PUBLIC NOTICE

Alaska Department of Environmental Conservation (DEC)
Wastewater Discharge Authorization Program/§401 Certification
555 Cordova Street, Anchorage AK 99501-2617
Phone: 907-269-6285 | Email: DEC-401Cert@alaska.gov

Notice of Application for State Water Quality Certification

Public Notice (PN) Date: October 21, 2024
PN Expiration Date: November 20, 2024
PN Reference Number: POA-2024-00197 v1.0
Waterway: Resurrection Bay

Any applicant for a federal license or permit to conduct an activity that might result in a discharge into waters of the United States, in accordance with Section 401 of the Clean Water Act (CWA), must also apply for and obtain certification from the Alaska Department of Environmental Conservation that the discharge will comply with the CWA and the Alaska Water Quality Standards (18 AAC 70). The scope of certification is limited to the water quality-related impacts from the activity subject to the Federal license or permit (40 CFR 121.3, 18 AAC 15.180).

Notice is hereby given that a request for a CWA §401 Water Quality Certification of a Department of the Army Permit application, Corps of Engineers' PN Reference Number indicated above has been received[1] for the discharge of dredged and/or fill materials into waters of the United States (WOTUS), including wetlands, as described below, and shown on the project figures/drawings. The public notice and related project figures/drawings are accessible from the DEC website at https://dec.alaska.gov/water/wastewater/.

To comment on the project or request for a public hearing with respect to water quality, submit comments via email to the DEC email address: DEC-401Cert@alaska.gov with the subject line referencing Public Notice Reference Number: **POA-2024-00197 v1.0** or via DEC website https://dec.alaska.gov/commish/public-notices/ on or before the public notice expiration date listed above.

Applicant: Alaska Railroad Corporation, Brian Lindamood, PO Box 107500, Anchorage, AK 99510, (907) 265-3095; lindamoodb@akrr.com

Agent: PND Engineers, Inc., Brenna Hughes, 1506 W 36th Ave. Anchorage, AK 99503; (907) 646-2773; bhughes@pndengineers.com.

Project Name: ARRC Seward Freight Dock

Dates of the proposed activity is planned to begin and end: 11/01/2026 to 05/31/2028

Location: The proposed activity is located within Section 3, T. 001S, R. 001W, Seward Meridian, in Kenai Peninsula Borough, Alaska. Project Site (Latitude, Longitude): 60.119403, -149.42465.

Purpose: The Alaska Railroad Corporation (ARRC) proposes to expand and improve the existing Seward Alaska Marine Terminal (Terminal) Freight Dock and associated transportation corridor within the Alaska Railroad Terminal Reserve (Reserve). The project will improve safety and efficiency for the movement of goods by better separating pedestrian traffic from freight and heavy truck traffic, enhance safety and efficiency of stevedoring activities, preserve the intermodal operations of commercial freight customers, accommodate larger vessels, and enhance the long-term utility of the dock.

The U.S. Department of Transportation (USDOT) Maritime Administration (MARAD) will partially fund the project with a Port Infrastructure Development Program (PIDP) grant. Additional support is provided by a

[1] Reference submission number: HQ5-NFPH-D1NES; Received: 10/17/2024 12:18:52 PM

partnership with the City of Seward. As this project is intended to facilitate vessel-related operations, it would not be possible to site it away from the water.

Description of Proposed Work: The proposed activity consists of dock expansion and road construction that will be in three phases. The applicant proposes to expand the existing freight dock to allow for additional berthing and cargo unloading space. The dock will be extended by 375 feet in tidal waters by placing 134,800 cubic yards of fill material over 4.75 acres below the High Tide Line (approximate elevation +13.8 feet above the 0.0-foot contour) of Resurrection Bay.

The proposed work would include installation of piles below the Mean High-Water Mark (approximate elevation +9.7 feet above the 0.0-foot contour) the following totals are proposed for the project:

The new dock extension will be an Open Cell Sheet Pile TM (OCSPTM) bulkhead backed by a rock revetment, consistent with the existing dock. This type of bulkhead is a flexible steel sheet pile membrane supported by soil contact with the embedded steel sheet pile tail walls.

The dock face will be extended by 375 feet (ft); the usable width of the new extension will be 300 ft. The existing dock uplands will also be widened to 300 ft, further expanding the fill footprint and revetment to the east. The widening of the uplands, both the existing and new upland portions, will take place in up to three (3) phases. Dock upland facilities will be improved, including the installation and upgrades of dock utilities, rails, etc. The dock extension will include typical components, such as fenders, mooring bollards, sacrificial anodes, and bull rail. South of the new dock extension, a salvaged mooring dolphin and catwalk (new or salvaged) will be installed.

Temporary:
- 60, 24-inch diameter steel piles
- 2,157 steel H-piles (in post-fill uplands)

Permanent:
- 425 sheet piles
- 14 steel H-piles
- 14, 30-inch diameter round fender piles
- 4, 24-inch diameter round dolphin piles (to be removed and re-installed)

The proposed road will replace an existing gravel rail yard access route with a two-lane gravel roadway, approximately 4,500 feet long with a 24-foot-wide driving surface. Up to 1,455 cubic yards of material will be excavated and up to 1,940 cubic yards of fill material will be placed in three wetlands (0.3 acres total) for road construction.

This project, in total, will fill 4.75 acres of waters of the U.S. (WOTUS) across three phases. 134,800 cubic yards (CY) of new and salvaged fill will be placed below the high tide line (HTL).

A detailed description of the components of the dock expansion is provided in the following sections.

In addition to the dock expansion, this project entails improvements to the transportation corridor connecting the dock to Alaska's rail and road networks. The proposed road replaces an existing gravel rail yard access route with a two-lane gravel roadway. The new road will be approximately 4,500 ft long with a 24-ft-wide driving surface and a 4:1 fore slope with a base width spanning up to 60 ft. The road will be constructed of subgrade and base course material with a compacted gravel surfacing. Four (4) 24" culverts will also be installed in the North section of the roadway to facilitate cross drainage considering the adjacent wetlands.

A detailed description of the components of the corridor improvements follows the description of the dock expansion.

Mobilization: Project materials will be transported to Seward via barge, rail, and road. Origination of project vessel(s) will depend on the selected contractor's means and methods, but would likely be from Anchorage, Unalaska, or Seattle. Project vessels will comply with all pertinent regulations, including protocols for marine mammal impact avoidance and minimization measures listed in this document.

Dock Expansion: Dock expansion plans are shown in three phases in the project permit drawings. One or more or all the dock construction phases may be constructed during the in-water work year, depending upon project funding and contractor means and methods. Phase I (Sheet 5) extends and armors the existing dock on the west side of the sediment groin. Phases II (Sheet 6) and III (Sheet 7) widen and extend the dock on the east side of the sediment groin within the barge basin. For impacts assessment, it was assumed that all the dock will be constructed.

For the activities described below, only a single pile-driving hammer will be operational at any given time. This assumption was utilized in the assessment of potential effects to protected species.

Template Piles: Prior to construction of the OCSPTM dock, a temporary template will be constructed to aid in sheet pile cell installation. Temporary template piles will be either steel pipe piles or H-piles driven using vibratory pile-driving equipment. The template will be removed using similar methods after the sheet pile cells are constructed. Quantities noted in Table 5 are either for pipe piles or for H-piles, not cumulative.

Sheet Piles: The dock extension will be an OCSPTM structure (bulkheads using flat-web sheet piles, fabricated connector wyes, and anchor piles). This type of bulkhead is a flexible wall constructed of steel sheet piles with embedded tail wall diaphragms supported by the soil. Piles will be installed with vibratory pile-driving equipment. Interlocking sheets will be driven in pairs to the required embedment until each cell is complete.

Anchor Piles: Anchor piles fabricated from H-piles with welded connectors will be installed at the end of each sheet pile tail wall using vibratory pile-driving equipment to further support the structure.

Fill Placement & Vibro-compaction: Gravel fill will be sourced by ARRC from a competitive source, existing stockpiles of materials or a previously existing permitted source and may be stockpiled for the project at a designated bulk materials storage area within the Reserve or placed directly in the fill location. Fill materials will be transported from the bulk materials storage area to the project site as necessary.

Following completion of each cell, fill materials will be placed behind the sheet pile with traditional earth-moving equipment (loaders, dump trucks, bulldozers, etc.) up to an elevation of +5' MLLW. Vibro-compaction will take place within the fill and existing soils down to -60 ft MLLW. Vibro-compaction uses an H-pile with "displacement angles" probed with vibratory pile-driving equipment to consolidate and compact fill. Above the Vibro-compaction section, fill will be placed in lifts with dump trucks and bulldozers and compacted with vibratory roller compactors.

To mitigate short-term localized turbidity resulting from fill placement, a full-length silt curtain will be used on the south end of the dock expansion between the sheet pile construction and the west side of the sediment groin. No silt curtain will be used on the east side of the sediment groin where turbidity and sedimentation are naturally increased.

Rock Revetment Scour Protection: Rock revetment will reinforce the face of the existing sheet pile wall to prevent scouring. New sheet pile walls will be driven to depths not expected to require additional rock revetment for scour protection. Materials will be placed with a land- or barge-based excavator or crane.

Rock Revetment Apron Expansion: A rock revetment protects the east and south sides of the existing dock and provides additional upland laydown capacity. Two previous expansions of the revetment were permitted and only partially constructed. An existing sediment groin, constructed following major Resurrection River flooding in 1995, protects the vessel basin from rapid sedimentation. During this project, areas of the dock that have not yet been expanded will be widened to match the dock extension. Gravel fill will be placed, followed by a layer of filter rock, and finally rock revetment. The existing sediment groin will be removed in sections using a land- or barge-based excavator or crane. Existing rock revetment will be salvaged for reuse in the expansion, as feasible.

Mooring Dolphin: The existing mooring dolphin and access catwalk at the south end of the Freight Dock will be removed and salvaged prior to dock extension. The catwalk will be lifted off with the aid of a crane. The existing mooring dolphin is constructed with SPIN FIN™ piles. Extraction of dolphin piles will be performed with a vibratory hammer. After the dock extension is complete, the salvaged mooring dolphin will be installed. The dolphin will be connected to the dock via a new or salvaged catwalk to facilitate access during mooring operations. All dolphin piles will be installed with vibratory pile driving equipment and capacity-tested with impact pile driving equipment.

Fenders: New heavy-duty fenders with two fender piles each will be installed along the dock face to protect the dock from moored vessels. Installation will use vibratory pile-driving equipment.

Bollards: A steel face beam with bull rails, ladders, and new heavy-duty bollards is planned along the entire face of the new structure. Seven (7) of the new 18" pipe pile bollards will be welded to the face beam. One (1) existing 24" pipe pile onshore mooring bollard at the south end of the existing dock face will be removed and salvaged. Two (2) new 30" pipe pile onshore mooring bollards will be installed in uplands at the new southern extent of the dock face. The bollard piles will be driven into completed, compacted cell fill using vibratory pile-driving equipment.

Dock Appurtenances: In addition to the main structural components and fill, the expanded dock facility will include necessary appurtenances to meet the current and future needs of the port. The existing rail lines will be extended onto the new dock. Utilities (fuel and water service lines, electrical hookups, and lighting), fenders, mooring bollards, sacrificial dock anodes, and bull rail will also be installed. New high-mast lights with buried electrical lines will be supported by 30" upland pipe pile foundations at three (3) new locations (seven (7) total locations counting existing and new high-mast lights) along the centerline of the existing and new dock sections. The high-mast light foundation piles will be driven into completed, compacted fill using vibratory pile-driving equipment.

Corridor Improvements: The proposed project also facilitates travel from the Freight Dock to Airport Road via a new Freight Dock Road. Most of the road alignment is already an existing gravel route through the Terminal that will be upgraded to an improved gravel road for freight trucks. The new road alignment will minimize impacts to railroad tracks; avoids pedestrian traffic from the Passenger Dock and Port Ave to the west; and provides traffic calming, speed mitigation, and appropriate access to the Seward Highway for freight vehicles.

The selected alignment avoids the significant wetland, and floodplain impacts of other alternatives considered at the south end of the airport as well as addressing feedback regarding the potential impacts to airport operations along that route. A new intersection with Airport Road will be created northwest of the airport's infrastructure, avoiding additional traffic through airport facilities.

The proposed road replaces an existing gravel rail yard access route with a two-lane gravel roadway. The new road will be approximately 4,500 ft long with a 24-ft-wide driving surface, 4-ft-wide shoulders, and a 4:1 fore slope, with a total base width spanning up to 60 ft. The road will be constructed of subgrade and base course material with a compacted gravel surfacing. Four (4) 24" culverts will also be installed in the North section of the roadway to facilitate cross drainage considering the adjacent wetlands.

Demobilization: Refuse and excess materials from the project will be reclaimed, recycled, or disposed of as necessary in accordance with applicable regulations. Project equipment will be demobilized to the port of origin according to the contractor's needs and means.

Schedule and Duration: The project is scheduled to be constructed between 2026 and 2028. The total project duration is expected to be approximately 18 months. Pile driving and in-water work on the Freight Dock will require approximately 12 months beginning in November 2026. Upland vibro-compaction operations are expected to need three months, overlapping the in-water work period. Initial set-up and completion of upland appurtenances are anticipated to require two to three months. Construction of the road will require one month.

Dock expansion plans are shown in three phases in the project permit drawings. One or more or all the dock construction phases may be constructed during the in-water work year, depending upon the outcome of the project award process and contractor means and methods. Phase I extends and armors the existing dock on the west side of the sediment groin. Phases II and III widen and extend the dock on the east side of the sediment groin within the barge basin. For impacts assessment, it was assumed that all the dock will be constructed.

Applicant Proposed Mitigation: The applicant proposes the following mitigation measures to avoid, minimize, and compensate for impacts to waters of the United States from activities involving discharges of dredged or fill material.

a. Avoidance: As this project is intended to facilitate vessel-related operations, it would not be possible to site it away from the water. The route of the road corridor has been selected to avoid more significant impacts to higher value wetlands to the east of the proposed route.

b. Minimization: Fill quantities are the minimum required to meet the project purpose. The following Best Management Practices (BMPs) will be followed to minimize impacts to water quality and wildlife.
   - Wetlands, vegetated areas, and project construction and storage areas will be clearly delineated at the beginning of the project to prevent unnecessary impacts to habitat.
   - Impact pile driving equipment will utilize a pile cushion to mitigate underwater sound impacts from impulsive noise.
   - In-water work activities will only take place when environmental conditions (daylight, weather, etc.) allow the entirety of permit-specified areas to be observed.
   - In-water work will stop if a protected species enters a shutdown zone to avoid unauthorized "take".
   - One or more qualified and equipped independent (i.e., not construction personnel) protected species observers (PSOs) will be on duty continuously during all in-water or over-water construction activities in accordance with the project's Marine Mammal Monitoring and Mitigation Plan (4MP).
   - Construction equipment will be cleaned of dirt, plants, and foreign materials before entering the Reserve to help prevent the spread of invasive species.
   - A full-length silt curtain will be used on the south end of the dock expansion between the sheet pile construction and the west side of the sediment groin.
   - A spill control and countermeasures plan will be developed and implemented for the project. The plan will address the potential for encountering contaminated soils in the vicinity of previously remediated underground storage tanks (USTs) so that appropriate procedures and materials are in place prior to beginning excavation.
   - Oil booms will be readily available for containment should any releases occur.
   - All hazardous materials and debris will be stored above the high tide line and secured to prevent being blown offshore.
   - Pile driving will be limited to between the hours of 7 a.m. and 10 p.m. to limit the amount of noise resulting from the project each day.
   - No impact pile driving will occur July 15 – September 15 to prevent impacts to sport fisheries.

   Mitigation: A full list of mitigation measures is included in the Project Description. Specific measures pertaining to wetlands, WOTUS, and water quality are repeated here. Compensatory mitigation may be used to offset impacts to wetlands and waters of the U.S. that cannot be avoided or minimized. Development and final approval of this mitigation plan will be conducted in cooperation with USACE.
   - ARRC and its contractors will comply with the USACE and Alaska Department of Environmental Conservation (ADEC) permits that will be required for impacts to wetlands and waters of the U.S. under Sections 404 and 401 of the CWA and Section 10 of the RHA.
   - Wetland habitat within the vicinity of project activities will be clearly delineated prior to construction to prevent unplanned impacts.

- Drainage mats will be utilized in wetland areas as appropriate to minimize impacts on vegetation and on natural drainage patterns.
- Culverts will be installed where necessary to maintain hydrologic flow.
  Cathodic protection or other corrosion protection will be utilized to protect steel elements in corrosive environments, as needed.
  A full-length silt curtain will be used on the south end of the dock expansion between the sheet pile construction and the west side of the sediment groin.
- No silt curtain will be used on the east side of the sediment groin where turbidity and sedimentation are naturally increased.
- A project SWPPP will be developed per ADEC's Construction General Permit for stormwater discharge to prevent and mitigate construction sources of stormwater erosion and standard erosion and sedimentation BMPs will be utilized.
- Natural vegetative barriers will be maintained through the early delineation of work areas to prevent unnecessary clearing to the extent practicable.
- Erosion control measures will be regularly inspected and maintained whenever damage is discovered.
- Disturbed areas will be stabilized per ADEC's Construction General Permit for stormwater discharge.
- Project vessels will be maintained in a manner to prevent negative impacts to water quality, including proper servicing of mechanical systems and proper stowage of hazardous materials and debris.

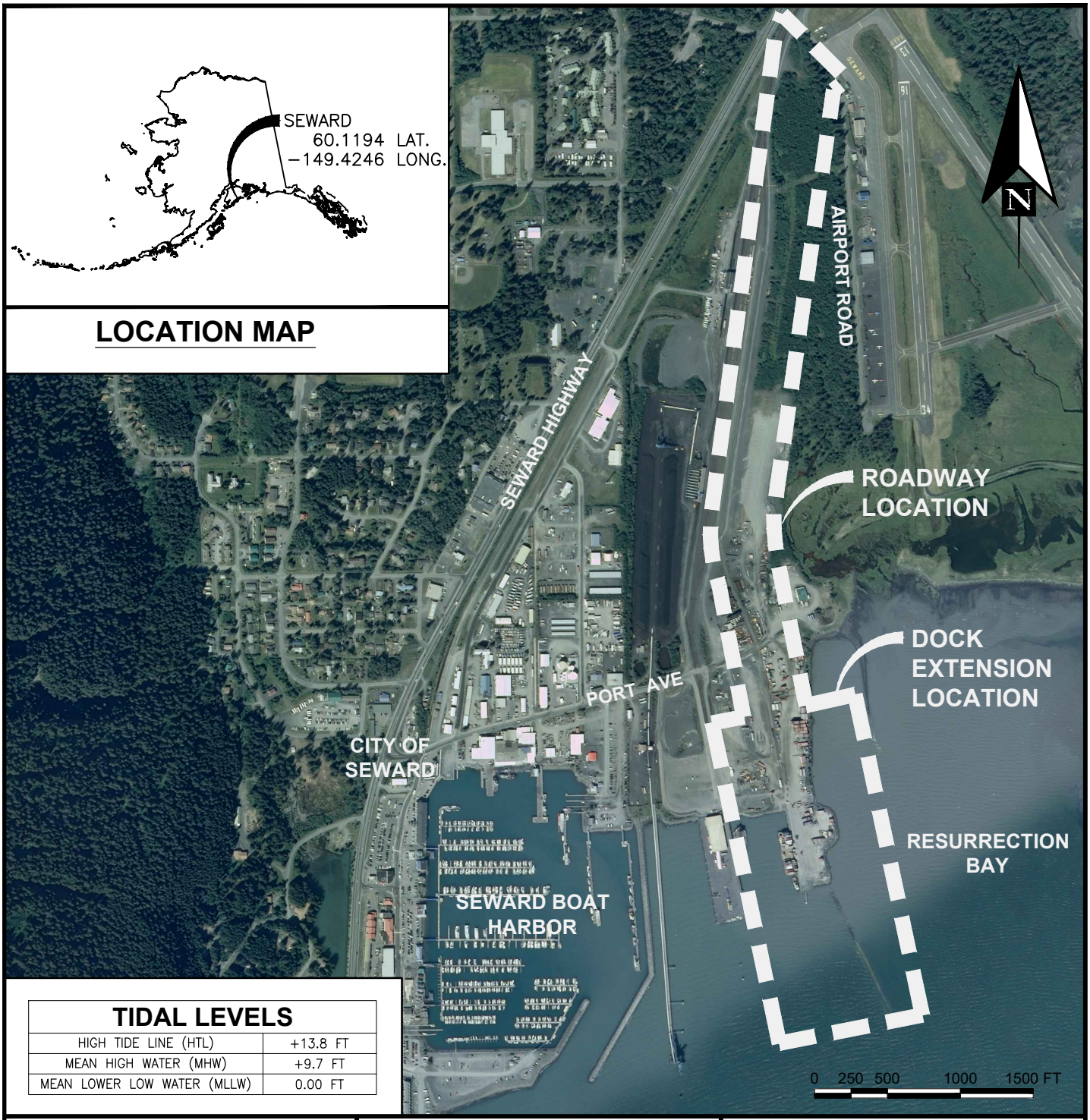
After reviewing the application, the Department will evaluate whether the activity will comply with applicable water quality requirements (any limitation, standard, or other requirement under sections 301, 302, 306, and 307 of the CWA, any Federal and state laws or regulations implementing those sections, and any other water quality-related requirement of state law). The Department may certify (or certify with conditions) with reasonable assurance the activity and any discharge that might result will comply with water quality requirements. The Department also may deny or waive certification.

The permit application and associated documents are available for review. For inquires or to request copies of the documents, contact dec-401cert@alaska.gov, or call 907-269-6285.

Disability Reasonable Accommodation Notice

The State of Alaska, Department of Environmental Conservation complies with Title II of the Americans with Disabilities Act (ADA) of 1990. If you are a person with a disability who may need special accommodation in order to participate in this public process, please contact ADA Coordinator Megan Kohler at 907-269-4198 or TDD Relay Service 1-800-770-8973/TTY or dial 711 prior to the expiration date of this public notice to ensure that any necessary accommodations can be provided.

LOCATION MAP



TIDAL LEVELS	
HIGH TIDE LINE (HTL)	+13.8 FT
MEAN HIGH WATER (MHW)	+9.7 FT
MEAN LOWER LOW WATER (MLLW)	0.00 FT

PURPOSE:
EXPAND AND IMPROVE FREIGHT DOCK AND TRANSPORTATION CORRIDOR

DATUM: MLLW = 0.0'

LAT: 60.119403° N
LONG: 149.424646° W
S: 3 T: 001S R: 001W
SEWARD MERIDIAN

VICINITY MAP

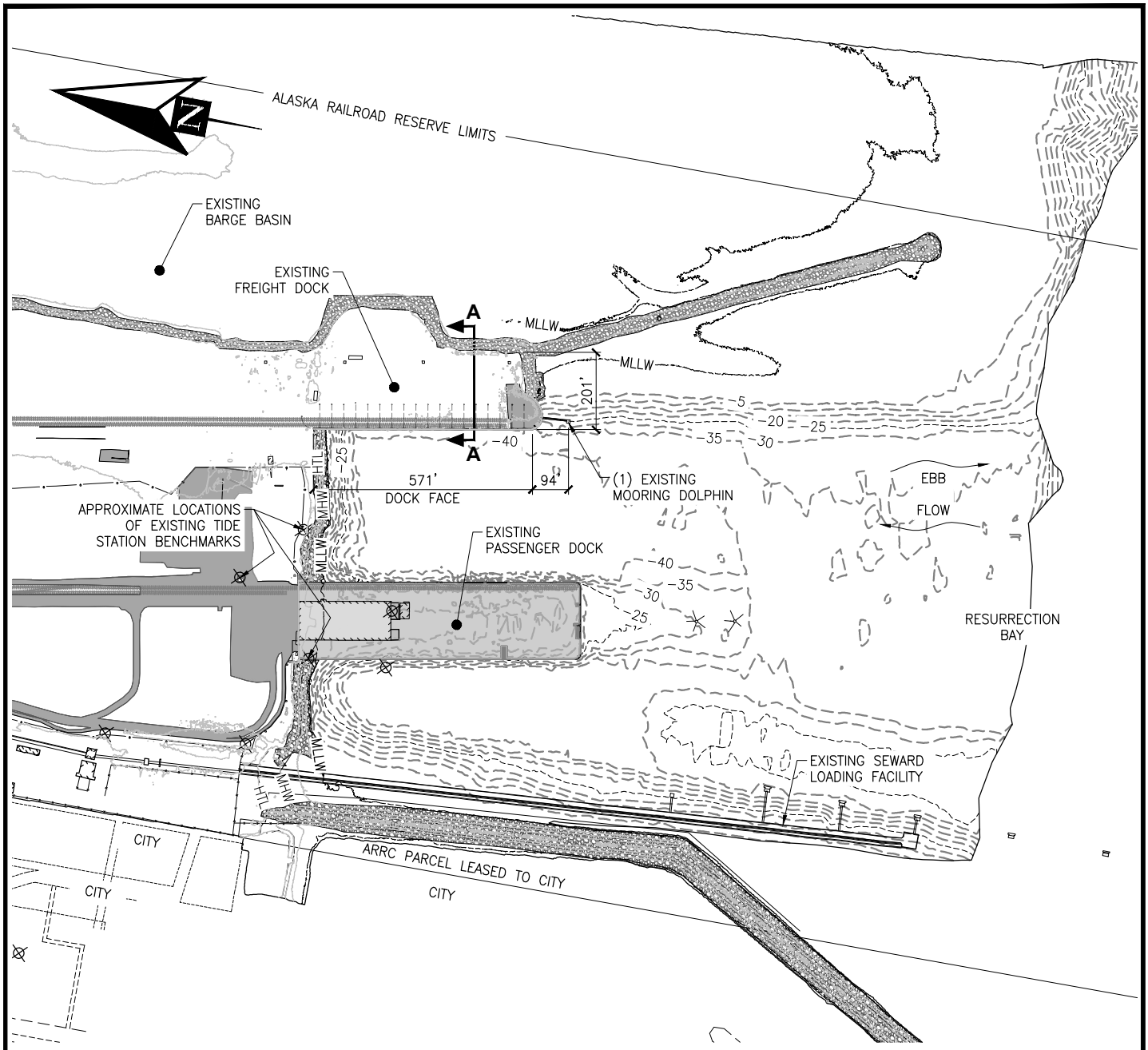
~~-POA--1965--00034--M23-~~

ALASKA RAILROAD CORPORATION
327 WEST SHIP CREEK AVE
ANCHORAGE, AK 99501

SEWARD FREIGHT DOCK IMPROVEMENTS

IN: RESURRECTION BAY
BY: CITY OF SEWARD

4/12/2024



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SEWARD MERIDIAN

EXISTING DOCK SITE PLAN

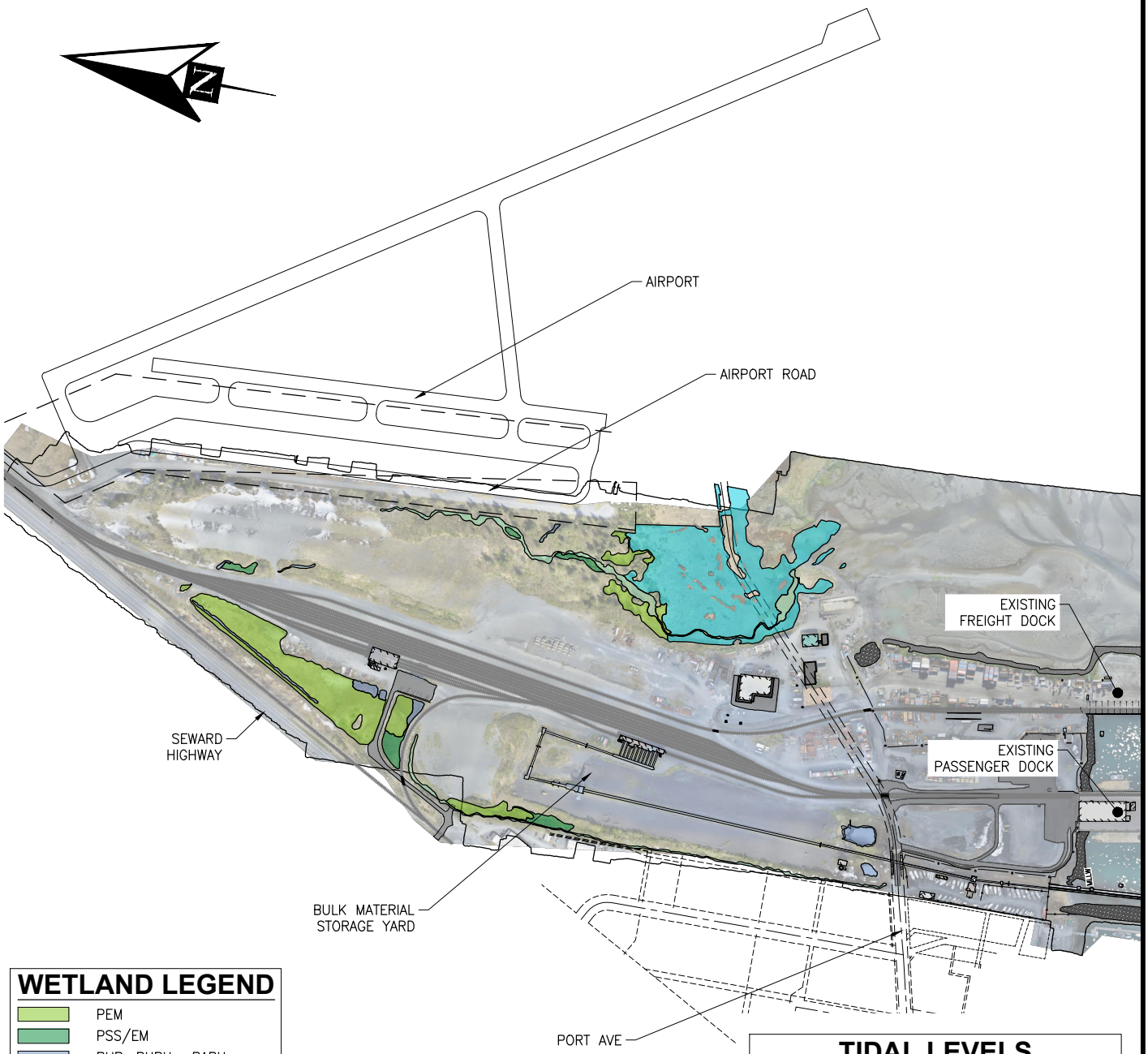
~~-POA--1965--00034--M23-~~

ALASKA RAILROAD CORPORATION
327 WEST SHIP CREEK AVE
ANCHORAGE, AK 99501

SEWARD FREIGHT DOCK IMPROVEMENTS

IN: RESURRECTION BAY
BY: CITY OF SEWARD

4/12/2024



WETLAND LEGEND

- PEM
- PSS/EM
- PUB, PUBHx, PABH
- PUB/EM
- RUBH
- EEM

TIDAL LEVELS	
HIGH TIDE LINE (HTL)	+13.8 FT
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PURPOSE:
EXPAND AND IMPROVE FREIGHT DOCK AND TRANSPORTATION CORRIDOR

DATUM: MLLW = 0.0'

LAT: 60.119403° N
LONG: 149.424646° W
S: 3 T: 001S R: 001W
SEWARD MERIDIAN

EXISTING ONSHORE SITE PLAN

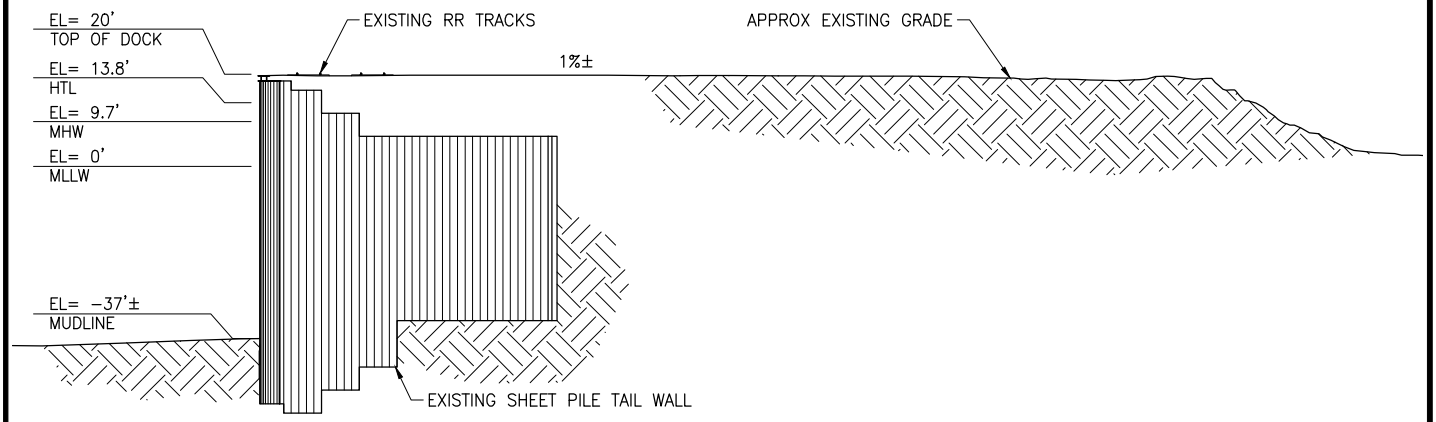
~~-POA--1965--00034--M23-~~

ALASKA RAILROAD CORPORATION
327 WEST SHIP CREEK AVE
ANCHORAGE, AK 99501

SEWARD FREIGHT DOCK IMPROVEMENTS

IN: RESURRECTION BAY
BY: CITY OF SEWARD

4/12/2024



TYPICAL EXISTING DOCK EAST-WEST SECTION A-A
NTS

PURPOSE:
EXPAND AND IMPROVE
FREIGHT DOCK AND
TRANSPORTATION CORRIDOR

DATUM: MLLW = 0.0'

LAT: 60.119403° N
LONG: 149.424646° W
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SEWARD MERIDIAN

TYPICAL EXISTING DOCK SECTION

~~-POA--1965--00034--M23-~~

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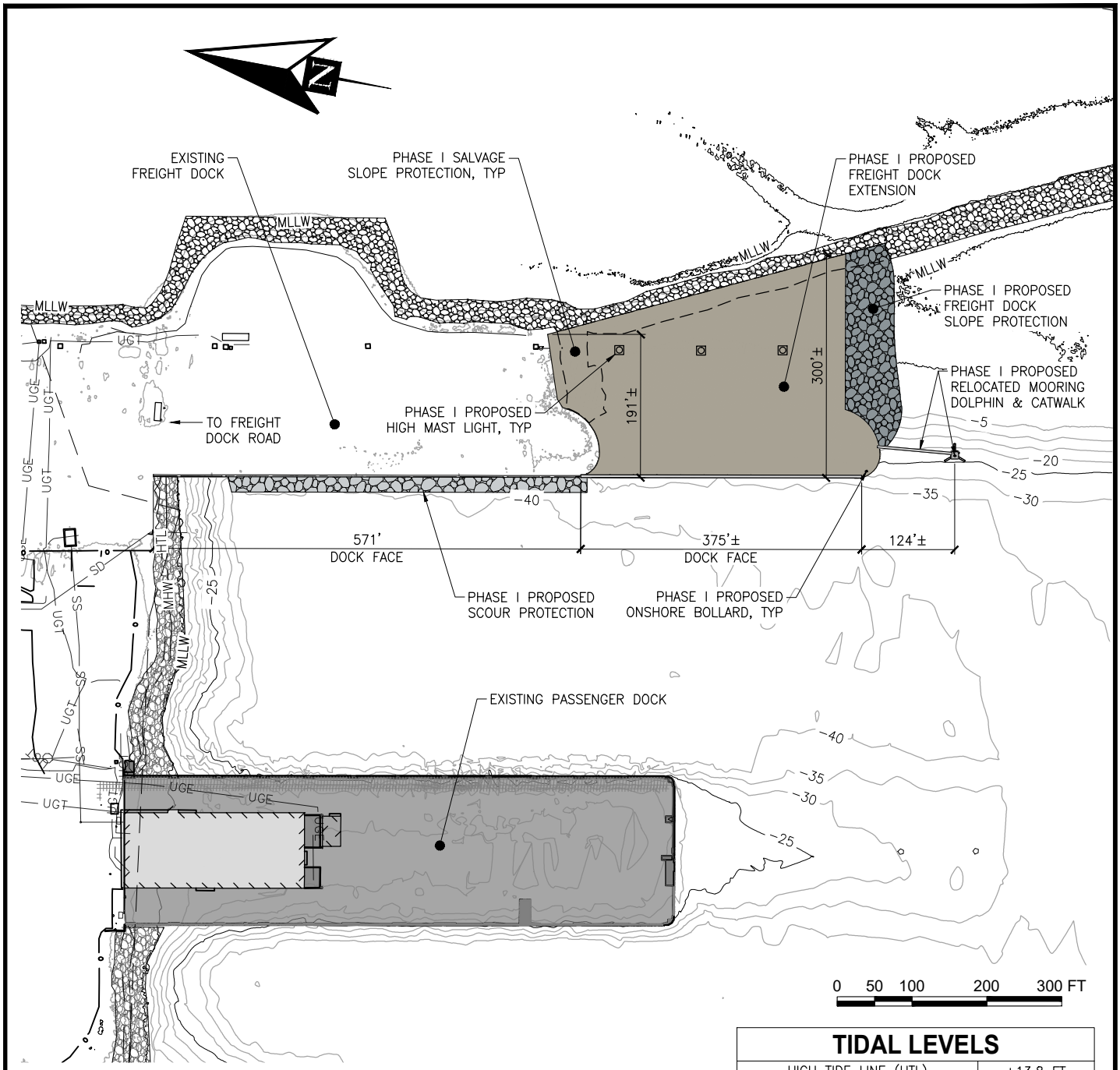
4/12/2024



TIDAL LEVELS	
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PURPOSE:
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SEWARD MERIDIAN

PHASE I PROPOSED DOCK SITE PLAN

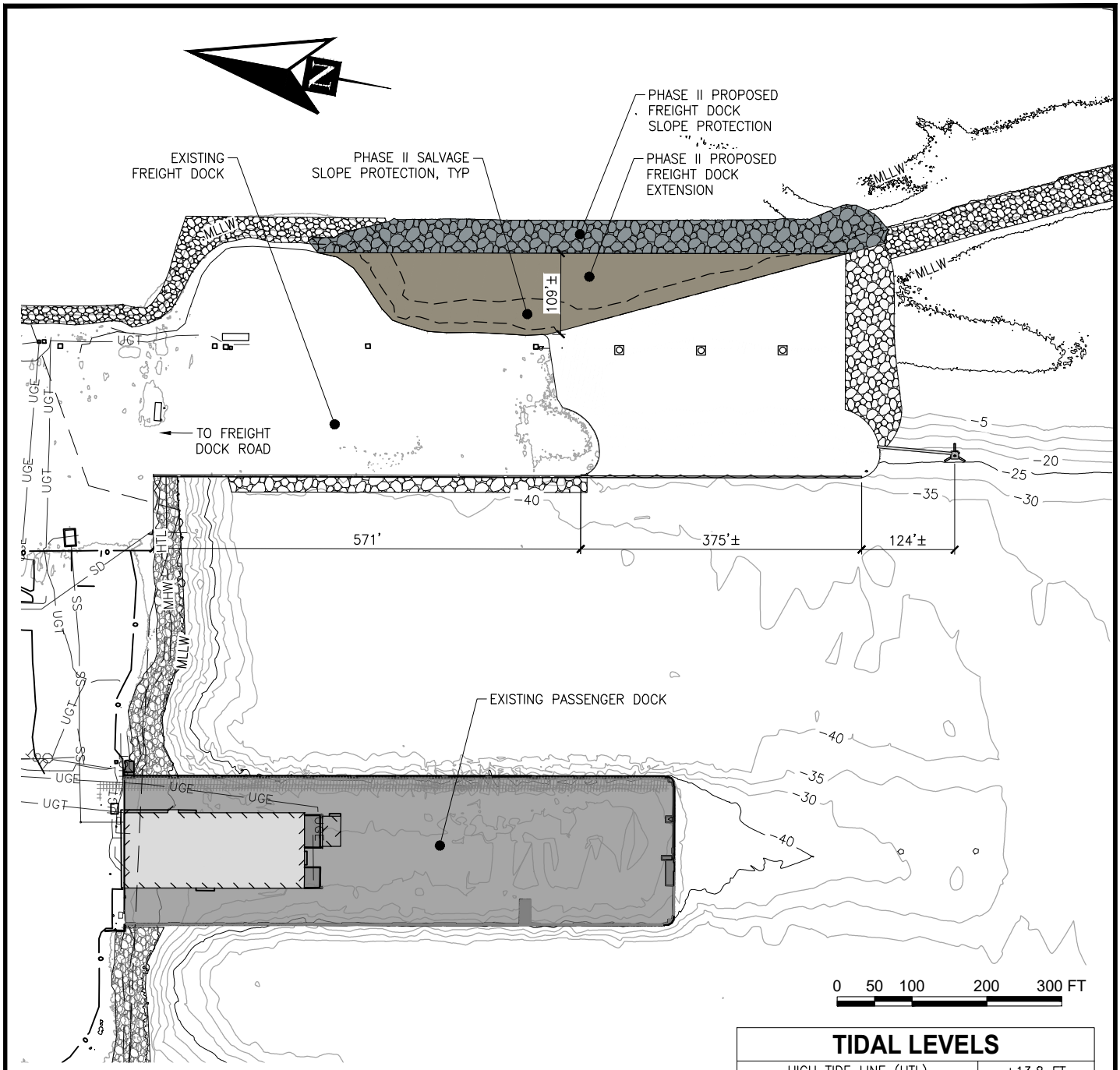
~~-POA--1965--00034--M23-~~

ALASKA RAILROAD CORPORATION
327 WEST SHIP CREEK AVE
ANCHORAGE, AK 99501

SEWARD FREIGHT DOCK IMPROVEMENTS

IN: RESURRECTION BAY
BY: CITY OF SEWARD

4/12/2024



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EXPAND AND IMPROVE FREIGHT DOCK AND TRANSPORTATION CORRIDOR

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SEWARD MERIDIAN

PHASE II PROPOSED DOCK SITE PLAN

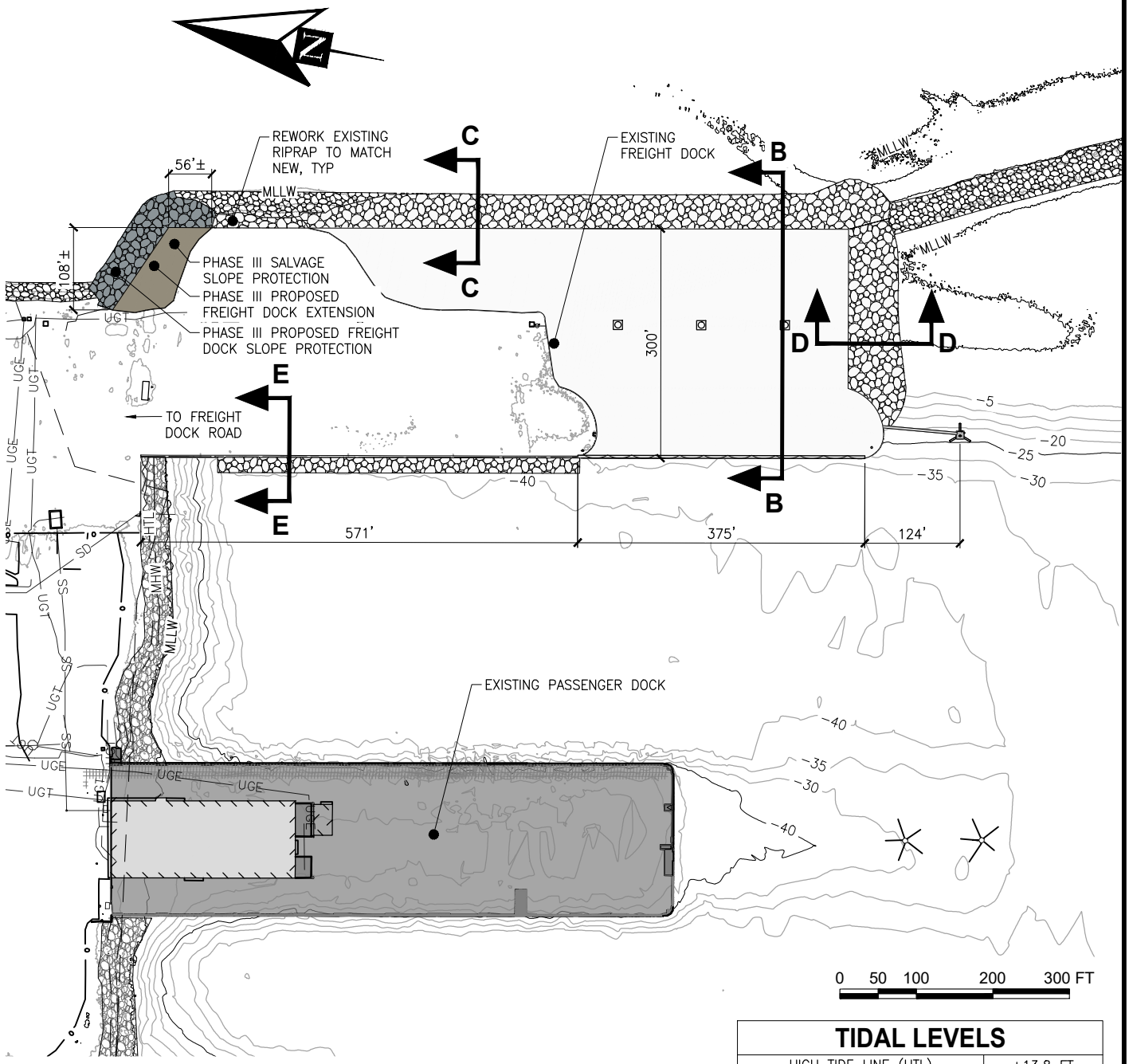
~~-POA--1965--00034--M23-~~

ALASKA RAILROAD CORPORATION
327 WEST SHIP CREEK AVE
ANCHORAGE, AK 99501

SEWARD FREIGHT DOCK IMPROVEMENTS

IN: RESURRECTION BAY
BY: CITY OF SEWARD

4/12/2024



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SEWARD MERIDIAN

PHASE III PROPOSED DOCK SITE PLAN

~~-POA--1965--00034--M23-~~

ALASKA RAILROAD CORPORATION
327 WEST SHIP CREEK AVE
ANCHORAGE, AK 99501

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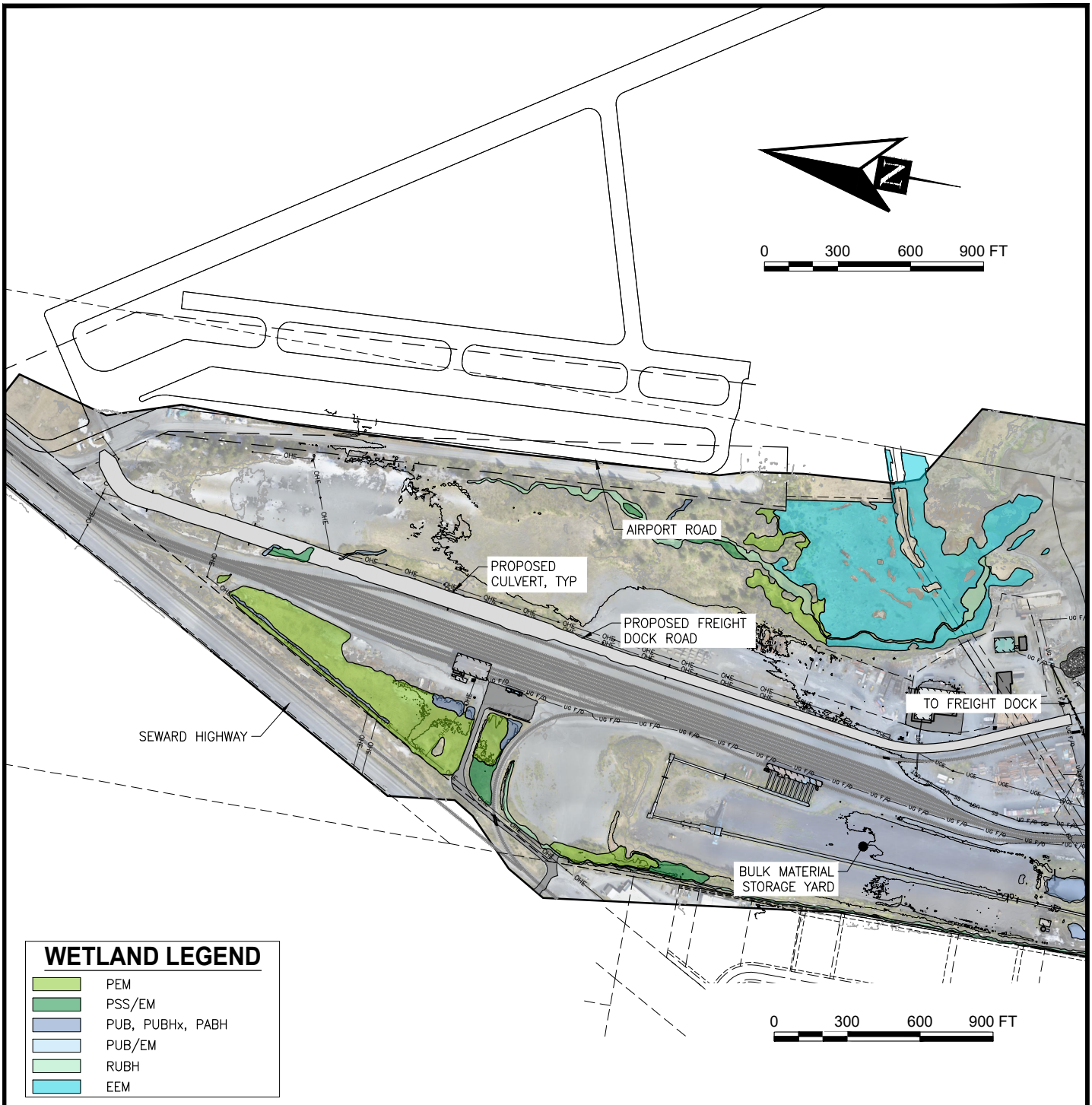
IN: RESURRECTION BAY
BY: CITY OF SEWARD

4/12/2024



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SEWARD MERIDIAN

PROPOSED ROADWAY SITE PLAN

~~-POA--1965--00034--M23-~~

ALASKA RAILROAD CORPORATION
327 WEST SHIP CREEK AVE
ANCHORAGE, AK 99501

SEWARD FREIGHT DOCK IMPROVEMENTS

IN: RESURRECTION BAY
BY: CITY OF SEWARD

4/12/2024

DOCK AND REVETMENT FOOTPRINT QUANTITIES				
IN TIDAL WATERS	PROJECT TOTAL	BELOW HTL	BELOW MHW	BELOW MLLW
NEW FOOTPRINT – PHASE I (ACRES)	2.81	2.80	2.80	1.96
EXISTING FOOTPRINT – PHASE I (ACRES)*	0.27	0.24	0.22	0.00
NEW FOOTPRINT – PHASE II (ACRES)	1.92	1.72	1.63	0.18
EXISTING FOOTPRINT – PHASE II (ACRES)*	0.44	0.36	0.31	0.00
NEW FOOTPRINT – PHASE III (ACRES)	0.28	0.23	0.22	0.04
EXISTING FOOTPRINT – PHASE III (ACRES)*	0.10	0.05	0.02	0.00
NEW FOOTPRINT – FULL PROJECT (ACRES)	*5.01*	*4.75*	*4.65*	*2.18*
*EXISTING FOOTPRINT – FULL PROJECT (ACRES)**	*0.81*	*0.65*	*0.55*	*0.00*

*NEW FILL ON EXISTING DOCK AND SEDIMENT GROIN FOOTPRINT

DOCK FILL QUANTITIES				
IN TIDAL WATERS	PROJECT TOTAL	BELOW HTL	BELOW MHW	BELOW MLLW
BULK FILL – PHASE I (CY)	50,800	50,800	50,800	28,800
BULK FILL – PHASE II (CY)	7,100	7,100	7,100	0
BULK FILL – PHASE III (CY)	800	800	800	0
BULK FILL – PROJECT TOTAL (CY)	*58,700*	*58,700*	*58,700*	*28,800*
LAYER FILL – PHASE I (CY)	43,300	35,900	19,900	0
LAYER FILL – PHASE II (CY)	22,800	18,100	12,900	0
LAYER FILL – PHASE III (CY)	2,300	1,800	1,000	0
LAYER FILL – PROJECT TOTAL (CY)	*68,400*	*55,800*	*33,800*	*0*
SURFACING FILL – PHASE I (CY)	13,800	0	0	0
SURFACING FILL – PHASE II (CY)	7,600	0	0	0
SURFACING FILL – PHASE III (CY)	1,100	0	0	0
SURFACING FILL – PROJECT TOTAL (CY)	*22,500*	*0*	*0*	*0*

REVETMENT FILL QUANTITIES FOR SLOPE PROTECTION				
IN TIDAL WATERS	PROJECT TOTAL	BELOW HTL	BELOW MHW	BELOW MLLW
FILTER ROCK – PHASE I (CY)	2,100	1,500	1,200	200
FILTER ROCK – PHASE II (CY)	2,100	1,500	1,200	200
FILTER ROCK – PHASE III (CY)	600	400	300	100
FILTER ROCK – PROJECT TOTAL (CY)	*4,800*	*3,400*	*2,700*	*500*
SLOPE PROTECTION – PHASE I (CY)	6,500	3,200	2,100	1,300
SLOPE PROTECTION – PHASE II (CY)	3,000	2,700	2,300	1,000
SLOPE PROTECTION – PHASE III (CY)	800	700	700	300
SLOPE PROTECTION – PROJECT TOTAL (CY)	*10,300*	*6,600*	*5,100*	*2,600*
SLOPE PROTECTION REMOVAL/SALVAGE – PHASE I (CY)	2,900	2,300	2,000	1,000
SLOPE PROTECTION REMOVAL/SALVAGE – PHASE II (CY)	7,100	5,200	3,800	700
SLOPE PROTECTION REMOVAL/SALVAGE – PHASE III (CY)	1,000	700	500	0
SLOPE PROTECTION REMOVAL/SALVAGE – PROJECT TOTAL (CY)	*11,000*	*8,200*	*6,300*	*1,700*
EXCAVATION – PHASE I (CY)	4,400	4,400	4,400	2,400
EXCAVATION – PHASE II (CY)	3,900	3,900	3,900	1,900
EXCAVATION – PHASE III (CY)	1,200	1,200	1,200	300
EXCAVATION – PROJECT TOTAL (CY)	*9,500*	*9,500*	*9,500*	*4,600*

PURPOSE:
EXPAND AND IMPROVE
FREIGHT DOCK AND
TRANSPORTATION CORRIDOR

DATUM: MLLW = 0.0'

LAT: 60.119403° N
LONG: 149.424646° W
S: 3 T: 001S R: 001W
SEWARD MERIDIAN

QUANTITIES

~~-POA--1965--00034--M23-~~

ALASKA RAILROAD
CORPORATION
327 WEST SHIP CREEK AVE
ANCHORAGE, AK 99501

SEWARD FREIGHT DOCK IMPROVEMENTS

IN: RESURRECTION BAY
BY: CITY OF SEWARD

4/12/2024

REVETMENT FILL QUANTITIES FOR SCOUR PROTECTION				
IN TIDAL WATERS	PROJECT TOTAL	BELOW HTL	BELOW MHW	BELOW MLLW
SCOUR PROTECTION FOOTPRINT (ACRES)	0.44	044	0.44	0.44
FILTER ROCK (CY)	700	700	700	700
SCOUR PROTECTION (CY)	1,400	1,400	1,400	1,400
EXCAVATION (CY)	2,100	2,100	2,100	2,100

PILE QUANTITIES					
	CONSTRUCTION METHOD	PROJECT TOTAL	BELOW HTL	BELOW MHW	BELOW MLLW
PILE REMOVAL					
EXISTING DOLPHIN PILES (24" ROUND STEEL)	VIBRATORY REMOVAL	4	4	4	4
EXISTING ONSHORE BOLLARD (24" ROUND STEEL)	VIBRATORY REMOVAL	1	0	0	0
TEMPORARY PILES					
TEMPORARY TEMPLATE PILES (24" ROUND STEEL OR HP18 STEEL H-PILES)	VIBRATORY INSTALL & REMOVAL	60	60	60	60
VIBROCOMPACTION PROBES (HP14 STEEL H-PILE PROBE)	VIBRATORY INSTALL (UPLANDS)	2,157	0	0	0
NEW PILE INSTALLATION					
SHEET PILES PAIRS (PS31 OR SIMILAR)	VIBRATORY INSTALL	425	425	425	425
ANCHOR PILES (HP14 STEEL H-PILES)	VIBRATORY INSTALL	15	15	15	15
NEW FENDER PILES (30" ROUND STEEL)	VIBRATORY INSTALL	14	14	14	14
BOLLARD PILES (30" ROUND STEEL)	VIBRATORY INSTALL (UPLANDS)	2	0	0	0
HIGH MAST LIGHT PILES (30" ROUND STEEL)	VIBRATORY INSTALL (UPLANDS)	3	0	0	0
DOLPHIN PILES (30" ROUND STEEL)	VIBRATORY INSTALL	4	4	4	4
	IMPACT PROOFING	4	4	4	4

ROADWAY FILL QUANTITIES				
BY WETLAND CLASSIFICATIONS	PROJECT TOTAL	PUB/EM1H WETLANDS	PSS1F/EM1B WETLANDS	PUBH WETLANDS
ROAD FOOTPRINT (ACRES)	7.5	0.06	0.20	0.005
ROAD CUT (CY)	14,500	290	970	195
ROAD FILL (CY)	17,500	390	1,290	260

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QUANTITIES

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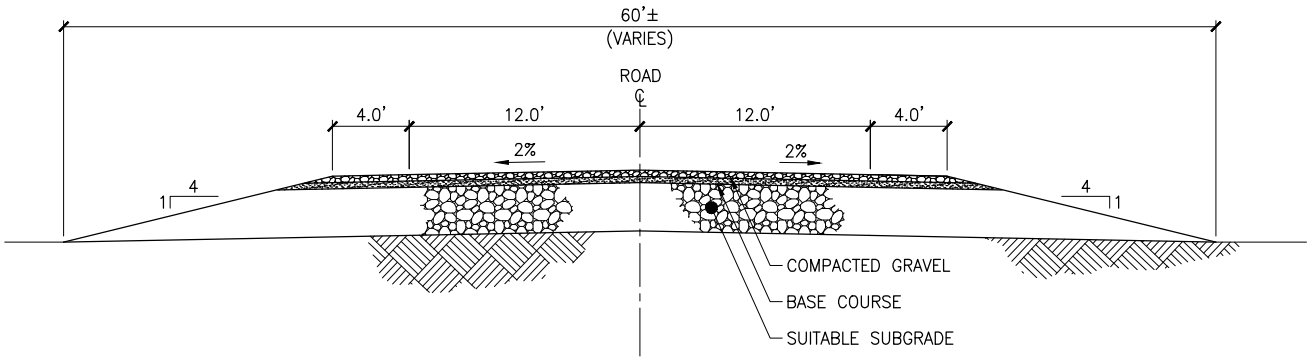
ANCHORAGE, AK 99501

SEWARD FREIGHT DOCK IMPROVEMENTS

IN: RESURRECTION BAY
BY: CITY OF SEWARD

4/12/2024



TYPICAL ROAD SECTION - UNDEVELOPED AREA

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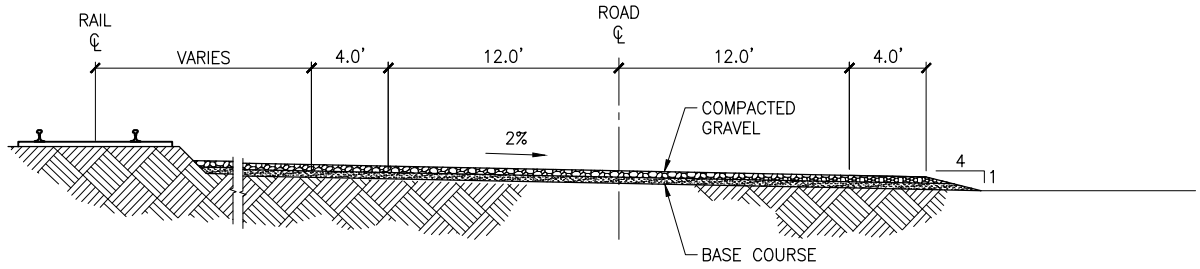

TYPICAL ROAD SECTION - DEVELOPED AREA

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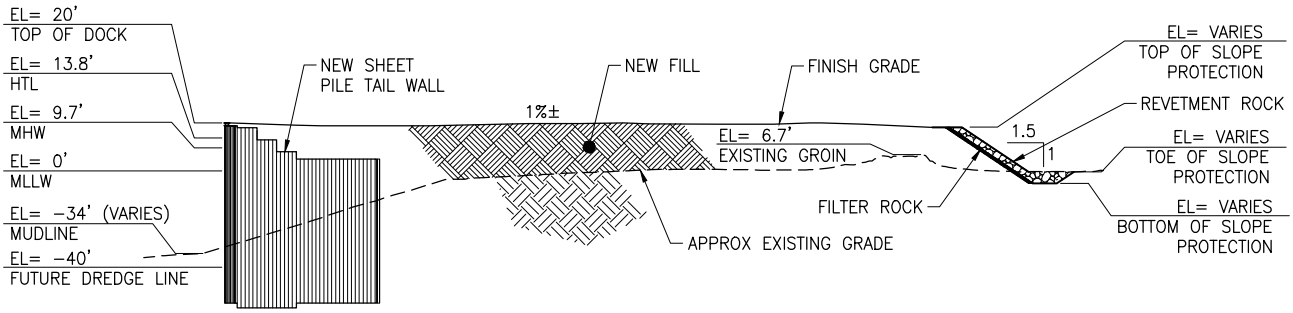

TYPICAL OPEN CELL SHEET PILE DOCK SECTION B-B

NTS

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TYPICAL SECTIONS

~~-POA--1965--00034--M23-~~

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SEWARD FREIGHT DOCK IMPROVEMENTS

IN: RESURRECTION BAY
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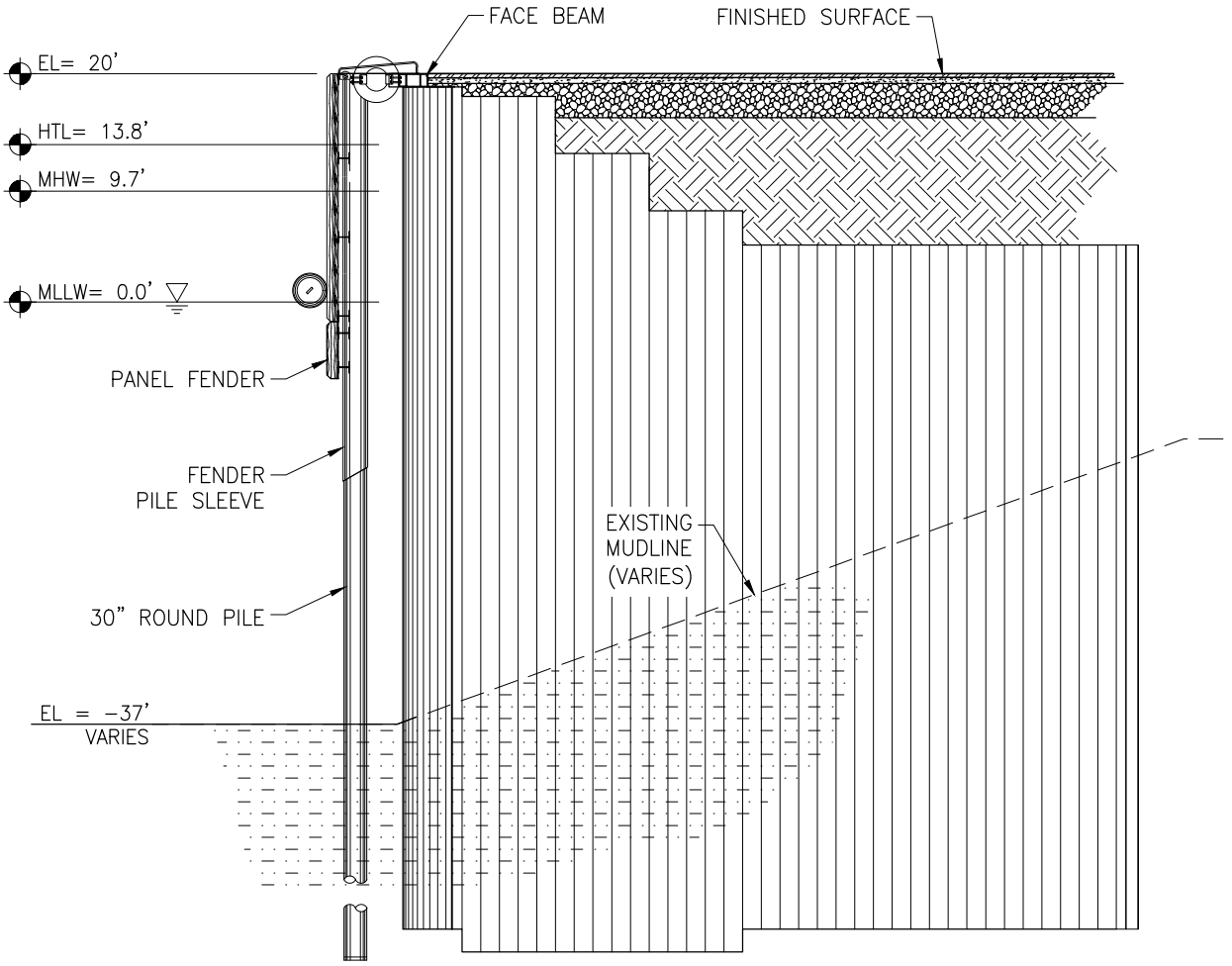
4/12/2024



PANEL FENDER TYPICAL SECTION

NTS

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NEW FENDERS

~~-POA--1965--00034--M23-~~

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SEWARD FREIGHT DOCK IMPROVEMENTS

IN: RESURRECTION BAY
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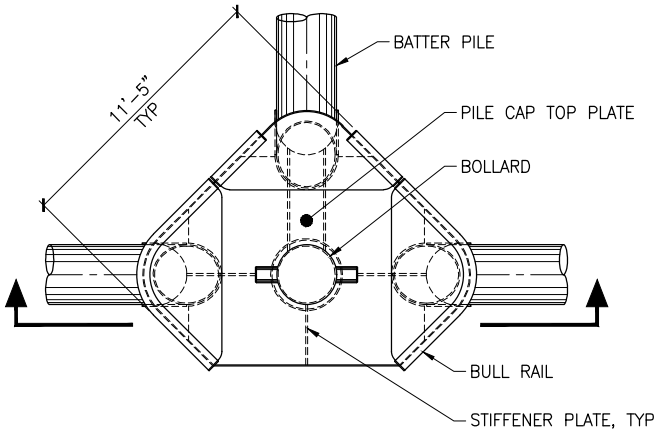
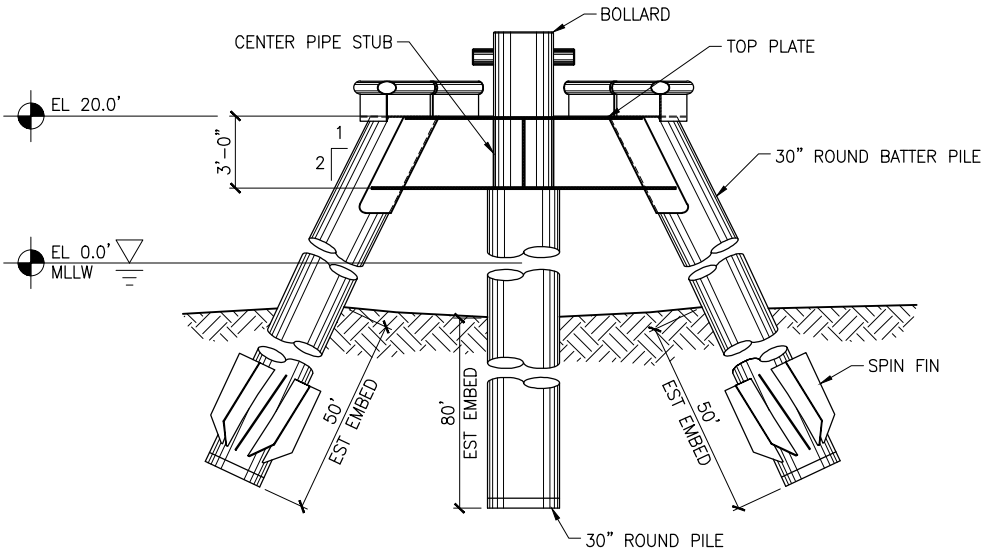
4/12/2024



PLAN



SECTION

4 PILE DOLPHIN

NTS

PURPOSE:
EXPAND AND IMPROVE FREIGHT DOCK AND TRANSPORTATION CORRIDOR

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4 PILE DOLHIN DETAILS

~~-POA--1965--00034--M23-~~

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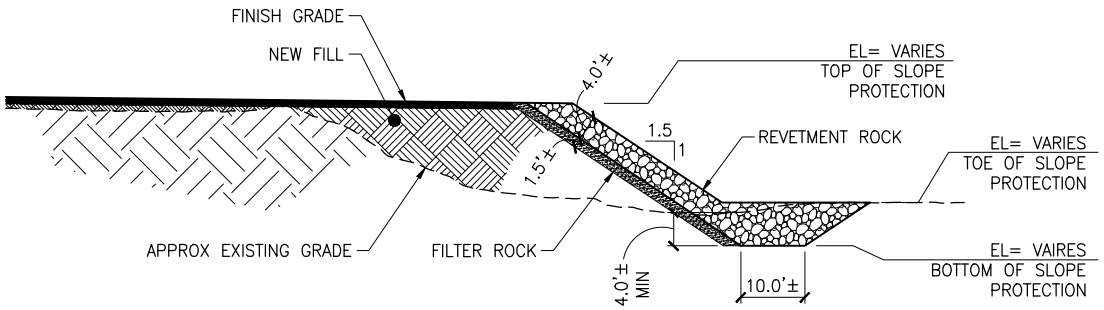
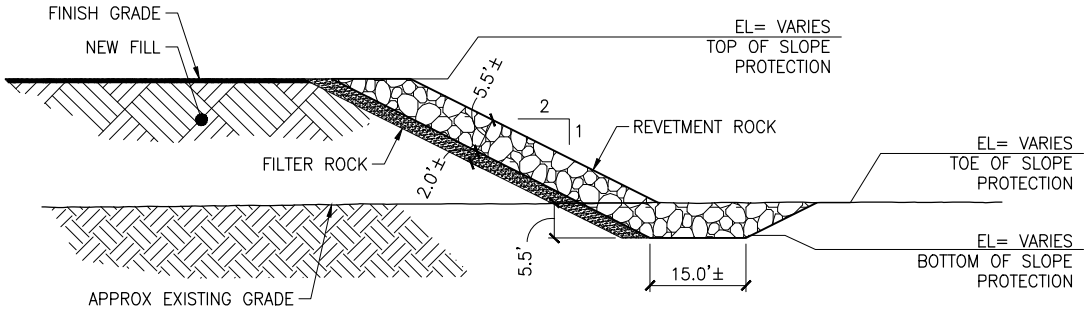
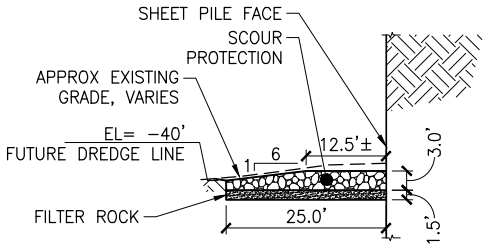


TYPICAL EAST REVETMENT SECTION C-C



TYPICAL SOUTH REVETMENT SECTION D-D



TYPICAL SCOUR PROTECTION SECTION E-E

PURPOSE: EXPAND AND IMPROVE FREIGHT DOCK AND TRANSPORTATION CORRIDOR DATUM: MLLW = 0.0' LAT: 60.119403° N LONG: 149.424646° W S: 3 T: 001S R: 001W SEWARD MERIDIAN	**TYPICAL REVETMENT SECTIONS** ~~-POA--1965--00034--M23-~~ ALASKA RAILROAD CORPORATION 327 WEST SHIP CREEK AVE ANCHORAGE, AK 99501	**SEWARD FREIGHT DOCK IMPROVEMENTS** IN: RESURRECTION BAY BY: CITY OF SEWARD 4/12/2024 SHEET **14** of **14**