THE NORTHWEST SEAPORT ALLIANCE MEMORANDUM

MANAGING MEMBERS STAFF BRIEFING

Item No. 10A

Date of Meeting November 7, 2023

- **DATE:** October 30, 2023
- TO: Managing Members

FROM: John Wolfe, CEO

Sponsor: Tong Zhu, Chief Commercial & Strategy Officer **Project Manager**: Emma Del Vento, Capital Program Leader, Port of Seattle

SUBJECT: Terminal 5 Modernization Program Quarterly Update Q3 2023

A. BRIEFING REQUESTED

Regular Q3 2023 Terminal 5 Modernization Program Update

B. BACKGROUND

In April 2019, The Northwest Seaport Alliance (NWSA) entered a long-term lease for the redevelopment of Terminal 5 in the Seattle Harbor to create a modern international container terminal for ultra-large container ships. Once the Terminal 5 Modernization Program is completed, the facility will have the capability to handle the largest vessels currently calling the west coast, allowing the NWSA to compete for the super post-Panamax vessels, increasing current container volumes, supporting economic development and both creating and securing current jobs in the region for the next thirty years and likely beyond.

C. SYNOPSIS QUARTERLY PROGRAM UPDATE TERMINAL 5 MODERNIZATION

Scope and Recent Updates

Program wide updates: There have been no scope changes to the Terminal 5 Program since the last briefing.

Berth Modernization: A pending dispute with the contractor, continues to keep the risk profile of the project high. The fourth in-water work window closed with some items pending completion: dredging and fill, fender installation, underdock work. A permit modification is underway to complete remaining work starting early December. This ongoing work will be planned around vessel calls and will not affect the South Berth turnover schedule.

Phase 1 (North Berth): Ongoing conversations with pilots and operators on least depth continue.

Phase 2 (South Berth): Work is progressing on time to meet scheduled crane arrival in November 2023.

Permit Conditions: Construction of the final elements including the Quiet Zone is underway.

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Lease Obligations: NWSA's Lease Obligations are in progress per agreements with the Tenant.

Budget

Program Budget of \$340,000,000 was approved in April 2019. \$50,000,000 was added in July 2021 for a total Program budget of \$390,000,000. Per Managing Member action on December 21, 2021, \$2,500,000 was approved for the purchase and installation of 8 scales and for the south reefer restoration project as part of a partial settlement agreement of a then-pending dispute with the tenant. This increased the total Program budget to \$392,500,000. In August 2022, \$61,500,000 was added to the Program for the additional work addressed by the proposed Third Lease Amendment, bringing the Program to a total of \$454,000,000.

Through September 30, 2023, the spent to date amount of \$303,787,725 are on track with forecast estimate at completion and progress.

Risk

Recent Stochastic Analysis and Risk Register updates indicate the program has an 85% probability of being sufficient with a value of \$450.0M and a 100% probability of being sufficient with a value of \$462.9M.

The primary drivers leading to the \$4M decrease in P-85 value over last quarter are as follows:

- 1. Decrease Gate complex estimate at high level of certainty
- 2. Increase Administrative costs related to the MARAD PIDP 2022 grant, potential Tenant requests at berth turnover, and new projected legal expenses

Lease Obligations still have a wide cone of uncertainty and continue to carry the bulk of the program risk.

Schedule

Phase 2 (South Berth) construction project is currently behind the contract schedule date of December 31, 2022. Likely completion of the wharf is November 2023, in time for the delivery of the South Berth cranes. The in-water work (Phase 3) will be complete in Q1 2024.

Stormwater Phase 2 is forecast to be operational in Q1 2024.

Permit Conditions will be complete in mid to late 2024.

Other Phase II Lease Obligation project schedules are at high schedule risk with the exception of the South Marine Building which is on track for December 2023 substantial completion. Delayed projects include: North Reefer Infrastructure, South Berth Paving, Container Yard Expansion, and adjacent projects (Intermodal Yard Rail Improvements).

Safety

Orion Marine Contractors (T5 Berth Modernization General Contractor) meets POS requirements with Health and Safety Plan and Site-Specific Safety plans. There have been no recordable incidents this quarter for almost 18,000 hours worked.

D. PROJECT PROGRESS AND SCHEDULE

The Program achieved two major milestones this quarter:

- South Berth Modernization: Structural portion completion, installation of shore and crane power substation.
- Reefers: 100% design

Berth Modernization Project:

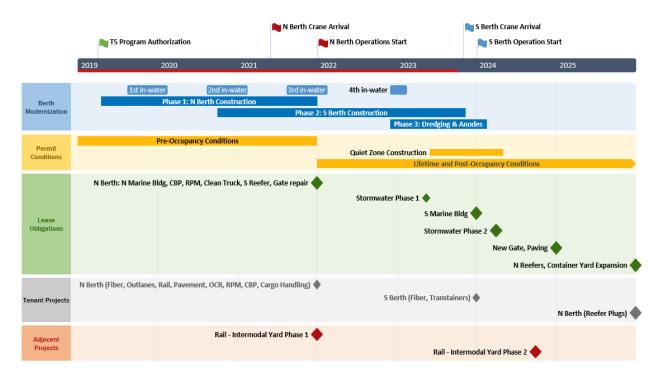
- North Berth: Paving realignment project is underway.
- South Berth: Activities are on time for crane delivery planned in November 2023.
- In-water work: will resume in December 2023

Schedule

The T5 Berth Modernization construction project is currently behind schedule to complete South Berth by the original schedule date of December 31, 2022. The current likely date of South Berth completion has not been negotiated and is estimated to be in November 2023 and in-water work will be completed by March 2024. These dates align with the Third Amendment to the Lease.

The most significant element of risk to the Phase 2 delivery schedule is execution of the South Uplands paving. The project team has developed a mitigation with a repair project that is in the final stages of agreement with the Tenant.

Adjacent projects: the T5 Intermodal Yard Phase 2 project scheduled for end 2023 completion was postponed to reduce risks around winter work. New schedule aligns with Terminal operator projected use of the facility and will have lower costs.



E. BUDGET (TO SEPTEMBER 30, 2023)

Budget numbers are updated through September 30, 2023. Numbers including overhead are posted the 10th of every month, except at year-end when they are posted January 21.

- Program forecast currently exceeds the overall budget if all risks hit the Program at the high end. Several factors including supply chain issues, overall escalation, and a pending dispute with the contractor have increased the risk profile of the program; however, the current program budget remains sufficient at this time.
- Construction is 93% spent and 97% complete.
- Management Reserve \$36,344,060 was moved out to fund (and reimburse) the following projects. Many of these movements reflect the start of the projects for the third lease amendment.
 Phase 1 Reserve:
 - Interim Gate Complex Over Budget and Closeout \$12,020
 - T5 Stormwater Grant- increase budget for additional funding

		\$320,926
0	Return \$127,229 from 106159 S Reefer Closeout	-\$127,229
0	Quiet Zone + MUP	\$2,930,843
0	T5 Berth Mod Legal Support New Project	\$500,000
0	U00572 T5 Stormwater Increase Budget	\$2,000,000
0	C800988 portion of U00719 T5 MARAD 2022 PIDP Grant	Admin
		\$504,000
	Phase 2 Reserve:	
0	U00705 Transtainer Runs	\$3,380,000
0	U00708 Ph2 Container Yard Paving	\$14,800,000
0	U00712 Container Yard Expansion	\$11,740,000
0	U00719 T5 MARAD 2022 PIDP Grant Admin	\$283,500

The budget table below shows the budget breakdown for each project, or grouping of similar scopes (reefers, gate, permit conditions).

Total project cost projections show some variance in relation to the authorizations. The T5 Berth project and the T5 Stormwater Upgrade will overrun their project budgets and the remaining Phase 1 Management Reserve. The wide estimate accuracy range on the large lease obligation projects still in design (Reefers, New Gate, South Berth Paving, Container Yard Expansion) drives continued uncertainty on project costs.

However, the current total program authorization of \$454M is greater than the P-85, and likely sufficient to cover all project costs.

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P-85: \$402.8M P-100: \$409.9M	Original Authorized Project Cost	Current Authorized Project Cost	This Request	Total Project Cost	Cost to Date	Remaining Cost	
T5 Berth + Design + SCL	\$ 276,000,000	\$ 274,800,000	\$-	\$ 280,200,000	\$ 253,692,690	\$ 26,507,310	
T5 Permit + Tribes	\$ 14,000,000	\$ 14,000,000	\$-	\$ 16,000,000	\$ 6,897,990	\$ 9,102,010	
T5 Stormwater Treatment	\$ 30,000,000	\$ 32,000,000	\$-	\$ 33,400,000	\$ 28,125,457	\$ 5,274,543	
T5 Management Reserve/Risk	\$ 20,000,000	\$ 25,804,000	\$-	\$-	\$-	\$-	
T5 Clean Truck (CLOSED)	\$ -	\$ 55,000	\$ -	\$ 55,000	\$ 55,000	\$-	
T5 Marine Buildings	\$-	\$ 11,200,000	\$-	\$ 11,200,000	\$ 7,617,802	\$ 3,582,198	
T5 RPM + CBP (CLOSED)	\$-	\$ 396,000	\$ -	\$ 396,000	\$ 396,000	\$-	
T5 Reefers	\$-	\$ 19,180,000	\$-	\$ 30,400,000	\$ 2,536,155	\$ 27,863,845	
T5 Gate Complex	\$-	\$ 13,000,000	\$-	\$ 21,400,000	\$ 3,057,619	\$ 18,342,381	
T5 Operational	\$-	\$ 1,360,000	\$-	\$ 1,360,000	\$ 1,012,112	\$ 347,888	
T5 MARAD Grant Admin	\$-	\$ 705,000	\$-	\$ 1,500,000	\$ 222,599	\$ 1,277,401	
Total	\$ 340,000,000	\$ 392,500,000	\$-	\$ 395,911,000	\$ 303,613,424	\$ 92,297,576	
LEASE AMENDMENT P-85: \$47.20M; P-100: \$53.1M							
N Reefer Expansion - Demarc		\$ 15,200,000	\$-	\$ 10,000,000	\$-	\$ 10,000,000	
Phase II South Paving		\$ 15,000,000	\$ -	\$ 15,000,000	\$ 49,560	\$ 14,950,440	
Phase II Container Yard		\$ 11,800,000	\$ -	\$ 11,800,000	\$ 57,441	\$ 11,742,559	
T5 Transtainer runs		\$ 6,000,000	\$ -	\$ 3,700,000	\$ 67,300	\$ 3,632,700	
Phase II Mgmt Reserve		\$ 13,500,000	\$ -	\$ 17,589,000	\$ -	\$ 17,589,000	
Total		\$ 61,500,000	\$-	\$ 58,089,000	\$ 174,301	\$ 57,914,699	
Previously Authorized		\$-	\$-	\$-			
Revised Total Authorization		\$ 454,000,000	\$-	\$ 454,000,000	\$ 303,787,725	\$ 150,212,275	
MARAD 2020 PIDP Grant				\$ 7,481,133			
WA Ecology - Stormwater				\$ 5,320,926			
WA Commerce - Shorepower				\$ 4,268,000			
WA Commerce - Reefers				\$ 4,316,500			
MARAD 2022 PIDP Grant				\$ 17,035,900			
National Highway Freight Prog				\$ 1,513,750			
Authorization - Grants				\$ 414,063,791			
T5 ERL (POS Only)	\$-	\$ 1,100,000	\$-	\$ 1,100,000	\$ 754,146	\$ 345,854	

CONTINGENCY AND RISK

The contingency and risk section provide the Managing Members early visibility to emerging issues and associated costs in T5 Modernization Program implementation.

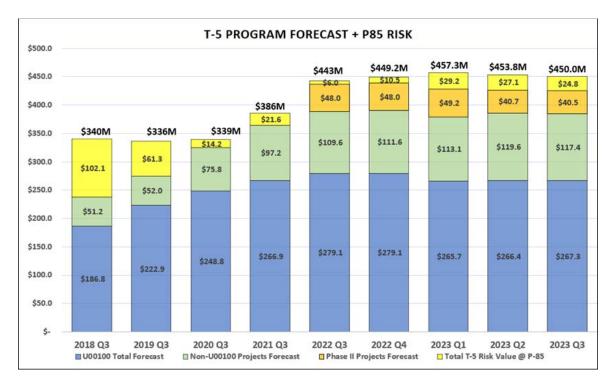
Stochastic Analysis and Risk Register (updated quarterly in 2023)

T5 key staff meet quarterly with the T5 Program risk consultant to model variables around future T5 risk and update the risk register. Risks are identified by likelihood and impact to generate a score and are modelled into the forecast budget along with the actuals to date.

The largest risks to the program are the: reefer infrastructure, sinkholes and other paving requirements, and a dispute with the contractor regarding the toe wall and project delays. Recent Stochastic Analysis and Risk Register updates from October 2023 indicate the program currently has a P-85 value (85% probability of being sufficient) of \$450.0M

The current expected cost of the program is \$410.1M (P-85 value \$450.0M minus grant funding \$39.9M).

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Emerging and Continuing risks:

- Phase 1 & 2 Toe Wall Claim
- Paving overruns
- Upland projects in early stages of design
- · Taxes and legal costs on pending trends
- Stormwater total cost range

F. OPPORTUNITIES

The opportunities section provides a status update on the T5 grant agreements. Net grant funding to date for the T5 program totals: \$39,936,209. Reimbursements are on track with forecast milestones. Below are the current grants and the awarded amounts.

MARAD PIDP Grant 2020- NWSA	\$ 7,481,133
WA Ecology - Stormwater	\$ 5,321,000
WA Commerce - Shorepower	\$ 4,268,000
WA Commerce - Reefers	\$ 4,316,500
MARAD PIDP Grant 2022	\$17,035,900
National Highway Freight Program	\$ 1,513,750

G. COMMUNITY OUTREACH

External relations is preparing for media events related to the arrival of the two new cranes and of the four rubber tire gantries (RTGs).

H. Q3 2023 LOOK AHEAD

Major milestones for Berth project, Permit Conditions and Lease Obligations through Q4 2023 include:

- South Berth: South Berth Dock will be substantially complete and will meet lease obligations to start Phase 2 operations. In-water work will continue through mid-February.
- Start of additional in-water work for South Berth.
- South Marine Building Substantial Completion and turnover for start of Phase 2 operations.
- New Gate Complex: Bid Advertisement
- Transtainer Runs (Tenant reimbursement): construction completion.
- T5 IY Improvements: Bid Advertisement.

I. PREVIOUS ACTIONS OR BRIEFINGS

Date	Action	Amount
August 01, 2023	Acceptance of Terminal 5 MARAD 2022 PIDP Grant Agreement and 2023 National Highway Freight Program (NHFP) grant for a total amount of \$18,785,900	\$0
August 01, 2023	T-5 Modernization – Program Update	\$0
May 2, 2023	T-5 Modernization – Program Update	\$0
February 7, 2023	T-5 Modernization – Program Update	\$0
November 1, 2022	T-5 Modernization – Program Update	\$0
August 2, 2022	T-5 Modernization – Program Update; Third Lease Amendment	\$61,500,000
May 2, 2022	T-5 Modernization – Program Update	\$0
February 1, 2022	T-5 Modernization – Program Update	\$0
December 21, 2021	Terminal 5 Partial Settlement Agreement with SSAT	\$2,500,000
November 2, 2021	T-5 Modernization – Program Update; Acceptance of T5 MARAD 2020 PIDP Grant Agreement; and POS only vote for ERL funding for T5 uplands soil disposal (\$700,000)	\$0
September 8, 2021	Terminal 5 ILA for Shore Power Grant with Department of Commerce	\$0
July 7, 2021	T5 Program Update, Increased Authorization and N. Reefer Construction Authorization	\$50,000,000
June 1, 2021	First Amendment to T5 Lease Authorization by Managing Members	\$0
April 6, 2021	Quiet Zone MOU	\$0
March 2, 2021	T5 Modernization - Program Update	\$0
February 2, 2021	Approval for Construction of RPM, S Reefers, Clean Truck	\$0
October 6, 2020	T5 Modernization - Program Update	\$0

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September 1, 2020	T5 Modernization - Tribal Agreement Update	\$0				
August 4, 2020	T5 Marine Building - Approval to Advertise for North Building Construction Only	\$0				
July 2, 2020	\$0					
July 2, 2020	Ily 2, 2020 T5 Modernization - Program Update					
April 7, 2020	T5 Modernization - Program Update	\$0				
January 14, 2020	T5 Modernization - Program Update	\$0				
October 1, 2019	T5 Modernization - Program Update	\$0				
August 6, 2019	T5 Modernization - Program Update	\$0				
June 4, 2019	T5 Program Update	\$0				
May 20, 2019	Program Authorization for Construction of Berth Modernization Program	\$0				
April 2, 2019	\$314,150,000					
February 26, 2019	Authorization to Advertise for Construction	\$0				
February 5, 2019	Pre-authorization Program Briefing	\$0				
November 13, 2018	Motion to Prepare Construction Documents for Authorization to Advertise	\$0				
August 1, 2017	Railroad Quiet Zone Funding, Tribal Payments, and Agreements	\$5,650,000				
October 4, 2016	Additional Funding, Seattle City Light Agreement, and Project Labor Agreement	\$8,200,000				
June 7, 2016	DEIS Briefing	\$0				
November 4, 2015	Additional SEPA and Design Funding	\$2,000,000				
October 13, 2015	Test Pile Bids Exceeded Engineer's Estimate	\$0				
July 14, 2015	Additional Design Authorization	\$5,000,000				
June 3, 2014	Initial Design Authorization	\$4,700,000				
May 13, 2014	T5 Berth Modernization Briefing	\$0				
March 12, 2014	Additional Pre-Design Authorization	\$150,000				
October 27, 2013	Initial Pre-Design Authorization	\$150,000				
	TOTAL	\$454,000,000				

Item No.:10A Date of Meeting: November 7, 2023

TERMINAL 5 Q3 2023 BRIEFING



Emma Del Vento Capital Program Leader, Port of Seattle

November 7, 2023

Terminal 5 – Program Overview Primary Elements of Scope

Berth Modernization

- Crane Rails
- Dock Rehabilitation
- Slope Stabilization
- Berth Deepening
- Power Supply/ Distribution
- Uplands Improvements
 - Permit Conditions
 - Lease Obligations
 - Stormwater
 - Marine Buildings
 - Reefers
 - Gate
 - Container Yard Expansion
 - Paving
 - Transtainer Runs





Terminal 5 – Q3 2023 Progress

• Berth Modernization Project

- South Berth: Structural portion completion, installation of shore and crane power substation
- Uplands Improvements Projects
 - Permit Conditions
 - Quiet Zone construction underway
 - Lease Obligations
 - Reefers 100% design
 - South Marine Building Construction
 Completion





Budget by Project September 30, 2023

Management Reserve **\$36,344,060** was moved out to fund (and reimburse) the following projects. Many of these movements reflect the start of the projects for the third lease amendment.

Phase 1 Reserve:

	.			
oInterim Gate	\$12,020			
oT5 Stormwater Grant	\$320,926			
 Return S Reefer Closeout 	-\$127,229			
oQuiet Zone + MUP	\$2,930,843			
oT5 Berth Mod Legal Support New Project	\$500,000			
oU00572 T5 Stormwater Increase Budget	\$2,000,000			
oU00719 T5 MARAD 2022 PIDP Admin	\$504,000			
Phase 2 Reserve:				
 OU00705 Transtainer Runs 	\$3,380,000			
 U00708 Ph2 Container Yard Paving 	\$14,800,000			
 000712 Container Yard Expansion 	\$11,740,000			
oU00719 T5 MARAD 2022 PIDP Admin	\$283,500			



P-85: \$402.8M P-100: \$409.9M	1 1	Original Authorized Project Cost		Current Authorized Project Cost	т	his Request	Т	otal Project Cost	C	Cost to Date	Rer	maining Cost
T5 Berth + Design + SCL	\$	276,000,000	\$	274,800,000	\$		\$	280,200,000	\$	253,692,690	\$	26,507,310
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T5 Stormwater Treatment	\$	30,000,000	\$	32,000,000	\$		\$	33,400,000	\$	28,125,457	\$	5,274,543
T5 Management Reserve/Risk	\$	20,000,000	\$	25,804,000	\$	-	\$	-	\$	-	\$	-
T5 Clean Truck (CLOSED)	\$	-	\$	55,000	\$	-	\$	55,000	\$	55,000	\$	-
T5 Marine Buildings	\$	-	\$	11,200,000	\$	-	\$	11,200,000	\$	7,617,802	\$	3,582,198
T5 RPM + CBP (CLOSED)	\$		\$		\$		\$	396,000	\$	396,000	\$	-
T5 Reefers	\$		\$	19,180,000	\$	-	\$	30,400,000	\$	2,536,155	\$	27,863,845
T5 Gate Complex	\$	-	\$	13,000,000	\$	-	\$	21,400,000	\$	3,057,619	\$	18,342,381
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T5 MARAD Grant Admin	\$		\$		\$	-	\$	1,500,000	\$	222,599	\$	1,277,401
Total	-		-		\$		\$	395,911,000	\$	303,613,424	\$	92,297,576
LEASE AMENDMENT P-85: \$47.20M; P-100: \$53.1M	L		_		_		_					
N Reefer Expansion - Demarc	\square		\$		\$		\$	10,000,000	\$	-	\$	10,000,000
Phase II South Paving	\bot	!	\$		\$		\$	15,000,000	\$	49,560	\$	14,950,440
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T5 Transtainer runs	┡	!	\$		\$		\$		\$	67,300	\$	3,632,700
Phase II Mgmt Reserve	⊢		\$		\$		\$	17,589,000	\$	-	\$	17,589,000
Total	\vdash	!	\$		\$		\$	58,089,000	\$	174,301	\$	57,914,699
Previously Authorized	-		\$		\$		\$	-				
Revised Total Authorization			\$	454,000,000	\$	-	\$	454,000,000	\$	303,787,725	\$	150,212,275
MARAD 2020 PIDP Grant							\$	7,481,133				
WA Ecology - Stormwater							\$					
WA Commerce - Shorepower	-						\$					
WA Commerce - Reefers	-						\$					
MARAD 2022 PIDP Grant							\$	17,035,900				
National Highway Freight Prog							\$					
Authorization - Grants	_			1	Ē		\$					
T5 ERL (POS Only)	\$	-	\$	1,100,000	\$	-	\$	1,100,000	\$	754,146	\$	345,854

Terminal 5 - Opportunities

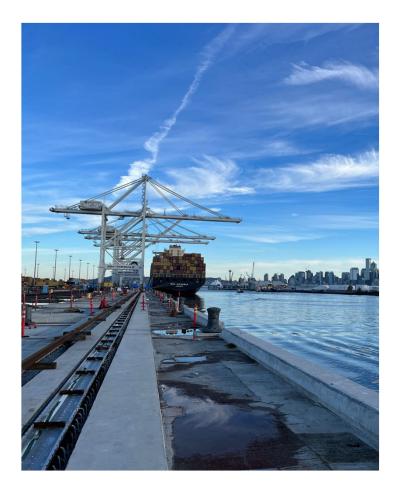
Reimbursements are on track with forecast milestones.

Grants TOTAL

MARAD PIDP Grant 2020 - NWSA WA Ecology – Stormwater* WA Commerce - Shorepower WA Commerce - Reefers MARAD PIDP Grant 2022 ° National Highway Freight Program °

Awarded Amounts \$39,936,209

\$7,481,133 \$5,321,000 \$4,268,000 \$4,316,500 \$17,035,900 \$1,513,750



THE NORTHWEST SEAPORT ALLIANCE SEATTLE + TACOMA

Terminal 5 – Berth Modernization Trends

Recent Stochastic Analysis and Risk Register updates from October 2023 indicate:

- Program currently has a P-85 value • (85% probability of being sufficient) of \$450.0M
- Current expected cost of the • program is \$414.1M

WHAT DOES THE PROJECT INCLUDE?

Dock Upgrades

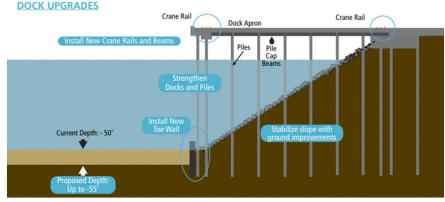
- The current dock structure cannot handle the weight of
 An underwater toe wall and other improvements will the larger cranes needed for bigger ships.
- Beams, piling and deck panels will be upgraded.
- · Creosote-treated wooden piles will be replaced with an environmentally friendly, panelized fender system.
- New crane beams and rails will be installed.
- **Power Upgrades**
- Larger cranes will require more electrical power. Power upgrades increase the potential for greater
- electrification of the terminal and guieter, cleaner, greener operations.

Deeper Berths

- stabilize the slope beneath the dock.
- The berths will be deepened up to 55 feet to accommodate larger ships.
- Current depth is 45 to 50 feet
- The alliance and the U.S. Army Corps of Engineers are partnering on a study separate from the T-5 project to evaluate optimal waterway depth to meet local and national economic needs.

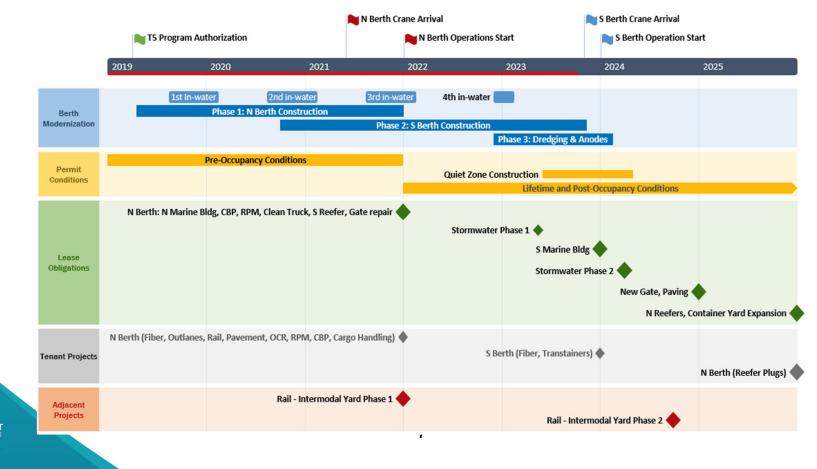
Project Benefits

- · Dock upgrades along with T5's already superior ondock rail capabilities - will help the alliance attract cargo moving to and from destinations across the United States.
- The ability to handle larger, more fuel efficient ships will give the alliance the ability to move cargo with less environmental impact.



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Terminal 5 – Programmatic Schedule



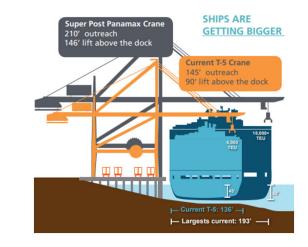
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Terminal 5 – Community Outreach

Q3 2023

External relations is preparing for media events related to the arrival of the two new cranes and of the four rubber tire gantries (RTGs).

SEATTLE + TACOMA



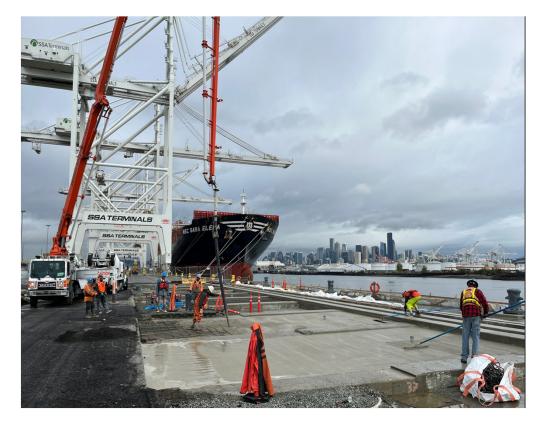


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Terminal 5 – Look Ahead

Q4 2023

- South Berth: South Berth Dock will be substantially complete and will meet lease obligations to start Phase 2 operations. In-water work will continue through mid-February.
- Start of in-water work for South Berth.
- South Marine Building Substantial Completion and turnover for start of Phase 2 operations.
- New Gate Complex: Bid Advertisement
- Transtainer Runs (Tenant reimbursement): construction completion.
- T5 IY Improvements: Bid Advertisement.



Terminal 5 – Site Map



NORTHWEST

#	Project
1	North Berth
2	South Berth
3	Primary Substation
4	Permit Conditions
5	Clean Truck Program
6	Existing Gate Repairs
7	RPM + CBP Utilities
8	S Reefer Repairs
9	Stormwater Phase 1
10	Stormwater Phase 2
11	N Marine Building
12	S Marine Building
13	Intermodal Yard (Rail)
14	N Reefers
15	Container Yard Expansion
16	New Gate Complex
17	South Berth Paving