

Submitted by: Chair of the Assembly
at the

Request of the Mayor

Prepared by: Dept. of Port of Alaska

For reading: September 27, 2022

ANCHORAGE, ALASKA
AR No. 2022-287

1 **A RESOLUTION OF THE ANCHORAGE MUNICIPAL ASSEMBLY APPROVING**
2 **CHANGES TO THE 2021 BASIS-OF-DESIGN CONCEPT SUBMITTED AND**
3 **RECOMMENDED BY THE PORT OF ALASKA MODERNIZATION PROGRAM**
4 **AND DESIGN ADVISORY BOARD THAT WILL GOVERN ONGOING DESIGN**
5 **EFFORTS FOR THE PORT OF ALASKA GENERAL PURPOSE CARGO**
6 **TERMINALS.**

7
8
9 **WHEREAS**, on August 27, 2020, the Assembly approved AO 2020-81 and created
10 the Port of Alaska Modernization Program (PAMP) Design Advisory Board; and,

11
12 **WHEREAS**, the Board was created to ensure that PAMP's mission is undertaken in
13 an efficient and collaborative manner, and to ensure that such efforts do not interfere
14 with internal development activities of the port users; and

15
16 **WHEREAS**, on August 2, 2022, the PAMP Design Advisory Board (DAB) met to
17 evaluate the 15% Concept Design for the PAMP Cargo Docks Replacement
18 presented by Jacobs Engineering, to evaluate recommended changes to the 2021
19 Phase Two Modified Concept Design, and to consider acceleration of the associated
20 design schedule;

21
22 **WHEREAS**, for Terminal One, the Design Advisory Board recommends confirming
23 the planned use of 100-ft-gauge cranes and designing to that gauge, thereby
24 planning a terminal more aligned to industry standards of equipment and operational
25 practices than the 2021 Phase Two Modified Concept Design;

26
27 **WHEREAS**, for Terminal Two, the Design Advisory Board recommends restoring
28 the continuous berth face to the concept design, greatly improving the operational
29 flexibility of Terminal Two as compared to the 2021 Phase Two Modified Concept
30 Design;

31
32 **WHEREAS**, the construction cost estimates currently being utilized by the MOA
33 Finance Department sufficiently incorporate the aforementioned changes; and

34
35 **WHEREAS**, the Assembly review and approval of the aforementioned changes to
36 the 2021 Phase Two Modified Concept Design for the Port of Alaska is required in
37 order to advance to the next steps of the PAMP Cargo Docks Replacement design
38 process; now, therefore,

39
40 **THE ANCHORAGE ASSEMBLY RESOLVES:**

41
42 **Section 1.** The planned use of 100-ft-gauge-cranes at Terminal One and the

1 restoration of a continuous berth face at Terminal Two are approved as changes to
2 the 2021 Phase Two Modified Concept Design, enabling an accelerated design and
3 permitting process to continue.

4
5 **Section 2.** This resolution shall be effective immediately upon passage and
6 approval by the Assembly.

7
8 PASSED AND APPROVED by the Anchorage Assembly this _____ day of
9 _____, 2022.

10
11
12
13 _____
14 Chair of the Assembly

15 ATTEST:

16
17
18 _____
19 Municipal Clerk
20
21



MUNICIPALITY OF ANCHORAGE

Assembly Memorandum

No. AM 523-2022

Meeting Date: September 27, 2022

1 **From:** MAYOR

2
3 **Subject:** RESOLUTION OF THE ANCHORAGE MUNICIPAL ASSEMBLY
4 APPROVING CHANGES TO THE 2021 BASIS-OF-DESIGN
5 CONCEPT SUBMITTED AND RECOMMENDED BY THE PORT OF
6 ALASKA MODERNIZATION PROGRAM AND DESIGN
7 ADVISORY BOARD THAT WILL GOVERN ONGOING DESIGN
8 EFFORTS FOR THE PORT OF ALASKA GENERAL PURPOSE
9 CARGO TERMINALS.

10
11 On August 27, 2020, AO 2020-81 was approved by the Anchorage Municipal
12 Assembly outlining the structure and operating parameters of the Port of Alaska
13 Modernization Program (PAMP) Design Advisory Board. The Board was created
14 to ensure that the PAMP's mission is undertaken in an efficient and collaborative
15 manner, and to ensure that such efforts do not interfere with internal development
16 activities of the port users.

17
18 On May 20, 2021, the PAMP Design Advisory Board met and through unanimous
19 decision determined and recommended adoption of the Phase 2 Modified Concept
20 for the design of the general-purpose cargo terminals. This recommendation was
21 based upon well over a year of cooperative interaction between the Port of Alaska,
22 Jacobs Engineering, the Port of Alaska Users Group. The Phase 2 Modified
23 Concept was found to have many advantages, to include:

- 24
25
- 26 • Considered the quickest route to US Army Corps of Engineers (USACE)
27 408-Authorization because it was previously evaluated by USACE during
28 2016/17 sedimentation modelling and found to be acceptable – eliminates
29 two or more years of modelling and regulatory consultation time
 - 30 • Only evaluated alternative that complies with the 11-degree supplementary
31 berth line angle identified by USACE as an Anchorage Harbor Dredging
32 Project geometric constraint – necessary for 408-Authorization
 - 33 • Generated the smallest amount of additional maintenance dredging
34 required of the alternatives evaluated
 - 35 • Recommended by mariners during 2020 tabletop geometric evaluations for
36 maneuver safety as the preferred alternative evaluated
 - 37 • Within the limitations of the current level of design development, provides
38 for the lowest investment and lifecycle expenditures of the alternatives
39 evaluated
 - Technically solved the identified general-purpose cargo requirements while

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47

- providing flexibility to support the addition of petroleum transfer operations
- Of the evaluated alternatives, best supported uninterrupted container cargo operations for both shippers through workable construction phasing
- Required the least amount of North Extension cutback of alternatives evaluated.

In the ensuing months, and after considering all the user inputs for their commercial business needs and the Municipality's responsibilities to ensure a facility design that will provide both food security and the greatest flexibility possible for disaster response/recovery and continued support to the Department of Defense, it was determined that some modifications to the originally approved concept were in order.

On August 2, 2022, the PAMP Design Advisory Board (DAB) once again met to evaluate the 15% Concept Design for the PAMP Cargo Docks Replacement presented by Jacobs Engineering, to evaluate recommended changes to the 2021 Phase Two Modified Concept Design, and to consider acceleration of the associated design schedule; and is recommending for Terminal One, the planned use of 100-ft-gauge cranes and designing to that gauge, thereby planning a terminal more aligned to industry standards and operational practices than the 2021 Phase Two Modified Concept Design.

The Design Advisory Board recommends restoring the continuous berth face to the concept design, greatly improving the operational flexibility of Terminal Two as compared to the 2021 Phase Two Modified Concept Design with direction given to Jacobs to also investigate making Terminal Two of equal width to Terminal One, with an eye to future needs and acknowledging that the use of gantry cranes is the industry standard for container operations. The construction cost estimates currently being utilized by the MOA Finance Department sufficiently incorporate the aforementioned changes.

The Assembly review and approval of the aforementioned changes to the 2021 Phase Two Modified Concept Design for the Port of Alaska is required in order to advance to the next steps of the PAMP Cargo Docks Replacement design process.

THE ADMINISTRATION RECOMMENDS APPROVAL.

Prepared by: Port of Alaska
Approved by: Steve Ribuffo, Port Director
Concur: Courtney Petersen, Director, Office of
Management & Budget
Concur: Ross H. Risvold, Acting CFO
Concur: Blair M. Christensen, Acting Municipal
Attorney
Concur: Amy Demboski, Municipal Manager
Respectfully submitted: Dave W. Bronson, Mayor



Port of Alaska Modernization Program Design Advisory Board:

Mr. Steve Ribuffo, Port Director & Chair
Mr. Larry Baker, Mayor's Representative
Mr. Vic Angoco, Matson Navigation of Alaska Representative
Mr. Art Dahlin, TOTE Maritime Representative
Mr. Bert Mattingly, Port of Alaska Petroleum Users Representative

August 5, 2022

TO: Mayor Dave Bronson
FROM: Steve Ribuffo, Chair of the PAMP Design Advisory Board (DAB)
SUBJECT: Recommendations of the PAMP Design Advisory Board from Their August 2, 2022 Meeting

Mayor Bronson;

On August 2, 2022, the PAMP DAB met to evaluate recommendations from Jacobs Engineering on changes to PAMP cargo dock design elements and the associated design schedule. The meeting was publicly noticed, although there was no public present for it. The meeting was recorded for the record, and minutes will be transcribed shortly.

I've attached a copy of the slide presentation for your information and for sharing with the Assembly. After reviewing the presentation and discussing the details of it, the DAB voted as follows:

- A. For Terminal 1 – To confirm the use of 100-gauge cranes and to design to that gauge, and to confirm acceptance of the core 15 percent concept design for Terminal 1

YEA – 4

NAY – 0

ABSTAIN – 1 (Mr. Dahlin abstained as he felt it inappropriate for TOTE to comment on infrastructure that will be used predominantly by Matson)

- B. For Terminal 2 – To restore the continuous berth face to the concept design

YEA – 5

NAY – 0

- C. To defer a final decision on the following features until more design/cost data can be acquired by Jacobs: hatch cover storage location, the seismic design criteria for Terminal 2, the width and rail accommodations at Terminal 2, the location of a temporary fuels unloading point.

YEA – 5

NAY – 0

My next DAB action is to schedule another board meeting for the first week of December to address the deferred items mentioned above. The meeting was then adjourned.

On behalf of the DAB, I'm recommending your concurrence with these decisions and further request that you pass this information on to the Assembly for their final approval as required by AMC 11.50.035. sections D.1. and D.2.

Very Respectfully,

Stephen Ribuffo

STEPHEN RIBUFFO, Chair
PAMP Design Advisory Board

Attach: Jacobs Briefing

PHASE 1 – 2018-2022



PHASE 2A – 2022-2024



PHASE 2B – 2025-2032



New Business

- Proposed changes to design basis
- Proposed accelerated design schedule

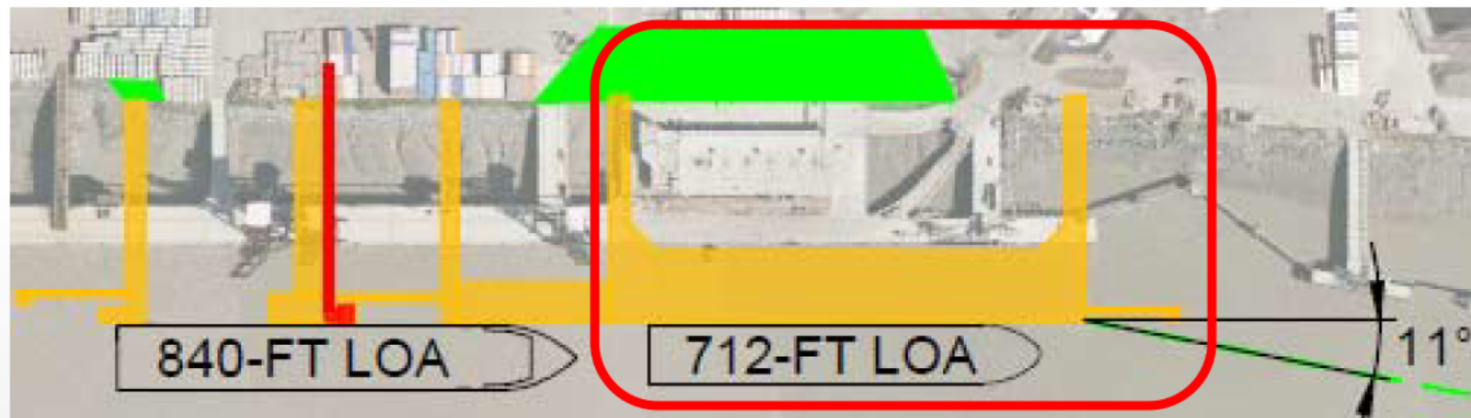
Proposed Changes to Design Basis



- **Terminal 1**
 - Confirm 100-ft gauge cranes
 - Confirm acceptance of core 15% concept design
- **Terminal 2**
 - Restore continuous berth face to concept design
- **Defer decision on following design features:**
 - Hatch cover storage
 - Seismic design criteria at Terminal 2
 - Width and rail accommodations at Terminal 2
 - Location of temporary fuels unloading point



T1 Modified Concept



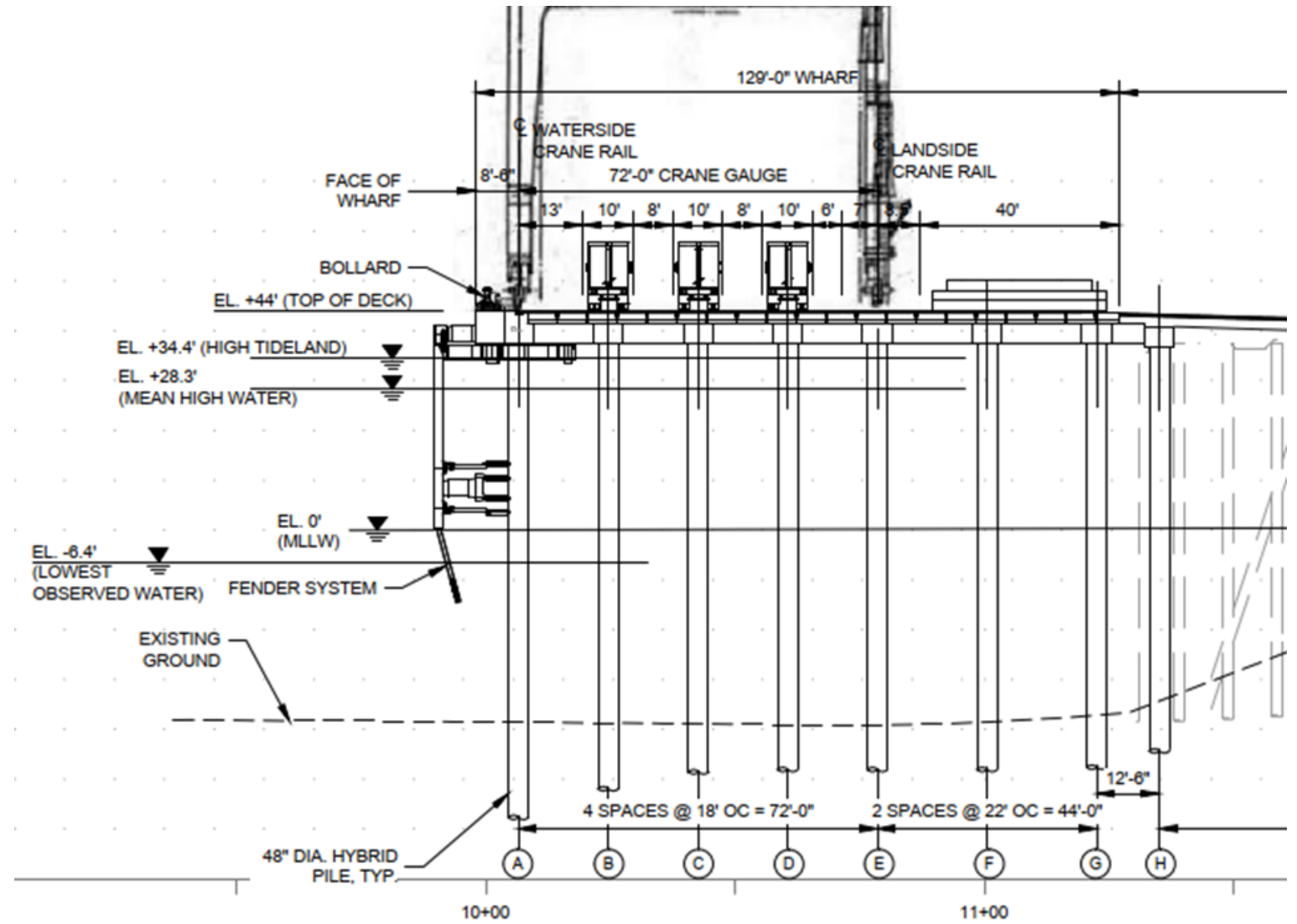
Estimated Cost:
\$598.5M

Estimated
Construction
Duration: 4-yrs.

Key Features:

- 75-year service design life
- Terminal elevation at 44-ft MLLW
- Design for -39 MLLW harbor depth
- Berth line location coordinated with USACE and evaluated in USACE 2017 Sedimentation Modelling
- 1,000-psf wharf load bearing capacity
- Seismic Berth: 10-day recovery after DE event (exceeds highest standards)
- 870-ft x 129-ft Wharf
- 30-ft wide Trestles at north and south ends
- 3-ship-to-shore cranes
- Panzer belt/ trench crane power
- 3-truck lanes w/ safety lanes (OSHA)
- South dolphin to support contingent Matson requirements

Terminal 1
Concept
Approved in
June 2021



72-FT GAUGE, EXTENDED DECK

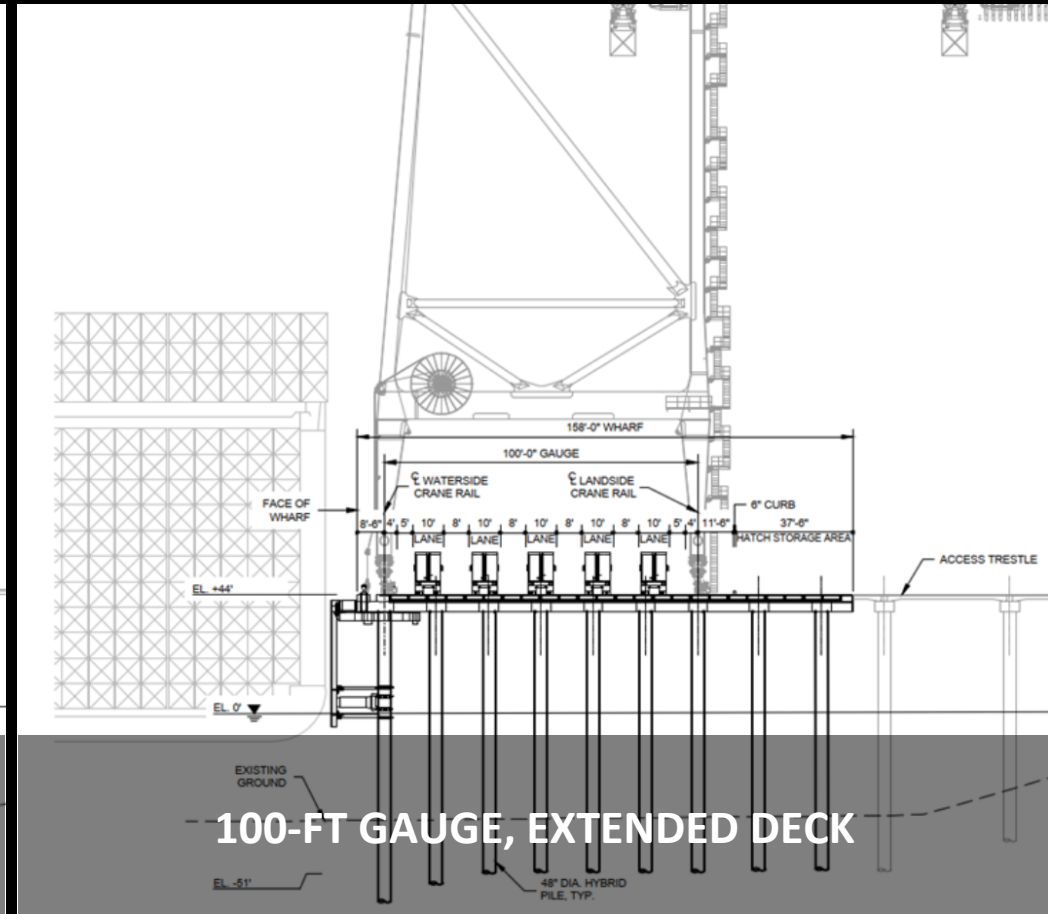
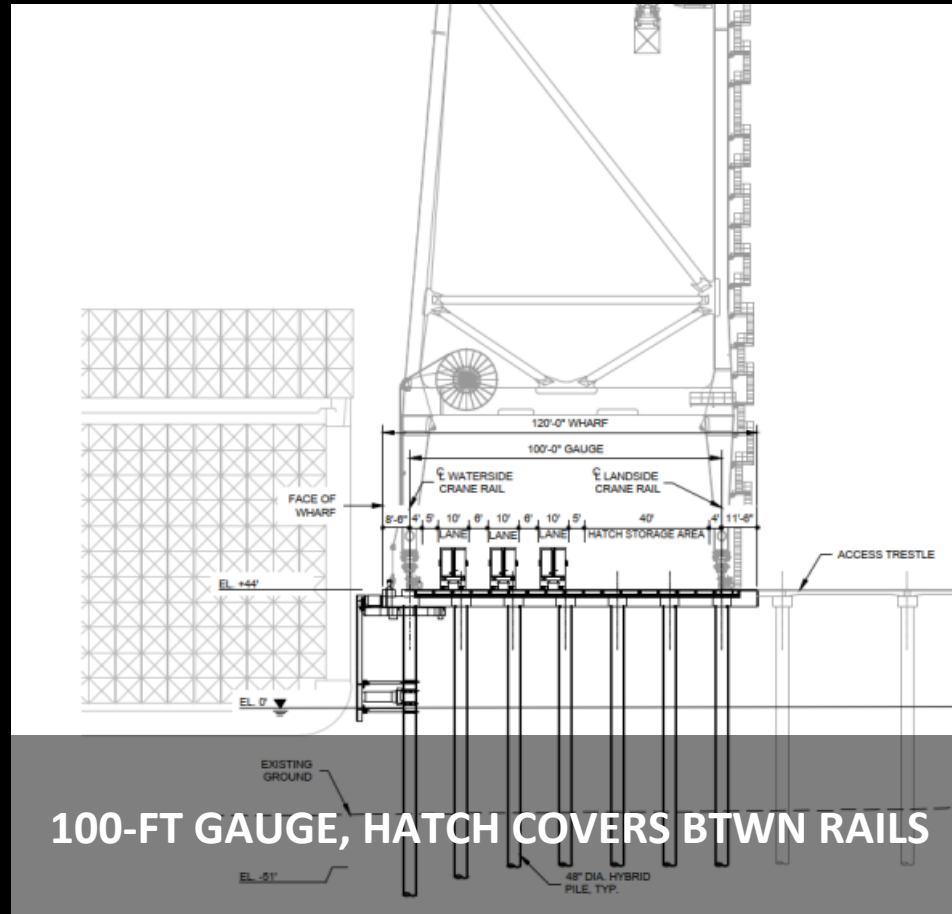


100-ft-Gauge Cranes

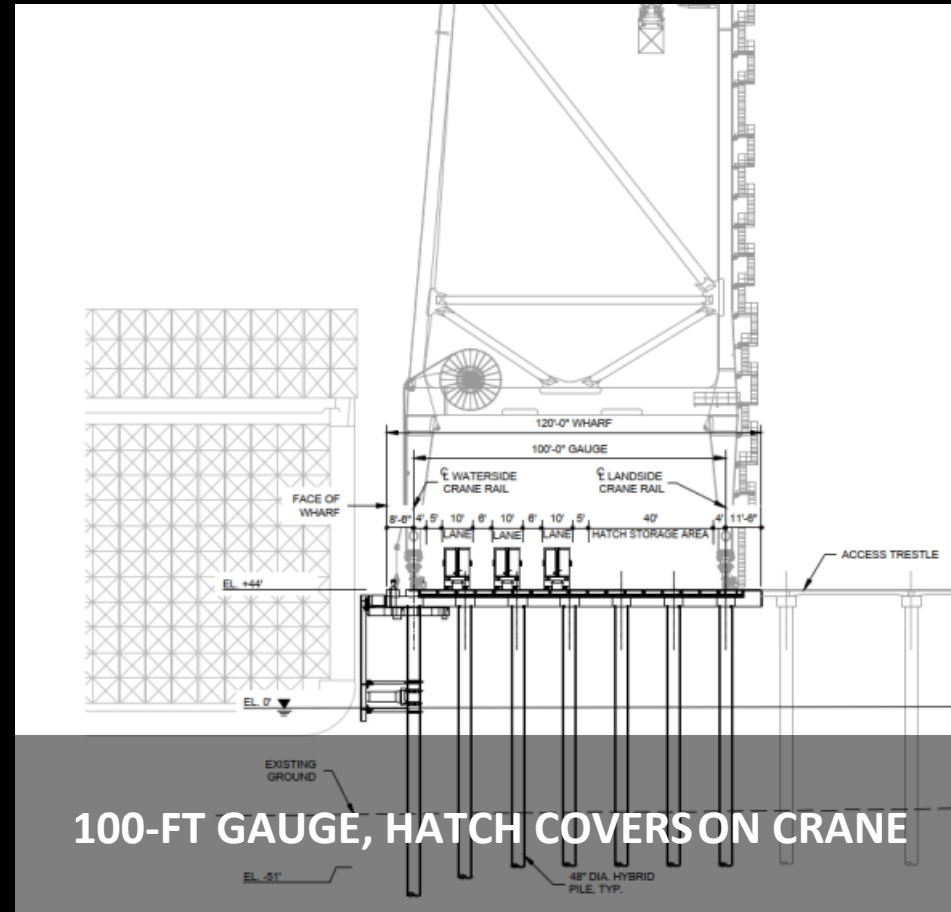
Advantages:

- Standard crane size – Easier to acquire, replace and/or resell
- Improved seismic stability over narrower cranes
- Sufficient reach to fully service all planned design vessels
- Improved air draft for larger vessel classes
- Power generation capabilities
- Understood to be the operational preference of Matson
- Recommended by Program Management Office and Peer Review
- Operational preference of MOA/POA, the Port owner

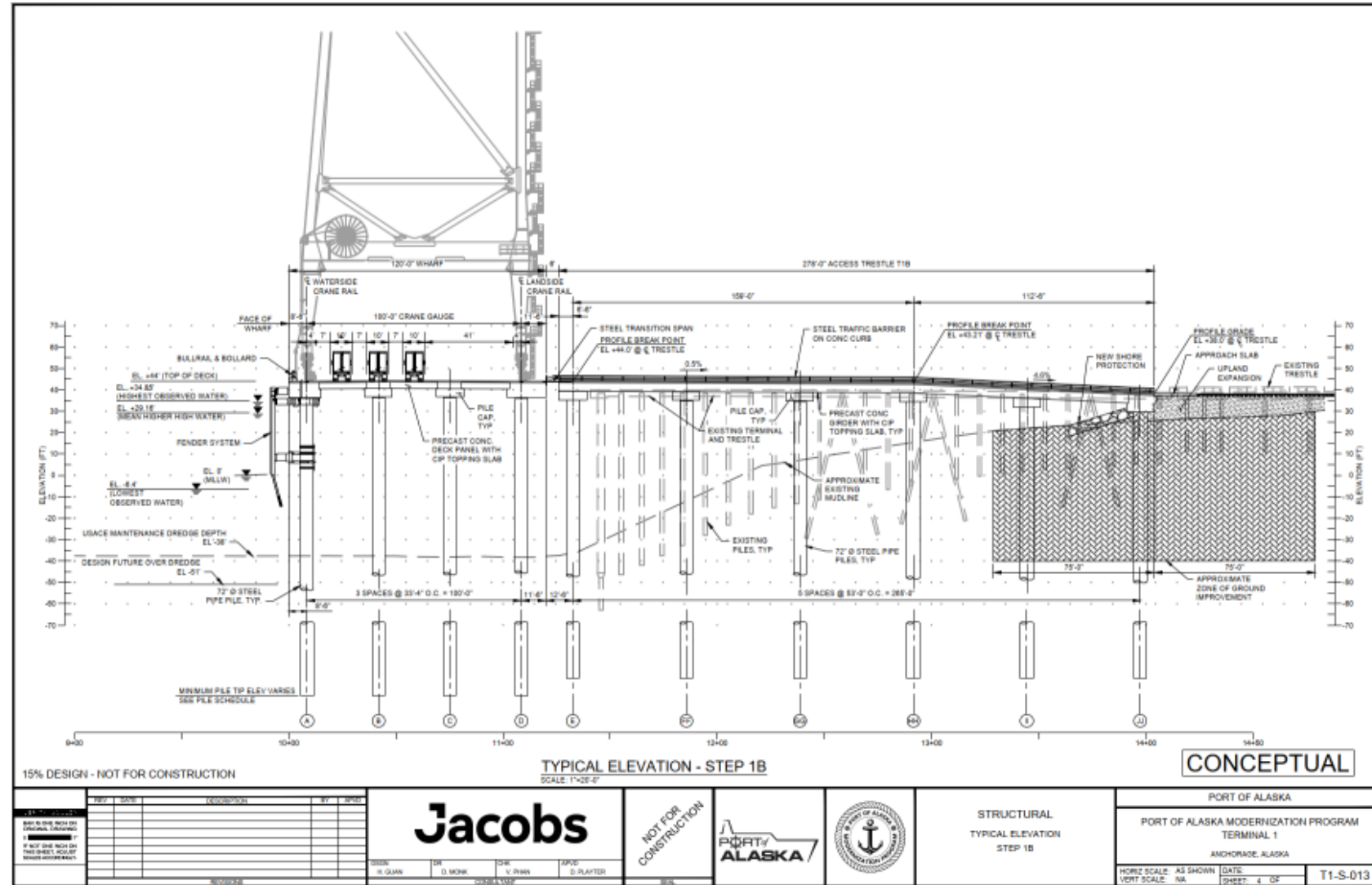
Configuration Options



Configuration Options (cont.)

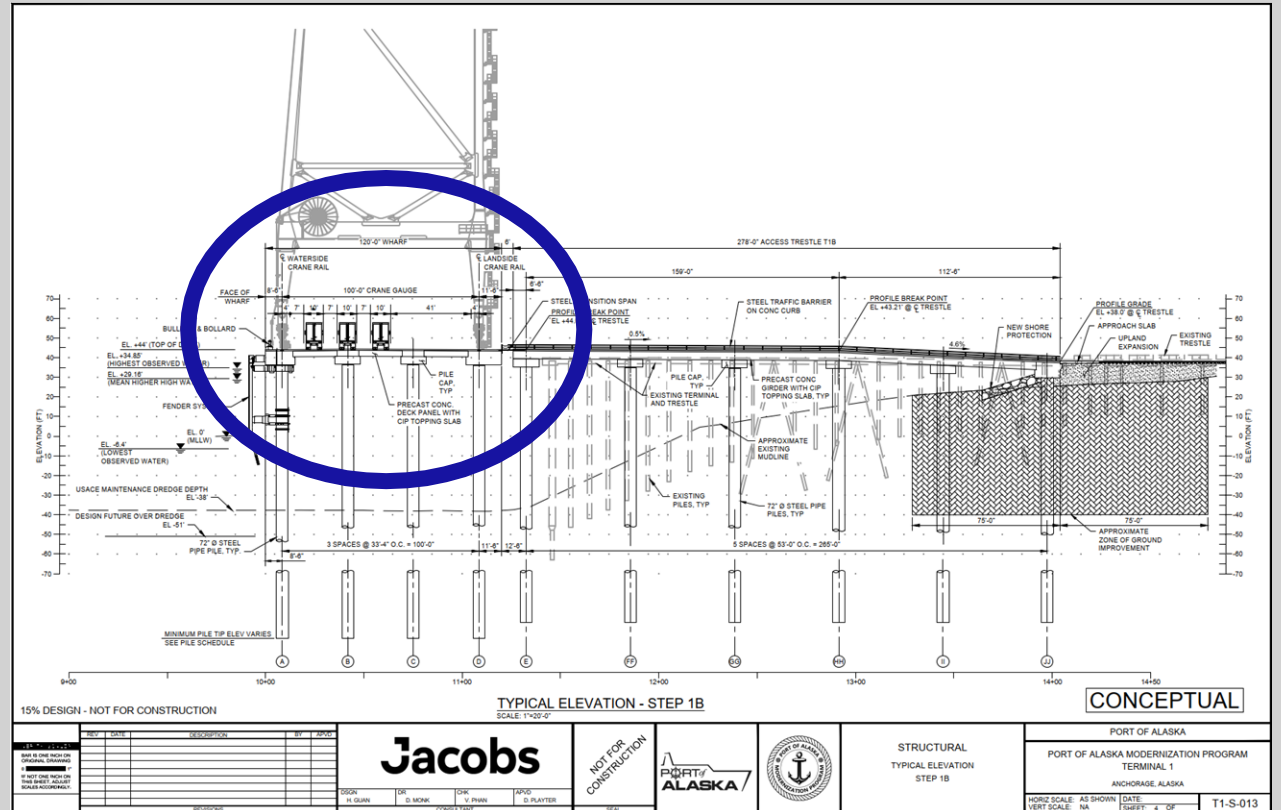


Terminal 1 Current Concept (15%) Design



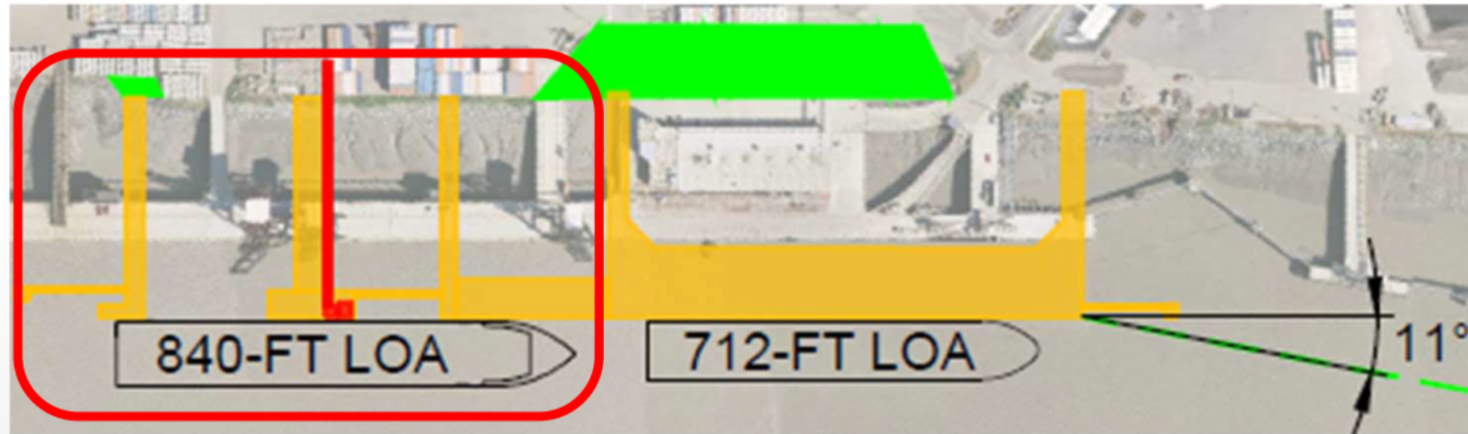
Terminal 1 Recommendations

- Confirm 100-ft-gauge crane as design basis
- Approve plan to advance to next stage of design with core structure
- Revisit hatch cover storage after further study by Jacobs and Matson independently





T2 Modified TOTE 2021 Concept



Estimated Cost:
\$360.5M

Estimated
Construction
Duration: 3-yrs.

Key Features:

- 75-year service design life
- Terminal elevation at 44-ft MLLW
- Design for -39 MLLW harbor depth
- Berth line location coordinated with USACE and evaluated in USACE 2017 Sedimentation Modelling
- 1,000-psf wharf load bearing capacity
- 200-Ton heavy lift capability at 2 locations
- Seismic Berth: 10-day recovery after DE event (exceeds highest standards)
- 934-ft Berth length
- Wharf structural components: 312-ft x 69-ft (southern end) plus 160-ft x 50-ft (center) plus 84-ft x 25-ft (northern end)
- 3-trestles/piers configured for Orca Class vessel truck ramp operations and emergency access
- Liquid Bulk Transfer capability

PHASE 2B – 2025-2032



Terminal 2 Current Concept (15%) Design



Terminal 2 Recommendations

- Maintain continuous berth face in concept design
- Consider reducing seismic design criteria of berth
- Consider widening platform and adding 100-ft-gauge rails, i.e. continuing Terminal 1 geometry

Proposed Changes to Design Basis

- **Terminal 1**
 - Confirm 100-ft gauge cranes
 - Confirm acceptance of core 15% concept design
- **Terminal 2**
 - Restore continuous berth face to concept design
- **Defer decision on following design features:**
 - Hatch cover storage
 - Seismic design criteria at Terminal 2
 - Width and rail accommodations at Terminal 2
 - Location of temporary fuels unloading point

RECOMMEND NEXT BOARD MEETING FIRST WEEK OF DEC 2022

