping. Stripping is a failure that occurs when the binders and oils in the asphalt matrix lose their bond to the aggregate. Current pavement designs incorporate an anti-strip compound to minimize or prevent this occurrence from happening. In 2010 the project team estimated a full replacement to address stripping and other issues would be $125 million. Even with a full pavement replacement, ongoing maintenance would have been required. Funding was not available at the time to replace all terminal pavement.

To address the pavement issues, staff and the consultant team developed a maintenance strategy to maximize existing pavement life and maintain operations. This strategy included removing and replacing the top layer, wearing course, with a new layer of denser asphalt pavement. The new pavement mix helped to bind and bridge over lower and deteriorating pavement layers. These repair efforts were implemented to keep the major heavy traffic aisle-ways safe and functioning and to minimize operational impacts. The areas of repairs are identified as a joint effort between the Terminal Operator and Port staff. A repaired area can restore the operational surface for approximately 2 to 10 years. The lower bound of service life was observed in the container transfer area where use and loading is the most extreme.

The PCT pavement maintenance budget has been $900,000 per year for the last 10 years. As construction costs have increased and the pavement has aged, the originally assigned funding is inadequate to meet maintenance needs. The requested funding is based on site experience and observed distress points at the facility. This request is for $1,500,000 per year to support increased construction costs and maintenance needs. For this request, any funds not used in one year may

be carried over into a subsequent year if accounted for in the budget planning process and if the total authorized amount is not exceeded over the five years.

D. PROJECT DESCRIPTION AND DETAILS

Project Objectives

Repair deteriorated or distressed pavements to improve terminal operating conditions.

Scope of Work

- Preparation of contract documents
- Asphalt milling and paving of failing pavement
- Modifications to utility vaults
- Patching pavement around modified utility vaults
- Pavement striping

Schedule

Annual Repairs	May 2023 – December 2027

E. FINANCIAL IMPLICATIONS

Project Cost Details

The total project cost for all five years is $7,500,000.

Source of Funds

The current 2023 – 2027 Capital Investment Plan (CIP) Budget allocates $7,500,000 for work associated with this project.

Financial Impact

Project costs will be expensed as incurred and are included in the 2023 NWSA operating budget and the 2024-2027 NWSA operating forecast at $1,500,000 per year. These expenses are not eligible for HMT funding as they do not meet the criteria.

ENVIRONMENTAL IMPACTS/REVIEW

Permitting: Programmatic permits are in place, pavement maintenance generally excluded.
Remediation: Any export soil must be tested prior to leaving the site.

Stormwater: Contractor provided Stormwater Pollution Prevention Plan for each contract task order.
Air Quality: Anti-idling policy will be in effect.

F. PREVIOUS ACTIONS OR BRIEFINGS

Previous actions for the maintenance program.

Date	Action	Amount
June 7, 2012	Commission Authorization – Port of Tacoma	$1,750,000
July 17, 2014	Commission Authorization – Port of Tacoma	$3,600,000
December 5, 2017	Commission Authorization - NWSA	$4,500,000
TOTAL		**$9,850,000**

Previous actions for MID 201038.02.

Date	Action	Amount
April 20, 2023	Executive Authorization - NWSA	$7,500
TOTAL		**$7,500**

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PCT Operating Pavement Repair 2023 – 2027

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Brett Ozolin
Engineering Project Manager II

May 2, 2023

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Background

- PCT was constructed in 2004
  - Areas of pavement distress began appearing after terminal opening
  - Port of Tacoma/NWSA have funded repairs since opening addressing distress
  - 2010 project team developed repair strategy and new pavement mix
- Maintenance and repair strategy have kept terminal operational

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Background

- Hot mix asphalt pavements require maintenance
  - Pavements nearly 20 years old
  - Pavements heavily used
    - Large equipment
    - Repeated equipment cycles
    - Focused travel paths

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Background

- Maintenance budget approximately $900,000 per year for past 10 years
- Requesting $1,500,000 per year for next 5-year maintenance cycle
  - Materials and labor more expensive
  - Pavement deteriorates more with greater age
  - Budget increase expected
- Funding continues successful program

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Project Description and Details

- Objective: Repair deteriorated or distressed pavements to improve terminal operating conditions
- Scope of Work:
  - Prepare contract documents
  - Asphalt milling (removal) and paving
  - Utility vault modifications and paving
  - Pavement striping

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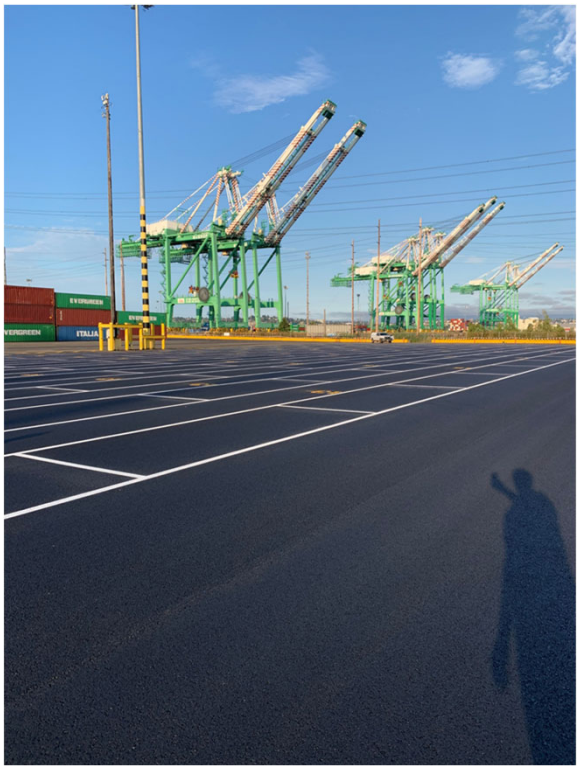
Background

Cracking

Rutting



Repair

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Background

Damaged Utility Lid (Before)

Utility Lid Repair (After)

Repairs in Progress

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Project Schedule

Activity	Timeframe
Annual Repairs	May 2023 – December 2027

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Source of Funds

- The estimated cost of this project is $7,500,000.
- The 2023-2027 Capital Investment Plan (CIP) allocates $1,500,000 each year for this project.
- This work and associated budget is consistent with the NWSA valuation.
- Work completed since 2012 was previously authorized and has been completed.

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Financial Summary

Item	Budget Estimate	Cost to Date	Remaining Cost
Design	$40,000	$7,500	$32,500
Construction	$7,460,000	$0	$7,460,000
Project Total:	$7,500,000	$7,500	$7,492,500

Project budget will be $1,500,000 for five years

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