

The Northwest Seaport Alliance Semi-Annual Project Progress Report



North Harbor



South Harbor

July-December 2021



The Northwest Seaport Alliance Leadership

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Introduction

The Northwest Seaport Alliance (Alliance) is a marine cargo operating partnership of the Port of Seattle and Port of Tacoma. We are the fourth-largest container gateway in North America. Under a port development authority, the ports manage the container, breakbulk, auto and some bulk terminals in Seattle and Tacoma.

As described by the Alliance charter, the Alliance will oversee operations, capital investments and investments with unified management to:

- Optimize the value of marine cargoes;
- Grow cargo volumes and protect market share for the benefit of the region and state;
- Manage overall terminal capacity, through coordinated investment strategies;
- Provide enhanced job prospects for our labor and business partners; and
- Achieve overall financial returns that will not only enable investment but also ultimately provide additional, unencumbered financial returns for each port.

The intent of this report is to provide the Managing Members and public with high level information on the status of the Alliance's projects.

About the Report

The report will provide general information on the project description, status, significant developments, schedule, cost, and risks. The Alliance implements a number of different types of projects and not all information may be relevant to a specific report; as such, the reports may vary in detail and content.

The report includes the project name, project number, authorized amount, project phase, current estimate, cost to date and schedule completion date. The report also includes information on status related to scope, schedule, and budget.

- **Authorization:** Authorization of spending, agreements, administrative actions, real property actions, and other items as outlined by the Delegation of Authority Master Policy by the Managing Members or Chief Executive Officer or the CEO's delegate. Authorizations are frequently phased parallel to specific project stages. For example, the CEO may authorize preliminary work up to the delegated signature authority of \$300,000 for assessing the opportunity and conceptual design. The Managing Members would typically authorize work, in a phased or staged approach, for design and then construction.
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- **Project Cost:** Addresses the total estimated cost of the project and includes information on the overall project cost status, recent Managing Member authorizations, and any variances such as forecasted overruns or savings.
- **Current Estimate:** The current estimate represents the expected cost of the project at the time the quarterly report is prepared and submitted.
- **Cost to Date:** The cost to date are actual costs that are recorded in the accounting system as project costs. Cost to date represents a specific date, typically the last day of the reporting quarter.
- **Significant Developments:** Covers items such as accomplishments, significant events or milestones, contract advertisements and awards, upcoming activities, environmental issues, and scope changes.
- **Schedule:** Includes information on the project schedule, including variances since the last report such as contract extensions and information on critical dates.
- **Risks:** Describes any significant risk of delay, any significant risk to cost, or any significant change orders.

These reports are intended to meet the reporting requirements of the Alliance Delegation of Authority Master Policy, paragraph 8. e. i. and is reflective of the project status as of the last day of the reporting period.

**The Northwest Seaport Alliance
Semi-Annual Project Progress Report
July-December 2021**

No.	MID No.	Project Title	Page	Phase	Overall Project Status	Schedule	Budget
1	201090.01	WUT Utility Vault Upgrades	4-5	CO	●		
2	201107.01	WUT Fender System Replacement	6-8	CN	●	☒	
3	201114.01, 201114.02	Maintenance Dredging at Piers 3 & 4 and WUT	9-10	CO	●		
4	201038.01	PCT Operational Pavement Repairs	11-12	CN	●		
5	201127.01	NIM Yard Exterior Lighting Retrofit	13-14	CN	●	☒	
6	201122.01	EB-1 Lighting Upgrade	15-16	C	●		
7	201098.01	Marshall Ave Auto Facility Pavement Maintenance 2021-2024	17-18	CN	●		
8	201070.01	Wapato Creek Bridge and Culvert Removal	19-20	CO	●		
9	201117.01	South Harbor Electrification Roadmap (SHERM)	21-22	PL	●		
10	201060.01, 201060.02	Tacoma Harbor Deepening Feasibility Cost-Sharing Agreement	23-25	PL	●	✓	
11	201100.01	Terminal 3 and Terminal 4 Shore Power	26-27	D	●	☒	
12	201058.01	US CBP Booth Installations - WUT	28	D	●		
13	201119.02	SIM Yard Charging Stations and Electric Trucks	29-30	CN	●	✓	
14	201110.01	WUT Crane Power Addition	31-32	CN	●	✓	
15	C800132, C800726, C800988	T-5 Modernization Program	33-36	CN	●		
16	U00688	T-18 Bollard Replacement	37	PD	●		
17	U00687	T-18 Berth Rehabilitation	38	PD	●		
18	U00670	T-18 Shore Power	39-40	PD	●		
19	C800742	T-18 Stormwater Infrastructure	41-42	CN	●		
20	U00660, U00661	T-30 Substation Replacement	43-44	D	●		
21	U00668	T-5 Intermodal Yard Improvements	45-46	D	●		
22	U00690, 2021-29 NH	T-106 CBP Office and Facility Renovation	47-48	D	●		

Key Project Status

Completed	Final Report for this Project
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●	Project within or ahead of target budget and schedule
●	Either target schedule or budget is off
●	Both target schedule and budget are off

Negative Variance Status

✓	New Variance
☒	Previously Reported

Schedule Completion on the Project Reports refers to:

Beneficial Occupancy or Last Asset In-Use date

Phases

PL	Planning
RI/FS	Remedial Investigation/Feasibility Study
PD	Preliminary Design
D	Design
CN	Construction
CO	Close Out
C	Completed
M	Monitoring

Remediation Glossary

AO	Agreed Order
CAP	Cleanup Action Plan
DCAP	Draft Cleanup Action Plan
DMMP	Dredge Material Management Program
FS	Feasibility Study
MTCA	Model Toxics Control Act
MID Nos	Master Identification Numbers
PCB	Polychlorinated Biphenyls
RI/FS	Remedial Investigation/Feasibility Study

July-December 2021

Washington United Terminals (WUT) Utility Vault Upgrades

Project MID No:	201090.01
Authorization:	\$1,310,000
Phase:	Close Out
Current Estimate:	\$1,310,000
Cost to Date:	\$962,327
Start:	12/4/2019
Schedule Completion:	8/31/2021
Project Manager:	Elly Bulega



Project Status

Schedule:	Delayed
Budget:	On or Within

Significant Developments/Scope Changes

The objective of this project is asset preservation at WUT in accordance with NWSA lease obligation to repair and/or upgrade vaults on the terminal and to comply with Ecology's consent decree.

The asphalt in the drive aisle behind the pier at WUT has experienced differential settlement, leading to equipment damaging the vault castings. This project will repair and upgrade the vaults by installing new castings within a reinforced concrete collar to eliminate the settlement issues around the vaults, prevent future damage and improve yard operations. Making these repairs and upgrades is part of the NWSA's lease agreement with the tenant and keeps the Port compliant with Ecology's consent decree.

In 2019, the tenant made concrete slab improvements around the utilities that were below

container yard standards and as a result the vaults failed prematurely. Managing Members were notified during the March 5, 2020, managing member meeting that the tenant would be back charged for any additional costs incurred by the NWSA because of the tenant's inadequate design improvements. All the locations that the tenant improved have been updated to container yard standards without the NWSA incurring additional costs beyond what it would have cost to make the improvement in the first place. Because of this, the tenant will not be back charged for the poorly installed under designed improvement.

Project Schedule

Completed Design	March 2020
Advertised Bid	March 2020
Bids Opened	April 2020
Contract Awarded	April 2020
Substantial Completion Phase I	February 2021
Substantial Completion Phase II	May 2021

Schedule complete August 31, 2021; delayed from original date of May 12, 2021.

Washington United Terminals Utility Vault Upgrades

This is the **final** report for this project.

Authorization

November 7, 2019 – Executive Authorization (Design) for \$150,000.

March 5, 2020 – MM approved \$1,160,000 for a revised total of \$1,310,000.

The current authorization is \$1,310,000.

Scope

The scope of work for this project includes:

- Removal of existing pavement surrounding the utility vault lids extending to approximately 18-24" beyond the exterior wall of all vault(s).
- A new, reinforced, structural slab will be installed over each vault which integrally supports a ring and lid.
- All electrical and communications lids are to be constructed with 38-inch diameter round lids with 125,000 lb rating.
- Where possible, existing lids which meet above criterion are to be salvaged and reused.
- In many locations, vaults are in close proximity to one another such that it is advantageous to design and construct a single slab to cover and support two or more vaults and lids.

Project Cost

The project was completed within the current estimate of \$1,310,000, as presented to the MM on March 5, 2020.

Risks

There are currently no significant risks of delay or cost to the project.

Grant

No grant funding is associated with this project.

July-December 2021

Washington United Terminals (WUT) Fender System Replacement

Project MID No:	201107.01
Authorization:	\$3,678,000
Phase:	Construction
Current Estimate:	\$3,678,000
Cost to Date:	\$1,913,740
Start:	10/6/2020
Schedule Completion:	2/28/2023
Project Manager:	Elly Bulega



Project Status

Schedule: Delayed
Budget: On or Within

Significant Developments/Scope Changes

There have been significant developments regarding the schedule of the project. All the logistical challenges that impacted the shipping industry in 2021 either directed or indirectly affected the schedule of this project to a point that the project scope couldn't be completed with the current contractor. The project had to be stopped and will be finished later under a different contract.

In March 2021, the Suez Canal blockage caused a ripple affect delay in shipping that affected the Chinese fender material manufacturers. The manufacturers couldn't get materials on vessels without paying high shipping premiums. The materials that managed to get on vessels got delayed once they arrived because the terminals were too busy to unload the containers in a timely manner or the contractor couldn't find trucking.

Once the materials made it to the terminal, the working windows on the pier were limited due to the two-vessel schedule. The combination of bad winter weather, the two-vessel schedule, February 15th fish window and the late arrival of the fender materials made completion of the project impossible without affecting the tenant's operations. Contractor Standby costs were getting too high that the project had to be stopped. Continuing under these conditions was getting too expensive for the project. As a result, the Port issued the contractor a change order that deleted the work not yet performed, then closed out the project contract. The remaining project scope (removing the existing concrete fenders and replacing them with individual unit fenders) will have to be repackaged and reposted for rebidding at a future date when vessel schedules are more predictable.

Background

The objective of this project is asset preservation in accordance with the Northwest Seaport Alliance (NWSA) lease obligation to repair and/or replace the fender system at WUT.

Washington United Terminals (WUT) Fender System Replacement

The wharf at WUT was constructed in two sections. The original pier (northern 2,000 feet) was constructed in 1997, and the pier extension (southern 600 feet) was completed in 2010, for a total berth length of 2,600 feet. The original pier uses a fender-pile system with rubber arches for berthing vessels, which was suited to the original design of vessels. The pier extension incorporates individual unit cone fenders with UHMW-PE (Ultra High Molecular Weight-Polyethylene) faced steel panels for dissipating berthing energy from large vessels. The unit fenders are appropriate for the wharf extension design vessels, and are best suited to vessels with large, and relatively constant, freeboard such as modern container vessels. The original pier fender-pile system is not performing well with modern large vessels. The existing fender-pile system energy capacity and stiffness are not high enough to handle modern vessels. The fenders need to be replaced with a system that can handle and withstand the size of vessels calling at WUT.

Project Schedule

Completed Design	October 2020
Advertised Bid	October 2020
Bids Opened	December 2020
Contract Awarded	January 2021
Phase I Substantial Completion	November 2021
Phase II Substantial Completion	February 2023

Authorization

April 1, 2020 – Executive Authorization for \$200,000.

October 6, 2020 – MM approved \$3,478,000 for a revised total of \$3,678,000.

The current total authorization is \$3,678,000.

Project complete February 28, 2023; delayed from original date of December 31, 2021.

Scope

The WUT Fender System Replacement project will include the following work items:

- Demolition of the existing concrete-pile fender system.
- Installation of a new cone fender system, UHMW-PE faced steel fender panels, chains, and anchorages.
- Anchorage of the new fender system to the existing bull rail may include:
 - Coring through the bull rail to allow anchorage to the inboard face, which would involve local removal and replacement of paving and fill.
 - Installing drilled and epoxied anchors into the outboard face of bull rail.
 - The existing fender stand-off distance or approximately 4'8" will be maintained.
 - Where feasible, existing chains and anchorages will be reused from the original fender system.
 - In areas where the fender spacing may need to be adjusted, steel fabrications may be installed to provide a reaction point and anchorage zone for the fender elements between pile caps.

Washington United Terminals (WUT) Fender System Replacement

Project Cost

The project will be completed within the current estimate of \$3,678,000, as presented to the MM on October 6, 2020.

Risks

There is a risk that the project cost might increase due to tenant operations and the two-vessel schedule not allowing the contractor to replace the fenders in a timely manner.

Grant

No grant funding is associated with this project.

July-December 2021

Maintenance Dredging at Piers 3 & 4 and WUT

Project MID Nos:	201114.01 201114.02
Authorization:	\$1,279,500
Phase:	Close Out
Current Estimate:	\$1,279,500
Cost to Date:	\$286,713
Start:	7/23/2020
Schedule Completion:	12/6/2021
Project Manager:	Norman Gilbert



Project Status

Schedule: Delayed
Budget: On or Within

Significant Developments/Scope Changes

The final permit needed to authorize the dredging was received in late July. The project was advertised to bid in late July and bids opened on August 10, 2021. Three bids were received with American Construction Co. being the lowest responsive and responsible bidder.

Due to the late season bidding, Contractor availability and terminal operations the start of dredging was delayed until November 1, 2021.

Port staff identified significant permit restrictions to the number of days authorized and no authorized dredging activity at night. This was the first time the Port has received these restrictions. Port staff engaged with the permitting agencies to request these restrictions to be removed. The permit agencies were not able to remove these restrictions before the work was complete. The Contractor was impacted by these restrictions and

was required to remain on site longer than originally scheduled. The Port and Contractor negotiated a \$154,000 Change Order for these impacts.

The dredging work began at Washington United Terminals south berth followed by the north berth. Operations then moved to Pier 3 followed by Pier 4 and completed on December 5, 2021. The Contractor demobilized that day.

During dredging operations, significant debris was encountered that slowed production and required additional handling. Debris included: large armor rock, container lashings and tires. These items are required to be disposed of in an approved upland facility.

Project Schedule

Advertise for Bid	July 22, 2021
Open Bids	August 10, 2021
Notice of Award	August 16, 2021
Substantial Completion	December 6, 2021
Final Completion	Early January 2022

Maintenance Dredging at Piers 3 & 4 and WUT

Project complete December 6, 2021; delayed from original date of September 15, 2021.

This is the **final** report for this project.

Authorization

WUT (MID 201114.01):

7/24/2020 – executive authorization for \$147,600.

6/1/2021 – MM approved \$747,900 for a revised total of \$895,500.

Piers 3 & 4 (MID 201114.02):

7/27/2020 – executive authorization for \$32,400.

9/28/2020 – executive authorization for \$25,000.

6/1/2021 – MM approved \$326,600 for a revised total of \$384,000.

The current combined authorization is \$1,279,500.

Scope

The scope of the project is to perform a maintenance dredge to address “high spots” impacting the berthing areas of WUT and Piers 3 & 4. All material is anticipated to be disposed of at the Commencement Bay open-water dredged material disposal site.

Project Cost

The total estimated cost is \$1,279,500.

The total current authorization is \$1,279,500.

Risks

No additional risks as the work is complete.

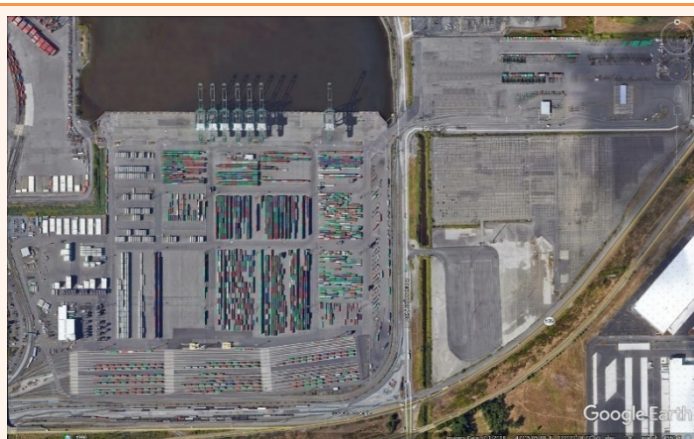
Grant

No grant funding is associated with this project.

July-December 2021

Pierce County Terminal (PCT) Operational Pavement Repairs

Project MID No:	201038.01
Authorization:	\$4,500,000
Phase:	Construction
Current Estimate:	\$4,000,000
Cost to Date:	\$3,212,750
Start:	1/1/2018
Schedule Completion:	12/31/2022
Project Manager:	David Myers



Project Status

Schedule: On or Ahead
Budget: On or Within

Significant Developments/Scope Changes

Pavement repairs will continue to be made as areas requiring repairs are identified.

Project Schedule

The repairs are made as needed.

Significant areas in and around the truck transfer zone, the reefer storage area and within the yard were completed in 2019.

Additional areas in and around the truck transfer zone, the reefer storage area and within the yard were completed in 2020.

Work in the pier backland, truck transfer zone, pier and East yard access aisle were completed in 2021.

Authorization

No new authorizations in this reporting period.

The current authorization is \$4,500,000.
(\$900,000/Year)

Additional MM authorization will be requested to match the current amount in the Capital Improvement Plan.

Previous authorizations are shown in the summary table on page 2.

Scope

Complete repairs to the failing pavement sections at PCT from 2018-2022.

Project Cost

See table on page 2.

Risks

The areas requiring repairs are increasing and the previous annual budgeted amount of \$900,000 has been increased to \$1,500,000, however, due to budget concerns associated with COVID the budget was held to \$900,000 in 2021. Widespread degradation and failure are occurring within the container stack areas. Pothole repairs within the strad runways do not hold up.

Pierce County Terminal (PCT) Operational Pavement Repairs

The recommendation is to begin completing more significant area repairs rather than isolated failure points. The extent of failure cannot be repaired under the current authorization.

Grant

No grant funding is associated with this project.

	Authorized Amount	Total Spent	
MID 098156			
2009	\$100,000	\$84,524	Exec. Authorization
2010	\$450,000	\$353,279	Commission
2011	\$575,000	\$200,084	Commission 3 Years, \$2,250,000
2012	\$575,000	\$324,296	
2013	\$1,100,000	\$1,001,196	
2014	\$900,000	\$858,349	Commission 4 Years, \$3,600,000
2015	\$900,000	\$521,915	
2016	\$900,000	\$354,737	
MID 201005.01			
2017	\$900,000	\$895,144	
MID 201038.01			
2018	\$900,000	\$754,481	Commission 5 Years, \$4,500,000
2019	\$900,000	\$860,240	
2020	\$900,000	\$883,442	
2021	\$900,000	\$710,269	
2022	\$900,000		
Totals	\$10,900,000	\$7,091,687	

All costs associated with 2021 have not been captured to date. It is anticipated that 2021 costs will be near \$875,000.

July-December 2021

NIM (North Intermodal) Yard Exterior Lighting Retrofit

Project MID No:	201127.01
Authorization:	\$540,000
Phase:	Construction
Current Estimate:	\$540,000
Cost to Date:	\$316,586
Start:	4/6/2021
Schedule Completion:	6/30/2022
Project Manager:	Joe Caldwell



Project Status

Schedule: Delayed
Budget: Forecast Overrun

Significant Developments/Scope Changes

The proposed exterior lighting upgrade project at NIM will:

- Save nearly \$60,000 annually in reduced electricity bills and maintenance costs.
- Reduce the lighting-related energy usage at the NIM by 67%.
- Improve the quality of lighting in ways that improve worker safety and reduce light pollution for both people and aquatic life near the property.
- Labor for project was originally estimated at \$131,083, and unanticipated costs resulted in an increase of \$60,000.
- The total estimated project cost is \$540,000, and total estimated rebate that the NWSA will receive from Tacoma Public Utilities (TPU) after

project completion is \$122,000 (about 23% of the total project costs). Net project costs will be \$418,000. The financial analysis estimates a payback period of seven years.

- 11 defective light poles at the NIM were discovered in November 2021 and need to be replaced. The cost to replace the 11 poles will exceed \$375K. Decision will need to be made to install the lights on the defective poles or replace the poles prior to installation of the LED fixtures.

Project Schedule

- Ordered Fixtures: 5-7 weeks lead time on material – received 5/30/21.
- Installed Fixtures: estimated 5 months to install all fixtures – Project placed on hold until September 2021 for project authorization increase.
- December 2021 - Project on hold due to 11 poles needing to be replaced and waiting for approval of the pole replacement.
- TPU extended rebate deadline to 12/31/2022.

NIM (North Intermodal) Yard Exterior Lighting Retrofit

Project will be complete June 30, 2022; delayed from original date of October 31, 2021.

Authorization

4/6/2021 – MM authorized \$480,000 for a total of \$480,000.

9/8/2021 – MM authorized \$60,000 (increased labor costs) for a revised total of \$540,000.

The current authorization is \$540,000.

Scope

The scope of work includes:

- Replacement of 279 HID fixtures with 245 LED fixtures
- Project Cost: \$540K
- Utility Rebate: \$122K
- Net Project Cost: \$418K
- Annual Energy Cost Savings: \$51K
- Annual Maintenance Cost Savings: \$8K
- Annual Energy Savings: 67%

Project Cost

- The estimated cost of the Procurement/Construction for this project is \$539,328.
- Tacoma Power estimated incentive is \$122,098.
- Estimate net project cost is \$417,230.
- The estimated budget for this project is \$540,000.
- The current Capital Investment Plan (CIP) allocates \$417,000 for this project.

Risks

Labor for project was originally estimated at \$131,083, and unanticipated costs resulted in an increase of \$60,000.

Reasons for additional costs

1. Maintenance must assemble the deflectors on the fixtures.
2. Electrical cords need to be spliced to fit our existing connections on poles.
3. Additional person needed to install lights.
4. NIM lights will take longer to install since the lights cannot be lowered and a manlift will be used for each pole.

Grant

No grant funding is associated with this project.

We have an incentive for a business rebate estimated for a total of \$122,098.

July-December 2021

EB-1 (East Blair) Terminal Lighting Upgrade

Project MID No:	201122.01
Authorization:	\$220,237
Phase:	Completed
Current Estimate:	\$220,237
Cost to Date:	\$210,527
Start:	3/2/2021
Schedule Completion:	9/30/2021
Project Manager:	Joe Caldwell



Project Status

Schedule: Delayed
Budget: Forecast Overrun

Significant Developments/Scope Changes

The exterior lighting upgrade project at EB-1 will:

- Save nearly \$24,000 annually in reduced electricity bills and maintenance costs.
- Reduce the lighting-related energy usage at EB-1 by 55%.
- Improve the quality of lighting in ways that improve worker safety and reduce light pollution for both people and aquatic life near the property.

The total estimated projects costs are \$210,237, and total estimated rebates that the NWSA will receive from Tacoma Public Utilities (TPU) after project completion is \$25,750 (about 12% of the total project costs). The financial analysis estimates a payback period of eight years.

Project Schedule

- Ordered Fixtures – 5 to 7 weeks lead time on material - Received 4/30/21.
- Installed Fixtures – Estimated 4 weeks to install all fixtures, completed 9/30/21.

This is the **final** report for this project.

Authorization

3/2/2021 – Executive authorization for \$210,237

9/8/2021 – MM authorized \$10,000 for a total of \$220,237.

The current authorization is \$220,237.

Scope

The scope of work includes:

- Remove all 103 HID lamps and install 103 LED fixtures.

Project Cost

- The original estimated cost of the Procurement/ Construction for this project is \$210,237.
- Tacoma Power estimated incentive is \$25,750.

EB-1 (East Blair) Terminal Lighting Upgrade

- Estimate net project cost is \$184,487.
- The estimated budget for this project is \$185,000.
- The current Capital Investment Plan (CIP) allocates \$207,000 for this project.
- Once we identified the work would exceed the associated budget, Managing Members approved an additional \$10,000, increasing the budget to \$220,237.

Risks

Labor for project was estimated at \$54,259, unanticipated costs resulted in an increase of \$10,000.

Reasons for additional costs

1. Maintenance must assemble the deflectors on the fixtures.
2. Electrical cords need to be spliced to fit our existing connections on poles.
3. Additional person needed to install lights.

Grant

No grant funding is associated with this project.

We have an incentive for a business rebate estimated for a total of \$25,750.

July-December 2021

Marshall Avenue Auto Facility Pavement Maintenance 2021-2024

Project MID No:	201098.01
Authorization:	\$1,000,000
Phase:	Construction
Current Estimate:	\$1,000,000
Cost to Date:	\$103,440
Start:	3/11/2020
Schedule Completion:	11/1/2024
Project Manager:	Brett Ozolin



Project Status

Schedule:	Delayed
Budget:	On or Within

Significant Developments/Scope Changes

The project authorization was intended to fund five cycles of maintenance beginning in 2020 through 2024. Work in 2020 was placed on hold due to COVID-19 budgetary constraints. The project is now planned to include four larger cycles of pavement maintenance completed under two, two-year on-call contracts from 2021 through 2024.

The first two-year on-call was executed in May of 2021, with the first round of maintenance completed in September of 2021. The paving contractor holds a \$480,000 two-year maintenance contract. The NWSA planned on spending approximately \$225,000 annually under this contract but spent \$77,000 in 2021. Per the NWSA lease agreement, the NWSA is responsible for pavement maintenance and the tenant (Auto Warehousing Company (AWC) is responsible for pavement striping. The tenant was satisfied with

the extent of 2021 completed maintenance and lacked further funding to continue striping associated with further pavement maintenance. Per discussions with AWC, the NWSA met lease obligations for pavement maintenance. AWC plans on purchasing their own striping machine in 2021/2022 to reduce striping costs. Larger task orders and increased expenditures are expected in 2022 after AWC secures their own striping equipment to support NWSA maintenance efforts.

Project Schedule

The first on-call will include maintenance work for 2021 to 2022. The second on-call will maintenance work for 2023 to 2024. The dates in the following table are associated with the first project on-call.

Construction will be completed November of 2024.

Advertise for Bid	April 21, 2021
Open Bids	May 12, 2021
Notice of Award	May 12, 2021
Substantial Completion	Work ongoing
Final Completion	November 1, 2024

Authorization

January 31, 2020 – Executive Authorization for

Marshall Avenue Auto Facility Pavement Maintenance 2021-2024

\$10,000.

March 5, 2020 – MM authorized \$990,000 for a revised total of \$1,000,000.

The current authorization is \$1,000,000.

Scope

The scope of work for this project includes:

- Surface Sealing – 12 to 15 acres on an annual basis, 50 to 60 acres total (estimated)
- Crack Sealing – 12 to 15-acre area on an annual basis, 50-60-acre area total (estimated)
- 4 years of annual maintenance cycles

Project Cost

The project will be completed within the current estimate as presented to Commission on March 5, 2020.

Risks

No significant project risks with regard to pavement failure. Project work is primarily sealing which extends pavement service life. By not sealing the pavements, the Port does risk a slight reduction in overall pavement life.

Grant

No grant funding is associated with this project.

July-December 2021

Wapato Creek Bridge and Culvert Removal

Project MID No:	201070.01
Authorization:	\$3,300,000
Phase:	Close Out
Current Estimate:	\$3,265,000
Cost to Date:	\$3,215,000
Start:	12/19/2018
Schedule Completion:	11/15/2021
Project Manager:	Brett Ozolin



Project Status

Schedule: On or Ahead
Budget: On or Within

Significant Developments/Scope Changes

On December 21, 2018, the Port was notified of pavement settling at the ingress/egress road providing access from Alexander Ave to the Portac site; this site is utilized for truck queuing for PCT.

Upon investigation, it was determined that the existing 50+ year old culvert was beginning to fail, and the Portac entrance was closed. This action resulted in backing up traffic on to SR-509 and up Taylor Way. The Port declared an emergency due to the condition endangering the life and safety of the public. The Port immediately commenced with design and construction of an interim solution. This work was completed in late winter of 2019 and the access route was reopened.

Following the interim solution, Port Engineering and Environmental staff completed permitting and

design for a permanent solution, coordinating with the City of Tacoma and in-water agencies. The project was presented to the Managing Members for project and construction authorization on June 2, 2020.

The first phase of construction included construction of a new concrete bridge and associated earthworks and paving. The new bridge opened to traffic on January 29, 2021. The second phase of construction is the removal of the interim bridge, removal of the old culvert and shoreline restoration. Demolition of the interim bridge was completed in February 2021. Culvert removal and shoreline restoration was completed in November 2021. The project is in closeout.

Project Schedule

The project is in final closeout pending contractor invoicing of approximately \$15,000. The permanent replacement bridge is open and operational, and the shoreline restoration is complete.

This is the **final** report for this project.

Wapato Creek Bridge and Culvert Removal

Authorization

January 2, 2019 – Executive Authorization for \$100,000.

January 9, 2019 – Declaration of Emergency.

January 16, 2019 – Executive Authorization for \$200,000.

February 5, 2019 – MM Ratified Emergency Contract No. 071080 for culvert repair.

June 2, 2020 – MM authorized Project Authorization for \$2,050,000.

August 4, 2020 – MM authorized \$720,000 increase for a revised total of \$3,070,000.

December 1, 2020 – MM authorized acceptance of \$931,640 grant from the Pierce County Flood Control District.

9/8/2021 – MM authorized \$230,000 increase for a revised total of \$3,300,000.

The current total authorization is \$3,300,000.

Scope

The scope of work for the project includes:

- Design and construction of an interim bridge over the existing culvert. (Complete)
- Field investigations, permit acquisition, design of a permanent bridge. (Complete)
- Construction of the permanent bridge just south of the existing culvert. (Complete)
- Removal of the interim bridge structure and culvert, stream restoration. (Complete)

Project Cost

The total cost of the project is estimated at \$3,265,000.

Risks

The project is on budget with the revised 9/8/21 authorization increase to \$3,300,000. All construction work is complete and there is no risk of exceeding the revised authorization.

Project costs were higher in the first phase of construction due to difficult foundation conditions, poor soils and unforeseen additional utilities during construction. Actual paving tonnages were also higher. Project costs in the second phase of construction were higher than anticipated due to contaminated soil excavation and disposal costs as well as unfavorable stream bed soil conditions for cofferdam installation.

Grant

A grant was awarded through Pierce County Flood Control Zone District in the amount of \$931,640 and accepted by MM on December 1, 2020.

Name of Grant: Pierce County Flood Control Zone District

Value of Grant: \$931,640

NWSA Match: \$0

Status: \$931,460 Distributed to NWSA

Grant was authorized by MM on December 1, 2020.

July-December 2021

South Harbor Electrification Roadmap (SHERM)

Project MID No:	201117.01
Authorization:	\$330,000
Phase:	Planning
Current Estimate:	\$330,000
Cost to Date:	\$5,900
Start:	1/17/2022
Schedule Completion:	7/31/2023
Project Manager:	Graham VanderSchelden



Project Status

Schedule: On or Ahead
Budget: On or Within

Significant Developments/Scope Changes

After MM authorization in Q3 2021, the public procurement process for the SHERM was initiated. The RFP was advertised in November and staff performed the proposal review and interview steps in December. Staff have selected a preferred consultant and our Contracts team is working to get a contract signed in early January 2022. Work on the project will begin upon having a signed contract.

Project Schedule

Item	Timeline
Put out for bid	November 2021
Sign Contract	January 2022
Begin work	January 2022
Substantial completion	Q2 2023

Authorization

11/2/2020 – executive authorization for \$50,000.

9/8/2021 – MM approved \$280,000 for a revised total of \$330,000.

The current authorization is \$330,000.

Scope

The South Harbor Electrification Roadmap (SHERM) is a holistic energy planning study to assess the infrastructure requirements associated with deploying zero emission technologies in the Tacoma Harbor. It is a key early implementation action under the Northwest Ports Clean Air Strategy and is on the critical path to zero emissions. Additionally, the SHERM supports working towards the vision for the gateway laid out in our Coordinated Course 2035. Specifically, the SHERM will seek to:

- Quantify and categorize current energy use
- Project future energy use

South Harbor Electrification Roadmap (SHERM)

- Identify and provide cost estimates for infrastructure upgrades needed to support zero emission operations, both on port property and in the grid
- Analyze innovative energy technologies that could be deployed to reduce costs, improve resiliency, and/or reduce carbon footprint
- Create a 10-year infrastructure development strategy that supports our clean air and sustainability goals and can be incorporated into our capital investment plan

The SHERM will consider shore power, zero emission cargo handling equipment, trucks, locomotives, tugs, light duty vehicles, and building energy use across the NWSA's marine terminal facilities, support facilities, and key home port properties. Tacoma Power staff are committed to supporting us in this planning study.

The SHERM is critical because it will allow the NWSA to fully assess the business case for zero emission equipment, plan for future infrastructure investments, enable the NWSA to proactively pursue external funding for infrastructure upgrades, better understand the potential of innovative energy solutions, and work more closely with the utility to understand distribution capacities and upgrade needs and costs.

Project Cost

Item	Cost
Consultant	\$300,000
Staff	\$80,000
Total	\$380,000

The NWSA's Capital Investment Plan allocates \$330,000 for this project and the Port of Tacoma's Capital Investment Plan allocates \$50,000. We project that \$300,000 of the combined funds are allocated to the consultant contract and \$80,000 are allocated to staff time.

Risks

The project is currently on track to be delivered by the projected substantial completion date. The main external factor that could cause delays in the project is the need for data from external parties, like terminal operators. While we have some flexibility in the schedule to accommodate extended data collection, significant delays in data collection could impact the schedule.

Grant

No grant funding is associated with this project.

July-December 2021

Tacoma Harbor Deepening Feasibility Cost-Sharing Agreement

Project MID Nos:	201060.01, 201060.02
Authorization:	\$1,817,000
Phase:	Planning
Current Estimate:	\$1,817,000
Cost to Date:	\$1,620,026
Start:	8/14/2018
Schedule Completion:	12/31/2022
Project Manager:	Tony Warfield



Project Status

Schedule: Delayed
Budget: On or Within

Significant Developments/Scope Changes

This effort officially began August of 2018 with the signing of the Feasibility Cost-Sharing Agreement with the US Army Corps of Engineers to study the feasibility of deepening the navigation channels in the Tacoma Harbor and obligated the NWSA to \$1,500,000 toward funding the study as the non-federal sponsor. It also obligated the NWSA to pay 50% of the project costs if they exceeded \$1,500,000. The Corps now estimates total Study costs at \$1,800,000

Project Schedule

The effort is delayed, yet nearly every major milestone is complete. See below.

Tentatively Selected Plan (TSP) October 2019:

- Formulate alternatives (complete)
- Ship simulation (complete)

- Adjust scope to incorporate ship simulation results (complete)
- Sediment sampling/testing (complete)
- Conceptual designs & cost estimates (complete)
- Economic evaluation (complete)
- Impacts analysis (Draft Environmental Assessment-complete)
- Stakeholder coordination (EPA, Coast Guard, Tribes, etc.) (ongoing)*
- Internal review draft of TSP (complete)
- Identify "Tentatively Selected Plan" that is in the Federal Interest and economically viable for the nation (complete)

Draft Feasibility Study and Environmental Assessment:

- Public review draft of feasibility study and Environmental Assessment (complete)
- Consider Tribal, agency and public comments (ongoing)
- Evaluate alternatives (complete)
- Agency Decision Milestone (complete)

Tacoma Harbor Deepening Feasibility Cost-Sharing Agreement

- Refine conceptual designs and cost estimates (complete)

Final Feasibility Report December 2020:

- Refine recommended plan based on review comments (complete)
- Further develop designs of recommended plan (complete)
- Final report / NEPA document released for State and Agency Review June 2021 **(On-hold waiting National Marine Fisheries Service (NMFS) consultation)**

Chief's Report due August 2021:

- Final report sent to Congress recommending authorization and appropriation 8/21 (On-hold awaiting NMFS)
- Environmental compliance process **(All but ESA consultation complete, Corps now has draft Consultation)***
- **The Port continues to work with the Puyallup Tribe on benthic, epi-benthic and commercial shellfish studies to address concerns raised by the Tribe in the public comment period.**
- ****The Corps is considering completing ESA consultation in the design phase depending on NMFS ability to provide a timely complete consultation.**

Project complete December 31, 2022; delayed from original date of August 21, 2021.

Authorization

8/14/2018 – MM approved \$1,500,000.

4/7/2020 –MM approved increase of \$129,000 for a total authorization of \$1,629,000.

12/7/2021 – MM approved increase of \$188,000 for a total authorization of \$1,817,000.

The current authorization is \$1,817,000.

Scope

The authorized scope of work is to serve as the local sponsor for the US Army Corps of Engineers' Tacoma Harbor Deepening Feasibility Study.

Project Cost

The total estimated cost of the NWSA's share of the project is \$1,817,000. Cost to date includes approximately \$1,620,026. These costs include both cash payments to the Corps and Work-In-Kind (WIK) provided by the Port to support the Feasibility Study.

Risks

- Ship Simulation showed the need for widening the Blair Waterway in several places. Without structural improvements that widening would require minor cutbacks to the top of bank. Cutbacks were not part of the original scope of work and create real estate and environmental risk. The Corps is working through design/operational alternatives to mitigate those risks. The Port is working through real estate issues, particularly with the Puyallup Tribe of Indians, that also mitigate those risks.
- While the Corps is supportive of beneficially using dredge material to build a large habitat restoration project near Marine View Drive that would provide critical salmon habitat, the Puget Sound Pilots and US Coast Guard have raised concerns about that project. The US Coast Guard has agreed to review/participate in the

Tacoma Harbor Deepening Feasibility Cost-Sharing Agreement

next round of ship simulation to ensure their concerns are met. The Port continues to work with the pilots, and they will also be a key participant in the next ship simulation and associated design process.

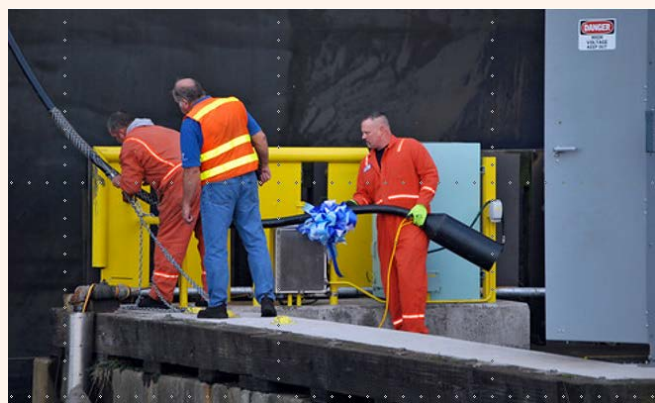
Grant

No grant funding is associated with this project.

July-December 2021

Terminal 3 and Terminal 4 Shore Power

Project MID No:	201100.01
Authorization:	\$11,600,000
Phase:	Design
Current Estimate:	\$11,600,000
Cost to Date:	\$448,604
Start:	12/19/2018
Schedule Completion:	6/30/2023
Project Manager:	Hughes Wike



Project Status

Schedule: Delayed
Budget: On or Within

Significant Developments/Scope Changes

External (e.g., Ecology, EPA) reviews have been completed; however, the review period extended beyond original deadlines. Due to the resultant slowing of design completion and project team's assessment of current supply chain conditions, bid documents are planned to be ready in Jan. 2022.

Extended procurement lead times for electrical equipment and materials continue to drive the need for the project's long-duration construction phase.

Project Schedule

Date	Task/Milestone
Bid Advertisement	January 2022
Contract Award	February 2022
Substantial Completion	June 2023

Project complete June 30, 2023; delayed from original date of March 31, 2023.

Authorization

11/5/2019 – MM authorization to accept the DERA grant in the amount of \$1M.

1/14/2020 – MM authorization to accept the TransAlta grant in the amount of \$1M.

2/14/2020 – Executive Authorization of \$200,000 for preliminary design.

9/1/2020 – MM authorization of \$330,000 to complete project design for a revised total of \$530,000.

7/7/2021 – MM authorization of \$11,070,000 for a revised total of \$11,600,000.

7/7/2021 - MM authorization to accept State VW grant in the amount of \$1.1M.

The current authorization is \$11,600,000.

Scope

The scope of this project is to design, construct, test, and commission two shore power systems at Terminal 3 and Terminal 4 including:

Terminal 3 and Terminal 4 Shore Power

- installation of major electrical equipment such as transformers, switchgear assemblies, power factor correction components, conduit, and wiring
- addition of one new shore power vault on Pier 3 bullrail
- wharf modification and trenching work
- Tacoma Public Utilities equipment upgrades
- inspection, testing, and commissioning

Project Cost

The total project cost including all stages is currently estimated at \$11,600,000.

Risks

Long-Lead Items: Switchgear and transformer equipment will come with lead times of up to six (6) months.

Power Shutdowns: Existing electrical equipment supports active terminals. Select components will need to be de-energized to safely implement construction work.

Testing/Commissioning: Detailed on-site startup, testing, and training requirements will be included in the construction contract to preclude issues with connection of first shore power-ready vessels.

Grant

Name: TransAlta Centralia Coal Transition Grant
Program Energy Technology Fund Grant

Value: \$1.0M

Port Match: \$4.4M (other grants can be used as part of the match)

Status: Awarded, funds received.

Name: EPA DERA 2019

Value: \$1.0M

Port Match: \$4.4M (non-Federal grants can be used as part of the match)

Status: Awarded, funds to be requested as costs are incurred.

Name: Department of Ecology State VW Grant

Value: \$1.1M

Port Match: All other project costs (other grants can be used as part of the match)

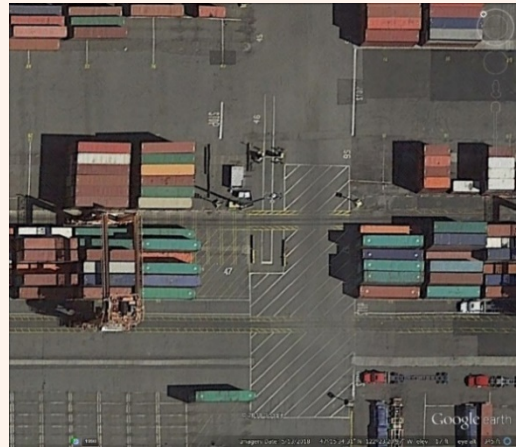
Status: Awarded, funds to be requested as costs are incurred.

July-December 2021

US CBP Booth Installations – WUT

(CBP=Customs and Border Protection; WUT=Washington United Terminals)

Project MID No:	201058.01
Authorization:	\$200,000
Phase:	Design
Current Estimate:	\$200,000
Cost to Date:	\$1,085
Start:	5/11/2016
Schedule Completion:	2022
Project Manager:	Hughes Wike



Project Status

Schedule: Delayed
Budget: On or Within

Significant Developments/Scope Changes

Project on-hold pending review of federal financing.

Project Schedule

Project completion has shifted from 2021 to 2022.
Exact schedule TBD.

Authorization

No new authorizations in this reporting period. The current authorization is \$200,000.

Via agreements with the Countering Weapons of Mass Destruction Office (CWMD) and CBP, NWSA financial commitment is capped at \$200K.

Scope

- Remove existing booth and related items

- Extend existing concrete foundation to accept salvaged booth from Pierce County Terminal (PCT)
- Install booth on new foundation
- Provide all necessary power and communications connections

Project Cost

The NWSA's financial commitment is capped at \$200,000.

Risks

The WUT CBP Booth Installation Project will not be completed in 2021 as expected due to delays in Federal financing associated with scope items that are not able to be accomplished by the NWSA contractor.

The project has been delayed until 2022; however, this does not result in any material risk to the project.

Grant

No grant funding is associated with this project.

Semi-Annual Project Summary

July-December 2021

South Intermodal (SIM) Yard Charging Stations and Electric Trucks

Project MID No:	201119.01
Authorization:	\$560,000
Phase:	Construction
Current Estimate:	\$560,000
Cost to Date:	\$347,832
Start:	12/20/2020
Schedule Completion:	1/21/2022
Project Manager:	Hughes Wike



Project Status

Schedule: Delayed
Budget: On or Within

Significant Developments/Scope Changes

Majority of construction work has been completed; however, delivery of new service panel has been delayed. Project Substantial Completion date has been extended from 12/20/2021 to 1/21/2022 to address this supply chain issue.

First set of three (diesel) yard trucks has been sent to OrangeEV for remanufacture and will be returned for commissioning of new charging stations. One truck is complete and work on remaining two is on-track to complete by the week of 1/17/2022. Final set of three trucks will then be sent for remanufacture.

Project Schedule

Bid Advertisement	August 2021
Bid Opening	September 2021
Contract Award	September 2021
Substantial Completion	January 2022

Project complete January 21, 2022; delayed from original date of December 31, 2021.

Authorization

12/22/2020 – Executive authorization of \$100,000 for full design.

8/3/2021 – MM authorization of \$460,000 for a revised total of \$560,000.

The current authorization is \$560,000.

Scope

The scope of work includes the following:

- Installation of new electrical infrastructure including service panel, meter, conduit, cabling, and (6) charging stations
- Construction of concrete equipment pads and protective bollard system
- Trenching and pavement replacement
- Tacoma Public Utilities (TPU) transformer upgrade
- Inspection, testing, permitting, and commissioning

South Intermodal (SIM) Yard Charging Stations and Electric Trucks

Project Cost

The total infrastructure project cost including all stages is currently estimated at \$560,000.

Risks

Unforeseen conditions during excavation activities.
Supply chain issues. Coordination with Tacoma Power for transformer replacement.

Grant/External Funding

Name: DERA (Diesel Emission Reduction Act)

Summary: This grant is primarily a pass through to assist RMS purchasing the electric yard trucks. About \$12,000 can be claimed to offset the infrastructure project costs.

Value: \$782,482

NWSA Match: \$0

Status: The DERA grant has been awarded and was accepted by MM at the November 2020 meeting. Funds will be requested when the project is complete.

Name: Tacoma Power Incentive

Summary: The incentive totals \$132,000 which can fund up to 50% of infrastructure costs.

Value: \$132,000

NWSA Match: \$0

Status: The incentive has been awarded and accepted by MM at the November 2020 meeting. Funds will be requested when the project is complete.

Name: RMS Contribution

Summary: RMS has agreed to fund all costs associated with the infrastructure project and purchasing the trucks not covered by the other external funding sources.

Value: For the infrastructure project, RMS's contribution is estimated at \$420,000 given the current cost estimate.

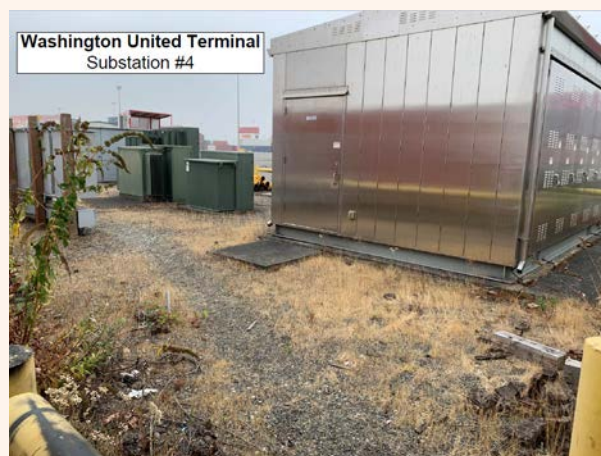
NWSA Match: \$0

Status: RMS signed an agreement with the NWSA in November 2020, committing the funds. Funds will be requested from RMS once the project is complete and all other external funding has been claimed.

July-December 2021

Washington United Terminals (WUT) Crane Power Addition

Project MID No:	201110.01
Authorization:	\$520,000
Phase:	Construction
Current Estimate:	\$480,000
Cost to Date:	\$197,105
Start:	5/4/2020
Schedule Completion:	3/18/2022
Project Manager:	Hughes Wike



Project Status

Schedule: Delayed
Budget: On or Within

Significant Developments/Scope Changes

Notice to Proceed issued on 10/06/2021. Project scope was subsequently revised (reduced) to accommodate a change in tenant's future needs. Following completion of project, adequate power will be available for three additional 15KV cranes along south berth of WUT.

Majority of construction work has been completed; however, delivery of new relays has been delayed. Project Substantial Completion date has been extended to 3/18/2022 to address this supply chain issue.

Project Schedule

Contract Execution	May 2021
Notice To Proceed	October 2021
Substantial Completion	March 2022

Project complete March 18, 2022; delayed from original date of September 2, 2021.

Authorization

5/5/2020 – Executive authorization for \$30,000 for preliminary design.

8/17/2020 – Executive authorization of \$170,000 for full design.

3/2/2021 – MM authorization of \$320,000 for construction.

The current authorization is \$520,000.

Scope

The updated scope of work includes:

- Installation of new cabling and electrical protection/isolation devices
- Testing and commissioning

Project Cost

The total project cost including all stages is currently estimated at \$480,000.

Washington United Terminals (WUT) Crane Power Addition

Risks

Construction on active terminal will need to work around vessel schedule. Unforeseen conditions during below-grade work.

Grant

No grant funding is associated with this project.

July-December 2021

T-5 Modernization Program

Project MID Nos:	C800132, C800726, C800988
Authorization:	\$390,000,000
Phase:	Construction
Current Estimate:	\$390,000,000
Cost to Date:	\$220,153,365
Start:	6/3/2014
Scheduled Completion:	12/31/2023
Project Manager:	Emma Del Vento



Project Status

Schedule: On or Ahead
Budget: On or Within

Significant Developments/Scope Changes

The Program achieved four major milestones this quarter:

- 1) Substantial Completion of the North Berth Wharf for Occupancy and Start of Operations. This includes shore power and completion of the in water work for the toe wall.
- 2) Completion of the Phase 1 lease obligations and other upland requirements for Occupancy and Start of Operations. These include: North Marine Building, Clean Truck Program, Utilities to Radiation Portal Monitors and Customs and Border Protection, South Berth Reefer Repair, Existing Gate repairs, Rail.
- 3) Completion of all the pre-occupancy Permit Conditions with SDOT (Land Use Conditions) and SDCI (Building Conditions).

- 4) Received Notice to Proceed from MARAD for the PIDP grant.

Project Schedule

Berth Modernization: Phase 1 schedule delays have been compounded by COVID-19, unanticipated site conditions, and, per the previous report remained on track for December 31, 2021 as the currently agreed Phase 1 substantial completion.

South Berth Construction is in progress, and in water work will require an extension and/or a 4th in water work window to be negotiated. The overall program schedule will be delivered on time with the General Contractor agreement milestones for the south berth completion December 31, 2022, and dredging completed by March 2023.

Permit Conditions: Pre-occupancy conditions have been met. Post-occupancy and for the life of the project conditions are underway.

Lease Obligations:

Stormwater Phase 1: Construction will be complete by April 2022.

T-5 Modernization Program

Stormwater Phase 2: will go out to bid in January 2022.

South Marine Building: will go out to bid in late 2022.

North Reefers: are in redesign in 2022. The end date of this project will likely extend the Program Schedule past 12/31/2023.

New Gate: is in design in 2022. The end date of this project will likely extend the Program Schedule past 12/31/2023.

Authorization

10/27/2013 – Initial Pre-Design Authorization \$150,000.

3/12/2014 – Additional Pre-Design Authorization \$150,000.

6/3/2014 – Initial Design Authorization \$4,700,000.

7/14/2015 – Additional Design Authorization \$5,000,000.

11/4/2015 – Additional SEPA and Design Funding \$2,000,000.

10/4/2016 – Additional Funding, Seattle City Light Agreement, and Project Labor Agreement \$8,200,000.

8/1/2017 – Railroad quiet zone funding, tribal payments, and Agreements \$5,650,000.

2/26/2019 – Authorization to advertise for construction \$0.

4/2/2019 – Additional Program Funding and Authorization to Fund T5 Modernization Program \$314,150,000.

5/20/2019 – Program Authorization for Construction of Berth Modernization Program.

8/4/2020 – T5 Marine Building – Authorization to advertise for North Building construction only.

9/1/2020 – T5 Modernization – Tribal Agreement Update.

10/6/2020 – T5 Modernization - Program Update.

2/2/2021 – MM approved for Construction of RPM, S Reefers, Clean Truck.

3/2/2021 – T5 Modernization - Program Update.

4/6/2021 – Quiet Zone MOU.

6/1/2021 – MM authorized First Amendment to T5 Lease.

7/7/2021 – MM authorized \$50,000 for a revised total of \$3,900,000.

9/8/2021 – MM authorized ILA for Shore Power Grant with Dept of Commerce for \$4,268,000.

11/2/2021 – T-5 Modernization Program Update.

11/2/2021 – MM authorized acceptance of MARAD PIDP Grant for \$10,687,333, for the final phase of Uplands Modernization and Rehabilitation Project.

11/2/2021 – POS Commission authorized \$700,000 for Environmental Remediation Liability for Upland Disposal of Sediment from Dredging (MID No. U00680).

12/21/2021 – MM authorized Terminal 5 Partial Settlement Agreement with SSAT, includes up to \$3 million in additional project funding.

The current authorization is \$393,000,000.

T-5 Modernization Program

Scope

Berth Modernization Construction: Improvements to support larger vessels at T-5, including crane rail strengthening, berth deepening, and electrical upgrades.

Permit Conditions: include rail quiet zone, striping, signalization and various traffic improvement measures and various Master Use Permit conditions concerning noise and gate management plans.

Lease Obligations: Uplands scope includes north reefer infrastructure, construction of two marine buildings, stormwater treatment, installation of Clean Truck Program hardware and software deployment, electrical power supply to the Radiation Portal Monitors (RPM) and Customs and Border Protection (CBP) booth.

Recent Upland Work part of Lease Obligations: south reefer repair to power supply, gate repair, scale reimbursement, new gate complex construction, RPM reimbursement, wet utilities to CBP booth.

Project Cost

The total program cost to date is \$220,153,365. Managing Members authorized a total of \$340M as of April 2019. A request for \$50M budget amendment was presented on 7/7/21.

Risks

Q4 2021 Stochastic Analysis and Risk Register update indicate the program has an 85% probability (P-85) of being sufficient with a value of \$389.8M and a 100% probability (P-100) of being sufficient with a value of \$410M.

The Berth Modernization and Permit Conditions have a relatively low amount of cost uncertainty.

Some of the Lease Obligation projects have a high level of uncertainty, which creates a steeper risk profile and a broader range of potential outcomes.

Completing the south berth in water work this window is critical to ensuring program completion by end 2022.

Grants

Name of Grant: MARAD Port Infrastructure Development Program (PIDP) NWSA

Value of Grant: \$10,687,333

NWSA/SSA Cost Share: \$24,687,333

NWSA Element: \$10,969,456 (Target amount pending agreement)

SSA Element: \$13,717,877 (Target amount pending agreement)

Status: Executed 12/20/21.

Name of Grant: Water Quality Combined Financial Assistance funding program (for Stormwater System)

Value of Grant: \$5,000,000

Port Match: \$1,666,667

Status: Active.

Name of Grant: State of Washington Department of Commerce Energy Fund 4 – Terminal Five Shore Power Electrification Direct Appropriation, 19-92201-006

Value of Grant: \$4,400,000

T-5 Modernization Program

Net amount to NWSA: \$4,268,000

Status: Awarded; the grant is signed and funded and ends December 31, 2022.

Name of Grant: Washington State Department of Commerce Energy Fund 5 - Terminal 5 Reefer Plug Infrastructure Direct Appropriation, 21-92201-044

Value of Grant: \$4,450,000

Net amount to NWSA: \$4,316,500

Status: NWSA is working with the Department of Commerce on the contracting language required for appropriation.

July-December 2021

T-18 Bollard Replacement

Project MID No:	U00688
Authorization:	\$300,000
Phase:	Preliminary Design
Current Estimate:	\$5,300,000
Cost to Date:	\$201
Start:	10/5/2021
Schedule Completion:	12/31/2026
Project Manager:	Emma Del Vento



Project Status

Schedule: On or Ahead
Budget: On or Within

Significant Developments/Scope Changes

IDIQ interviews are planned for late January 2022.

Project Schedule

Project is currently on schedule to advertise and execute an IDIQ consultant services contract, expected to be completed within 6 months after authorization (May 01, 2022).

The assessments and preliminary design phase work will follow and will be completed within 5-8 months after execution of contract and service directives.

Authorization

10/5/2021– MM approved \$300,000 for a total of \$300,000.

The current authorization is \$300,000 for design.

Scope

Perform preliminary design and begin permitting to replace two bollards to 60-ton capacity to meet minimum vessel operation requirements. Feasibility of replacing any additional bollards will depend on condition assessment of the existing dock. Additional bollards may be added to the scope in future phases.

Project Cost

The total project cost including all stages is currently estimated at \$5,300,000.

Risks

Project is in initiation stage and risks will be more defined during the assessment and pre-design phase.

Grant

Grant funding will be pursued as opportunities arise.

July-December 2021

T-18 Berth Rehabilitation

Project MID No:	U00687
Authorization:	\$600,000
Phase:	Preliminary Design
Current Estimate:	\$60,200,000
Cost to Date:	\$201
Start:	10/5/2021
Schedule Completion:	12/31/2026
Project Manager:	Emma Del Vento



Project Status

Schedule: On or Ahead
Budget: On or Within

Significant Developments/Scope Changes

IDIQ interviews are planned for late January 2022.

Project Schedule

Project is currently on schedule to advertise and execute an IDIQ consultant services contract, expected to be completed within 6 months after authorization (May 01, 2022).

The assessments and preliminary design phase work will follow and will be completed within 5-8 months after execution of contract and service directives.

Authorization

10/5/2021– MM approved \$600,000 for a total of \$600,000.

The current authorization is \$600,000.

Scope

Perform condition assessments and preliminary design to rehabilitate piles, pile cap, deck panels, and related infrastructure to preserve existing use while extending the service life of the rehabilitated components by 25 to 30 years.

Project Cost

The total project cost including all stages is currently estimated at \$60,200,000.

Risks

Project is in initiation stage and risks will be more defined during the assessment and pre-design phase.

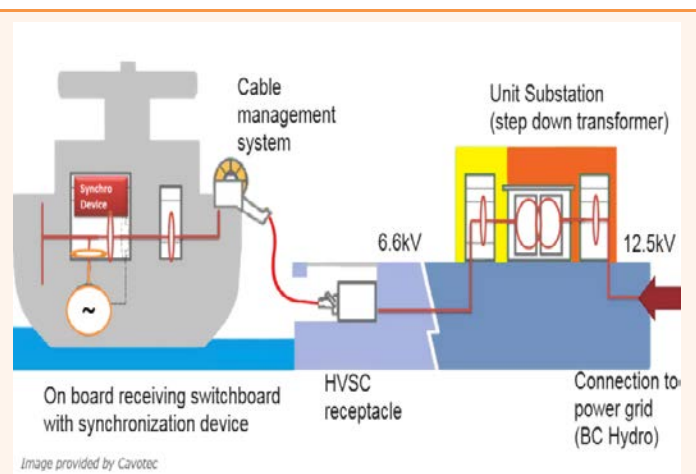
Grant

Grant funding will be pursued as opportunities arise.

July-December 2021

T-18 Shore Power

Project MID No:	U00670
Authorization:	\$800,000
Phase:	Preliminary Design
Current Estimate:	\$30,100,000
Cost to Date:	\$29,859
Start:	10/5/2021
Schedule Completion:	12/31/2026
Project Manager:	Emma Del Vento



Project Status

Schedule: On or Ahead
Budget: On or Within

Significant Developments/Scope Changes

IDIQ interviews for design are planned for late January 2022.

Project Schedule

Negotiation and execution of the Condition Assessment IDIQ is underway.

Project is currently on schedule to advertise and execute an IDIQ consultant services contract for preliminary design, expected to be completed within 6 months after authorization (May 01, 2022).

The assessments and preliminary design phase work will follow and will be completed within 5-8 months after execution of contract and service directives.

Grant:

Upon acceptance of the grant agreement, staff plan to begin initial planning for the project, which

will enable us to request Managing Member authorization for design funds by the end of the year. Our goal will be to complete the design of the shore power system by Q2 2023. Along the way, we will develop intermediate design packages that can be used in grant applications. Timing of beginning and completing construction will depend on additional grant funds, but construction must be complete by the end of 2026 unless otherwise agreed to by Ecology, based on the terms of this grant agreement.

Authorization

6/16/2021 – executive authorization for \$150,000.

9/8/2021 – MM approved acceptance of \$2M Grant from Washington State Department of Ecology's though the Federal VW Settlement Program.

10/5/2021– MM approved \$650,000 for a total of \$800,000.

The current authorization is \$800,000.

Scope

Perform a condition assessment under an existing

T-18 Shore Power

Infrastructure IDIQ contract and perform preliminary design under the new T-18 IDIQ contract to install shore power infrastructure at T-18 and upgrade electrical infrastructure as required, which will likely include Seattle City Light (SCL) primary substations, underground duct bank to bring power to the dock, shore power vaults and switchgear at the dock.

Project Cost

The total project cost including all stages is currently estimated at \$30,100,000.

Risks

Project is in initiation stage and technical risks will be more defined during the assessment and pre-design phase.

Staff have negotiated an important special condition to the grant agreement that allows the NWSA to use up to \$1M of the funds to pay for design costs (excluding staff costs), with the caveat that if the NWSA does not complete construction of the shore power system by the 2026 deadline, then grant dollars claimed must be paid back to Ecology.

A 50% match is required for funds used in the design phase of the project. The remainder of the funds will be available to fund construction. A 75% match is required against the \$2M grant and can be met through other grants and/or our own funds. We can meet our 50% external funding target for the overall project by securing other grants. The CIP allocates \$26.6 million for the construction project. The NWSA would be required to return any grant funds spent if the project is not completed by the end of 2026, unless an extension is granted by Ecology. If we are unable to get enough grant funds

to complete the project, then we would either fully fund the design for a project that may not get built (having returned the grant funds) or pay significantly more of our own funds to implement the construction phase of the project than what our internal goal (at least 50% in external funding) calls for.

Grant

Name of Grant: Washington State Department of Ecology through Federal Volkswagen Settlement Program

Value of Grant: \$2M

– \$1M-design; and \$1M-construction

Port Match: \$3M (50% match)

Status: Awarded

Match means we must spend at least \$6M in “other funds” which can be grants. We plan to pursue other grants to meet our overall 50% external funding target for this project.

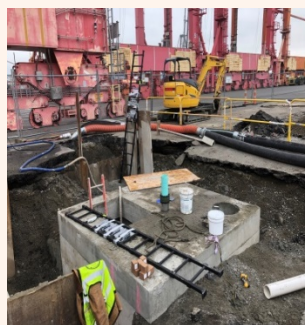
A 50% match is required for funds used in the design phase of the project. The remainder of the funds will be available to fund construction.

A 75% match is required against the \$2M grant and can be met through other grants and/or our own funds. We can meet our 50% external funding target for the overall project by securing other grants.

July-December 2021

T-18 Stormwater Infrastructure

Project MID No:	C800742
Authorization:	Cost share – POS Commission Lease Agreement (7/22/14)
Phase:	Construction
Current Estimate:	\$19,000,000
Cost to Date:	\$15,955,619
Start:	6/9/2015
Scheduled Completion:	6/30/2022
Project Manager:	Arthur Kim



Project Status

Schedule: On or Ahead

Budget: On or Within

Significant Developments/Scope Changes

There have not been any significant scope changes this period. Tenant (SSAT) is nearing completion of Phase 3 construction.

Project Schedule

Due to COVID-19 impact, Phase 3 (final phase) work is being constructed in two seasons, with Season 3B expected to be completed by end of 2021, delayed from original date of October 2020. Tenant (SSAT) received Ecology's approval in Q3 2020 for this phased approach.

Project Close Out Complete June 30, 2022; delayed from original date of October 31, 2021.

Authorization

No new authorizations.

7/22/2014 – Project authorized by Port of Seattle Commission.

2/4/2020 – MM briefed on project status.

The current projected total project cost to NWSA is \$19M.

Scope

The tenant is to install level 3 stormwater corrective actions on the 180-acre terminal in three phases. The first phase was completed in October 2016 treating 88.5 acres; Phase 2 was completed in November 2018 treating 45 acres; and treatment for the final Phase 3 of 55 acres will be completed by December 31, 2021.

Project Cost

Based on current progress, project is expected to be within the budget of \$19,000,000.

T-18 Stormwater Infrastructure

Risks

None remaining, project is almost complete.

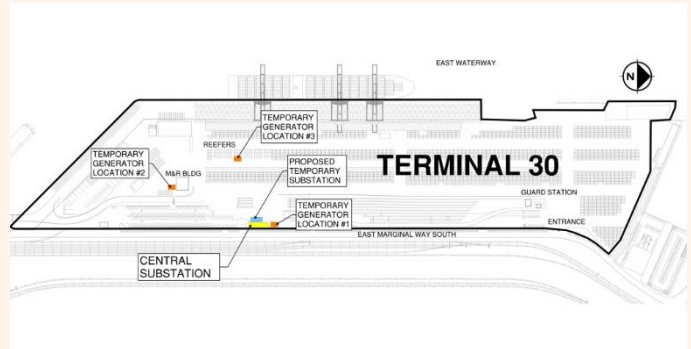
Grant

No grant funding is associated with this project.

July-December 2021

Terminal 30 Substation Replacement

Project MID Nos:	U00660, U00661
Authorization:	\$6,200,000
Phase:	Design
Current Estimate:	\$6,200,000
Cost to Date:	\$1,720,000
Start:	11/30/2020
Schedule Completion:	3/31/2023
Project Manager:	Tim Leonard



Project Status

Schedule: On or Ahead
Budget: On or Within

Significant Developments/Scope Changes

Since the design funding approval on April 6, 2021, staff has completed the design, permitting, procurement, and installation of a temporary substation to replace the generators and provide interim power until a permanent substation can be completed by 2023; and completed the design, SEPA process, and preparation of bid documents for the construction of a permanent replacement substation. A construction funding request, to enable the construction of a permanent replacement substation and subsequent termination of the temporary substation equipment rental, was approved by the Managing Members on December 7, 2021.

Project Schedule

Temporary Substation CIP U00661:

Design completion	March 2021
Leased equipment procurement contract award	April 2021
Construction completion	July 2021

Permanent Substation CIP U00660:

Design/permitting completion	November 2021
Construction funding approval	December 2021
Construction substantial completion	February 2023

Authorization

12/8/2020 – Declaration of Emergency for \$1M.

4/6/2021 – MM approved \$1.8M for a revised total of \$2.8M.

12/7/2021 – MM approved \$3,400,000 for a revised total of \$6,200,000.

The current authorization is \$6,200,000.

Terminal 30 Substation Replacement

Scope

On November 29, 2020, the Terminal 30 Central Substation failed and caused a power outage to a significant portion of Terminal 30. General repairs to the substation were determined to be infeasible due to the age of the equipment and degree of damage incurred as a result of the failure event. Rental diesel generators were immediately procured, and power was restored to the terminal on December 1, 2020.

A Declaration of Emergency was subsequently issued by the NWSA on December 8, 2020, and a project was begun to enable staff to secure a longer-term temporary generator procurement, hire a Contractor to perform a root cause analysis of the substation's failure, and perform the planning necessary to determine a long-term solution in replacing the substation.

Additionally, the NWSA commenced discussions with the tenant, SSAT, to determine financial responsibility relative to this substation failure. The NWSA and the tenant have not yet come to agreement on the financial responsibility for the replacement of the substation. Discussions will continue to determine financial responsibility, but permanent power needs to be restored to the terminal while these discussions continue.

Temporary Power (CIP U00661)

- Procurement and on-site operation of diesel generators (complete)
- Design, permitting, and procurement of temporary substation equipment (complete)
- On-site improvements construction (electrical trenching, barricade/fencing, etc.) (complete)

- Temporary substation equipment installation (complete)
- Electrical service reconnection to existing T-30 power feed from Seattle City Light (complete)
- Leasing of temporary substation equipment (ongoing)

Permanent Substation (CIP U00660)

- Design and SEPA permit
- Construction bidding and award
- Substation equipment procurement
- On-site construction (pad removal/replacement, electrical trenching, equipment installation, etc.)
- Electrical service reconnection to existing T-30 power feed from Seattle City Light

Project Cost

The total project cost including all stages is currently estimated at \$6,200,000.

Risks

Final completion date of permanent substation subject to construction/electrical permits issuance by City of Seattle and long-lead time required for procurement of electrical equipment by Contractor.

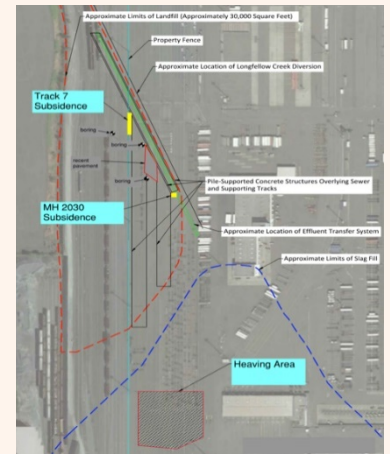
Grant

No grant funding is associated with this project.

July-December 2021

T-5 Intermodal Yard Improvements

Project MID No:	U00668
Authorization:	\$2,950,000
Phase:	Design
Current Estimate:	\$2,950,000
Cost to Date:	\$192,428
Start:	8/3/2021
Schedule Completion:	12/31/2022
Project Manager:	Curtis Stahlecker



Project Status

Schedule: On or Ahead
Budget: On or Within

Significant Developments/Scope Changes

SSAT desires to utilize the Intermodal Rail Yard at T-5 for intermodal rail service when the facility opens in 2022. Demand for on-dock intermodal service from both ocean carriers and BCOs continues to increase. To begin utilizing the IY when T-5 opens, some repairs need to be completed.

- Repair subsidence that occurred adjacent to MH structure 2030.
- Restore the operational use of Track 7 and repair adjacent subsidence.
- Repair uneven surface and misalignment of rail in the southern end of the IY eliminating potential worker and equipment safety concerns.
- Upgrade the electrical service to 100-amps for the rail RPMs.

- Provide ballast at intermodal storage tracks.

Work performed within the period

In order for the IY facility to be ready for utilization and start rail operations a number of items needed to be completed. The work that has been completed to achieve rail operations included the repair of 2 areas of subsidence within the intermodal yard utilizing Port crews. One of these areas of subsidence was known at the time of funding authorization the other area required design and implementation in the last quarter of 2021. The re-ballasting of the Intermodal Yard Storage (IYS) Track and switch repair was performed by an external contractor. The other element of work that was needed was the load testing of Track 7. In conjunction with BNSF, Track 7 was load tested with a locomotive and rail car and the deflection of the track was measured utilizing survey equipment. The deflection of Track 7 was within acceptable limits. With the completion of these activities, the NWSA has fulfilled their obligations to have the IY ready for operations by 12/31/21.

T-5 Intermodal Yard Improvements

The design for the repair to the heaved area in the southern section of the IY began and was completed through the 30 percent level.

Project Schedule

The preliminary work to get the IY facility operational was completed by 12/31/21. The table below is for the repairs to the southern areas of the IY. No schedule variances occurred since the last report.

Activity	Timeframe
Advertise for Bid	April 2022
Open Bids	May 2022
Notice of Award	July 2022
Substantial Completion	October 2022
Final Completion	December 2022

Authorization

2/11/2021 – executive authorization for design for \$75,000.

6/9/2021 – executive authorization for additional design funds for \$150,000 for a revised total of \$225,000.

8/3/2021 – MM approved \$2,725,000, for a revised total of \$2,950,000.

The current authorization is \$2,950,000.

Scope

The scope of work includes:

- Investigate existing conditions, develop designs, prepare construction documents for the subsidence repair near an existing storm water structure MH 2030
- Construct the repairs of the subsidence at MH2030
- Investigate and develop engineering plans to

upgrade the electrical power supply to the two existing rail radiation portal monitors (RPM).

- Investigate and develop design and construction documents to restore the uneven pavement and correct any misalignment in the southern section of the IY eliminating potential worker and equipment safety concerns.
- Investigate existing conditions, develop designs, and prepare construction documents for the repair of the subsidence adjacent to Track 7 and confirm rail operations can safely use Track 7.
- Construct repairs to restore Track 7 for interim operation for Phase 1.
- Construct repairs to the intermodal storage tracks.

Project Cost

Item	Cost Estimate
Track 7 subsidence repair	\$ 335,000
Eastern IY subsidence repair	\$ 346,000
Southern IY pavement heaving repair	\$ 1,994,000
Rail RPM power upgrade	\$ 75,000
Intermodal Storage Yard (ISY) track repairs	\$ 200,000
Total Estimate Project U00668	\$ 2,950,000

Risks

None to report.

Grant

Name of Grant: MARAD Port Infrastructure Development Program (PIDP)

Value of Grant: \$4.3m (not mentioned in memo)

Port Match: \$3m

Status: Received Notice to Proceed 12/20/21

July-December 2021

T-106 CBP Office and Facility Renovation (CBP = Customs and Border Protection)

Project MID Nos:	2021-29 NH, U00690
Authorization:	\$6,402,000
Phase:	Design
Current Estimate:	\$6,402,000
Cost to Date:	\$10,784
Start:	8/2/2021
Schedule Completion:	8/31/2023
Project Manager:	Fred Chou



Project Status

Schedule: On or Ahead
Budget: On or Within

Significant Developments/Scope Changes

CBP involved with feasibility development and supports the conceptual design. Following Feasibility Study, staff conducted two rounds of acquisition planning to determine most suitable project delivery method.

Design-Build delivery selected over traditional Design-Bid-Build process.

Project Schedule

Activity	Timeframe
NWSA Managing Members Project Funding Approval	August 2021
Design Build RFQ/P Preparation, Advertisement, Evaluation, Section and Award	Q3 2021 – Q2 2022
DB Team Design, Permitting & Construction	Q3 2022 – Q3 2023
Estimated Project Completion	August 2023

Authorization

11/6/2018 – executive authorization for \$50,000.
4/3/2020 – executive authorization for \$35,000, for a revised total of \$85,000.
11/12/2020 – executive authorization for \$16,500, for a revised total of \$101,500.
8/3/2021 – MM approved \$6,300,500 for a revised total authorization of \$6,402,000.
The current authorization is \$6,402,000.

Scope

- Tenant Improvement Feasibility Study completed 10/30/20. Provides options utilizing building's shell that meet CBP's requirements
- Will office 85 staff with majority dedicated to international cargo operations at T-18, 30, and 5 (once reopened)

The scope of work for this project include:

- Prepare and issue Request for Qualification (RFQ) and Proposal (RFP), select Design-Build team, and execute contracts.

T-106 CBP Office and Facility Renovation (CBP = Customs and Border Protection)

- Complete design development and reviews.
- Complete environmental documentation and required permitting.
- Complete construction and final implementation.

CBP Office Building:

- Built in 1952 as un-conditioned warehouse space.
- Office area added later functioning as building-within-a-building.
- Some original fixtures and systems remain; some updates in 1980.
- Key project objective: Utilize existing internal walls and infrastructure to greatest extent possible.
- Modifications required to meet current code standards and accommodate greater staff number.
- Project will expand CBP space to include additional 3,915 SF of office for a total Premises of: 23,232 SF of the 2W building, 31,260 SF of yard space, and 4,850 SF of parking area.

Existing infrastructure retained where possible, and updates to:

- Mechanical & plumbing systems
- Fire protection & alarm systems
- Electrical & lighting
- Telecommunications
- Intrusion detection, video surveillance systems, & access control systems
- Building exterior perimeter improvements
- Assessment of IT & furniture needs

Project Cost

The total project cost including all stages is currently estimated at \$6,402,000.

Risks

Design Build team's procurement is projected to be completed Q2, 2022 rather than Q1, 2022. Project manager Fred Chou retiring on 1/7/22. Transition related delays may occur.

Grant

No grant funding is associated with this project.