STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

Division of Mining, Land and Water

APPLICATION FOR EASEMENT

AS 38.05.850

ADL# _____
(to be filled in by State)

Applications that are submitted with unfilled sections or inadequate explanation and/or without application fees, a location figure and/or a completed Division of Mining, Land and Water (DMLW) Environmental Risk Questionnaire will be deemed incomplete. Incomplete applications will be returned without review. See DMLW's current fee regulations (11 AAC 05) and associated Director's Fee Order for applicable non-refundable fee amounts. The filing of an application does not guarantee processing or approval of the requested authorization.

Applicant: Hecla Greens Creek Mining Company Doing Business As: _____

Agent: (if applicable; attach record of authorization to represent) _____

Mailing Address: [redacted] Email: [redacted]

City/State/Zip: Juneau, AK 99803

Primary Phone [redacted] Alternate Phone: _____

General Location: Hawk Inlet, Admiralty Island, Juneau Municipality: CBJ

Section(s): 27 Township: 043S Range: 065E Meridian: C

Section(s): _____ Township: _____ Range: _____ Meridian: _____

Attach a location figure, plan drawing or survey that shows the detailed location of the requested easement in relation to adjoining property boundaries and reference points. All features must be labeled.

Dimensions requested (Complete line 1 for a linear easement or line 2 for an easement with an irregular shape):

1. Length: (feet) 4062 Width: (feet) 15

2. Area: 1.40 Are units in ☐ square feet or ■ acres? (check one)

Term requested and rationale: 15 years, to correlate renewal with existing easement ADL 105124

Are you applying for a ☐ public or a ■ private easement? (check one) Rationale:
This pipeline will be solely used to convey treated water from mining operations, not designated for shared use

Development plan summary/specific purpose of easement: (e.g., electric utility, fiber optic cable, road, bridge, airstrip/airport, driveway, trail, drainage) This information will be used to determine the scope of use of the easement.
To install and maintain an outfall pipeline, Outfall 002A, from the Pond 7 Water Treatment Plant to a Alaska Pollution Discharge Elimination System (APDES) permitted mixing zone under Permit AK0043206. The pipeline would convey treated water from mining operations to this permitted discharge location.

Is this an existing use? ☐ Yes ☒ No. If yes, explain extent and duration of use to date:
There is an existing easement, ADL 105124, for a pipeline with the same purpose of conveying treated dicharge to a permitted APDES mixing zone. This outfall, 002A, would be located northeast of the existing location.

Describe plans for initial construction. Be detailed. Include a list of authorizations for portions of the project that are proposed for construction on adjoining lands, other permitting, and/or third-party non-objections: (Use extra sheets as needed)

Outfall 002A will be constructed of 14" fused and bolted HDPE pipe, approximately 5400' in total length, approximately 4062' will lay between the mean high-tide line of Hawk Inlet to the APDES permitted mixing zone (58.1144, -134.764936). The pipelines from the Pond 7 Water Treatment facility to the mean high-tide line are conditioned under USFS Special Permit ADM230, currently out for review and amendment to include this new outfall 002A structure. Alignment of the new outfall line will follow the existing alignment of the 002 Outfall pipeline, currently permitted under USFS ADM230 and ADNR ADL 105124, before shifting to a new alignment within Hawk Inlet to be constructed as designed. HDPE pipe placement and fusion will be supported by heavy equipment from the surface as well as a floating barge construction platform on Hawk Inlet. The section of 14" HDPE pipe within the proposed easement will be fused, bolted, and capped from the floating barge construction platform and positioned above its final location above the APDES permitted mixing zone prior to subaqueous construction and securement of anchoring. Subaqueous placement, bolting, and securement of anchoring for the constructed pipe along the seabed floor will be supported by a commercial diving outfit throughout construction of the subaqueous pipeline section and follow alignment as described in the attached plans (Appendix B). Once the subaqueous portion of the pipeline is anchored in place, a combination of surface heavy equipment and support from the floating construction barge will trench from the mean high-tide line to approximately 290' through the intertidal zone as described in the attached plans (Appendix B).(continued in Appendix A)

Anticipated construction timeframe: 07/2026 - 09/2026, weather and tidal condition dependent

If this authorization is granted, I agree to construct and maintain the authorized Improvements in an acceptable manner, and to keep the area in a neat and sanitary condition; to comply with all the laws, rules, and regulations pertaining thereto; and provided further that upon termination of the easement for which application is being made, I agree to remove or relocate the improvements and restore the area without cost to the State and to the satisfaction of DMLW.

Applicant's Signature Paula Digitally signed by Paula Lillesve Date: 2026.03.09 12:07:38 -08'00' Date: 3/9/2026

This form must be filled out completely and submitted with the applicable fees. Failure to do so will result in a delay in processing. AS 38.05.035(a) authorizes the director to decide what information is needed to process an application for the sale or use of state land and resources. This information is made a part of the state public land records and becomes public information under AS 40.25.110 and 40.25.120 (unless the information qualifies for confidentiality under AS 38.05.035(a)(8) and confidentiality is requested, AS 43.05.230, or AS 45.48). Public information is open to inspection by you or any member of the public. A person who is the subject of the information may challenge its accuracy or completeness under AS 44.99.310, by giving a written description of the challenged information, the changes needed to correct it, and a name and address where the person can be reached. False statements made in an application for a benefit are punishable under AS 11.56.210.

In submitting this form, the applicant certifies that he or she has not changed the original text of the form or any attached documents provided by the Division. In submitting this form, the applicant agrees with the Department to use "electronic" means to conduct "transactions" (as those terms are used in the Uniform Electronic Transactions Act, AS 09.80.010 – AS 09.80.195) that relate to this form and that the Department need not retain the original paper form of this record: the department may retain this record as an electronic record and destroy the original.

For Department Use Only
Application received date stamp

Receipt Types:
☐ **13A Pipeline Easement**
☐ **13 Other Easement**

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

Division of Mining, Land and Water

Northern Region	Southcentral Region	Southeast Region
3700 Airport Way	550 W. 7th Ave, Suite 900C	P. O. Box 111020
Fairbanks, AK 99709-4699	Anchorage, AK 99501-3577	Juneau, AK 99811-1020
907-451-2740	907-269-8503	907-465-3400
nro.lands@alaska.gov	dnr.pic@alaska.gov	sero@alaska.gov

Statewide TTY – 771 for Alaska Relay or 1-800-770-8973

APPLICANT ENVIRONMENTAL RISK QUESTIONNAIRE

ADL # _____ *(assigned by DNR)* Date 03.10.2026

Applicant *(should match business license)* Hecla Greens Creek Mining Company

Mailing Address P.O. Box 32199

City/State/Zip Juneau, AK, 99803 Email plillesve@hecla.com

Primary Phone 907.600.7737 ext. 8472 Secondary Phone _____

Does the applicant have a current Alaska business license? ☒ Yes ☐ No License # 38561F

Type of license (partnership, LLC, corporation, etc.)? Corporation

Describe the proposed use of and activity on the state land:

To maintain an outfall pipeline, Outfall 002A, from the Pond 7 Water Treatment Plant to a Alaska Pollution Discharge Elimination System (APDES) permitted mixing zone for discharging treated water from mining operations.

In the course of your proposed activity will you generate, use, store, transport, dispose of, or otherwise come in contact with toxic and/or hazardous materials, and/or hydrocarbons? ☐ Yes ☒ No. If yes, please list the substances and the associated quantities. Use a separate sheet of paper if necessary.

If the proposed activities involve any storage tanks, either above or below ground, address the following questions for each tank. Please use a separate sheet of paper, if necessary, and, where appropriate, include maps or plats:

a) Where will the tank be located?
N/A

b) What will be stored in the tank?
N/A

c) What will the tank's size be in gallons?
N/A

d) What will the tank be used for? (Commercial or residential purposes?)
N/A

e) Will the tank be tested for leaks? ☐ Yes ☐ No

f) Will the tank be equipped with secondary containment? ☐ Yes ☐ No. If yes, describe:
N/A

g) Will the tank be equipped with leak detection devices? ☐ Yes ☐ No. If yes, describe:
N/A

Do you know or have any reason to suspect that the site may have been previously contaminated? ☐ Yes ■ No.
If yes, please explain:

I certify that due diligence has been exercised and proper inquiries made in completing this questionnaire, and that the foregoing is true and correct to the best of my knowledge.

Paula Lillesve

Applicant Name

Digitally signed by Paula Lillesve
Date: 2026.03.09 12:08:20 -08'00'

03.10.2026

Applicant Signature | Date

Environmental Manager

Agency, Municipality, or Organization and Position Title (if applicable)

In submitting this form, the applicant certifies that no changes have been made to the original text of the form or any attached documents provided by the Division.

AS 38.05.035(a) authorizes the director to decide what information is needed to process an application for the use of state land and resources. This information is made a part of the state public land records and becomes public information under AS 40.25.110 and 40.25.120, unless the information qualifies for confidentially under AS 38.05.035(a)(8) and confidentiality is requested, or qualifies for confidentiality under AS 43.05.230, AS 45.48, or other state or federal laws. Public information is open to inspection by you or any other member of the public. A person who is the subject of the personal information may challenge its accuracy or completeness under AS 40.25.310, by giving a written description of the challenged information, the changes needed to correct it, and a name and address where the person can be reached. False statements made in an application for a benefit are punishable under AS 11.56.210. In submitting this form, the applicant agrees with the Department to use "electronic" means to conduct "transactions" (as those terms are used in the Uniform Electronic Transactions Act, AS 09.80.010-AS 09.80.195) that relate to this form and that the Department need not retain the original paper form of this record: the Department may retain this record as an electronic record and destroy the original.

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

Division of Mining, Land and Water

Northern Region Land Office
3700 Airport Way
Fairbanks, AK 99709-4699
(907) 451-2740
nro.lands@alaska.gov

Southcentral Region Land Office
550 West 7th Ave, Suite 900C
Anchorage, AK 99501-3577
(907) 269-8503
dnr.pic@alaska.gov

Southeast Region Land Office
P. O. Box 111020
Juneau, AK 99811-1020
(907) 465-3400
sero@alaska.gov

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INSTRUCTIONS FOR COMPLETING A DEVELOPMENT PLAN

A development plan is a written statement (narrative) and a sketch or blueline drawing describing the proposed use and development of state land. The information contained in a development plan is needed to provide a complete review of the application and the proposed use and development, and helps to determine the terms and conditions of the authorization and the level of bonding and insurance that may be required.

Most applications submitted to the Division of Mining, Land and Water must have an attached development plan. The few exceptions to this rule include applications for state land sales and some types of land use permit. The amount and type of information included in the development plan will depend on the proposed use and level of development. Insufficient information in the development plan and/or application or failure to provide a development plan may result in a delay in processing the application. If you are unsure whether your application will require a development plan, contact the regional office responsible for managing the area you are planning to use (regional office addresses and phone numbers are shown at the top of this sheet).

If the application is approved, the approved development plan becomes a part of the authorization document. Authorized activities are limited to those described in the development plan and/or authorization document. The development plan must be updated if changes to an approved project are proposed before or during the project's siting, construction, or operation; if any additional structures, buildings, or improvements are proposed; or if there is a change in activity that was not addressed during consideration of the application. Please note that these development plans or plan changes must be approved by the Division of Mining, Land and Water before any change occurs in use, construction, or activity. Conducting activities that are not authorized by the development plan and authorization document could result in revocation and termination of the authorization and/or other appropriate legal action.

I. **General Guidelines for Preparing a Development Plan** For new authorizations, the development plan must show the proposed improvements and/or use areas, as well as preconstruction plans. For existing authorizations without a current development plan or if the development plan is being updated, the plan must show existing improvements and/or use areas, etc., and any known future changes. The development plan must include:
   - **Maps:** a USGS map at a scale of at least 1:63,360 showing the location of the proposed project; a blueline drawing or sketch, drawn to scale (the attached diagram may be used); and
   - **Written Project description:** a detailed written description (narrative) of the intended use and level of development planned under the authorization and an explanation of the sketch or blueline drawing.

II. **Land Use Permits** Permanent improvements cannot be authorized by a land use permit. However, a development plan accompanying a land use permit application must describe nonpermanent structures and activities. (Nonpermanent structures are structures that can be easily and quickly taken down and removed from the site, without any significant disturbance or damage to the area.) Several of the specific development plan items listed below will not apply to activities authorized under a land use permit; those items that do apply should be described in as much detail as possible, to enable prompt review of the application. If the proposed land use permit activity is of a mobile nature, such as a permit to move heavy equipment across state land, a development plan is not required; but a map showing the proposed route of travel is required. If the impact would not have a significant effect on the environment, such as a permit to harvest wild produce, a development plan is not required, but a map showing the location of the proposed harvest area is required.

III. **Narrative portion of the development plan** Describe the type of activities or development planned for the site; specify if any facilities are intended for commercial use, or will be rented out; and provide a description and explanation of the items shown on the sketch or blueline. Following is a list of specific information to be included in the narrative, if applicable to the proposed project:

- **Legal description.** Provide a legal description of the parcel, i.e. a metes and bounds description, survey, lot and block, aliquot part, or other legal description.
- **Terrain/ground cover.** Describe the existing terrain/ground cover, and proposed changes to the terrain/ground cover.
- **Access.** Describe existing and planned access, and mode of transportation. If public access is to be restricted, define possible alternative public access routes.
- **Buildings and other structures.** Describe each building or structure, whether permanent or temporary, including a description of the foundation as well as the building and floor construction; the date when the structure is to be constructed or placed on the parcel; the duration of use; and what activities are to occur within each structure.
- **Power source.** Describe type and availability of power source to the site.
- **Waste types, waste sources, and disposal methods.** List the types of waste that will be generated on-site, including solid waste, the source, and method of disposal.
- **Hazardous substances.** Describe the types and volumes of hazardous substances present or proposed, the specific storage location, and spill plan and spill prevention methods. Describe any containment structure(s) and volume of containment structure(s), the type of lining material, and configuration of the containment structure. Provide Material Safety Data Sheets (MSDS).
- **Water supply.** Describe the water supply and wastewater disposal method.
- **Parking areas and storage areas.** Describe long-term and short-term parking and storage areas, and any measures that will be taken to minimize drips or spills from leaking vehicles or equipment. Describe the items to be stored in the storage areas.
- **Number of people using the site.** State the number of people employed and working on the parcel, and describe the supervisor/staff ratio. Estimate the number of clients that will be using the site.
- **Maintenance and operations.** Describe the long-term requirements, how they will occur and who will perform the work. Specify if any subcontractors will be involved, and explain the tasks they will perform.
- **Closure/reclamation plan.** Provide a closure/reclamation plan, if required for the type of authorization being applied for, e.g. material sale.

IV. **Sketch or blueline portion of the development plan** The sketch or blueline must be drawn to scale, and each item labeled in such a way that the information contained in the drawing can be located in the narrative portion of the development plan (professional quality drafting and mechanical lettering is preferred). Following is a list of information to be shown on the drawing, if applicable:

- Section, Township, and Range lines; North arrow; scale; title; and legend (attached is an acceptable format).
- All property boundaries, ordinary or mean high water lines, and existing or proposed rights-of-way; major topographic features such as roads, streams, rivers, and lakes, and their geographic names.
- Location and dimensions of any gravel pads, or cement foundations, buildings, and other structures and improvements, appropriately labeled.
- Location of any buried or above-ground utility lines (power, water, fuel, natural gas, etc.); sewage facilities, including sewage and wastewater outfall point; underground water system; and water source (if any).
- Location where any hazardous substances, including but not limited to oil, lubricants, fuel oil, gasoline, solvents, and diesel fuel, are stored. Method of storage (tank, drum, etc.).
- Location of parking areas, and areas for the storage of inactive vehicles; snow storage areas; storage areas for any other items not mentioned above (drill rigs, camps, pipe, watercraft, etc.).

Appendix A: Describe plans for initial construction, continued

Trenching will be completed to minimize disturbance to the intertidal zone. Materials removed will be placed back over the installed pipeline and anchors, as specified in the attached plans (Appendix B). Type 2 bedding material will be from an approved source per Alaska Department of Environmental Conservation (ADEC) standards.

A land survey of the completed pipeline will be provided upon completion of the construction. Additionally, a facility change notification has been provided to ADEC per APDES Permit AK0043206, Appendix A, Section 2.1.1.

As previously mentioned, this pipeline is an APDES permitted discharge (AK0043206). In the 2023 APDES permitting process, the proposed outfall underwent a thorough analysis and was determined *"installing a new discharge line (outfall 002A) versus replacing the existing discharge line with a larger diameter line will result in less environmental impacts during construction and will allow HGCMC to continue discharge during the construction of the new discharge line."(APDES AK0043206, Section 5.2).* Furthermore, receiving water, bioassay, and sediment monitoring sites were established in AK0043206 for the 002A outfall to ensure water quality standards were met under the Antidegradation and Mixing Zone Analysis and *"both the Antidegradation policy and the implementation methods are consistent with 40 CFR 131.12 and approved by (the) EPA."*(APDES AK0043206, Section 8.0)

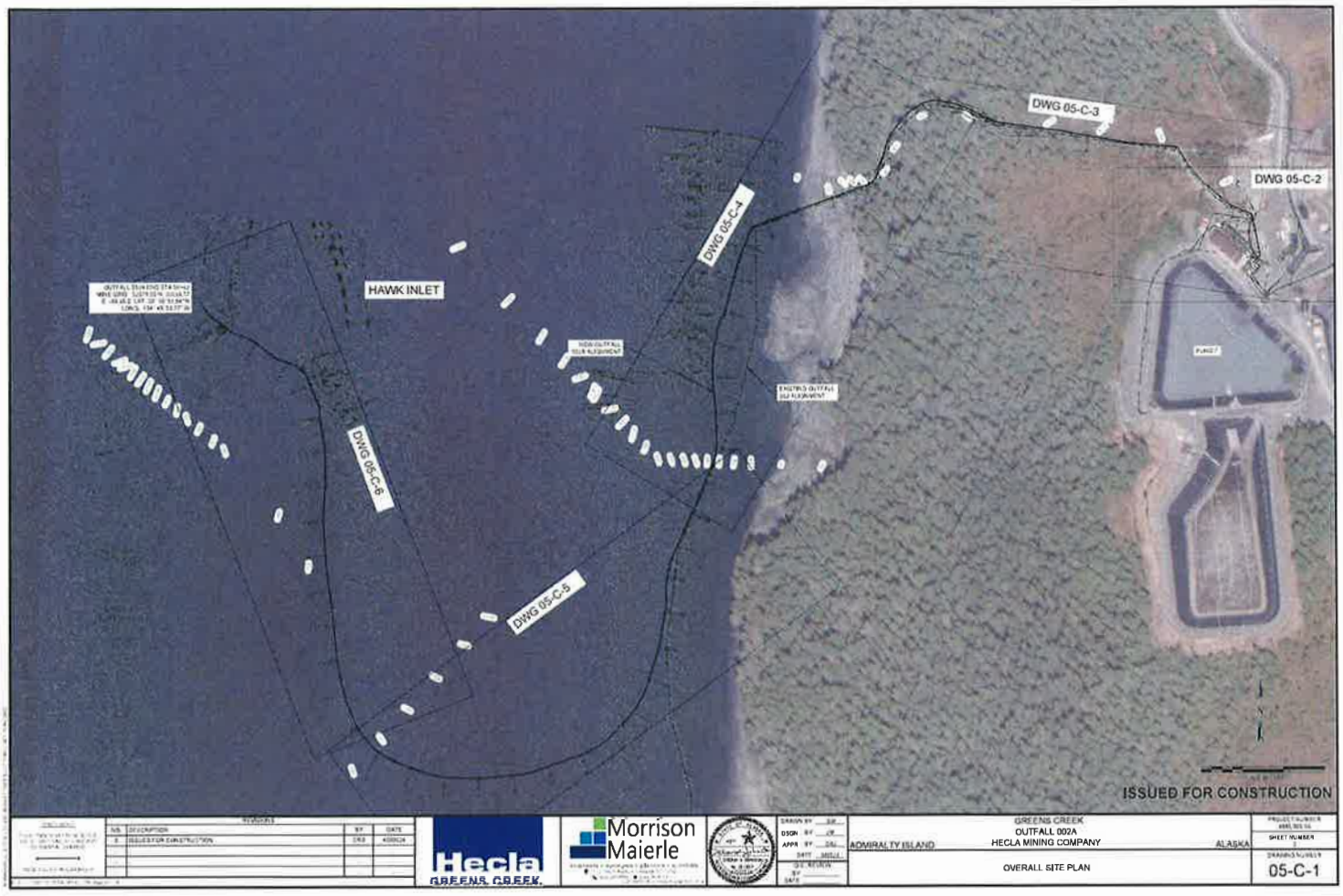
In addition, ADEC consulted with various agencies under the Endangered Species Act (ESA) during the 2023 APDES permitting process, including the National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS) and US Fish and Wildlife Service (USFWS) to determine "*that the existing water uses and the level of water quality necessary to protect existing uses will be maintained and protected ...[and] the mixing zone analysis...confirmed that there will be no lethality to organisms pass through the mixing zone."(APDES AK0043206).* Essential Fish Habitat (EFH) were also identified under the 2023 APDES permitting process by ADEC.

And finally, under the 2013 Record of Decision (ROD) for the Tailings Disposal Facility (TDF) Expansion, HGCMC funded a study conducted by SRB&A entitled '*Traditional, Customary and Contemporary Uses of Hawk Inlet and Hawk Inlet Cannery Cultural Context Report*' to encapsulate the historical importance of the Hawk Inlet area to the people and communities of Southeast Alaska. (SRB&A, 2021). In addition to this, HGCMC developed a Cultural Resource Management Plan (May 2020), which identified cultural resources in the

vicinity, outlined goals for the preservation and/or treatment of cultural resources listed on or eligible for listing on the National Register of Historic Places, and addressed procedures should HGCMC or its contractors inadvertently encounter artifacts, objects, or human remains. Copies of both can be provided as necessary.

Appendix B:

Construction Site Plans for Outfall 002A Pipeline



NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	DKS	4/2021

Hecla GREENS CREEK

Morrison Maierle

DRAWN BY: SR
DSGN BY: JR
APPR BY: DKS
DATE: 04/21/21
C.C. RETURN BY:
DATE:

GREENS CREEK
OUTFALL 002A
HECLA MINING COMPANY
ADMIRALTY ISLAND ALASKA

OVERALL SITE PLAN

PROJECT NUMBER
SHEET NUMBER
1
DRAWING NUMBER
05-C-1

ISSUED FOR CONSTRUCTION

VERIFY SCALE!

THESE PRINTS MAY BE REDUCED. LINE BELOW MEASURES ONE INCH ON ORIGINAL DRAWING.

MODIFY SCALE ACCORDINGLY!

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	CRD	4/3/2024
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PLOTTED BY:MELINDA HANKEL ON May/09/2024

Hecla GREENS CREEK

Morrison Maierle
engineers » surveyors » planners » scientists
1055 Mount Avenue, Missoula, MT 59801
406.542.8880 www.m-m.net

STATE OF ALASKA — 49TH — DEBORAH A. JOHNSTON — No. CE12927 — 4/3/2024 — REGISTERED PROFESSIONAL ENGINEER

DRAWN BY: SM
DSGN. BY: JM
APPR. BY: DAJ
DATE: 9/2022

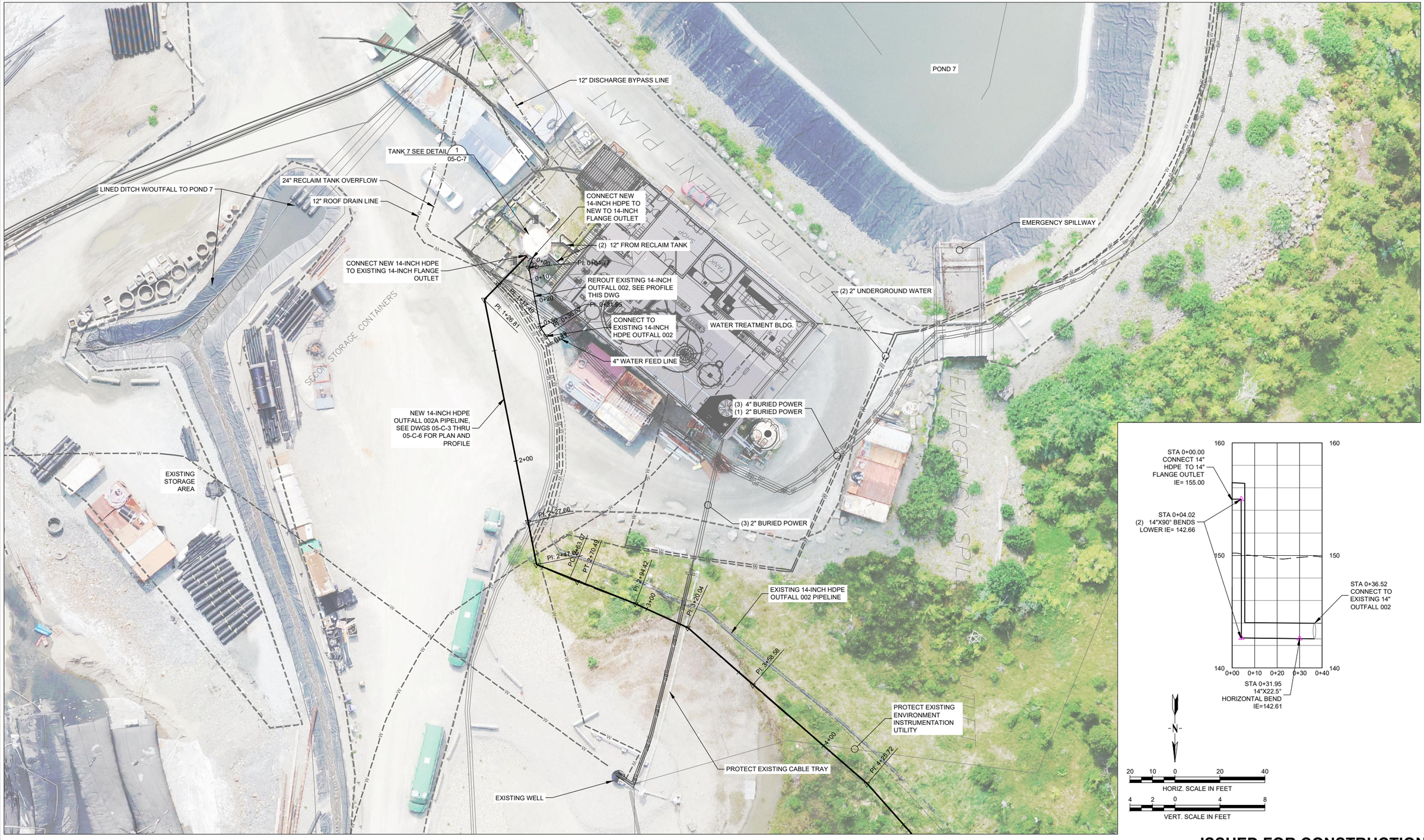
Q.C. REVIEW
BY: _____
DATE: _____

GREENS CREEK
OUTFALL 002A
HECLA MINING COMPANY
ADMIRALTY ISLAND ALASKA

OVERALL SITE PLAN

PROJECT NUMBER 4885.005.05
SHEET NUMBER 2
DRAWING NUMBER 05-C-1

M:\4885\005.05 OUTFALL 002A\ACAD\SHEETS\CIVIL\1-OVERALL SITE PLAN.DWG



TANK 7 SITE PLAN

N.T.S.

ISSUED FOR CONSTRUCTION

VERIFY SCALE!

THESE PRINTS MAY BE REDUCED. LINE BELOW MEASURES ONE INCH ON ORIGINAL DRAWING.

MODIFY SCALE ACCORDINGLY!

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PLOTTED BY:MELINDA HANKEL ON May/09/2024

Hecla GREENS CREEK

Morrison Maierle
engineers ▪ surveyors ▪ planners ▪ scientists
1055 Mount Avenue, Missoula, MT 59801
406.542.8880 www.m-m.net

STATE OF ALASKA 49TH DEBORAH A. JOHNSTON No. CE12927 10/20/2024 REGISTERED PROFESSIONAL ENGINEER

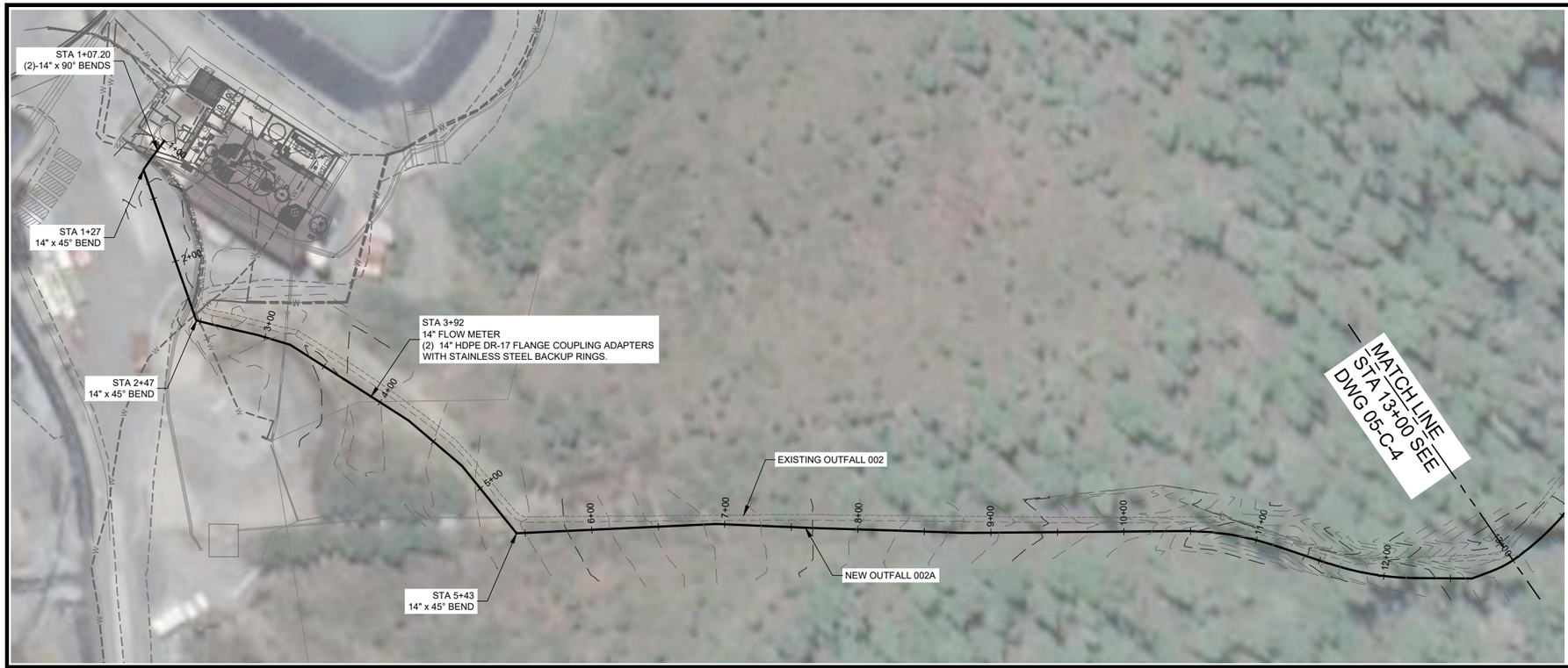
DRAWN BY: KLF
DSGN. BY: JM
APPR. BY: DAJ
DATE: 9/2022
Q.C. REVIEW BY:
DATE:

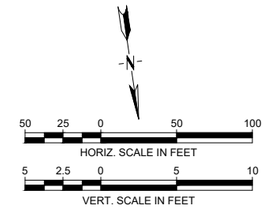
GREENS CREEK
OUTFALL 002A
HECLA MINING COMPANY
ADMIRALTY ISLAND ALASKA

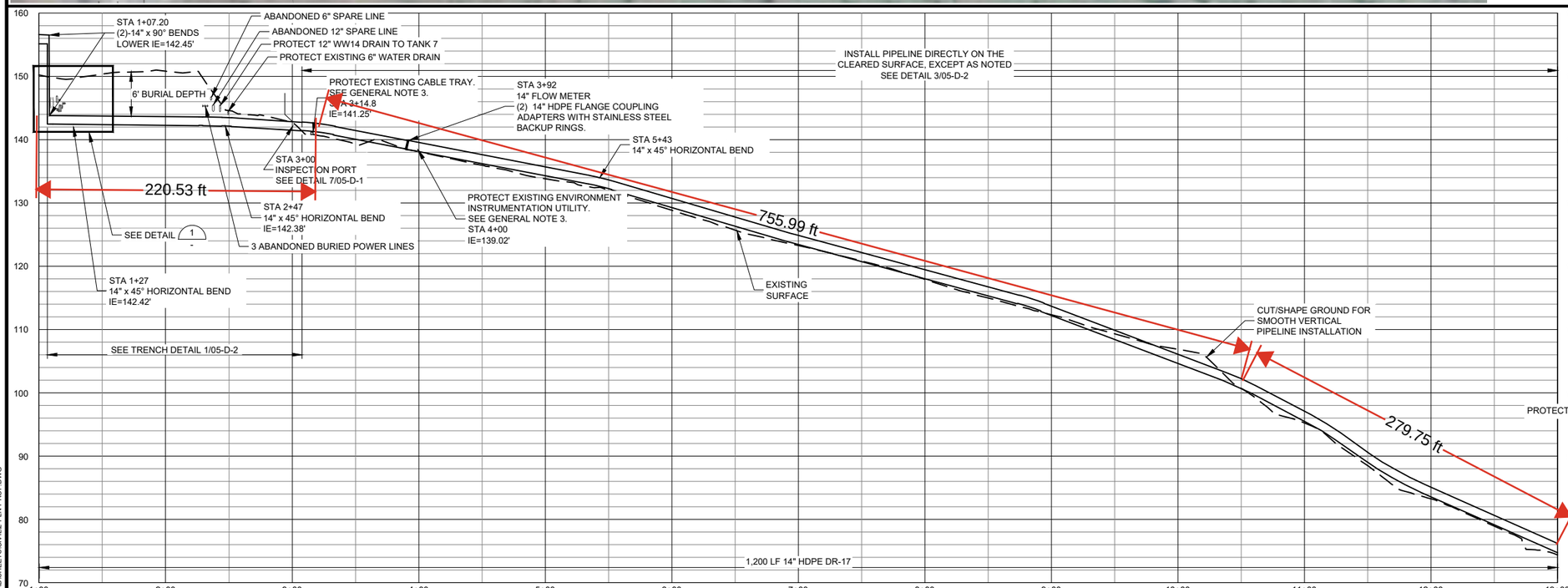
WTP TANK 7 SITE PLAN

PROJECT NUMBER 4885.005.05
SHEET NUMBER 3
DRAWING NUMBER 05-C-2

M:\4885\005.05 OUTFALL 002A\ACAD\SHEET\SITE MAP AND DETAIL.DWG

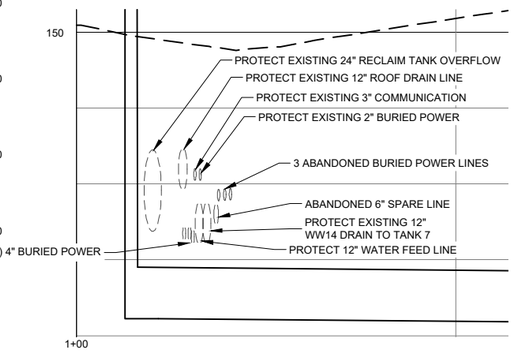






GENERAL NOTES

1. PROTECT EXISTING UTILITIES AT ALL BURIED CROSSINGS. CONTRACTOR TO DETERMINE DEPTHS.
2. AVOID INSTALLATION OF HIGH POINTS IN PIPELINE. CUT/SHAPE GROUND FOR SMOOTH VERTICAL PIPELINE INSTALLATION.
3. UNUSED EXCAVATED MATERIAL SHALL BE BUILT UP AND COMPACTED OVER EXISTING EXPOSED UTILITY CROSSINGS AT GRADE TO ALLOW FOR SMOOTH VERTICAL PIPELINE INSTALLATION.



1 - UTILITY CROSSING DETAIL
HORZ. 1" = 10'
VERT. 1" = 2'

ISSUED FOR CONSTRUCTION

VERIFY SCALE!
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MODIFY SCALE ACCORDINGLY!

REVISIONS

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PLOTTED BY:MELINDA HANKEL ON May/09/2024

Hecla GREENS CREEK

Morrison Maierle
engineers ▪ surveyors ▪ planners ▪ scientists
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406.542.8880 ◆ www.m-m.net

STATE OF ALASKA
49TH
DEBORAH A. JOHNSTON
No. CE12977
4/3/2024
REGISTERED PROFESSIONAL ENGINEER

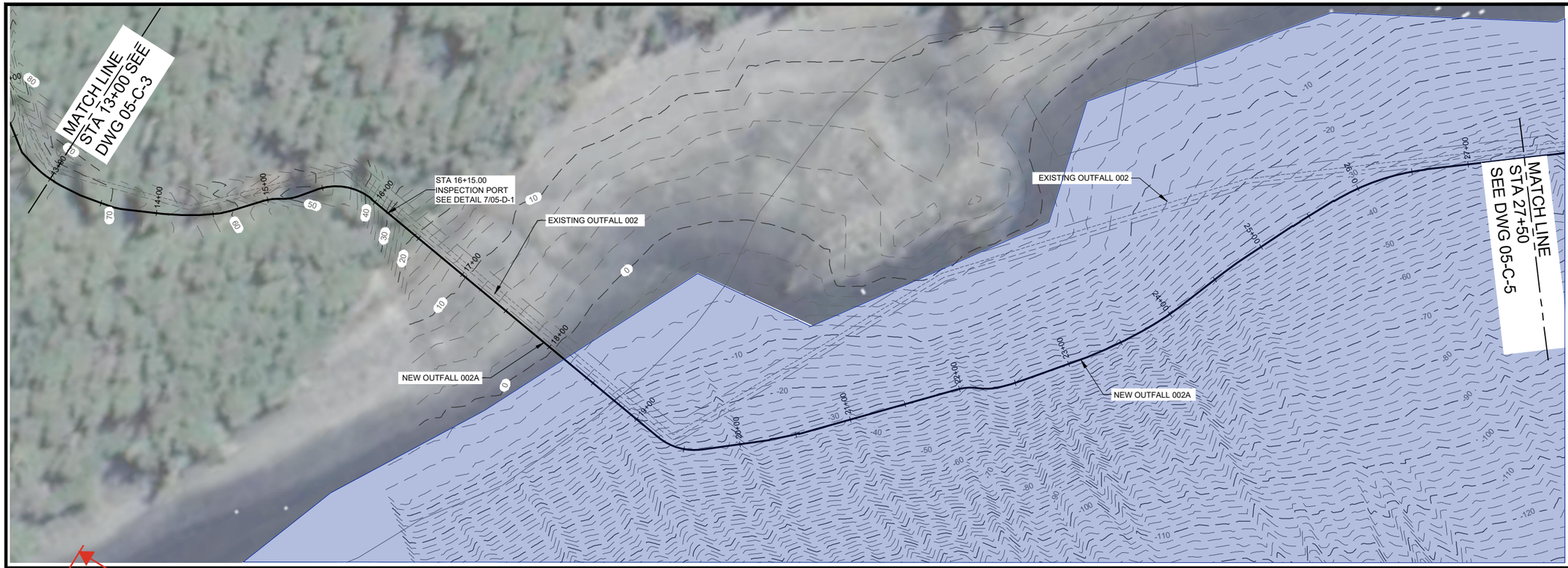
DRAWN BY: SM
DSGN. BY: JM
APPR. BY: DAJ
DATE: 9/2022
Q.C. REVIEW
BY:
DATE:

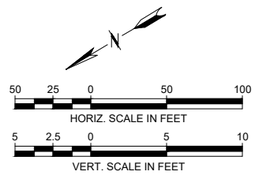
ADMIRALTY ISLAND — GREENS CREEK OUTFALL 002A HECLA MINING COMPANY — ALASKA

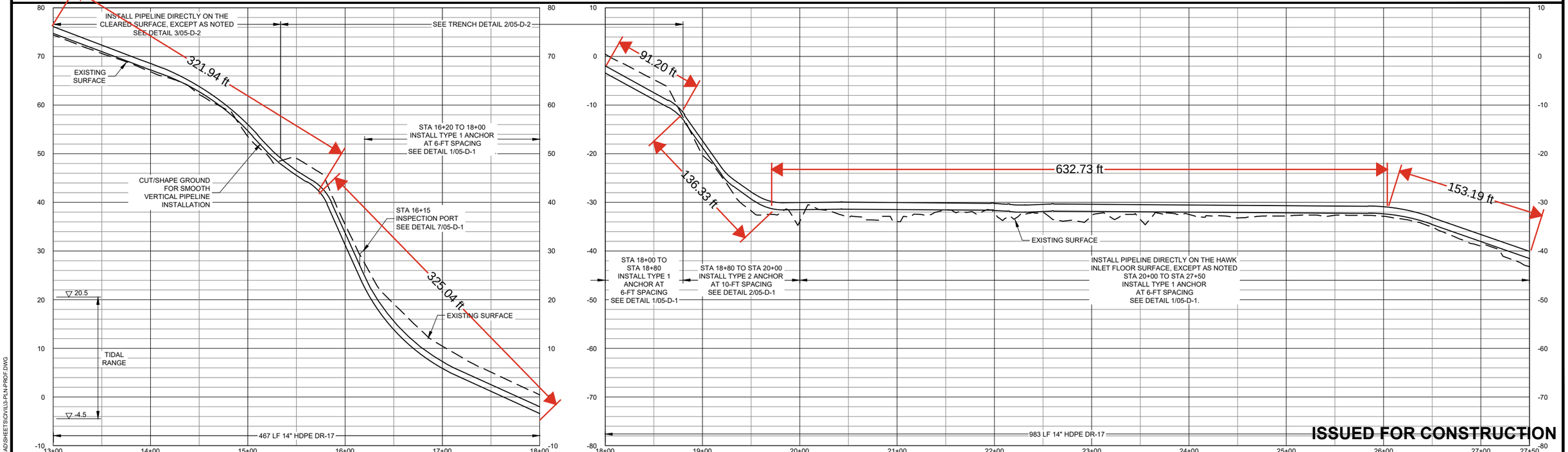
OUTFALL 002A
PLAN & PROFILE STA. 1+00 TO 13+00

PROJECT NUMBER 4885.005.05
SHEET NUMBER 4
DRAWING NUMBER 05-C-3

M:\4885\005.05 OUTFALL 002A\CAD\SHEETS\CIVIL\0_PLN-PROF.DWG







VERIFY SCALE!

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MODIFY SCALE ACCORDINGLY!

PLOTTED BY:MELINDA HANKEL ON May/09/2022

M:\4885\005.05 OUTFALL 002A\CAD\SHEETS\OV\VLS-PLN-PROF.DWG

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	CRD	4/3/2024
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Hecla GREENS CREEK

Morrison Maierle
engineers ▪ surveyors ▪ planners ▪ scientists
1055 Mount Avenue, Missoula, MT 59801
406.542.8880 ◆ www.m-m.net

STATE OF ALASKA 49TH DEBORAH A. JOHNSTON No. CE12977 4/3/2024 REGISTERED PROFESSIONAL ENGINEER

DRAWN BY: SM
DSGN. BY: JM
APPR. BY: DAJ
DATE: 9/2022

Q.C. REVIEW
BY: _____
DATE: _____

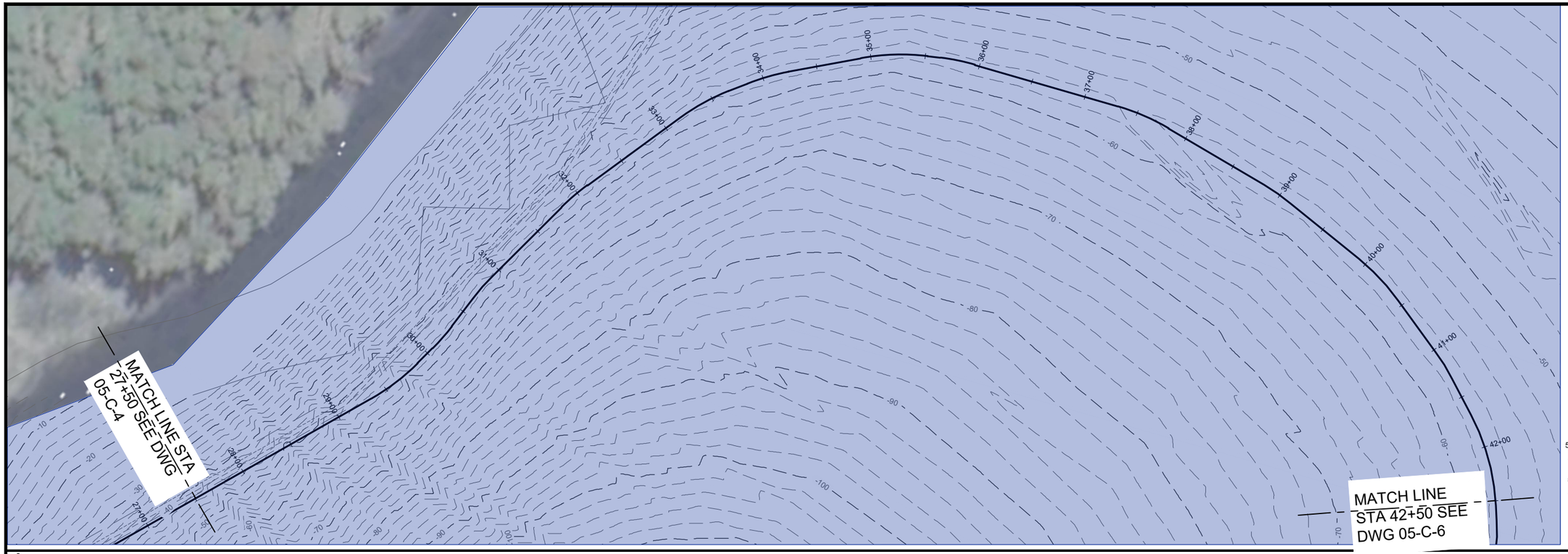
ADMIRALTY ISLAND

GREENS CREEK
OUTFALL 002A
HECLA MINING COMPANY

ALASKA

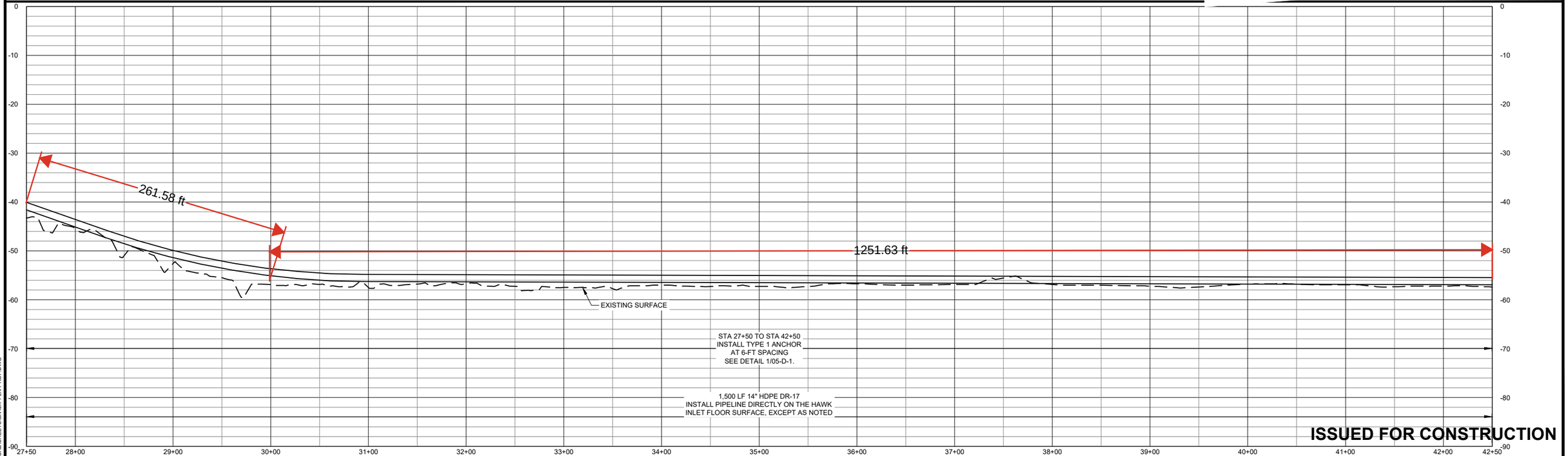
OUTFALL 002A
PLAN & PROFILE STA. 13+00 TO 27+50

PROJECT NUMBER 4885.005.05
SHEET NUMBER 5
DRAWING NUMBER 05-C-4



50 25 0 50 100
HORIZ. SCALE IN FEET

5 2.5 0 5 10
VERT. SCALE IN FEET



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MODIFY SCALE ACCORDINGLY!

PLOTTED BY:MELINDA HANKEL ON May/09/2024

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STATE OF ALASKA
49TH
DEBORAH A. JOHNSTON
No. CE12927
4/3/2024
REGISTERED PROFESSIONAL ENGINEER

DRAWN BY: SM
DSGN. BY: JM
APPR. BY: DAJ
DATE: 9/2022

Q.C. REVIEW
BY: _____
DATE: _____

ADMIRALTY ISLAND

GREENS CREEK
OUTFALL 002A
HECLA MINING COMPANY

ALASKA

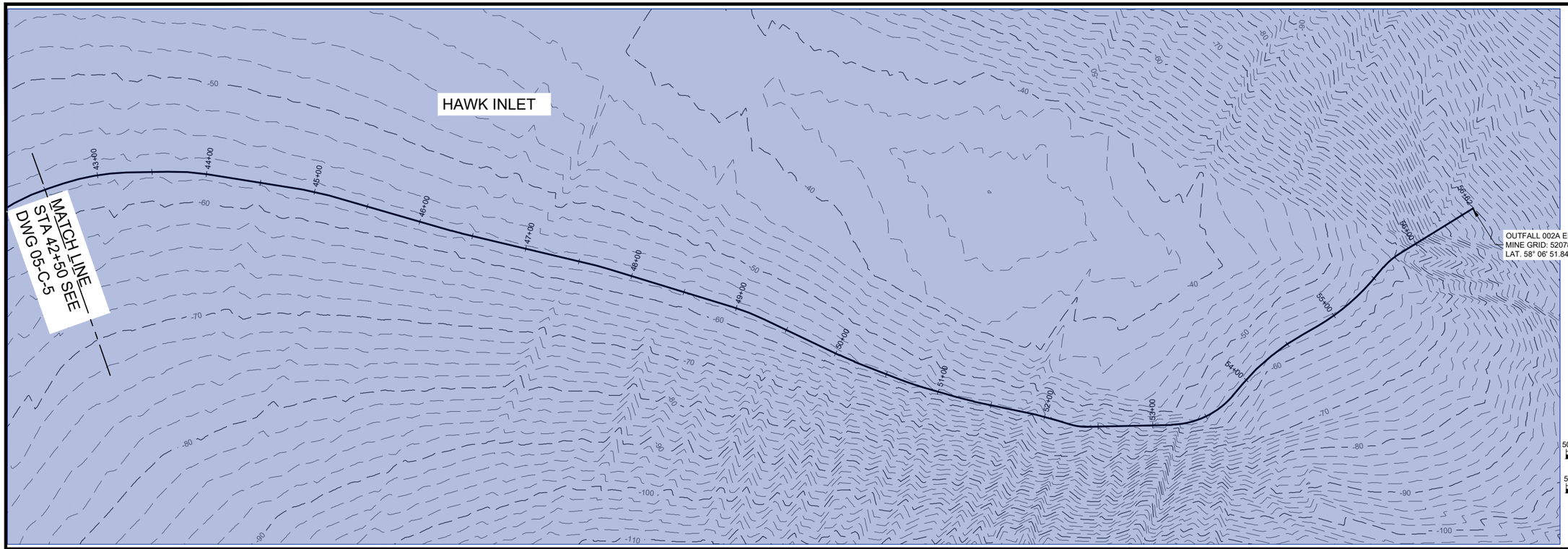
OUTFALL 002A
PLAN & PROFILE STA. 27+50 TO 42+50

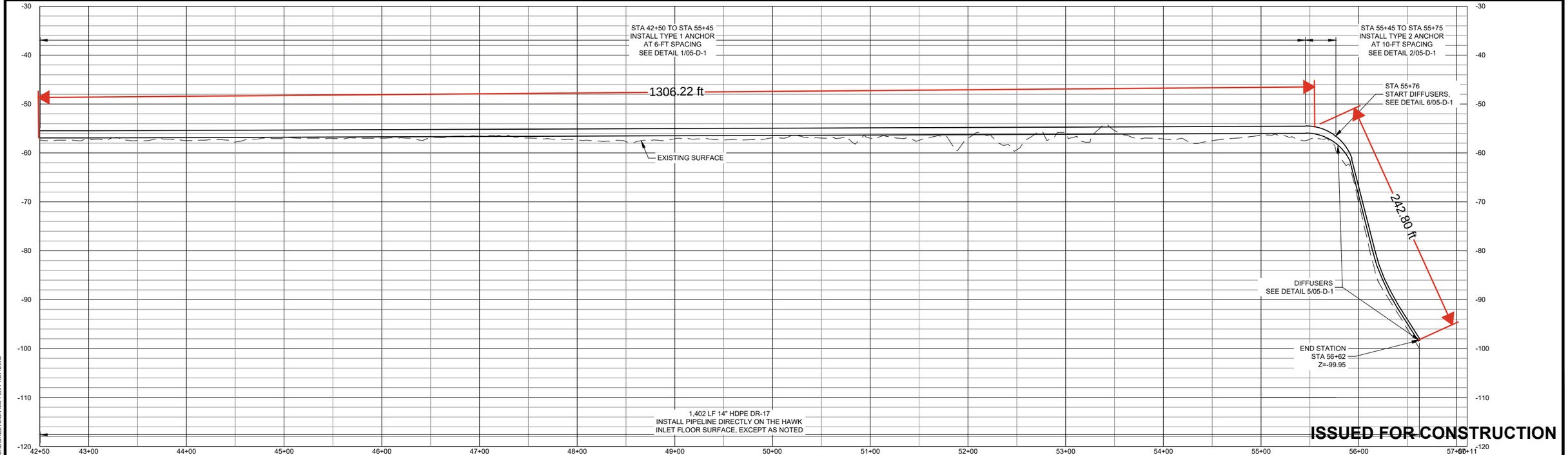
PROJECT NUMBER
4885.005.05

SHEET NUMBER
6

DRAWING NUMBER
05-C-5

M:\4885\005.05 OUTFALL 002A\CAD\SHEETS\CIVIL\4-PLN-PROF.DWG





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STATE OF ALASKA 49TH
DEBORAH A. JOHNSTON
No. CE12977
4/3/2024
REGISTERED PROFESSIONAL ENGINEER

DRAWN BY: SM
DSGN. BY: JM
APPR. BY: DAJ
DATE: 9/2022

Q.C. REVIEW
BY:
DATE:

ADMIRALTY ISLAND

GREENS CREEK
OUTFALL 002A
HECLA MINING COMPANY

ALASKA

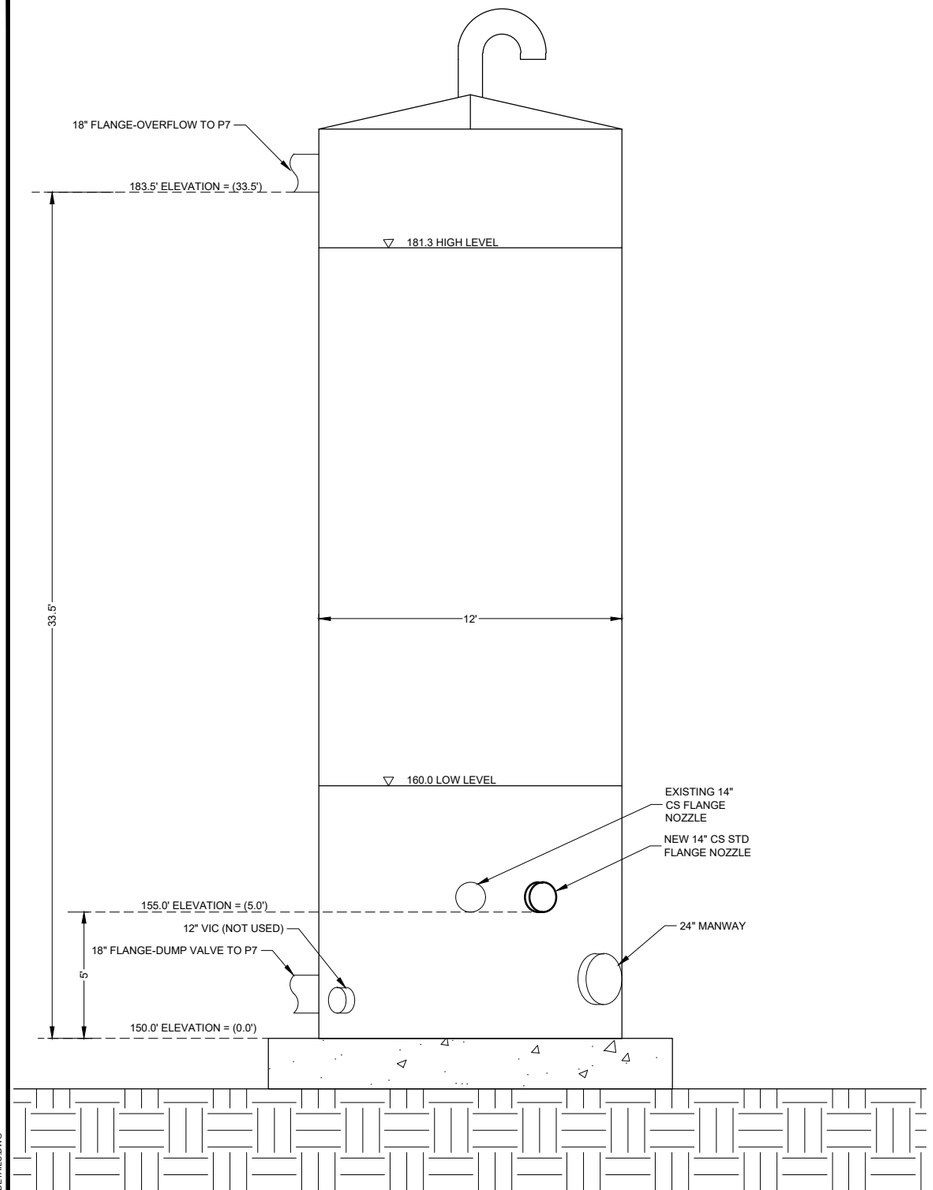
OUTFALL 002A
PLAN & PROFILE STA. 42+50 TO 56+62

PROJECT NUMBER
4885.005.05

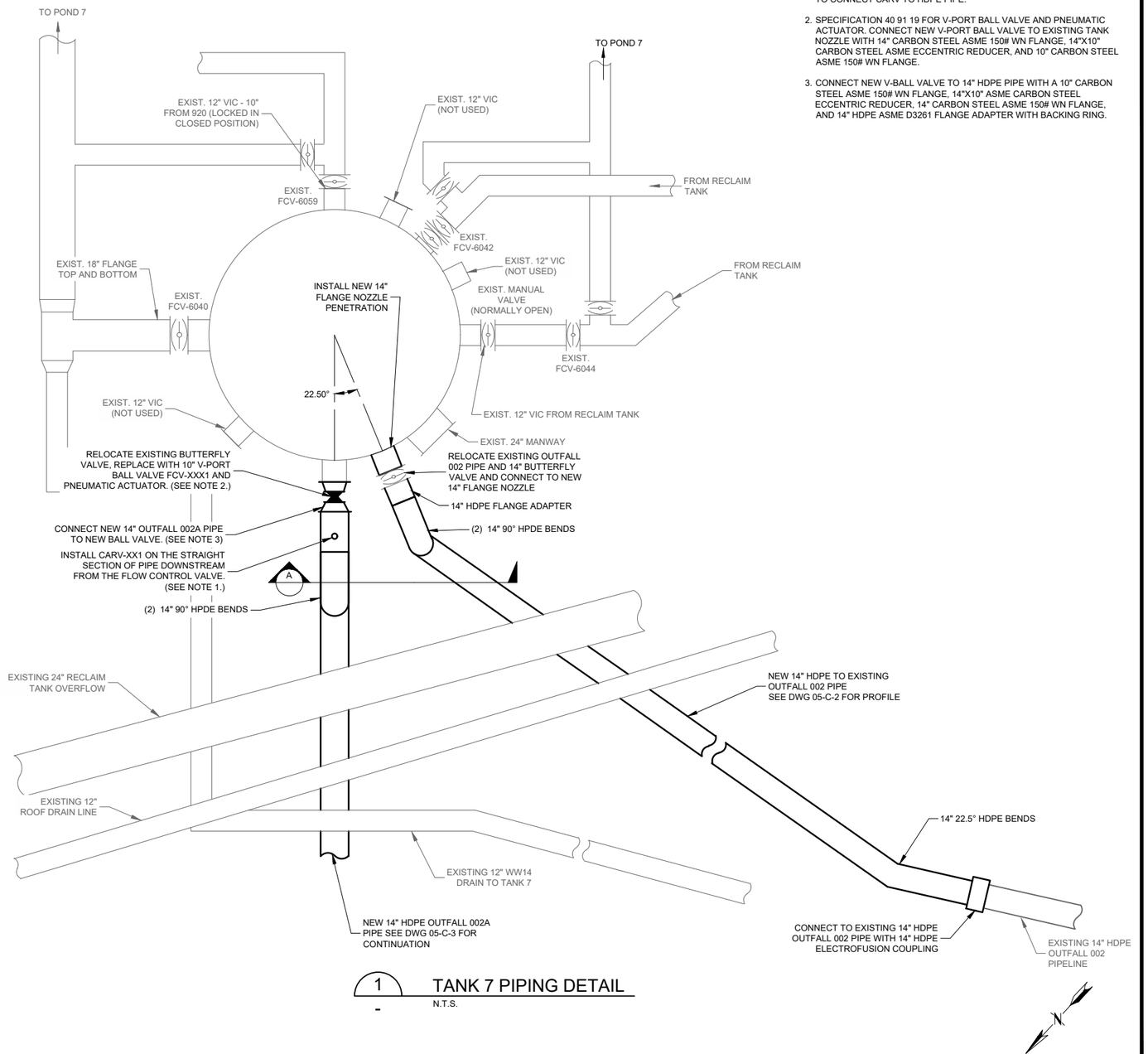
SHEET NUMBER
7

DRAWING NUMBER
05-C-6

M:\4885\005.05 OUTFALL 002A\CAD\SHEETS\CIVIL\S-PLN-PROF.DWG



A TANK 7 SECTION VIEW
N.T.S.



1 TANK 7 PIPING DETAIL
N.T.S.

NOTES:

1. SPECIFICATION 40 94 00 FOR COMBINED AIR RELEASE VALVE CARV-XX1. USE FUSIBLE BRANCH SADDLE WITH REINFORCEMENT RING AND 2" HDPE ASME D3261 150# WN FLANGE WITH BACKING RING TO CONNECT CARV TO HDPE PIPE.
2. SPECIFICATION 40 91 19 FOR V-PORT BALL VALVE AND PNEUMATIC ACTUATOR. CONNECT NEW V-PORT BALL VALVE TO EXISTING TANK NOZZLE WITH 14" CARBON STEEL ASME 150# WN FLANGE, 14"X10" CARBON STEEL ASME ECCENTRIC REDUCER, AND 10" CARBON STEEL ASME 150# WN FLANGE.
3. CONNECT NEW V-BALL VALVE TO 14" HDPE PIPE WITH A 10" CARBON STEEL ASME 150# WN FLANGE, 14"X10" ASME CARBON STEEL ECCENTRIC REDUCER, 14" CARBON STEEL ASME 150# WN FLANGE, AND 14" HDPE ASME D3261 FLANGE ADAPTER WITH BACKING RING.

ISSUED FOR CONSTRUCTION

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PLOTTED BY:MELINDA HANKEL ON May/09/2024

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STATE OF ALASKA — DEBORAH A. JOHNSTON — No. CE12977 — 4/3/2024 — REGISTERED PROFESSIONAL ENGINEER

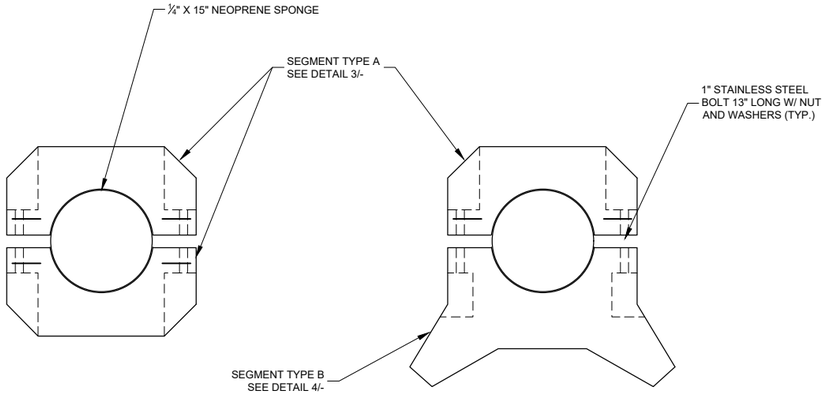
DRAWN BY: KLF
DSGN. BY: JM
APPR. BY: DAJ
DATE: 9/2022
Q.C. REVIEW BY:
DATE:

GREENS CREEK
OUTFALL 002A
HECLA MINING COMPANY
ADMIRALTY ISLAND ALASKA

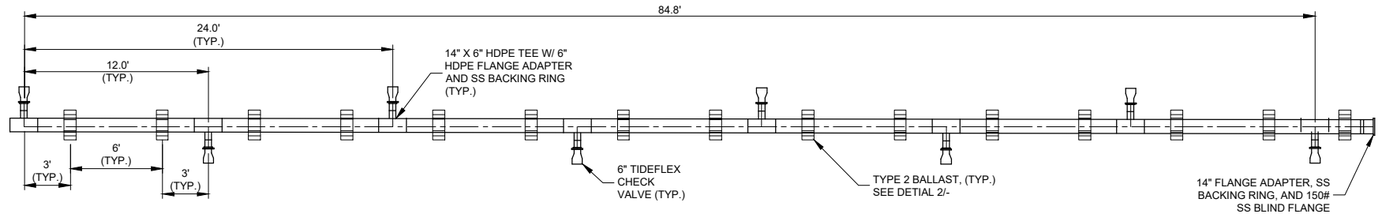
WTP TANK 7 DETAILS

PROJECT NUMBER 4885.005.05
SHEET NUMBER 8
DRAWING NUMBER 05-C-7

M:\4885\005.05 OUTFALL 002A\ACAD\SHEETS\CIVIL\WTP TANK 7 DETAILS.DWG

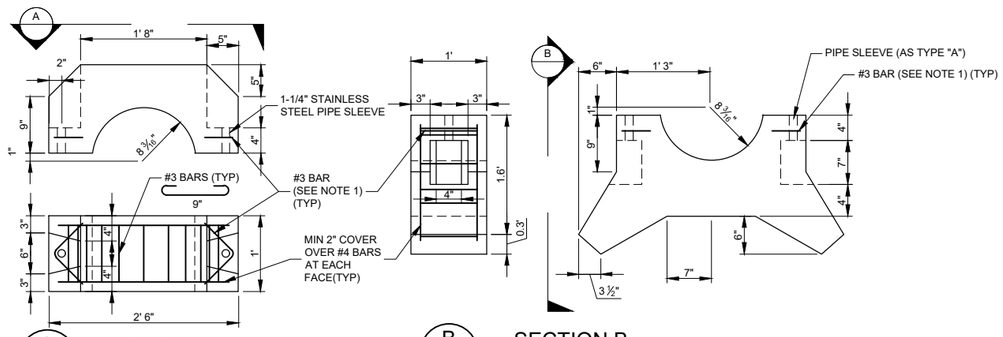


1 TYPE 1
SCALE: 1" = 1'
05-C-4
05-C-5
05-C-6



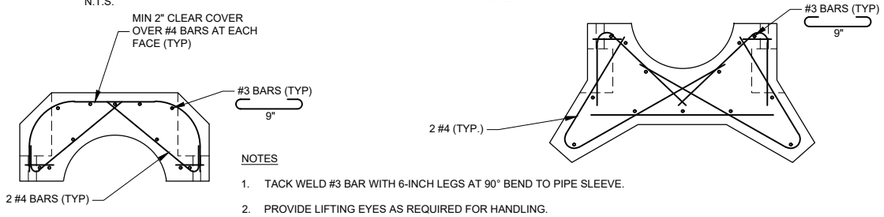
5 DIFFUSER LAYOUT
SCALE: NTS
05-C-6

2 TYPE 2
SCALE: 1" = 1'
05-C-4
05-C-6



A SECTION A
N.T.S.

B SECTION B
N.T.S.

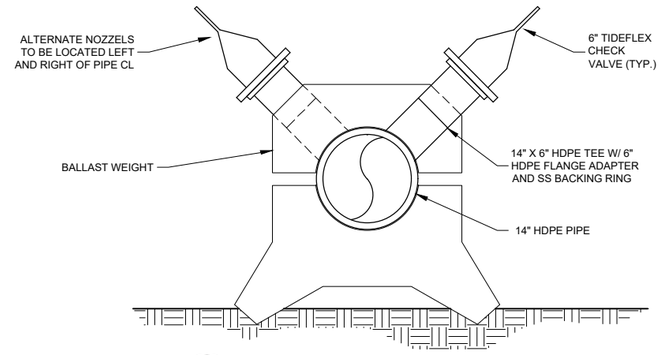


NOTES

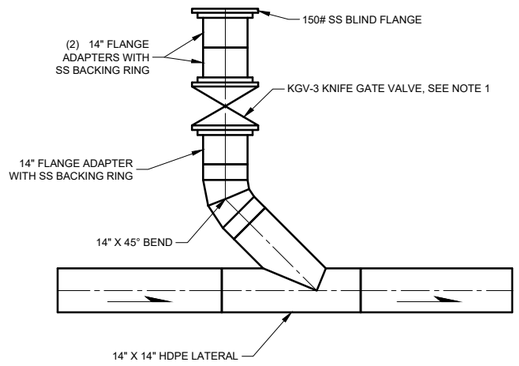
1. TACK WELD #3 BAR WITH 6-INCH LEGS AT 90° BEND TO PIPE SLEEVE.
2. PROVIDE LIFTING EYES AS REQUIRED FOR HANDLING.
3. TYPE 1 (STANDARD) BALLAST WEIGHT IS APPROXIMATELY 745 POUNDS; TYPE 2 APPROXIMATELY 975 POUNDS. NET BUOYANCY OF EMPTY 14" HDPE PIPE (DR 17) IS APPROXIMATELY 70 POUNDS/FOOT
4. ALL EXPOSED STEEL SHALL BE 316 STAINLESS STEEL.
5. TIGHTENING OF BALLAST WEIGHT SEGMENTS TOGETHER SHALL ALLOW PIPE TO EXPAND TO FULL OUTSIDE DIAMETER WHEN PRESSURIZED.

3 TYPE A SEGMENT
SCALE: 1" = 1'
-

4 TYPE B SEGMENT
SCALE: 1" = 1'
-



6 DIFFUSER NOZZLE
SCALE: 1" = 1'
05-C-6



7 INSPECTION PORT DETAIL
N.T.S.
05-C-3
05-C-4

NOTES:

1. KGV-3 SPECIFIED IN SECTION 40 05 51.

ISSUED FOR CONSTRUCTION

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PLOTTED BY:MELINDA HANKEL ON May/09/2024

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STATE OF ALASKA
49TH
DEBORAH A. JOHNSTON
No. CE12927
4/3/2024
REGISTERED PROFESSIONAL ENGINEER

DRAWN BY: SM
DSGN. BY: JM
APPR. BY: DAJ
DATE: 9/2022
Q.C. REVIEW
BY:
DATE:

GREENS CREEK
OUTFALL 002A
HECLA MINING COMPANY
ADMIRALTY ISLAND ALASKA

OUTFALL PIPE DETAILS

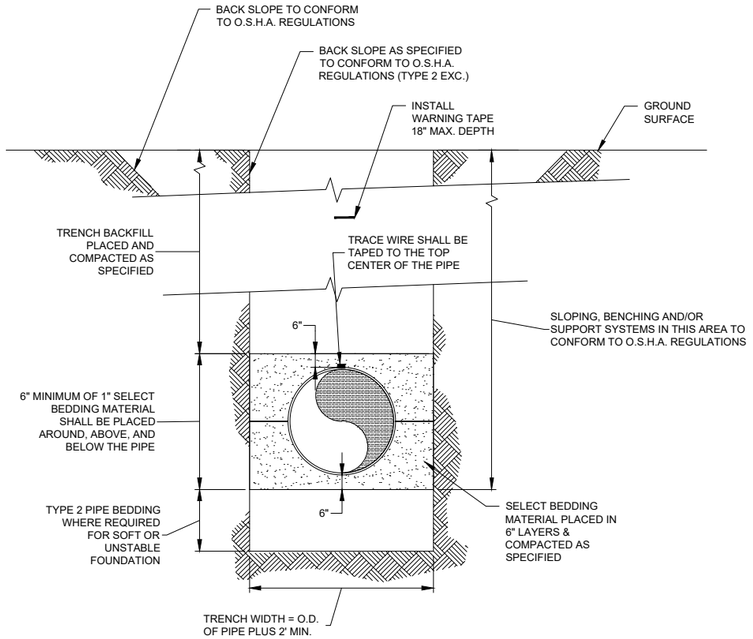
PROJECT NUMBER 4885.005.05
SHEET NUMBER 9
DRAWING NUMBER 05-D-1

M:\4885\005.05 OUTFALL 002A\ACAD\SHEETS\OUTFALL DETAILS.DWG

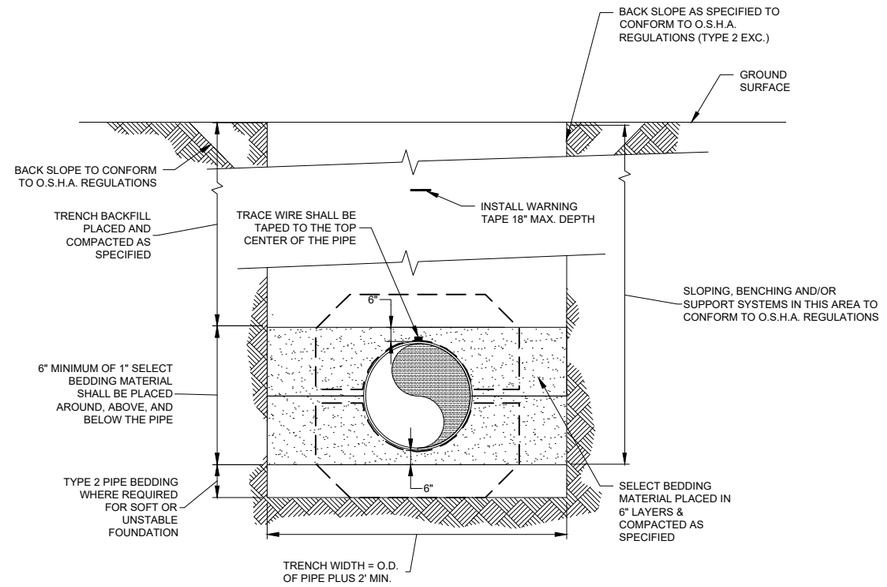
NOTES

1. ALL PIPE BEDDING AND TRENCH BACKFILL SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D698.
2. ALL TRENCH CONSTRUCTION SHALL CONFORM TO CURRENT OSHA STANDARDS FOR EXCAVATIONS. SEE SECTION 1926, SUBPART P.
3. INSTALL DETECTABLE WARNING TAPE AND TRACER WIRE ON ALL BURIED PIPE.
4. PIPE COVER SHALL BE 6' MINIMUM COVER IN DRIVE AREA AND 3 FT MINIMUM IN TIDAL INFLUENCE ZONE ONLY.

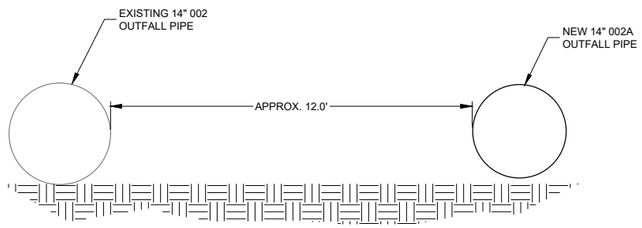
TRENCH DETAIL LIMITS		
STA BEGIN	STA END	TRENCH DETAIL
1+08	3+07	1
15+34	18+80	2



1 TYPICAL TRENCH DETAIL
05-C-3 NTS



2 TYPICAL TRENCH WITH BALLAST DETAIL
05-C-4 NTS



3 TYPICAL OVERLAND SECTION
05-C-3, 05-C-4 NTS

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PLOTTED BY:MELINDA HANKEL ON May/09/2024

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STATE OF ALASKA 49TH — DEBORAH A. JOHNSTON — No. CE12927 — REGISTERED PROFESSIONAL ENGINEER — 4/3/2024

DRAWN BY:	SM
DSGN. BY:	JM
APPR. BY:	DAJ
DATE:	9/2022
Q.C. REVIEW BY:	
DATE:	

GREENS CREEK
OUTFALL 002A
HECLA MINING COMPANY
ADMIRALTY ISLAND ALASKA

TRENCH DETAILS

PROJECT NUMBER 4885.005.05
SHEET NUMBER 10
DRAWING NUMBER 05-D-2

M:\4885\005.05 OUTFALL 002A\ACAD\SHEETS\CIVIL\10-TRENCH DETAILS.DWG

PLAN AND PROFILE LEGEND

W	–WATER	(PD)	–PRESSURE DIVISION (NORMALLY CLOSED VALVE)
NG	–NATURAL GAS	MD	–MEASURE DOWN
L.P.	–LOW PRESSURE	CI	–CAST IRON PIPE
M.P.	–MEDIUM PRESSURE	DI	–DUCTILE IRON PIPE
H.P.	–HIGH PRESSURE	MJ	–MECHANICAL JOINT
SS	–SANITARY SEWER	SO	–SLIP ON JOINT
SD	–STORM DRAIN	RJ	–RESTRAINED JOINT
BT	–BURIED TELEPHONE	pb	–LEAD PIPE
BP	–BURIED POWER	cu	–COPPER PIPE
BTV	–BURIED CABLE TV	galv	–GALVANIZED PIPE
OHP	–OVERHEAD POWER	pe	–POLYETHYLENE PIPE
PP	–POWER POLE	pvc	–POLYVINYL CHLORIDE PIPE
LP	–LIGHT POLE	(PL)	–PLASTIC
SP	–SIGNAL POLE	RCP	–REINFORCED CONCRETE PIPE
CB	–CATCH BASIN	VC	–VITRIFIED CLAY
DH	–DRILL HOLE	CMP	–CORRUGATED METAL PIPE
GV	–GATE VALVE	000	–BUILDING NUMBER
BF	–BUTTERFLY VALVE		–FOUND PROPERTY PIN
	–NEW FIRE HYDRANT		–CONTROL LINE POINT
FH OR F.HYD.	–FIRE HYDRANT	⊗ 1000	–FINISH GRADE
HOO–0	–HYDRANT NO.		
HVOO–0	–HYDRANT VALVE NO.	1000	– EXISTING CONTOUR
	–NEW MANHOLE		
	–NEW UTILITY POLE		
	–PROPOSED PIPING		
	–PROPOSED CURB STOP & BOX	#####	–SERVICE NUMBER TAG
	–NEW CATCH BASIN		
	–NEW VALVE		–PLUG AND ABANDON EXISTING MAIN WITH CONCRETE
VOO–0	–VALVE NO.		
	–BUTTERFLY VALVE		

LIMITS OF TOPSOIL AND SEEDING *

3:1 NEW EMBANKMENT OR CUT SLOPE. SLOPE AS NOTED *

X:X HORIZONTAL DISTANCE : VERTICAL DISTANCE

EXISTING STRUCTURE TO BE REMOVED *

PROJECT NOTES:

1. SIZE OF FITTINGS SHOWN ON DRAWINGS SHALL CORRESPOND TO ADJACENT STRAIGHT RUN OF PIPE, UNLESS OTHERWISE INDICATED. TYPE OF JOINT AND FITTING MATERIAL SHALL BE THE SAME AS SHOWN FOR ADJACENT STRAIGHT RUN OF PIPE.
2. LAY PIPE TO UNIFORM GRADE BETWEEN INDICATED ELEVATION POINTS.
3. BALLAST WEIGHTS ARE NOT GENERALLY SHOWN ON THE DRAWINGS. ALL BURIED PIPING SPECIFIED TO BE SUBMARINE SHALL BE PROVIDED WITH BALLAST WEIGHTS AS IDENTIFIED, UNLESS OTHERWISE NOTED. SEE BALLAST WEIGHT DETAILS AND NOTES ON DRAWING 05-D-1.
4. ALL VALVES SHALL BE OPERATED BY HECLA GREENS CREEK MINING COMPANY (OWNER) PERSONNEL ONLY.
5. SITE TO BE ROUGH GRADED PRIOR TO INSTALLATION OF UTILITIES TO ASSURE SLOPE OF UTILITIES AS SHOWN ON THE DRAWINGS.
6. THE LOCATION, DEPTH, AND SIZE OF THE EXISTING UTILITIES SHOWN ON THESE PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATION, DEPTH, AND SIZE OF THE UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING FACILITIES DUE TO FAILURE TO LOCATE OR PROPERLY PROVIDE PROTECTION WHEN LOCATION IS KNOWN.
7. DURING CONSTRUCTION IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT EXISTING BURIED AND OVERHEAD UTILITIES WHILE EXCAVATING NEAR THEM TO PREVENT DAMAGE TO THE EXISTING UTILITIES.
8. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE PLANS AND PROJECT SPECIFICATIONS.
9. ANY DAMAGE TO EXISTING INFRASTRUCTURE SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.

ABBREVIATIONS

BUILDING/LAND LINES

BLDG. = BUILDING
VAC. = VACANT
BLK. = BLOCK
SUB. = SUBDIVISION
C/S = CERTIFICATE OF SURVEY
R/W = RIGHT–OF–WAY
℄ = CENTERLINE
℗ = PROPERTY LINE
ADD. = ADDITION
O.T. = ORIGINAL TOWNSITE
AK = ALASKA
U.S. = UNITED STATES
HWY. = HIGHWAY
NO. OR # = NUMBER
APT'S. = APARTMENTS

DIRECTIONS

N = NORTH
S = SOUTH
E = EAST
W = WEST
NE = NORTHEAST
NW = NORTHWEST
SE = SOUTHEAST
SW = SOUTHWEST
LT. = LEFT
RT. = RIGHT
HOR. = HORIZONTAL
VERT. = VERTICAL
BK. = BACK
AH. = AHEAD
± = PLUS OR MINUS

SURVEY DATA

B.M. = BENCHMARK
EQUA. = EQUATION
FD. = FOUND
STA. = STATION
TBM = TEMPORARY BENCHMARK
YPC = YELLOW PLASTIC CAP
AC = ALUMINUM CAP

STREET TITLES

AVE. = AVENUE
BLVD. = BOULEVARD
CIR. = CIRCLE
LN. = LANE
PL. = PLACE
RD. = ROAD
ST. = STREET
TR. = TRAIL

CURVE DATA

P.C. = POINT OF CURVATURE
P.I. = POINT OF INTERSECTION
VPI = VERTICAL POINT OF INTERSECTION
P.T. = POINT OF TANGENCY

UTILITIES

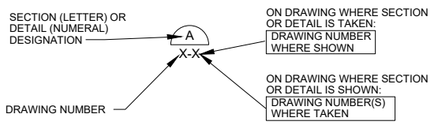
B.C. = BACK OF CURB
BCT = BEGIN CURB TURN
ECT = END CURB TURN
ELEV. = ELEVATION
FL = FLOWLINE
IE = INVERT ELEVATION
LOC. = LOCATION
SERV. = SERVICE
TBC = TOP BACK OF CURB
TE = TOP ELEVATION
N.C. = NORMALLY CLOSED
TOW = TOP OF WATER MAIN

MISCELLANEOUS

ASSY. = ASSEMBLY
APPROX. = APPROXIMATE
CONN. = CONNECT OR CONNECTION
EA. = EACH
E.W. = EACH WAY
EXIST. = EXISTING
IRR. = IRRIGATION
LOC. = LOCATION
MAX. = MAXIMUM
MD = MEASURED DEPTH
MIN. = MINIMUM
MISC. = MISCELLANEOUS
O.C. = ON CENTER
PROP. = PROPOSED
REQ'D = REQUIRED
SW = SIDEWALK
TE = TOP ELEVATION
TYP. = TYPICAL
UNKN = UNKNOWN
W/ = WITH
XING = CROSSING

NOTES:

1. * SYMBOL USED ONLY WHERE REQUIRED FOR CLARITY.
2. IN GENERAL, EXISTING STRUCTURES AND FACILITIES ARE NOTED AS "EXISTING" AND ARE SHOWN IN LIGHT LINE WEIGHTS, OR AS SCREENED BACKGROUND. NEW STRUCTURES ARE SHOWN IN HEAVY LINE WEIGHTS.



DETAIL AND SECTION DESIGNATION

CONVERSION STATE PLANE AKZ1 MLLW TO 2021 TAILINGS LOCAL

1. CONVERSION FROM ALASKA STATE PLANE COORDINATES, ZONE 1, NAD83, MLLW DATUM, US FEET TO HECLA GREENS CREEK MINE LOCAL COORDINATE SYSTEM "2021 TAILINGS LOCAL" US FEET.
2. SCALE STATE PLANE COORDINATES USING 1.000191864 AT ALASKA STATE PLANE POINT #11, N:2,295,868.765, E:2,476,473.918.
3. TRANSLATE RESULTING COORDINATES USING N:–2,243,562.604, E:–2,436,864.339.
4. ROTATE RESULTING COORDINATES COUNTER–CLOCKWISE 0 DEGREES 19 MINUTES 11.32016 SECONDS AT "2021 TAILINGS LOCAL" POINT #11, N:52,306.161, E:39,609.579 (POINT #11 AND #102 BASELINE).
5. SUBTRACT 1.905 FEET FROM MLLW ELEVATIONS TO BE IN HGCM "2021 TAILINGS LOCAL" ELEVATIONS.

POINT TABLE

STATION	NORTHING	EASTING	ELEVATION
1+00.00	52221.7785	39716.9678	155.18
1+26.81	52240.8899	39735.7721	142.51
2+00.00	52312.2190	39721.7369	142.34
2+47.05	52358.8658	39712.5584	142.19
2+94.42	52376.3161	39668.5290	141.61
3+00.00	52378.1706	39664.5062	141.53
3+20.04	52387.0435	39645.2590	141.28
3+58.58	52412.4210	39616.2615	139.79
3+92.00	52434.2942	39590.9912	138.50
4+00.00	52439.5315	39584.9405	138.19
4+25.72	52456.3651	39565.4925	137.20
4+78.12	52495.6463	39530.8206	135.18
5+00.00	52514.5077	39519.7223	134.33
5+43.32	52551.8473	39497.7509	132.68
6+00.00	52557.3696	39441.3448	129.34
6+93.94	52566.5228	39347.8505	123.83
7+00.00	52567.6501	39341.8976	123.52
7+65.27	52579.7950	39277.7663	120.16
8+00.00	52585.8649	39243.5720	118.24
8+30.19	52591.1411	39213.8488	116.53
8+82.26	52600.2332	39162.5797	113.64
9+00.00	52602.6497	39145.0010	112.28
10+00.00	52616.2684	39045.9326	104.73
10+80.54	52627.2791	38965.8354	97.65
11+00.00	52636.2210	38948.2245	95.60
11+75.42	52670.8530	38880.0172	86.04
12+10.48	52680.3781	38847.2425	82.71
12+65.88	52688.6412	38792.4361	77.96
12+93.12	52683.0715	38765.6857	75.30
13+00.00	52679.6164	38759.6385	74.74
13+30.69	52664.3582	38732.9338	72.37
13+59.02	52641.8700	38706.8654	70.48
14+00.00	52614.0301	38685.6725	67.01
14+30.33	52589.8014	38667.2287	64.16
14+61.84	52560.7545	38654.6947	61.06
15+00.00	52523.6010	38645.7664	54.26
15+02.01	52521.6291	38645.2925	53.87
15+21.10	52505.2106	38635.3196	51.23
15+69.75	52454.5669	38626.3058	39.86
16+00.00	52443.5330	38595.2126	31.50
16+15.00	52438.5041	38581.0807	25.56
16+20.00	52436.8279	38576.3701	23.58
17+00.00	52410.0897	38500.9707	7.64
18+00.00	52376.6463	38406.7288	-3.33
18+80.00	52349.8259	38331.3586	-12.99
19+00.00	52343.2030	38312.4868	-18.65
19+45.54	52327.5376	38268.3424	-28.65
20+00.00	52276.0908	38246.8476	-31.45
20+39.90	52239.2608	38231.4598	-31.33
21+00.00	52181.2256	38215.7550	-31.41
22+00.00	52084.6945	38189.6330	-31.59
22+06.17	52078.6454	38187.9960	-31.68
22+26.80	52061.9277	38175.6781	-31.92
22+46.42	52043.2722	38169.4284	-31.83
23+00.00	51990.6368	38159.2996	-32.06

POINT TABLE

STATION	NORTHING	EASTING	ELEVATION
23+26.15	51964.9471	38154.3561	-32.10
23+62.34	51928.9332	38150.7501	-31.95
23+96.73	51894.5157	38150.5301	-32.02
24+00.00	51891.2597	38150.9418	-32.02
24+66.95	51824.8254	38159.3408	-31.94
25+00.00	51791.8085	38160.9108	-32.00
25+37.23	51754.6160	38162.6793	-32.07
26+00.00	51691.7018	38163.2064	-33.06
26+18.94	51672.2367	38163.3695	-33.75
27+00.00	51597.6529	38129.9435	-38.00
28+00.00	51506.3982	38089.0462	-44.97
29+00.00	51415.1436	38048.1489	-51.95
29+60.50	51359.7925	38023.3423	-55.23
30+00.00	51320.6097	38017.2067	-56.29
30+19.68	51301.1523	38014.1598	-56.58
30+78.74	51242.0663	38012.8107	-56.54
31+00.00	51221.0422	38009.5057	-56.20
31+96.05	51126.1264	37994.5846	-55.90
32+00.00	51122.3382	37993.3699	-55.85
33+00.00	51027.1124	37962.8346	-56.39
33+41.42	50987.5434	37950.1463	-56.87
34+00.00	50937.7963	37918.9715	-57.07
34+04.43	50933.9876	37916.5847	-57.04
35+00.00	50864.3252	37851.0301	-56.70
35+21.32	50848.6469	37836.2764	-56.68
35+79.59	50820.0729	37785.1703	-56.25
36+00.00	50813.0602	37765.9699	-56.00
37+00.00	50778.7529	37672.0390	-55.83
37+56.42	50759.3494	37618.9137	-55.82
38+00.00	50755.0431	37575.4174	-56.05
38+97.62	50745.4225	37478.2415	-56.92
39+00.00	50745.5386	37475.8691	-56.91
40+00.00	50750.4318	37375.9192	-56.40
40+18.56	50751.3447	37357.2731	-56.35
41+00.00	50776.3043	37279.5933	-56.29
41+16.46	50781.3481	37263.8961	-56.47
42+00.00	50818.2046	37188.6004	-57.04
42+11.22	50823.3204	37178.1491	-57.10
42+97.33	50890.7469	37123.1784	-56.94
43+00.00	50893.2634	37122.1373	-56.90
43+82.68	50969.8597	37090.4501	-56.78
44+00.00	50986.8568	37086.8642	-56.68
45+00.00	51084.7095	37066.1995	-56.40
45+01.72	51086.3958	37065.8435	-56.42
46+00.00	51184.3179	37057.2886	-56.73
46+34.86	51219.0470	37054.2545	-56.80
47+00.00	51283.6145	37045.6353	-56.83
47+72.35	51355.3310	37036.0618	-56.86
48+00.00	51382.9116	37034.0876	-56.90
49+00.00	51482.6579	37026.9707	-56.93
49+12.01	51494.6666	37026.0882	-56.71
50+00.00	51582.4085	37033.0270	-56.50
50+11.21	51593.5846	37033.9108	-56.50
50+73.58	51655.9684	37034.1384	-56.50
51+00.00	51682.3012	37031.9625	-56.49

POINT TABLE

STATION	NORTHING	EASTING	ELEVATION		
51+25.98	51708.1983	37029.8225	-56.49		
52+00.00	51781.2800	37018.0450	-56.62		
52+01.18	51782.4474	37017.8569	-56.65		
52+32.05	51813.3560	37016.0485	-56.79		
53+00.00	51876.2603	36990.1568	-56.79		
53+49.19	51923.6175	36970.6644	-56.50		
54+00.00	51941.1964	36920.8478	-56.32		
54+31.26	51951.6568	36890.9914	-56.19		
55+00.00	51995.8768	36837.7491	-56.05		
55+13.71	52004.8316	36826.9672	-56.02		
55+72.33	52024.0905	36771.1017	-56.06		
56+00.00	52040.9292	36749.0458	-66.77		
56+26.00	52056.7066	36728.3800	-81.38	LATITUDE	LONGITUDE
56+62.00	52078.5522	36699.7659	-99.95	58°06'52"N	134°45'54"W

OUTFALL 002A

QUANTITIES SUMMARY

NO.	ITEM DESCRIPTION	UNIT	QTY
1	MOBILIZATION	LS	1
2	DEMOBILIZATION	LS	1
3	GENERAL REQUIREMENTS/CONTRACTOR INDIRECT COSTS	LS	1
4	14" HDPE PIPE DR-17	LF	5565
5	6" TIDEFLEX DIFFUSER VALVE	EA	8
6	10" V-PORT BALL VALVE	EA	1
7	6" HDPE DR-17 FLANGE ADAPTER WITH SS BACK-UP RING	EA	8
8	10" CARBON STEEL ASME 150# WN FLANGE	EA	2
9	14" CARBON STEEL ASME 150# WN FLANGE	EA	2
10	14" X 10" ASME B16.9 CARBON STEEL ECENTRIC REDUCER	EA	2
11	2" COMBINED AIR RELEASE AND VACUUM VALVE	EA	1
12	14"x2" DR-17 FUSIBLE BRANCH SADDLE	EA	1
13	2" HDPE DR-17 FLANGE ADAPTER WITH SS BACK-UP RING	EA	1
14	14" HDPE DR-17 FLANGE ADAPTER WITH SS BACK-UP RING	EA	4
15	14" HDPE DR-17 3-SEGMENT 90 BEND	EA	4
16	14" HDPE DR-17 2-SEGMENT 22.5 BEND	EA	1
17	14" HDPE DR-17 2-SEGMENT 45 BEND	EA	3
18	14" ELECTROFUSION COUPLING	EA	1
19	14"x6" HDPE DR-17 TEE	EA	8
20	14" FLANGE TANK NOZZLE PENETRATION WITH COLLAR	EA	1
21	14" INSPECTION PORT INCLUDING GATE VALVE AND FITTINGS	EA	2
22	14" FLOW METER	LS	1
23	TYPE 1 BALLAST WEIGHT	EA	636
24	TYPE 2 BALLAST WEIGHT	EA	32

ISSUED FOR CONSTRUCTION

VERIFY SCALE!
THESE PRINTS MAY BE REDUCED. LINE BELOW MEASURES ONE INCH ON ORIGINAL DRAWING.
MODIFY SCALE ACCORDINGLY!

REVISIONS			
NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	CRD	4/3/2024
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PLOTTED BY:MELINDA HANKEL ON May/09/2024

Hecla GREENS CREEK

Morrison Maierle
engineers ▪ surveyors ▪ planners ▪ scientists
1055 Mount Avenue, Missoula, MT 59801
406.542.8880 www.m-m.net

STATE OF ALASKA — 49TH — DEBORAH A. JOHNSTON — No. CE12927 — 4/3/2024 — REGISTERED PROFESSIONAL ENGINEER

DRAWN BY: SM
DSGN. BY: JM
APPR. BY: DAJ
DATE: 4/2024
Q.C. REVIEW BY:
DATE:

ADMIRALTY ISLAND — GREENS CREEK OUTFALL 002A HECLA MINING COMPANY — ALASKA

PROJECT NOTES AND LEGEND

PROJECT NUMBER 4885.005.05
SHEET NUMBER 1
DRAWING NUMBER 05-G-1

M:\4885\005.05 OUTFALL 002\ACAD\SHEETS\OV\L1-OVERALL SITE PLAN.DWG