



US Army Corps
of Engineers
Alaska District

Public Notice of Application for Permit

ANCHORAGE
Regulatory Division (1145)
CEPOA-RD
Post Office Box 6898
JBER, Alaska 99506-0898

PUBLIC NOTICE DATE:	March 15, 2022
EXPIRATION DATE:	April 14, 2022
REFERENCE NUMBER:	POA-2014-00064
WATERWAY:	Kuskokwim River

Interested parties are hereby notified that a Department of the Army permit application has been received for work in waters of the United States as described below and shown on the enclosed project drawings.

All comments regarding this Public Notice should be sent to the address noted above. If you desire to submit your comments by email, you should send it to the Project Manager's email as listed below or to regpagemaster@usace.army.mil. All comments should include the Public Notice reference number listed above.

All comments should reach this office no later than the expiration date of this public notice to become part of the record and be considered in the decision. Please contact Leslie Tose at (907) 753-5515, toll free from within Alaska at (800) 478-2712, by fax at (907) 753-5567, or by email at Leslie.w.tose@usace.army.mil if further information is desired concerning this notice.

APPLICANT: Mr. Dan Hall, Knik Construction Co., Inc., 6520 Kulis Dr., Suite 5, Anchorage, Alaska 99502, Phone: 907-245-1865

AGENT: Mr. Tom Mortensen, Tom Mortensen Associates, LLC, P.O. Box 113192, Anchorage, Alaska, 99511 Phone: 907-229-7400

LOCATION: The project site is located within Section 17, T. 8 N., R. 71 W., Seward Meridian; USGS Quad Map Bethel D-8; Latitude 60.7790° N., Longitude 161.7756° W.; two river miles downstream from Bethel, Alaska.

PURPOSE: The applicant's stated purpose is to improve docking operations, to increase navigation safety and to provide erosion protection at the Knik Construction Cargo Yard, also known as the Bethel Yard Dock (BYD), on the Kuskokwim River, at Bethel, Alaska.

PROPOSED WORK: To construct an open-cell steel bulkhead dock along approximately 1,100 linear feet of the Kuskokwim River shoreline at an average depth of -15 feet Mean Lower Low Water (MLLW). The total length of the docking area would be 1,600 linear feet. Approximately 50,000 cubic yards of sand and gravel fill and 1,600 cubic yards of riprap armor rock would be placed into 2.9 acres below the High Tide Line (HTL). Sand and gravel would be placed behind the face sheets and the riprap at both ends of the bulkhead. There would be one-48 inch diameter culvert installed in the bulkhead for upland drainage. Also, 24-pipe pile dolphins would be placed just upstream of the bulkhead dock, to support smaller barges for upstream cargo transport.

All work would be performed in accordance with the enclosed plan (sheets 1 - 7), dated February 11, 2022.

ADDITIONAL INFORMATION:

- Fish Habitat Permit FH22-II-0023, Issued January 31, 2022, Expires October 31, 2023.
- DNR Tideland Lease ADL 231839, existing 10-acre lease, in process of expansion by 5-acres

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:

- Complete avoidance is not possible because the proposed bulkhead dock is a water dependent project and must be located within navigable waters of the U.S. to satisfy the project purpose.
- No special aquatic sites or wetlands would be affected.
- The dimensions proposed would be the minimum necessary to accommodate up to two-ocean-going barges (typically 360 foot x 100 foot and 389 foot x 96 foot) docked parallel to the channel.

b. Minimization:

- Project impacts would be minimized by use of clean sand and gravel fill.
- The docking structure would have an erosion control function, as the site is located on a high cut bank of the river. The structure would be constructed in sufficient water depth to eliminate the need for initial and maintenance dredging of the river channel, and to maintain safe navigation depths. Riprap would be used at both ends of the bulkhead cargo dock to reinforce the structure against erosion.
- Sheet pile and dolphins would be installed using vibratory pile hammers. An impact hammer may be used for final proofing.

- All in-water pile driving occurring from June 15 to August 15 would be limited to one continuous 12-hour period per day. A 12-hour continuous period with no in-water pile driving would occur within each 24-hour cycle.
- No fuel would be stored, no vehicles would be fueled or serviced, and vehicles leaking fuel, hydraulic fluids, or other pollutants would not be operated below the MHW of the Kuskokwim River.
- Two days prior to beginning work, the applicant would notify the ADF&G Habitat Section shall by email at dfg.hab.infoanc@alaska.gov or by phone at (907) 267-2342.

c. Compensatory Mitigation: The applicant believes that the project avoidance and minimization are appropriate and applicable for the mitigation.

WATER QUALITY CERTIFICATION: A permit for the described work will not be issued until a certification or waiver of certification, as required under Section 401 of the Clean Water Act (Public Law 95-217), has been received from the Alaska Department of Environmental Conservation.

CULTURAL RESOURCES: The latest published version of the Alaska Heritage Resources Survey (AHRs) has been consulted for the presence or absence of historic properties, including those listed in or eligible for inclusion in the National Register of Historic Places. There are no cultural resources in the permit area or within the vicinity of the permit area. Consultation of the AHRs constitutes the extent of cultural resource investigations by the Corps at this time, and we are otherwise unaware of the presence of such resources. The Corps has made a No Historic Properties Affected (No Effect) determination for the proposed project. This application is being coordinated with the State Historic Preservation Office (SHPO). Any comments SHPO may have concerning presently unknown archeological or historic data that may be lost or destroyed by work under the requested permit will be considered in our final assessment of the described work. The Corps is requesting the SHPO's concurrence with this determination.

ENDANGERED SPECIES: No threatened or endangered species are known to use the project area. We have determined the described activity would have no effect on any listed or proposed threatened or endangered species and would have no effect on any designated or proposed critical habitat, under the Endangered Species Act of 1973 (87 Stat. 844). Therefore, no consultation with the U.S. Fish and Wildlife Service or the National Marine Fisheries Service (NMFS) is required. However, any comments they may have concerning endangered or threatened wildlife or plants or their critical habitat will be considered in our final assessment of the described work.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH).

The project area is within the known range of all 5 species of salmon (Chinook, chum, coho, pink, and sockeye) and other species such as Arctic lamprey, humpback whitefish, least cisco, Pacific lamprey, sheefish, and whitefish.

We are currently gathering information regarding these species and have yet to make a determination of effect. Should we find that the described activity may affect the species listed above, we will follow the appropriate course of action under Section 305(b)(2) of the Magnuson-Stevens Act. Any comments the National Marine Fisheries Service may have concerning essential fish habitat will be considered in our final assessment of the described work.

TRIBAL CONSULTATION: The Alaska District fully supports tribal self-governance and government-to-government relations between Federally recognized Tribes and the Federal government. Tribes with protected rights or resources that could be significantly affected by a proposed Federal action (e.g., a permit decision) have the right to consult with the Alaska District on a government-to-government basis. Views of each Tribe regarding protected rights and resources will be accorded due consideration in this process. This public notice serves as notification to the Tribes within the area potentially affected by the proposed work and invites their participation in the Federal decision-making process regarding the protected Tribal right or resource. Consultation may be initiated by the affected Tribe upon written request to the District Commander during the public comment period.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, reasons for holding a public hearing.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts, which the proposed activity may have on the public interest, requires a careful weighing of all the factors that become relevant in each particular case. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. The outcome of the general balancing process would determine whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur. The decision should reflect the national concern for both protection and utilization of important resources. All factors, which may be relevant to the proposal, must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency's 404(b)(1) guidelines. Subject to the preceding sentence and any other applicable guidelines or criteria (see Sections 320.2 and 320.3), a permit will be granted unless the District Commander determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

AUTHORITY: This permit will be issued or denied under the following authorities:

(X) Perform work in or affecting navigable waters of the United States – Section 10 Rivers and Harbors Act 1899 (33 U.S.C. 403).

(X) Discharge dredged or fill material into waters of the United States – Section 404 Clean Water Act (33 U.S.C. 1344). Therefore, our public interest review will consider the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).

Project drawings and a Notice of Application for State Water Quality Certification are enclosed with this Public Notice.

District Commander
U.S. Army, Corps of Engineers

Enclosures



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

Any applicant for a federal license or permit to conduct an activity that might result in a discharge into navigable waters, in accordance with Section 401 of the Clean Water Act (CWA) of 1977 (PL95-217), also must apply for and obtain certification from the Alaska Department of Environmental Conservation that the discharge will comply with the CWA, the Alaska Water Quality Standards, and other applicable State laws.

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' Reference Number *POA 2014-64, KUSKOKWIM RIVER*, has been received for the discharge of dredged and/or fill materials into waters of the United States (WOUS), including wetlands, as described in the Corps public notice and project figures/drawings (18 AAC 15.180).

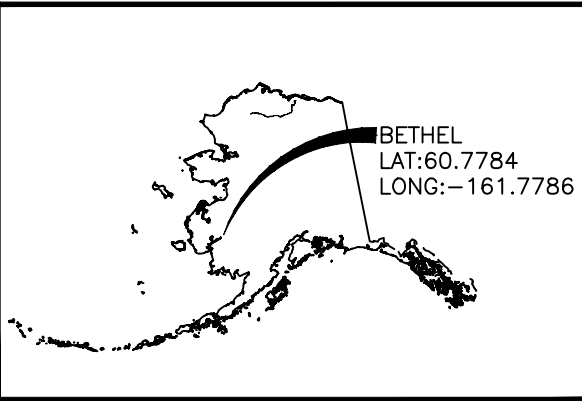
Any person desiring to comment on the project with respect to water quality, may submit comments electronically via email to DEC-401cert@alaska.gov by the expiration date of the Corps of Engineer's public notice. All comments need to include the Corps public notice reference number in the subject heading. Physically mailed comments must be postmarked on or before the expiration date of the public notice.

After reviewing the application, the Department may certify there is reasonable assurance the activity, and any discharge that might result, will comply with the CWA, the Alaska Water Quality Standards, and other applicable State laws. The Department also may deny or waive certification.

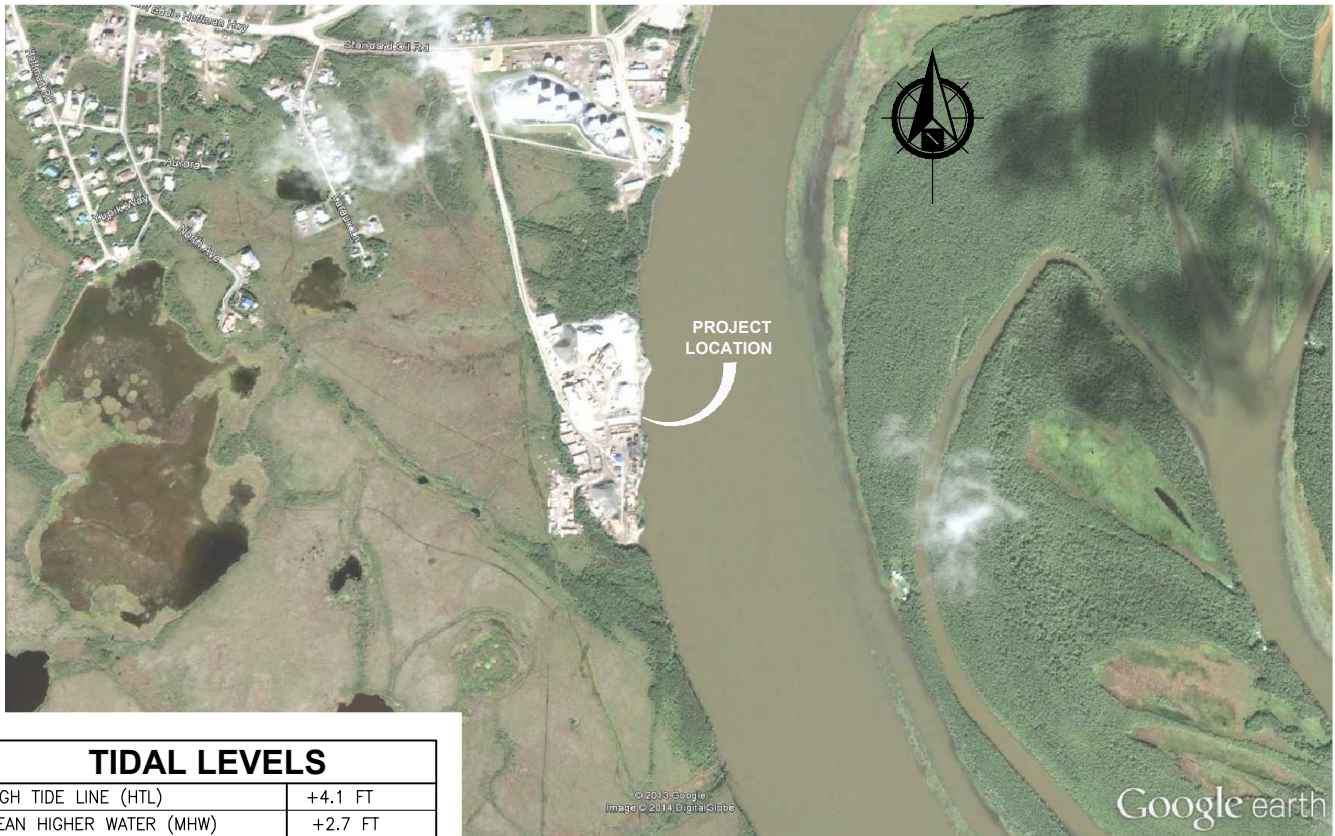
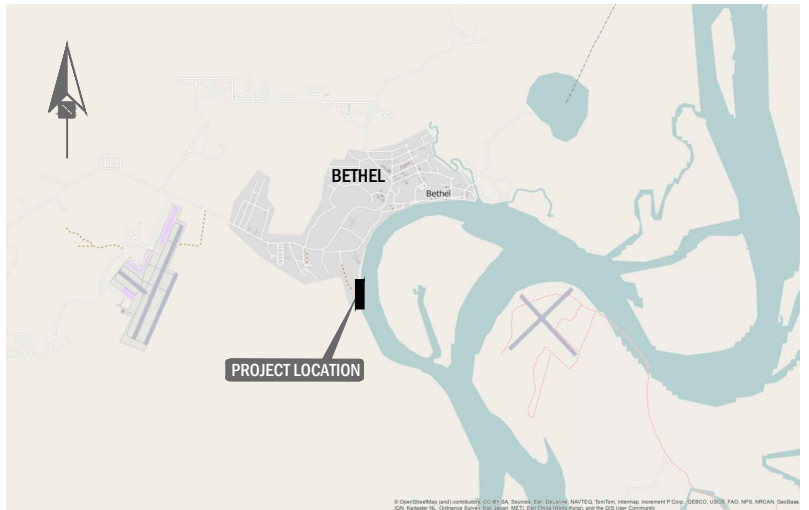
The permit application and associated documents are available for review. For inquires or to request copies of the documents, contact dec-401cert@alaska.gov, or call 907-269-6285.

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 Brian Blessington at 907-269-6272 or TDD Relay Service 1-800-770-8973/TTY or dial 711 within 5 days of the expiration date of this public notice to ensure that any necessary accommodations can be provided.



LOCATION MAP



TIDAL LEVELS	
HIGH TIDE LINE (HTL)	+4.1 FT
MEAN HIGHER WATER (MHW)	+2.7 FT
MEAN LOWER LOW WATER (MLLW)	+0.0 FT

PURPOSE:
 SHEET PILE DOCK AND DOLPHINS
 FOR EROSION PROTECTION,
 NAVIGATION SAFETY, AND
 FREIGHT TRANSFER.

DATUM: MLLW= 0.0

SEC.017 T8W R71W
 LAT: 60.7784
 LONG: -161.7786

VICINITY MAP

KNIK CONSTRUCTION CO., INC.
 6520 KULIS DRIVE
 ANCHORAGE, AK 99502

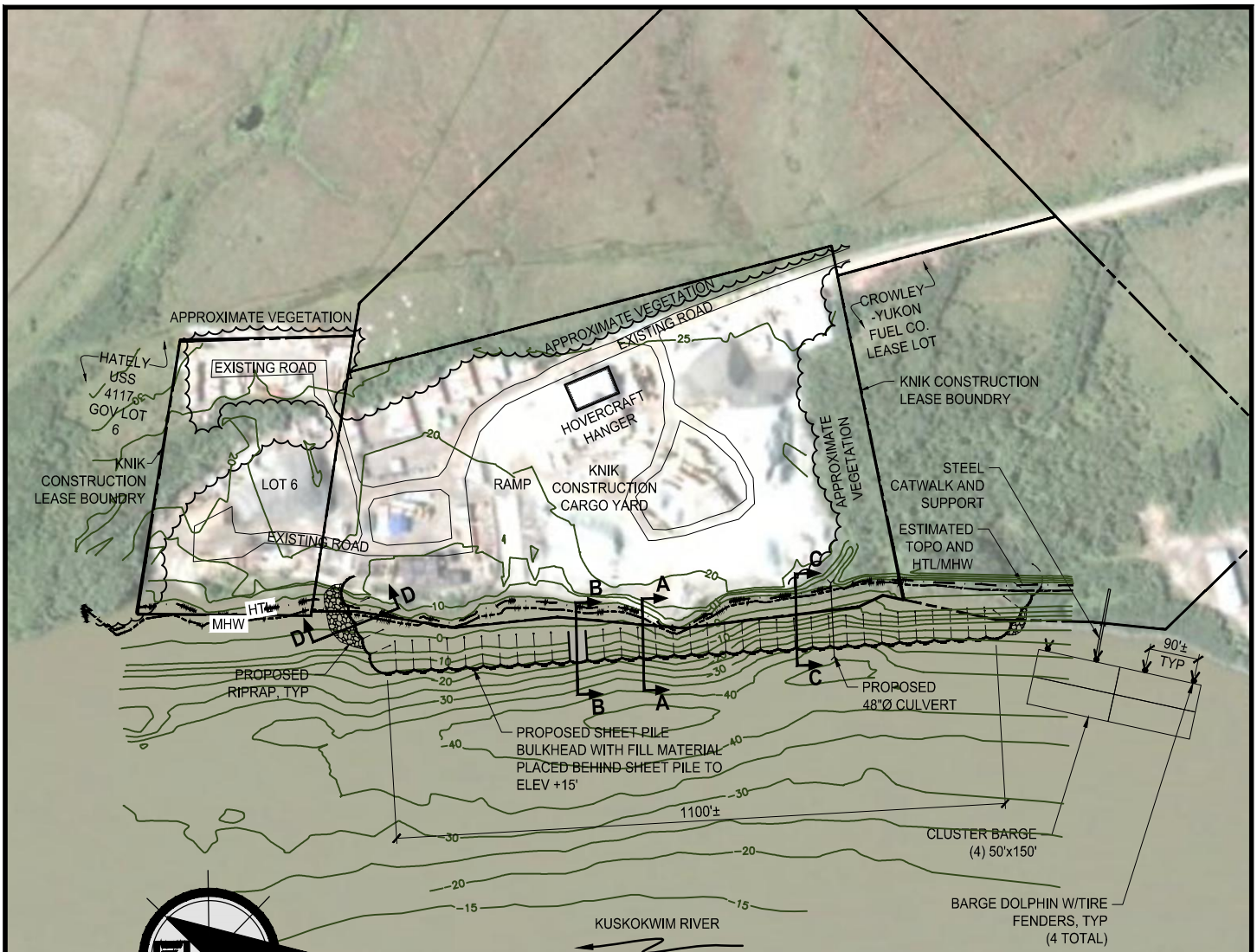
02/11/22

**KNIK CONSTRUCTION
 BETHEL YARD DOCK**

AT: BETHEL, AK
 IN: KUSKOKWIM RIVER

POA-2014-00064

SHEET 1 of 7



TIDAL LEVELS	
HIGH TIDE LINE (HTL)	+4.1 FT
MEAN HIGHER WATER (MHW)	+2.7 FT
MEAN LOWER LOW WATER (MLLW)	+0.0 FT

PILE QUANTITIES			
TYPE	TOTAL	BELOW HTL	BELOW MHW
SHEET PILE	1,900 EA	1,840 EA	1,825 EA
48"Ø DOLPHIN KING PILE	4 EA	4 EA	4 EA
24"Ø DOLPHIN BATTER PILE	8 EA	8 EA	8 EA
24"Ø CATWALK SUPPORT PILE	4 EA	4 EA	4 EA
30"Ø MOORING BOLLARD PILE	12 EA	-	-

NOTE:
BATHYMETRY SURVEY PERFORMED OCTOBER 2013 AND MAY 2014

FILL QUANTITIES			
	DOCK FILL (CY)	RIPRAP (CY)	FOOTPRINT (ACRE)
TOTAL	105,000	1,900	4.0
BELOW HTL	50,000	1,600	2.8
BELOW MHW	44,000	1,400	2.6

PURPOSE:
SHEET PILE DOCK AND DOLPHINS FOR EROSION PROTECTION, NAVIGATION SAFETY, AND FREIGHT TRANSFER.

DATUM: MLLW= 0.0

SEC.017 T8W R71W
LAT: 60.7784
LONG: -161.7786

SITE PLAN

KNIK CONSTRUCTION CO., INC.
6520 KULIS DRIVE
ANCHORAGE, AK 99502

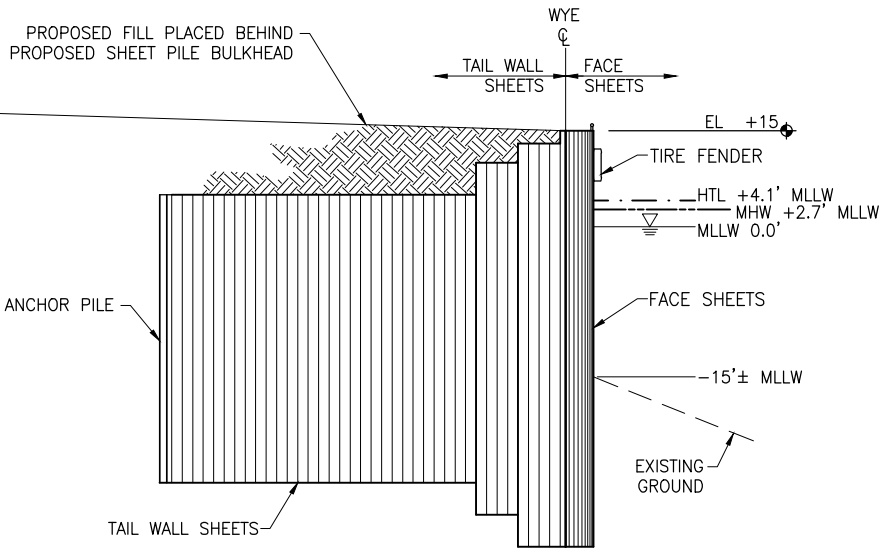
02/11/22

**KNIK CONSTRUCTION
BETHEL YARD DOCK**

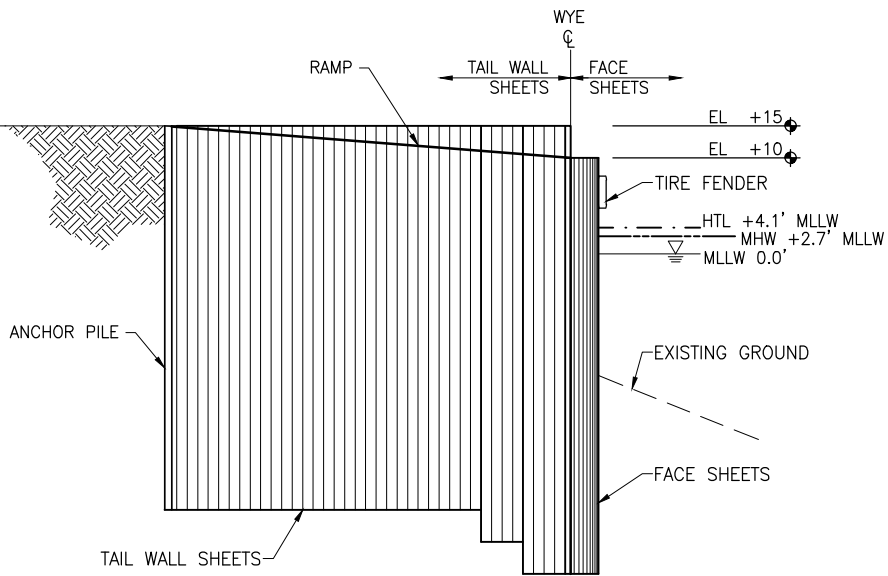
AT: BETHEL, AK
IN: KUSKOKWIM RIVER

POA-2014-00064

SHEET 2 of 7



SECTION A-A
NTS



SECTION B-B
NTS

TIDAL LEVELS	
HIGH TIDE LINE (HTL)	+4.1 FT
MEAN HIGHER WATER (MHW)	+2.7 FT
MEAN LOWER LOW WATER (MLLW)	+0.0 FT

PURPOSE:
SHEET PILE DOCK AND DOLPHINS FOR EROSION PROTECTION, NAVIGATION SAFETY, AND FREIGHT TRANSFER.

DATUM: MLLW= 0.0
SEC.017 T8W R71W
LAT: 60.7784
LONG: -161.7786

SECTIONS

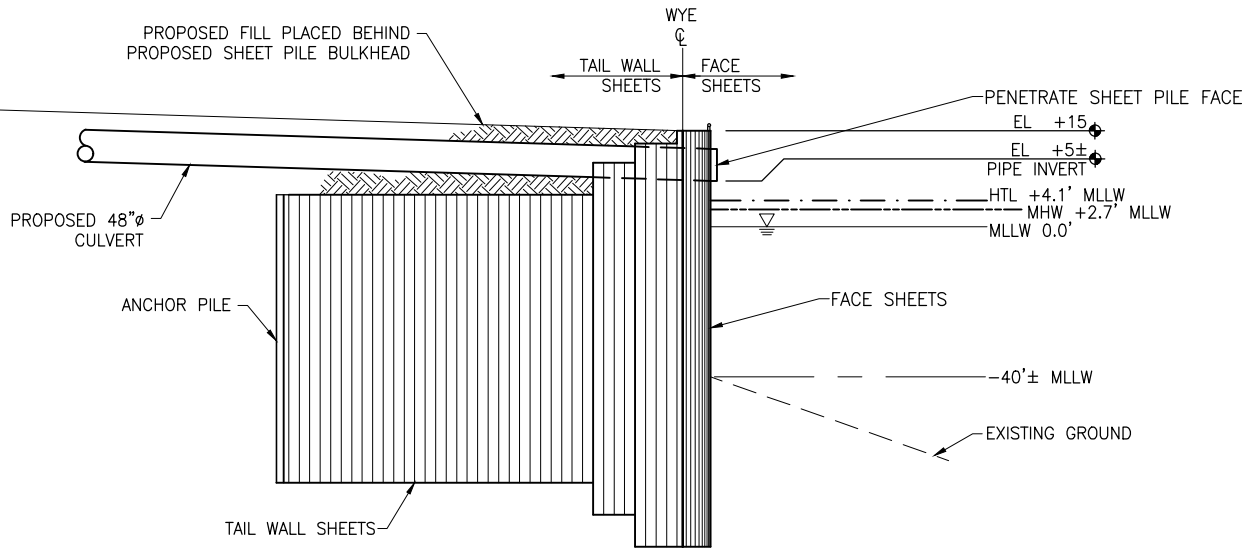
KNIK CONSTRUCTION CO., INC.
6520 KULIS DRIVE
ANCHORAGE, AK 99502

02/11/22

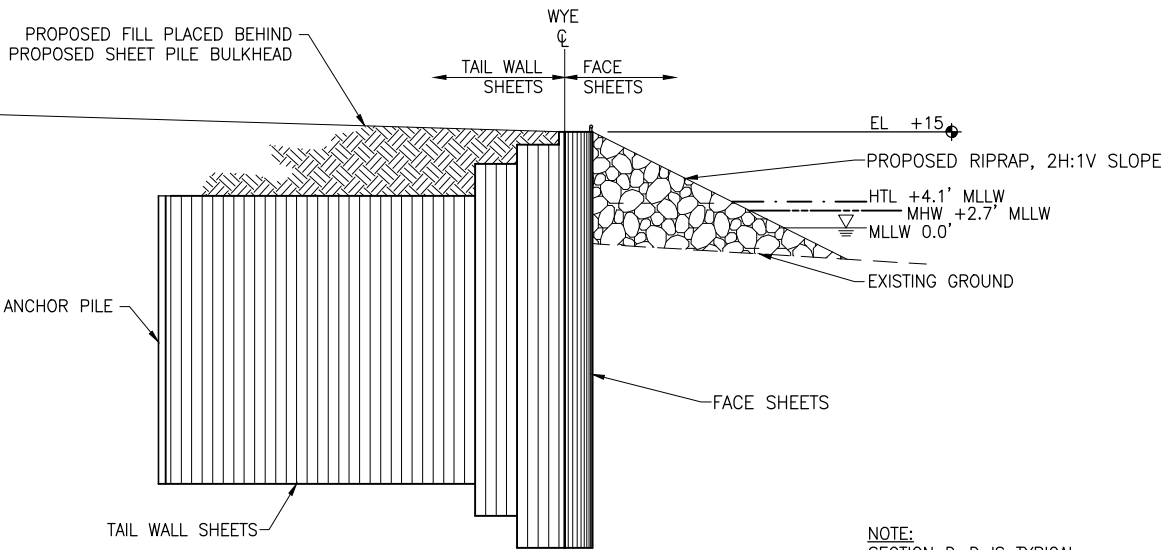
**KNIK CONSTRUCTION
BETHEL YARD DOCK**

AT: BETHEL, AK
IN: KUSKOKWIM RIVER
POA-2014-00064

SHEET 3 of 7



SECTION C-C
NTS



SECTION D-D
NTS

NOTE:
SECTION D-D IS TYPICAL
FOR BOTH ENDS OF DOCK.

TIDAL LEVELS

HIGH TIDE LINE (HTL)	+4.1 FT
MEAN HIGHER WATER (MHW)	+2.7 FT
MEAN LOWER LOW WATER (MLLW)	+0.0 FT

PURPOSE:
SHEET PILE DOCK AND DOLPHINS
FOR EROSION PROTECTION,
NAVIGATION SAFETY, AND
FREIGHT TRANSFER.

DATUM: MLLW= 0.0

SEC.017 T8W R71W

LAT: 60.7784

LONG: -161.7786

SECTIONS

KNIK CONSTRUCTION CO., INC.
6520 KULIS DRIVE
ANCHORAGE, AK 99502

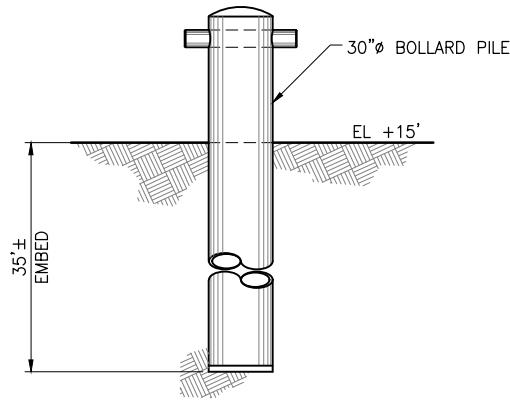
02/11/22

**KNIK CONSTRUCTION
BETHEL YARD DOCK**

AT: BETHEL, AK
IN: KUSKOKWIM RIVER

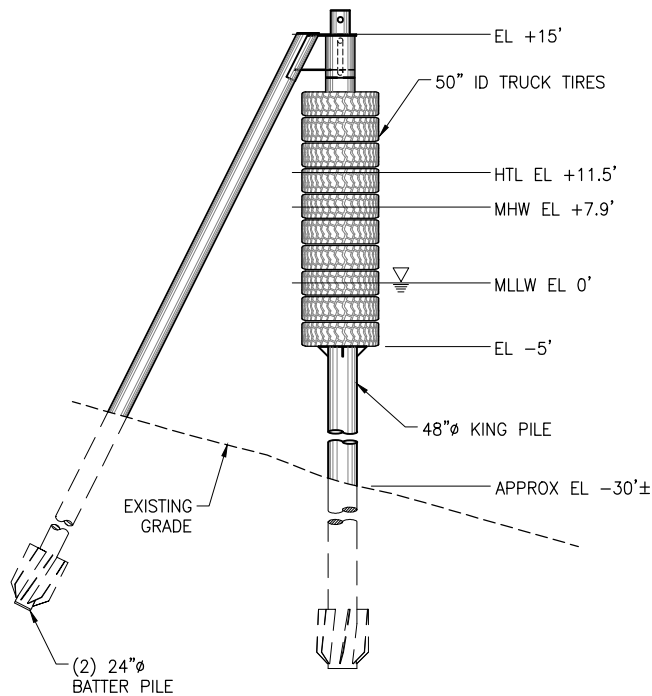
POA-2014-00064

SHEET 4 of 7



MOORING BOLLARD

NTS



BARGE DOLPHIN

NTS

PURPOSE:
SHEET PILE DOCK AND DOLPHINS
FOR EROSION PROTECTION,
NAVIGATION SAFETY, AND
FREIGHT TRANSFER.

DATUM: MLLW= 0.0

SEC.017 T8W R71W

LAT: 60.7784

LONG: -161.7786

DOLPHIN AND BOLLARD

KNIK CONSTRUCTION CO., INC.
6520 KULIS DRIVE
ANCHORAGE, AK 99502

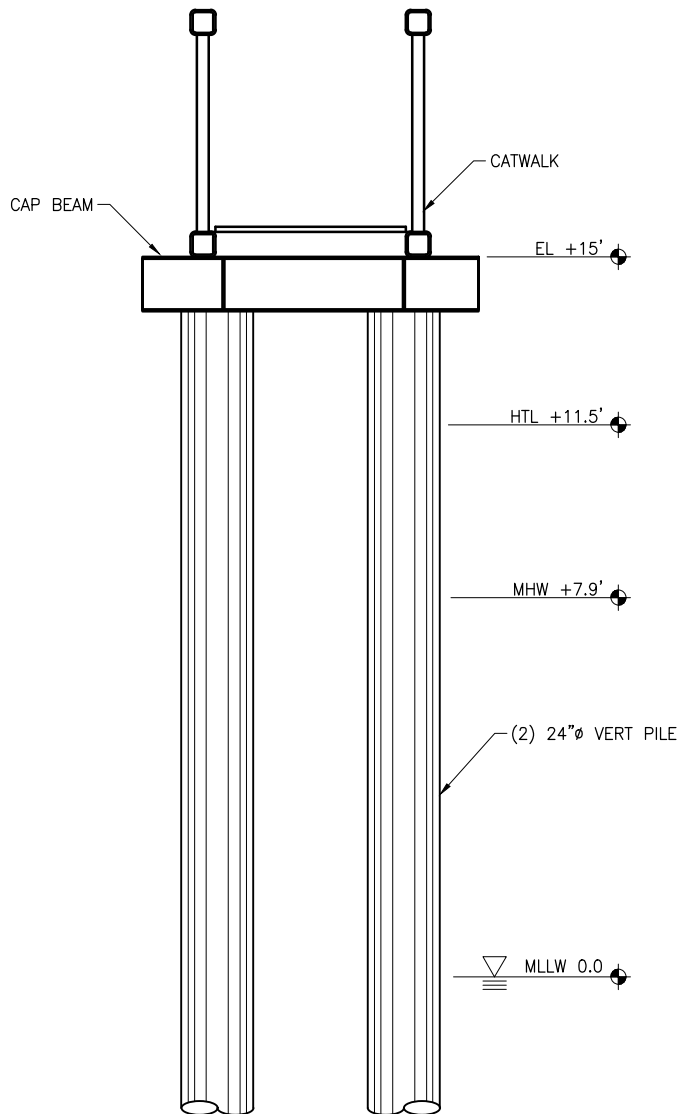
02/11/22

**KNIK CONSTRUCTION
BETHEL YARD DOCK**

AT: BETHEL, AK
IN: KUSKOKWIM RIVER

POA-2014-00064

SHEET 5 of 7



CATWALK SUPPORT
ELEVATION

NTS

PURPOSE:
SHEET PILE DOCK AND DOLPHINS
FOR EROSION PROTECTION,
NAVIGATION SAFETY, AND
FREIGHT TRANSFER.

DATUM: MLLW= 0.0

SEC.017 T8W R71W

LAT: 60.7784

LONG: -161.7786

CATWALK SUPPORT

KNIK CONSTRUCTION CO., INC.
6520 KULIS DRIVE
ANCHORAGE, AK 99502

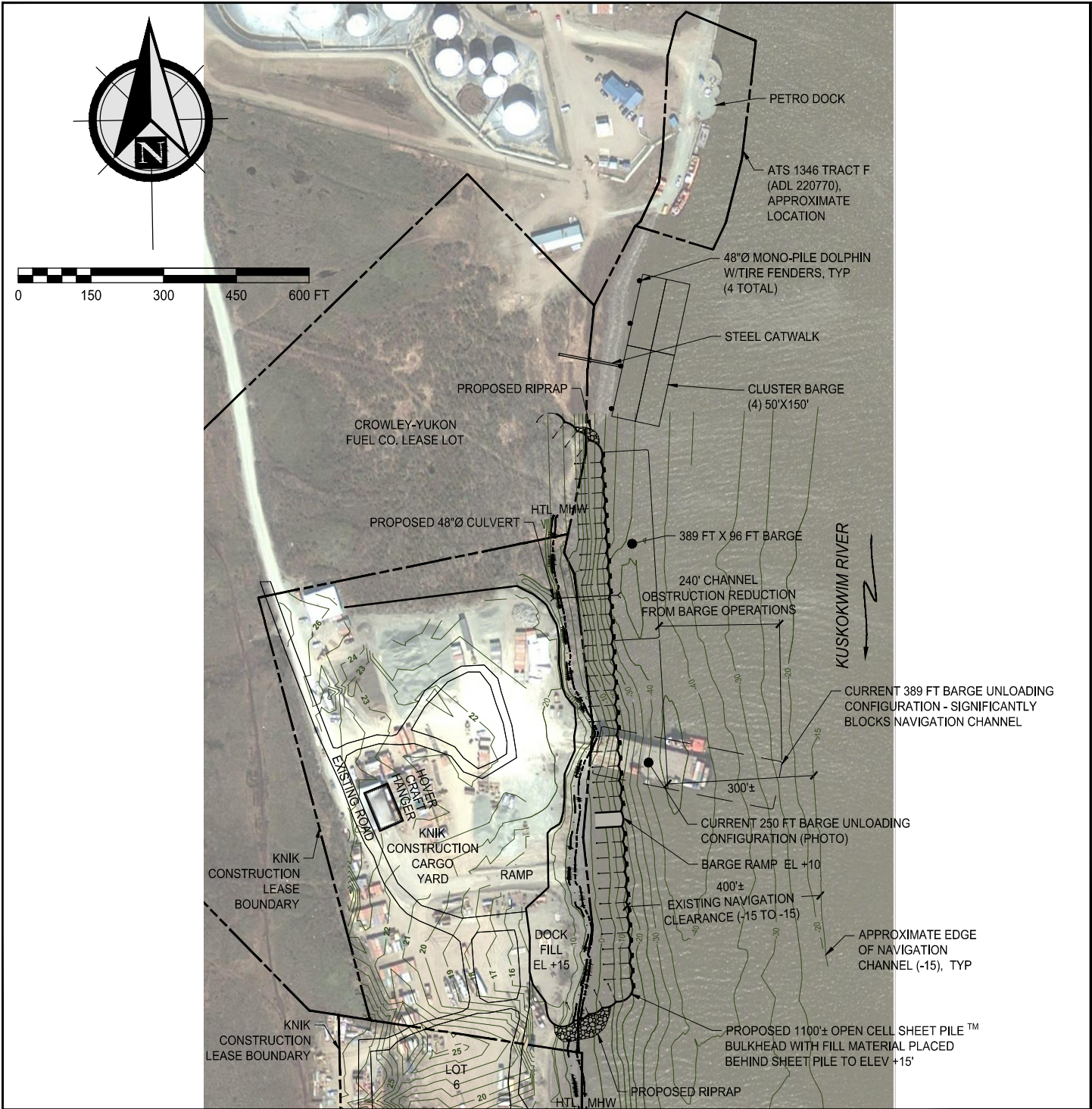
02/11/22

**KNIK CONSTRUCTION
BETHEL YARD DOCK**

AT: BETHEL, AK
IN: KUSKOKWIM RIVER

POA-2014-00064

SHEET 6 of 7



PURPOSE:
 SHEET PILE DOCK AND DOLPHINS
 FOR EROSION PROTECTION,
 NAVIGATION SAFETY, AND
 FREIGHT TRANSFER.

DATUM: MLLW= 0.0

SEC.017 T8W R71W

LAT: 60.7784

LONG: -161.7786

NAVIGATION PLAN

KNIK CONSTRUCTION CO., INC.
 6520 KULIS DRIVE
 ANCHORAGE, AK 99502

02/11/22

**KNIK CONSTRUCTION
 BETHEL YARD DOCK**

AT: BETHEL, AK
 IN: KUSKOKWIM RIVER

POA-2014-00064

SHEET 7 of 7

TOM MORTENSEN ASSOCIATES, LLC
ENVIRONMENTAL PERMITTING & MANAGEMENT

PO. BOX 113192 ANCHORAGE, ALASKA 99511-3192 • TEL (907) 345-3400

January 3, 2022

Department of the Army
U.S. Army Engineer District, Alaska
Regulatory Division
P.O. Box 6898
JBER, Alaska 99506-0898

Attn.: Mr. Ryan Winn,
Chief, North Section

Re: Knik Construction Co., Inc. Bethel Yard Dock.
Proposed Sheetpile Bulkhead Dock and Pipe Pile Dolphins on the Kuskokwim River
at Bethel, Alaska. Within T8N R71W, Section 17, Seward Meridian.

As the authorized agent for the Knik Construction Co., Inc., Tom Mortensen Associates LLC is submitting this application for a DA permit to authorize work in Section 10 and Section 404 waters of the U.S. The proposed project is the construction of a steel sheet pile bulkhead dock and pipe pile dolphins along the right bank of the Kuskokwim River located about 2 miles downstream of the City of Bethel, Alaska. The proposed project is located at the applicant's Bethel Yard Dock (BYD), at Bethel.

This proposed project is a modification to the DA permit application (POA-2014-64) that was withdrawn prior to completing the permit review process. The previous DA permit application was submitted on February 4, 2014, public noticed on February 19, 2014, and withdrawn on November 12, 2014. A copy of the permit application withdrawal letter dated November 12, 2014 is attached.

Attached is a signed DA permit application form 4345 and permit drawings for the proposed project.

This letter contains a description of the project and additional information that is referenced in the attached DA permit application form.

Additional information pertinent to the proposed project is contained in Attachment A.

Project Location

The proposed project is located along the right bank of the Kuskokwim River about 2 river miles downstream of the boat harbor at Bethel, Alaska. The upland location adjacent to the project is within Lot 44A of Plat 2007-20, Bethel Recording District. Plat 2007-20 is an amended survey of USS 4117 located within T8N R71W, Section 17, Seward Meridian.

The existing marine cargo transfer and staging operations on the uplands is owned and operated by the applicant, the Knik Construction Co., Inc. The applicant is the long-term lessee of the uplands located within Lot 44A of Plat 2007-20.

Proposed Project, Sheet Pile Bulkhead Dock and Pipe Pile Dolphins. Nature of the Activity

The proposed project will be located in the navigable waters of the Kuskokwim River below the High Tide Line (HTL, at +4.1' MLLW). The proposed project is the construction of an open-cell steel sheet pile bulkhead dock and pipe pile dolphins located parallel to the shore along the right bank of the Kuskokwim River at Bethel, Alaska. Rip rap armor rock will be placed at the upstream and downstream limits of the bulkhead for the purpose of erosion protection. The proposed sheetpile bulkhead will be about 1,100 linear feet long parallel to the shore. The location is on a river cutbank where the river channel is naturally deep for navigation purposes. Being on a river cutbank also has naturally high bank erosion by the river. The proposed sheetpile bulkhead is for a cargo dock, and to provide erosion protection. The total length of the bulkhead perimeter and dolphins will be about 1,600 linear feet.

The proposed sheetpile bulkhead will be located from above the HTL with the toe of the bulkhead dock face at about the - 15' MLLW depth in the Kuskokwim River channel. A water depth of -15 feet MLLW at the dock face is necessary for docking ocean-going barges and tugs. The -15 foot MLLW is the maximum vessel draft that can traverse the shallows at Oscar's Crossing located downriver. Locating the proposed dock face at -15 feet MLLW also means the dock is located outside the navigation channel for heavy ocean-going barges. It is anticipated that no maintenance dredging will be needed to maintain the -15' MLLW depth at the bulkhead dock.

The river bed and bank below HTL within the proposed fill placement area behind the proposed bulkhead is unvegetated fine sands and silt.

The proposed work is expected to begin in May 2023, and be completed in October 2023.

The steel sheet pile and pipe pile dolphins will be placed with crane-mounted vibratory hammers. The placement of fill material behind the installed sheet pile will be done by using standard heavy equipment including end-dumps, side-dumps, excavators, dozers and compactors. The placement of rip rap armor rock at the upstream and downstream ends of the bulkhead will be done with excavators and cranes.

Existing Operations at the Applicant's Cargo Yard

The applicant's existing marine cargo transfer and staging operations yard is shoreward of the proposed sheet pile bulkhead project.

The existing and continuing operations at the applicant's cargo yard include:

- Gravel import/export.
- Cargo and equipment staging and transload facility.
- General construction cargo operations.
- Winter storage for construction cargo & equipment.
- Hovercraft facility, operations and maintenance.

Project Purpose

The purpose of the bulkhead dock will be for the docking of marine vessels and the transfer of containers, bulk commodities, break bulk and general cargo, equipment and supplies.

The bulkhead dock and pipe pile dolphins will be used seasonally by cargo barges, tugs and other marine vessels.

The proposed bulkhead dock and pipe pile dolphins will improve the docking safety and increase the efficiency and cargo capacity compared to the current beach barge docking operations. Barge docking at the proposed sheet pile bulkhead and pipe pile dock will result in the increased navigation safety along the adjacent river channel. The increased navigation safety will be due to the wider navigable river channel available after the elimination of the present barge docking method. The present docking method requires barges be docked perpendicular to the river bank, instead of parallel to the bank as will be done at the proposed dock.

The proposed bulkhead and pipe pile dock will also provide for potential growth in cargo operations, and provide increased capacity for potential new cargo opportunities at the facility.

The bulkhead dock will increase the water depth at the current beach barge docking area for improved cargo barge navigation and efficiency, and will do so without the need of initial or maintenance dredging in the river channel.

The proposed bulkhead will also provide long-term erosion protection of the river bank at the existing barge docking beach below and upstream of the applicant's present upland operating yard.

Reasons for Discharge

The proposed placement of sand and gravel material behind the sheetpile bulkhead is necessary because it is a structural component of the open-cell sheetpile structure.

The placement of sand and gravel material behind the sheetpile bulkhead will provide additional operational area for the safe and efficient loading and unloading of marine cargo to and from marine vessels and the upland operating yard.

The placement of rip rap armor rock at both the upstream and downstream limits of the constructed bulkhead will provide erosion protection for the bulkhead.

Fill Placement

The open-cell sheet pile bulkhead dock will require the placement of sand, gravel and rip rap within about 2.8 acres of Kuskokwim River waters below the HTL.

The volume of the proposed fill material is about 50,000 cy of sand and gravel placed below the HTL.

The volume of the proposed rip rap armor rock fill material is about 1,600 cy placed below the HTL.

Source of Fill Material and Armor Rock.

Sand from existing commercial upland sources in Bethel will be used. Additional gravel topping material and rip rap armor rock will be obtained from existing commercial sources. The additional commercial sources of material will be determined at the time based on material suitability, availability and cost.

Avoidance, Minimization, Mitigation

Avoidance

Avoidance is not possible because the proposed bulkhead cargo dock must be located in adequately deep navigable waters of the U.S. The size of the proposed dock and fill area is the minimum size necessary to provide the needed size for barge docking and cargo transfer along the dock face, and to provide a docking area of adequate depth to eliminate the need for dredging the river channel.

Minimization

The minimization of project impacts by best management practices include the use of vibratory pile hammers, and placement of clean sand and gravel fill material behind the sheet pile wall, which will contain the fill and eliminate the introduction of suspended sediments into the river waters. The rip rap armor rock will be placed outside of the constructed sheet pile walls at both the upstream and downstream ends of the bulkhead dock. The rip rap will be placed with an excavator or crane, which will minimize the risk of sedimentation by the minimal disturbance of the river bottom sediments. The docking face will be constructed in sufficient water depth to eliminate the need for initial and maintenance dredging of the river channel, and to maintain safe navigation depths.

No special aquatic sites or wetlands will be filled by the proposed work at the proposed location.

Mitigation

The applicant believes that the project minimization is appropriate and is applicable for the mitigation.

If you have any questions regarding this application or require any additional information, please contact me at (907) 229-7400, or via e-mail at tom@mortensen.com.

Sincerely,



Thomas W. Mortensen
Agent for Applicant

cc: Dan Hall, President, Knik Construction Co., Inc.

attachments:

DA Permit Form 4345.
Agent Authorization Letter, Nov. 5, 2021.
Permit Drawings, Sheets 1 – 5, Oct. 20, 2021.
POA-2014-64, permit application withdrawal letter, Nov. 12, 2014.
Attachment A, Additional Project Information.

21-006

17. DIRECTIONS TO THE SITE

RIVER ACCESS: LOCATED ON THE RIGHT BANK OF THE KUSKOKWIM RIVER APPROXIMATELY 2 RIVER MILES DOWNSTREAM OF THE BETHEL BOAT HARBOR.

LAND ACCESS: CHIEF EDDIE HOFFMAN HWY. TO STANDARD OIL ROAD TO WINTER TRAIL RD. NO STREET ADDRESS.

18. Nature of Activity (Description of project, include all features)

THE PROPOSED CONSTRUCTION OF AN OPEN-CELL STEEL SHEETPILE BULKHEAD AND PIPE PILE DOLPHINS LOCATED PARALLEL TO THE SHORE ALONG THE RIGHT BANK OF THE KUSKOKWIM RIVER AT BETHEL, AK. THE PROPOSED SHEET PILE BULKHEAD WILL BE ABOUT 1,100 LINEAR FEET LONG PARALLEL TO THE SHORE. THE TOTAL LENGTH OF THE BULKHEAD AND DOLPHINS WILL BE ABOUT 1,600 LINEAR FEET. THE STEEL SHEET PILE AND DOLPHINS WILL BE PLACED WITH VIBRATORY HAMMERS. RIP RAP ARMOR ROCK WILL BE PLACED AT THE TOE OF THE SHEET PILE AT THE UPSTREAM AND DOWNSTREAM LIMITS OF THE BULKHEAD FOR THE PURPOSE OF EROSION PROTECTION. CLEAN SAND AND GRAVEL FILL MATERIAL WILL BE PLACED BEHIND AND SHOREWARD OF THE SHEET PILE WITH STANDARD HEAVY CONSTRUCTION EQUIPMENT. THE PROPOSED WORK IS EXPECTED TO BEGIN IN MAY 2023, AND BE COMPLETED IN OCTOBER 2023.

SEE ADDITIONAL INFORMATION CONTAINED IN APPLICATION COVER LETTER DATED 1/3/2022, AND ATTACHMENT A.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

1. THE SEASONAL DOCKING OF MARINE VESSELS AND THE TRANSFER OF CONTAINERS, BULK COMMODITIES, BREAK BULK AND GENERAL CARGO, EQUIPMENT AND SUPPLIES. 2. THE PROPOSED DOCK WILL IMPROVE THE DOCKING SAFETY, INCREASE EFFICIENCY AND CARGO CAPACITY COMPARED TO THE CURRENT BEACH DOCKING METHOD. THE BULKHEAD DOCK WILL ALSO PROVIDE FOR POTENTIAL GROWTH IN CARGO OPERATIONS, AND PROVIDE INCREASED CAPACITY FOR POTENTIAL NEW CARGO OPPORTUNITIES AT THE FACILITY. 3. INCREASE THE WATER DEPTH AT THE CURRENT BEACH BARGE DOCKING AREA FOR IMPROVED CARGO BARGE NAVIGATION SAFETY AND EFFICIENCY, AND WILL DO SO WITHOUT THE NEED OF INITIAL OR MAINTENANCE DREDGING IN THE RIVER CHANNEL. 4. PROVIDE LONG-TERM EROSION PROTECTION OF THE RIVER BANK.

SEE ADDITIONAL INFORMATION CONTAINED IN APPLICATION COVER LETTER DATED 1/3/2022, AND ATTACHMENT A.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

- 1) THE PLACED SAND AND GRAVEL MATERIAL BEHIND THE BULKHEAD IS A STRUCTURAL COMPONENT OF THE OPEN-CELL SHEET PILE STRUCTURE.
- 2) THE PLACED SAND AND GRAVEL MATERIAL BEHIND THE SHEET PILE BULKHEAD WILL PROVIDE ADDITIONAL OPERATIONAL AREA FOR THE LOADING AND UNLOADING OF MARINE CARGO.
- 3) THE PLACEMENT OF RIP RAP ARMOR ROCK AT BOTH THE UPSTREAM AND DOWNSTREAM LIMITS OF THE CONSTRUCTED BULKHEAD WILL PROVIDE EROSION PROTECTION FOR THE DOCK STRUCTURE.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
SAND AND GRAVEL FILL: +/- 50,000	RIP RAP ARMOR ROCK: +/- 1,600	(FILL VOLUMES ARE BELOW HTL)

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres +/- 2.8 ACRES OF FILL PLACED BELOW HTL IN THE KUSKOKWIM RIVER.
or
Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

AVOIDANCE: AVOIDANCE IS NOT POSSIBLE BECAUSE THE PROPOSED BULKHEAD CARGO DOCK MUST BE LOCATED IN ADEQUATELY DEEP NAVIGABLE WATERS OF THE U.S.

MINIMIZATION: THE SIZE OF THE PROPOSED PROJECT IS THE MINIMUM NEEDED TO MEET THE PROJECT PURPOSE. BEST MANAGEMENT CONSTRUCTION PRACTICES WILL MINIMIZE POTENTIAL IMPACTS TO AQUATIC RESOURCES.

MITIGATION: THE PROJECT MINIMIZATION IS APPROPRIATE AND APPLICABLE FOR MITIGATION.

SEE ADDITIONAL INFORMATION CONTAINED IN APPLICATION COVER LETTER DATED 1/3/2022, AND ATTACHMENT A.

24. Is Any Portion of the Work Already Complete? Yes No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address- SEE ATTACHED LIST OF PROPERTY OWNERS AND LESSEES.

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
NONE					

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT

DATE

SIGNATURE OF AGENT

DATE

William V. Motem

1/3/2022

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

Knik Construction Co., Inc.

DA Form 4345.

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody

The adjacent upland property that adjoins the waterway upstream and landward of the applicant's proposed project is a portion of Lot 44A of USS 4117. The BLM patent for the property is 50-68-0256.

Land Owner:

William Hatley
2518 Loussac Drive, Anchorage, Alaska 99517

Lessee:

Crowley Bulk Petroleum and Propane
380 Standard Oil Rd.
Bethel, AK 99559

Mailing Address:
P.O. Box 285
Bethel, AK 99599

The adjacent upland property that adjoins the waterway downstream of the applicant's proposed project is Lot 6 of USS 4117. The BLM patent for the property is 50-85-0496.

Land Owner:

William Hatley
2518 Loussac Drive, Anchorage, Alaska 99517



Knik Construction Co., Inc.
6520 Kulis Drive
Anchorage, AK 99502
Phone: (907) 245-1865
Fax: (907) 249-0250

Tom Mortenson
Tom Mortenson Associates LLC
P.O. Box 113192
Anchorage, Alaska 99511

November 5, 2021

SUBJECT: Agent Authorization for Corps Permit, Knik Construction Co. Dock Project at Bethel.

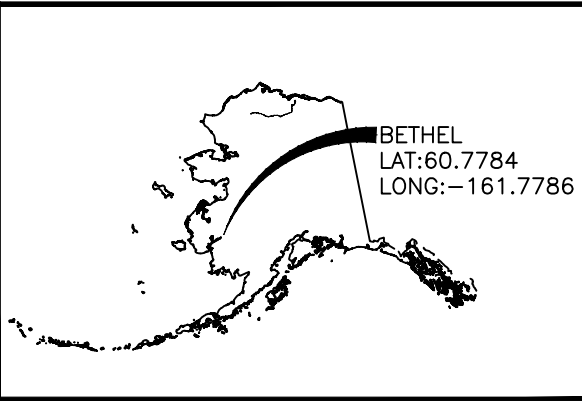
This letter is to serve as authorization for Tom Mortensen Associates LLC to act as agent on behalf of Knik Construction Co., Inc. relating to the application for a Department of the Army permit for the proposed construction of an open cell sheet pile dock and dolphins on the Kuskokwim River at Bethel, Alaska.

This authorization grants full agent authority to Tom Mortensen Associates LLC to address federal, state and local government regulatory personnel and present information pertinent to such regulatory and resource issues for Knik Construction Co., Inc. Final decisions on all issues related to permits, leases and other authorizations shall reside with Knik Construction Co., Inc. We require that you keep us fully informed on all matters concerning the permit process.

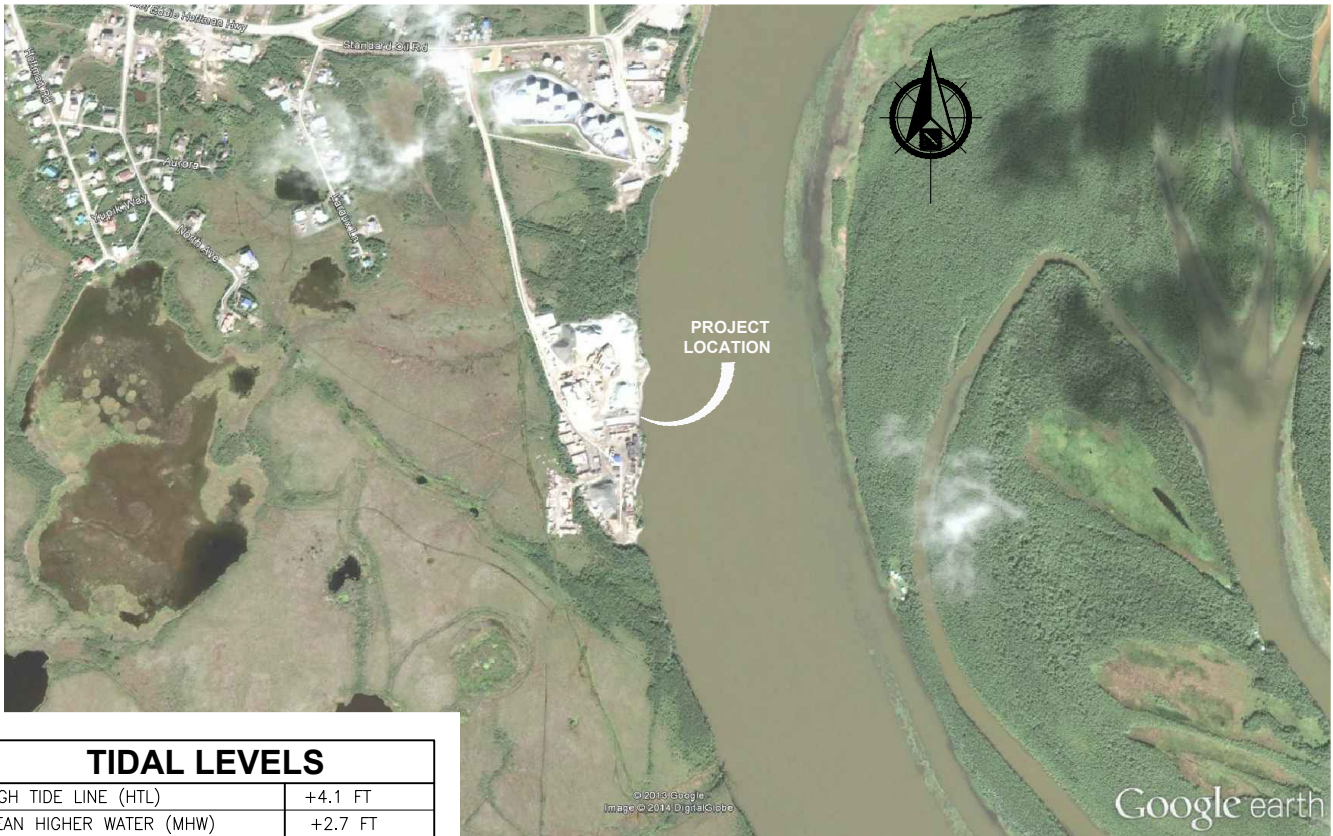
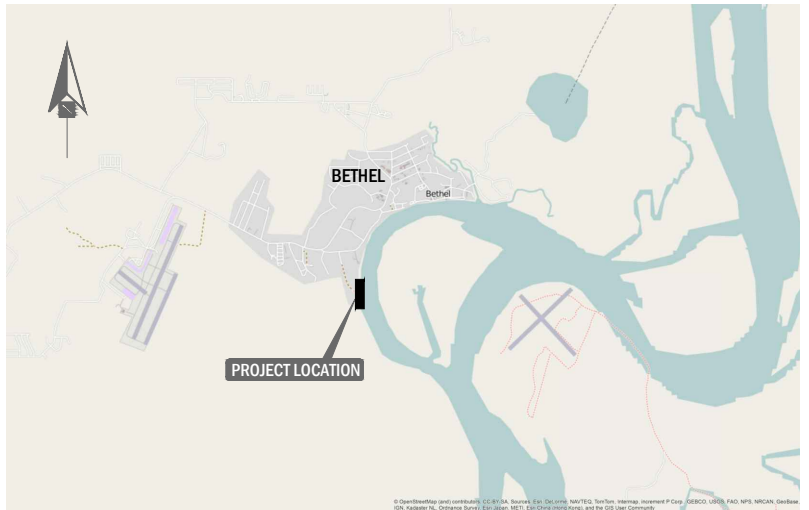
Sincerely,

A handwritten signature in black ink, appearing to read "Dan Hall", written over a horizontal line.

Dan Hall
President
Knik Construction Co., Inc.
Office: (907) 245-1865
Cell: (907) 444-4041
dhall@Lynden.com



LOCATION MAP



TIDAL LEVELS	
HIGH TIDE LINE (HTL)	+4.1 FT
MEAN HIGHER WATER (MHW)	+2.7 FT
MEAN LOWER LOW WATER (MLLW)	+0.0 FT

PURPOSE:
SHEET PILE DOCK AND DOLPHINS FOR EROSION PROTECTION, NAVIGATION SAFETY, AND FREIGHT TRANSFER.

DATUM: MLLW= 0.0
SEC.017 T8W R71W
LAT: 60.7784
LONG: -161.7786

VICINITY MAP

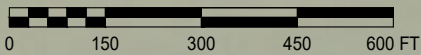
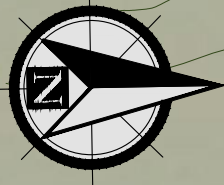
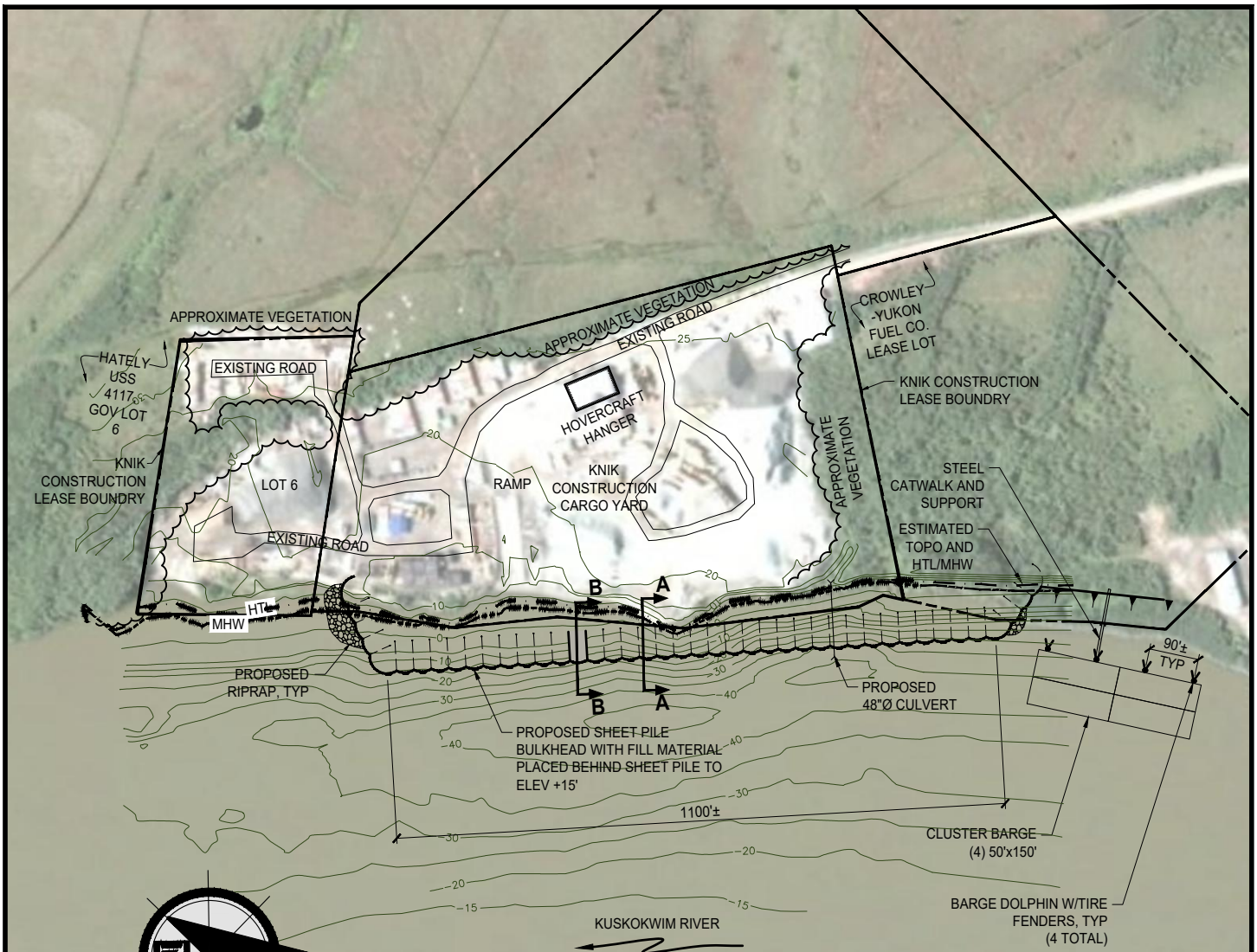
KNIK CONSTRUCTION CO., INC.
6520 KULIS DRIVE
ANCHORAGE, AK 99502

10/20/21

**KNIK CONSTRUCTION
BETHEL YARD DOCK**

AT: BETHEL, AK
IN: KUSKOKWIM RIVER

SHEET 1 of 5



TIDAL LEVELS	
HIGH TIDE LINE (HTL)	+4.1 FT
MEAN HIGHER WATER (MHW)	+2.7 FT
MEAN LOWER LOW WATER (MLLW)	+0.0 FT

PILE QUANTITIES			
TYPE	TOTAL	BELOW HTL	BELOW MHW
SHEET PILE	1,900 EA	1,840 EA	1,825 EA
48"Ø DOLPHIN KING PILE	4 EA	4 EA	4 EA
24"Ø DOLPHIN BATTER PILE	8 EA	8 EA	8 EA
24"Ø CATWALK SUPPORT PILE	4 EA	4 EA	4 EA
30"Ø MOORING BOLLARD PILE	12 EA	-	-

NOTE:
BATHYMETRY SURVEY PERFORMED OCTOBER 2013 AND MAY 2014

FILL QUANTITIES			
	DOCK FILL (CY)	RIPRAP (CY)	FOOTPRINT (ACRE)
TOTAL	105,000	1,900	4.0
BELOW HTL	50,000	1,600	2.8
BELOW MHW	44,000	1,400	2.6

PURPOSE:
SHEET PILE DOCK AND DOLPHINS FOR EROSION PROTECTION, NAVIGATION SAFETY, AND FREIGHT TRANSFER.

DATUM: MLLW= 0.0

SEC.017 T8W R71W
LAT: 60.7784
LONG: -161.7786

SITE PLAN

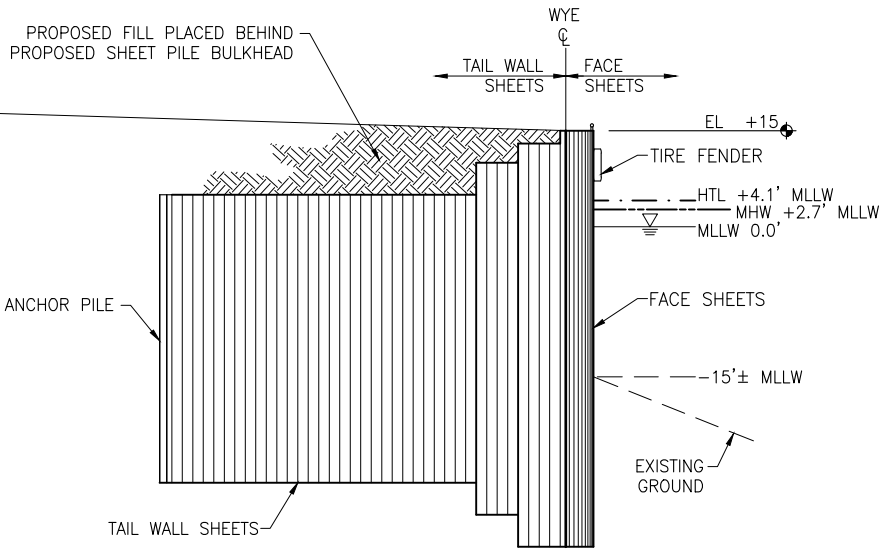
KNIK CONSTRUCTION CO., INC.
6520 KULIS DRIVE
ANCHORAGE, AK 99502

10/20/21

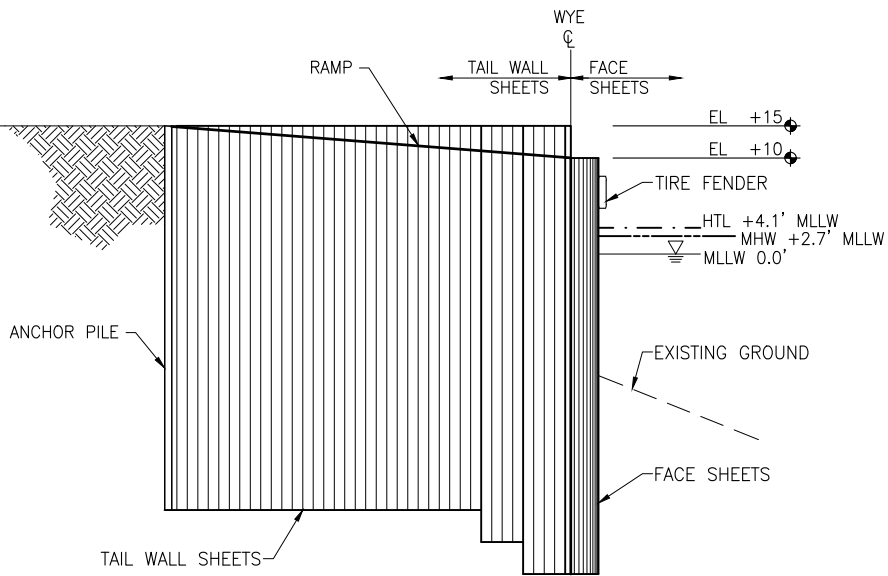
**KNIK CONSTRUCTION
BETHEL YARD DOCK**

AT: BETHEL, AK
IN: KUSKOKWIM RIVER

SHEET 2 of 5



SECTION A-A
NTS



SECTION B-B
NTS

TIDAL LEVELS	
HIGH TIDE LINE (HTL)	+4.1 FT
MEAN HIGHER WATER (MHW)	+2.7 FT
MEAN LOWER LOW WATER (MLLW)	+0.0 FT

PURPOSE:
SHEET PILE DOCK AND DOLPHINS FOR EROSION PROTECTION, NAVIGATION SAFETY, AND FREIGHT TRANSFER.

DATUM: MLLW= 0.0
SEC.017 T8W R71W
LAT: 60.7784
LONG: -161.7786

SECTIONS

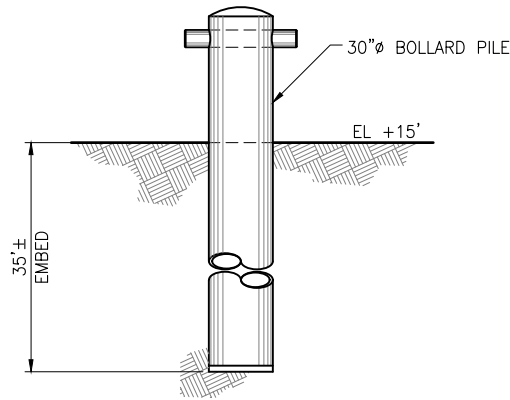
KNIK CONSTRUCTION CO., INC.
6520 KULIS DRIVE
ANCHORAGE, AK 99502

10/20/21

**KNIK CONSTRUCTION
BETHEL YARD DOCK**

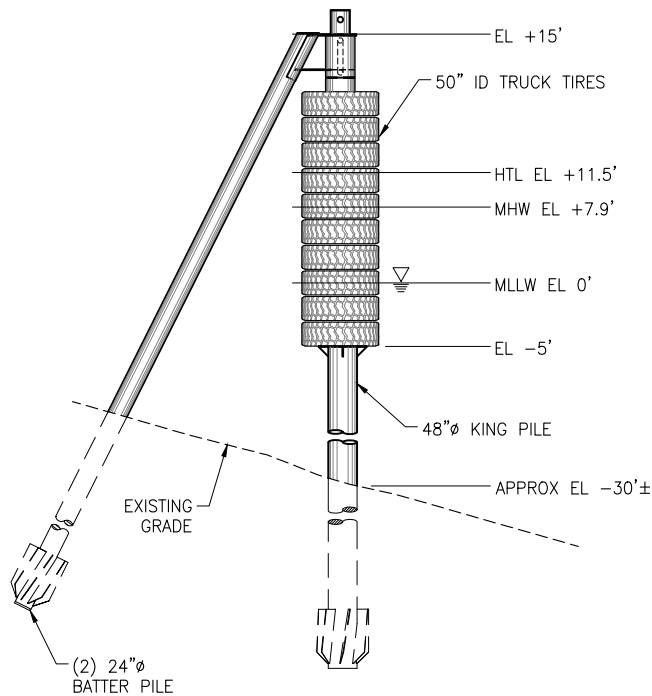
AT: BETHEL, AK
IN: KUSKOKWIM RIVER

SHEET 3 of 5



MOORING BOLLARD

NTS



BARGE DOLPHIN

NTS

PURPOSE:
SHEET PILE DOCK AND DOLPHINS
FOR EROSION PROTECTION,
NAVIGATION SAFETY, AND
FREIGHT TRANSFER.

DATUM: MLLW= 0.0

SEC.017 T8W R71W

LAT: 60.7784

LONG: -161.7786

DOLPHIN AND BOLLARD

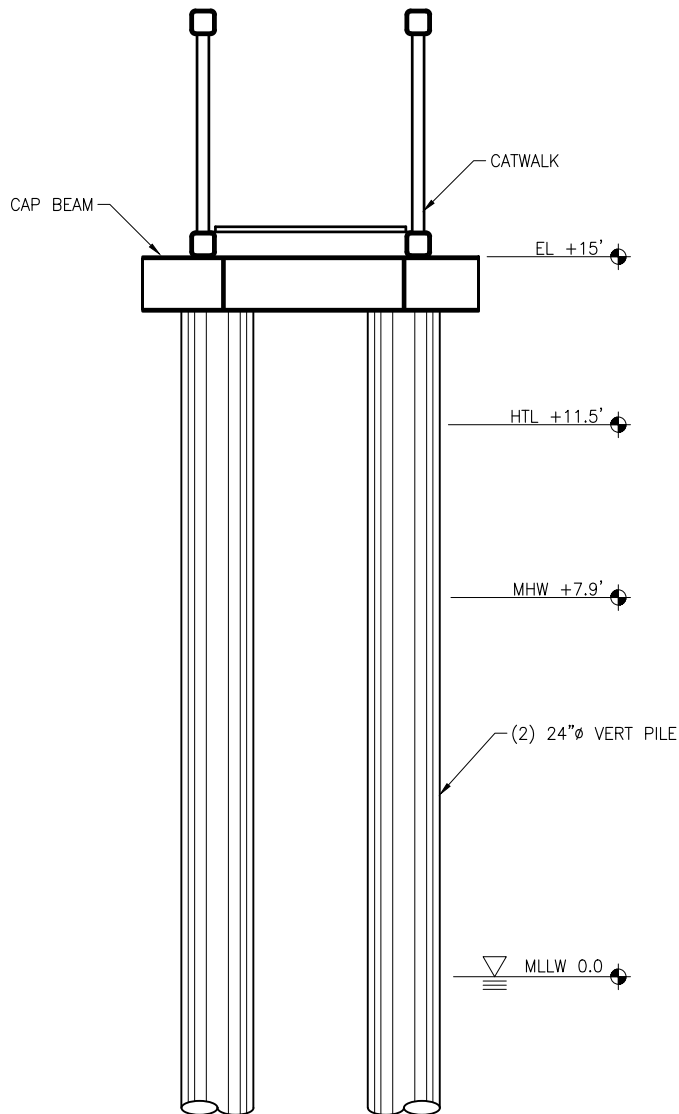
KNIK CONSTRUCTION CO., INC.
6520 KULIS DRIVE
ANCHORAGE, AK 99502

10/20/21

**KNIK CONSTRUCTION
BETHEL YARD DOCK**

AT: BETHEL, AK
IN: KUSKOKWIM RIVER

SHEET 4 of 5



**CATWALK SUPPORT
ELEVATION**

NTS

PURPOSE:
SHEET PILE DOCK AND DOLPHINS
FOR EROSION PROTECTION,
NAVIGATION SAFETY, AND
FREIGHT TRANSFER.

DATUM: MLLW= 0.0

SEC.017 T8W R71W

LAT: 60.7784

LONG: -161.7786

CATWALK SUPPORT

KNIK CONSTRUCTION CO., INC.
6520 KULIS DRIVE
ANCHORAGE, AK 99502

10/20/21

**KNIK CONSTRUCTION
BETHEL YARD DOCK**

AT: BETHEL, AK
IN: KUSKOKWIM RIVER

SHEET 5 of 5

TOM MORTENSEN ASSOCIATES, LLC
ENVIRONMENTAL PERMITTING & MANAGEMENT

P.O. BOX 113192 ANCHORAGE, ALASKA 99511-3192 • TEL (907) 345-3400

November 12, 2014

Department of the Army
U.S. Army Engineer District, Alaska
Regulatory Division
P.O. Box 6898
JBER, Alaska 99506-0898

Attn.: Ms. Estrella Campellone,
Project Manager

Re: POA-2014-64. Knik Construction Co., Inc. Bethel Yard Dock. Donlin Gold EIS.

Dear Ms. Campellone,

This letter is in response to your letter dated November 10, 2014 to Mr. Dan Hall of Knik Construction Co., Inc concerning the Bethel Yard Dock DA permit application POA-2014-64.

It is acknowledged that the withdrawal of the permit application by the applicant, Knik Construction Co., Inc. is being done voluntarily. It is understood that the Knik Construction Co., Inc proposed Bethel Yard Dock (BYD) project will be evaluated under the Donlin Gold Project Environmental Impact Statement (EIS). If additional information regarding the BYD is necessary for the EIS, Knik understands that the Corps will request such information through Donlin Gold LLC. It is understood that Knik Construction Co., Inc. will submit a new permit application to the Corps Regulatory Division as the Preliminary Final EIS nears completion.

It is further understood that Knik Construction Co., Inc may withdraw their Bethel Yard Dock permit application from the Donlin EIS review at such a time if Donlin's project review is significantly delayed, or if Donlin's proposed project is suspended or terminated. If such were to occur, it is further understood that Knik could then proceed with the BYD permit process independent of the Donlin Gold EIS. Knik Construction Co., Inc would then submit a new signed DA permit application with drawings showing the -15 foot depth of the dock face, along with other changes, if any.

If you have any questions regarding this letter please contact me at (907) 345-3400, or via e-mail at tom@mortensen.com.

Sincerely,



Thomas W. Mortensen
Agent for Applicant

cc: Dan Hall, V.P. Alaska Manager, Knik Construction Co., Inc.

ATTACHMENT A

ADDITIONAL PROJECT INFORMATION

NAVIGATION PLAN, IMPROVED NAVIGATION SAFETY

During the DA permit review process in 2014 a Navigation Plan for the 850' long bulkhead dock was completed on June 13, 2014. The Navigation Plan used river channel bathymetry obtained in October 2012 and October 2013. The Navigation Plan was submitted to the Corps Regulatory Branch, and also submitted to the U.S. Coast Guard, Anchorage Sector, for use in their Risk Assessment for the bulkhead dock. The USCG Risk Assessment for the construction phase of the 850' long bulkhead dock was completed on September 21, 2015.

The 2014 Navigation Plan shows the 850' long dock face at a minus 15 ft. MLLW. Which is the same water depth at the dock face of the current plans for the proposed 1,100' long bulkhead dock.

The placement of the dock face at -15 ft MLLW both reduces the project footprint and also moves the dock face outside of the navigation channel for heavy ocean-going barges

The 850' long dock facility proposed in 2014 would increase navigational clearance compared to the docking method of the barge being perpendicular to the channel. See the 2014 Navigation Plan, Dock Face at -15 ft. MLLW, Sheet 1 (below) showing the navigation clearance for the dock with the bulkhead face located at -15 ft MLLW.

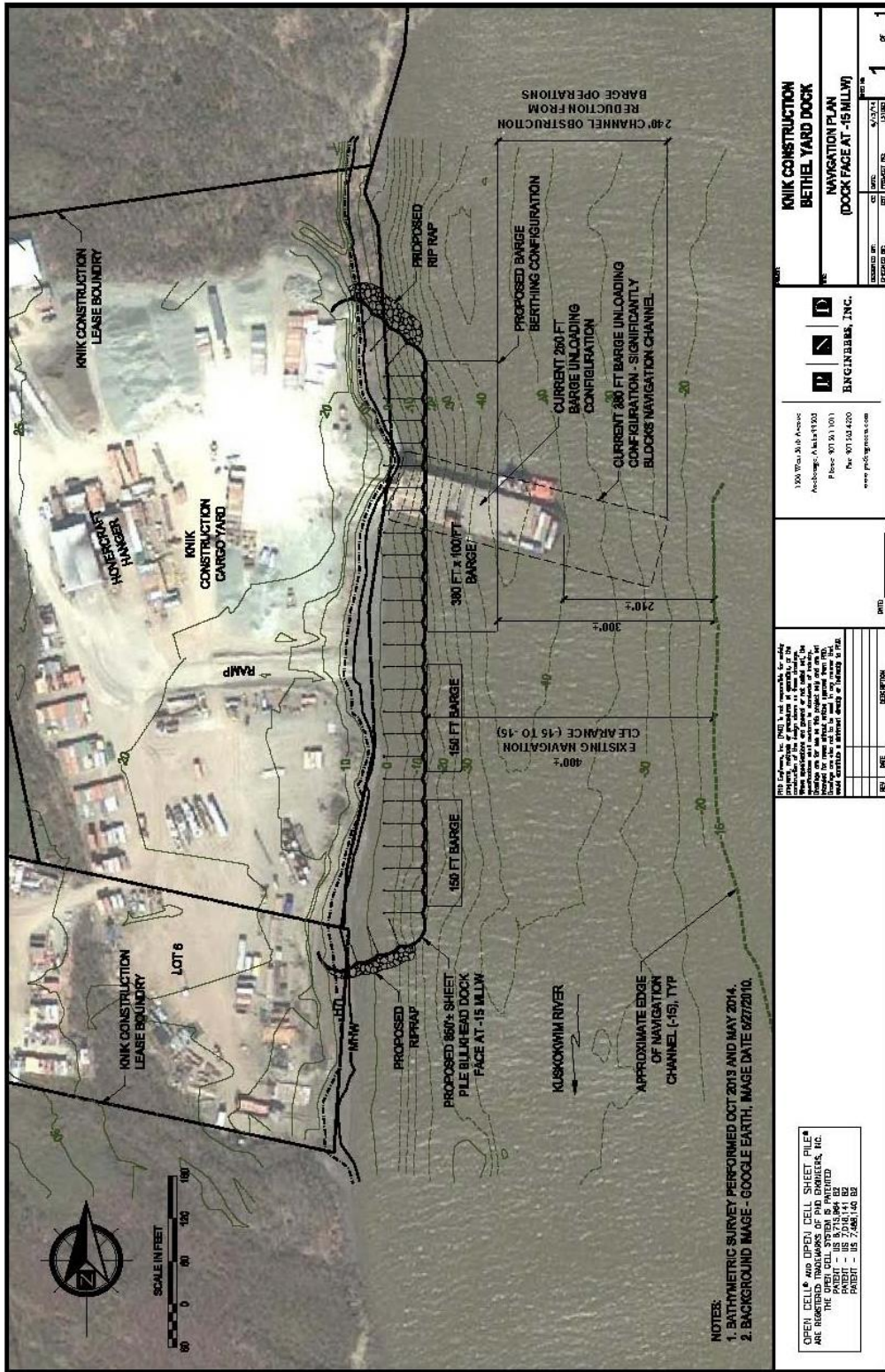
The 2014 Navigation Plan, Dock Face at -15 ft MLLW drawing depicts a 380 ft barge, the largest barge currently and planned to be used in the Knik / Alaska Marine Lines fleet for Kuskokwim operations. A larger vessel is not planned and is not practical for Kuskokwim River navigation.

The proposed 1,100' long sheet pile bulkhead dock and the pipe pile dolphins will be the same distance into the river channel, and have the same navigational clearance, as did the 2014 proposed bulkhead.

The conclusions of the 2014 Navigation Plan showed that there would be no adverse impacts on navigation on the Kuskokwim River resulting from the operation of the 2014 proposed 850' long dock. Therefore, for the 1,100' long proposed dock face also at -15 ft MLLW, there will be no adverse effect on navigation safety, delays or transportation costs for fuel and other products moving upstream on vessels past the proposed dock.

The location of the proposed 1,100' long bulkhead dock and dolphins is downstream of the other dock facilities at Bethel. Ocean-going barges (commonly 360' x 100' and 380' x 96') will arrive and depart the proposed dock without the need to proceed up river toward the Petro Dock or the City Dock. For ocean-going barges using the proposed dock an assist tug / tail boat will be used to increase navigation safety.

To increase navigation safety and reduce risk of collision and allusion for vessels transiting past the proposed dock, seasonal channel marker buoys will be placed opposite the proposed dock in order to mark the extent of the navigation channel. Area lighting at the dock will also be used during periods of darkness.



2014 Navigation Plan, Dock Face at -15' MLLW, Sheet 1.

Shows the navigation clearance for the 2014 proposed dock with the bulkhead face located at -15 ft MLLW. Shows the present docking method of the barge being perpendicular to the channel.

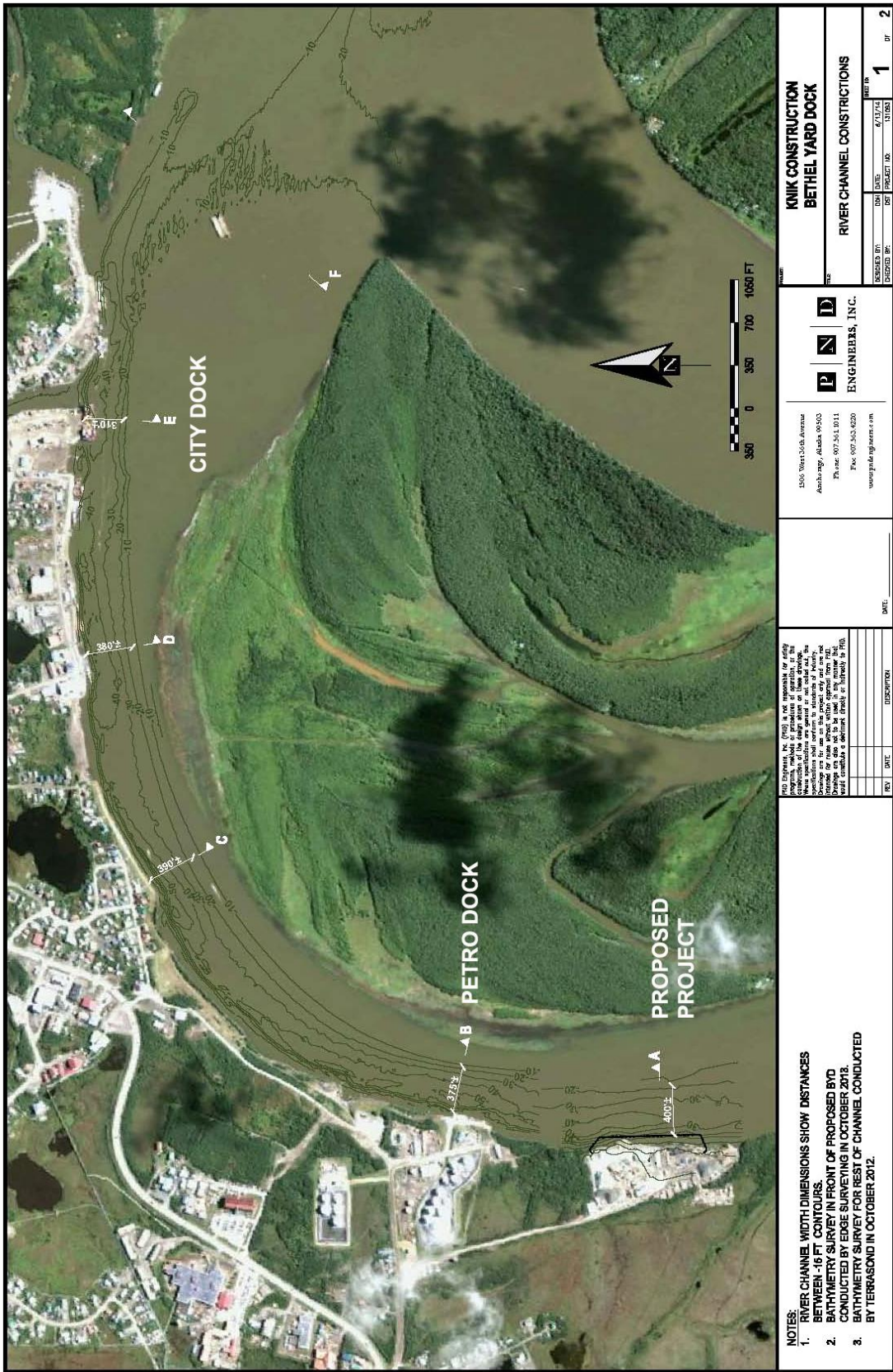
The proposed 1,100' long bulkhead dock and pipe pile dolphins will improve the docking safety and increase the efficiency and cargo capacity compared to the current beach barge docking operations. Barge docking at the proposed sheet pile bulkhead and pipe pile dock will result in the increased navigation safety along the adjacent river channel. The increased navigation safety will be due to the wider navigable river channel available after the elimination of the present barge docking method.

The present method requires barges be docked perpendicular to the river bank (See Navigation Plan, Dock Face at -15' MLLW, Sheet 1, above), instead of parallel to the bank as will be done at the proposed dock. With a 380' x 100' barge at the proposed dock, the navigable channel of the Kuskokwim River will be 90 feet wider than it is during the current method of docking a 250 foot long barge perpendicular to the river bank. If a 380' x 100' barge were docked in a configuration perpendicular to the river bank, the entire width of the navigable river channel would be blocked.

A water depth of -15 feet MLLW at the dock face is necessary for docking ocean-going barges and tugs. The -15 foot MLLW is the maximum vessel draft that can traverse the shallows at Oscar's Crossing located downriver. The -15 foot MLLW depth is the minimum needed at the dock face to dock heavy ocean-going barges and tugs. Locating the proposed dock face at -15 feet MLLW also means the dock is located outside the navigation channel for heavy ocean-going barges, and would restrict the navigation channel less than the current petroleum cargo berth located upstream, with 375 feet at the petroleum dock, compared to 400 feet at the proposed dock. See the 2014 Navigation Plan, River Channel Constrictions, Sheet 1, below.

The proposed facility (located at -15 ft MLLW) will not significantly affect navigation when vessels are not using the dock and significantly improves navigation for other users when vessels are using the proposed facility as compared to current barge docking operations.

Hovercraft operations are part of the applicant's operations, but are not part of the use of the proposed dock. Hovercraft operations are done year-round over open water during the summer season, and over the frozen river channel during the winter season.



NOTES:
 RIVER CHANNEL WIDTH DIMENSIONS SHOW DISTANCES BETWEEN 46 FT. CONTOURS.
 BATHYMETRY SURVEY IN FRONT OF PROPOSED BYD CONDUCTED BY EDGE SURVEYING IN OCTOBER 2013.
 BATHYMETRY SURVEY FOR REST OF CHANNEL CONDUCTED BY TERRASOOND IN OCTOBER 2012.

REV.	DATE	DESCRIPTION

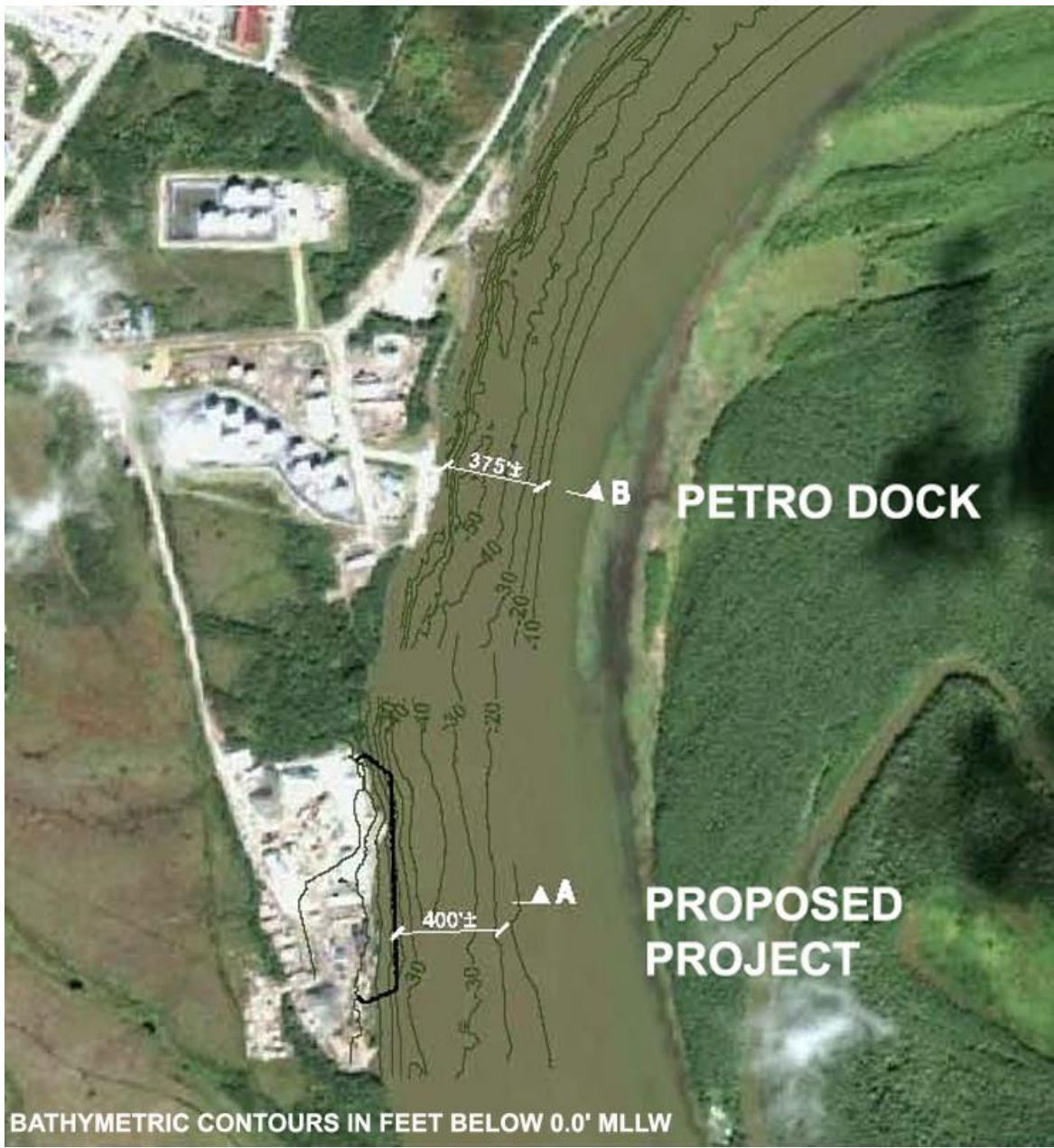
PRO Engineers, Inc. (PEI) is not responsible for any construction of the design shown on these drawings. PEI is not responsible for any construction that does not conform to the specifications and standards of the project. PEI is not responsible for any construction that does not conform to the specifications and standards of the project. PEI is not responsible for any construction that does not conform to the specifications and standards of the project. PEI is not responsible for any construction that does not conform to the specifications and standards of the project.

1500 West 50th Avenue
 Anchorage, Alaska 99503
 Phone: 907.561.9111
 Fax: 907.563.8230
 www.peiengineers.com

KNIK CONSTRUCTION
BETHEL YARD DOCK
 RIVER CHANNEL CONSTRICTIONS

DESIGNED BY:	DATE:	REV. NO.
CHECKED BY:	6/17/24	1
DATE:	11/2022	OF
PROJECT NO.:		2

2014 Navigation Plan, River Channel Constrictions, Sheet 1.



2014 Navigation Plan, River Channel Constrictions, Sheet 1. Detail.

Detail view of the Proposed Project and Petro Dock locations.

RIVER HYDROLOGY. CURRENT FLOW, SEDIMENT EROSION AND ACCRETION

The placement of the sheet pile dock at the -15 foot MLLW line will move the proposed dock at its closest point to about 25 feet from shore at the 0.0 MLLW line.

The proposed bulkhead dock will reduce the flow area of the channel at the bulkhead location by less than 2%, likely resulting in slightly increased velocity in front of the dock area. The slight increase in local flow velocities will likely increase in the vicinity of the proposed dock due to the small decrease in the present river channel cross-sectional area. This small increase in velocity and tug vessel movement at the face of the dock will likely induce moderate scouring in the immediate area in front of the bulkhead dock face, slightly increasing the channel depth along the dock face over the present water depth. This action is similar to that which occurred when the existing City Dock and Petro Dock sheet pile fill structures were installed. Any effects to the river beyond the immediate project area are expected to be minimal.

Erosion on the opposite side of the river from the proposed dock is not anticipated, but if erosion does occur these effects are likely to be very minor and not extend upstream or downstream very far.

Because the proposed bulkhead dock is located on a river cut bank, structures installed into the river such as the sheet pile dock face will likely cause scouring along the face of the dock resulting from an increase in local average channel velocity that corresponds to the slightly decreased cross-sectional flow area. This slightly increased velocity may result in minor local bank erosion downstream of the proposed dock, but the increase in potential erosion would quickly dissipate not far downstream of the dock once the channel cross-section increases back to its natural condition. By the time the two branches of the Kuskokwim converge downstream, these additional erosive forces would likely be very minimal to none.

It is important to note that the location of the proposed dock is at a section of the Kuskokwim River channel, which is wider (both presently and after dock construction) than the river channel at both the Petro Dock and the City Dock facilities located upstream. Due to this fact, the effect of the proposed dock is expected to be much less than the effect of the existing Petro Dock and the City Dock. The existing docks constrict the river channel more than will the proposed dock. See the 2014 Navigation Plan, River Channel Constrictions, Sheet 1, and Detail, above.

Like all river channels, this location of the Kuskokwim River is a dynamic natural river system, with erosion and accretion that are constantly on-going natural processes which will continue. The proposed 1,100' long bulkhead dock is not anticipated to appreciably affect the natural erosion and accretion processes, similar to the existing Petro Dock and City Dock facilities located upstream. As a result, the proposed dock is not likely to cause significant changes to erosion or accretion within the Kuskokwim River channel beyond the range of erosion and accretion of what may occur naturally, similar to the existing Petro Dock and City Dock facilities.

The effects of the construction of the proposed dock would be inconsequential compared to the natural erosion/accretion processes of the river on facilities located further downstream. Any downstream erosion due to construction of the dock will likely be very insignificant and unquantifiable when compared against the background of the natural dynamic erosive processes of the Kuskokwim River system. Flood events, ice jam events and other natural erosion and accretion processes will continue to have an effect on the river and its channels and banks.

A hydrology study could be undertaken that would attempt to model the reaction of the Kuskokwim River to construction of the proposed 1,100 foot long bulkhead dock. However, a meaningful study would be very expensive, complex and time-consuming because the Kuskokwim is a very dynamic, constantly-changing river with complicating factors such as tidal influence, a lack of local long- term river data records (flow, stage, erosion, sediment load, velocity, bank migration, etc.), and the comparatively much greater effects of upstream ice jams and flooding during breakup.

A hydrology study could be performed but would likely be inconclusive or inaccurate due to the complex factors identified above, and would not provide any additional information with certainty beyond the general river hydraulic process tendencies already described.

EXISTING AND ANTICIPATED CARGO VOLUMES

Cargo volumes into and around the Bethel area may, or may not, be expanded in the future as a result of general increases in economic activity in the region. Any such change in volume would be the result of activities beyond the control of the applicant, such as government funded construction projects or similar activities, and resource development projects that would require the import of equipment, cargo and supplies.

At current levels of activity, the Bethel City dock can be congested, and arriving vessels are often required to wait for a vacancy at the dock. The proposed dock at the applicant's facility will create additional capacity and allow commerce to flow more timely through the system.

U.S. COAST GUARD, RISK ASSESSMENT

The USCG Initial Risk Assessment for USACE Permits for the construction phase of the 850' long bulkhead dock was completed by USCG Sector Anchorage on September 21, 2015. The USCG Initial Risk Assessment was based on the 2014 Navigation Plan that shows the 850' long dock face at a minus 15 ft. MLLW. Which is the same water depth at the dock face of the proposed 1,100' bulkhead dock.

ALTERNATIVES

The proposed project is the construction and operation of a dock for water-dependent commerce on navigable waters. A dock by its very nature is required to be located in navigable waters of the U.S., therefore it is not possible to avoid waters of the U.S. for the location of the proposed dock. In addition to the required location in navigable waters, there is no location in the vicinity that is an available and practicable alternative that will also meet the purpose and need of the proposed dock. The proposed bulkhead cargo dock must be located in adequately deep navigable waters. The proposed location on the Kuskokwim River is at a natural deep navigable river channel.

The size of the proposed 1,100 foot long bulkhead dock and fill area is the minimum size necessary to provide the needed space for the docking of both large and smaller barges in tandem, and for efficient cargo transfer operations along the dock face. The location at the naturally deep river channel will eliminate the need for dredging in the river in order to maintain a safe navigation depth for cargo vessels.

Rip Rap Alternative

Rip rap armor rock will be placed for the purpose of erosion protection outside of the constructed sheet pile walls at both the upstream and downstream ends of the bulkhead dock. The use of rip rap armor rock as an alternative to the steel sheet pile bulkhead for a dock face is not practicable for a number of reasons.

The dock face needs to be a stable vertical wall. Sheet pile performs this function, rip rap cannot. Contrary to sheet pile, rip rap armor rock cannot be placed in a stable vertical wall for docking. Rip rap placed in a stable configuration along the deep river channel would require a sloped rock surface. In order to prevent undercutting and the failure of the rip rap slope, the toe would need to be located at the deepest part of the channel at about minus 40 feet MLLW. The sloped rip rap armor rock alternative would require over 6 acres of additional fill area in the river. This alternative would triple the fill area below HTL compared to the fill area of the proposed sheet pile bulkhead.

A rip rap alternative would provide erosion protection, but would not function as a dock. By comparison, the bottom of the steel sheet pile can be embedded deep enough below the channel bottom to prevent damage from scour, and do so without requiring the much larger fill area as needed for a rip rap slope alternative.

Pile-Supported Concrete Deck Alternative

A pipe-pile supported concrete deck is not a practicable alternative dock structure to the proposed steel sheet pile dock. A pile-supported deck would not provide the needed erosion protection for the river bank as would the proposed bulkhead, or a rip rap alternative.

The cost for the construction of the proposed sheet pile bulkhead dock is estimated at about \$20 million. The cost of constructing a pipe-pile supported concrete deck of the same operational surface area as the proposed bulkhead would be on the order of about \$80 million. This cost estimate is conservative and is based on road-accessible construction in Seward and Anchorage of a pile supported and concrete decked dock structure. The cost of construction of a pile-supported deck structure for a dock at the remote location of Bethel could conceivably be much higher.

Using a pile-supported alternative would still require the use of rip rap in order to provide the same erosion protection for the river bank as the proposed sheet pile bulkhead. The end result would be an alternative project that would fill about triple the proposed river area, and conservatively cost approximately 4 to 6 times that of the proposed bulkhead dock.

Alternative Locations

Any local alternative site along the Kuskokwim River for bulkhead construction would require about 25 acres of developed and filled uplands in order to have the approximate equivalent upland area for continuing the current operations at the applicant's existing yard. All developed upland areas of this size in the vicinity of the applicant's operations, and with the required deep river access, are currently in use by others. Because of this, any alternative site in the vicinity that provided deep river channel access would need to be located at an undeveloped upland site. All undeveloped sites in the vicinity have extensive areas of jurisdictional tundra wetlands on the uplands. Developing such a site for an alternative location would likely require the filling of about 25 acres of wetlands. In addition to the direct disturbance of wetlands to construct an operations area, road access would also be required to connect to the existing road system at Bethel,

resulting in additional wetlands impacts. Because the proposed dock location will not require the filling of any tundra wetlands for new operational areas and new roads, the maximum avoidance of wetlands impacts is at the applicant's current operations yard, which is the preferred and the proposed location.

Conclusions

The proposed sheet pile bulkhead dock structure is the least environmentally damaging practicable alternative in light of the overall project purpose.

The location of the proposed sheet pile dock face in the naturally deep river channel will eliminate the need of performing initial and maintenance dredging in the river in order to maintain safe and efficient navigation. The sheet pile bulkhead dock at the proposed location is the least environmentally damaging practicable alternative.

SOURCES OF SAND, GRAVEL AND ARMOR ROCK

Sand from existing commercial upland sources in Bethel will be used. Additional gravel topping material and rip rap armor rock will be obtained from existing commercial sources. The additional commercial sources of material will be determined at the time based on material suitability, availability and cost.

USFWS, ESA SECTION 7

Below is a copy of the 2/11/2014 email from the USFWS to the Corps Regulatory Branch regarding ESA Section 7 for the previous permit application being reviewed in 2014.

*From: Ott, Kaithryn [mailto:kaithryn_ott@fws.gov]
Sent: Tuesday, February 11, 2014 4:15 PM
To: Campellone, Estrella F POA
Subject: [EXTERNAL] Re: Dock in Bethel (UNCLASSIFIED)*

Hi Estrella,

Thank you for inquiring about threatened and endangered species and critical habitat pursuant to section 7 of the Endangered Species Act of 1973 (ESA), as amended. We understand Knik Construction Co., Inc. proposes to construct a dock on the right bank of the Kuskokwim River approximately 2 mi (3.2 km) south of Bethel, Alaska. No ESA-listed species or designated critical habitat occur in this area; therefore, the proposed project would have no effect on listed species or critical habitat. Preparation of a Biological Assessment or further consultation under section 7 of the ESA regarding this project is not necessary. This applies only to endangered and threatened species under our jurisdiction. It does not preclude the need to comply with other environmental legislation or regulations such as the Clean Water Act.

*Please feel free to contact me if you have further questions.
Kind regards, Kaiti*

NMFS

Below is text of a 2/13/2014 phone conversation between the NMFS and the Corps Regulatory Branch (Ms. Estrella Campellone) regarding NMFS Informal Consultation for the previous permit application being reviewed in 2014. The text is from the Corps MFR (Memorandum for the Record).

*Project: POA-2014-64 February 13, 2014
Subject: NMFS Informal Consultation*

As per phone conversation with Ms. Barbara Mahoney, NMFS, on February 11, 2014, informal consultation with NMFS would not be necessary for the reach in the Kuskokwim River where the proposed project would take place is outside the range of distribution of any listed species. She mentioned that the area is within the distribution range of spotted seal and that the applicant has to take the appropriate precautions to ensure harassment to spotted seals do not occur.

ADF&G

A dialogue was started in December 2021 with the ADF&G regarding the requirement for obtaining a Fish Habitat Permit for the in-water construction of the proposed dock. A permit application will be submitted to the ADF&G after a complete DA application is submitted to the Corps Regulatory Branch.

The proposed dock project will minimize the potential water quality and fish impacts with the following best management practices:

- No dredging in the channel is proposed.
- Sheet pile placement will be vibratory.
- Fill will be placed behind the sheetpile walls in order to eliminate or minimize the potential for the release of sediments into the water.
- Fish timing windows for in-water work will be in compliance with fish habitat permits to be issued by the Alaska Department of Fish & Game.
- No significant impacts to the adjacent river shoreline beyond the project footprint are expected. The location of the proposed dock is unvegetated sandy river bank.

The proposed project will not degrade water quality, and not degrade salmon habitat along the Kuskokwim River.

DNR TIDELAND LEASE

A 10 acre Alaska DNR tideland lease (ADL 231839) was adjudicated in 2015 for the construction and operation of the 850' long sheet pile bulkhead dock. The DNR tideland lease area will be extended up the river channel to include the location of the proposed longer dock.