

THE NORTHWEST SEAPORT ALLIANCE
MEMORANDUM

MANAGING MEMBERS
STAFF BRIEFING

Item No. 6A
Date of Meeting April 7, 2020

DATE: March 23, 2020

TO: Managing Members

FROM: John Wolfe, Chief Executive Officer

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

Project Manager: Emma Del Vento, Capital Program Leader, Port of Seattle

SUBJECT: Terminal 5 Modernization Program Quarterly Update

A. BRIEFING REQUESTED

Regular Terminal 5 Modernization Program Update.

B. SYNOPSIS

While the project is currently on schedule to complete both phases of the project on the original schedule date of December 31, 2022, the contractor's latest schedule indicates a delay in delivering Phase 1. The current delivery milestone for Phase 1 is December 31, 2020, and the contractor's revised schedule provided to staff in mid-March indicates a new completion date of March 6, 2021. This delay relates to expanded contract scope generated by the differing site conditions that were discovered during installation of pinch piles. Potential Corona Virus 19 (COVID-19) impacts have yet to be captured, such as the consistent availability of construction workers and reduced productivity due to social distancing. Terminal 5 construction is an essential activity and work continues as of March 23, 2020.

Separately, our lessee, Stevedoring Services of America Terminals (SSAT), has communicated that crane delivery has been impacted by the COVID-19 outbreak. Currently SSAT anticipates crane arrival (from Shanghai, China) between late December 2020 and early January 2021; SSAT had originally planned on the arrival of four new cranes in November 2020. SSAT and crane manufacturer ZPMC indicate a minimum of 90 days to commission all four new cranes after arrival and delivery on the new dock; this supports modernized terminal operations in approximately late March to mid-April 2021.

Staff have worked with the General Contractor to explore a Phase 1 schedule recovery and identified a scenario by which to maintain the original December 31, 2020 milestone for approximately \$2-3 million. This scenario is now facing additional COVID-19 risks and faces challenges to its successful execution even with these additional financial resources.

While we work through the Phase 1 and crane delivery delays, the T5 team recommends that we work toward accepting the General Contractor's updated Phase 1 schedule, March 6, 2021, and confirm project plans for SSAT to simultaneously accept and commission the cranes in Q1 2021.

At this time, we know we have a compromised schedule for the delivery of Phase 1 and are working to confirm and mitigate the financial implications of that delay. Staff will return in May with a more complete picture of the delay, associated costs and our plans to address these issues.

Recent Stochastic Analysis and Risk Register updates indicate the program has an 85% probability of being sufficient with a value of \$321M. The \$340M program budget has a near 100% probability of being sufficient.

C. BACKGROUND

The Northwest Seaport Alliance (NWSA) entered a long-term lease in April 2019 for the redevelopment of Terminal 5 in the North 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 creating jobs in the region.

D. CURRENT STATUS

Orion Marine Contractors are moving forward with:

- Above-water dock construction
- Landside crane rail pile driving
- Electrical Substation civil and electrical work
- Utility: sewer, water, and electrical duct bank

Schedule and budget:

- Permit Conditions are moving forward on schedule with time sensitive projects. Major deliverables include Quiet Zone 90% design received in Q4 2019. Risks are in the finalization of the costs of the acquisition and in the potential impacts to the schedule (see more detailed discussion below).
- Lease Obligations are progressing in concert with the Tenant. Major milestones this quarter are: Marine Building 90% design (January 2020).
- Tenant discretionary changes are being addressed in change management working group meetings.
- Stochastic Analysis and Risk Register were updated for Q1 2020. Program currently has a P-85 (85% probability of being sufficient) value of \$321M. The \$340M program

budget has a 100% probability of being sufficient. Risk modelling will be updated every quarter through 2020. Construction 20% complete; 22% time elapsed; 24% spent.

Phase 1 Completion

- Recent Developments:
 - Contractor’s revised construction schedule shows substantial completion of Phase 1 on March 6, 2021, versus the contract milestone of substantial completion for Phase 1 for turnover to the NWSA by December 31, 2020.
 - Currently SSAT anticipates crane arrival (from Shanghai) between late December 2020 and early January 2021. This is a month later than the original plan.
- Options:
 - Negotiate for Phase 1 substantial completion by December 31, 2020 – will impact cost.
 - **Negotiate a change for a new interim milestone completion of a portion of the dock and crane power distribution sufficient to allow landing and commissioning of four new cranes in accordance with SSAT current schedule – Recommended Option will impact cost.**
 - Accept the contractor’s revised construction schedule.

E. BUDGET

- Program currently on budget
- Construction is 24% spent and 20% complete

2019 Quarter 4 Program Budget (\$M)	Authorized Budget	Quarter 4 Changes	Updated Budget	Spent to Date	Forecast at Completion	Remaining Authorized Budget
Construction	254.2		254.2	47.7	247.4	206.5
Design and Project Management	25.7		25.7	17.6	25.7	8.1
Permit Conditions	14.0		14.0	2.8	14.0	11.2
Stormwater Treatment	30.0		30.0	0.7	30.0	29.3
Management Reserve*	16.1		16.1	-	13.9	16.1
Total	340.0		340.0	68.8	331.0	271.2

Original Contract Amount: **\$160M***

*Numbers are rounded to nearest \$100K generating approximation in the total
Amounts are in millions of dollars (\$M)*

Projected Contract Amount: **\$172.2M**

(New Contract Amount due to change orders + Potential Risk)

Original Contingency: **\$24M**

Executed Change Orders to 3/22/2020: **\$7.1M**

- Existing Pile Connection \$300K
- Slope Stabilization (pinch piles) \$6M

Potential Risk – approx. value: **\$5M**

- Amounts above \$250K
- Manhole Covers \$300K
- Early Stormwater Infrastructure \$1M
- Substation Shoring Reuse for LSCR (Landside Crane Rail) \$250K
- Existing Bull rail thickness \$411K
- Steel Tariffs on Toe Wall \$1.5M
- Structural Concrete Pile Build Up \$300K
- Marine Building Utilities (approx. +\$1.6M) TBD
- Phase 2 Pile Driving and pile cap modification costs not included

Remaining Contingency: **\$11.8M**

Stochastic Analysis and Risk Register (will be updated quarterly in 2020)

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

- P-85 value (85% probability of being sufficient) of \$321M (from Q4 2019 of \$336.2M)
- The \$340M program budget has a near 100% probability of being sufficient (from 95% in Q4 2019)

Future Potential risks:

- Quiet Zone Property Acquisition (\$1-2M) and schedule delay

Under the Memorandum of Understanding we have with the City of Seattle we are responsible for all the costs associated with the Quiet Zone. As part of the project, a property acquisition will

need to be made by the City and the project will pay the cost, the City will hold the title to the property. Discussions are underway with stakeholders. Risks are in the finalization of the costs of the acquisition and in the potential impacts to the schedule.

- Stormwater budget (\$29M – \$38M + soft costs) based on Master Plan

NWSA received the Stormwater Masterplan (10% deliverable) in December where the range of costs were identified. Based on known conditions, and similar projects at neighboring locations we support the estimate range. The estimate will continue to be refined as the deliverables progress.

- Marine Building budget (approx. +\$1.6M)

Marine Building initial estimate was based on shell and did not include site utilities. Connection to water and sewer for the north berth building are the major driver of cost increase. Construction shutdown and labor availability due to COVID-19 pandemic.

Retired major risks are:

- Pinch Pile Redesign & Water Obstructions – this item is now complete and we can apply lessons learned to same activity in Phase 2.
- Additional costs associate with Ph. 1 site demolition – this item is now complete.
- Events negatively impacting in-water work productivity – this item is now completed for Phase 1.

Continuing risks:

- Differing subsurface geotechnical conditions for in water and landside work – we are experiencing continued impacts from this item to include the landside crane rail pile driving activity.
- NEW: Changes to Seattle City Light estimate (+11% or \$700,000 for new tax). Seattle City Light is subject to State Public Utility tax and City Occupation tax on revenues received from customers, including charges for work on service connections and other utility system assets. In October 2019, Seattle City Light implemented a new policy to directly recover these revenue-based tax costs paid by Seattle City Light. This has been presented as an “administrative charge” based on effective rates of 4.03% for State Public Utility tax and 6.38% for City Occupation tax (utility) for a combined rate of 10.96% (rounded).
- On-going Tenant Coordination
 - Permit Conditions
 - Tenant driven scope of work additions adding to project costs and potential schedule delays

Opportunities:

- MARAD Grant – NWSA was not among winning applications
- State shore power infrastructure – April 2020
- Dept of Ecology grant for stormwater – funding June 2020

Look Ahead:

- Q2 2020
 - Marine Building Managing Members Authorization for Construction
 - Stormwater Master Plan 30% Summary
 - PIDP & BUILD Grant Submissions
 - Dept of Ecology Grant for Stormwater – Funding
 - Turn over to Seattle City Light (SCL)
 - CBP negotiation for area offices and T5 facilities (Customs & Border Protection)
 - Continued Rail Quiet Zone negotiation
- Q3 2020
 - Marine Buildings bid
 - Stormwater Master Plan 90%
 - Permit Conditions in review with Agencies
 - SCL work completion

F. ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS

No request is being made at this time.

G. ENVIRONMENTAL IMPACTS / REVIEW

No environmental impact/review is being made at this time.

H. ATTACHMENTS TO THIS REQUEST

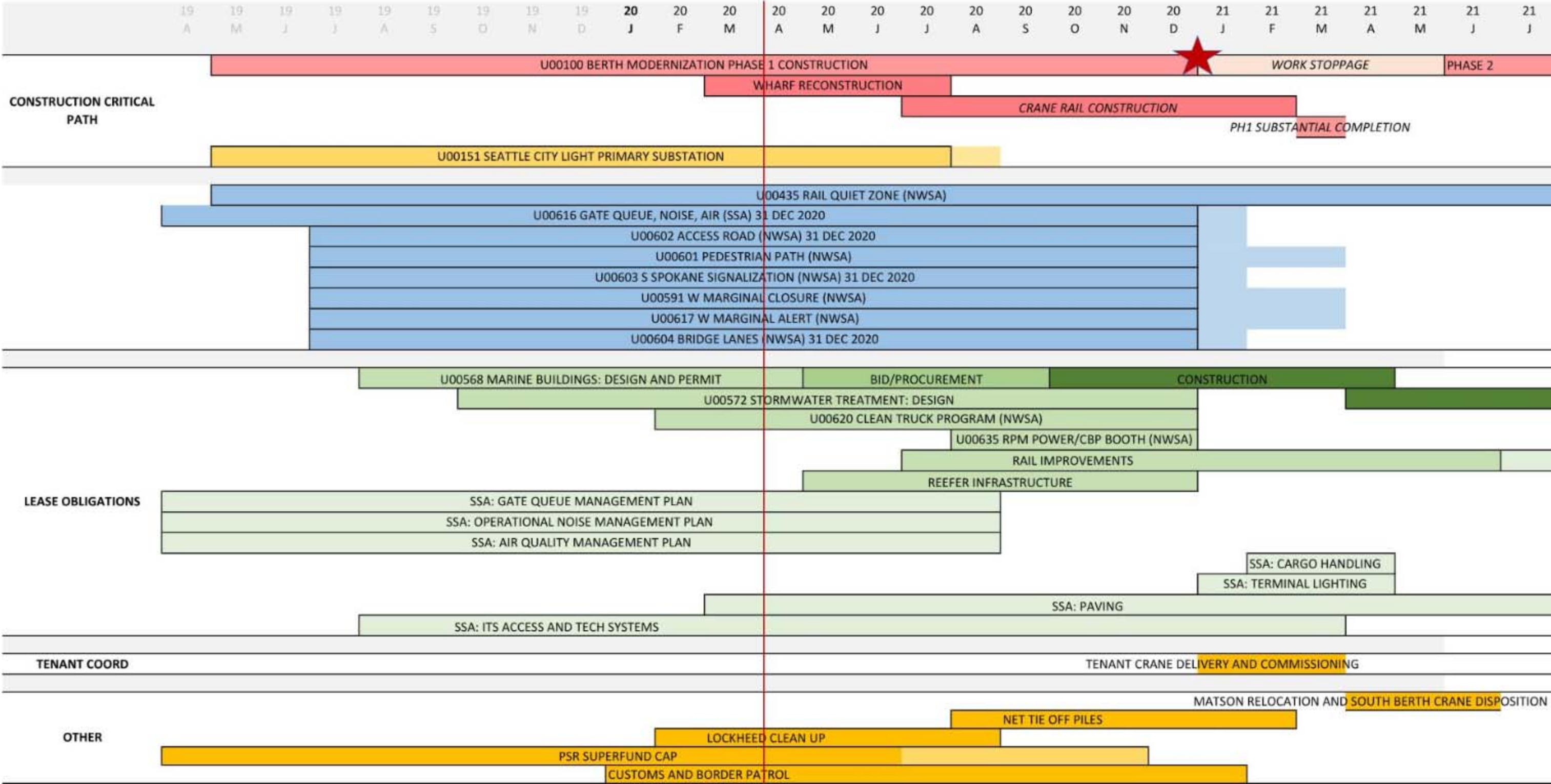
- Computer slide presentation.

I. PREVIOUS ACTIONS OR BRIEFINGS

	<u>Amount</u>
TOTAL	340,000,000

Date	Action	Amount
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	Additional Program Funding and Authorization to Fund T5 Modernization Program	\$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		\$340,000,000

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Item No: 6A
Date of Meeting: April 07, 2020

Quarterly Program Update Terminal 5 Modernization

Presenter: Emma Del Vento
Capital Program Leader

Terminal 5 – Program Overview

Primary Elements of Scope

- **Berth Modernization**
 - Crane Rails
 - Dock Rehabilitation
 - Slope Stabilization
 - Berth Deepening
 - Power Supply/
Distribution
- **Uplands Improvements**
 - Stormwater
 - Marine Buildings
 - Permit Conditions
 - Lease Obligations



Terminal 5 – Construction Progress



Overwater Construction: Falsework Installation of Collars, Glulam, 4X4s, Decking
Fisheye view

Terminal 5 – Q1 2020 Progress

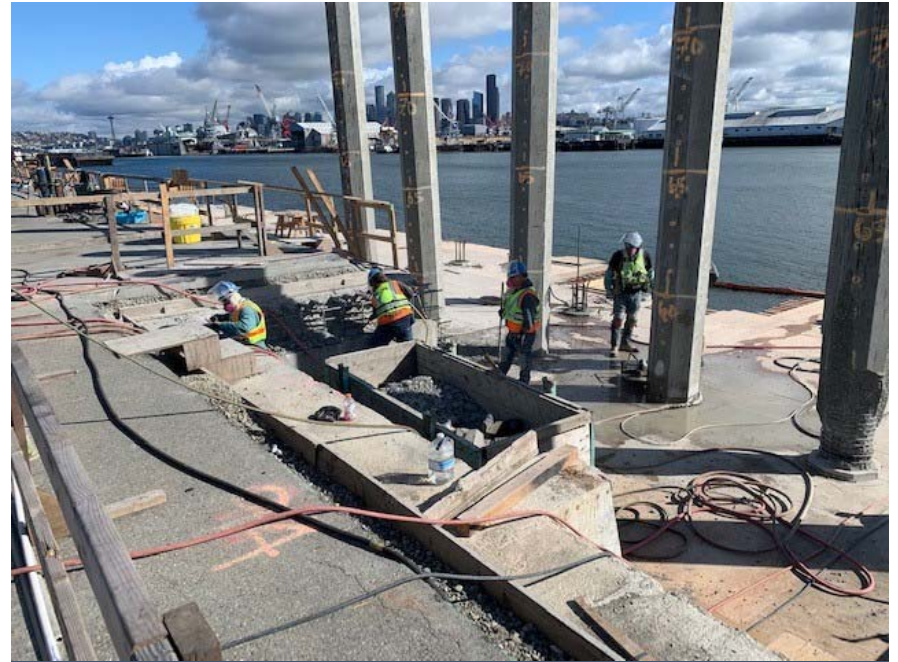
- **Berth Modernization Project**
- **In Construction**
 - Falsework being installed for wharf reconstruction
 - Connecting existing piles to new pile caps
 - Landside crane rail: driving upland steel piles
 - Substation walls poured – preparing for Seattle City Light work
 - Utility: *electrical duct bank*, and water main line installation
- **Uplands Improvements Projects**
 - Permit Condition Progress
 - Lease Obligations
 - Stormwater Treatment: 30% summary April 2020
 - Marine Buildings:
 - 100% design due April/May
 - Expect Shoreline Permit, and responses from Construction Permit



Terminal 5 – Construction Progress



Cages in existing piles + Dowels in new piles



Chipping cap and cutting piles

Terminal 5 – Budget (Feb 29, 2020)

Program currently on budget
Construction is 24% spent and 20% complete

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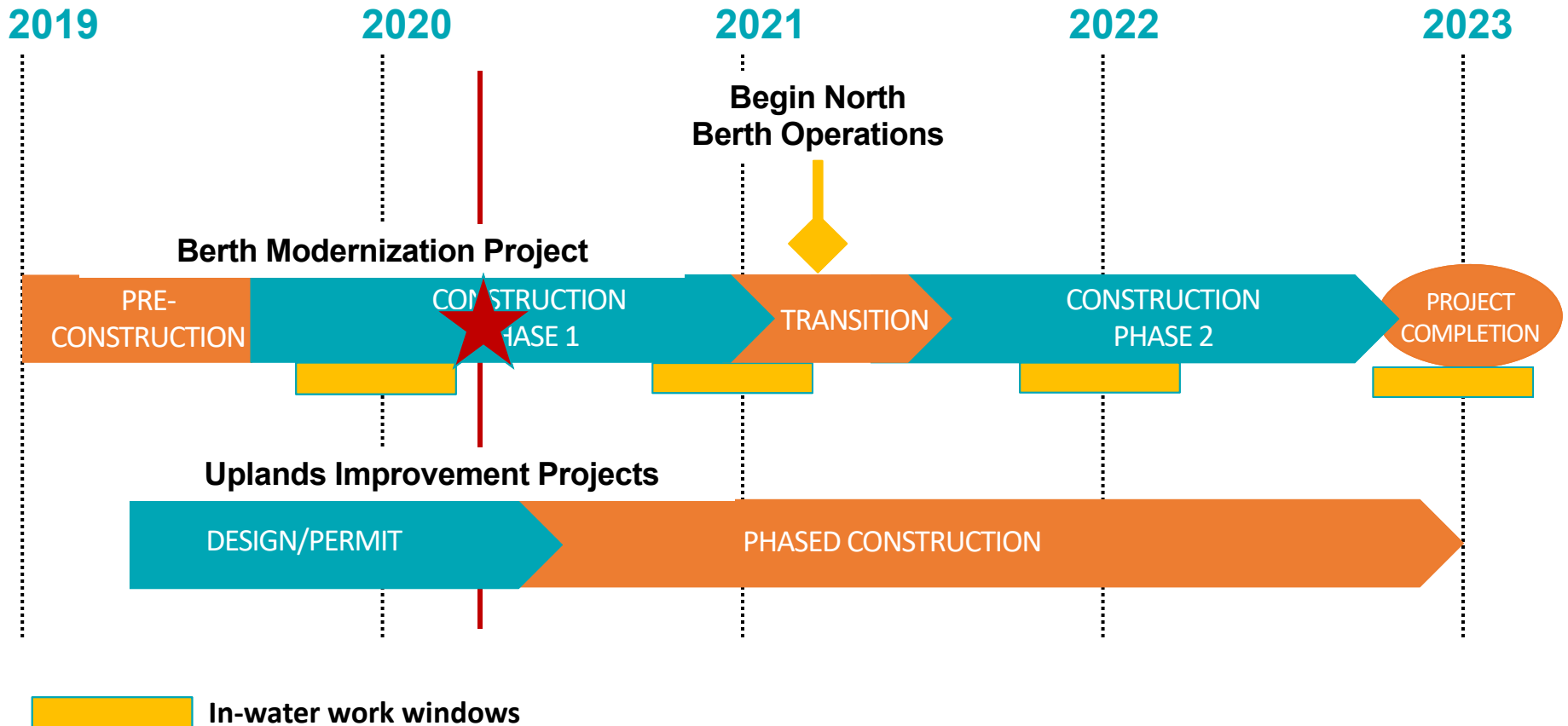
Terminal 5 – Berth Modernization Trends

- **Original Contract Amount:** **\$160M**
- **Projected Contract Amount:** **\$172.2M**
(New Contract Amount + Potential Risk)
- **Original Contingency:** **\$24M**
- **Remaining Contingency:** **\$11.8M**



Terminal 5 – Programmatic Schedule

Construction 20% complete; 22% time elapsed



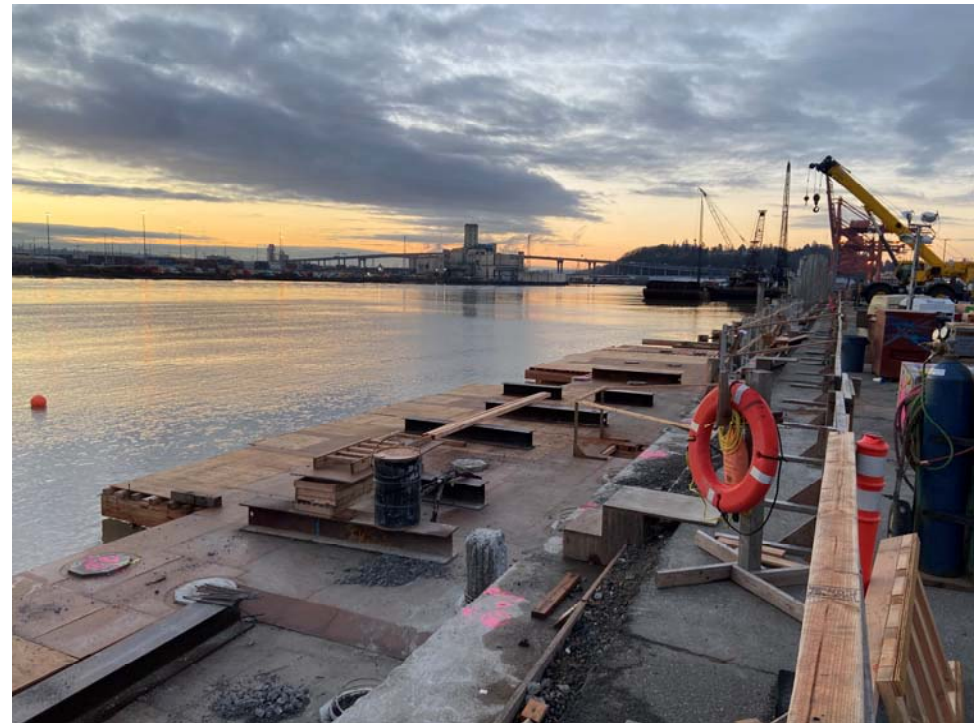
Phase 1 Recent Developments

- Phase 1 schedule is compromised:
 - Contractor's revised construction schedule shows substantial completion of Phase 1 on March 6, 2021, versus December 31, 2020.
 - Financial implications are not clear at this time.
 - Recommend working towards accepting the contractor's revised schedule while retaining the ability for SSA to accept and commission cranes.
 - Staff will return in May with more information.



Terminal 5 – Opportunities

- **State budget for shore power infrastructure at Terminal 5 – \$4.4M Budget Proviso**
- **Dept of Ecology Grant for Stormwater – Funding June 2020**
- **PIDP & BUILD Grants – May 2020**



Dock Reconstruction

PIDP = Port Infrastructure Development Program

BUILD = Better Utilizing Investments to Leverage Development

Terminal 5 – Community Outreach

- **Feb 21: Harbor Island Stakeholder Group**
- **Feb 27: West Seattle Transportation Coalition**



Landside Crane Rail - Drilling into the casings before vibrating the piles



Terminal 5 – Look Ahead

- **Q2 2020**

- Marine Building Managing Members Authorization for Construction
- Stormwater Master Plan 30% Summary
- PIDP Grant Submission (Port Infrastructure Development Program)
- Dept of Ecology Grant for Stormwater – Funding
- Turnover to Seattle City Light (SCL)
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- **Q3 2020**

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