REGULAR PLANNING COMMISSION AGENDA

January 27, 2026 at 6:00 PM

Assembly Chambers/Zoom Webinar

https://juneau.zoom.us/j/86847221296 or 1-253-215-8782 Webinar ID: 8868 4722 1296

A. LAND ACKNOWLEDGEMENT

We would like to acknowledge that the City and Borough of Juneau is on Tlingit land and wish to honor the indigenous people of this land. For more than ten thousand years, Alaska Native people have been and continue to be integral to the well-being of our community. We are grateful to be in this place, a part of this community, and to honor the culture, traditions, and resilience of the Tlingit people. *Gunalchéesh!*

B. ROLL CALL

C. REQUEST FOR AGENDA CHANGES AND APPROVAL OF AGENDA

D. APPROVAL OF MINUTES

E. BRIEF REVIEW OF THE RULES FOR PUBLIC PARTICIPATION

F. PUBLIC PARTICIPATION ON NON-AGENDA ITEMS

G. ITEMS FOR RECONSIDERATION

H. CONSENT AGENDA

1. MLG2025 0001: Applicant requests Summary Approval for an extension of the Tailings Disposal Facility (TDF) at Greens Creek Mine. APPROVED AS RECOMMENDED

DIRECTOR'S REPORT

The Applicant requests a Summary Approval for an extension of the Tailings Disposal Facility (TDF) at Greens Creek Mine. The Greens Creek Mine Tailings Disposal Facility extension project has gone through a strict environmental review process and received a Final Record of Decision from the US Forest Service. Greens Creek Mine is approximately 18 miles outside the CBJ Road Service Area and meets the requirements of Summary Approval under CBJ 49.65.170(b)(2)(A).

STAFF RECOMMENDATION

Staff recommends the Planning Commission GRANT the Summary Approval for case MLG2025 0001.

2. CSP2025 0002: Replacement of Pump Station at Cope Park. RECCOMENDED FOR APPROVAL

DIRECTOR'S REPORT

The applicant requests a City Project Review for replacement of the water utility pump

station at Cope Park, upgrades to underground piping and valves, and installation of new curb, gutter, and pavement. The Cope Park water pump station provides potable water service to higher-elevation areas of downtown Juneau. The existing pump station is nearing the end of its service life and requires replacement, according to the application packet. The proposed project complies with Title 49 of the CBJ Land Use Code and is in general conformity with adopted plans, including the 2013 Comprehensive Plan.

STAFF RECOMMENDATION
Staff recommends the Planning Commission adopt the Director's analysis and findings and forward a recommendation of APPROVAL of CSP2025 0002 to the Assembly.

3. **USE2025 0011: A proposal for a Conditional Use Permit for a vehicle-repair garage in a GC zone. APPROVED AS RECOMMENDED**

DIRECTOR'S REPORT
The applicant requests a Conditional Use Permit to construct a vehicle-repair garage in a General Commercial zone. Motor vehicle repair and maintenance, including body work, is an allowable use (CBJ 49.25.300, Use 9.100) via the conditional-use process in the General Commercial (GC) zoning district.

STAFF RECOMMENDATION
Staff recommends the Planning Commission adopt the Director's analysis and findings and APPROVE Conditional Use Permit USE2025 0011 with the requested conditions.

I. UNFINISHED BUSINESS

J. REGULAR AGENDA

1. **PAD2025 0001: Applicant requests a Property Disposal Review for the purchase of approximately one (1) acre of City & Borough of Juneau-owned land. RECOMMENDED FOR APPROVAL WITH FINDING**

DIRECTOR'S REPORT
The applicant requests a Property Disposal Review for the purchase of approximately one (1) acre of City & Borough of Juneau-owned land adjacent to his property at 1110 Mendenhall Peninsula Road. The applicant would use the acquired property to construct a 24-foot by 40-foot addition to his existing home with an attached deck. The proposed land disposal is in general conformity with the 2013 Comprehensive Plan and the 2016 CBJ Land Management Plan and has a motion of support from the Assembly Lands Housing & Economic Development (LHED) Committee to go to the full Assembly for review.

STAFF RECOMMENDATION
Staff recommends the Planning Commission adopt the Director's analysis and findings and forward a recommendation of APPROVAL of PAD2025 0001 to the Assembly.

K. OTHER BUSINESS

L. STAFF REPORTS

M. COMMITTEE REPORTS

N. LIAISON REPORT

O. CONTINUATION OF PUBLIC PARTICIPATION ON NON-AGENDA ITEMS

P. PLANNING COMMISSION COMMENTS AND QUESTIONS

Q. EXECUTIVE SESSION

R. SUPPLEMENTAL MATERIALS

1. Additional Materials

S. ADJOURNMENT

ADA accommodations available upon request: Please contact the Clerk's Office 36 hours prior to any meeting so arrangements can be made for closed captioning or sign language interpreter services depending on the meeting format. The Clerk's Office telephone number is (907) 586-5278, e-mail: city.clerk@juneau.gov.

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

PLANNING COMMISSION STAFF REPORT
SUMMARY APPROVAL: MLG2025 0001
HEARING DATE: JANUARY 27, 2026

(907) 586-0715
CDD_Admin@juneau.gov
www.juneau.org/community-development
155 Heritage Way • Juneau, AK 99801

DATE: December 1, 2025

TO: Erik Pedersen, Chair, Planning Commission

BY: Justin Smith, Planner I

THROUGH: Jill Lawhorne, Director, AICP

PROPOSAL: Applicant requests Summary Approval for an extension of the Tailings Disposal Facility (TDF) at Greens Creek Mine.

STAFF RECOMMENDATION: Staff recommends the Planning Commission GRANT the Summary Approval.

KEY CONSIDERATIONS FOR REVIEW:

- The Greens Creek Mine Tailings Disposal Facility extension project has gone through a strict environmental review process and received a Final Record of Decision from the US Forest Service.
- Greens Creek Mine is approximately 18 miles outside of the CBJ Roaded Service Area.
- The tailings disposal facility extension project meets the requirements of Summary Approval under CBJ 49.65.170(b)(2)(A).

PLANNING COMMISSION ACTIONS:

1. **Ratify:** Approve the proposed summary approval as submitted by the Director.
2. **Reject and Return:** Return the matter to the Director for further consideration to address issues identified by the Commission through added conditions or revisions to the proposed mining operation.
3. **Reject and Refer to Use Permit:** Direct that the proposed change be processed as an Allowable Use Permit under CBJ 49.15.320, allowing the Commission to impose conditions necessary to reduce impacts to a non-significant level.

ASSEMBLY ACTION REQUIRED:

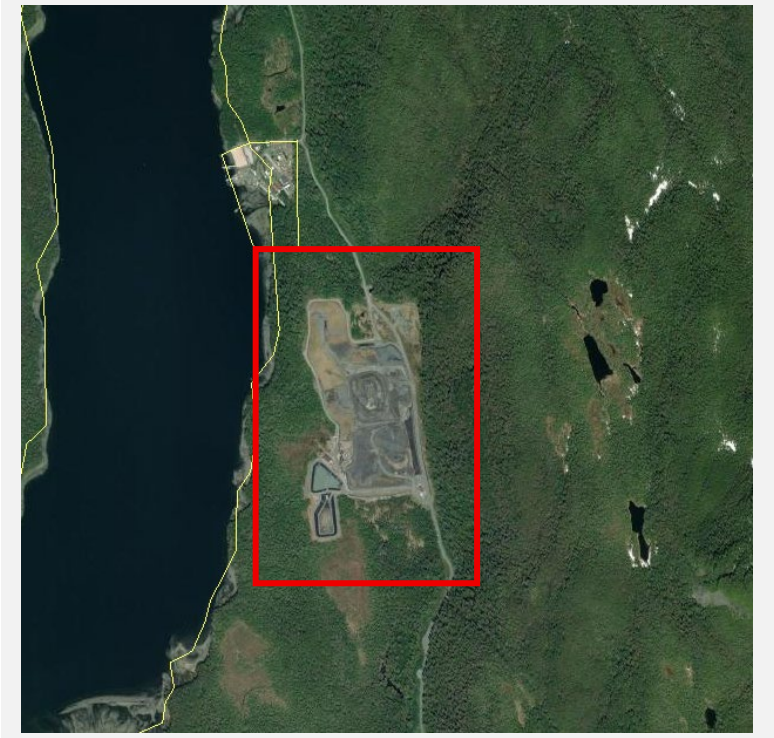
Assembly action is not required for Summary Approval.

STANDARD OF REVIEW:

- Quasi-legislative decision
- Requires five (5) affirmative votes for approval
- Code Provisions:
  - CBJ 49.75.120
  - CBJ 49.10.170(d)
  - CBJ 49.80
  - CBJ 49.65.170(b)(2)

GENERAL INFORMATION	
Property Owner	United States Forest Service
Applicant	Hecla Greens Creek Mining Company
Property Address	Admiralty Island
Legal Description	GREENS CREEK MINE
Parcel Number	3A0101000010
Zoning	(RR) Rural Reserve
Lot Size	460 acres
Water/Sewer	On-site / On-site
Access	Hecla Greens Creek B-Road
Existing Land Use	Tailings Disposal Facility
Associated Applications	N/A

SITE FEATURES AND ZONING



SURROUNDING ZONING AND LAND USES	
North (RR)	Stephens Passage
South (RR)	Chatham Strait/Chichagof Island
East (RR)	Admiralty Island National Monument
West (RR)	Chatham Strait/Icy Strait

SITE FEATURES	
Anadromous	No
Flood Zone	No
Hazard	None Mapped
Hillside	No
Wetlands	No
Parking District	No
Historic District	No
Overlay Districts	Rural Mining District

BACKGROUND INFORMATION

Project Description –

The applicant requests Summary Approval (**Attachment A**) for the proposed extension of the Greens Creek Mine Tailings Disposal Facility (TDF), under the City and Borough mining ordinance, CBJ 49.65.170(2)(A). Summary Approval requirements and the Planning Commission review process will be discussed in the following sections of this report.

The Greens Creek Mine North Extension Project – Final Record of Decision (FROD) (**Attachment D**) for the extension was finalized in November of 2024. The FROD has identified Alternative B (Modified) as the preferred alternative for the project.

This alternative allows for 4-5 million cubic yards of tailings and waste rock to be placed resulting in approximately 12 to 18 more years of operation at the currently projected rates of fill. More specifically, the modified Alternative B allows for:

- Construction and extension of the TDF;
- Relocation of the existing B-Road west of, and adjacent to, the TDF, including construction of a new crossing of Cannery Creek;
- Relocation of the existing power line and electrical substation;
- Raising the embankment around and between Ponds 7 and 10 by approximately 5 feet to meet water storage and management requirements (99.7 acre-feet or 32,487,387 gallons) and installation of a sump pumping system (the north sump) to capture runoff from the northern end of the TDF. The emergency

spillway will also be raised by 5 feet to match the level of the raised embankment, but the design and location will remain similar to that of the existing spillway;

- Relocation of the existing freshwater collection system at Cannery Creek; and
- Placement of peat and overburden within designated disposal areas within the TDF footprint or other approved locations.

Background –

Greens Creek Mine is located on Admiralty Island approximately 18 miles southwest of Juneau, Alaska. Major mine facilities include the underground mine, mill, waste rock disposal areas, tailings disposal facility (TDF), and a port site and camp. The Greens Creek Mine is operated by Hecla Greens Creek Mining Company (HGCMC).

The City and Borough of Juneau annexed the property to include it within Borough boundaries in 1994. Following annexation, the Planning Commission approved the mine as Large Mine Permit #M-02-95. In 2004, Greens Creek Mine received Summary Approval from the Planning Commission for an extension of its TDF by 62 acres, as MIN2004-00001.

In 2010, Greens Creek proposed a modification to its General Plan of Operations to extend its TDF to accommodate additional tailings and waste rock. This led to a three-year environmental review process among state and federal agencies, with cooperation from the City and Borough of Juneau, which resulted in the Final Record of Decision and Final Environmental Impact Statement released in September 2013. The CBJ Planning Commission granted Summary Approval for the tailings extension in August of 2014 (**Attachment C**).

In 2020, Greens Creek Mine went through a similar process to extend its tailings disposal facility, working with the U.S. Forest Service. The 2024 Greens Creek Mine North Extension Project – Final Record of Decision (FROD) (**Attachment D**) completed by the U.S. Forest Service indicates Alternative B (Modified) as the selected alternative, dictates the rationale for the decision, and discusses mitigation measures for the Greens Creek Mine.

Site Plan Alternative B (Modified) from the Final Record of Decision–

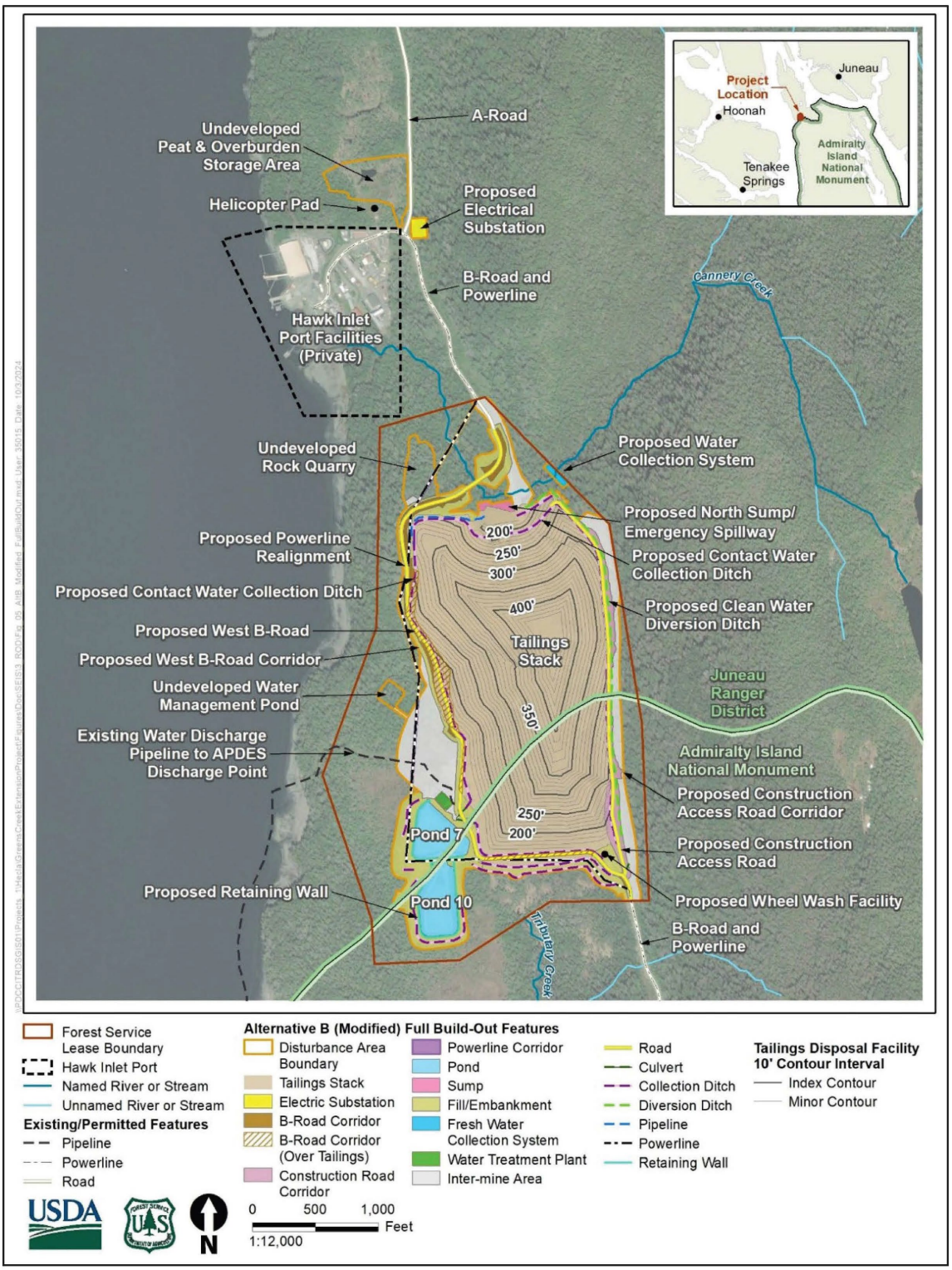


Figure 3: Full buildout of the TDF expansion and other facilities

INFORMATION REVIEWED

Year	Type	Summary
2005	CBJ Roaded Service Area	A map of the CBJ Roaded Service Area. (**Attachment B**)
2014	MLG2014 0001 with Notice of Decision	The Notice of Decision and Staff Report for the extension of the Greens Creek Mine tailings disposal facility in 2014. (**Attachment C**)
2024	Greens Creek Mine North Extension Project – Final Record of Decision (FROD)	The Final Record of Decision for the Greens Creek Mine North Extension Project completed by the U.S. Forest Service in 2024. (**Attachment D**)
2025	U.S Army Corps of Engineers Public Notice for 404 Permit Application	Public Notice from the Army Corps of Engineers that Hecla Greens Creek Mine plans to extend their existing tailings disposal facility. (**Attachment E**)
2025	401-water quality certification from the Alaska Department of Environmental Conservation	A 401-water quality certification from the Alaska Department of Environmental Conservation. (**Attachment F**)

AGENCY REVIEW

CDD conducted an agency review comment period between November 5, 2025, and December 5, 2025. Agency review comments can be found in **Attachment G.**

Agency	Summary
CBJ – CDD Building Division	No comments or concerns at this time.
CBJ – Engineering and Public Works	No comments received.
US Forest Service	No comments received.
US Army Corps of Engineers	No comments received.
Alaska Department of Environmental Conservation	No comments received.
Alaska Department of Natural Resources	No comments received.
Alaska Department of Fish and Game	No comments received.

PUBLIC COMMENTS

CDD conducted a public comment period between November 5, 2025, and December 5, 2025. As of November 21, 2025, there are no public comments.

ANALYSIS

The requirements for Summary Approval have been established in the City and Borough mining ordinance, CBJ 49.65.170(b)(2).

1. 49.65.170(b)(2)(A). The change in mining operations does not constitute a new land use.

CBJ 49.80.120 defines a new land use as a use falling under a different category in the Table of Permissible Uses than the "mining operations" use designation in 14.400. The creation and extension of a tailings disposal facility can only happen in connection with a mining activity in which tailings material is produced. Tailings disposal, as an essential component of mine operations in the same manner as excavation and milling, falls under 14.400, Mining Operations, in the Table of Permissible Uses.

The proposal extends the existing tailings storage area but does not add or propose land uses that are inconsistent with, or unrelated to, management and extension of the tailings storage area or related mining operations. Therefore, the proposal does not constitute a new land use.

Finding: Yes. Staff finds that Summary Approval Criterion One is met.

2. 49.65.170(b)(2)(A). The change in mining operations does not constitute a separate development.

CBJ 49.80.120 defines separate development as a facility or infrastructure located outside the land area encompassing, and not an integral part of, the mining operation for which a development permit already exists. The tailings disposal facility, as proposed for extension, is located within the land area encompassing the mining operation and is an integral part of the mining operation. Mining operations could not proceed as planned without extended facilities for tailings disposal, improvements for groundwater management and quarry and reclamation materials.

Finding: Yes. Staff finds that Summary Approval Criterion Two is met.

3. 49.65.170(b)(2)(A)(i). The mine is located entirely outside the roaded service area established in CBJ 01.30.320.

Attachment B illustrates the roaded service area and the location of the Greens Creek mine and tailings facility. The mine is located approximately 18 miles outside of the roaded service area.

Finding: Yes. Staff finds that Summary Approval Criterion Three is met.

4. *49.65.170(b)(2)(A)(ii). The application is complete, providing all of the information necessary for the Director to make the summary approval determinations set forth in subsections (i)-(iv)*

The application is complete and provides all of the information necessary for the Director to make a Summary Approval determination.

Finding: Yes. Staff finds that Summary Approval Criterion Four is met.

5. 49.65.170(b)(2)(A)(iii). The proposed change in mining operations will have no significant impact within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides, or erosion.

Greens Creek Mine is approximately 18 miles from the City and Borough's roaded service area boundary. Impacts from the proposed action will occur almost entirely on-site. Where impacts may extend off-site, such as dust emissions from road surfaces or from the tailings pile surface, the effects will be localized and will occur outside the roaded service area boundary.

The applicant has addressed each of the subjects listed in CBJ 49.65.170(b)(2)(A)(iii). The application packet (**Attachment A**) and the FROD (**Attachment D**) provide sufficient information to conclude that no significant impact will occur within the roaded service area as a result of the proposed action.

Each of the twelve subjects listed in 49.65.170(b)(2)(A)(iii) is discussed below.

Habitat. In the habitat areas surrounding Greens Creek Mine, impacts have been confined within the mine site, outside of the roaded service area. There is potential for minor impacts to water quality and air quality in areas immediately adjacent to the mine site. However, these impacts are unlikely to extend across Stephens Passage and into the roaded service area.

Sound. Operation of the tailings storage area produces several sources of sound including the operation of dump trucks and heavy equipment, a tire-washing station, and a water treatment plant. Ambient noise at the tailings facility is discernable at the site but is not expected to be audible within the roaded service area.

Screening. No portion of the site is visible from the roaded service area, nor are there nearby residences or other permanent activities or uses that might benefit from screening.

Drainage. The Tailings Disposal Facility is constructed to minimize surface and groundwater penetration. The mine operation includes many additional measures, all of which are heavily scrutinized by state and federal regulatory agencies, to minimize or eliminate acid rock drainage.

Traffic. Extension of the tailings storage area will not result in expanded employment at the mine. Employment is forecast by the mining company to remain at approximately 520 employees. The marine commute from the Gitkov dock at Auke Bay to the mine dock at Young Bay will remain the same. Consequently, no change or increase in existing traffic within the roaded service area is anticipated as a result of this action.

Lighting. This light will be visible from Hawk Inlet but will not be visible from the roaded service area.

Safety. All mine operations except for the ferry transportation facility are outside of the roaded service area. No changes to transportation are proposed with the development which would lead to impacts within the roaded service area.

Dust. Dust impacts are localized and are not expected to have any discernable effect within the roaded service area approximately 18 miles away.

Surface Subsidence. Extension of the tailings disposal area is not anticipated to result in surface subsidence.

Avalanches. Avalanche events, if they were to occur, would have no physical impact within the roaded service area.

Landslides. Localized landslide events, if they were to occur, would have no physical impact within the roaded service area.

Erosion. No erosion impacts related to the proposed action will occur within the roaded service area.

Finding: Yes. Staff finds that Summary Approval Criterion Five is met.

6. ***49.65.170(b)(2)(A)(iv). The proposed change in mining operations has undergone or is undergoing environmental review and approval by one or more federal agencies, state agencies, or both.***

The Greens Creek Mine North Extension Project – Final Record of Decision (FROD) was completed for the project in November 2024.

Finding: Yes. Staff finds that Summary Approval Criterion Six is met.

FINDINGS

The Director makes the following findings for each of the Summary Approval requirements:

1. The proposed activity is not a new land use. The tailings storage area, in both its current and its proposed configuration, can be classified only under the "mining operations" category, 14.400, in the Table of Permissible Uses in CBJ 49.25.300.
2. The Tailings Disposal Facility and related facilities are not a separate development. The facilities are located within the land area encompassing the mining operation, and are an integral part of the mining operation, for which a development permit already exists.
3. The mine is located entirely outside of the roaded service area.
4. The application submitted by Greens Creek Mine is complete and provides all of the information needed by the Director to make a Summary Approval determination.
5. The proposed change in mining operations will have no significant impact within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides, or erosion.
6. The proposed change in mining operations has undergone environmental review and approval through the National Environmental Policy Act.

RECOMMENDATION

Staff recommends the Planning Commission adopt the Director's analysis and findings and grant the requested Summary Approval.

STAFF REPORT ATTACHMENTS

Item	Description
Attachment A	Application Packet
Attachment B	2005 CBJ Roaded Service Area Map
Attachment C	2014 MLG2014 0001 with Notice of Decision
Attachment D	2024 Greens Creek Mine North Extension Project – Final Record of Decision (FROD)
Attachment E	2025 U.S Army Corps of Engineers Public Notice for 404 Permit Application
Attachment F	2025 401-water quality certification from the Alaska Department of Environmental Conservation
Attachment G	Agency Comments

Hecla
GREENS CREEK

August 26, 2025

Community Development Department
City and Borough of Juneau

RE: Hecla Greens Creek Mining Company North Expansion Project- Technical Revision Summary Approval to Large Mine Permit Request

Hecla Greens Creek Mining Company (HGCMC) is requesting summary approval of the expansion of the Tailings Disposal Facility (TDF) under the City and Borough's mining ordinance.

We believe that our application meets the requirements for summary approval per CBJ Code 49.65.155(2)(A) as follows:

- The mine and TDF is located completely outside of the roaded service area established in CBJ 01.30.320. The proposed expansion of the TDF is approximately 18 miles southwest of Juneau, and due to its location near Hawk Inlet is not visible from any part of the roaded service area. This ensures that there will be no additional impact from this proposed project within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides, or erosion.
- The proposed expansion has been the subject of a National Environmental Policy Act (NEPA) review that was coordinated by the United States Forest Service (USFS) and involved multiple federal and state agencies. Record of Decision (ROD) and Final Environmental Impact Statement (FEIS) for the expansion was finalized in November of 2024. The project record for the NEPA process, including the ROD and FEIS may be found on the USFS website here: https://www.fs.usda.gov/project/?project=57306

While the NEPA process is complete, prior to expansion construction activities the TDF will require a US Army Corps of Engineers (USACOE) 404 Permit and a 401-water quality certification from Alaska Department of Environmental Conservation (ADEC). Details of the public notice and associated maps for the 404 permit and mitigation plan may be found here:

https://www.poa.usace.army.mil/Missions/Regulatory/Public-Notices/Public-Notices-View/Article/4100917/poa-1988-00269-cannery-creek-pn/

To support this request, we are also submitting the following materials:

1. CBJ Development Permit Application and $1,600 Fee
2. Project Description

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GREENS CREEK

3. Project Details
4. Figure 1: Map titled "Greens Creek vicinity map"
5. Figure 2: Map titled "Existing and authorized TDF expansion areas"
6. Figure 3: Map titled "Full buildout of the TDF expansion and other facilities"
7. Figure 4: Map titled "Expansion Wetland Impact"
8. Photo 1: Existing waste water treatment plant
9. Photo 2: Existing truck wash
10. Photo 3: TDF, waste water treatment plant and pond 7/10 looking south towards Hawk Inlet showing expansion area in the foreground
11. Photo 4: Placement of tailings on existing TDF
12. ADEC Waste Management Permit
13. USACOE Public Notice for 404 Permit Application and Mitigation Plan

Thank you for your consideration.

Should you have any questions or concerns, please contact me at (907) 600-7737 ext. 8472 or plillesve@hecla.com.

Sincerely,

Digitally signed by
Paula Lillesve
Date: 2025.08.26
14:38:31 -08'00'

Paula Lillesve
Environmental Manager
Hecla Greens Creek Mining Company

Hecla
GREENS CREEK

Project Description

The Greens Creek Mine is located on Admiralty Island approximately 18 miles southwest of Juneau, Alaska. The mine has been in operation since 1989 with a 2-year period of temporary closure. Major mine facilities include the underground mine, mill, waste rock disposal areas, tailings disposal facility (TDF), a port site and camp, roads and power infrastructure among the mine components. The mine produces lead and zinc concentrates that also contain silver. The Greens Creek Mine is operated by Hecla Greens Creek Mining Company (HGCMC).

In May 2020, HGCMC submitted a proposed amendment to modify the existing 2013 General Plan of Operations (GPO) to extend the existing TDF to provide permanent disposal capacity within the Forest Service-approved lease boundary (lease boundary) of 14.2 million cubic yards (CY) of tailings and waste rock produced by existing operations and modify or install new supporting infrastructure to allow continued mining operations.

The purpose and need for the expansion is to extend the existing TDF to provide permanent disposal capacity for tailings, waste rock, and other materials produced by existing operations. This additional disposal capacity is intended to meet the objectives for continued uninterrupted tailings and waste rock disposal operations at the HGCMC site in a safe, environmentally sound, technically and economically practicable, and cost-effective manner, while remaining in compliance with regulatory requirements.

In November of 2024, the United States Forest Service (USFS) issued a Record of Decision (ROD) and Final Environmental Impact Statement (FEIS) that allowed for modified Alternative B as the preferred alternative. This alternative allows for 4-5 million cubic yards of tailings and waste rock to be placed resulting in approximately 12 to 18 more years of operation at the currently projected rates of fill. More specifically, the modified Alternative B allows for:

- Construction and expansion of the TDF;
- Relocation of the existing B-Road west of, and adjacent to, the TDF, including construction of a new crossing of Cannery Creek;
- Relocation of the existing power line and electrical substation;
- Raising the embankment around and between Ponds 7 and 10 by approximately 5 feet to meet water storage and management requirements (99.7 acre-feet or 32,487,387 gallons) and installation of a sump pumping system (the north sump) to capture runoff from the northern end of the TDF. The emergency spillway will also be raised by 5 feet to match the level of the raised embankment, but the design and location will remain similar to that of the existing spillway;
- Relocation of the existing freshwater collection system at Cannery Creek; and
- Placement of peat and overburden within designated disposal areas within the TDF footprint or other approved locations.

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The entire project record related to the FEIS can be found on the USFS website:
https://www.fs.usda.gov/project/?project=57306

Project details:

Traffic
Expansion of the tailings storage area will not result in expanded employment at the mine. Employment is forecast by the mining company to remain at approximately 520 employees. The marine commute from the Gitkov dock at Auke Bay to the mine dock at Young Bay will remain the same. Consequently, no change or increase in existing traffic within the roaded service area is anticipated as a result of this action.

Lighting
The Greens Creek mine operates 24 hours a day, 7 days a week, 365 days a year. During nighttime operations, and during operations in the winter months, on-site lighting will be used at the tire-washing station, truck dumping area, intersections and could be placed elsewhere on the site to aid trucks that are hauling tailings. This light will be visible from Hawk Inlet but will not be visible from the roaded service area.

Safety
HGCMC has implemented a mining and worker safety program beyond the minimum requirements of the Mine Safety and Health Administration (MSHA). All mine operations except for the ferry transportation facility are outside of the roaded service area. No changes to transportation are proposed with the development which would lead to impacts within the roaded service area.

Noise
Operation of the tailings storage area produces several sources of sound including the operation of dump trucks and heavy equipment, a tire-washing station, and a water treatment plant. Ambient noise at the tailings facility is discernable at the site but is not discernable at the ore loading facility at Hawk Inlet one mile away. Episodic noise may be discernable at a further distance from the site but is not expected to be audible within the roaded service area of the City and Borough.

Dust Management
Tailings are composed of silt-sized particles and have a moisture content of approximately 12%. This is the ideal percentage for placement and compacting. Though the tailings are moist, precautions are still taken to mitigate wind-borne dispersal. Tailings are transported by covered truck to the Tailings Disposal Facility and trucks are required to exit through a high-pressure tire-washing station that hoses down the tires, rims and lower bodies of vehicles.

Tailings are placed on specific locations of the pile, are mechanically spread into 18-inch lifts, then compacted with a vibratory roller. The resulting hard, smooth surface is resistant to airborne erosion. The sloped perimeter portions of the site are initially covered in argillite (a net neutralizing waste rock)

or peat moss, then hydro-seeded with a combination of grass and clover, or layered with coarse rock, to hold the surface material in place.

Dry, windy weather conditions, primarily in the winter months, can result in the dispersal of tailings from the site as a localized condition. HGCMC has an extensive dust monitoring program and mitigation plan. Since then, dust loading concentrations have declined as a result of various abatement measures voluntarily adopted by mine personnel. Dust impacts have been localized and are not expected to have any discernable effect within the roaded service area approximately 18 miles away.

Surface Subsidence.

Expansion of the tailings disposal area is not anticipated to result in surface subsidence. The tailings pile itself will reach a height of 330 feet above sea level. Porous areas and voids are significantly minimized by careful, thin placement of lifts which are continuously compacted, while up to fifty percent of the mine tailings and waste rock are back-filled within mine tunnels. The resulting tailings pile will not be susceptible to subsidence.

Avalanches

No avalanches have occurred within the mine lease area since the original construction of the mine began in 1987, nor are any avalanche chutes mapped with the mine lease area. There are no known avalanche chutes along the routes used by HGCMC on Admiralty Island. There are probable avalanche chute areas on the opposite (south) side of Greens Creek from the road, near the mine and mill. Avalanche events, if they were to occur, would have no physical impact within the roaded service area.

Landslides

The areas most likely for landslides are in the steep, up-valley creek drainages, such as the location of the mine portal on HGCMC. Localized events, if they were to occur, would have no physical impact within the roaded service area.

Erosion

The tailings pile is designed and constructed to minimize water penetration. Over the course of time, water will penetrate the tailings pile and flow through it, but at an incremental pace, not at an erosive pace. During construction HGCMC will follow the Construction General Permit (CGP) requirements as required for any construction related erosion prevention. No erosion impacts related to the proposed action will occur within the roaded service area.

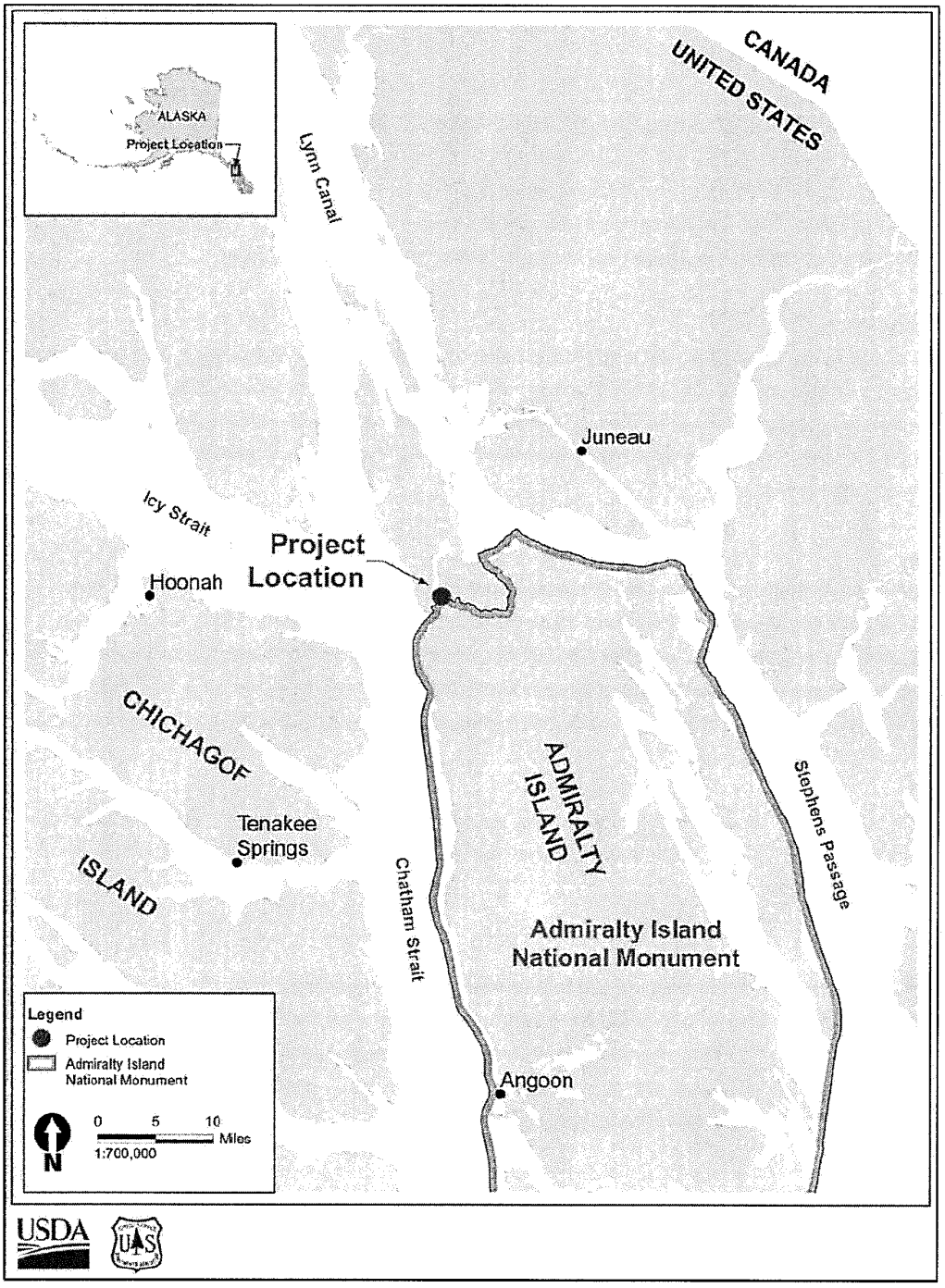


Figure 1: Greens Creek vicinity map

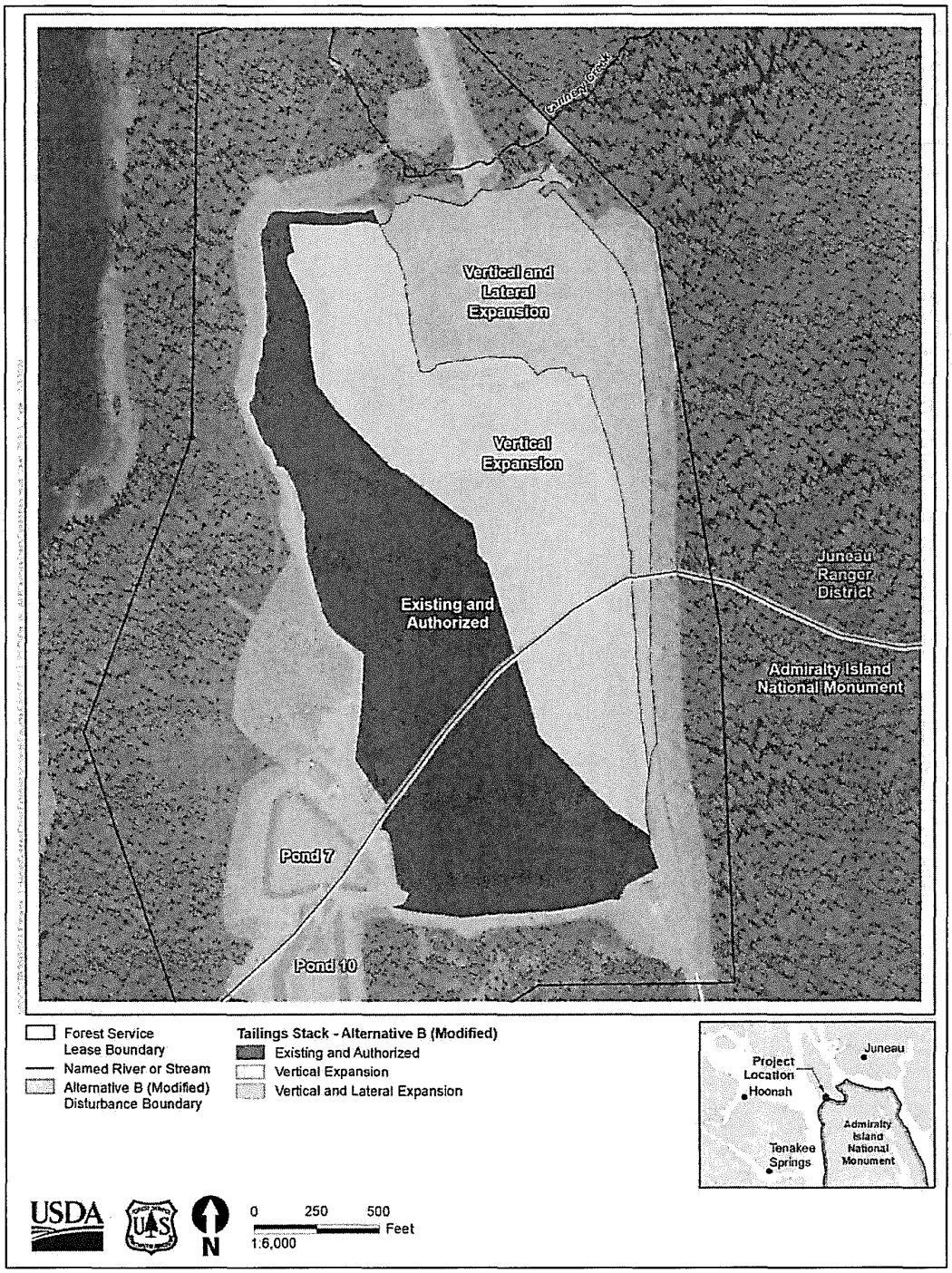


Figure 2: Existing and authorized TDF expansion areas.

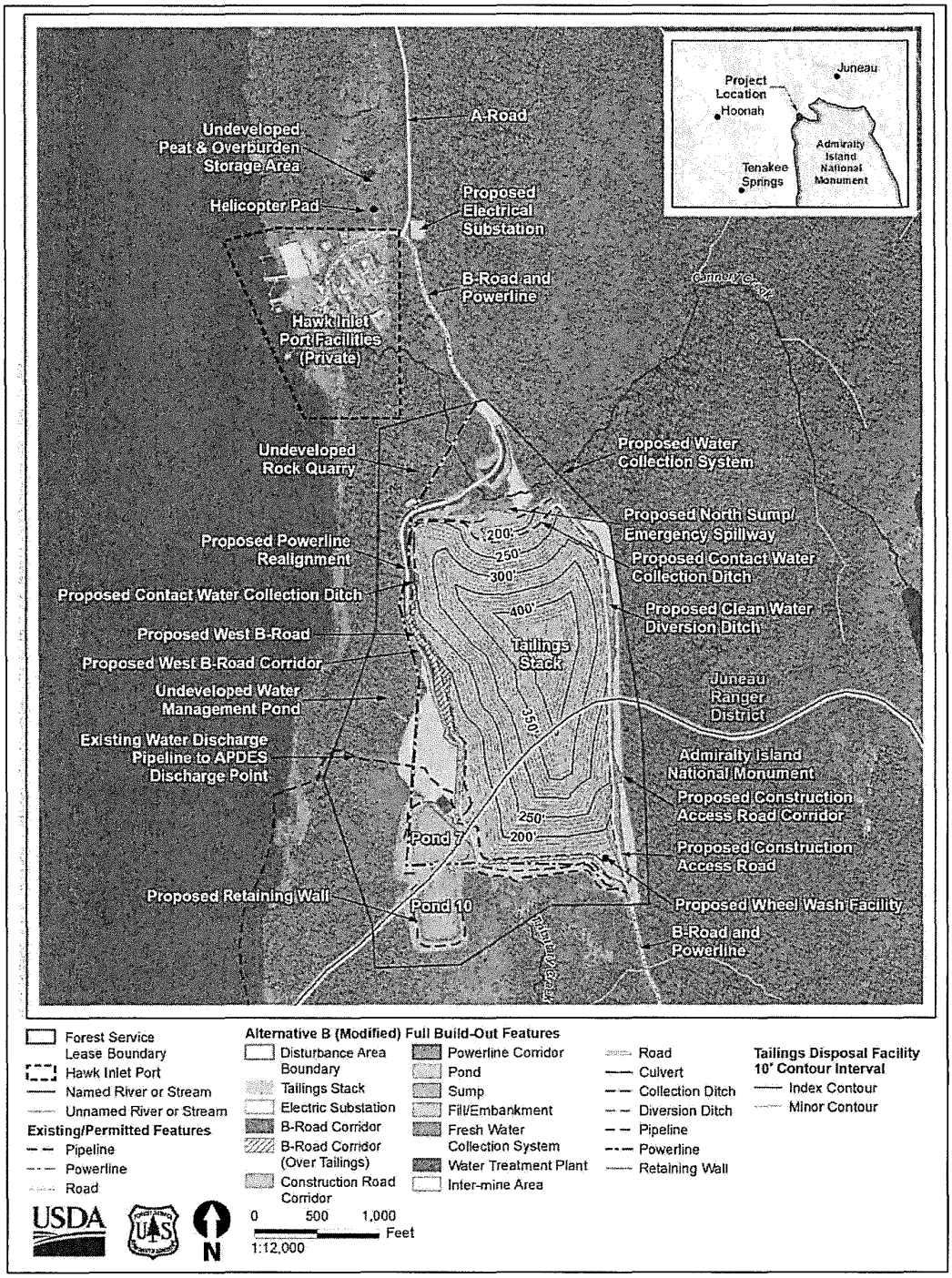


Figure 3: Full buildout of the TDF expansion and other facilities

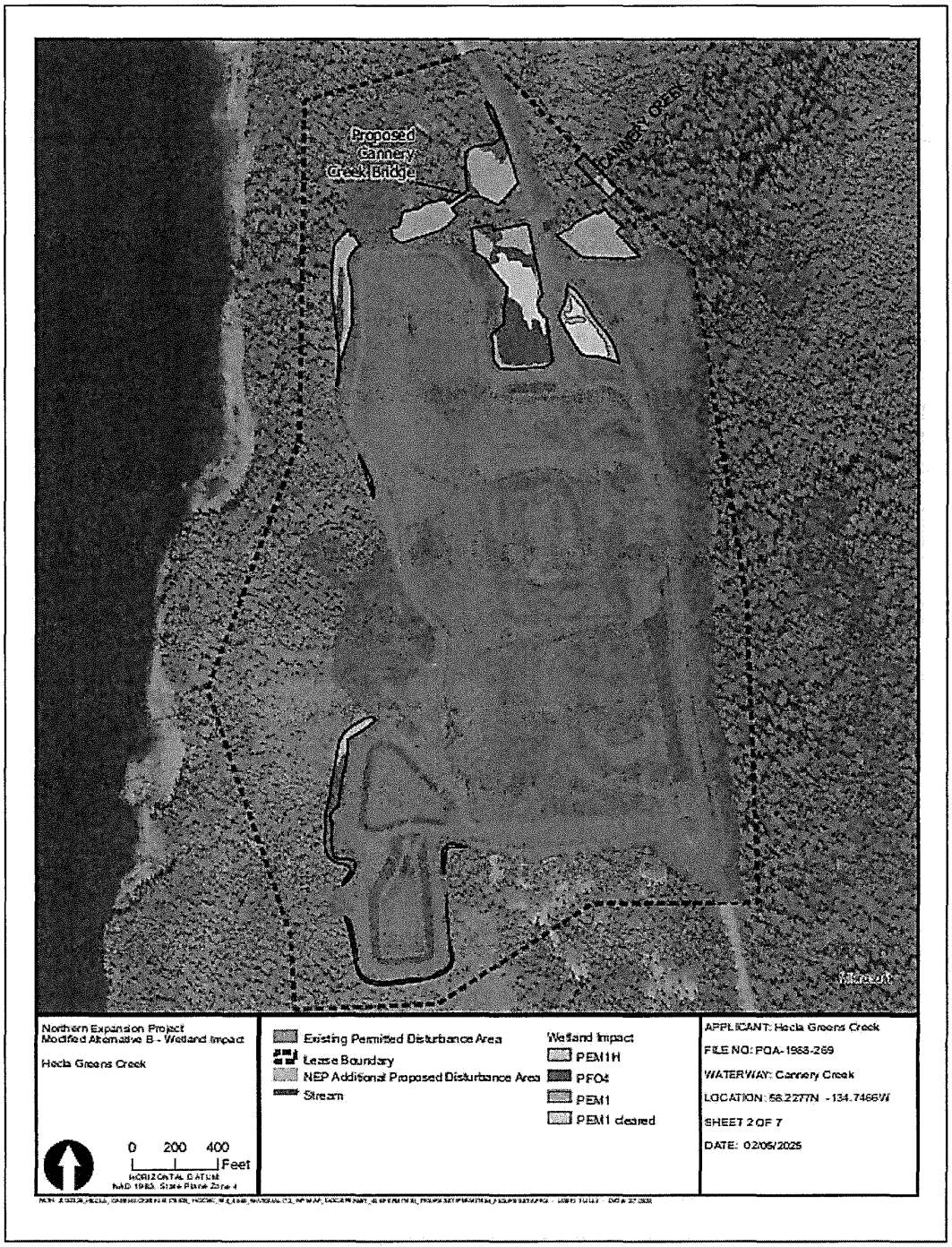


Figure 4: Expansion Wetland Impact

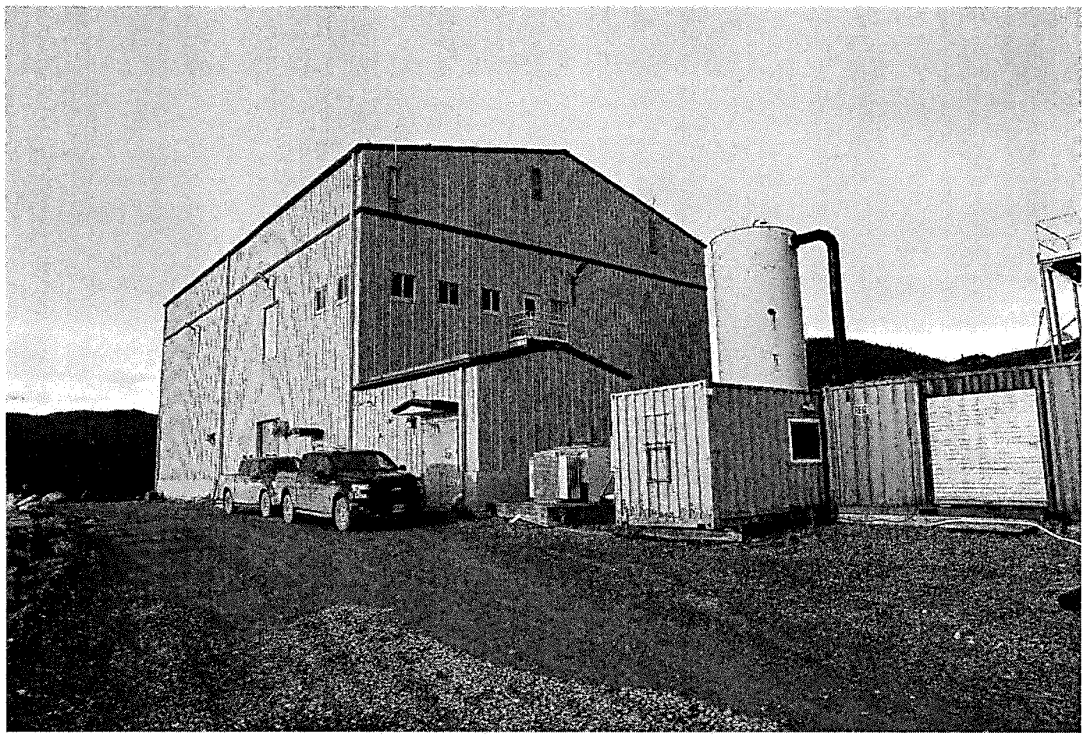


Photo 1: Existing waste water treatment plant

Photo 2: Existing Truck Wash

Photo 3: TDF, waste water treatment plant and pond 7/10 looking south towards Hawk Inlet showing expansion area in the foreground

Photo 4: Placement of tails on existing facility

LARGE MINE PERMIT APPLICATION

(Urban)

Project Number	Project Name (15 characters)	Case Number	Date Received
	HGCMC NEP Project	MLG	

TO BE COMPLETED BY THE APPLICANT

LOCATION OF PROPOSED MINE:

Hecla Greens Creek Mining Company, Admiralty Island, Juneau Alaska 99801

WILL THE PROPOSED MINING ACTIVITIES HAVE IMPACTS ON THE MINING AND EXPLORATION EXCLUSION DISTRICT? ☐ Yes ☐ No

IMPACTS: _____

DESCRIPTION OF ACTIVITY WHICH REQUIRES A MINING PERMIT:

Summary approval of proposed expansion of tailings disposal facility.

PREVIOUS EXPLORATION NOTICES AND/OR MINING PERMITS? ☒ Yes ☐ No

Previous Case Number(s), if known: _____

UNIQUE CHARACTERISTICS OF LAND OR BUILDING(S): _____

WHAT IS THE TOTAL AREA TO BE DISTURBED? _____ ***acres***

HAS A FINANCIAL WARRANTY BEEN ESTABLISHED? ☐ Yes ☐ No

AMOUNT $ _____ ***WARRANTY HOLDER*** _____

CONTACT INFORMATION OF WARRANTY HOLDER: _____

For more information regarding the permitting process and the submittals required for a complete application, please see the reverse side.

If you need any assistance filling out this form, please contact the Permit Center at 586-0770.

LARGE MINE PERMIT FEES

	Fees	Check No.	Receipt	Date
Application Fees	$ 1600			
Admin. of Guarantee	$			
Adjustment	$			
Pub. Not. Sign Fee	$			
Pub. Not. Sign Deposit	$			
Total Fee	$ 1600			

NOTE: MUST BE ACCOMPANIED BY **DEVELOPMENT PERMIT APPLICATION** ***FORM***

Large Mine Permit Application Instructions

Applications for Large Mine Permits are reviewed by the Planning Commission as a Conditional Use permit at a public hearing. The permit procedure is intended to provide the Commission the flexibility necessary to make decisions tailored to individual applications. The Commission may stipulate conditions to mitigate external adverse impacts from the proposed use. If it is determined that these impacts cannot be satisfactorily overcome, the permit shall be denied.

Pre-Application Conference: A pre-application conference is required prior to submitting an application. The applicant will meet with City & Borough of Juneau and Agency staff to discuss the proposed development, the permit procedure and to determine the application fees. To schedule a pre-application conference, please contact the Permit Center at 586-0770 or via e-mail at Permits@ci.juneau.ak.us.

Application: An application for a Large Mine Permit will not be accepted by the Community Development Department until it is determined to be complete. The items needed for a complete application are:

Forms: A completed Large Mine Permit Application and Development Permit Application form. The "land owner or lessee consent" signature is mandatory for all landowners on the Development Permit Application form.

Fees: The fee for a Large Mine Permit Application is $3,600.00, plus any special fee established pursuant to CBJ49.65.130. Any development, work or use done without a permit issued will be subject to double fees. All fees are subject to change.

Project Description: A detailed letter or narrative describing the proposed mining activities, which includes:

A. A map on a scale of 1:63,360, or a more detailed scale, a description of the mine site and affected surface; description and timetable of the proposed mining operation, including all roads, buildings, processing and related facilities;
B. A description and timetable of proposed reclamation of affected surface;
C. A description of proposals for the sealing of open shafts, adits and tunnels upon the completion or temporary cessation of mining operations;
D. A description of methods to be used to control, treat, transport and dispose of hazardous substances, sewage and solid waste;
E. A description of other potential environmental, health, safety and general welfare impacts, as well as impacts on neighboring property and measures to be taken to mitigate their adverse effects; and
F. A Socioeconomic Impact Assessment 49.65130(C)(1) through (2).

Supplemental Information: The application shall also contain:

A. Additional information prepared by the operator for its feasibility studies and mining plans, including information establishing the right to use the affected surface, labor force characteristics and timing, payroll projections, anticipated duration of the mining operation, construction schedules, infrastructure description, and other information reasonably requested by the department in the pre-application conference held pursuant to subsection 49.15.330(b); and
B. An Environmental Impact Statement if it is required by the National Environmental Policy Act.

Plans: All plans are to be drawn to scale and clearly show the items listed below:

A. Site plan, floor plan and elevation views of existing and proposed structures, describing the materials and colors proposed;
B. Existing and proposed parking areas, including dimensions of the spaces, aisle width and driveway entrances;
C. Proposed traffic circulation within the site including access/egress points and traffic control devices;
D. Existing and proposed lighting;
E. Existing and proposed landscaping with location, area, height and type of plantings; and
H. Existing physical features of the site (i.e. drainage, eagle trees, hazard areas, salmon streams, wetlands, etc.).

Document Format: All information that is submitted as part of an application shall be submitted in either of the following formats:

A. Electronic copies may be submitted by CD, DVD or E-mail in the following formats: .doc, .txt, .xls, .bmp, .pdf, .jpg, .gif, .xlm, .rtf or other formats pre-approved by the Community Development Department.
B. Paper copies may not be larger than 11" X 17" (Unless a larger paper size is preapproved by the Community Development Department).

Please consult with the Community Development Department to discuss whether additional information may be required for your application. The "Planner-On-Call" can be reached by contacting the Permit Center at 586-0770 or via e-mail at Permits@ci.juneau.ak.us.

Application Review, Hearing Procedure and Permit Issuance: Once the application is determined to be complete, the Community Development Department will initiate the review and scheduling of the application. This process includes:

Review: Within 20-days of receipt of an application the Community Development Department (Department) will conduct a preliminary review of the application and schedule a meeting with the applicant/operator to request additional information and to establish a procedure/schedule for the coordinated review of the application with the review by other agencies.

Unless the operator agrees to an extension, within 90 days after the Department has received all additional information requested at the initial meeting described in 49.65.130(d) and the fee has been established, the Department shall complete its review of the application, unless an Environmental Impact Statement (EIS) is required by the National Environmental Policy Act (NEPA). The Department shall form a recommendation as to whether the permit should be approved and, if so, it shall make a recommendation on the amount of the financial warranty as provided in section 49.65.140. The Department's recommendation may include such conditions or stipulations as the Department deems to be reasonably necessary to mitigate any adverse environmental, health, safety or general welfare impacts which may result from the proposed mining operation. The Department's recommendations shall be provided to the operator and forwarded to the Planning Commission where the matter shall be placed on agenda for the next regularly scheduled meeting after notice has been published as provided in section 49.15.230. The application shall then be heard as a Conditional Use Permit application as provided in chapter 49.15, article III, as modified by this article.

If the department determines that the proposed mining operation does not meet the standards of sections 49.65.135 and 49.15.330, the Department shall advise the operator. The operator may then either withdraw its application or allow the Department's recommendation to be forwarded to the Planning Commission. If the application is withdrawn, it may be revised and submitted within 180 days upon payment of an additional processing fee as determined by the Department to be reasonably necessary to defray its cost of reviewing the revised application. Revised applications shall be processed in accordance with the procedures set forth in CBJ49.65.130 subsections (d), (e), (f) and (h).

Hearing: All Large Mining Permit Applications will be heard by the Planning Commission as a Conditional Use permit. Once the Planning Commission has determined the application, with stipulations or conditions as appropriate, satisfies the standards of CBJ49.65.135 and CBJ49.15.330, it shall approve the application and set the amount of the financial warranty.

Permit Issuance: The permit will not be issued until the applicant/operator has submitted a financial warranty in the amount set by the Planning Commission that is in a form satisfactory to the City and Borough of Juneau Attorney.

Please consult with the Community Development Department to discuss the review procedure required for your specific application. The "Planner-On-Call" can be reached by contacting the Permit Center at 586-0770 or via e-mail at Permits@ci.juneau.ak.us.

Public Notice Responsibilities: As part of the Conditional Use permitting process, all permit requests must be given proper public notice, which consists of the following:

Community Development Department: Will give notice of the pending Planning Commission meeting and its agenda in the local newspaper a minimum of 10-days prior to the meeting. Furthermore, the department will mail abutters notices to all property owners within 500-feet of the project site.

Applicant: Will post a sign on the site at least 14-days prior to the meeting. The sign shall be visible from a public right-of-way or where determined appropriate by the Department. Signs may be produced by the Community Development Department for a preparation fee of $50, and a $100 deposit that will be refunded in full if the sign is returned by 4:30 p.m. on the Monday following the scheduled hearing date. If the sign is returned later than the Monday after the Planning Commission meeting, but within two weeks of the meeting, $50.00 may be refunded. The applicant may make and erect their own sign. Please speak with the Community Development Department for more information.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

DEVELOPMENT PERMIT APPLICATION

NOTE: Development Permit Application forms must accompany all other Community Development Department land use applications. This form and all documents associated with it are public record once submitted.

To be completed by Applicant

PROPERTY LOCATION

Physical Address: Admiralty Island

Legal Description(s) (Subdivision, Survey, Block, Tract, Lot): Greens Creek Mine

Parcel Number(s): 3A0101000010

☐ This property is located in the downtown historic district
☐ This property is located in a mapped hazard area, if so, which _____

LANDOWNER/ LESSEE

Property Owner: United States Forest Service | Contact Person: Monique LaPerriere Nelson

Mailing Address: 709 West 9th Street, Suite 535B Juneau, AK 99801-1807 | Phone Number(s): 907-209-4090

E-mail Address: monique.nelson@usda.gov

LANDOWNER/ LESSEE CONSENT

Required for Planning Permits, not needed on Building/ Engineering Permits.

Consent is required of all landowners/ lessees. If submitted with the application, alternative written approval may be sufficient. Written approval must include the property location, landowner/ lessee's printed name, signature, and the applicant's name.

I am (we are) the owner(s)or lessee(s) of the property subject to this application and I (we) consent as follows:
A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission.
B. I (we) grant permission for the City and Borough of Juneau officials/employees to inspect my property as needed for purposes of this application.

Monique L. Nelson — Forest Supervisor, Tongass NF
Landowner/Lessee (Printed Name) — **Title (e.g.: Landowner, Lessee)**

X _____ 5/8/2025
Landowner/Lessee (Signature) — **Date**

_____
Landowner/Lessee (Printed Name) — **Title (e.g.: Landowner, Lessee)**

X _____ _____
Landowner/Lessee (Signature) — **Date**

NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours. We will make every effort to contact you in advance, but may need to access the property in your absence and in accordance with the consent above. Also, members of the Planning Commission may visit the property before a scheduled public hearing date.

APPLICANT If same as LANDOWNER, write "SAME"

Applicant (Printed Name): Hecla Greens Creek Mining Company | Contact Person: Paula Lillesve

Mailing Address: PO BOX 32199 Juneau AK 99803 | Phone Number(s): 907-600-7737 ext. 8472

E-mail Address: plillesve@hecla.com

X _____ 4/9/2025
Applicant's Signature — **Date of Application**

----------DEPARTMENT USE ONLY BELOW THIS LINE----------

	Intake Initials
Case Number	Date Received

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

(907) 586-0715
CDD_Admin@juneau.gov
www.juneau.org/community-development
155 Heritage Way • Juneau, AK 99801

Hecla Greens Creek North Tailings Expansion Project

Case Number:	PAC2025 0033
Applicant:	Hecla Greens Creek Mining Company
Property Owner:	United States Forest Service
Property Address:	Admiralty Island
Parcel Code Number:	3A0101000010
Site Size:	460 acres
Zoning:	(RR) Rural Reserve
Existing Land Use:	Mine

Conference Date:	July 23, 2025
Report Issued:	July 29, 2025

DISCLAIMER: Pre-application conferences are conducted for the purpose of providing applicants with a preliminary review of a project and timeline. Pre-application conferences are not based on a complete application and are not a guarantee of final project approval.

List of Attendees

Note: Copies of the Pre-Application Conference Report will be emailed, instead of mailed, to participants who have provided their email address below.

Name	Title	Email address
Paula Lillesve	Environmental Manager	plillesve@hecla.com
Jennifer Stoutamore	Sr. Environmental Engineer	jstoutamore@hecla.com
Irene Gallion	Sr. Planner	irene.gallion@juneau.gov
Brandon Robinson	Planner II	Brandon.Robinson@juneau.gov
Justin Smith	Planner I	justin.smith@juneau.gov
Jeff Hedges	Building Code Official	jeffrey.hedges@juneau.gov
Nicolette Chappell	Administrative Coordinator	Nicolette.Chappell@juneau.gov
Bridget LaPenter	Chief - General Engineering	Bridget.LaPenter@juneau.gov

CONFERENCE SUMMARY

Questions/issues/agreements identified at the conference that weren't identified in the attached reports.
The following is a list of issues, comments and proposed actions, and requested technical submittal items that were discussed at the pre-application conference.

Application materials refer to Modified Alternative D; the FS ROD says Alternative B (Modified). Is the latter correct?
The applicant confirmed that Alternative B (Modified) is correct.

The applicant sent an email after the PAC clarifying whether an Allowable Use Permit was necessary for the Tailings Expansion.
After discussion, the project should fall under the Summary Approval process outlined in CBJ 49.65.170(2).

Project Overview

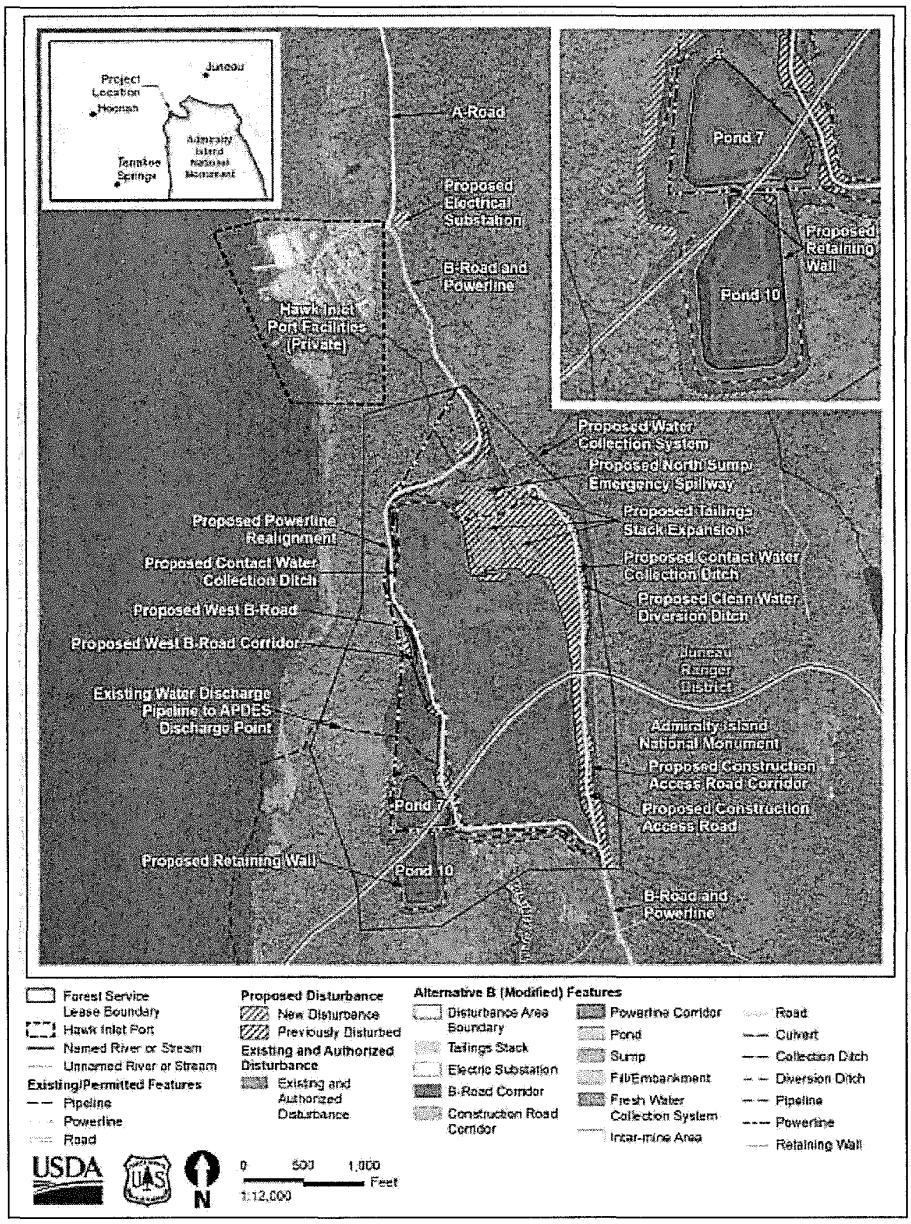
The applicant requests Summary Approval for the proposed expansion of the Greens Creek Mine Tailings Disposal Facility (TDF), under the City and Borough mining ordinance, CBJ 49.65.170(2)(A). Summary Approval requirements and the Planning Commission review process will be discussed in the next section of this report.

The Final Record of Decision (ROD) for the Hecla Greens Creek Mine North Extension Project and Final Environmental Impact Statement (FEIS) for the expansion was finalized in November of 2024. The ROD has identified Alternative B (Modified) as the preferred alternative for the project.

This alternative allows for 4-5 million cubic yards of tailings and waste rock to be placed resulting in approximately 12 to 18 more years of operation at the currently projected rates of fill. More specifically, the modified Alternative B allows for:

- Construction and expansion of the TDF;
- Relocation of the existing B-Road west of, and adjacent to, the TDF, including construction of a new crossing of Cannery Creek;
- Relocation of the existing power line and electrical substation;
- Raising the embankment around and between Ponds 7 and 10 by approximately 5 feet to meet water storage and management requirements (99.7 acre-feet or 32,487,387 gallons) and installation of a sump pumping system (the north sump) to capture runoff from the northern end of the TDF. The emergency spillway will also be raised by 5 feet to match the level of the raised embankment, but the design and location will remain similar to that of the existing spillway;
- Relocation of the existing freshwater collection system at Cannery Creek; and
- Placement of peat and overburden within designated disposal areas within the TDF footprint or other approved locations.

Alternative B (Modified) Visual from the Final ROD.



As this project will require Summary Approval, attached is applicable code in CBJ 49.65.170. A summary of the process is:

- Submit the Large Mine Permit Application and back-up materials (listed on the back of the application).

  - Electronic submissions accepted at Permits@juneau.gov. Note that the permit center will call you for payment when the application is processed. Applications are submitted in the order in which they are received, and it may be a few days before you get a call.
- The project will be assigned to a planner. They will review submitted materials, and coordinate where necessary. When the planner assesses the file is complete, they will schedule a hearing before the Planning Commission.
  - A notice will be sent to property owners within 500 feet of the project.
  - There will be two newspaper ads for the case.
  - The Applicant is required to post a Public Notice sign, visible from the public right of way, which will be provided by CDD. The sign must be posted two weeks before the hearing. The sign can be posted at Gitkov Cove, Four Seasons Marine, 13401 Glacier Highway, where the boat is launched to go to the mine site.
  - Staff will prepare a report analyzing the project and make a recommendation to the Commission. The report will be publicly available the week before the hearing.
- At the Planning Commission meeting, the project can be:
  - On the Consent Agenda, where it will be passed without discussion.
  - On the Regular Agenda:
    - The Director will briefly describe the project.
    - The Applicant has 15 minutes to describe the project.
    - The public has the opportunity to comment. There is usually a time limit of two to three minutes.
    - The Applicant has time to respond to issues raised.
    - Public comment is closed and there is no additional opportunity to participate.
- The Planning Commission will [CBJ 49.65.170(b)(2)(C)]:
  - Ratify the project
  - Reject the project, and
    - Return to the Director to address concerns, or
    - Require the application be reconsidered under an allowable use permit.
  - Continue the project – if more information is required or if the Commission runs out of time.
- The decision can be appealed for 20 days after the Notice of Decision is filed with the City Clerk. If the decision is appealed, the Applicant can continue with their project at their own risk.
- To review the Planning Commission process, videos of past Planning Commission activities are posted on the Assembly's Minutes and Agendas site. https://juneauak.portal.civicclerk.com/

This project will also require a building permit for the proposed retaining wall identified in the Alternative B (Modified) visual above. The applicant can apply for this permit concurrently or after the Summary Approval.

SECTION 1 – PLANNING DIVISION

1. **Zoning** – The lot is zoned (RR) Rural Reserve.
2. **Table of Permissible Uses** – The proposed project requires Summary Approval [CBJ 49.65.170(b)(2)].
   a. Mining is permissible in Rural Reserve zoning [Table of Permissible Uses, 14.400 Mining Operations].
   b. The project is in Juneau's Rural Mining District [CBJ 49.65.115(d)].
   c. The project is under review by state and federal agencies [CBJ 49.65.115(d)].
3. **Structure Setbacks** – From RR Dimensional Requirements:

a. Front yard – Min. 25 feet
b. Rear yard – Min. 25 feet
c. Street Side – Min. 17 feet
d. Side – Min. 15 feet

4. **Structure Height** – From RR Dimensional Requirements:
   a. Permissible Uses - 45 feet
   b. Accessory – 45 feet
5. **Access** – Hawk Inlet, B-Road
6. **Parking & Circulation** – The proposed development is not subject to regulatory parking requirements [CBJ 49.40.200(l), lower case "L"].
7. **Lot Coverage** – From RR Dimensional Requirements: Max 10%
8. **Vegetative Coverage** – From RR Dimensional Requirements: N/A
9. **Lighting** – Exterior lighting may not shed light or glare above the roofline of the building or beyond the property line of the site. Industrial and exterior lighting shall not be used in a manner that produces glare on public highways or neighboring property.

   Prior to issuance of a building permit, the applicant shall submit a lighting plan illustrating the location and type of exterior lighting proposed for the development. Exterior lighting shall be designed and located to minimize offsite glare. Approval of the plan shall at the discretion of the Community Development Department, according to the requirements at §49.40.230(d) [and Historic District Design Guidelines, if applicable].

   All exterior lighting fixtures shall be of a "full cutoff" design.
10. **Noise** – Outside of CBJ Roaded Service Area
11. **Flood** – Not on FEMA Maps: Panels 02110C2175D and 02110C2200D
12. **Hazard/Mass Wasting/Avalanche/Hillside Endorsement** – Avalanche Hazard: not mapped
13. **Habitat/Wetlands** –
    a. Bald Eagle Nesting Atlas: https://eagle.abrinc.com/, a few nests are in the area but were marked unoccupied.
    b. Wetlands: According to the Final Record of Decision for the Hecla Greens Creek Mine North Extension Project, the project's Alternative B (Modified) would impact approximately 4.9 acres of wetlands. These wetlands are not categorized in the Juneau Wetlands Management Plan. The applicant has proposed minimization and compensatory mitigation measures into the design and construction of the project. The list of minimization measures can be found on Pages 3-5 of the USACE Public Notice for 404 Permit Application and Mitigation Plan. For the compensatory mitigation measure, HGCMC proposes the purchase of credits from the Southeast Alaska Land Trust, a USACE approved in-lieu-fee provider with an approved service area that includes the Project location.
14. **Plat or Covenant Restrictions** – N/A
15. **Traffic** – Outside of CBJ Roaded Service Area, and all traffic occurs on the B-Road.
16. **Nonconforming situations** – N/A

17. **Housing and Incentive programs** – N/A

SECTION 2 – BUILDING DIVISION

18. **Building** – No issues with expansion of TDF.
19. **Outstanding Permits** – BLD20230172 Additional Locker Room, BLD20220315 Housing Units, BLD20220282 Service Building Remodel, BLD20200528 13 Room Housing Unit, BLD20190544 Replace 3 Boilers, BLD20180628 Replace Electrical Feeder, BLD20170343 Commercial Warehouse Addition, BLD20150664 Steel Frame Roof Over Equipment, BLD20130013 South Cannery Building Remodel, BLD20120526 Timber Foundation Repair.

SECTION 3 – GENERAL ENGINEERING/PUBLIC WORKS DEPARTMENTS

20. **Engineering** – Site Retainage: 19.12.130 Where retention structures are required to accommodate the site grading, the location, cross-sections, and material details shall be shown on the plan. Retaining walls **4 feet in height or greater** shall be designed and stamped by an Alaska licensed civil engineer. Retaining walls shall be designed for a safety factor of 1.5 against lateral sliding and overturning. Retaining walls that are less than four feet in height that are terraced and are set back on benches that are less than 1.5 times the height of the walls shall be considered as one wall and shall be engineered.
21. **Drainage** – Please provide a drainage plan indicating how runoff displaced by the proposed work will be managed. Plan must include the size, type and location of drainage structures moving water across the site to outfall.
22. **Utilities** – (water, power, sewer, etc.) N/A

SECTION 4 – FIRE DEPARTMENT

23. **Fire Items/Access** – No Comments Provided.

SECTION 5 – OTHER APPLICABLE AGENCY REVIEW

24. Army Corps / DEC (wastewater) / DNR / USF&W / F&G / US Forest Service

SECTION 6 – LIST OF REQUIRED APPLICATIONS

Based upon the information submitted for pre-application review, the following list of applications must be submitted in order for the project to receive a thorough and speedy review.

25. Development Permit Application
26. Large Mine Permit Application
27. Building Permit for Proposed Retaining Wall

Additional Submittal Requirements

Submittal of additional information, given the specifics of the development proposal and site, are listed below. These items will be required in order for the application to be determined Counter Complete.

28. A copy of this pre-application conference report.
29. The Development Permit Application must be signed by someone who can obligate the company. Please provide documentation that the signer has this authority (incorporation documents, bylaws, etc.)

Exceptions to Submittal Requirements

Submittal requirements that staff has determined **not** to be applicable or **not** required, given the specifics of the development proposal, are listed below. These items will **not** be required in order for the application to be reviewed.

30. Under the Fees section of the Large Mine Permit Application Instructions, the Conditional Use Fee Class V of $1,600 will apply to the application instead of the Large Mine Permit Application Fee of $3,600.
31. Project Description and Supplemental Information sections of the Large Mine Permit Application Instructions are not applicable.
32. The Application Review, Hearing Procedure, and Permit Issuance section of the Large Mine Permit Application Instructions is not applicable.

FEE ESTIMATES

The preliminary plan review fees listed below can be found in the CBJ code section 49.85.

Based upon the project plan submitted for pre-application review, staff has attempted to provide an accurate estimate for the permits and permit fees which will be triggered by your proposal.

1. Class V Use: $1,600
2. Public Notice Sign Fee: $50
3. Public Notice Sign Deposit: $100; refunded if the sign is returned to the Permit Center Hub by the Monday following the Planning Commission meeting.

For informational handouts with submittal requirements for development applications, please visit our website at www.juneau.org/community-development.

Submit your Completed Application

You may submit your application(s) online via email to permits@juneau.gov or mail to:

City & Borough of Juneau, ATTN: CDD Permit Center Hub
155 Heritage Way
Juneau, AK 99801

Phone: (907) 586-0715
Web: www.juneau.org/community-development

ATTACHMENTS:

Summary Approval – CBJ 49.65.170
2014 Notice of Decision Summary Approval - Expansion of Tailings Disposal Facility
Large Mine Permit Application
Development Permit Application

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

PLANNING COMMISSION
NOTICE OF DECISION
Date: August 12, 2014
File No.: MLG20140001

Hecla Greens Creek Mining Co.
Attn.: Mike Satre
648 Mission Street
Juneau, Alaska 99801

Application For:	Expansion of the Greens Creek Mine Tailings Disposal Facility.
Legal Description:	Greens Creek Mine
Property Address:	Admiralty Island
Parcel Code No.:	3-A01-0-100-001-0
Hearing Date:	August 12, 2014

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated July 31, 2014, and granted Summary Approval for the tailings expansion facility to be conducted as described in the project description and project drawings submitted with the application

Attachments: July 31, 2014 memorandum from Teri Camery, Community Development, to the CBJ Planning Commission regarding MLG2014 0001.

This Notice of Decision does not authorize construction activity. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance with CBJ §01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ §01.50.030 (c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ §49.20.120).

Effective Date: The permit is effective upon approval by the Commission, August 12, 2014

Expiration Date: The permit will expire 18 months after the effective date, or February 12, 2016, if no Building Permit has been issued and substantial construction progress has not been made in accordance with the plans for which the development permit was authorized. Application for permit extension must be submitted thirty days prior to the expiration date.

Project Planner: _____
Teri Camery, Senior Planner
Community Development Department

_____
Dennis Watson, Vice Chair
Planning Commission

_____ 8/13/14
Filed With City Clerk Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this development project. ADA regulations have access requirements above and beyond CBJ-adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.

MEMORANDUM

CITY/BOROUGH OF JUNEAU
155 South Seward Street, Juneau, Alaska 99801

DATE: July 31, 2014

TO: Planning Commission

FROM: Teri Camery, Senior Planner TC
Community Development Department

FILE NO: MLG2014 0001

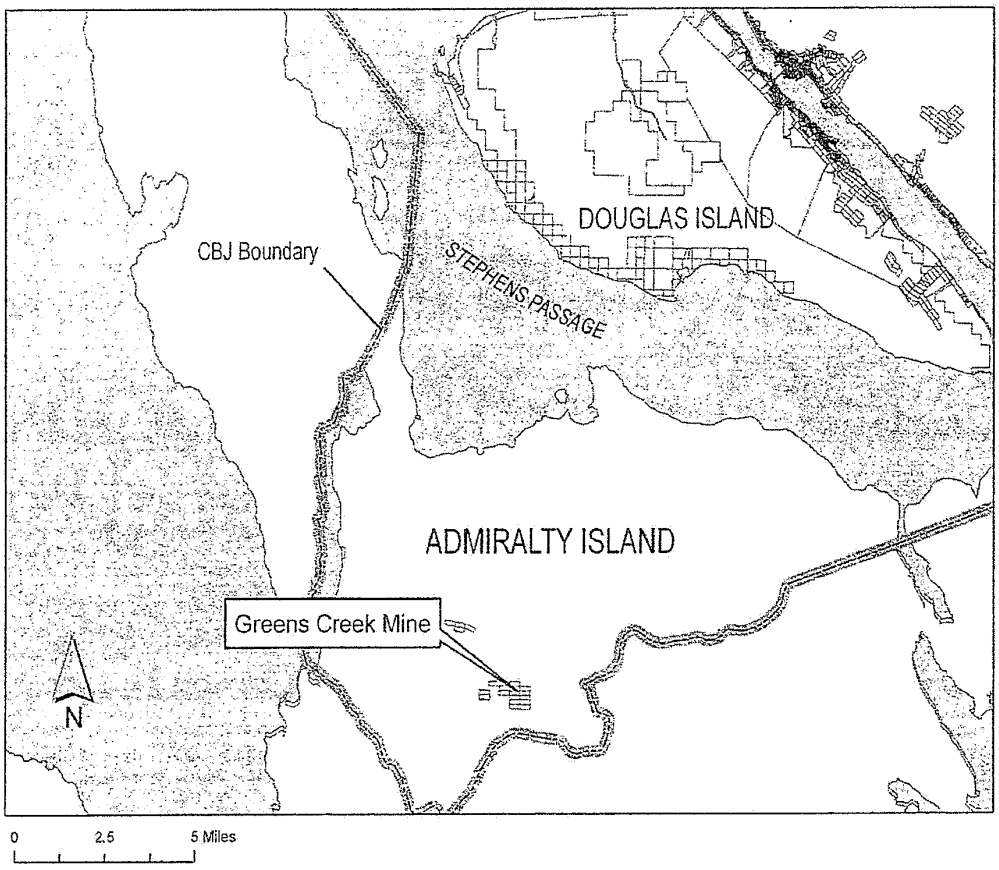
PROPOSAL: Expansion of the Greens Creek mine tailings disposal facility

GENERAL INFORMATION

Applicant:	Mike Satre, Government and Community Relations Manager
Property Owner:	Hecla-Greens Creek Mining Company
Property Address:	Admiralty Island
Legal Description:	Greens Creek Mine
Parcel Code Number:	3-A01-0-100-001-0
Site Size:	Approximately 400 acres
Zoning:	Rural Reserve
Utilities:	On-site systems
Access:	Aircraft or Boat via Hawk Inlet or Young Bay
Existing Land Use:	Mine Facilities
Surrounding Land Use:	North - Stephens Passage South - Chatham Strait/Chichagof Island East - Admiralty Island National Monument West - Chatham Strait/Icy Strait

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

Vicinity Map



ATTACHMENTS

Attachment 1	Development Permit Application
Attachment 2	Large Mine Permit Application
Attachment 3	Applicant Summary Approval Project Narrative
Attachment 3A	Site Plans
Attachment 3B	Photographs
Attachment 3C	Draft ADEC Waste Management Permit
Attachment 3D	Corps of Engineers Public Notice
Attachment 3E	Mitigation Plan for Tailings Expansion
Attachment 4	CBJ Roaded Service Area

PROJECT DESCRIPTION

The applicant requests Summary Approval for the proposed expansion of the Greens Creek Mine Tailings Disposal Facility (TDF), according to the requirements of the City and Borough mining ordinance, CBJ 49.65.155(b)(2). Summary Approval requirements and the Planning Commission review process will be discussed in the next section of this report.

The Final Environmental Impact Statement (FEIS) and Record of Decision for the Greens Creek tailings pile expansion were released in September 2013. The Record of Decision has identified Alternative D Modified as the preferred alternative for the project.

The TDF is currently approved for 62 acres with a capacity for 5.3 million yards of tailings and waste rock. This area will support mine operations until 2019. Alternative D Modified allows for an additional 2.1 million cubic yards of tailings and waste rock over 18 acres, which will support mine operations through approximately 2029. (See Attachment 3A, Tailings Storage Area, Stage 3 Phase 1 Expansion.) Specifically, Alternative D Modified allows for:

- Expansion of the existing tailings disposal facility (TDF) southward into Admiralty Island National Monument by about 18 acres;
- Development of a reclamation material storage area near the junction of the A and B roads, outside of the Monument;
- Development of an 8 acre rock quarry north of the existing TDF, and access from within the existing facility, outside of the Monument;
- Development of a new water management pond south of the existing TDF and expansion of existing water management ponds; and
- Relocation of the B road and truck wheel wash facility to accommodate the TDF expansion.

According to the Corps of Engineers Public Notice, (Attachment 3D), the project would impact approximately 14 acres of wetlands. These wetlands are not categorized in the Juneau Wetlands Management Plan. The applicant has proposed preservation of 48 acres of off-site wetlands as mitigation at the Nevada Creek Mitigation Site on South Douglas Island.

As in the 2004 Greens Creek tailings expansion, Alternative D Modified provides for the continuous addition of carbon to the tailings during placement, to neutralize the acid-forming tendency of the material.

PLANNING COMMISSION REVIEW PROCESS

The requirements for Summary Approval have been established in the City and Borough mining ordinance, CBJ 49.65.155(b)(2), as follows:

> ***49.65.155(b)(2). Summary Approval.*** *Upon request of the applicant, the Director [of CDD] may summarily approve a proposed change in mining operations not constituting a new land use or separate development upon a written determination that:*
>
> *(i) the mine is located entirely outside the roaded service area established in CBJ 01.30.320;*
>
> *(ii) the application is complete, providing all of the information necessary for the Director to make the summary approval determinations set forth in [these] subsections (i)-(iv);*
>
> *(iii) the proposed change in mining operations will have no significant impact within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides or erosion, and;*
>
> *(iv) the proposed change in mining operations has undergone or is undergoing environmental review and approval by one or more federal agencies, state agencies, or both.*
>
> ***49.65.155(b)(2)(C) Planning Commission review.***
> *(i) The director shall promptly forward the proposed summary approval to the Planning Commission after the determination is completed. The Planning Commission may ratify or reject the proposal summary approval.*
>
> *(ii) If the Commission rejects the proposed summary approval, it may:*
> *a) return the matter to the director for further consideration of whether the director, in consultation with the applicant, can address issues identified by the commission through imposition of conditions or changes in the proposed mining operation; or*
> *b) direct that the proposed change be processed by the department as an application for an allowable use permit for which the commission may impose conditions under CBJ 49.15.320(f)(1)-(8) and such additional conditions areas are necessary to reduce to non-significant any impacts in the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides, or erosion.*

Summary Approval requirements will be addressed in the Analysis Section of this report.

BACKGROUND

The Greens Creek Mine is an underground multi-metal mine near Hawk Inlet on northern Admiralty Island, located approximately 18 miles southwest of Juneau. The mine has been in operation since 1989 with one, two-year period of temporary closure. Major components of the mine include the underground mine, mill, waste rock disposal areas, tailings disposal facility (TDF), a port site and camp, and roads and power infrastructure.

The City and Borough of Juneau annexed the property to include it within Borough boundaries in 1994. Following annexation, the Planning Commission approved the mine as Large Mine Permit #M-02-95. In 2004, Greens Creek Mine received Summary Approval from the Planning Commission for an expansion of its Tailings Disposal Facility (TDF) by 62 acres, as MIN2004-00001.

In 2010, Greens Creek proposed a modification to its General Plan of Operations (required by the U.S. Forest Service) to expand its TDF to accommodate additional tailings and waste rock. The current facility is approved to hold 5.3 million cubic yards of tailings and waste rock in approximately 62 acres. The facility is expected to reach capacity in 2019 or sooner. To continue operations, Greens Creek requested an expansion of the TDF to hold an additional 14.2 million cubic yards. This led to a three-year environmental review process among state and federal agencies, with cooperation from the City and Borough of Juneau, which resulted in the Final Record of Decision and Final Environmental Impact Statement released in September 2013. The final approval from the U.S. Forest Service reduced the expansion to less than 10 percent of the original request, for 2.1 million cubic yards instead of 14.2 million.

Greens Creek Mine uses a combination of cut and fill and long-hole mining methods to remove ore and waste rock. Approximately half of the tailings and waste rock are backfilled into mining voids to provide stability within mined-out areas; the remaining materials are disposed of at the Tailings Disposal Facility. No changes in this process are proposed with Alternative D Modified. The mine processes approximately 2,200 tons of ore per day.

The current reclamation bond for the development is $26,238,518. The bond is held by the U.S. Forest Service (USFS) as authorized in a Memorandum of Understanding between USFS, the State of Alaska Department of Environmental Conservation (ADEC), and the State of Alaska Department of Natural Resources (ADNR). In the Draft Waste Management Permit, included as Attachment 3C, ADEC has proposed increasing the reclamation bond amount to $65,342,437. Public comment on this proposal ended on July 21, 2014. The final determination on the bond amount has not yet been announced.

ANALYSIS

1. **49.65.155 (b)(2)(A). The change in mining operations does not constitute a new land use.**

CBJ 49.80.120 defines a new land use as a use falling under a different category in the Table of Permissible Uses than the "mining operations" use designation in 14.400. The creation and/or expansion of a tailings disposal facility can only happen in connection with a mining activity in which tailings material is produced. Tailings disposal, as an essential component of mine operations in the same manner as excavation and milling, easily falls under 14.400, Mining Operations, in the Table of Permissible Uses.

The proposal expands the existing tailings storage area but does not add or propose land uses that are inconsistent with, or unrelated to, management and expansion of the tailings storage area or related mining operations. Therefore the proposal does not constitute a new land use.

Staff finds that Summary Approval Criterion One is met.

2. ***49.65.155 (b)(2)(A). The change in mining operations does not constitute a separate development.***

CBJ 49.80.120 defines separate development as a facility or infrastructure located outside the land area encompassing, and not an integral part of, the mining operation for which a development permit already exists. The tailings disposal facility, as proposed for expansion, is located within the land area encompassing the mining operation and is an integral part of the mining operation. Mining operations could not proceed as planned without expanded facilities for tailings disposal, improvements for groundwater management and quarry and reclamation materials. The mining operation has an existing development permit under CBJ 49.65.190, which provides that pre-existing and pre-approved large mines in territory annexed to the City and Borough are presumptively permitted provided that all state and federal permits and approvals remain valid. Greens Creek met this requirement at the time the mine was annexed to the City and Borough and was granted Large Mine Permit # M-02-95.

Staff finds that Summary Approval Criterion Two is met.

3. ***49.65.155 (b)(2)(A)(i). The mine is located entirely outside the roaded service area established in CBJ 01.30.320.***

Attachment 4 illustrates the roaded service area and the location of the Greens Creek mine and tailings facility. The mine is located approximately 18 miles outside of the roaded service area.

Staff finds that Summary Approval Criterion Three is met.

4. *49.65.155 (b)(2)(A)(ii). The application is complete, providing all of the information necessary for the Director to make the summary approval determinations set forth in subsections (i)-(iv)*

The application is complete, and provides all of the information necessary for the Director to make a Summary Approval determination.

Staff finds that Summary Approval Criterion Four is met.

5. *49.65.155 (b)(2)(A)(iii). The proposed change in mining operations will have no significant impact within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides or erosion.*

The Greens Creek mine is approximately 18 miles from the City and Borough's roaded service area boundary. Impacts from the proposed action will occur almost entirely on-site. Where impacts may extend off-site, such as dust emissions from road surfaces or from the tailings pile surface, the effects will be localized and will occur outside the roaded service area boundary.

The applicant has addressed each of the subjects listed in CBJ 49.65.155(b)(2)(A)(iii) in the application narrative and attachments, and through references to the Final Environmental Impact Statement for Greens Creek tailings disposal. The applicant's submittal and the FEIS provide sufficient information to conclude that no significant impact will occur within the roaded service area as a result of the proposed action.

Each of the twelve subjects listed in 49.65.155(b)(2)(A)(iii) is discussed below.

Habitat. Expansion of the tailings storage area will directly impact approximately 13 acres of wetlands, primarily forested wetlands, which are outside of the categorized area of the 1992 Juneau Wetlands Management Plan. The applicant has proposed 48 acres of wetland preservation on south Douglas Island as mitigation. The selected alternative does not allow Greens Creek Mine to fill or otherwise directly affect any class I or class II stream.

The Final Environmental Impact Statement includes an exhaustive analysis of impacts to surface water, groundwater, air quality, geochemistry, aquatic resources (e.g. resident and non-resident fish populations), vegetation, wildlife, and threatened plant and animal species according to each alternative. Alternative D Modified has a limited degree of impact in many of these areas. This impact has been minimized because the expansion area is directly contiguous with existing operations and because the U.S. Forest Service's final decision granted authorization for less than 10 percent of Greens Creek Mine's original expansion request.

In each of these habitat areas, impacts have been confined within the mine site, outside of the roaded service area. There is potential for minor impacts to water quality and air quality in areas immediately adjacent to the mine site. However these impacts are unlikely to extend across Stephens Passage and into the roaded service area.

The selected alternative, like all of the alternatives, requires Greens Creek Mine to collect and treat water for a minimum of 100 years until it can meet Alaska Water Quality Standards. The treated water will continue to discharge into Hawk Inlet, in compliance with the Federal Clean Water Act, under an Alaska Pollution Discharge System (APDES) permit.

Sound. Operation of the tailings storage area produces several sources of sound including the operation of dump trucks and heavy equipment, a tire-washing station, a water treatment plant and a rock pit. Ambient noise at the tailings facility is discernable at the site but is not discernable at the ore loading facility at Hawk Inlet one mile away. Episodic noise may be discernable at a further distance from the site, but is not expected to be audible within the roaded service area of the City and Borough.

Screening. The Tailings Disposal Facility, at its final height, may be visible from Hawk Inlet, partially screened by a buffer of evergreen trees between the site and the shoreline. The top layer of the four-layer, engineered cap on the tailings pile will be vegetated with native species. No portion of the site is visible from the roaded service area, nor are there nearby residences or other permanent activities or uses that might benefit from screening.

Drainage. As noted in the Habitat sub-category and other sections of this report, Greens Creek Mine is required to collect and treat water for a minimum of 100 years. The Greens Creek deposit is a massive sulfide deposit, which means that when the tailings are exposed to air, sulfuric acid is formed that can leach metals from the tailings material.

The Tailings Disposal Facility is constructed to minimize surface and groundwater penetration. During mine operations, surface water is collected in ditches and routed around the tailings pile. Groundwater flow into the tailings pile is minimized by underground barrier structures placed around the perimeter of the pile during construction. Other measures used to manage water flow around and through the tailings pile include diversions, french drains, finger drains, blanket drains, sumps and temporary capping of the pile.

The mine operation includes many additional measures, all of which are heavily scrutinized by state and federal regulatory agencies, to minimize or eliminate acid rock drainage. These measures include, in part, the following:

- Backfill of approximately 50 percent of the tailings within existing mine voids
- Collection ditches to gather and treat all water that comes into contact with waste rock or tailings
- Wheel wash facilities to reduce tracking of mine waste onto clean roads
- A detailed interim and final reclamation plan that includes an engineered four-layer tailings soil cover
- An extensive water quality monitoring program

Traffic. Expansion of the tailings storage area will not result in expanded employment at the mine. Employment is forecast by the mining company to remain at approximately 400 employees. The marine commute from the Gitkov dock at Auke Bay to the mine dock at Young Bay will remain the same. Consequently, no change or increase in existing traffic within the roaded service area is anticipated as a result of this action.

Lighting. The Greens Creek mine operates 24 hours a day, 7 days a week, 365 days a year. During nighttime operations, and during operations in the winter months, on-site lighting will be used at the tire-washing station and could be placed elsewhere on the site to aid trucks that are hauling tailings. This light will be visible from Hawk Inlet, but will not be visible from the roaded service area.

Safety. Greens Creek Mining Company has implemented a mining and worker safety program beyond the minimum requirements of the Mine Safety and Health Administration (MSHA). All mine operations except for the ferry transportation facility are outside of the roaded service area. No changes to transportation are proposed with the development which would lead to impacts within the roaded service area.

Dust. Tailings are composed of silt-sized particles and have a moisture content of approximately 12%. This is the ideal percentage for placement and compacting. Though the tailings are moist, precautions are still taken to mitigate wind-borne dispersal. Tailings are transported by covered truck to the Tailings Disposal Facility and trucks are required to exit through a high-pressure tire-washing station that hoses down the tires, rims and lower bodies of vehicles. Tailings are placed on specific locations of the pile, are mechanically spread into 18-inch lifts, then compacted with a vibratory roller. The resulting hard, smooth surface is resistant to airborne erosion. The sloped perimeter portions of the site are initially covered in argillite (a net neutralizing waste rock) or peat moss, then hydro-seeded with a combination of grass and clover, or layered with coarse rock, to hold the surface material in place.

Dry, windy weather conditions, primarily in the winter months, can result in the dispersal of tailings from the site as a localized condition. Greens Creek Mine has an extensive dust monitoring program, implemented in 2007. Loading concentrations of dust have decreased since then due to a variety of abatement measures voluntarily implemented by mine personnel. Dust impacts have been localized and are not expected to have any discernable effect within the roaded service area approximately 18 miles away.

Surface Subsidence. Expansion of the tailings disposal area is not anticipated to result in surface subsidence. The tailings pile itself will reach a height of 330 feet above sea level. Porous areas and voids are significantly minimized by careful, thin placement of lifts which are continuously compacted, while up to fifty percent of the mine tailings and waste rock are back-filled within mine tunnels. The resulting tailings pile will not be susceptible to subsidence.

Avalanches. No avalanches have occurred within the mine lease area since the original construction of the mine began in 1987, nor are any avalanche chutes mapped with the mine lease area. There are

no known avalanche chutes along the routes used by Greens Creek on Admiralty Island. There are probable avalanche chute areas on the opposite (south) side of Greens Creek from the road, near the mine and mill. Avalanche events, if they were to occur, would have no physical impact within the roaded service area.

Landslides. The areas most likely for landslides are in the steep, up-valley creek drainages, such as the location of the mine portal on Greens Creek. Localized events, if they were to occur, would have no physical impact within the roaded service area.

Erosion. The tailings pile is designed and constructed to minimize water penetration. Over the course of time, water will penetrate the tailings pile and flow through it, but at an incremental pace, not at an erosive pace. No erosion impacts related to the proposed action will occur within the roaded service area.

Staff recommends that Summary Approval Criterion Five is met.

6. ***49.65.155(b)(2)(A)(iv). The proposed change in mining operations has undergone or is undergoing environmental review and approval by one or more federal agencies, state agencies, or both.***

The Final Environmental Impact Statement and Record of Decision were completed for the project in September 2013. The U.S. Forest Service acted as the lead agency for the project, with the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers as Cooperating agencies under 40CFR 1501.6. The Alaska Departments of Fish and Game, Natural Resources and Environmental Conservation, and City and Borough of Juneau Community Development Department served as coordinating agencies under a Memorandum of Understanding (MOU) to assist in development and review of the Draft and Final Environmental Impact Statements.

Staff finds that Summary Approval Criterion Six is met.

FINDINGS

The Director makes the following findings for each of the Summary Approval requirements:

1. The proposed activity is neither a new land use nor a separate development. The tailings storage area, in both its current and its proposed configuration, can be classified only under the "mining operations" category, 14.400, in the Table of Permissible Uses in CBJ 49.25.300. The Tailings Disposal Facility and related facilities are not a separate development. The facilities are located within the land area encompassing the mining operation, and are an integral part of the mining operation, for which a development permit already exists.
2. The mine is located entirely outside of the roaded service area.
3. The application material and subsequent material submitted by Greens Creek Mine is complete, and provides, or references in the Final Environmental Impact Statement, all of the information needed by the Director to make a Summary Approval determination.

4. The proposed change in mining operations will have no significant impact within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches or erosion.
5. The proposed change in mining operations has undergone environmental review and approval through the preparation of Draft and Final Environmental Impact Statements under the National Environmental Policy Act.

RECOMMENDATION

Based on an analysis of the proposed change in mining operations with regard to the standards in CBJ 49.65.155(b)(2)(A), the Director recommends that Summary Approval should be granted.

DEVELOPMENT PERMIT APPLICATION

Project Number	CITY and BOROUGH of JUNEAU	Date Received:
Project Name (City Staff to Assign Name)		

PROJECT / APPLICANT INFORMATION

Project Description
The Hecla Greens Creek Mine is requesting summary approval of the proposed expansion of our Tailings Disposal Facility (TDF) under the City and Borough's mining ordinance. A project description is attached.

PROPERTY LOCATION

Street Address	City/Zip
Admiralty Island	Juneau, AK 99801

Legal Description(s) of Parcel(s) (Subdivision, Survey, Block, Tract, Lot)
Greens Creek Mine (per CBJ Assesor's database)

Assessor's Parcel Number(s)
3A0101000010

LANDOWNER/LESSEE

Property Owner's Name	Contact Person:	Work Phone:
United States Forest Service	Forrest Cole	907 228 6281
Mailing Address	**Home Phone:**	**Fax Number:**
648 Mission Street		907 228 6292
E-mail Address	**Other Contact Phone Number(s):**	
fcole@fs.fed.us	Chad VanOrmer 907 789 6202	

LANDOWNER/ LESSEE CONSENT ***Required for Planning Permits, not needed on Building/ Engineering Permits***

I am (we are) the owner(s)or lessee(s) of the property subject to this application and I (we) consent as follows:

A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission.
B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.

X _____ 6.17.2014
Landowner/Lessee Signature — Date

X _____ _____
Landowner/Lessee Signature — Date

NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.

APPLICANT If the same as OWNER, write "SAME" and sign and date at X below

Applicant's Name	Contact Person:	Work Phone:
Hecla Greens Creek Mining Company	Mike Satre	907-523-1410
Mailing Address	**Home Phone:**	**Fax Number:**
PO Box 32199 Juneau, Alaska 99803-2199	(c) 907-957-2149	
E-mail Address	**Other Contact Phone Number(s):**	
msatre@hecla-mining.com		

X _____ _____
Applicant's Signature — Date of Application

STAFF APPROVALS

-OFFICE USE ONLY BELOW THIS LINE-

	Permit Type	Sign	Date Received	Application Number(s)
	Building/Grading Permit			
	City/State Project Review and City Land Action			
	Inquiry Case (Fee In Lieu, Letter of ZC, Use Not Listed)			
	Mining Case (Small, Large, Rural, Extraction, Exploration)			
	Sign Approval (If more than one, fill in all applicable permit #'s)			
	Subdivision (Minor, Major, PUD, St. Vacation, St. Name Change)			
	Use Approval (Allowable, Conditional, Cottage Housing, Mobile Home Parks, Accessory Apartment)			
	Variance Case (De Minimis and all other Variance case types)			
	Wetlands Permits			
	Zone Change Application			
	Other (Describe)			

***Public Notice Sign Form filled out and in the file.

Comments:

Permit Intake Initials

NOTE: DEVELOPMENT PERMIT APPLICATION FORMS MUST ACCOMPANY ALL OTHER COMMUNITY DEVELOPMENT DEPARTMENT APPLICATIONS

I:\FORMS\2010 Applications — Revised November 2009

ATTACHMENT 1

LARGE MINE PERMIT APPLICATION

(Urban)

Project Number	Project Name (15 characters)	Case Number	Date Received
		MLG20140001	6/20/14

LOCATION OF PROPOSED MINE: GREENS CREEK MINE

WILL THE PROPOSED MINING ACTIVITIES HAVE IMPACTS ON THE MINING AND EXPLORATION EXCLUSION DISTRICT? ☐ Yes ☐ No

IMPACTS: _____

DESCRIPTION OF ACTIVITY WHICH REQUIRES A MINING PERMIT: SUMMARY APPROVAL OF PROPOSED EXPANSION OF TAILINGS DISPOSAL FACILITY

PREVIOUS EXPLORATION NOTICES AND/OR MINING PERMITS? ☒ Yes ☐ No

Previous Case Number(s), if known: _____

UNIQUE CHARACTERISTICS OF LAND OR BUILDING(S): _____

WHAT IS THE TOTAL AREA TO BE DISTURBED? _____ acres

HAS A FINANCIAL WARRANTY BEEN ESTABLISHED? ☐ Yes ☐ No

AMOUNT $_____ WARRANTY HOLDER_____

CONTACT INFORMATION OF WARRANTY HOLDER:_____

TO BE COMPLETED BY THE APPLICANT

For more information regarding the permitting process and the submittals required for a complete application, please see the reverse side.

If you need any assistance filling out this form, please contact the Permit Center at 586-0770.

LARGE MINE PERMIT FEES

	Fees	Check No.	Receipt	Date
Application Fees	$ 1600.00			
Admin. of Guarantee	$			
Adjustment	$			
Pub. Not. Sign Fee	$			
Pub. Not. Sign Deposit	$			
Total Fee	$ 1600.00	30072	CDD5381	6/20/14

NOTE: MUST BE ACCOMPANIED BY DEVELOPMENT PERMIT APPLICATION FORM

Large Mine Permit Application Instructions

Applications for Large Mine Permits are reviewed by the Planning Commission as a Conditional Use permit at a public hearing. The permit procedure is intended to provide the Commission the flexibility necessary to make decisions tailored to individual applications. The Commission may stipulate conditions to mitigate external adverse impacts from proposed use. If it is determined that these impacts cannot be satisfactorily overcome, the permit shall be denied.

Pre-Application Conference: A pre-application conference is required prior to submitting an application. The applicant will meet with City & Borough of Juneau and Agency staff to discuss the proposed development, the permit procedure and to determine the application fees. To schedule a pre-application conference, please contact the Permit Center at 586-0770 or via e-mail at Permits@ci.juneau.ak.us.

Application: An application for a Large Mine Permit will not be accepted by the Community Development Department until it is determined to be complete. The items needed for a complete application are:

Forms: A completed Large Mine Permit Application and Development Permit Application form. The "land owner or lessee consent" signature is mandatory for all landowners on the Development Permit Application form.

Fees: The fee for a Large Mine Permit Application is $3,600.00, plus any special fee established pursuant to CBJ49.65.130. Any development, work or use done without a permit issued will be subject to double fees. All fees are subject to change.

Project Description: A detailed letter or narrative describing the proposed mining activities, which includes:

A. A map on a scale of 1:63,360, or a more detailed scale, a description of the mine site and affected surface; description and timetable of the proposed mining operation; including all roads, buildings, processing and related facilities;
B. A description and timetable of proposed reclamation of affected surface;
C. A description of proposals for the sealing of open shafts, adits and tunnels upon the completion or temporary cessation of mining operations;
D. A description of methods to be used to control, treat, transport and dispose of hazardous substances, sewage and solid waste;
E. A description of other potential environmental, health, safety and general welfare impacts, as well as impacts on neighboring property and measures to be taken to mitigate their adverse effects; and
F. A Socioeconomic Impact Assessment 49.65130(C)(1) through (2).

Supplemental Information: The application shall also contain:

A. Additional information prepared by the operator for its feasibility studies and mining plans, including information establishing the right to use the affected surface, labor force characteristics and timing, payroll projections, anticipated duration of the mining operation, construction schedules, infrastructure description, and other information reasonably requested by the department in the pre-application conference held pursuant to subsection 49.15.330(b); and
B. An Environmental Impact Statement if it is required by the National Environmental Policy Act.

Plans: All plans are to be drawn to scale and clearly show the items listed below:

A. Site plan, floor plan and elevation views of existing and proposed structures, describing the materials and colors proposed;
B. Existing and proposed parking areas, including dimensions of the spaces, aisle width and driveway entrances;
C. Proposed traffic circulation within the site including access/egress points and traffic control devices;
D. Existing and proposed lighting;
E. Existing and proposed landscaping with location, area, height and type of plantings; and
H. Existing physical features of the site (i.e. drainage, eagle trees, hazard areas, salmon streams, wetlands, etc.).

Document Format: All information that is submitted as part of an application shall be submitted in either of the following formats:

A. Electronic copies may be submitted by CD, DVD or E-mail in the following formats: .doc, .txt, .xls, .bmp, .pdf, .jpg, .gif, .xlm, .rtf or other formats pre-approved by the Community Development Department.
B. Paper copies may not be larger than 11" X 17" (Unless a larger paper size is preapproved by the Community Development Department).

Please consult with the Community Development Department to discuss whether additional information may be required for your application. The "Planner-On-Call" can be reached by contacting the Permit Center at 586-0770 or via e-mail at Permits@ci.juneau.ak.us.

ATTACHMENT 2

Application Review, Hearing Procedure and Permit Issuance: Once the application is determined to be complete, the Community Development Department will initiate the review and scheduling of the application. This process includes:

Review: Within 20-days of receipt of an application the Community Development Department (Department) will conduct a preliminary review of the application and schedule a meeting with the applicant/operator to request additional information and to establish a procedure/schedule for the coordinated review of the application with the review by other agencies.

Unless the operator agrees to an extension, within 90 days after the Department has received all additional information requested at the initial meeting described in 49.65.130(d) and the fee has been established, the Department shall complete its review of the application, unless an Environmental Impact Statement (EIS) is required by the National Environmental Policy Act (NEPA). The Department shall form a recommendation as to whether the permit should be approved and, if so, it shall make a recommendation on the amount of the financial warranty as provided in section 49.65.140. The Department's recommendation may include such conditions or stipulations as the Department deems to be reasonably necessary to mitigate any adverse environmental, health, safety or general welfare impacts which may result from the proposed mining operation. The Department's recommendations shall be provided to the operator and forwarded to the Planning Commission where the matter shall be placed on agenda for the next regularly scheduled meeting after notice has been published as provided in section 49.15.230. The application shall then be heard as a Conditional Use Permit application as provided in chapter 49.15, article III, as modified by this article.

If the department determines that the proposed mining operation does not meet the standards of sections 49.65.135 and 49.15.330, the Department shall advise the operator. The operator may then either withdraw its application or allow the Department's recommendation to be forwarded to the Planning Commission. If the application is withdrawn, it may be revised and submitted within 180 days upon payment of an additional processing fee as determined by the Department to be reasonably necessary to defray its cost of reviewing the revised application. Revised applications shall be processed in accordance with the procedures set forth in CBJ49.65.130 subsections (d), (e), (f) and (h).

Hearing: All Large Mining Permit Applications will be heard by the Planning Commission as a Conditional Use permit. Once the Planning Commission has determined the application, with stipulations or conditions as appropriate, satisfies the standards of CBJ49.65.135 and CBJ49.15.330, it shall approve the application and set the amount of the financial warranty.

Permit Issuance: The permit will not be issued until the applicant/operator has submitted a financial warranty in the amount set by the Planning Commission that is in a form satisfactory to the City and Borough of Juneau Attorney.

Please consult with the Community Development Department to discuss the review procedure required for your specific application. The "Planner-On-Call" can be reached by contacting the Permit Center at 586-0770 or via e-mail at Permits@ci.juneau.ak.us.

Public Notice Responsibilities: As part of the Conditional Use permitting process, all permit requests must be given proper public notice, which consists of the following:

Community Development Department: Will give notice of the pending Planning Commission meeting and its agenda in the local newspaper a minimum of 10-days prior to the meeting. Furthermore, the department will mail abutters notices to all property owners within 500-feet of the project site.

Applicant: Will post a sign on the site at least 14-days prior to the meeting. The sign shall be visible from a public right-of-way or where determined appropriate by the Department. Signs may be produced by the Community Development Department for a preparation fee of $50, and a $100 deposit that will be refunded in full if the sign is returned by 4:30 p.m. on the Monday following the scheduled hearing date. If the sign is returned later than the Monday after the Planning Commission meeting, but within two weeks of the meeting, $50.00 may be refunded. The applicant may make and erect their own sign. Please speak with the Community Development Department for more information.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

Hecla Greens Creek Mining Company
P.O. Box 32199
Juneau, AK 99803-2199

Date: June 20, 2014

The Hecla Greens Creek Mine is requesting summary approval of the proposed expansion of our Tailings Disposal Facility (TDF) under the City and Borough's mining ordinance. We believe that our application meets the requirements for summary approval per CBJ Code 49.65.155(2)(A) as follows:

The mine and TDF is located completely outside of the roaded service area established in CBJ 01.30.320. The proposed expansion of the TDF is approximately 18 miles southwest of Juneau, and due to its location near Hawk Inlet is not visible from any part of the roaded service area. This ensures that there will be no additional impact from this proposed project within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides, or erosion.

During the pre-application meeting, questions regarding additional traffic impacts due to employees commuting to work within the roaded service area were posed. There will be no additional impact to traffic as expansion of the TDF will not result in expanded employment at the mine. Employment is forecasted to remain at approximately 400 employees and the daily marine commute to Admiralty Island from Gitkov Dock in Auke Bay will remain unchanged with 5 AM and 5 PM departures.

The proposed expansion has been the subject of a National Environmental Policy Act (NEPA) review that was coordinated by the United States Forest Service (USFS) and involved multiple federal and state agencies as well as the City and Borough of Juneau. The Record of Decision (ROD) and Final Environmental Impact Statement (FEIS) for the expansion was finalized in December of 2014. The project record for the NEPA process, including the ROD and FEIS may be found on the USFS website here: http://www.fs.usda.gov/wps/portal/fsinternet/!ut/p/c5/04_SB8K8xLLM9MSSzPy8xBz9CP0os3gDfxMDT8MwRydLA1cj72BTUwMTAwgAykeaxRtBeY4WBv4eHmF-YT4GMHkidBvgAI6EdIeDXIvfdrAJuM3388jPTdUvyA2NMMgyUQQAyrgQmg!!/dl3/d3/L2dJQSEvUUt3QS9ZQnZ3LzZfS000MjZOMDcxT1RVODBJN0o2MTJQRDMwODQ!/?project=32662

Hard copies of the ROD and FEIS were hand delivered to CDD on 6/2/14.

While the NEPA process is complete, prior to construction activities the TDF will require a US Army Corps of Engineers (USACOE) 404 Permit and a State of Alaska Department of Environmental Conservation (ADEC) Waste Management Permit. Details of the public notice and associated maps for the 404 permit and mitigation plan may be found here: http://www.poa.usace.army.mil/Missions/Regulatory/PublicNotices/tabid/3350/Article/478834/poa-1988-269-m5-hawk-inlet.aspx

The ADEC Waste Management permit has been issued for public comment on 6/20/14 and may be found here: http://dnr.alaska.gov/mlw/mining/largemine/greenscreek/pdf/gcwmp_draft.pdffound

ATTACHMENT 3

To support this request, we are also submitting the following materials:

1. CBJ Development Permit Application and $1,600 Fee
2. Project Description
3. 11x17 Map titled "Site Location Plan"
4. 11x17 Map titled "Tailings Storage Area General Arrangement"
5. 11x17 Map titled "Tailings Storage Area General Arrangement" with wetlands overlay.
6. 11x17 Aerial photo of site titled "Lease Boundary Points Hecla Greens Creek Mine"
7. Photo of existing waste water treatment plant.
8. Photo of existing truck wash.
9. Photo of TDF, waste water treatment plant and pond 7 looking south towards Hawk Inlet.
10. Photo of placement of tailings on existing TDF.
11. Draft ADEC Waste Management Permit
12. USACOE Public Notice for 404 Permit Application and Mitigation Plan
13. Mitigation Plan for USACOE 404 Permit

A site visit to support the application has also been requested and we have agreed to hold that on July 9 when we host the annual regulatory agency site visit at the mine.

Thank you for your consideration,

Mike Satre
Manager of Government and Community Relations
Hecla Greens Creek Mining Co.
PO Box 32199 Juneau, AK 99801
T: 907.523.1410
C: 907.957.2149
E-Mail: msatre@hecla-mining.com

ATTACHMENT 3

Project Description:

The Greens Creek Mine is located on Admiralty Island approximately 18 miles southwest of Juneau, Alaska. The mine has been in operation since 1989 with a 2-year period of temporary closure. Major mine facilities include the underground mine, mill, waste rock disposal areas, tailings disposal facility (TDF), a port site and camp, roads and power infrastructure among the mine components. The mine produces lead and zinc concentrates that also contain silver. The Greens Creek Mine is operated by Hecla Greens Creek Mining Company (HGCMC).

In 2010, HGCMC proposed a modification to its General Plan of Operations (GPO) to expand the TDF so that it can accommodate an additional 30 to 50 years' worth of tailings and waste rock. Tailings are disposed via dry stacking along with co-disposed waste rock. The TDF is currently approved to hold 5.3 million cubic yards of tailings and waste rock and cover approximately 62 acres. At the current mining rate, the TDF will be filled to capacity in 2019. In order to continue operations, HGCMC has requested an expansion of the TDF to hold an additional 14.2 million cubic yards of tailings and waste rock.

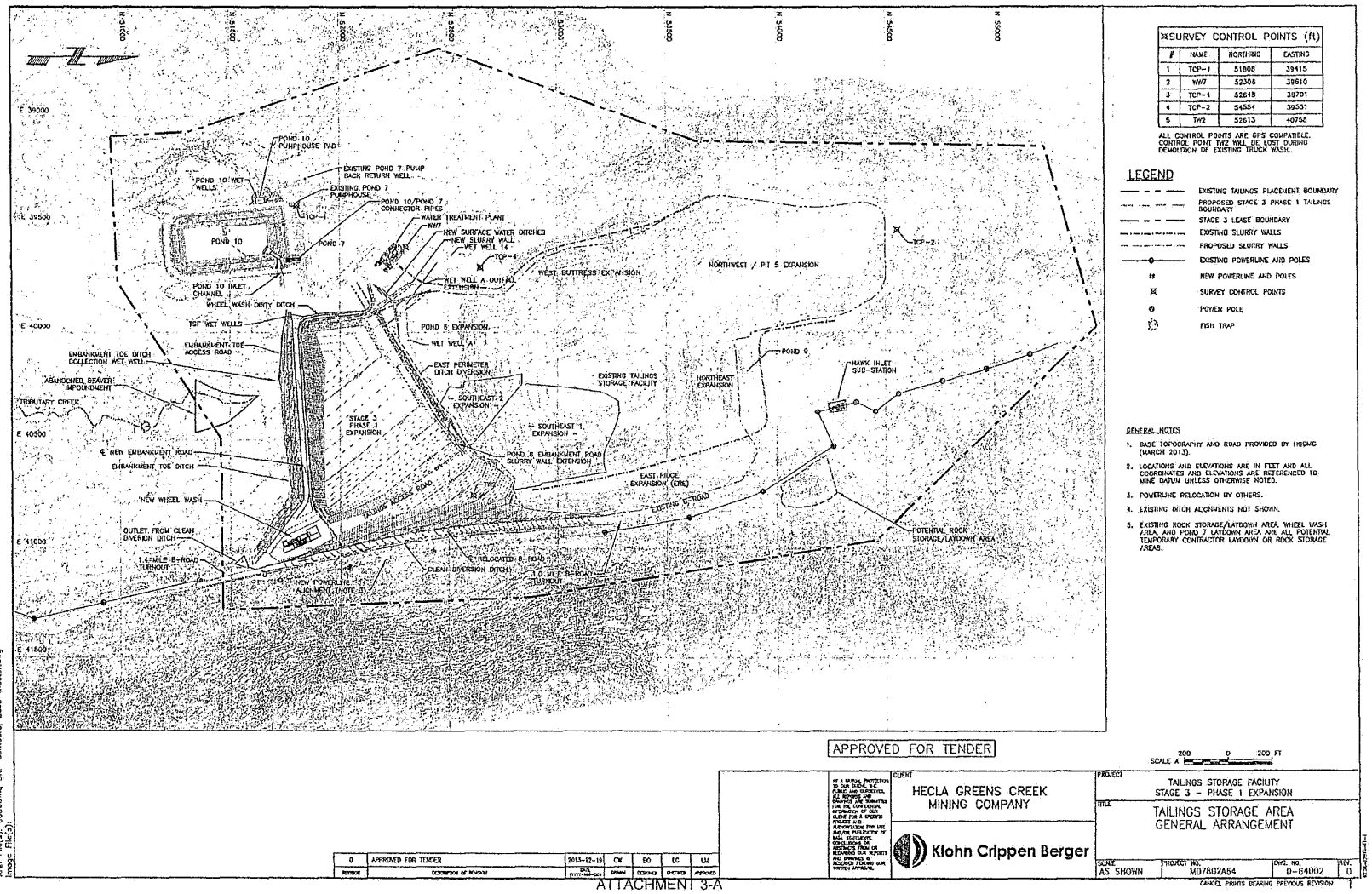
In December of 2013, the United States Forest Service (USFS) issued a Record of Decision (ROD) and Final Environmental Impact Statement (FEIS) that allowed for significantly smaller expansion that had been originally requested. The USFS selected a modified Alternative D as the preferred alternative which allows for 2.1 million cubic yards of tailings and waste rock to be placed resulting in approximately 10 more years of operation at the currently projected rates of fill. More specifically, the modified Alternative D allows for:

- Expansion of the existing tailings disposal facility (TDF) southward into the Monument;
- Development of a reclamation material storage area near the junction of the A and
- B roads, outside of the Monument;
- Development of a rock quarry north of the existing TDF, and access from within the existing facility, outside of the Monument;
- Development of a new water management pond south of the existing TDF and expansion of existing water management ponds; and
- Relocation of the B road and truck wheel wash facility to accommodate the TDF expansion.

The entire project record related to the FEIS may be found at the USFS website: http://www.fs.usda.gov/wps/portal/fsinternet/!ut/p/c5/04_SB8K8xLLM9MSSzPy8xBz9CP0os3gDfxMDT8MwRydLA1cj72BTUwMTAwgAykeaxRtBeY4WBv4eHmF-YT4GMHkidBvgAI6EdIeDXIvfdrAJuM3388jPTdUvyA2NMMgyUQQAyrgQmg!!/dl3/d3/L2dJQSEvUUt3QS9ZQnZ3LzZfS000MjZOMDcxT1RVODBJN0o2MTJQRDMwODQ!/?project=32662

ATTACHMENT 3

ATTACHMENT 3-A



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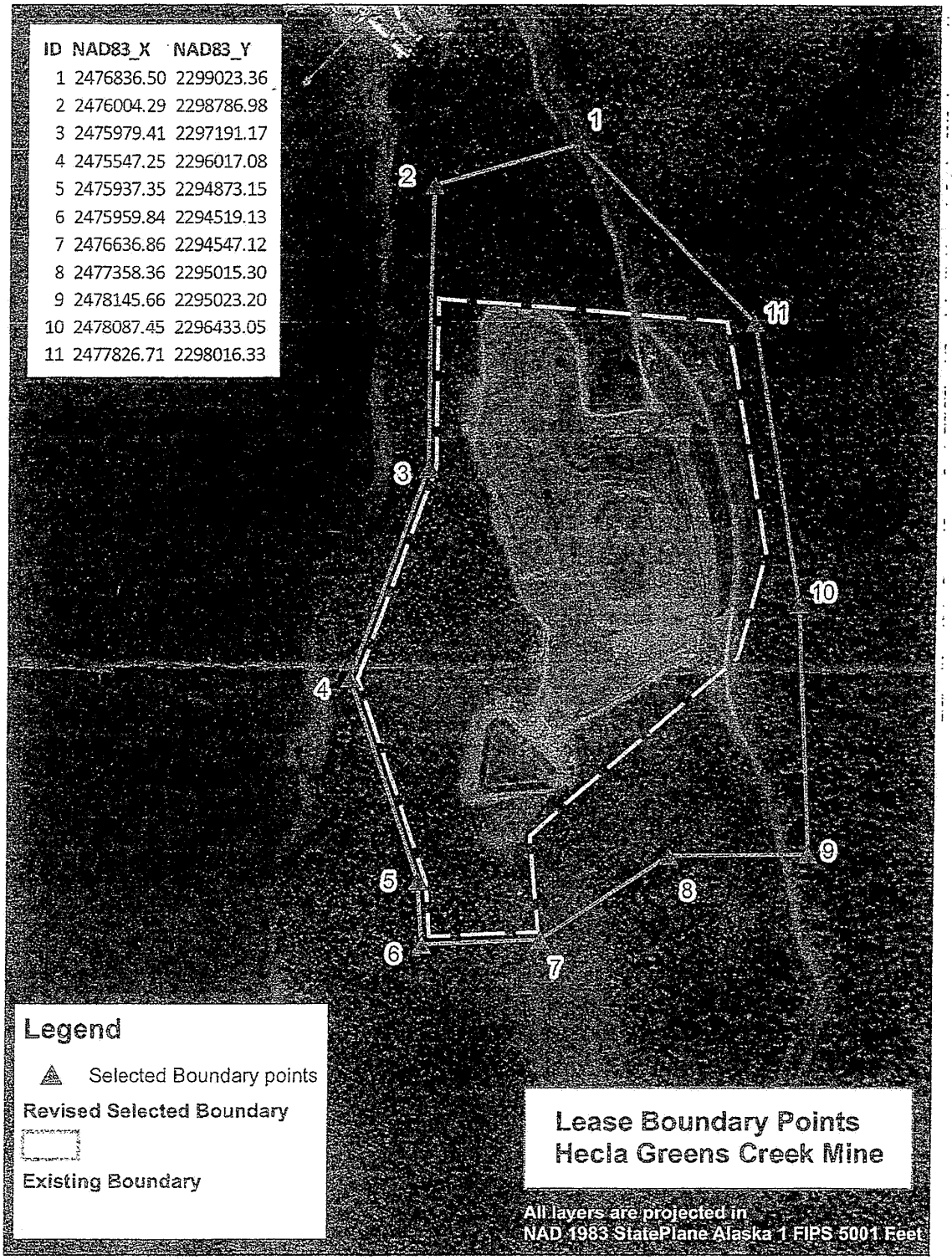
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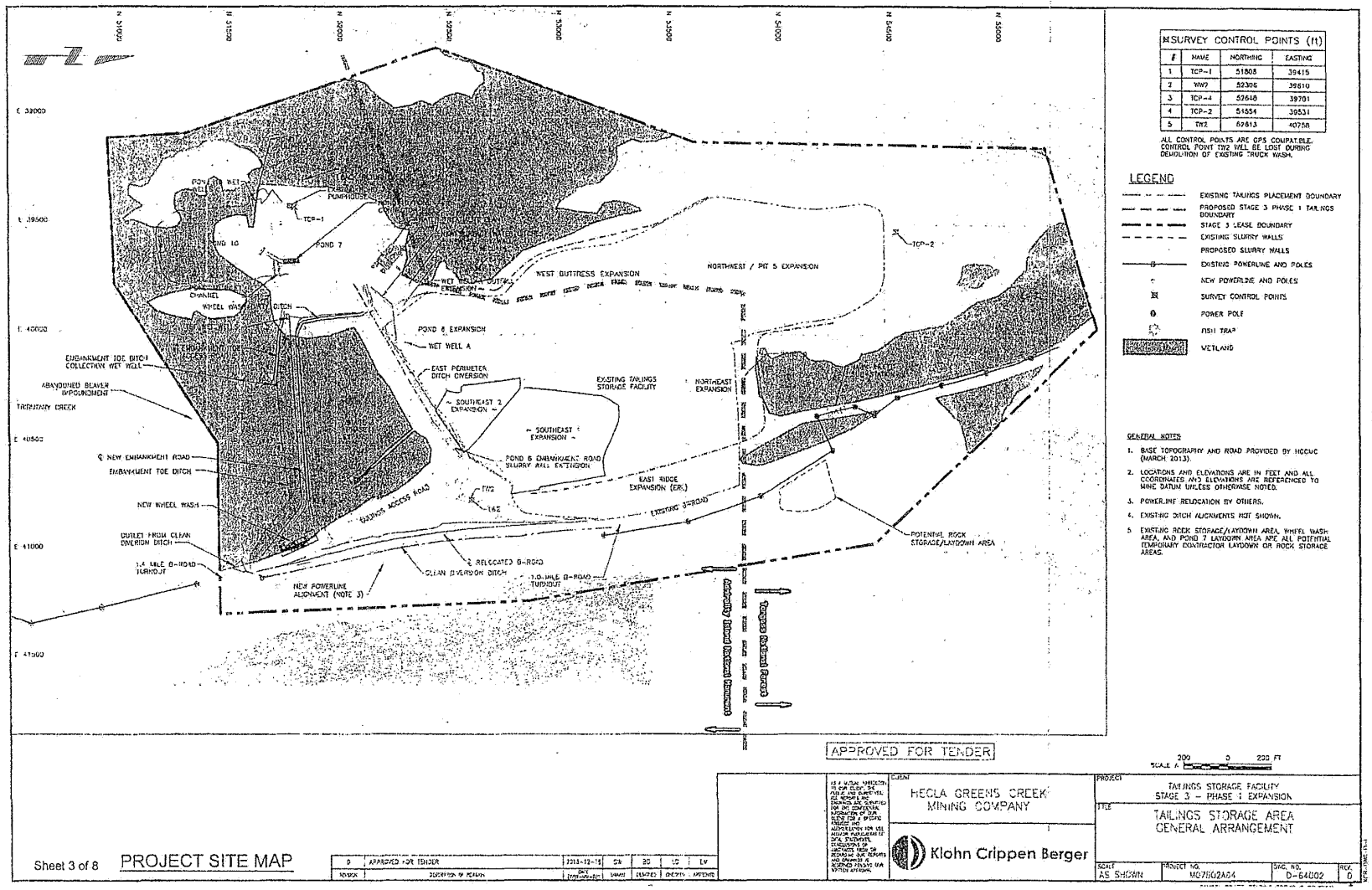
Legend
Selected Boundary points
Revised Selected Boundary
Existing Boundary
Lease Boundary Points
Hecla Greens Creek Mine
All layers are projected in
NAD 1983 StatePlane Alaska 1 FIPS 5001 Feet
0 500 1,000 2,000
Feet



SURVEY CONTROL POINTS (ft)

#	NAME	NORTHING	EASTING
1	TCP-1	51808	39415
2	WW2	52306	39610
3	TCP-4	52648	39701
4	TCP-2	51554	39531
5	TW2	52613	40758

ALL CONTROL POINTS ARE GPS COMPATIBLE. CONTROL POINT TW2 WILL BE LOST DURING DEMOLITION OF EXISTING TRUCK WASH.

LEGEND

- EXISTING TAILINGS PLACEMENT BOUNDARY
- PROPOSED STAGE 3 PHASE 1 TAILINGS BOUNDARY
- STAGE 3 LEASE BOUNDARY
- EXISTING SLURRY WALLS
- PROPOSED SLURRY WALLS
- EXISTING POWERLINE AND POLES
- NEW POWERLINE AND POLES
- SURVEY CONTROL POINTS
- POWER POLE
- FISH TRAP
- WETLAND

GENERAL NOTES

1. BASE TOPOGRAPHY AND ROAD PROVIDED BY HCCMC (MARCH 2013).
2. LOCATIONS AND ELEVATIONS ARE IN FEET AND ALL COORDINATES AND ELEVATIONS ARE REFERENCED TO MINE DATUM UNLESS OTHERWISE NOTED.
3. POWERLINE RELOCATION BY OTHERS.
4. EXISTING DITCH ALIGNMENTS NOT SHOWN.
5. EXISTING ROCK STORAGE/LAYDOWN AREA, WHEEL WASH AREA, AND POND 7 LAYDOWN AREA ARE ALL POTENTIAL TEMPORARY CONTRACTOR LAYDOWN OR ROCK STORAGE AREAS.

APPROVED FOR TENDER

SCALE A: 200 0 200 FT

NO.	DESCRIPTION OF REVISION	DATE (mm-dd-yy)	DRAWN	DESIGNED	CHECKED	APPROVED
0	APPROVED FOR TENDER	2013-12-15	DR	BD	LC	LW

CLIENT: HECLA GREENS CREEK MINING COMPANY

Klohn Crippen Berger

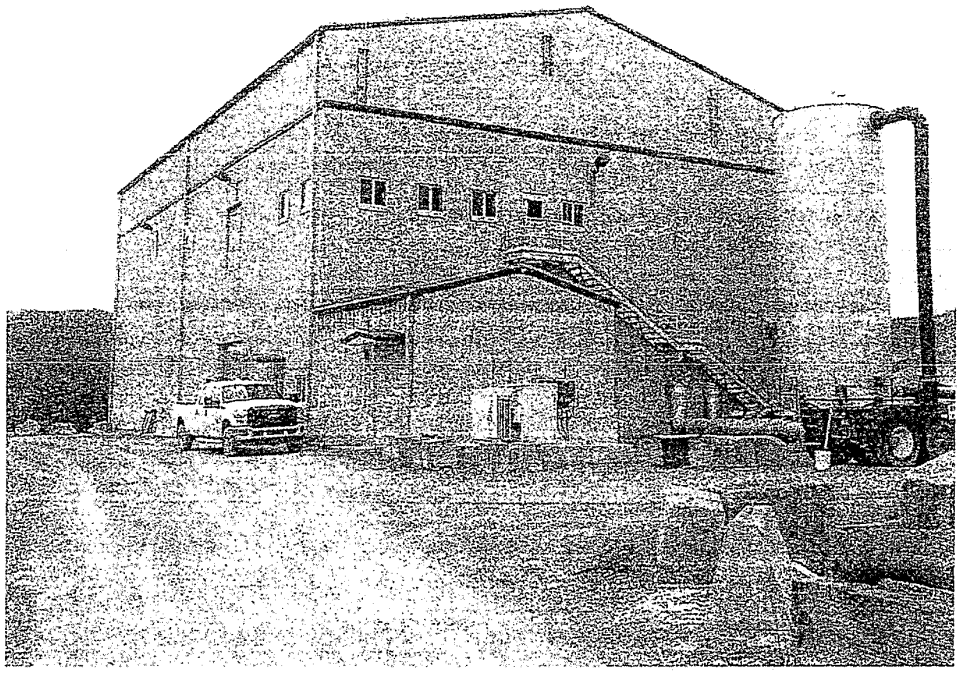
PROJECT: TAILINGS STORAGE FACILITY STAGE 3 – PHASE 1 EXPANSION

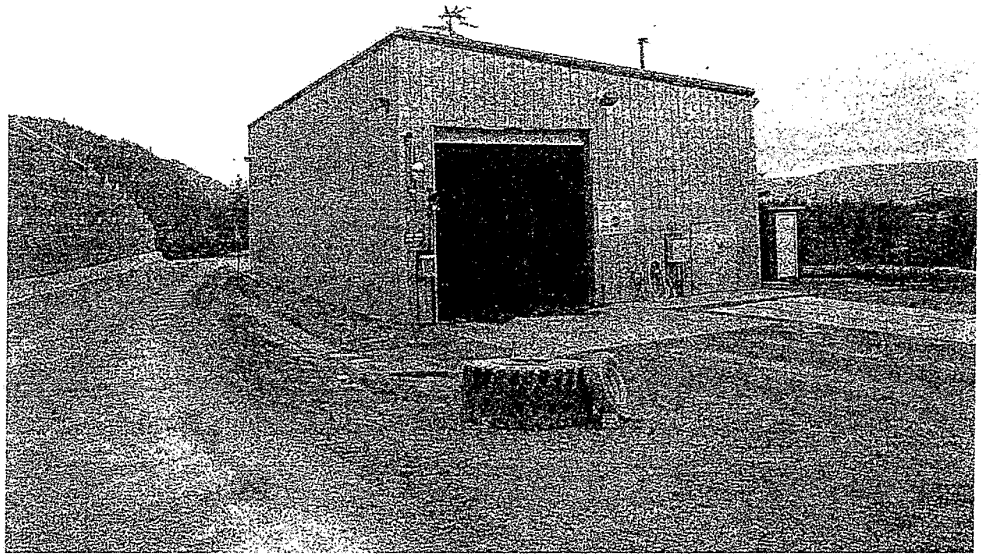
TITLE: TAILINGS STORAGE AREA GENERAL ARRANGEMENT

SCALE	PROJECT NO.	DWG. NO.	REV.
AS SHOWN	0276024.004	0-64002	0

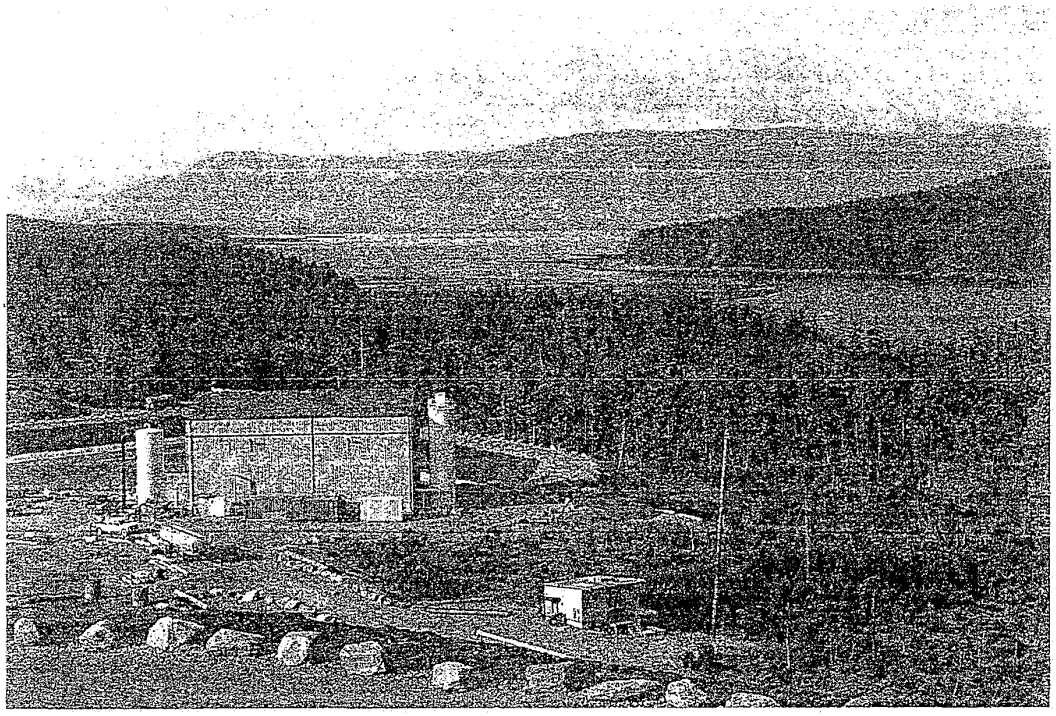
Sheet 3 of 8 PROJECT SITE MAP

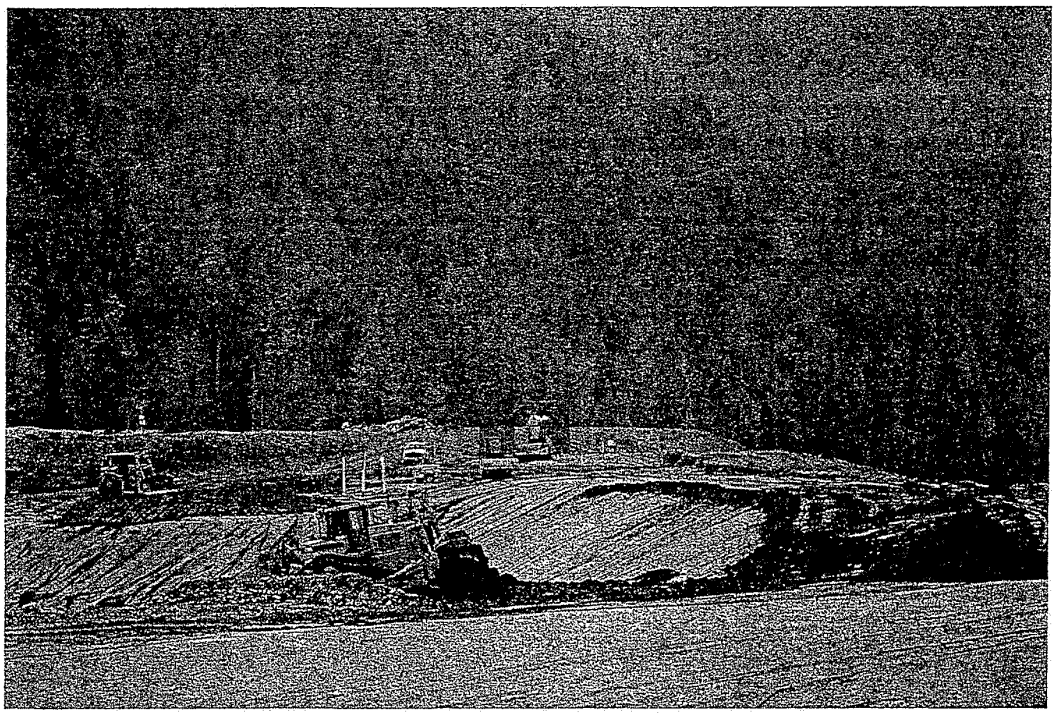
ATTACHMENT 3-A





ATTACHMENT 3-B





ATTACHMENT 3-B

PUBLIC NOTICE

Alaska Department of Environmental Conservation
Wastewater Discharge Authorization Program
410 Willoughby Avenue, Suite 303
Juneau, Alaska 99811-1800

Alaska's Department of Environmental Conservation (DEC), Division of Water received an application for reissuance of a State of Alaska, Waste Management Permit under Alaska Statutes 46.03 and the Alaska Administrative Code (AAC), 18 AAC 15, 18 AAC 60, 18 AAC 70, and 18 AAC 72.

Contact **Kyle Moselle, Large Project Coordinator**
ADNR / Office of Project Management & Permitting
400 Willoughby Avenue
Fairbanks, AK 99801
907-465-6849
kyle.moselle@alaska.gov

Public Notice Start **June 20, 2014**

Public Notice End **July 21, 2014**

Permit Draft Waste Management Permit No. 2014DB0003

Applicant Hecla Greens Creek Mining Company
Greens Creek Mine
P.O. Box 32199
Juneau, Alaska 99803-2199

Project Greens Creek Mine is an underground lead, zinc, silver, and gold mine. Containment and disposal of mine tailings, waste rock, and other mine-related wastes are subject to regulation under a DEC Waste Management Permit.

Location Greens Creek Mine is located 18 miles southwest of Juneau, Alaska near Hawk Inlet on northern Admiralty Island with federal and patented.

The DEC has tentatively determined to reissue a permit to the above listed applicant.

Public Comments

Written comments on the proposed permit must be submitted within 32 days of the first publication of this public notice or no later than July 21, 2014. Please direct written comments to the attention of Kyle Moselle at the address or email identified above. All comments should include the name, address, and telephone number of the commenter and a concise statement of comment on the permit condition(s) and the relevant facts upon which the comment is based. Comments of either support or concern which are directed at specific, cited, permit requirements

ATTACHMENT 3-C

are appreciated. Comments must be postmarked on or before the expiration date of the public notice.

Any interested person may submit a written request for a public hearing. A request for a public hearing shall state the nature of the issues to be raised, as well as the requester's name, address and telephone number. DEC will hold a public hearing if it determines that good cause exists.

DEADLINE FOR WRITTEN COMMENTS
July 21, 2014 at 5:00 pm AKDT

Administrative Record

Copies of the proposed permit and application documents are available for public review at Juneau and Fairbanks DEC offices. Please contact either office to review hard copies of available documents.

410 Willoughby Avenue, Suite 303
Juneau, AK 99811
907-465-5300

610 University Avenue
Fairbanks, AK 99709
907-451-2100

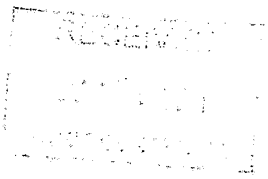
These documents are also accessible at the following State website.
http://www.dnr.alaska.gov/mlw/mining/largemine/greenscreek/

The public notice bulletin may be viewed at the DEC Public Notices website,
http://www.dec.state.ak.us/public_notices.htm

For other inquiries, contact Kyle Moselle at the address listed above, email kyle.moselle@alaska.gov, or call **907-465-6849**.

Disability Reasonable Accommodation Notice

The State of Alaska, Department of Environmental Conservation complies with Title II of the Americans with Disabilities Act of 1990. If you are a person with a disability who may need a special accommodation in order to participate in this public process, please contact Deborah Pock at 907-269-0291 or TDD Relay Service 1-800-770-8973/TTY or dial 711 within 32 days of publication of this notice to ensure that any necessary accommodations can be provided.



ATTACHMENT 3-C

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
610 UNIVERSITY AVENUE
FAIRBANKS, AK 99709-3643

WASTE MANAGEMENT PERMIT

for

Hecla Greens Creek Mining Company

Permit No. 2014DB0003 **Date: Pending**

This draft Waste Management Permit is proposed to be issued to Hecla Greens Creek Mining Company (HGCMC), P.O. Box 32199, Juneau, Alaska 99803-2199 for disposal of wastes from the Greens Creek Mine as described in permit section 1. HGCMC is a wholly owned subsidiary of Hecla Mining Company. The Greens Creek Mine facilities are located near Hawk Inlet on northern Admiralty Island, in the Tongass National Forest, approximately 18 miles southwest of Juneau, Alaska. The mine site is situated partly within the Admiralty Island National Monument and completely within the municipal boundary for the City and Borough of Juneau. The land is comprised of federal and patented mining claims. This permit is authorized under the provisions of Alaska Statutes (AS) 46.03, and the Alaska Administrative Code (AAC), 18 AAC 15, 18 AAC 60, 18 AAC 70 and 18 AAC 72, as amended or revised, and other applicable state laws and regulations. This permit is effective **pending**, and expires after **pending.** This permit may be terminated or modified according to AS 46.03.120. This permit succeeds Waste Management Permit No. 0211-BA001.

This permit is subject to the conditions and stipulations contained in sections 1 through 6, and it incorporates by reference *Hecla Greens Creek General Plan of Operations Appendix 1 Integrated Monitoring Plan* June 2014 (*IMP*), *Hecla Greens Creek General Plan of Operations Appendix 3 Tailings Disposal Facility Management Plan* June 2014 (*tailings facility SOPs*), *Hecla Greens Creek General Plan of Operations Appendix 7 Integrated Waste Management and Disposal Plan* June 2014 (*solid waste management plan*), *Hecla Greens Creek General Plan of Operations Appendix 11 Waste Rock Management Plan* June 2014 (*waste rock management plan*), and *Hecla Greens Creek General Plan of Operations Appendix 14 Reclamation and Closure Plan* June 2014 (*reclamation and closure plan*). Changes to the documents incorporated herein must be approved by the Alaska Department of Environmental Conservation (Department or DEC) if they affect this permit. All changes approved by the Department will become part of this permit.

After completing reclamation activities and terminating active wastewater treatment, the Department requires the permittee to conduct post-closure maintenance and monitoring for a minimum of 30 years. The permittee shall assess the conditions at the facility and respond accordingly throughout the post-closure care period. At the end of the post-closure period, the Department will determine whether post-closure care and monitoring should be extended beyond 30 years based upon the information collected by that time.

DRAFT

Wade Strickland
Program Manager

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1 PERMIT COVERAGE & ADOPTED REFERENCES

1.1 COVERAGE

Greens Creek Mine ore is mined via underground methods. Waste rock removed from the mine is disposed of in waste rock site 23 and the Tailings Disposal Facility (TDF). At the mill, the ore is ground and processed by flotation producing concentrates containing primarily lead and zinc with smaller portions of silver and gold. Flotation concentrates are thickened, filter pressed, and then trucked to the Hawk Inlet terminal for shipment off-site. Tailings from the flotation process are thickened and filter-pressed. The mill generates approximately 1,800 dry tons of filter-pressed tailings per day, or approximately 650,000 tons of tailings annually. Approximately half of the tailings are backfilled into the underground mine. The remainder of the dry tailings are covered and transported to the TDF, which is located in the upper reaches of the Tributary Creek drainage.

1.1.1 This permit covers disposal of waste or monitoring at the following sites. This permit does not authorize the discharge of wastewater to surface water. Surface water discharges from the Greens Creek Mine are authorized under Alaska Pollutant Discharge Elimination System Permit (APDES) AK0043206.

1.1.1.1 Tailings Disposal Facility (TDF)

The TDF consists of a drystack tailings pile and runoff surge pond situated adjacent to one another. In 2003, an Environmental Impact Statement (EIS) for expansion of the TDF was finalized by the U.S. Forest Service and followed by approval to expand the TDF to a footprint of approximately 62 acres. On August 30, 2013, an EIS for another expansion of the TDF was completed. Afterward, the U.S. Forest Service approved plans to expand the TDF footprint southward by about 18 acres. The projected total area of the TDF is about 80 acres, and it serves as the final disposal site for tailings, waste rock, and other solid waste as allowed in section 2.1.

1.1.1.2 Site 23

Site 23, in addition to the TDF and the underground workings, is one of three active areas that receive waste rock. Its ultimate footprint is 11 acres and has an estimated capacity of 1.2 million cubic yards. At closure or before, all Site 23 waste rock will be relocated to the TDF for final co-disposal.

1.1.1.3 Underground Mine Workings

Waste rock, tailings, and other wastes as specified in section 2.1 may be disposed underground in the mine workings.

1.1.1.4 Inactive Waste Rock Disposal Sites

The following sites contain but no longer receive waste rock. Removal of all waste rock from these sites for final disposal underground or in the TDF is either underway or forthcoming. All waste rock in Sites 1350, C, D, and E will eventually be removed and either placed underground or in the TDF for final disposal.

1.1.1.4.1 **Site 1350** has a footprint of about 5 acres and is no longer open for disposal of waste rock. This site originally stored about 100,000 cubic

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yards of waste rock. Its waste rock is being relocated to Site 23 for temporary storage and final disposal underground is ongoing.

1.1.1.4.2 **Site C** has a footprint of about two acres and is no longer open for disposal of waste rock. This site stores about 48,000 cubic yards of waste rock, which will be relocated for final co-disposal in the TDF or permanent disposal underground.

1.1.1.4.3 **Site D** has a footprint of about seven acres and is no longer open for disposal of waste rock. This site stores about 300,000 cubic yards of waste rock that will be relocated for final co-disposal in the TDF or permanent disposal underground.

1.1.1.4.4 **Site E** has a footprint of about nine acres and is no longer open for disposal of waste rock. This site stores about 365,000 cubic yards of waste rock that is actively being relocated for final co-disposal in the TDF.

1.1.1.5 Pond 7

Pond 7 is a settling pond that collects storm water, TDF runoff, TDF underflow, and mine water before it is treated and discharged. It is located hydrologically and topologically downgradient and southwest of the TDF. The Pond 7 containment structure is classified as a Class 3 low hazard potential dam.

1.1.1.6 Fresh Water Monitoring Sites

The Fresh Water Monitoring Program (FWMP) contained in *Hecla Greens Creek General Plan of Operations Appendix I Integrated Monitoring Plan* designates locations for monitoring the mine's impacts on fresh water quality.

1.1.2 This permit also contains geochemical monitoring requirements for waste rock, construction rock, and tailings to characterize metal leaching and acid rock drainage potential; geotechnical monitoring to evaluate stability of disposal sites; biological monitoring to assess any potential impacts on the fresh water aquatic ecosystem, and stipulations on chemical storage and containment.

1.1.3 The Department may set or modify permit conditions based on monitoring results or changes in facility processes according to permit amendment or modification procedures.

1.2 ADOPTED REFERENCES

1.2.1 In addition to the stipulations in this permit, the permittee shall adhere to the applicable requirements of 18 AAC 15 Administrative Procedures,18 AAC 60 Solid Waste Management Regulations, 18 AAC 70 Alaska Water Quality Standards (WQS), and 18 AAC 72 Wastewater Disposal. The permittee shall also adhere to Department-approved plans authorized under the permit. When the terms of this permit differ from the terms of Department-approved project documents adopted by reference in this section, the most recent term with written Department approval is controlling. If there is doubt as to which conflicting term is newer, this permit shall control. The Department-approved plans adopted by reference in this section must be updated incorporating any changes necessary to be consistent with

the terms of this permit, and these plans may be revised provided that written Department approval is received. Department-approved plans adopted by reference into this permit include the following documents:

1.2.1.1 *Hecla Greens Creek General Plan of Operations Appendix 1 Integrated Monitoring Plan* June 2014 (*IMP*),

1.2.1.2 *Hecla Greens Creek General Plan of Operations Appendix 3 Tailings Disposal Facility Management Plan* June 2014 (*tailings facility SOPs*),

1.2.1.3 *Hecla Greens Creek General Plan of Operations Appendix 7 Integrated Waste Management and Disposal Plan* June 2014 (*solid waste management plan*),

1.2.1.4 *Hecla Greens Creek General Plan of Operations Appendix 11 Waste Rock Management Plan* June 2014 (*waste rock management plan*), and

1.2.1.5 *Hecla Greens Creek General Plan of Operations Appendix 14 Reclamation and Closure Plan* June 2014 (*reclamation and closure plan*).

2 SPECIFIC CONDITIONS

2.1 ACTIVE WASTE DISPOSAL FACILITIES

2.1.1 All Active Waste Disposal Facilities - Waste disposal is permitted in three areas (TDF, Site 23, and underground mine workings) listed in section 2.1 provided that the conditions of this permit are satisfied.

2.1.1.1 Limitations

2.1.1.1.1 Except as otherwise authorized in an APDES permit, the permittee shall control and treat onsite surface water, groundwater and seepage as necessary to prevent offsite water quality exceedances.

2.1.1.1.2 The permittee shall ensure that all wastes are deposited in a manner that will not damage or otherwise jeopardize the integrity of containment.

2.1.1.1.3 Activities at the site that will cause a greater amount of waste material to be treated and disposed than considered in this section of the permit are prohibited without the prior approval by the Department. This condition excludes mining and milling rates which are not considered in this section.

2.1.1.1.4 The following materials shall not be disposed onsite, unless approved in writing by the Department:

2.1.1.1.4.1. Laboratory wastes other than wash waters, neutralized acids and neutralized bases; however disposal or recycling of refinery slag, fire assay crucibles and cupels is permitted;

2.1.1.1.4.2. Discarded, unused chemical not associated with the beneficiation process; however chemicals that have been added through the beneficiation process may be disposed in the TDF or underground workings;

2.1.1.1.4.3. Contaminated soils, spill boom, liners used for the containment of spilled hazardous materials, chemicals used in the cleanup of spills or

other spill cleanup wastes other than chemicals used in the beneficiation process,

2.1.1.1.4.4. Uncombusted household waste;

2.1.1.1.4.5. Sewage solids that are untreated or have less than 10% solids by weight;

2.1.1.1.4.6. Asbestos waste;

2.1.1.1.4.7. Acute hazardous wastes, as defined by 18 AAC 60.990(157), including radioactive material, explosives, strong acids and untreated pathogenic waste; however, this prohibition does not preclude disposal of natural minerals found in mine rock or residual wastes included as byproducts of the beneficiation;

2.1.1.1.4.8. Fuels, oil, transformers, paint, or associated equipment and packing material; and

2.1.1.1.4.9. Glycol and solvents.

2.1.2 TDF – The primary function of the TDF is for disposal of drystack tailings. It must be designed, operated, and reclaimed as waste containment facility preventing any discharge of solids or liquids according to the *tailings facility SOPs* and *reclamation and closure plan*. The following conditions under section 2.1.2 apply to the TDF and its appurtenances.

2.1.2.1 The following inert wastes may be disposed in the TDF:

2.1.2.1.1 Settled solids from sumps, ditches, settling ponds, and degritting basins;

2.1.2.1.2 Incinerator ash and residue;

2.1.2.1.3 Ash from burning scrap wood;

2.1.2.1.4 Iron (drill steel, balls, empty cans, etc.);

2.1.2.1.5 Empty plastic and glass containers;

2.1.2.1.6 Inert, non-putrescible, domestic waste;

2.1.2.1.7 Construction debris;

2.1.2.1.8 Non-terne plated used oil filters that have been gravity hot-drained; and

2.1.2.1.9 Such other material as would otherwise be disposed of in an inert solid waste landfill without special handling.

2.1.2.2 Sewage solids may be disposed in the TDF provided that they

2.1.2.2.1 Contain no less than 10% solids by weight,

2.1.2.2.2 Are treated with lime so that a pH of 12 is maintained in the solids after one hour of contact before disposal, and

2.1.2.2.3 Are covered with at least six inches of cover material on the day of disposal.

2.1.2.3 Co-disposal of Class 4 waste rock in the TDF is prohibited.

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2.1.2.4 Class 1 and Class 2/Class 3 waste rock from underground, Site 23, Site D, Site E, or construction rock may be co-disposed with tailings in the TDF.

2.1.2.5 The permittee shall ensure that wastes are deposited into the TDF in a manner that will not damage or otherwise jeopardize the integrity of the containment of the TDF.

2.1.2.6 Pond 7, an appurtenance of the TDF, must be operated in conformance with the current *Certificate of Approval to Operate a Dam* issued by Alaska Department of Natural Resources (ADNR), Division of Mining, Land and Water, Dam Safety and Construction Unit.

2.1.2.7 Water quality in FWMP monitoring stations associated with the TDF must not exceed WQS. If a WQS is exceeded for a given parameter, then corrective action as designated in section 2.5.3 must be implemented.

2.1.3 Site 23 – Site 23 must be designed, operated, and reclaimed as a waste containment facility preventing any discharge of solids or liquids according to the *waste rock management plan* and *reclamation and closure plan*. The following conditions under section 2.1.3 apply to Site 23 and its appurtenances.

2.1.3.1 Only Class1 and Class 2/Class 3[1] waste rock may be disposed at Site 23.

2.1.3.2 Waste rock that is neither Class 1 nor Class2/Class 3 may be temporarily stored at Site 23 provided that it is placed on an impermeable liner, containment and drainage controls prevent release of leachate and runoff, and written Department approval is received.

2.1.3.3 Surface water in the TDF monitoring stations, as designated in the *IMP*, must not exceed WQS. If there is an exceedance of a WQS, then corrective action as designated in section 2.5.3 must be implemented.

2.1.3.4 The permittee shall ensure that all wastes are deposited in a manner that will not damage or otherwise jeopardize the integrity of Site 23 containment.

2.1.4 Underground Mine Workings – The underground mine workings must be operated and reclaimed as a waste containment facility preventing any discharge of solids or liquids according to the *solid waste management plan*, *waste rock management plan*, and *reclamation and closure plan*. The following conditions under section 2.1.4 apply to the waste disposal in the mine.

2.1.4.1 The following wastes may only be disposed in the underground mine:

2.1.4.1.1 Class 4 waste rock, and

2.1.4.1.2 Tires.

2.1.4.2 The following inert wastes may be disposed in the underground mine:

2.1.4.2.1 Settled solids from sumps, ditches, settling ponds, and degritting basins;

[1] Waste rock is classified based on acid generation potential ranging from Class 1 waste rock (least acid generation potential) to Class 4 waste rock (greatest acid generation potential).

2.1.4.2.2 Incinerator ash and residue;

2.1.4.2.3 Ash from burning scrap wood;

2.1.4.2.4 Iron (drill steel, balls, empty cans, etc.);

2.1.4.2.5 Empty plastic and glass containers;

2.1.4.2.6 Inert, non-putrescible, domestic waste;

2.1.4.2.7 Construction debris;

2.1.4.2.8 Non-terne plated used oil filters that have been gravity hot-drained; and

2.1.4.2.9 Such other material as would otherwise be disposed of in an inert solid waste landfill without special handling.

2.2 SITE CONSTRUCTION, MAINTENANCE, & OPERATION

2.2.1 General

2.2.1.1 Changes that may have a significant impact on mine closure, reclamation, or water quality; information on engineering changes to the mill; new waste treatment processes; changes to solid waste disposal facilities, changes to ground and surface water interception, conveyance or monitoring systems; and the addition of new waste streams that discharge to TDF including Pond 7, Site 23, or underground workings must be submitted to the Department and approval must be obtained prior to any such changes or discharges.

2.2.1.2 The permittee shall develop the site in accordance with Department-approved plans and amendments thereof, which are submitted by the applicant as required by this permit and referenced in section 1.2.1. Pollution prevention concepts shall be incorporated into operations plans for the project.

2.2.1.3 The permittee shall design, operate, and reclaim surface disposal facilities to minimize run-on of storm water.

2.2.2 Secondary Containment

2.2.2.1 Secondary containment of all hazardous substances, as defined at AS 46.03.826(5), must be impermeable to those stored hazardous substances.

2.2.2.2 The permittee shall provide and maintain secondary containment for all chemical mix tanks containing hazardous or toxic materials and new piping associated with that tankage. Secondary containment is considered to be 110% of the largest tank within a containment area or the total volume of manifolded tanks. The permittee must design and install secondary containment structures in a manner that ensures that solid waste and leachate will not escape from the structures. To prevent such discharges, facilities shall be maintained in good working condition at all times by the permittee.

2.2.3 Notification

2.2.3.1 The permittee shall notify the Department in writing at least 15 days before the introduction of a new chemical into the process or waste treatment streams. Safety Data Sheets on new chemicals must be forwarded to the Department at

time of notification and maintained onsite. Introduction of new chemicals into the process requires written Department approval.

2.2.3.2 Under 18 AAC 72.600, the permittee shall submit engineering plans to the Department at least 60 days before construction or modification of an applicable system, and receive Department approval of any changes that will significantly modify the quality or quantity of waste stream, the operation of a waste treatment component, or the disposal facilities.

2.2.3.3 With respect to any Department approved change as described in section 2.2.3.2, the permittee must submit to the Department within 90 days after completing construction of a significant modification to an existing process component:

2.2.3.3.1 As-built drawings of the process component(s) that show any changes of those aspects that would affect performance of that process component as required in 18 AAC 72.600,

2.2.3.3.2 A summary of the quality control activities that were carried out during construction, and

2.2.3.3.3 The revised operating plans that reflect modifications made during construction.

2.2.4 Fuel and Hazardous Substances

2.2.4.1 The permittee shall design and install all process piping and chemical mix tanks to allow for routine inspections for leaks. New process piping installed outside of the mill building must not be buried unless secondary containment is used that provides the ability to inspect for leaks.

2.2.4.2 The permittee shall maintain fuel handling and storage facilities in a manner that will minimize the discharge of hazardous substances.

2.3 MONITORING

2.3.1 The *IMP* dated June 2014, submitted by Hecla Greens Creek Mining Company (HGCMC) and approved by the Department, is incorporated into this permit. Future Department-approved changes to project monitoring will be included as modifications to the *IMP* and do not require re-issuance or modification of this permit. The *IMP* shall contain monitoring procedures to include the following and must be updated, as needed to conform to the permit, within 90 days of permit issuance.

2.3.1.1 Visually monitor the facilities for signs of damage or potential damage from settlement, ponding, leakage, instability, frost action, erosion, thawing of the waste, or operations at the site. Visual monitoring shall be at least weekly and documented monthly.

2.3.1.2 Monitor surface and groundwater near the site to ensure that WQS are not exceeded and that sample results are statistically valid.

2.3.1.3 Water chemistry analytical methods employed must be sensitive enough to determine compliance with for all applicable WQS. The minimum level of

quantification (ML) for a given parameter's measurement must be less than or equal to the most stringent applicable WQS for that substance.

2.3.1.4 Monitor fresh water quality as designated in the FWMP.

2.3.1.5 Conduct biological monitoring in Greens Creek and Tributary Creek in accordance with the FWMP to document the continued health of the aquatic communities. The permittee shall measure:

2.3.1.5.1 The abundance and condition of juvenile fish;

2.3.1.5.2 Whole body concentrations of cadmium, copper, mercury, lead, selenium, silver, and zinc in juvenile fish tissue;

2.3.1.5.3 Periphyton biomass, estimated by chlorophyll-a concentrations; and

2.3.1.5.4 Abundance and community structure of benthic invertebrates.

2.3.1.6 Geochemical monitoring of Greens Creek Mine overburden, construction rock, waste rock, and tailings is required to ensure that there is low potential for production of leachate that is acidic or contains levels of metals that would contaminate surface or groundwater.

2.3.1.7 Monitor the geotechnical stability of the TDF and Site 23.

2.3.1.8 Monitor amounts and geochemistry, including numerical classification where applicable, of waste rock and tailings disposed.

2.3.1.9 Water flow and management monitoring is required to account for process water discharged to the Pond 7, process water recycled to the mill, storm water entering Pond 7, flow under the TDF into Pond 7, water levels in piezometers, and meteorology.

2.3.1.10 Signs of stress to wildlife associated with facility activities must be monitored.

2.3.2 The permittee must develop a quality assurance project plan (QAPP) for all sampling required by this permit. The QAPP may be contained in the *IMP*. The QAPP, or the QAPP portion of the *IMP*, must be completed within 60 days of the effective date of this permit and made available upon request. Any changes made to the existing QAPP shall be completed according to section 2.3.2.3.

2.3.2.1 The QAPP must be designed to assist in planning for the collection and analysis of water samples in support of the permit and in explaining data anomalies when they occur and the QAPP must be formatted as specified in the most recent edition of Elements of a Tier 2 Water Quality QAPP by DEC, Division of Water, Water Quality Standards, Assessment, and Restoration Program, Quality Assurance Section.

2.3.2.2 Throughout all sample collection and analysis activities, the permittee must use chain-of-custody procedures described in the most recent edition of Elements of a Tier 2 QAPP by DEC, Division of Water, Water Quality Standards, Assessment, and Restoration Program, Quality Assurance Section.

2.3.2.3 The permittee must amend the QAPP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAPP.

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2.3.2.4 A copy or copies of the QAPP must be kept onsite and made available to the Department upon request.

2.3.3 The permittee must monitor Pond 7 in conformance with current *Certificate of Approval to Operate a Dam* issued by ADNR, Division of Mining, Land and Water, Dam Safety and Construction Unit.

2.3.4 Samples taken as required by section 2.3 shall be analyzed in conformance with the most recent *IMP* and QAPP submitted by HGCMC, as approved by the Department.

2.3.5 Maintenance of inspection and sampling logs and procedures for processing, consolidating, and reporting inspection and sampling data shall be in conformance with the *IMP* and QAPP submitted by HGCMC, as approved by the Department.

2.3.6 Groundwater and surface water monitoring and corrective action monitoring shall be in accordance with section 2.5, 18 AAC 60 Solid Waste Management Regulations, and the *IMP* and QAPP submitted by HGCMC, as approved by the Department.

2.3.7 The Department may modify monitoring requirements, including the establishment of additional compliance points in response to trends showing changes in the concentration of parameters being monitored.

2.3.8 If the permittee monitors any influent, effluent, receiving water, or solid waste characteristic, with the exception of monitoring associated with a wastewater discharge permit, or more frequently than required, the permittee shall notify the Department that the additional monitoring has occurred in the quarterly report for the period when the monitoring has occurred. The results of such monitoring shall be available for inspection by the Department at the project site, or other location proposed by the permittee and agreed upon by the department. The permittee shall provide copies of the results to the Department upon request.

2.4 REPORTING

2.4.1 When a statistically significant increase in the concentration of a constituent above a WQS is discovered at a groundwater or surface water monitoring location, or if noncompliance with a requirement set out in sections 2.1 or 2.2 is discovered, the permittee shall verbally notify the Department no later than the end of the next working day after discovery, and shall conduct corrective actions according to section 2.5.3.

2.4.2 The permittee shall provide the Department with quarterly monitoring reports summarizing inspection and monitoring results required in section 2.3. Reports shall satisfy the following conditions.

2.4.2.1 Due Dates - Reports for the first three calendar quarters are due within 60 days after the quarter ends, and the report for the fourth calendar quarter shall be submitted by March 1st of the following year.

2.4.2.2 Form – Reports shall be provided in electronic form using commercially available software or according to other electronic reporting requirements approved by the Department. Paper copies of the reports are not required unless specifically requested.

2.4.2.3 Content - Reports shall contain a narrative portion discussing data and

information collected during the preceding quarter.

2.4.2.4 Graphing - Reports shall present water quality data in graphical form indicating trends as well as the margin of compliance with limits.

2.4.2.4.1 Graphs of concentration measurement versus time must include the past five years of data, if available, and may contain all historic data.

2.4.2.4.2 The graphs must also include the parameter, units, and applicable permit limit or WQS.

2.4.2.4.3 Multiple stations, identified using symbols in a legend, may be included in the same graph.

2.4.2.4.4 Scales shall be proportioned to display the limit or WQS, as indicated by a highlighted line, near the top of the graph or when data exceeds the limit, the maximum value shall be near the top of the graph.

2.4.2.4.5 Formatting shall allow addition of new data to each graph's cumulative data when producing the next quarterly report.

2.4.2.4.6 For graphical purposes, non-detect values shall be plotted at one half the method detection limit (MDL), and values between the ML and MDL shall be plotted at the value of the qualified measurement.

2.4.3 Annual Report - In addition to satisfying the requirements of section 2.4.2, the fourth calendar quarter report serves as the annual report. The annual report shall:

2.4.3.1 Be submitted to the Department by April 15th of the following year;

2.4.3.2 Contain an electronic copy (preferably Excel) of the water quality data for the reporting year, including the past five years' data, if available, and may contain all historic data in spreadsheet form. When a value is less than the ML, it must be identified as less than the ML, and the ML must be provided. Non-detect values must be identified as less than the MDL or non-detect and the MDL must be provided in the electronic water quality data spreadsheets;

2.4.3.3 Address the adequacy of the financial responsibility including, but not limited to, significant changes in reclamation activity costs, concurrent reclamation, expansion or other changes to the operation of the facility;

2.4.3.4 Be presented at an annual meeting with the Department and open to the public; and

2.4.3.5 Be submitted to the Department at least two weeks prior to the annual meeting.

2.4.4 The permittee shall provide the Department with copies of any amendments to the plan of operations, including the *reclamation and closure plan*, when they affect the waste disposal operations authorized by the permit.

2.4.5 All records and information and reports resulting from the monitoring activities required by this permit, including but not limited to all records of analyses performed, calibration and maintenance of instrumentation, and recordings from continuous monitoring instrumentation, shall be retained in Alaska for observation by the Department for a minimum of five years. Upon request from the Department,

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the permittee shall submit certified copies of such records.

2.4.6 Any onsite wildlife casualties associated with facility activities shall be reported within one working day of discovery to the Department.

2.4.7 All printed reports submitted under the requirements of this permit shall be sent to:

Dept. of Environmental Conservation
Division of Water, Compliance Program
555 Cordova St.
Anchorage, AK 99501

2.4.8 Knowingly making a false statement, by the permittee, the operator or other employees, including contractors, on any such report may result in the imposition of criminal penalties as provided under AS 46.03.790.

2.5 CORRECTIVE ACTIONS

2.5.1 The permittee shall comply with 18 AAC 60.815 if the visual monitoring program in section 2.3.1.1 discovers damage or potential damage to the waste disposal-related facility that could lead to water quality violations.

2.5.2 When a statistically significant increase in a constituent concentration above the background water quality in any of the water sampling locations is discovered, the permittee shall comply with 18 AAC 60.820-860. Statistical significance shall be determined using one of the methods outlined in 18 AAC 60.830(h). The permittee shall comply with the notification requirements in 18 AAC 60.850(c) upon determining a statistically significant increase in a constituent concentration.

2.5.3 For a single constituent, when a statistically significant increase in concentration is discovered at a water monitoring station or if noncompliance with a requirement set out in sections 2.1 or 2.2 is discovered, the permittee shall:

2.5.3.1 Orally notify the Department no later than the end of the next working day;

2.5.3.2 Determine the extent of the exceedance or noncompliance;

2.5.3.3 In consultation with the Department and documented in writing, implement a plan to restore compliance and determine the cause of the exceedance or noncompliance;

2.5.3.4 Submit to the Department, within seven working days after an exceedance or noncompliance is verified by the permittee, a plan for corrective actions to prevent adverse environmental impacts and avoid future exceedances of a similar nature; and

2.5.3.5 Implement the corrective action plan as approved by the Department.

2.6 SUSPENSION OF OPERATIONS

2.6.1 Suspension of operations is defined as a suspension of mining and milling/processing activities for more than 90 days but less than three years. The length of time for the period of suspension may be extended beyond three years by written authorization from the Department. The permittee shall submit a conceptual suspension of operations plan to the Department within 90 days of permit issuance.

2.6.2 The permittee must notify the Department within three days of suspending operations. The notice shall provide the nature of and reason for the suspension and its anticipated duration.

2.6.3 No later than ten days after operations have been suspended, the permittee shall submit a detailed suspension of operations plan that replaces the suspension of operations conceptual plan required by section 2.6.1 with current information and specific details. The suspension plan shall address the following:

2.6.3.1 Explanation of what would reasonably result in resuming or permanently terminating mining or milling/processing activities;

2.6.3.2 Reclamation or construction activities during the period of temporary suspension;

2.6.3.3 Procedures, methods, and schedule to be implemented for the treatment, disposal, or storage of process water;

2.6.3.4 The control of surface and groundwater drainage to and from the facility and the surrounding area;

2.6.3.5 The control of erosion from the drystack, waste rock disposal areas, mill and camp site, and any other disturbed areas within the facility boundary;

2.6.3.6 The secure storage of chemicals during the period of suspended operations; and

2.6.3.7 Procedures for maintaining and monitoring the Pond 7 dam and site-wide water balance.

2.6.4 The Department shall have 15 days to review and approve or request modifications to the suspension plan.

2.6.5 Once a suspension of operations plan has been approved, it becomes enforceable under the conditions of this permit and full implementation of the approved suspension plan is required. The plan can be amended by submitting a revised plan to the Department for approval.

2.6.6 During suspension of operations, the permittee shall:

2.6.6.1 Continue pollution control activities associated with waste disposal and management, including but not limited to dust control, maintenance of the drainage diversion structures, maintenance of all discharge and leakage control structures and processes, and maintenance of the Pond 7 dam as specified by the current *Certificate of Approval to Operate a Dam* and the suspension plan.

2.6.6.2 Continue monitoring and reporting activities of all active portions of the site as specified by this permit or the suspension plan.

2.6.6.3 Continue reclamation and corrective action requirements under the *reclamation and closure plan* in light of the nature of the closure.

2.6.7 Written Department approval is required before resuming operations after a period of temporary closure.

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2.7 TERMINATION OF MINING & MILLING

2.7.1 Termination of mining and milling/processing activities is defined as the permanent cessation of those activities. Updated reclamation and monitoring plans must be submitted for approval within 90 days after initiating termination of mining and milling/processing. The updated plans must address current conditions at the facility. Updates and changes to those plans must be approved in writing by the Department.

2.7.2 Termination of mining and milling at the site must be implemented and completed according to the conditions of this permit and with the *reclamation and closure plan* approved by the Department and incorporated by reference into this permit.

2.7.3 Closure of the waste disposal facilities will be complete when the following criteria are met:

2.7.3.1 Department-approved covers are installed on the 1350 portal area, 920 portal area including the mill site, Sites C, D, and E, Site 23, TDF, and drainage channels are constructed and stable;

2.7.3.2 A stable vegetative cover is established on the waste rock, re-contoured areas, and other infrastructure or other facilities as prescribed in *reclamation and closure plan* approved by the Department and incorporated by reference into this permit; and

2.7.3.3 The Department determines that active water treatment is no longer required for any water discharged from the facility.

2.7.4 Closure must be achieved before terminating any care and maintenance activities required by section 2.6.6 and the approved suspension plan if a period of suspended operations immediately preceded termination of mining and milling.

2.7.5 The permittee shall maintain the facility correcting any erosion or settlement of the TDF, waste rock disposal sites, and drainage channels that may impair water quality or otherwise threaten the environment, up until the time that this permit, or any successor permit, is transferred to another entity or terminated by the Department.

2.7.6 Disposal of demolition debris onsite may be approved during closure activities according to a plan approved by the Department.

2.7.7 Post-closure monitoring of ground and surface water quality and visual monitoring for settlement, seeps, and erosion is required in years 1, 2, 5, 10, 15, 20, and 30 after satisfying the criteria in section 2.7.3. Post-closure monitoring shall be performed according the reclamation and closure plan approved by the Department. This schedule and the parameters monitored may be modified by the Department based on the monitoring results received.

2.8 FACILITY AUDIT

A periodic third-party environmental audit shall be completed during the final year of the permit term or sooner if final closure starts during the permit term. However, the field inspection portion of the audit shall be conducted during the snow free season the year before permit expiration. The audit will include all aspects of this Waste Management Permit. The environmental audit is required to verify HGCMC's compliance with applicable environmental laws associated with this permit. The third party contractor

should be mutually agreed on by the state and HGCMC, but in the event that agreement cannot be reached, the state retains the final contractor selection decision. Costs for the third-party contractor shall be borne by HGCMC. The intent of the audit is to evaluate whether both HGCMC management and DEC permit administration provide reasonable assurances that the facility and environmental controls are functioning as intended. The environmental audit shall include an evaluation of the adequacy of the approved financial assurance.

3 GENERAL CONDITIONS

3.1 ACCESS AND INSPECTION

The permittee shall allow the Commissioner or his/her representative access to the permitted facility at reasonable times to conduct scheduled or unscheduled inspections or tests to determine compliance with this permit, state laws, and regulations.

3.2 INFORMATION ACCESS

Except where protected from disclosure by applicable State or Federal law, all records and reports submitted in accordance with the terms of this permit shall be available for public inspection at the State of Alaska, Department of Environmental Conservation, Fairbanks, Alaska.

3.3 CIVIL AND CRIMINAL LIABILITY

Nothing in this permit shall relieve the permittee from any potential civil or criminal liability for noncompliance with the permit or with applicable laws.

3.4 AVAILABILITY

The permittee shall post or maintain a copy of this permit available to the public at the facility.

3.5 ADVERSE IMPACT

The permittee shall take all necessary means to minimize any adverse impacts to the receiving waters or lands resulting from noncompliance with any limitation specified in this permit, including any additional monitoring needed to determine the nature and impact of the noncomplying activity. The permittee shall cleanup and restore all areas adversely impacted by the noncompliance.

3.6 CULTURAL OR PALEONTOLOGCAL RESOURCES

Should cultural or paleontological resources be discovered as a result of this activity, work, which would disturb such resources, is to be stopped, and the State Historic Preservation Office, Division of Parks and Outdoor Recreation, ADNR (907-465-4563), is to be notified promptly.

3.7 APPLICATIONS FOR RENEWAL

In accordance with 18 AAC 15.100(d), an application for renewal or amendment of this permit must be made no later than 30 days before the expiration date of the permit or the planned effective date of the amendment.

3.8 OTHER LEGAL OBLIGATIONS

This permit does not relieve the permittee from the duty to obtain any other necessary permits from the department or from other local, state, or federal agencies, and to comply with the requirements contained in any such permits. All activities conducted and all plans implemented by the permittee pursuant to the terms of this permit shall comply with all applicable local, state, and federal laws and regulations.

3.9 TRANSFER OF OWNERSHIP

In the event of any change in control or ownership of the permitted facility, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Director of the Division of Water. The original permittee remains responsible for permit compliance unless and until the succeeding owner or controller agrees in writing to assume such responsibility, and the department approves assignment of the permit. The Department will not unreasonably withhold such approval.

As between the State and the permittee, no transfer of this permit shall relieve the permittee of any liability arising out of operations conducted prior to such transfer, regardless of whether such liability accrues before or after such transfer.

3.10 TOXIC POLLUTANTS

If during the life of this permit a new or revised toxic pollutant (including oil, grease, or solvents) concentration standard is established in accordance with 18 AAC 70 for a pollutant managed at this facility and that standard is more stringent than previously, then upon the effective date of the new rule, this permit automatically adopts the new toxic pollutant concentration standard and applies it to management of facility wastes.

3.11 POLLUTION PREVENTION

In order to prevent and minimize present and future pollution, when making management decisions that affect waste generation, the permittee shall consider the following order of priority options as outlined in AS 46.06.021:

1st waste source reduction,
2nd recycling of waste,
3rd waste treatment, and
4th waste disposal.

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4 FINANCIAL RESPONSIBILITY

4.1 PROOF OF FINANCIAL RESPONSIBILITY

Under AS 46.03.100(f), 18 AAC 15.090, and 18 AAC 60.265, the Department has authority and responsibility to require proof of financial responsibility for closure of the facility and post-closure monitoring.

4.1.1 The permittee shall provide the Department with proof of financial responsibility for reclamation and closure of the facilities and post-closure monitoring. The proof of financial responsibility shall cover costs incurred for reclamation and closure and post-closure monitoring of all mine facilities, including the mill area, 1350 portal area, 920 portal area, underground workings, Site C, Site D, Site E, Site 23, TDF, and related facilities, shall cover the activities set out in section 4, and shall be in the amount shown in section 4. An overview of the areas covered by the financial responsibility for reclamation and closure is shown in figure 6.1.

4.1.2 The Department will review and modify if necessary, the financial responsibility requirements including adjustments for concurrent reclamation, expansion, or other changes to the operation of the facility. The permittee shall address the adequacy of the financial responsibility in the annual report required in section 2.4.3.3.

4.1.3 The proof of financial responsibility may be in the form of a trust fund, surety bond, letter of credit, insurance, or another Department-approved mechanism.

4.1.4 Approved proof of financial responsibility must remain available through the post-closure period and may not be released in its entirety until the Department certifies in writing that closure of the facility and the required post-closure monitoring have been successfully concluded or that another entity has assumed responsibility for permit compliance, reclamation and closure activities, and post-closure monitoring.

4.1.5 The permittee must provide acceptable proof of financial responsibility within 60 days of the permit's effective date. The Department will accept or reject the financial surety as expeditiously as possible but in no event later than 30 days after its receipt.

4.1.6 If the permittee is unable to provide acceptable proof of financial responsibility to the Department, as approved by the Department in writing, within the time period stated above, this permit will expire automatically at that time, notwithstanding any other approvals to the contrary, unless the Department's failure to act is responsible for the delay in accepting or rejecting this proof.

4.1.7 If the permittee fails to comply with the terms and conditions of this permit and if the Department concludes that such failure may prevent, inhibit or delay satisfactory reclamation and closure or post-closure monitoring of the facility, then the Department may exercise its rights, under an approved mechanism, to access financial responsibility funds and use them for reclamation and closure and post-closure activities.

4.1.8 The permittee can apply to have the amount of the financial responsibility adjusted during the life of the permit if, for example, concurrent reclamation has been completed.

4.2 AMOUNT OF FINANCIAL RESPONSIBILITY

The total proof of financial responsibility for the life of this permit, unless modified, shall be $65,392,347. A detailed breakdown of the financial responsibility cost estimate can be found in the *reclamation and closure plan*. The Greens Creek Mine financial responsibility is based on the following.

Years *(after permit issuance)*	Reclamation[1] *(years 1-4 earthwork and water treatment)*	Long Term Care and Water Treatment[2] *(years 5-100 plus the principal for another 100 years)*	Annual Cash Flows[3]	Net Present Value[4] *(3.97% estimated real rate of return)*	Inflation[5] *(2.31% average of the last 5 years of the Anchorage CPI)*
0				$58,335,980	
1	$5,922,414		$5,922,414		$59,683,541
2	$15,990,460		$15,990,460		$61,062,231
3	$13,918,395		$13,918,395		$62,472,769
4	$13,542,169		$13,542,169		$63,915,890
5		$14,148,963	$14,148,963		$65,392,347

Notes:

1. This column represents the present values for reclamation costs that are scheduled during the first four years after the termination of mining and milling. Amounts include both direct and indirect costs that are detailed in the *reclamation and closure plan*.

2. This column represents the present value cost for long term care and water treatment beginning on the fifth year after termination of mining and milling. Costs include the net present value for water treatment during years 5 through 100 and the net present value for water treatment from years 101 to 200 including water treatment plant replacement and maintenance. The total includes both direct and indirect costs that are detailed in the *reclamation and closure plan*.

3. This column represents a schedule of annual present value costs required for reclamation, long term care and water treatment.

4. This amount represents the net present value assuming a real rate of return of 3.97%.

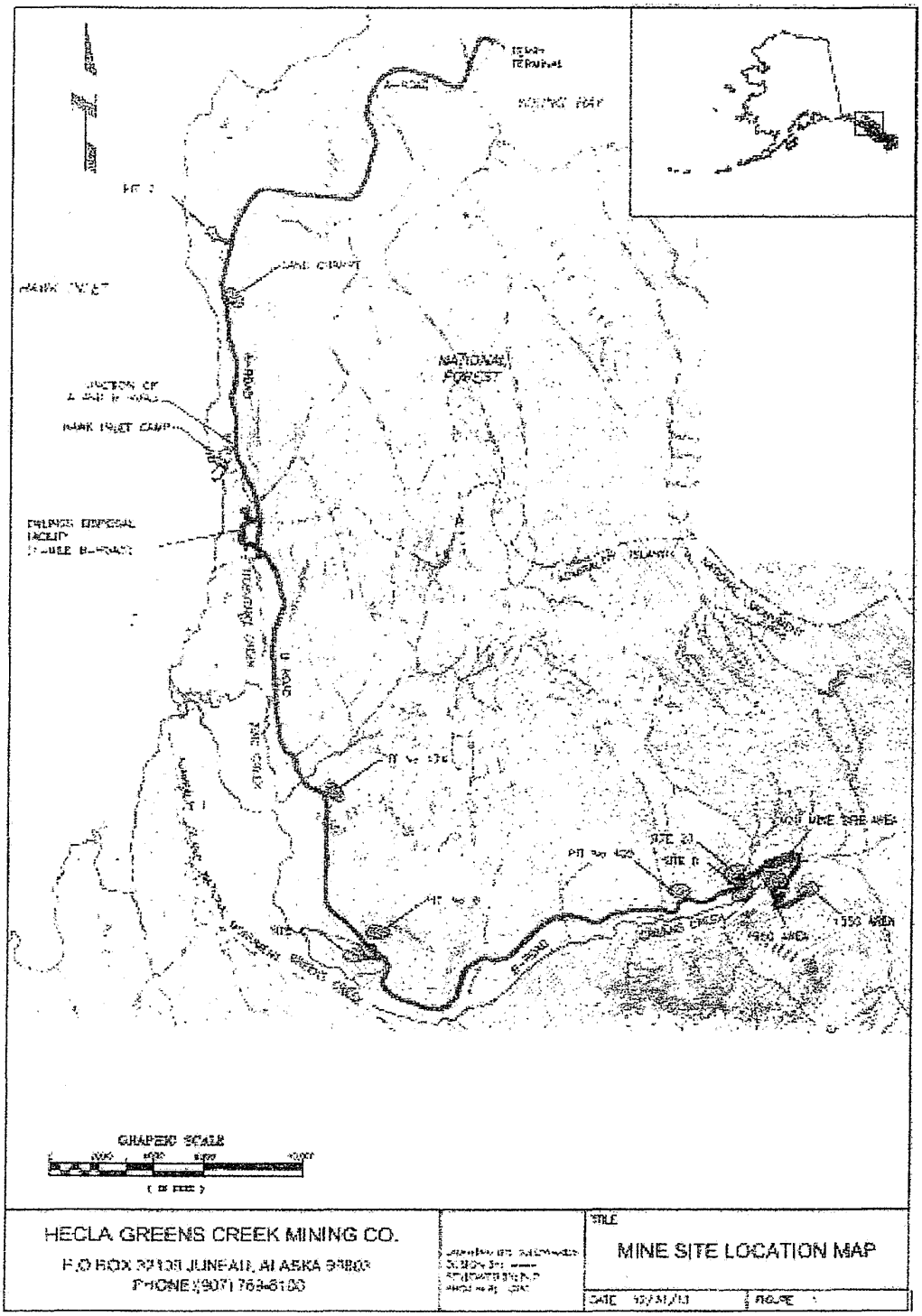
5. This column represents the net present value adjusted by adding five years of inflation covering inflation incurred during the permit term. The cost at year five is the final required financial responsibility amount.

5 GLOSSARY OF TERMS

AAC	Alaska Administrative Code
ADNR	Alaska Department of Natural Resources
APDES	Alaska Pollutant Discharge Elimination System
AS	Alaska Statutes
FWMP	Fresh Water Monitoring Program
GPO	General Plan of Operations – comprised of several appendices. This permit references and adopts GPO appendices 1, 3, 7, 11, and 14.
HGCMC	Hecla Greens Creek Mining Co.
MDL	Method Detection Limit
ML	Minimum Level of Quantification
Permittee	Hecla Greens Creek Mining Co.
QAPP	Quality Assurance Project Plan
TDF	Tailings Disposal Facility
WQS	Alaska Water Quality Standards

6 Figures

6.1 MINE FACILITY LOCATIONS



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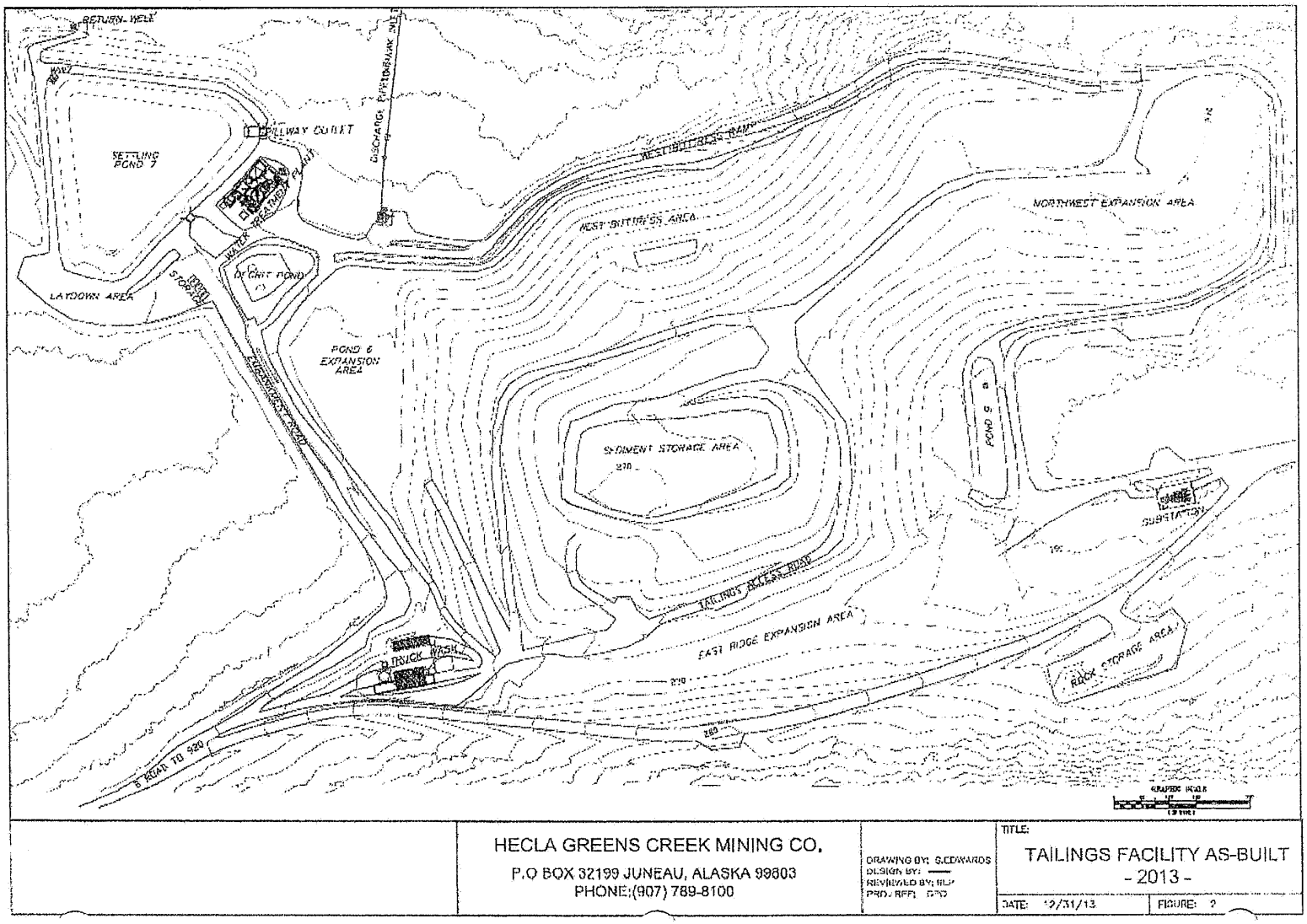
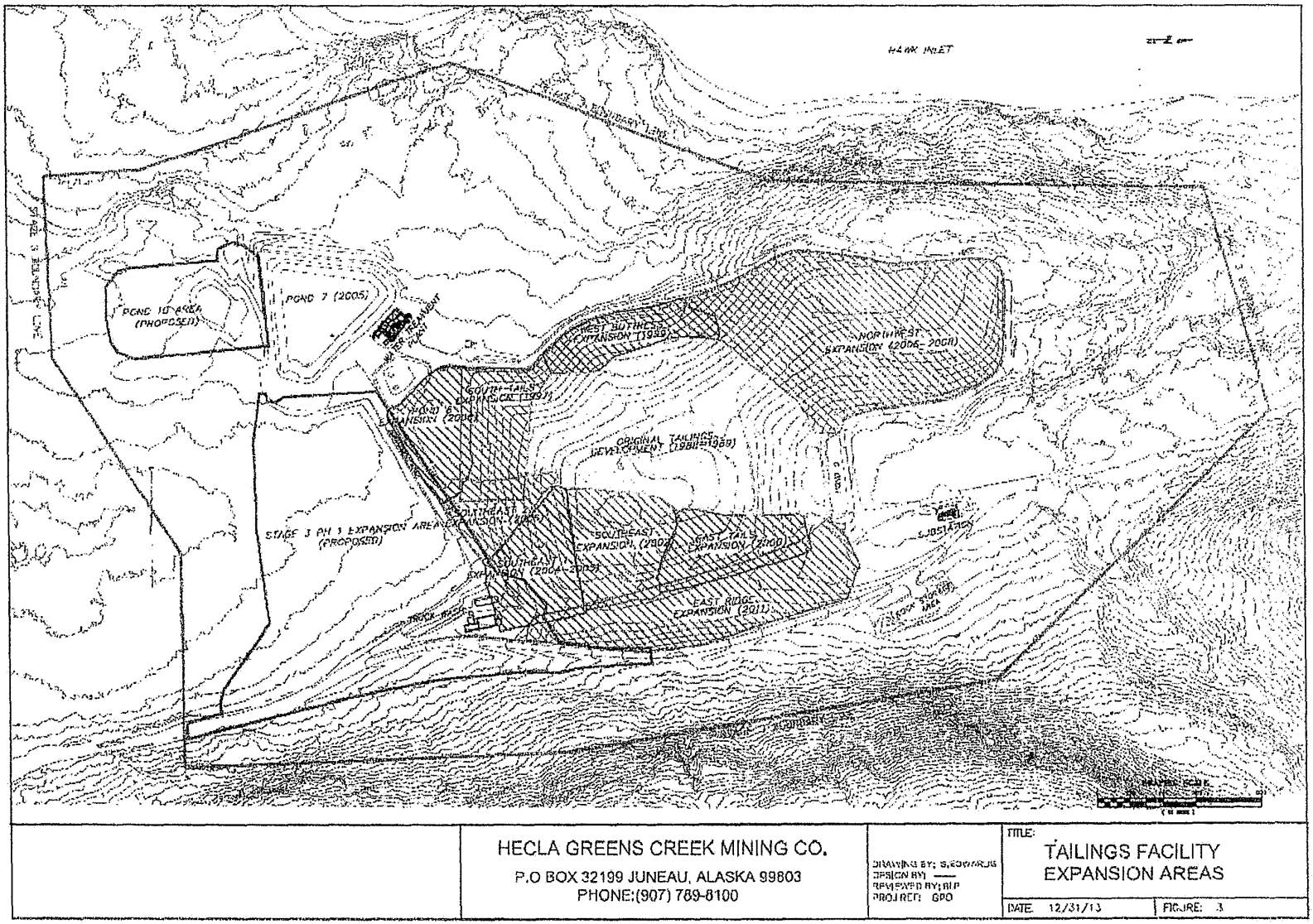
6.2 CURRENT TAILINGS DISPOSAL FACILITY

ATTACHMENT 3-C



6.3 TAILINGS DISPOSAL FACILITY EXPANSION PLANS



	HECLA GREENS CREEK MINING CO. P.O BOX 32199 JUNEAU, ALASKA 99803 PHONE:(907) 789-6100	DRAWING BY: S.EDWARDS DESIGN BY: —— REVIEWED BY: RLP PROJECT: GPO	TITLE: TAILINGS FACILITY EXPANSION AREAS DATE: 12/31/13 FIGURE: 3

ATTACHMENT 3-C

Attachment A – Application Packet

US Army Corps
of Engineers
Alaska District

Public Notice of Application for Permit

Regulatory Division (1145)
CEPOA-RD
2175 University Avenue, Suite 201E
Fairbanks, Alaska 99709-4927

PUBLIC NOTICE DATE: April 9, 2014

EXPIRATION DATE: May 8, 2014

REFERENCE NUMBER: POA-1988-269-M5

WATERWAY: Hawk Inlet

PUBLIC NOTICE REVISION

On April 20, 2012, the Alaska District Corps of Engineers published a Public Notice, concurrently with the U.S. Forest Service's Draft Environmental Impact Statement (EIS), for Department of the Army (DA) permit number POA-1988-269-M5, Hawk Inlet for a DA permit application from Hecla Greens Creek Mining Company (HGCMC) to expand their Tailings Disposal Facility (this would be the fifth modification to the original permit (POA-1988-269). The April 20, 2012 Public Notice solicited comments for all four alternatives identified in the U.S. Forest Service's EIS including the applicants preferred alternative. In the U.S. Forest Service's Record of Decision the selected alternative was not the applicants preferred alternative and subsequently the applicant's mitigation proposal changed. The Corps of Engineers has determined that the changes to the proposed mitigation warrant a revised Public Notice. This revised Public Notice covers only the changes to the Mitigation Plan, as the proposed work was sufficiently noticed under the April 20, 2012 Public Notice. Information regarding the proposed project at Hecla Greens Creek Mine is included only to provide background for the proposed mitigation for the impacts to waters of the United States (U.S.) due to the expansion of the Tailings Disposal Facility.

Comments on the described Mitigation Plan, with the reference number, 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 **Ellen Lyons** at (907) 474-2166, by fax at (907) 474-2164, or by email at **ellen.h.lyons@usace.army.mil** if further information is desired concerning this notice.

APPLICANT: Hecla Greens Creek Mining Company

AGENT: Mr. Steve Sego, Waterman Mitigation Partners, P.O. Box 32542, Juneau, Alaska 99803

ATTACHMENT 3-D

LOCATION: The proposed impact site is located within Section 26, T. 43 S., R. 65 E., Copper River Meridian; USGS Quad Map Juneau A-3; Latitude 58.1172° N., Longitude -134.7466° W.; Located on Admiralty Island, near Juneau, Alaska.

The proposed mitigation site is located within Section 16, T. 42 S., R. 68 E., Copper River Meridian; USGS Quad Map Juneau A-1; Latitude 58.2276° N., Longitude -134.3134° W.; Located on Douglas Island, in Juneau, Alaska.

SPECIAL AREA DESIGNATION: The area of impacts to waters of the U.S. due to the proposed expansion of the tailings disposal facility is located entirely within Admiralty Island National Monument. The proposed mitigation site does not have a special area designation.

PURPOSE: The applicant proposes to permanently preserve 51.6 acres of land on Douglas Island, which contains 48.3 acres of waters of the U.S., of which 18 acres are Forested Wetlands, 30.3 acres are Bog Wetlands, 3.2 acres are Nevada Creek, and an additional 0.1 acres of uplands (See sheet 12 of 17) to compensate for the 13.9 acres of unavoidable impacts to wetlands associated with their proposed Tailings Disposal Facility (TDF) expansion.

PROPOSED WORK: All work would be performed in accordance with the attached plans, Sheets 1-17 dated March 2014 and in the attached "Mitigation Plan for Hecla Greens Creek Mining Company Greens Creek Mine Stage 3 Expansion" (Sheets 1-35, dated March 2014).

The applicant proposes off-site, permittee-responsible mitigation through preservation and restoration, at slightly greater than a three to one ratio. They are proposing to preserve in perpetuity 48.3 acres of waters of the U.S. (see table 1 below) as described in the attached "Mitigation Plan for Hecla Greens Creek Mining Company Greens Creek Mine Stage 3 Expansion" (Sheets 1-35, dated March 2014). The proposed mitigation site, identified as the Nevada Creek Mitigation Site, is located on southeast Douglas Island in the City/Borough of Juneau.

Table 1: 2014 Tailings Facility Expansion
PROPOSED MITIGATION:

Wetland Type	*Total Proposed Impacts (acres)*	*Total Proposed Mitigation (Acres)*
Forested Wetlands	0.59	51.6 total acres containing 48.3 acres of wetlands.
Fen	10.87	
Bog	2.45	
Total	**13.91**	

This mitigation proposal is for 13.9 acres impacts to waters of the U.S. that would occur if the proposed work described below were authorized by the Corps of Engineers:

1) Expansion of the existing TDF southward into the Admiralty Island National Monument (Monument) (see plan Sheets 1-10) including:
   - Development of a new water management pond (identified as Pond 10) south of existing TDF and immediately south of existing Pond 7 (Sheets 4, 9 and 10).
   - Development of a truck wheel wash facility at the southern boundary of the expansion (Sheets 4 and 6)

   This work would expand the existing TDF allowing continued operation of the mine by approximately 10 years at the expected rate of fill.

ADDITIONAL INFORMATION: The Nevada Creek Mitigation Site includes the Alaska Treasure Mine, located along Nevada Creek on Douglas Island near Juneau. The Alaska Treasure Mine will be

ATTACHMENT 3-D

designated a contaminated site by The Alaska Department of Environmental Conservation (DEC) and listed on the DEC Contaminated Sites Database. A Corrective Action Plan for work proposed by the applicant at the Alaska Treasure Mine was approved by DEC on March 5, 2014. The Middle Reach of Nevada Creek is located within the proposed preservation site and drains into Gastineau Channel.

Applicants Mitigation Objectives:

The following objectives were submitted by the applicant:

Objective 1) permanently protect aquatic ecosystem functions at the mitigation site by instituting the mitigate plan, and implementing an approved legal protection instrument.

Objective 2) restoration of the portion of Nevada Creek's riparian area impacted by a waste rock dump through stabilization of the dump side slopes.

The applicant also proposes to restrict access to tunnel and adit by gating or closing them.

CULTURAL RESOURCES:

Mitigation Site: The applicant has been coordinating with State Historic Preservation Office (SHPO) regarding potential impacts to cultural resources at the Nevada Creek Mitigation Area. The SHPO sent a letter to Sea Level Consulting on July 26, 2013 concurring with the determination that the site is eligible for the National Register of Historic Places.

The permit area was identified as 51.6 acres within the middle mine area of the historic district. Of these, it is anticipated that 1.5 acres will be adversely affected by the proposed project. A copy of the March 2014 archaeological assessment and historic survey (Supplemental Report II, Area of Potential Effect Revision) and a letter explaining the Corps of Engineers determination will be provided to 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.**

Hecla Greens Creek Mine Site: The lead Federal agency, United States Forest Service, was responsible for compliance with the requirements of Section 106 of the National Historic Preservation Act for the Hecla Greens Creek Mine site. The Forest Service "determined that no historic properties would be adversely affected by the project alternatives resulting in a determination of "No Adverse Effect"" (Page 3-256, FEIS Volume I).

ENDANGERED SPECIES:
No threatened or endangered species are known to use the proposed mitigation site. 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 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).

No EFH species are known to use the proposed mitigation site. We have determined the described activity would not adversely affect EFH in the mitigation area.

ATTACHMENT 3-D

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)(l) 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) 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 Notice of Application for State Water Quality Certification are enclosed with this Public Notice.

District Commander
U.S. Army, Corps of Engineers

Enclosures

ATTACHMENT 3-D

Mitigation Plan
for
Hecla Greens Creek Mining Company
Greens Creek Mine Stage 3 Expansion

Oblique aerial view of Nevada Creek Mitigation Site located in lower half of photograph.

March 2014

Prepared by:

Ecological Land Services
1157 3rd Avenue, Suite 220
Longview, WA 98632
(360) 578-1371

Prepared for:
Nevada Creek Mitigation Partners
P.O. Box 32542
Juneau, Alaska 99803
Phone: (206) 661-2401

ELS Project Number 2039.01

ATTACHMENT 3-E

Executive Summary

Ecological Land Services, Inc. (ELS) was contracted by Nevada Creek Mitigation Partners to prepare this mitigation plan for the Hecla Greens Creek Mining Company (HGCMC) existing Greens Creek Mine tailings disposal facility expansion identified as the Stage 3 Expansion project. This mitigation plan was prepared according the *Federal Rule on Compensatory Mitigation: Compensatory Mitigation for Losses of Aquatic Resources; Final Rule (33 Code of Federal Regulations (CFR) Parts 325 and 332* 2008) as implemented by the U.S. Army Corps of Engineers (USACE/Corps) Alaska District Regulatory Guidance Letter Identification Number 09-01.

HGCMC initially submitted a Section 404 permit application in 2012 that was put out for public notice on April 20, 2012 (Reference Number POA-1988-0269-2). In September 2013 the U.S. Forest Service (USFS) issued the Final Environmental Impact Statement (FEIS) and Record of Decision (ROD), titled the *Final Environmental Impact Statement and Record of Decision for the Greens Creek Mine Tailings Disposal Facility Expansion Project on the Admiralty Island National Monument and Juneau Ranger District, Tongass National Forest* (USFS 2013) that the Forest Service prepared in cooperation with other agencies such as the USACE. The *Amended Section 404 Permit Application* (ELS 2014) which includes this mitigation plan, incorporates amendments to the 2012 Section 404 application to align with the ROD Selected Alternative.

The Stage 3 Expansion project will impact a total of 13.91 acres of wetlands, comprised of 0.59-acre of Forested Wetland, 2.45 acres of Scrub-Shrub Bog, and 10.87 acres of Fen occurring within the eight digit hydrologic unit code (HUC) 19010204. Due to the impracticability of on-site or off-site Admiralty Island compensatory mitigation options, HGCMC is proposing off-site permittee-responsible mitigation through wetland preservation and restoration of a site with similar in-kind resources as compensation for proposed project impacts. Using a three to one ratio, compensation for the proposed wetland impacts requires 41.73 acres of mitigation. The proposed mitigation site, identified as the Nevada Creek Mitigation Site, occurs within the eight digit HUC number 19010301 located on southeast Douglas Island in the City/Borough of Juneau. The proposed mitigation site totals 51.6 acres and contains 48.3 acres of wetlands comprised of 30.3 acres of Bog/Bog Woodland and 18 acres of Forested Wetlands. The total of 48.3 acres of wetland mitigation proposed as compensation for impacts to 13.91 acres of wetland more than satisfies the required amount of 41.73 acres of permittee-responsible mitigation using a three to one ratio[1].

Summary of Project Impacts &Proposed Mitigation			
Proposed Impact Area	*Total Proposed Impacts (acres)*	*Total Proposed Impacts (acres)*	*Total Proposed Mitigation*
Fen	10.87	13.91	51.6 total acres containing 48.3 acres of wetlands
Bog	2.45		
Forested Wetland	0.59		

[1] The 3 to 1 ratio for proposed mitigation follows the USACE *Alaska District Regulatory Guidance Letter No. 09-01 (RGL 09-01)*, and is the highest mitigation ratio presented by the guidance letter.

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APPENDIX A

Jurisdictional Wetland Delineation Report for Stage 3 Tailings Expansion for Hecla Greens Creek Mining Company (Bosworth Botanical Consulting 2011)

APPENDIX B

Application of Final WESPAK-SE for Rapid Assessment of Functions and Values of Wetlands Associated with Some Proposed Hecla Activities at Greens Creek, Southeast Alaska Report for Hecla Greens Creek Mining Company (Adamus 2012)

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Nevada Creek Wetland Delineation Datasheets

APPENDIX D
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APPENDIX E
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Introduction

Ecological Land Services, Inc. (ELS) was contracted by Nevada Creek Mitigation Partners to prepare this mitigation plan for the Hecla Greens Creek Mining Company (HGCMC) for the expansion of the existing Greens Creek Mine tailings disposal facility (TDF), identified as the Stage 3 Expansion project (U.S. Army Corps of Engineers (USACE) Reference Number POA-1988-0269-2). The Greens Creek Mine is an underground metals mine (primarily lead, zinc, silver, and gold) located near Hawk Inlet on northern Admiralty Island in Section 26, Township 43 South, Range 65 East of the Copper River Meridian (Sheets 1 and 2). The Greens Creek Mine is located approximately 18-miles southwest of Juneau, Alaska, and 38-miles north of Angoon, Alaska. The mine portal and mill processing facilities, portions of the existing TDF and the Stage 3 Expansion project are situated within the Admiralty Island National Monument (Monument). The remainder of the mine's facilities, north of the existing TDF, are located on National Forest system lands (Tongass National Forest Juneau Ranger District) or on privately held land near Hawk Inlet where the mine's onsite headquarters, staff facilities, and marine terminal are located. The National Forest system lands, and the Monument lands, are both administered by the U.S. Forest Service (USFS).

Bosworth Botanical Consulting conducted a delineation of jurisdictional waters of the U.S. in and adjacent to the Stage 3 Expansion project area as documented in the *Jurisdictional Wetland Delineation Report Stage 3 Tailings Expansion for Hecla Greens Creek Mining Company* (Bosworth Botanical Consulting 2011; Appendix A). Koren Bosworth of Bosworth Botanical Consulting also contributed to the WESPAK-SE functional assessment of the wetlands potentially affected by the expansion project (Adamus 2012; Appendix B).

HGCMC initially submitted a Section 404 permit application in 2012 that was put out for public notice on April 20, 2012. In September 2013 the USFS issued the Final Environmental Impact Statement (FEIS) and Record of Decision (ROD), titled the *Final Environmental Impact Statement and Record of Decision for the Greens Creek Mine Tailings Disposal Facility Expansion Project on the Admiralty Island National Monument and Juneau Ranger District, Tongass National Forest* (USFS 2013) that the USFS prepared in cooperation with other agencies such as the USACE. To align with the 2013 FEIS and ROD, the initial Section 404 permit application has been amended (*Amended Section 404 Permit Application* ELS 2014) and now includes this mitigation plan prepared according the *Federal Rule on Compensatory Mitigation: Compensatory Mitigation for Losses of Aquatic Resources; Final Rule (33 Code of Federal Regulations (CFR) Parts 325 and 332* 2008) as implemented by the USACE Alaska District Regulatory Guidance Letter (RGL) Identification Number 09-01.

Project Description

With continued positive exploration results, improved metal prices, and ongoing operational efficiencies, HGCMC requires additional tailings and waste rock disposal capacity to allow for continued operations. To extend the timeline that the existing TDF will reach full capacity, HGCMC is proposing expansion of the facility, identified as the Stage 3 Expansion project (Sheets 3 through 10).

The ROD Selected Alternative authorizes the Greens Creek Mine to expand the existing tailings disposal facility by about 18 acres, further south into the Admiralty Island National Monument (Monument); please see Appendix A of Section 404 Permit Application for a copy of the 2013 FEIS and ROD). The Selected Alternative expands the existing facility's capacity by about 2.1 million cubic yards which at the expected rate of fill, delays the time at which capacity is reached by approximately 10 years. Components of the ROD Selected Alternative include:

- Expansion of the existing tailings disposal facility southward into the Monument;
- Development of a reclamation material storage area near the junction of the A and B Roads, outside of the Monument;
- Development of a rock quarry north of the existing TDF, and access from within the existing facility, outside of the Monument;
- Development of a new water management pond south of the existing TDF and expansion of existing water management ponds; and
- Relocation of the B Road and truck wheel wash facility to accommodate the TDF expansion.

In moving forward, HGCMC is not proposing all of the aforementioned ROD Selected Alternative project components. The major Stage 3 Expansion Project components that HGCMC is proposing is as follows: Pond 10, the Clean Rock Storage Area, and the Tailings Storage Area which includes tailings storage, tailings access road, new wheel wash, outlet from clean diversion ditch and embankment toe access road (Sheets 3 through 10). Details on the project components that HGCMC is proposing for the Stage 3 Expansion is also presented in Table 1 below:

Table 1. Summary of Stage 3 Expansion Project Components & Wetland Impacts

Project Component	Project Component Impact		Project Component Fill Volume (Cubic Yards/CY)
	Impact Footprint	Wetland Type Impacted	
Tailings Storage Area			
Tailings Storage	10.13 acres	10.13 acres Fen	220K[1] CY
Tailings Access Road	0.56 acre	0.56 acre Fen	
New Wheel Wash	0.12 acre	0.12 acre Fen	
Outlet from Clean Diversion Ditch	0.01 acre	0.01 acre Fen	
Embankment Toe Access Road	0.07 acre	0.05 acre Fen 0.02 acre Forested Wetland	
Clean Rock Storage Area	0.69 acre	0.34 acre Scrub-Shrub Bog 0.35 acre Forested Wetland	13K[1] CY
Pond 10	2.33 acres	2.11 acres Scrub-Shrub Bog 0.22 acre Forested Wetland	20K[1] CY
Total	*13.91 acres*	*10.87 acres Fen* *2.45 acres Scrub-Shrub Bog* *0.59 acre Forested Wetland*	*253K[1] CY*

[1]K = abbreviation for thousand.

ATTACHMENT 3-E

The Stage 3 Expansion Project component identified as the Tailings Storage Area requires placement of approximately 220,000 cubic yards of fill within 10.89 acres of wetland to develop the tailings storage, the tailings access road, the new wheel wash, the outlet from clean diversion ditch and the embankment toe access road (Table 1; Sheets 3 through 7). The relocation of the section of the B Road that is part of the Tailings Storage Area component does not impact wetlands, therefore no impact footprint/fill volume is presented for this project component. The project component identified as the Clean Rock Storage Area requires placement of approximately 13,000 cubic yards of fill within 0.69 acre of wetland (Table 1; Sheets 3, 4 and 8). The project component identified as Pond 10 requires placement of approximately 20,000 cubic yards of fill within 2.33 acres of wetland (Table 1; Sheets 3, 4, 9 and 10). HGCMC has discussed the proposed location of Pond 10, now located immediately south of an existing treatment pond identified as Pond 7, with the USFS as it is located in a different area than indicated in the ROD (identified as New Facilities-G-Pond by the ROD-Figure 2 on of the 2013 FEIS). Although the ROD Selected Alternative authorizes the Greens Creek Mine to develop an additional 8 acres outside of the Monument for the development of a rock quarry north of the existing TDF, expansion of an existing water management pond identified as Pond 9, and new reclamation material storage site near the junction of the A Road and B Road (ROD-Figure 2 of the 2013 FEIS), HGCMC is not proposing to develop these areas and/or facilities.

The Stage 3 Expansion project will impact a total of 13.91 acres of wetlands, comprised of 0.59-acre of Forested Wetland, 2.45 acres of Scrub-Shrub Bog, and 10:87 acres of Fen occurring within the eight digit hydrologic unit code (HUC) 19010204. Due to the impracticability of on-site or off-site Admiralty Island compensatory mitigation options, HGCMC is proposing off-site permittee-responsible mitigation through wetland preservation and restoration of a site with similar in-kind resources as compensation for proposed project impacts. Using a three to one ratio, compensation for the proposed wetland impacts requires 41.73 acres of mitigation. The proposed mitigation site, identified as the Nevada Creek Mitigation Site, occurs within the eight digit HUC number 19010301 located on southeast Douglas Island in the City/Borough of Juneau (Sheet 11). The proposed mitigation site totals 51.6 acres and contains 48.3 acres of wetlands comprised of 30.3 acres of Bog/Bog Woodland and 18 acres of Forested Wetlands (Sheet 12). The total of 48.3 acres of wetland mitigation proposed as compensation for impacts to 13.91 acres of wetland more than satisfies the required amount of 41.73 acres of permittee-responsible mitigation using a three to one ratio[2]. The following Table 2 presents a summary of proposed wetland impacts and required mitigation:

Table 2. Summary of Stage 3 Expansion Project Wetland Impacts &Proposed Mitigation

Proposed Impact Area	*Total Proposed Impacts (acres)*[1]	*Total Proposed Impacts (acres)*	*Total Proposed Mitigation*
Fen	10.87	13.91	51.6 total acres containing 48.3 acres of wetlands
Bog	2.45		
Forested Wetland	0.59		

[1]Mapping from the delineation wetland boundaries documented by the *Jurisdictional Wetland Delineation Report for Stage 3 Tailings Expansion for Hecla Greens Creek Mining Company* (Bosworth Botanical Consulting 2011; Appendix A) was used to calculate proposed project impacts.

[2] The 3 to 1 ratio for proposed mitigation follows the USACE *Alaska District Regulatory Guidance Letter No. 09-01 (RGL 09-01)*, and is the highest mitigation ratio presented by the guidance letter.

Project Site Wetland Delineation

Bosworth Botanical Consulting delineated wetlands within the Stage 3 Expansion project area as it was proposed at that time by the initial Section 404 permit dated February 2012 that was submitted prior to the release of the 2013 FEIS and ROD prepared by the USFS. The delineation followed the *Routine Determination Method* according to the U.S. Army Corps of Engineers, Wetland Delineation Manual (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region* (USACE Research and Development Center 2007). The delineated was conducted in 2010 from July 5 through July 9, and September 22 to September 25. The *Jurisdictional Wetland Delineation Report for Stage 3 Tailings Expansion for Hecla Greens Creek Mining Company*, dated January 2011, prepared by Koren Bosworth of Bosworth Botanical Consulting, documents the wetland delineation methodology and findings (Appendix A).

Soils

Classifications of subgroup/soil series and complete soil series descriptions that occur within the project site area are included in Appendix I of the *Jurisdictional Wetland Delineation Report Stage 3 Tailings Expansion for Hecla Greens Creek Mining Company* (Bosworth Delineation) (Bosworth Botanical Consulting 2011). This report identifies and maps the area soils to the subgroup level. To include micro site variation, two subgroups are listed for each identified unit and discussed at the series level.

Hydrology

Section 5.4 Hydrology of the Bosworth Delineation discusses the drainage basins that the existing TDF, and proposed Stage 3 Expansion project, occur in. The Stage 3 Expansion project will be further extended southward into the Tributary Creek drainage, Section 5.4.1 Tributary Creek of the delineation report specifically addresses this drainage as follows:

> *The Tributary Creek basin gently slopes to the south towards Zinc Creek, and primarily consists of bog vegetation interspersed with stands of forested wetland and upland vegetation. Prior to construction of the <existing> tailings facility, the headwaters of Tributary Creek were forested slopes east of the <existing> tailings facility and the bog areas currently within the footprint of the <existing> tailings facility. Since construction of the <existing> tailings facility, the headwaters of Tributary Creek are small seeps and numerous small channels flowing through the bog vegetation south of the <existing> tailings. Additionally, surfaced run-off flows from east of the <existing> tailings facility are captured and routed in ditches south to Tributary Creek and north in ditches to Cannery Creek. The seeps and channels lying to the south of the <existing> tailings facility are fed from the shallow groundwater regime in the peat and sand substrate. High flows generally result in the fall (high rainfall period) and in the spring (snowmelt), while low flows occur in late summer and mid-winter (Bosworth Botanical Consulting 2011).*

Vegetation

Section 5.6 Vegetation of the Bosworth Delineation discusses the project area vegetation, National Wetland Inventory (NWI) mapping, and related Cowardin classification (Cowardin et al. 1979).

Project Site Baseline Information

Admiralty Island's topography ranges from gentle, rolling, near sea-level elevations to snowcapped mountains up to 3,000 feet high. The island is generally dominated by temperate Sitka spruce-western hemlock rainforest interspersed with freshwater wetlands. Timberline typically begins at 1,500 to 2,000 feet, above timberline, the temperate rainforest forest gradually transitions to alpine-tundra with rock outcrops and permanent to semi-permanent ice fields. All but the northern end of the island that contains an unpopulated section of the City/Borough of Juneau, is designated wilderness. The northern end of the island also falls within the Juneau non-subsistence use area. Angoon, approximately 38-miles south of the Greens Creek Mine Tlingit community, is the only settlement on the island.

The FEIS (USFS 2013) and prior EIS documents discuss the current and historic ecological condition of the proposed Stage 3 Expansion project area. The 2013 FEIS document has in-depth information on ecological conditions as the following is a generalized discussion of the project area ecological condition using information from the 2013 FEIS and prior EIS documents.

Historic Baseline Conditions

Prior to mining, historic baseline conditions within and in the vicinity of the project area were similar to the existing conditions found elsewhere on Admiralty Island. The historic habitat consisted primarily of upland Sitka spruce-western hemlock forests interspersed with a mosaics of lowland, non-forested plant communities that included aquatic habitats such as peat wetlands, scrub-shrub wetlands, and sedge meadows, with riparian habitats occurring along streams. These habitats supported a number of mammals, avian, and fish species (USFS 2012).

Upland vegetation primarily occurred within well-drained bedrock ridge slopes, and the flatter basin and terrace areas, underlain by uplifted marine silts and glacial tills that perch the water table, supported wetland vegetation of various types (Bosworth 2011). According to the 2013 FEIS little is known about historic baseline conditions prior to mining of the wetlands that occur within areas that have already been disturbed. Prior EIS documents discuss wetlands and state that muskeg plant communities occurred within areas that have already been disturbed. These wetlands were characterized as poorly drained, non-forested areas covered with sphagnum and lichens, as well as vascular plants including sedges, ericaceous shrubs, and goldthread, and Western hemlock and mountain hemlock that ranged in size from small shrubs to stunted trees. Riparian plant communities were characterized by alder (*Alnus* spp.), graminoids, ferns, and *Ribes* spp (USFS 2012 & 2013).

Prior to development of the Greens Creek Mine, wildlife and habitats in the vicinity were exposed to an existing level of localized disturbance. The mine's current marine terminal at the mouth of Cannery Creek previously served as a fish cannery and a limited amount of mining in

adjacent areas has historically taken place. Hawk Inlet and Admiralty Island as a whole has also been, and continues to be, used for recreation and subsistence.

Existing Baseline Conditions

The Stage 3 Expansion project area is generally located within an area of poorly drained lower elevation basin and terrace landforms located west of upper elevation bedrock ridge and mountain slopes. The current baseline conditions from the construction and operation of the existing Greens Creek Mine has resulted in the majority of disturbance occurring within upland Sitka spruce-western hemlock forested habitats, with a small amount of disturbance occurring within aquatic habitats such as the freshwater wetland communities and riparian areas (USFS 2013). The wetlands that occur within the Stage 3 Expansion are located on the poorly drained lower elevation basin and terrace landforms where peat wetlands such as bogs and fens are generally dominant.

Wildlife & Habitat

Occurrence of wildlife in the vicinity of the mine site and project area is described in more detail within the 2013 FEIS; please refer to the 2013 FEIS for detailed information. Sitka spruce-western hemlock forested uplands and aquatic habitats occurring within and adjacent to the project area support a number of species. However, no Endangered Species Act (ESA) listed species occur within the project area. Other important wildlife populations and/or associated habitats occurring in or near the vicinity of the Greens Creek Mine include brown bear, bald eagle, Sitka black-tailed deer, waterfowl/shorebirds, and furbearers such as marten, river otter, beaver, and mink. Brown bears and Sitka black-tailed deer, both Tongass National Forest management indicator species (MIS), are frequently observed in the vicinity of the mine site, and thus appear have adapted to ongoing operations to some degree.

Cultural Resources

According to the 2013 FEIS, nine documented historical and cultural resource sites are located in an area bounded by the head of Hawk Inlet to the north, the southwest corner of Young Bay to the east, Chatham Strait to the west, and as far south as the mouth of Hawk Inlet. Site types in the area include mining sites with accompanying built environment resources, early twentieth century homestead claims cabins, prehistoric shell middens, a reported petroglyph/pictograph, and the Hawk Inlet Cannery. Five sites of the nine sites have been evaluated for inclusion on the National Register of Historic Places (NRHP) with two sites determined eligible for the NRHP, and three sites determined to be ineligible for inclusion on the NRHP. The remaining four sites have not been evaluated for eligibility to the NRHP. No cultural resources are expected to be encountered during construction of the Stage 3 Expansion. However, if any inadvertent discoveries of unknown cultural or historic resources are made or otherwise encountered during the construction and pre-development of the tailings facility expansion, work will cease in the area of the discovery and HGCMC will notify the USFS for identification, and development and implementation of appropriate resource protection measures.

Project Site WESPAK-SE Assessments

In September 2011, Paul Adamus of Adamus Resource Assessment Inc. and Koren Bosworth of Bosworth Botanical Consulting performed a functional assessment of wetlands occurring within and adjacent to the Stage 3 Expansion project area. The wetland assessment was documented within a report prepared by Paul Adamus titled the *Application of Final WESPAK-SE for Rapid Assessment of Functions and Values of Wetlands Associated with Some Proposed Hecla Activities at Greens Creek, Southeast Alaska Report for Hecla Greens Creek Mining Company* (Adamus 2012). To view the entire WESPAK-SE assessment document prepared by Paul Adamus see Appendix B; assessment unit locations are shown in the report's enclosed Figure 1 and the assessment scores are presented in Table 1.

As documented within the wetland assessment report, three of the wetland assessment units identified as GC Forested Althea, GC Forested North Creek, and GC Forested Helipad are located outside of the currently proposed expansion area. These units are therefore not discussed in this mitigation plan. The assessed units that occur within or immediately adjacent to the expansion area are identified as follows; GC Forested Trib, GC Fen, GC Bog, and GC Shrub Bog.

The WESPAK-SE assessment scores for the units that occur within or immediately adjacent to the expansion area exceeded regional median reference site scores as presented within Appendix B and below:

- GC Fen - 12 scored functions exceeded regional median scores
- GC Forested Trib - 8 scored functions exceeded regional median scores
- GC Shrub Bog - 11 scored functions exceeded regional median scores
- GC Bog - 6 scored functions exceeded regional median scores

As shown in Table 1 of the assessment report (Appendix B), the assessed wetland unit wetland that had both the most above-average function scores and above-average value scores associated with those same functions was the GC Fen wetland. To view the entire WESPAK-SE assessment document prepared by Paul Adamus please see Appendix B; assessment unit locations are shown in the report's enclosed Figure 1 and the assessment scores are presented in Table 1.

Mitigation Sequencing & Site Selection

The consideration, or analysis, of alternatives to the proposed TDF Expansion project has been reviewed through the NEPA process as detailed in the 2013 FEIS. According to the 2013 FEIS, full avoidance is not feasible as there is no practicable or less environmentally damaging alternative to the proposed Stage 3 Expansion project due to the technical constraints of constructing a geotechnically stable disposal facility. Additionally, according to the FEIS ROD, it was determined that the project as proposed in this mitigation plan and amended Section 404 application, and identified in the FEIS as the Selected Alternative, includes all reasonable measures to minimize impacts to wetlands. The Clean Water Act (CWA) Section 404(b)(1) guidelines requiring consideration of wetland impacts through avoidance (first) and minimization (following avoidance) prior to consideration of compensatory mitigation, have been also been

addressed through current and prior NEPA processes for the proposed project. In accordance with CWA Section 404(b)(1) guidelines, various onsite compensatory mitigation measures involving restoration, enhancement, establishment, and preservation have been assessed. Assessments of onsite compensatory mitigation measures demonstrate the difficulties that onsite compensatory mitigation poses, as described below:

- Major portions of the mine are located on National Forest system lands and the proposed Stage 3 Expansion is located in the Admiralty Island National Monument (Monument). National Forest system and Monument lands are administered by the USFS, and in accordance with USFS mandates, the Greens Creek Mine is required to reasonably minimize mine operation disturbance footprint(s). Currently, there are no areas of disturbance that are not in use that could be reclaimed at this time for compensatory mitigation purposes for the proposed expansion. To the extent possible, and practical, HGCMC will restore wetlands as part of future reclamation activities. During final reclamation wetland restoration will likely occur on flat areas that remain after permanent project cessation, however, creation of wetlands on reclaimed dry-stack tailings will be avoided as the disposal facility must be designed and constructed to shed water rather that allowing water to infiltrate into the facility.

- As the areas surrounding the mine are comprised of relatively undisturbed National Forest System and Monument lands administered by the USFS, there are no opportunities for wetland restoration, enhancement, or establishment near the current HGCMC mine site facilities. It is not practicable to mitigate (through creation) project impacts within the steep upland areas within and adjacent to the mine site.

To comply with the U.S. Army Corps of Engineers (Corps) Federal Compensatory Mitigation for Losses of Aquatic Resources Final Rule (2008), mitigation plans must include an evaluation of options for compensatory mitigation types and locations whether an option is available or not. Options for compensatory mitigation are mitigation bank credits, in-lieu fee program credits, permittee-responsible mitigation using a watershed approach, permittee-responsible mitigation through on-site and in-kind mitigation or off-site and out-of-kind mitigation. Upon evaluation, the following types of compensatory mitigation were found to not be available or practicable:

- Wetland Mitigation Bank - No wetland mitigation banks issuing bank credits currently exist within the CBJ.

- In-lieu Fee Program (ILF) - Currently there are two ILF programs that service Southeast Alaska, the Southeast Alaska Land Trust (SEAL) and the Great Alaska Land Trust (GALT). Both of these third party mitigation programs offer only preservation opportunities to Section 404 permit applicants. There are no active and approved third party mitigation programs in Southeast Alaska (mitigation banks and/or In-lieu Fee Programs) that carry out restoration, enhancement and/or creation to offset permitted unavoidable impacts with no-net-loss to aquatic resources, which results in temporal loss and can result in negative cumulative impacts to wetlands and resources in the long term. With preservation-only options available, there was a desire to explore mitigation options

that actually performed some degree of wetland and/or habitat restoration or enhancement.

- Permittee-responsible Onsite/In-kind or Offsite/In-kind Compensatory Mitigation - Onsite in-kind compensatory mitigation that is tied to the impact location is not feasible. Mitigation sites on Admiralty Island were looked for, and outreach was conducted with Admiralty Island residents to find a mitigation site or mitigation effort that would be potentially acceptable. No site was found on Admiralty Island that would provide wetland or habitat functional lift through restoration, enhancement or remediation.

Due to the lack of on-site or Admiralty Island mitigation options, effort was made to seek potential mitigation sites in the proximity of the City and Bureau of Juneau (CBJ) that had previous disturbances to wetlands and habitat that could be restored or enhanced. Several sites in this area were examined and considered, including old gravel mine sites, borrow sites, fill sites, and shaft mining sites. These sites were assessed for their capacity for functional lift through restoration or enhancement, their availability, cost, and potential to successfully achieve mitigation goals and objectives in advance of impacts.

HGCMC is proposing off-site permittee-responsible mitigation for impacts to wetlands through preservation and restoration of a site with similar in-kind resources. Restoring high quality aquatic habitat impacted by historic mining is appropriate mitigation for proposed impacts to wetlands at the Greens Creek Mine. Offsite/in-kind mitigation allows for a more thorough consideration of resources such as wildlife habitat corridors and watershed dynamics in locating a mitigation site, and wetland impacts are off-set in advance of impacts. It allows for mitigation to be sited at a selected, pre-approved mitigation site, thereby focusing economic resources where they provide the most benefit to the environmental resources to be preserved and restored.

The selected site is an abandoned mine site on south Douglas Island at Nevada Creek, potentially threatened by future mining and/or logging. High quality wetlands such as fens that are sensitive and would benefit from protection occur within the site. Potential contaminants from un-stabilized waste rock piles that continue to erode into Nevada Creek offer functional lift opportunities through restoration of these areas. Human access to the site, caused by the attraction to mine tunnels, shafts, adits, and abandoned equipment is a further perturbation to wetlands through use of trails and foot traffic on the historic mine road.

Site Selection Rationale

In evaluating the potential mitigation site, considered sites had to be located within a relatively similar geomorphic setting with similar resources, and be located relatively near the impact site. Potential sites also needed to offer enough acreage to accommodate compensatory mitigation for the proposed project and be cost effective. Other factors in determining the site selection are as follows:

- Self-sustaining mitigation site that can achieve mitigation objectives and performance standards without continual long-term maintenance. Mitigation efforts are also achievable

within logistical constraints for access, timing, and technology.

- Offers opportunity for preservation and restoration of a mitigation site likely eligible for listing on the National Register of Historic Places that has experienced similar mining impacts.

- Free of ownership or legal constraints that would prevent long term protection.

Proposed Mitigation Site

Due to the impracticability of onsite, or Admiralty Island offsite, in-kind compensatory mitigation options, HGCMC is proposing off-site permittee-responsible mitigation through preservation and restoration of a site with similar in-kind resources as compensation for proposed impacts to 13.91 acres of wetlands. Using a three to one ratio, compensation for the proposed wetland impacts requires 41.73 acres of mitigation. The proposed mitigation site, identified as the Nevada Creek Mitigation Site, occurs within the eight digit HUC number 19010301 located on southeast Douglas Island in the City/Borough of Juneau (Sheet 11). The proposed mitigation site totals 51.6 acres and contains 48.3 acres of wetlands comprised of 30.3 acres of Bog/Bog Woodland and 18 acres of Forested Wetlands (Sheet 12). The total of 48.3 acres of wetland mitigation proposed as compensation for impacts to 13.91 acres of wetland more than satisfies the required amount of 41.73 acres of permittee-responsible mitigation using a three to one ratio[3].

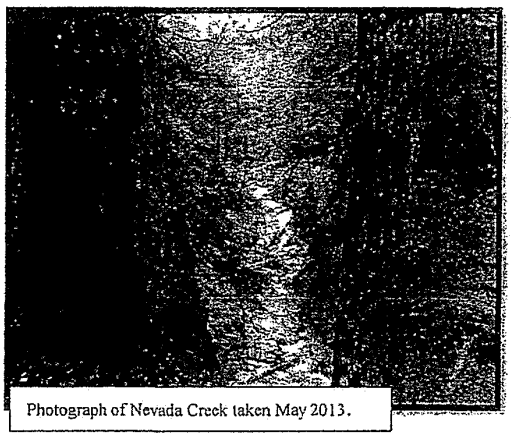
The proposed mitigation site has historically experienced similar impacts as the Greens Creek site and consists of two and one-half platted mining lodes totaling 51.6 acres owned by one landowner. The proposed mitigation site offers similar in-kind natural resources such as 30.3 acres of Bog/Bog Woodland wetlands, 18 acres of Forested Wetlands with occurrences of toe-slope fens, and a portion of the lower reach of Nevada Creek and the associated riparian area of the stream (3.2 acres). Preservation of the site's natural resources also presents an opportunity to preserve the cultural resources associated with the Alaska Treasure Mine middle adit that occurs within the proposed mitigation site. Through the Section 106 review process, it is anticipated that the cultural resources associated with the Alaska Treasure Mine will be deemed eligible for listing on the National Register of Historic Places.

Site Description

The Nevada Creek Mitigation Site is situated on a wide glaciomarine terrace with an eastern aspect that ranges in elevation from approximately 150- to 250-feet above Gastineau Channel before the terrace gently slopes down to sea-level at the channel's shore. The middle reach of Nevada Creek is located within the mitigation site. Nevada Creek is a small second-order stream that originates east of McDonough Peak. The stream generally drains to the east and eventually discharges into Gastineau Channel. Wetlands occurring within the mitigation site typically occur within drainage slopes, shallowly sloped depressions, riparian zones, and throughout the wide glaciomarine terrace perched above Gastineau Channel.

[3] The 3 to 1 ratio for proposed mitigation follows the USACE *Alaska District Regulatory Guidance Letter No. 09-01 (RGL 09-01)*, and is the highest mitigation ratio presented by the guidance letter.

Landscape Position & Geomorphology
The proposed Nevada Creek Mitigation Site is located on southeast Douglas Island where metamorphosed slates, schists, and phyllites generally occur. The mitigation site is situated on a wide glaciomarine terrace with an eastern aspect that ranges in elevation from approximately 150- to 250-feet above Gastineau Channel before gently sloping down to sea-level at the channel's shore.


Photograph of Nevada Creek taken May 2013.

Nevada Creek
Nevada Creek is a small second-order stream that originates east of McDonough Peak. The stream generally drains to the east and eventually discharges into Gastineau Channel. The middle reach of Nevada Creek is located within the mitigation site. The stream is generally only deeply incised in areas where it flows down from steep upslope gradients to terrace elevations that flatten out, such as the northern mitigation site boundary were steeper upslope gradients converge with terrace elevations that flatten out, and shortly inland from the stream's confluence with Gastineau Channel where the terrace drops down to the channels' shorelands. High flows within the stream are generally during high rainfall periods in the fall and in the spring snowmelt, while low flows occur in late summer and mid-winter.

Project Site Wetland Delineation
Delineation of wetlands occurring within the proposed mitigation site was performed by ELS and Bosworth Botanical Consulting during May and June of 2013 using the Routine Determination Method according to the U.S. Army Corps of Engineers *Wetland Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region* (U.S. Army Engineer Research and Development Center 2007).

Delineation of the mitigation site generally confirmed National Wetlands Inventory (NWI) mapping of palustrine, scrub-shrub, broad-leaved evergreen, saturated and scrub-shrub, needle-leaved evergreen, saturated wetland (PEM1B/SS4B) with occurrences of palustrine, emergent, persistent saturated wetland (PEM1B) as the delineation identified 30.3 acres of Bog/Bog Woodland, with the aforementioned mapped NWI Cowardin vegetation classes, located within the mitigation site on the wide glaciomarine terrace perched above Gastineau Channel (Sheets 12 and 13). However, the delineation identified 18 acres of sloped Forested Wetlands with occurrences of toe-slope fens that were not mapped as wetlands according to the NWI mapping of the slopes above the wide glaciomarine terrace perched above Gastineau Channel (Sheets 12 and 13).

Soils
The entire Douglas Island area has been overridden by glaciers, and glacial till occurs throughout the island, especially in mid- to lower elevation areas. The majority of the Nevada

Creek site's soils range from well-developed, deep, colluvial soils occurring on moderate to steep slopes, to poorly drained organic soils occurring on shallowly sloped areas and glaciomarine terraces. The USDA Soil Conservation Service (NRCS) does not offer digital information on the mapped soils that occur on the site. However, the *Soils of the Juneau Area, Alaska* (NRCS 1974) maps lower elevation soils occurring adjacent or near to the Gastineau Channel. The site soils mapped by the NRCS are as follows:

- KaD- Kaikli mucky peat, 12 to 20 percent slopes
- KiB- Kina peat, 3 to 7 percent slopes
- KiC- Kina peat, 7 to 12 percent slopes
- MaC- Maybeso mucky peat, 7 to 12 percent slopes
- MaD- Maybeso mucky peat, 12 to 20 percent slopes
- ToF- Tolstoi-McGilvery complex, 35 to 75 percent slopes

Soils within the Bog/Fen Mosaic wetlands are generally saturated, deep organic peat soils with low chroma soil colors. Soils occurring within the Forested wetlands located on steeper slopes areas occurring within the site were generally comprised of organic mucks with low chroma soil colors (Appendix C).

Hydrology

Wetlands

Hydrology within the Bog/Bog Woodland wetlands is driven by precipitation and shallow groundwater levels. Hydrological regimes within the wetlands range from saturated to seasonally inundated with areas of permanent inundation within acidic pools. Hydrology within the Forested Wetlands is driven by shallow groundwater levels and groundwater flows, and surface water flows during periods of high precipitation. Hydrological regimes within the wetlands range from saturated to seasonally inundated (Appendix C).

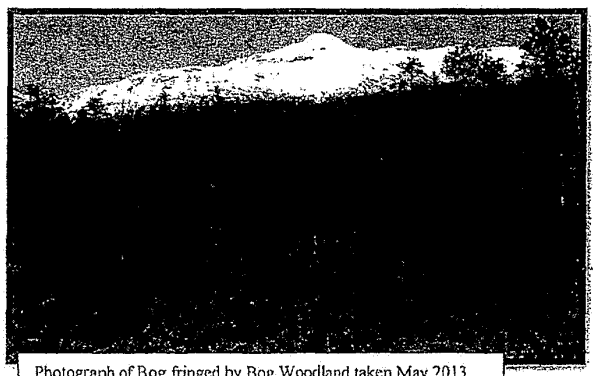
Streams

High flows within Nevada Creek and associated tributaries typically occur in the fall during the high rainfall period and in the spring during snowmelt. Low flows typically occur in late summer and mid-winter.

Vegetation

Bog/Bog Woodland: PEM1B/SS4B & PFO4B

National Wetlands Inventory (NWI) mapping generally captures the full extent of the Bog/Bog Woodland comprised of bogs with emergent and scrub-shrub Cowardin vegetation classes. However, the areas mapped by the NWI as PFO4B coincide with a



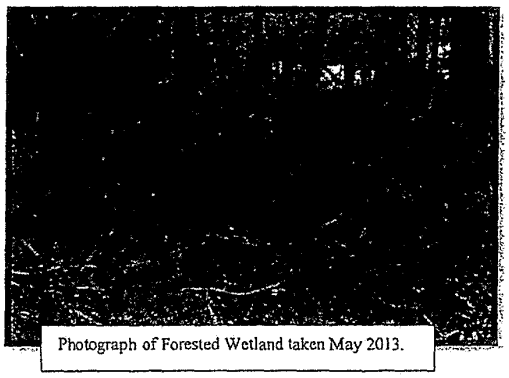
Photograph of Bog fringed by Bog Woodland taken May 2013.

larger extent of scrub-shrub bog (PSS4B) as the area mapped as PFO4B is dominated by acid tolerant *Vaccinium* species and stunted trees that generally do not reach heights over 20 feet (Sheet 13; Appendix C).

The Bog/Bog Woodland wetlands that occur within the mitigation site are located throughout the glaciomarine terrace above Gastineau Channel. These wetlands transition/grade from pockets of open emergent bog with obligate wetland species such as roundleaf sundew (*Drosera rotundifolia*, OBL), cotton grass (*Eriophorum angustifolium*, OBL), and *Carex* spp. grow amongst *Sphagnum* to a stunted tree bog woodland with lodgepole pine (*Pinus contorta*, FAC), and mountain hemlock (*Tsuga mertensiana*, FAC) dominant in the overstory, and Labrador tea (*Ledum groenlandicum*, FAC), crowberry (*Empetrum nigrum*, FAC), cloudberry (*Rubus chamaemorus*, FACW), and *Sphagnum* dominant in the understory. Species dominant within areas of the Bog Woodland where trees are sparse are acid tolerant species such as oval-leaved blueberry (*Vaccinium ovalifolium*, FAC) and Alaska blueberry (*Vaccinium alaskaense*, FAC).

Forested Wetlands (PFO4B)

The Forested Wetlands are comprised of slope and toe-slope fen wetlands. National Wetlands Inventory (NWI) mapping generally captures the occurrence of the toe-slope fen wetlands. However, the NWI does not capture the forested slope wetlands that occur on the slopes above the wide glaciomarine terrace perched above Gastineau Channel (Sheet 13; Appendix C).



Photograph of Forested Wetland taken May 2013.

The Forested slope wetland community is comprised of the facultative species western hemlock (*Tsuga heterophylla*, FAC) dominant in the overstory, and Alaska blueberry (*Vaccinium alaskaense*, FAC) and the facultative upland species false azalea (*Menziesia ferruginea*, FACU) dominant in the sparse understory, and obligate wetland species such as American skunk cabbage (*Lysichiton americanus*, OBL) dominant within the herbaceous stratum (Appendix D). The Forested Wetland toe-slope fen community is comprised of facultative species such as red alder (*Alnus rubra*, FAC) dominant in the overstory, with lady fern (*Athyrium felix-femina*, NI) and skunk cabbage dominant in the herbaceous stratum.

Uplands

The uplands that occur within the mitigation site are primarily forestlands comprised of facultative upland species such as Sitka spruce (*Picea sitchensis*, FACU) dominant in the overstory and western oakfern (*Gymnocarpium dryopteris*, FACU) and bunchberry dogwood (*Cornus Canadensis*, FACU) dominant within the herbaceous stratum (Appendix C).

Mitigation Site WESPAK-SE Assessment

Using the *Wetland Ecosystem Services Protocol for Alaska–Southeast* (Adamus Resource Assessment Inc. 2012) (Appendix D) to assess the functions and values of the wetlands occurring at the Nevada Creek site typically yielded function scores that were comparable, or exceed, the function scores of the wetlands within the proposed permit expansion boundary area. ELS biologists initially completed the WESPAK-SE assessment of the wetlands that occur within the proposed mitigation site on September of 2012, and finalized the assessments in June and July of 2013. Two generalized wetland assessment units, Forested Wetland and Forested Peatland, drawn from hydrological patterns and the dominant vegetation/habitat type occurring within the site, were assessed as summarized by Table 3 below:

Table 3. Summary of proposed mitigation site WESPAK-SE wetland service ratings.

Services	Forested Wetland	Forested Peatland (Bog/Bog Woodland)
Aquatic Habitat		
Streamwater Cooling	+3	+2
Streamwater Warming	+3	+2
Stream Flow Support	+3	+1
Aquatic Invertebrate Habitat	+3	+3
Anadromous Fish Habitat	+1	+1
Resident & Other Fish Habitat	+3	+3
Amphibian Habitat	+3	+3
Terrestrial Habitat		
Waterbird Feeding Habitat	+1	+3
Waterbird Nesting Habitat	+1	+1
Songbird, Raptor & Mammal Habitat	+3	+3
Pollinator Habitat	+3	+3
Native Plant Habitat	+2	+3
Wetland Sensitivity	+3	+3
Wetland Ecological Condition	+1	+3
Wetland Stressors	+2	+2
Services Score Key:		
+3	Above median score compared to other wetlands in the region	
+2	Median scores compared to other wetlands in the region	
+1	25% < Median score compared to other wetlands in the region	

ATTACHMENT 3-E

The EIS and ROD (USFS September 2013, on Page 3-118) provides an interpretation of the project area assessed WESPAK-SE wetland service rating scores, and this approach was used for the comparison of the wetland service rating scores for the wetlands proposed for impact, and the wetlands proposed as mitigation, as summarized by Table 4 below:

Table 4. Comparison of WESPAK-SE service function scores summary.

Services	Greens Creek Fen Wetlands[1,2]	Greens Creek Bog Wetlands[1]	Nevada Creek Forested Peatland (Bog/Bog Woodland)	Greens Creek Forested (Tributary Creek) Wetlands[1,2]	Nevada Creek Forested Wetlands
Aquatic Habitat					
Streamwater Cooling	+3	+1	+2	+3	+3
Streamwater Warming	+2	+3	+2	+3	+3
Stream Flow Support	+3	+2	+1	+3	+3
Aquatic Invertebrate Habitat	+3	+2	+3	+3	+3
Anadromous Fish Habitat	+3[2]	NA	+1	+3[2]	+1
Resident & Other Fish Habitat	+3	+2	+3	+2	+3
Amphibian Habitat	+3	+2	+3	+3	+3
Terrestrial Habitat					
Waterbird Feeding Habitat	+3	+2	+3	+1	+1
Waterbird Nesting Habitat	+3	+1	+1	+1	+1
Songbird, Raptor & Mammal Habitat	+3	+3	+3	+3	+3
Pollinator Habitat	+1	+1	+3	+3	+3
Native Plant Habitat	+3	+2	+3	+3	+2
Wetland Sensitivity	+3	+3	+3	+3	+3
Wetland Ecological Condition	+3	+2	+3	+1	+1
Wetland Stressors	+1	+1	+2	+1	+2

Services Score Key:	
+3	Above median score compared to other wetlands in the region
+2	Median scores compared to other wetlands in the region
+1	25% < Median score compared to other wetlands in the region

[1] Greens Creek wetland service ratings taken from 2013 final EIS Table 3.8-2 Wetland Service Ratings on Page 3-118.

[2] The final EIS explains (see Page 3-117) that Greens Creek Fen and Forested (Tributary Creek) wetlands support anadromous fish habitat within Tributary Creek, and thus were given additional service points because the original 2012 Adamus Resource Assessment study did not recognize this.

Using the WESPAK-SE, assessment of the Nevada Creek Forested Peatland wetlands resulted in service function scores that were comparable to the service function scores of the Fen wetlands proposed for project impacts, as shown by the Table 4 above. Although few of the individual the WESPAK-SE function service scores of the Forested Peatland wetlands occurring at the proposed Nevada Creek mitigation site match up with the service scores of the Bog wetlands proposed for project impacts, as shown by the Table 4 above, the Nevada Creek Forested Peatlands offer comparable overall services when the service scores are averaged.

Assessment of the Forested Wetlands occurring at the proposed Nevada Creek mitigation site typically yielded service function scores that were comparable to the service function scores of the Greens Creek forested wetlands proposed for project impacts, as shown by the Table 3 above. Both the service scores for the Nevada Creek and Greens Creek Forested Wetlands were above the regional median for downstream temperature regulation, aquatic invertebrate and amphibian habitat, including habitat for songbird, raptors and mammals.

Mitigation Site Baseline Information

Gold was discovered in Nevada Creek in the late 1880s and by the early 1900s the Alaska Treasure Mine was established and worked/explored for gold occurrences (CEC 1980; Redman et al. 1988). A portion of the Alaska Treasure Mine Site, identified as the middle adit where the main working tunnel is located to this day, occurs within the proposed Nevada Creek Mitigation Site.

Historic Baseline Condition

Before the Nevada Creek Mitigation Site was impacted by historic mining, the site's environmental condition was likely similar to the intact areas that surround the site today. Well-drained areas were likely comprised of forested uplands with Sitka spruce and western hemlock in the overstory, early and Alaska blueberry in the understory, and spiny wood fern and dwarf dogwood within the herbaceous stratum. Poorly-drained areas areas were likely comprised of forested wetlands with western hemlock in the overstory, false azalea and devils club dominant within the understory, and skunk cabbage dominant within the herbaceous stratum. Depending on the topography along the stream, Nevada Creek's riparian zone vegetation was likely comprised of a combination species that occurred within the site's uplands and wetlands.

Upon the establishment of the Alaska Treasure Mine, the middle adit area that occurs within the mitigation site consisted of a mining camp, the main working tunnel located on the west bank of Nevada Creek immediately above a small gorge channel carved by the stream, and waste rock dump area along the what is now the east bank of Nevada Creek. West of the middle adit a narrow gauge railroad with associated steam piping ran from the middle adit to a lower mine area adjacent to the Gastineau Channel shoreline. Remnants of the railroad and associated steam piping are evident to this day, as are portions of a log corduroy road that connected the middle adit to the Alaska Treasure Mine Hudson Tunnel upper adit and a lower mine area adjacent to the Gastineau Channel.

Historic impacts within the middle adit area consisted of waste rock dumping into Nevada Creek and clear-cut logging of the surrounding riparian areas, forested uplands, and wetlands. The waste rock dump at the middle adit is the most extensive of associated Alaska Treasure Mine dump areas in the vicinity. Due to the extent and proximity of the waste rock dump to Nevada Creek, the dump likely historically altered the course of the stream significantly. Wood from logging the surrounding riparian areas, forested uplands, and wetlands was likely used for the construction of the mining camp and corduroy road connecting the middle adit to upper and lower mine areas, and reinforcing of the main working tunnel and associated shafts. Wood would have also been used for the mining camp heating and cooking. Increased human presence, and initial and ongoing mining activities, would have also historically impacted wildlife that occurred within the middle adit and corduroy road/narrow gage railroad areas.

Existing Baseline Conditions

The middle mine area's main working tunnel remains accessible to this day. Side-slope areas (adjacent to Nevada Creek) of the main working tunnel waste rock dump were observed to be actively eroding. However, testing of Nevada Creek conducted in 2012 concluded that there are no existing water quality issues (HGCMC Memo 2012); see paragraph below. Assorted small pieces of metal and remnant equipment were also observed within the vicinity of the area's historic mining camp. Today, the vegetation within the middle adit area consists of a sparse understory, but an overstory comprised of Sitka spruce, western and mountain hemlock that have colonized the waste rock dump and previously disturbed adjacent areas. Red alder has was observed to have colonized the majority of the corduroy road alignment, with spiny wood fern and dwarf dogwood dominant within road alignment's upland herbaceous stratum, and skunk cabbage dominant within road alignment's wetland herbaceous stratum.

The waste rock dump area exhibits evidence of continual erosion and material deposition into Nevada Creek as little to no vegetation has colonized the dump side slope contiguous with the stream. Dr. Pete Condon with PetrosGeo Consulting visited the site and assessed the condition of the waste rock area. Dr. Condon identified a significant disproportion of pyrite material within the waste rock that has the potential to produce acid rock drainage. Dr. Condon confirmed that "Stabilization of the bank would slow the rate at which the waste rock enters the creek. If vegetation can be established it will replace some of the strength lost by the rock as it weathers." Therefore, the restoration component of this mitigation plan involves stabilization of the waste rock dump side slope contiguous with Nevada Creek by constructing anchored terraces and establishing native vegetation within the terraces. The construction and in-perpetuity establishment of these stabilization features will prevent the introduction of acidifed material, should acidification of the waste rock occur in the future.

Main Working Tunnel Water Quality

On August 9, 2012, Kerry Lear of Hecla Greens Creek Mining assessed the existing water quality conditions within the Alaska Treasure Mine's middle adit main working tunnel. The main working tunnel was explored for approximately the first 1000 feet. The tunnel is generally wetter than the upper adit Hudson tunnel as small seeps and drips occurred more frequently throughout the length explored. Oxide coatings along the ribs are also more common and are dominated by dark reddish-brown to black manganese-oxides mottled with yellowish to orange-brown (iron) Fe-oxides. The wetter conditions lead to a discernible flow along the tunnel floor

which is covered by a heavy, orange- brown sludge up to 1 centimeter thick. This sludge rises 5 to 10 centimeters up the rib which may indicate that water levels fluctuate inside tunnel. During a previous trip there was a low-volume (2-1 parts per millionth (pm)) direct discharge of contact water flowing directly into Nevada Creek. A water chemistry sample site was selected approximately 100-feet inside the tunnel. There was a very low but distinct flow at the site. Water sampling indicates that there are no immediate water quality issues from the tested main working tunnel. However, if hydrologic conditions were to change inside the tunnel, there are enough oxide coatings that could become soluble to be of concern, and the main working tunnel appears to have a larger reservoir of this type of material than the upper adit Hudson Tunnel (HGCMC Memo 2012).

Nevada Creek Water Quality in Vicinity of Main Working Tunnel

Two Nevada Creek water quality samples were also taken, one upstream and one downstream of the main working tunnel discharge. However, the downstream sample could also be influenced by any contact water discharge from the waste rock dump adjacent to the stream. The two samples returned essentially the same constituents values with the upstream sample values slightly, but not significantly, greater than the downstream sample. None of the metals analyzed are near levels of concern with regard to Alaska Water Quality Standards (HGCMC Memo 2012).

Wildlife & Habitat

The Nevada Creek Mitigation Site contains forested upland habitat, and aquatic habitats such wetlands and riparian areas that have remained relatively undisturbed since historic mining activities ceased. No Endangered Species Act (ESA) listed threatened or endangered species occur on the site, although the Queen Charlotte goshawk, a Forest Service listed Sensitive Species is suspected or known to occur on Douglas Island. Queen Charlotte goshawks are inhabitants of late seral forests and are closely associated with productive old-growth (POG).

Upper elevations areas adjacent to the mitigation site that were not disturbed by historic mining contain stands of old growth. The table below and on the following Page 19 includes the native mammals that occur on Douglas Island as indicated by *Mammals and Amphibians of Southeast Alaska* (MacDonald, S.O. and J.A. Cook 2007), and presents the occurrence of the mammals associated habitat within the Nevada Creek Mitigation Site, in comparison to the occurrence of the species and/or habitat on Admiralty Island within the Greens Creek Mine permit expansion boundary area that includes the Stage 3 Expansion project.

Comparison of Native & MIS Mammal Associated Habitat Occurrence[1]					
Species Common Name	Species Scientific Name	Habitat Association	Associated Habitat Occurs within Nevada Creek Mitigation Site	Tongass National Forest Management Indicator Species (MIS)[2]	MIS or Other Species and/or Associated Habitat Occurs within Proposed Permit Expansion Area
Rodents					
American Beaver	*Castor canadensis*	Forested riparian	Yes	--	Not likely to be American beaver. Likely beaver endemic to Admiralty Island (*Castor Canadensis phaeus*)
Hoary Marmot	*Marmota caligata*	Tree lined slopes	Yes	--	-
Long-tailed Vole	*Microtus longicaudus*	Forested meadows	Yes	--	--
Northern Red-backed Vole	*Myodes rutilus*	Forested & Shrubland	Yes	--	-
Northwestern Deermouse (Keen's Mouse)	*Peromyscus keeni*	Forested & Shrubland	Yes	--	-
Porcupine	*Erethizontidae dorsatum*	Forested	Yes	--	-
Red Squirrel	*Tamiasciurus hudsonicas*	Forested	Yes	✓	Yes
Pikas & Hares					
-	*Lepus americanus*	Forested	Yes	--	-
				--	-
-	*Sorex cinereus*	Forested	Yes	--	-
-	*Sorex monticolus*	Forested	Yes	--	-
Bats					
Little Brown Bat	*Myotis lucifgus*	Forested	Yes	--	-
Carnivores					
American Black Bear	*Ursus americanus*	Forested	Yes	✓	-
American Mink	*Neovison vison*	Forested riparian	Yes	--	-
Ermine	*Mustela ermine alascensis*	Forested	Yes	--	-
North American River Otter	*Lontra canadensis*	Aquatic	Yes	✓	Yes
Red Fox	*Vulpes vulpes*	Forested	Yes	--	-
Wolf	*Canis lupus*	Forested	Yes	✓	-
Ungulates					
Sitka Black-tailed Deer	*O.h. sitkensis*	Forested-meadows	Yes	✓	Yes

[1] As indicated by Mammals and Amphibians of Southeast Alaska (MacDonald, S.O. and J.A. Cook 2007).
[2] Management indicator species for the Tongass National Forest according to 2012 DEIS (USFS 2012).

Aquatic Wildlife & Habitat

Nevada Creek is identified as a small order stream that originates on the east side of McDonough Peak, and generally flows east for approximately two miles until discharging into Gastineau Channel. Cutthroat trout (*Oncorhynchus clarki*), Dolly Varden (*Salvelinus malma*), coho salmon (*O. kisutch*), pink salmon (*O. gorbuscha*), chum salmon (*O. keta*), and sculpin (*Cottus* sp.) occur within the lower reach of Nevada Creek, with pink salmon the most abundant (CH2MHILL 1996). Resident fish are assumed to occur within the middle reaches of Nevada Creek. According to the *Channel Type User Guide - Tongass National Forest Southeast Alaska* (CTUG) (USFS 1992) the classification of the mainstem of Nevada Creek and two of its mapped tributaries, are as follows (Sheet 13):

- HC6 (Deeply Incised Mountain Slope Channel) - HC6 is a channel type that is a shallowly to deeply incised, high gradient (over 6 percent) moutainslope stream. HC6 channels are most commonly found on mountainslope or hill landforms and are primarily sediment transport systems. They occur in large ravines, with a consistent sideslope length greater than 10 meters. They usually initiate as first order streams and commonly extend to ridgetops and summits. Because of high stream gradient, high flow velocity, seasonally low water and migration barriers, HC6 streams are generally not accessible to anadromous or resident fish species. These channels contain negligible spawning or rearing habitat (USFS 1992). ELS field observations of the higher elevation drainage areas within the Nevada Creek site were consistent with the HC6 classification.

- MM1 (Narrow Mixed Control Channel) - MM1 is a moderate gradient channel type with mixed control process where sediment deposition processes is limited. The MM1 stream is normally situated in the middle reaches of small drainages basins. Small bedrock knickpoints and short cascades or falls may be present. According to the CTUG, MM1 channels are generally accessible to anadromous fish species, with downstream barriers accounting for most cases where access is restricted (USFS 1992). ELS field observations of the middle reaches of Nevada Creek were consistent with the MM1 classification.

- MC1 (Narrow Shallow Contained Channel) - MC1 is a moderate gradient channel contained process with narrow, shallow incisions. Stream flow is completely contained by adjacent landforms and upper channel banks. A MC1 stream is found consistently in glacially scoured lowland landforms (USFS 1992). Although MC1 channels are generally not accessible to anadromous species because of downstream barriers, an anadromous waters catalog has mapped approximately last 300 feet of Nevada Creek's MC1 classified channel as salmon bearing (CH2MHill 1996).

Cultural Resources

The cultural resources associated with the middle adit portion of the Alaska Treasure Mine that occurs within the proposed Nevada Creek Mitigation Site is currently in the process of Section 106 coordination and review by the Army Corps of Engineers and the Alaska State Historic Preservation Office (SHPO). It is likely that through the Section 106 review process the middle adit area will be deemed eligible for listing on the National Register of Historic Places. Initial assessment of the proposed mitigation site's potential to contain cultural resources related to sites and materials of prehistoric Native American, and historic Tlingit origin, has been determined to

be unlikely. However, the Section 106 review process is still on-going, and a final determination has yet to be made.

Risks to Mitigation Site Resources

Mining

Gold was discovered in Nevada Creek in the late 1880s, and the Alaska Treasure Mine (Redman et al. 1988), that occurs within the proposed Nevada Creek Mitigation Site, was established by the early 1900s, and the areas identified as the upper, middle, and lower adits had been worked/explored for gold occurrences (CEC 1980). A report completed in 1914, the *Report of the Alaska Treasure Mine* prepared by Fred Close, valued the Alaska Treasure Mine remaining ore upwards of thirty-five million dollars. According to a more recent report prepared by the California Exploration Corporation (CEC 1980) titled the *Geology, Economic Potential and Exploration Recommendations for the Nevada Creek Property* dated November 12, 1980, the entire Alaska Treasure Mine site has been re-visited several times by exploratory mining and survey companies to determine the extent of mineral deposits and the viability of mining. Documented exploration of the site was conducted by the Al Ven Corporation during 1968 and 1969, and the Occidental Minerals Corporation in 1979 (CEC 1980). The CEC evaluation completed in 1980 concluded that the site had a gross mining value of 2.8 billion at that time (CEC 1980).

There will continue to be interest in the future as worldwide economic demand increases for precious metals such as gold and silver, and industrially important metals such as copper and zinc. The site has a history of mining and mine surveys, an historic access road that could be restored–operationally and good access to navigable water for import of equipment and supplies, and export of mined product. A previously considered mine operation, the AJ Mine Project, contemplated the Alaska Treasure Mine site for vast deposition of mine overburden and tailings (CH2MHil 1996). Obviously, mining at this location would entail multiple potentially significant impacts to aquatic resources from clearing, overburden placement, mine tailings and other associated mining-related impacts.

Timber Harvest

Forested habitat within the mitigation site is at risk from clearcut and selective timber harvest. A timber valuation of the all the Alaska Treasure Mine lode plats conducted in 1996 by Curran Consulting, Incorporated, documented a gross log sales revenue value of $2,764,800.00 (Curran Consulting, Inc. 1996). While access remains the greatest challenge to timber harvest at the site, the evidence on the ground of past timber harvests is a reminder that economic conditions drive the feasibility of logging. The site has a mix of both large and medium-sized timber, both hardwood (red alder) and softwood (western hemlock, Sitka spruce, and Alaska yellow cedar). The site has relic access from the shoreline area that could be made passable for log hauling to the shoreline area and shipping via barge to market.

Mitigation Objectives & Performance Standards

The primary overall goal of the proposed mitigation is to compensate for project impacts by preserving the aquatic resources occurring within the Nevada Creek Mitigation Site in perpetuity and restoring Nevada Creek riparian habitat. Preservation of the mitigation site also provides an opportunity to preserve the cultural resources associated with the Alaska Treasure Mine middle adit that occurs within the site. Through the Section 106 review process, it is anticipated that the mining area and cultural resources associated with the Alaska Treasure Mine Site, will be deemed eligible for listing on the National Register of Historic Places.

Long-term Protection

Objective 1. Long Term Protection of Aquatic Ecosystem Functions
Permanently protect aquatic ecosystem functions at the mitigation site by instituting the mitigation plan, and implementing an approved legal protection instrument.

Performance Standard 1a. Preserve through long-term, legally-binding protection the functional condition of the mitigation site's aquatic resources by protecting a total of 51.6-acres located within the middle reaches of the Nevada Creek Watershed. Performance Standard 1a for Objective 1 is completed when the long-term, legally-binding protection instrument is signed by all pertinent parties, placed on the property title, and is officially recorded with the City/Borough of Juneau.

Restoration

Objective 2. Restoration of Nevada Creek Riparian Area Impacted by Waste Rock Dump
Restoration of the portion of Nevada Creek's riparian area impacted by a waste rock dump through stabilization of the dump side slopes.

Stabilization of Waste Rock Dump Side Slopes:

Performance Standard 2a. Stabilize the waste rock dump side slopes eroding into Nevada Creek and promote soil formation through creation of stair-stepped terraces through installation of anchored waddles or (anchored) wood cribs/horizontal logs and planting native trees and/or shrubs within created terraces (e.g. behind waddles or wood cribs/horizontal logs) (Sheet 10). Performance Standard 2a for Objective 2 is completed when the creation and total amount of stair-stepped terraces and planting of native trees and/or shrubs is documented within an As-built Report or Year 1 monitoring report.

Performance Standard 2b. By Year 5, 100 percent of the created stair-stepped terraces along the waste rock dump side slopes will still remain.

Vegetative Structure:

Performance Standard 2c. By Year 5, the aerial cover of planted native trees and/or shrubs, and/or naturally colonizing native trees, shrubs, herbaceous species, or organic material (duff) occurring within created stair-stepped terraces along the waste rock dump side slopes will be 30 percent.

Table 5. Summary of performance standards completion or achievement & documentation.

Anticipated Completion or Achievement of Establishment Period Performance Standards			
Performance Standard	**Year**	**Completed or Achieved**	**Documentation**
1a	Year 0	Completed	As-Built Report
2a	Year 0 or Year 1	Completed	As-Built Report or Year 1 Monitoring Report
2b	Year 5	Achieved	Year 5 Monitoring Report
2c	Year 5	Achieved	Year 5 Monitoring Report

Long-Term Maintenance and Monitoring Plan & Adaptive Management

During the mitigation site's establishment period, the applicant will be responsible for ensuring that maintenance and monitoring plan is implemented to protect and maintain the functional condition of the mitigation site. Once the mitigation site is transferred to a long-term steward, the steward will be responsible for any required long-term maintenance and monitoring.

Maintenance

General maintenance will be periodically performed to address conditions that may limit the success of the mitigation site and attainment of performance standards and objectives. The applicant, and eventually the long-term steward, is responsible for all site maintenance activities. Maintenance activities will include, but are not limited to, repair of any areas subject to erosion, control of invasive species, general maintenance including garbage removal, and repairing damage from vandalism.

Monitoring

Establishment period performance monitoring will be implemented in Years 1, 3, and 5, to determine the degree of success of the mitigation site's restoration activities and to demonstrate to the regulatory agencies that pertinent performance standards have been achieved. Long-term monitoring site evaluations may include periodic surveys to assess encroachment such as garbage dumping and vandalism, and documentation of the functional condition of the site.

Monitoring Reports

The applicant will prepare and submit establishment period monitoring reports to the regulatory agencies in Years 1, 3, and 5 that will document of the status of the mitigation site and success of restoration activities. These reports will document site conditions and provide the supporting

information required to document the attainment of objectives and performance standards. Monitoring reports will be submitted by February 1 of the following year. Each monitoring report will contain the following information:

Permanent Representative Sample Plots
Representative sample plots will be established within the Nevada Creek riparian restoration area. Monitoring photo point locations will also be established within the restoration area and throughout the mitigation site. The restoration area will have at least one monitoring plot per created terrace. Sample plot locations will be placed on an As-built drawing and submitted with a Year 0 As-built Report or Year 1 Monitoring Report. The As-built drawing will be included in the annual monitoring reports.

Monitoring Report Contents
Monitoring reports will follow the guidance outlined by the USACE's *Mitigation Monitoring Report Format* (2008). Monitoring reports will provide the following required monitoring report elements:

Project Overview

1. Project name and USACE Permit Reference Number.
2. Name of the party responsible for conducting the monitoring and the date(s) the monitoring was conducted.
3. Description of the project, acreage and type of aquatic resources impacted, and mitigation acreage, and type of aquatic resources authorized to compensate for the aquatic impacts.
4. Description of the location, any identifiable landmarks of the mitigation project including information to locate the site perimeter(s), and coordinates of the mitigation site (expressed as latitude and longitude).
5. Dates the mitigation project commenced and/or was completed.
6. Statement on whether the performance standards are being met.
7. Dates of any recent corrective or maintenance activities conducted and a description of those activities since the previous report submission.
8. Specific recommendations for any additional corrective or remedial actions. The recommendations will include a detailed discussion about the likely cause and impact of any setback or failure that occurred along with the recommendations for future actions and strategies that might resolve these problems.

Monitoring Overview

9. Listing of the monitoring requirements and performance standards, as specified in the approved mitigation plan and any special conditions of the permit.

10. Evaluation of whether the mitigation project site is successfully achieving the approved performance standards; tables are recommended for comparing the performance standards to the mitigation site conditions.

Monitoring Data

11. The following monitoring data as specified by yearly performance standards will be collected and documented within the annual monitoring reports:

    Nevada Creek Riparian Restoration Area Vegetation
    To assess the establishment of planted native trees and/or shrubs within created terraces along the waste rock dump side slopes the vegetation monitoring will measure the following:

    a) Percent cover of planted species and beneficial recruits; visually determine percent cover using 5-foot diameter sample plots.

    b) Document the mitigation site over time, and changes in the restoration area plant community using photographs from permanent photo points and panoramic view(s).

    Soils
    To assess the development of soil and/or duff within the created terraces within the waste rock dump restoration area document the following:

    c) Using a Munsell Soil Chart Soil, description of soil profile and matrix percentages from 0" to 6" or until waste rock is encountered.

Monitoring Summary

1. Provide summary data to substantiate the compensatory mitigation project's success and/or potential challenges.

2. Provide monitoring data to assess the measureable criteria of each mitigation performance standard. Summarized monitoring report data collection efforts must focus on determining whether performance standards are being met.

3. Provide photo documentation to support the findings and recommendations referenced in the monitoring report and to assist in assessing whether the compensatory mitigation project is meeting applicable performance standards for that monitoring period.

4. In addition to photos at designated photo points, photo documentation to include panoramic views of appropriate areas of the mitigation site. Photos should be formatted on standard 8.5" by 11" paper, or 11" by 17" paper for panoramic views, and dated with the date the photo was taken, in addition to clearly labeling the area of the mitigation site shown in the photograph and the direction from which the photo was taken.

Maps

Maps are to clearly delineate the mitigation site perimeter(s), in order to assist regulatory agencies in locating the mitigation area(s) during site inspections. Provide maps to showing the location of the following compensatory mitigation site features:

5. Photo location points to be identified on the appropriate maps.

6. Habitat types

7. Sampling data points, locations of photographic reference points, and other features pertinent to the mitigation plan.

8. As-built plans may be included.

Conclusions

9. Provide an overview of the current ecological condition of the mitigation site, including a discussion of the restoration areas.

10. Effectiveness of the mitigation restoration activities accomplished to date, and progress of the mitigation site in achieving the specific performance standards. If performance standards are not being met, provide details about the likely cause and impact of any setback or failure that occurred and recommendations of future actions and strategies and/or contingency or remedial measures that might resolve the problem(s). Explanations of the need for any future actions and strategies and/or contingency or remedial measures, and detailed proposals for their implementation, along with an implementation timetable is to be provided.

11. Pertinent additional information on such aspects of the mitigation site as wildlife use of the area, recreational and scientific use, and natural events such as disease, wildfire, and flooding, etc., that may have occurred.

Adaptive Management Plan

If the monitoring reports, or inspection by regulatory agency representatives, indicate persistent failure to achieve and maintain the prescribed performance standards, the applicant will propose adaptive management actions to correct shortcomings. A thorough analysis may result in the identification of other factors, not identified in the performance standards or monitoring data, causing the project to fall short of its objectives. The adaptive management plan shall specify the nature of further examination of potential causes of failure and/or corrective action to be

conducted, the schedule of completion for those activities, and a monitoring report for assessing the effectiveness of the corrective action. The objective of the adaptive management plan shall be to attain the originally prescribed project objectives, either through achieving the original performance standards or through new standards subsequently developed based on evaluation of the site as temporal changes occur and are assessed. All adaptive management actions will be undertaken only after consulting and gaining approval from the appropriate regulatory agencies.

Long-Term Protection & Financial Assurances

The proposed Nevada Creek Mitigation Site is owned by the Nevada Creek Mitigation Partners. As a means of long-term site protection, a conservation easement will be placed on the proposed mitigation site; a draft conservation easement is provided in Appendix E. Additionally, a financial assurance fund of $5,000.00 will be created for completion of all tasks related to the restoration of the Nevada Creek riparian area at the middle adit, as described in Performance Standards 2a through 2c. The amounts required for the Financial Assurance of the Performance Standards, described above, will be deposited by Nevada Creek Mitigation Partners into an escrow account accessible by the appropriate permitting agency, or agencies, for the completion of said tasks if necessary to comply with the objectives of the Mitigation Plan. Upon receipt and approval of the final monitoring reports confirming the satisfactory completion of the Performance Standards, any and all remaining amounts remaining in the escrow account shall be returned to Nevada Creek Mitigation Partners.

Mitigation Site Work Plan

The majority of the project work for the Nevada Creek Mitigation Site is anticipated to take place during the summer of 2014 from June to August, except where noted otherwise, and specifically consists of the following elements:

Restoration of Nevada Creek Riparian Area Impacted by Waste Rock Dump
Proposed work associated with the restoration of the Nevada Creek riparian area impacted by a historic mining waste rock dump through stabilization of the eroding side slopes involves the creation of stair-stepped terraces through installation of either anchored waddles or (anchored) wood cribs/horizontal logs along eroding slopes, and planting native trees and/or shrubs within terraces (Sheet 14).

To provide materials for the proposed anchored wood cribs/horizontal logs, and to increase heterogeneity in stand density and canopy cover within the closed canopy dense re-growth upland forest that now dominates the top of the waste rock dump, a "skips and gaps" (Christensen 2012) treatment is proposed. The treatment is also proposed in order to provide more light for subdominant trees and understory plants that provide wildlife forage as the top of the waste rock dump completely lacks an understory. Thinning intensity will be generally be light as specific trees, not stands, will be targeted to create gaps with some stand areas left completely un-thinned ("skips"). Trees targeted for thinning will be carefully identified using the following considerations and criteria:

Basic Guidelines

- Trees above 12" DBH will not be targeted for thinning
- Retain canopy closure at least 25-feet from what is now the top-of-bank for the Nevada Creek stream valley
- No Alaska yellow cedar will be targeted for thinning
- No saplings will be targeted for thinning

Hand tools and chainsaws will be used for the proposed work associated with restoration through waste rock dump side slope stabilization. Equipment and supplies for the aforementioned work will likely be dropped off and picked up by helicopter and/or walked in and out.

Main Working Tunnel Closure

To restrict public access, closure of the main working tunnel is proposed by the installation of either permanent or locking rebar grates at the adit openings, according to guidance presented by *Managing Abandoned Mines for Bats* (Bat Conservation International 2009). The grates at the adit opening will be constructed onsite using rebar, welding equipment, rock drills, and cement that will be transported on and off-site by helicopter (Sheet 15).

References

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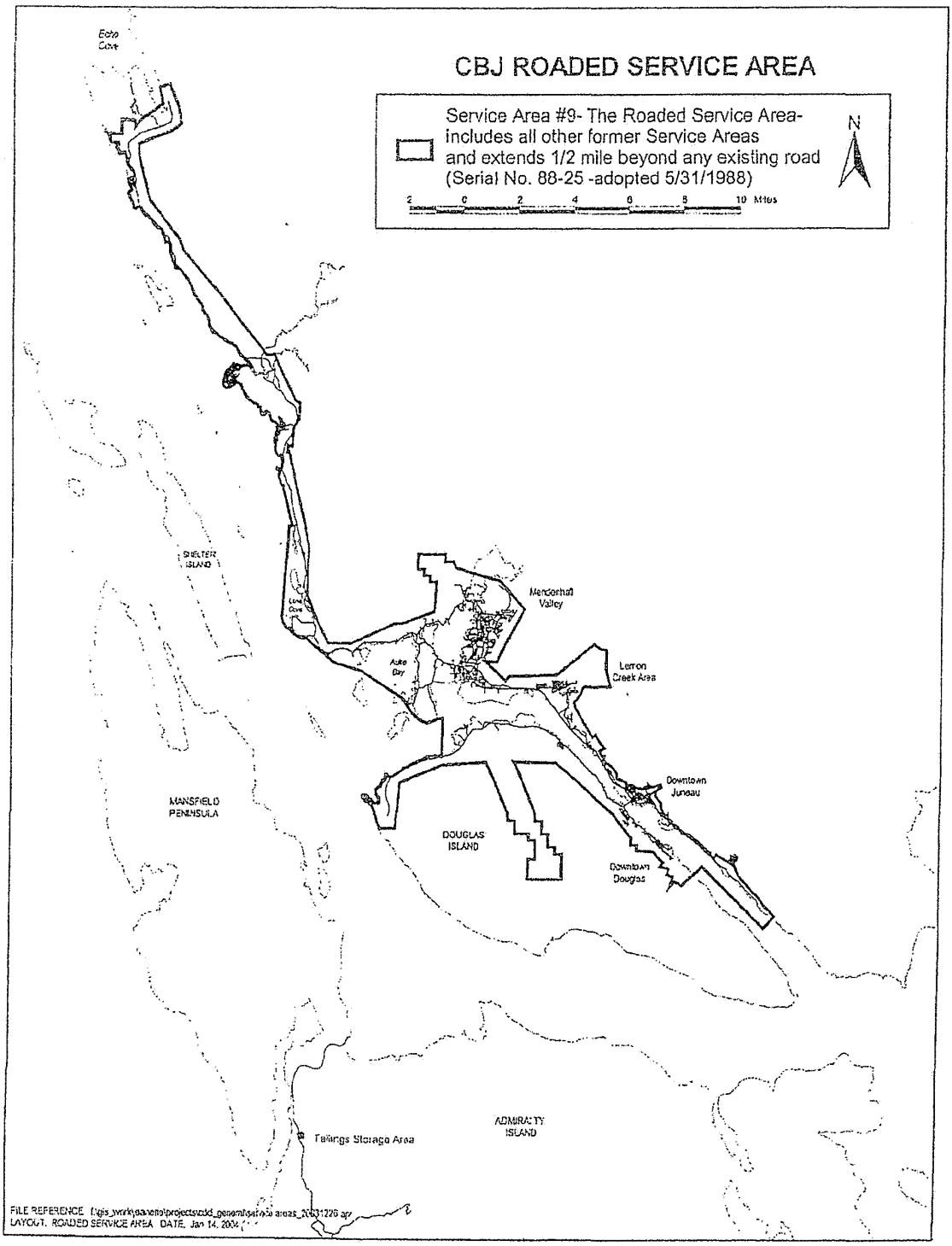


ATTACHMENT 4

mitigation measures in the permit. The operator shall, upon reasonable notice, provide the director with access, at reasonable times, to the premises and to the records of the mining operation to the extent such access is necessary to ascertain whether the mining operation is in compliance.

(d) Throughout the duration of the term of a small mine permit or a large mine permit, the operator shall pay to the director an annual monitoring fee to defray the costs of inspecting and reviewing the affected surface and compliance with the permit. The annual monitoring fee shall be such amount as may be established by the commission as necessary to cover the reasonable costs of inspection and review.
(Serial No. 2018-28, § 2, 8-13-2018, eff. 9-13-2018)

49.65.170 Technical revisions, summary approval, and amendments.

(a) During the term of a permit, the operator shall notify the director of all technical revisions to its operations. As used in this section a "technical revision" is a change in operations that does not, in the judgment of the director, have more than a minor effect on reclamation and that does not change the total amount of disturbance or the overall environmental or socioeconomic impact of the mining operation. After the technical revision is submitted to the director, the director shall within 30 days determine and notify the operator whether a permit amendment or summary approval of the change is necessary or whether the technical revisions may be accomplished under the operator's existing permit.

(b) If the operator or the director determines that the change to the mining operations are more than a technical revision, or if the changes will require preparation of a new or supplemental environmental impact statement, the permit shall be amended unless summary approval of the change is granted pursuant to (b)(2) of this section.

(1) Except as provided in subsection (2) of this section, the operator shall file with the director an application for amendment to its original permit, together with an application with the same content as required for an original application, except that no operator will be required to resubmit any information that duplicates applicable previous submittals. The permit amendment application shall be processed in accordance with the same procedure as established for processing permits under CBJ 49.65.125, 49.65.135 and 49.65.140. The operator shall not commence changes requested in its amendment application until the permit amendment has been approved and, if appropriate, additional financial warranties submitted.

(2) Summary approval.

(A) Upon request of the operator, the director may summarily approve a proposed change in mining operations not constituting a new land use or separate development upon a written determination that:

(i) The mine is located entirely outside the roaded service area established in CBJ 01.30.320;

(ii) The application is complete, providing all of the information necessary for the director to make the summary approval determinations set forth in subsections (i)—(iv);

(iii) The proposed change in mining operations will have no significant impact within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides, or erosion; and

(iv) The proposed change in mining operations has undergone or is undergoing environmental review and approval by one or more federal agencies, state agencies, or both.

(B) The director shall make the determination required by this

subsection (2) within 45 days unless additional information is required. If the director requires additional information to make the determination, upon written notification to the operator, the time for determination may be extended for up to 20 additional days after submittal by the operator of the additional information. If an environmental impact statement is required by one or more federal agencies, completion of the draft environmental impact statement is necessary for summary approval.

(C) Planning commission review.

(i) The director shall promptly forward the proposed summary approval to the planning commission after the determination is completed. The planning commission may ratify or reject the proposed summary approval.

(ii) If the commission rejects the proposed summary approval, it may:

(a) Return the matter to the director for further consideration of whether the director, in consultation with the operator, can address issues identified by the commission through imposition of conditions or changes in the proposed mining operation; or

(b) Direct that the proposed change be processed by the director as an application for an allowable use permit for which the commission may impose conditions under CBJ 49.15.320(f)(1)—(8) and such additional conditions as are necessary to reduce to non-significant any impacts in the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides, or erosion.

(Serial No. 2018-28, § 2, 8-13-2018, eff. 9-13-2018)

49.65.175 Enforcement.

This article shall be enforced in accordance with chapter 49.10, article VI and CBJ 49.65.195.
(Serial No. 2018-28, § 2, 8-13-2018, eff. 9-13-2018)

49.65.176 Appeal.

Any person who is aggrieved by a decision of the director or the commission with respect to this article, other than one under CBJ 49.65.175, may appeal that decision to the commission or the assembly, as applicable, as provided in chapter 49.20, article I.
(Serial No. 2018-28, § 2, 8-13-2018, eff. 9-13-2018)

49.65.180 Release of warranties for mining operations.

(a) Upon completion of mining operations, the operator shall file a written notice of completion with the director when it believes it has completed any or all requirements of this article, CBJ 49.15.330 and its permit with respect to any or all of its affect surfaces. The director shall, within 90 days after receiving the notice, or as soon thereafter as weather conditions permit, inspect the lands and reclamation described in the notice to determine whether the operator has complied with all applicable requirements.

(b) If the director determines that the operator has successfully complied with all the requirements of this article, CBJ 49.15.330 and the permit, it shall release all financial warranties applicable to said requirements. Release shall be in writing and shall be delivered to the operator promptly after the date of such filing.

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

DEVELOPMENT PERMIT APPLICATION

NOTE: Development Permit Application forms must accompany all other Community Development Department land use applications. This form and all documents associated with it are public record once submitted.

To be completed by Applicant

PROPERTY LOCATION

Physical Address: Admiralty Island

Legal Description(s) (Subdivision, Survey, Block, Tract, Lot): Greens Creek Mine

Parcel Number(s): 3A0101000010

☐ This property is located in the downtown historic district
☐ This property is located in a mapped hazard area, if so, which _____

LANDOWNER/ LESSEE

Property Owner: United States Forest Service | Contact Person: Monique LaPerriere Nelson

Mailing Address: 709 West 9th Street, Suite 535B Juneau, AK 99801-1807 | Phone Number(s): 907-209-4090

E-mail Address: monique.nelson@usda.gov

LANDOWNER/ LESSEE CONSENT

Required for Planning Permits, not needed on Building/ Engineering Permits.

Consent is required of all landowners/ lessees. If submitted with the application, alternative written approval may be sufficient. Written approval must include the property location, landowner/ lessee's printed name, signature, and the applicant's name.

I am (we are) the owner(s)or lessee(s) of the property subject to this application and I (we) consent as follows:
A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission.
B. I (we) grant permission for the City and Borough of Juneau officials/employees to inspect my property as needed for purposes of this application.

Monique L. Nelson — Forest Supervisor, Tongass NF
Landowner/Lessee (Printed Name) — **Title (e.g.: Landowner, Lessee)**

X _____ 5/8/2025
Landowner/Lessee (Signature) — **Date**

_____
Landowner/Lessee (Printed Name) — **Title (e.g.: Landowner, Lessee)**

X _____ _____
Landowner/Lessee (Signature) — **Date**

NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours. We will make every effort to contact you in advance, but may need to access the property in your absence and in accordance with the consent above. Also, members of the Planning Commission may visit the property before a scheduled public hearing date.

APPLICANT If same as LANDOWNER, write "SAME"

Applicant (Printed Name): Hecla Greens Creek Mining Company | Contact Person: Paula Lillesve

Mailing Address: PO BOX 32199 Juneau AK 99803 | Phone Number(s): 907-600-7737 ext. 8472

E-mail Address: plillesve@hecla.com

X _____ 4/9/2025
Applicant's Signature — **Date of Application**

----------**DEPARTMENT USE ONLY BELOW THIS LINE**----------

	Intake Initials
Case Number	Date Received

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

LARGE MINE PERMIT APPLICATION

(Urban)

Project Number	Project Name (15 characters)	Case Number MLG	Date Received

TO BE COMPLETED BY THE APPLICANT

LOCATION OF PROPOSED MINE:

WILL THE PROPOSED MINING ACTIVITIES HAVE IMPACTS ON THE MINING AND EXPLORATION EXCLUSION DISTRICT? ☐ Yes ☐ No

IMPACTS:_____

DESCRIPTION OF ACTIVITY WHICH REQUIRES A MINING PERMIT:

PREVIOUS EXPLORATION NOTICES AND/OR MINING PERMITS? ☐ Yes ☐ No

Previous Case Number(s), if known: _____

UNIQUE CHARACTERISTICS OF LAND OR BUILDING(S): _____

WHAT IS THE TOTAL AREA TO BE DISTURBED? _____ *acres*

HAS A FINANCIAL WARRANTY BEEN ESTABLISHED? ☐ Yes ☐ No

*AMOUNT $*_____ *WARRANTY HOLDER*_____

*CONTACT INFORMATION OF WARRANTY HOLDER:*_____

For more information regarding the permitting process and the submittals required for a complete application, please see the reverse side.

If you need any assistance filling out this form, please contact the Permit Center at 586-0770.

LARGE MINE PERMIT FEES

	Fees	Check No.	Receipt	Date
Application Fees	$_____	_____	_____	_____
Admin. of Guarantee	$_____	_____	_____	_____
Adjustment	$_____	_____	_____	_____
Pub. Not. Sign Fee	$_____	_____	_____	_____
Pub. Not. Sign Deposit	$_____	_____	_____	_____
Total Fee	$_____	_____	_____	_____

NOTE: MUST BE ACCOMPANIED BY **DEVELOPMENT PERMIT APPLICATION** *FORM*

Large Mine Permit Application Instructions

Applications for Large Mine Permits are reviewed by the Planning Commission as a Conditional Use permit at a public hearing. The permit procedure is intended to provide the Commission the flexibility necessary to make decisions tailored to individual applications. The Commission may stipulate conditions to mitigate external adverse impacts from the proposed use. If it is determined that these impacts cannot be satisfactorily overcome, the permit shall be denied.

Pre-Application Conference: A pre-application conference is required prior to submitting an application. The applicant will meet with City & Borough of Juneau and Agency staff to discuss the proposed development, the permit procedure and to determine the application fees. To schedule a pre-application conference, please contact the Permit Center at 586-0770 or via e-mail at Permits@ci.juneau.ak.us.

Application: An application for a Large Mine Permit will not be accepted by the Community Development Department until it is determined to be complete. The items needed for a complete application are:

Forms: A completed Large Mine Permit Application and Development Permit Application form. The "land owner or lessee consent" signature is mandatory for all landowners on the Development Permit Application form.

Fees: The fee for a Large Mine Permit Application is $3,600.00, plus any special fee established pursuant to CBJ49.65.130. Any development, work or use done without a permit issued will be subject to double fees. All fees are subject to change.

Project Description: A detailed letter or narrative describing the proposed mining activities, which includes:

A. A map on a scale of 1:63,360, or a more detailed scale, a description of the mine site and affected surface; description and timetable of the proposed mining operation, including all roads, buildings, processing and related facilities;
B. A description and timetable of proposed reclamation of affected surface;
C. A description of proposals for the sealing of open shafts, adits and tunnels upon the completion or temporary cessation of mining operations;
D. A description of methods to be used to control, treat, transport and dispose of hazardous substances, sewage and solid waste;
E. A description of other potential environmental, health, safety and general welfare impacts, as well as impacts on neighboring property and measures to be taken to mitigate their adverse effects; and
F. A Socioeconomic Impact Assessment 49.65130(C)(1) through (2).

Supplemental Information: The application shall also contain:

A. Additional information prepared by the operator for its feasibility studies and mining plans, including information establishing the right to use the affected surface, labor force characteristics and timing, payroll projections, anticipated duration of the mining operation, construction schedules, infrastructure description, and other information reasonably requested by the department in the pre-application conference held pursuant to subsection 49.15.330(b); and
B. An Environmental Impact Statement if it is required by the National Environmental Policy Act.

Plans: All plans are to be drawn to scale and clearly show the items listed below:

A. Site plan, floor plan and elevation views of existing and proposed structures, describing the materials and colors proposed;
B. Existing and proposed parking areas, including dimensions of the spaces, aisle width and driveway entrances;
C. Proposed traffic circulation within the site including access/egress points and traffic control devices;
D. Existing and proposed lighting;
E. Existing and proposed landscaping with location, area, height and type of plantings; and
H. Existing physical features of the site (i.e. drainage, eagle trees, hazard areas, salmon streams, wetlands, etc.).

Document Format: All information that is submitted as part of an application shall be submitted in either of the following formats:

A. Electronic copies may be submitted by CD, DVD or E-mail in the following formats: .doc, .txt, .xls, .bmp, .pdf, .jpg, .gif, .xlm, .rtf or other formats pre-approved by the Community Development Department.
B. Paper copies may not be larger than 11" X 17" (Unless a larger paper size is preapproved by the Community Development Department).

Please consult with the Community Development Department to discuss whether additional information may be required for your application. The "Planner-On-Call" can be reached by contacting the Permit Center at 586-0770 or via e-mail at Permits@ci.juneau.ak.us.

Application Review, Hearing Procedure and Permit Issuance: Once the application is determined to be complete, the Community Development Department will initiate the review and scheduling of the application. This process includes:

Review: Within 20-days of receipt of an application the Community Development Department (Department) will conduct a preliminary review of the application and schedule a meeting with the applicant/operator to request additional information and to establish a procedure/schedule for the coordinated review of the application with the review by other agencies.

Unless the operator agrees to an extension, within 90 days after the Department has received all additional information requested at the initial meeting described in 49.65.130(d) and the fee has been established, the Department shall complete its review of the application, unless an Environmental Impact Statement (EIS) is required by the National Environmental Policy Act (NEPA). The Department shall form a recommendation as to whether the permit should be approved and, if so, it shall make a recommendation on the amount of the financial warranty as provided in section 49.65.140. The Department's recommendation may include such conditions or stipulations as the Department deems to be reasonably necessary to mitigate any adverse environmental, health, safety or general welfare impacts which may result from the proposed mining operation. The Department's recommendations shall be provided to the operator and forwarded to the Planning Commission where the matter shall be placed on agenda for the next regularly scheduled meeting after notice has been published as provided in section 49.15.230. The application shall then be heard as a Conditional Use Permit application as provided in chapter 49.15, article III, as modified by this article.

If the department determines that the proposed mining operation does not meet the standards of sections 49.65.135 and 49.15.330, the Department shall advise the operator. The operator may then either withdraw its application or allow the Department's recommendation to be forwarded to the Planning Commission. If the application is withdrawn, it may be revised and submitted within 180 days upon payment of an additional processing fee as determined by the Department to be reasonably necessary to defray its cost of reviewing the revised application. Revised applications shall be processed in accordance with the procedures set forth in CBJ49.65.130 subsections (d), (e), (f) and (h).

Hearing: All Large Mining Permit Applications will be heard by the Planning Commission as a Conditional Use permit. Once the Planning Commission has determined the application, with stipulations or conditions as appropriate, satisfies the standards of CBJ49.65.135 and CBJ49.15.330, it shall approve the application and set the amount of the financial warranty.

Permit Issuance: The permit will not be issued until the applicant/operator has submitted a financial warranty in the amount set by the Planning Commission that is in a form satisfactory to the City and Borough of Juneau Attorney.

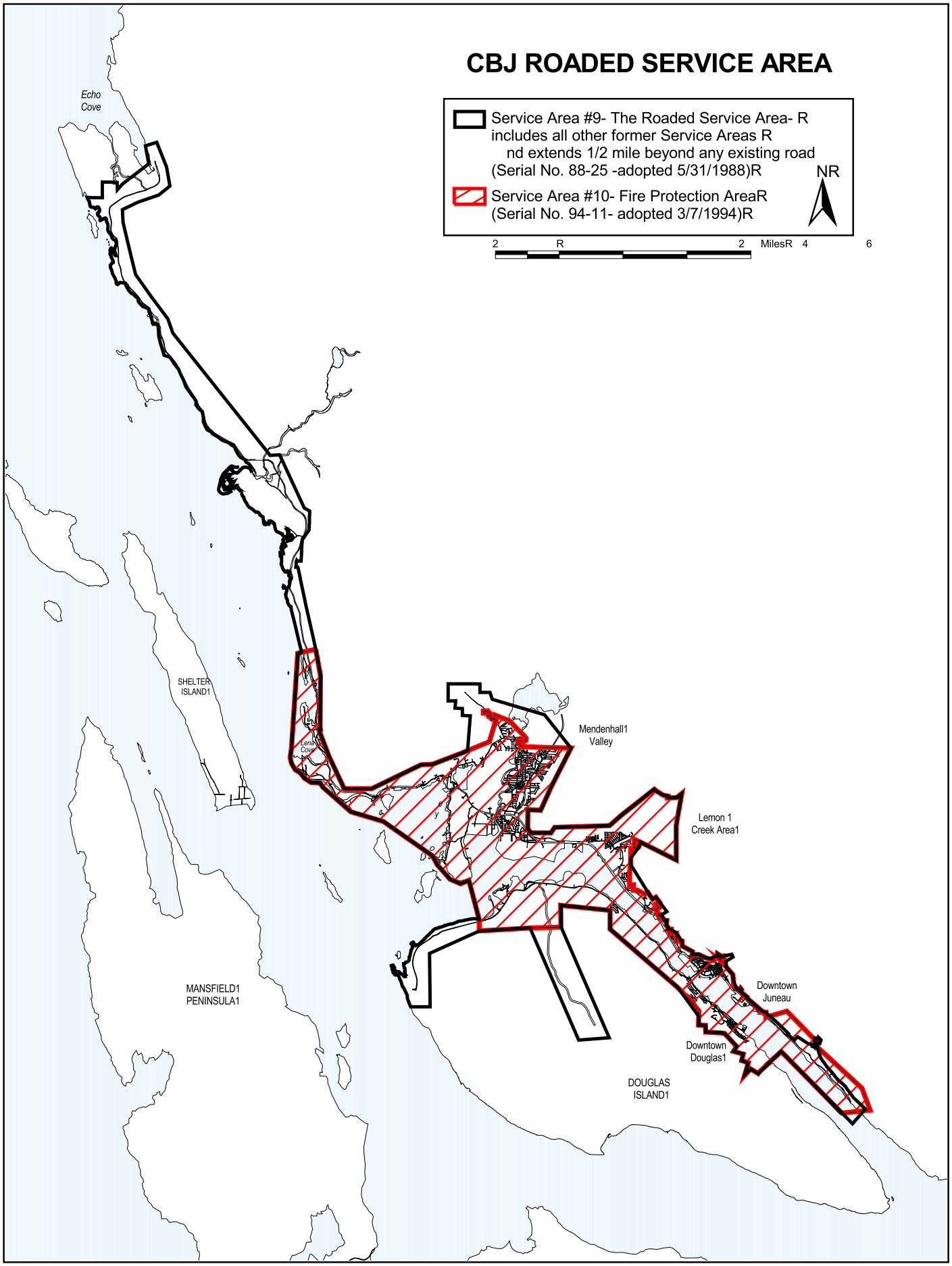
Please consult with the Community Development Department to discuss the review procedure required for your specific application. The "Planner-On-Call" can be reached by contacting the Permit Center at 586-0770 or via e-mail at Permits@ci.juneau.ak.us.

Public Notice Responsibilities: As part of the Conditional Use permitting process, all permit requests must be given proper public notice, which consists of the following:

Community Development Department: Will give notice of the pending Planning Commission meeting and its agenda in the local newspaper a minimum of 10-days prior to the meeting. Furthermore, the department will mail abutters notices to all property owners within 500-feet of the project site.

Applicant: Will post a sign on the site at least 14-days prior to the meeting. The sign shall be visible from a public right-of-way or where determined appropriate by the Department. Signs may be produced by the Community Development Department for a preparation fee of $50, and a $100 deposit that will be refunded in full if the sign is returned by 4:30 p.m. on the Monday following the scheduled hearing date. If the sign is returned later than the Monday after the Planning Commission meeting, but within two weeks of the meeting, $50.00 may be refunded. The applicant may make and erect their own sign. Please speak with the Community Development Department for more information.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED



FILE REFERENCE: f:\gis_work\jeanette\projects\cdd_general\service areas_20051013.apr1
LAYOUT: ROADED SERVICE AREA AND FIRE DATE: October 20051

Attachment B – 2005 CBJ Road Service Area Map

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

PLANNING COMMISSION
NOTICE OF DECISION
Date: August 12, 2014
File No.: MLG20140001

Hecla Greens Creek Mining Co.
Attn.: Mike Satre
648 Mission Street
Juneau, Alaska 99801

Application For:	Expansion of the Greens Creek Mine Tailings Disposal Facility.
Legal Description:	Greens Creek Mine
Property Address:	Admiralty Island
Parcel Code No.:	3-A01-0-100-001-0
Hearing Date:	August 12, 2014

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated July 31, 2014, and granted Summary Approval for the tailings expansion facility to be conducted as described in the project description and project drawings submitted with the application

Attachments: July 31, 2014 memorandum from Teri Camery, Community Development, to the CBJ Planning Commission regarding MLG2014 0001.

This Notice of Decision does not authorize construction activity. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance with CBJ §01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ §01.50.030 (c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ §49.20.120).

Effective Date: The permit is effective upon approval by the Commission, August 12, 2014

Expiration Date: The permit will expire 18 months after the effective date, or February 12, 2016, if no Building Permit has been issued and substantial construction progress has not been made in accordance with the plans for which the development permit was authorized. Application for permit extension must be submitted thirty days prior to the expiration date.

Project Planner: _____
Teri Camery, Senior Planner
Community Development Department

_____
Dennis Watson, Vice Chair
Planning Commission

_____ 8/13/14
Filed With City Clerk — Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this development project. ADA regulations have access requirements above and beyond CBJ-adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.

MEMORANDUM

CITY/BOROUGH OF JUNEAU
155 South Seward Street, Juneau, Alaska 99801

DATE: July 31, 2014

TO: Planning Commission

FROM: Teri Camery, Senior Planner TC
Community Development Department

FILE NO: MLG2014 0001

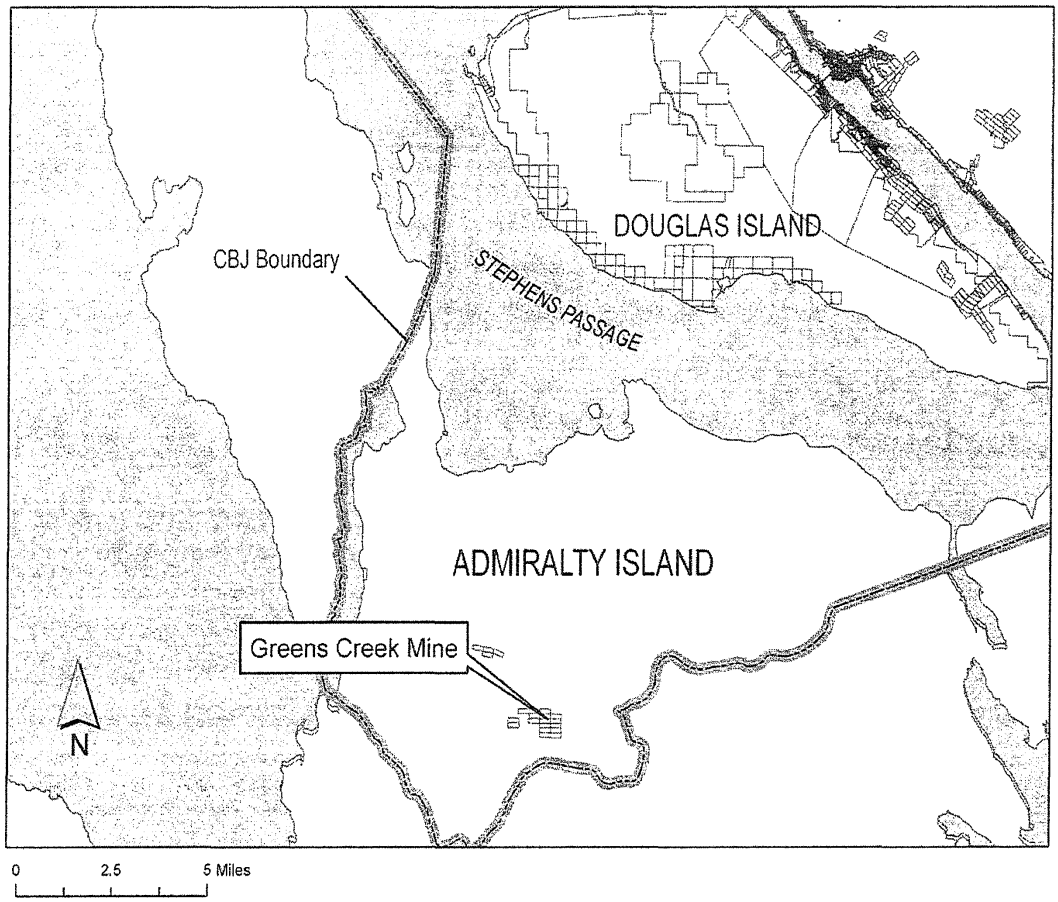
PROPOSAL: Expansion of the Greens Creek mine tailings disposal facility

GENERAL INFORMATION

Applicant:	Mike Satre, Government and Community Relations Manager
Property Owner:	Hecla-Greens Creek Mining Company
Property Address:	Admiralty Island
Legal Description:	Greens Creek Mine
Parcel Code Number:	3-A01-0-100-001-0
Site Size:	Approximately 400 acres
Zoning:	Rural Reserve
Utilities:	On-site systems
Access:	Aircraft or Boat via Hawk Inlet or Young Bay
Existing Land Use:	Mine Facilities
Surrounding Land Use:	North - Stephens Passage South - Chatham Strait/Chichagof Island East - Admiralty Island National Monument West - Chatham Strait/Icy Strait

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

Vicinity Map



ATTACHMENTS

Attachment 1	Development Permit Application
Attachment 2	Large Mine Permit Application
Attachment 3	Applicant Summary Approval Project Narrative
Attachment 3A	Site Plans
Attachment 3B	Photographs
Attachment 3C	Draft ADEC Waste Management Permit
Attachment 3D	Corps of Engineers Public Notice
Attachment 3E	Mitigation Plan for Tailings Expansion
Attachment 4	CBJ Roaded Service Area

PROJECT DESCRIPTION

The applicant requests Summary Approval for the proposed expansion of the Greens Creek Mine Tailings Disposal Facility (TDF), according to the requirements of the City and Borough mining ordinance, CBJ 49.65.155(b)(2). Summary Approval requirements and the Planning Commission review process will be discussed in the next section of this report.

The Final Environmental Impact Statement (FEIS) and Record of Decision for the Greens Creek tailings pile expansion were released in September 2013. The Record of Decision has identified Alternative D Modified as the preferred alternative for the project.

The TDF is currently approved for 62 acres with a capacity for 5.3 million yards of tailings and waste rock. This area will support mine operations until 2019. Alternative D Modified allows for an additional 2.1 million cubic yards of tailings and waste rock over 18 acres, which will support mine operations through approximately 2029. (See Attachment 3A, Tailings Storage Area, Stage 3 Phase 1 Expansion.) Specifically, Alternative D Modified allows for:

- Expansion of the existing tailings disposal facility (TDF) southward into Admiralty Island National Monument by about 18 acres;
- Development of a reclamation material storage area near the junction of the A and B roads, outside of the Monument;
- Development of an 8 acre rock quarry north of the existing TDF, and access from within the existing facility, outside of the Monument;
- Development of a new water management pond south of the existing TDF and expansion of existing water management ponds; and
- Relocation of the B road and truck wheel wash facility to accommodate the TDF expansion.

According to the Corps of Engineers Public Notice, (Attachment 3D), the project would impact approximately 14 acres of wetlands. These wetlands are not categorized in the Juneau Wetlands Management Plan. The applicant has proposed preservation of 48 acres of off-site wetlands as mitigation at the Nevada Creek Mitigation Site on South Douglas Island.

As in the 2004 Greens Creek tailings expansion, Alternative D Modified provides for the continuous addition of carbon to the tailings during placement, to neutralize the acid-forming tendency of the material.

PLANNING COMMISSION REVIEW PROCESS

The requirements for Summary Approval have been established in the City and Borough mining ordinance, CBJ 49.65.155(b)(2), as follows:

> ***49.65.155(b)(2). Summary Approval.*** *Upon request of the applicant, the Director [of CDD] may summarily approve a proposed change in mining operations not constituting a new land use or separate development upon a written determination that:*
>
> *(i) the mine is located entirely outside the roaded service area established in CBJ 01.30.320;*
>
> *(ii) the application is complete, providing all of the information necessary for the Director to make the summary approval determinations set forth in [these] subsections (i)-(iv);*
>
> *(iii) the proposed change in mining operations will have no significant impact within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides or erosion, and;*
>
> *(iv) the proposed change in mining operations has undergone or is undergoing environmental review and approval by one or more federal agencies, state agencies, or both.*
>
> ***49.65.155(b)(2)(C) Planning Commission review.***
> *(i) The director shall promptly forward the proposed summary approval to the Planning Commission after the determination is completed. The Planning Commission may ratify or reject the proposal summary approval.*
>
> *(ii) If the Commission rejects the proposed summary approval, it may:*
> *a) return the matter to the director for further consideration of whether the director, in consultation with the applicant, can address issues identified by the commission through imposition of conditions or changes in the proposed mining operation; or*
> *b) direct that the proposed change be processed by the department as an application for an allowable use permit for which the commission may impose conditions under CBJ 49.15.320(f)(1)-(8) and such additional conditions areas are necessary to reduce to non-significant any impacts in the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides, or erosion.*

Summary Approval requirements will be addressed in the Analysis Section of this report.

BACKGROUND

The Greens Creek Mine is an underground multi-metal mine near Hawk Inlet on northern Admiralty Island, located approximately 18 miles southwest of Juneau. The mine has been in operation since 1989 with one, two-year period of temporary closure. Major components of the mine include the underground mine, mill, waste rock disposal areas, tailings disposal facility (TDF), a port site and camp, and roads and power infrastructure.

The City and Borough of Juneau annexed the property to include it within Borough boundaries in 1994. Following annexation, the Planning Commission approved the mine as Large Mine Permit #M-02-95. In 2004, Greens Creek Mine received Summary Approval from the Planning Commission for an expansion of its Tailings Disposal Facility (TDF) by 62 acres, as MIN2004-00001.

In 2010, Greens Creek proposed a modification to its General Plan of Operations (required by the U.S. Forest Service) to expand its TDF to accommodate additional tailings and waste rock. The current facility is approved to hold 5.3 million cubic yards of tailings and waste rock in approximately 62 acres. The facility is expected to reach capacity in 2019 or sooner. To continue operations, Greens Creek requested an expansion of the TDF to hold an additional 14.2 million cubic yards. This led to a three-year environmental review process among state and federal agencies, with cooperation from the City and Borough of Juneau, which resulted in the Final Record of Decision and Final Environmental Impact Statement released in September 2013. The final approval from the U.S. Forest Service reduced the expansion to less than 10 percent of the original request, for 2.1 million cubic yards instead of 14.2 million.

Greens Creek Mine uses a combination of cut and fill and long-hole mining methods to remove ore and waste rock. Approximately half of the tailings and waste rock are backfilled into mining voids to provide stability within mined-out areas; the remaining materials are disposed of at the Tailings Disposal Facility. No changes in this process are proposed with Alternative D Modified. The mine processes approximately 2,200 tons of ore per day.

The current reclamation bond for the development is $26,238,518. The bond is held by the U.S. Forest Service (USFS) as authorized in a Memorandum of Understanding between USFS, the State of Alaska Department of Environmental Conservation (ADEC), and the State of Alaska Department of Natural Resources (ADNR). In the Draft Waste Management Permit, included as Attachment 3C, ADEC has proposed increasing the reclamation bond amount to $65,342,437. Public comment on this proposal ended on July 21, 2014. The final determination on the bond amount has not yet been announced.

ANALYSIS

1. **49.65.155 (b)(2)(A). The change in mining operations does not constitute a new land use.**

CBJ 49.80.120 defines a new land use as a use falling under a different category in the Table of Permissible Uses than the "mining operations" use designation in 14.400. The creation and/or expansion of a tailings disposal facility can only happen in connection with a mining activity in which tailings material is produced. Tailings disposal, as an essential component of mine operations in the same manner as excavation and milling, easily falls under 14.400, Mining Operations, in the Table of Permissible Uses.

The proposal expands the existing tailings storage area but does not add or propose land uses that are inconsistent with, or unrelated to, management and expansion of the tailings storage area or related mining operations. Therefore the proposal does not constitute a new land use.

Staff finds that Summary Approval Criterion One is met.

2. ***49.65.155 (b)(2)(A). The change in mining operations does not constitute a separate development.***

CBJ 49.80.120 defines separate development as a facility or infrastructure located outside the land area encompassing, and not an integral part of, the mining operation for which a development permit already exists. The tailings disposal facility, as proposed for expansion, is located within the land area encompassing the mining operation and is an integral part of the mining operation. Mining operations could not proceed as planned without expanded facilities for tailings disposal, improvements for groundwater management and quarry and reclamation materials. The mining operation has an existing development permit under CBJ 49.65.190, which provides that pre-existing and pre-approved large mines in territory annexed to the City and Borough are presumptively permitted provided that all state and federal permits and approvals remain valid. Greens Creek met this requirement at the time the mine was annexed to the City and Borough and was granted Large Mine Permit # M-02-95.

Staff finds that Summary Approval Criterion Two is met.

3. ***49.65.155 (b)(2)(A)(i). The mine is located entirely outside the roaded service area established in CBJ 01.30.320.***

Attachment 4 illustrates the roaded service area and the location of the Greens Creek mine and tailings facility. The mine is located approximately 18 miles outside of the roaded service area.

Staff finds that Summary Approval Criterion Three is met.

4. ***49.65.155 (b)(2)(A)(ii). The application is complete, providing all of the information necessary for the Director to make the summary approval determinations set forth in subsections (i)-(iv)***

The application is complete, and provides all of the information necessary for the Director to make a Summary Approval determination.

Staff finds that Summary Approval Criterion Four is met.

5. ***49.65.155 (b)(2)(A)(iii). The proposed change in mining operations will have no significant impact within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides or erosion.***

The Greens Creek mine is approximately 18 miles from the City and Borough's roaded service area boundary. Impacts from the proposed action will occur almost entirely on-site. Where impacts may extend off-site, such as dust emissions from road surfaces or from the tailings pile surface, the effects will be localized and will occur outside the roaded service area boundary.

The applicant has addressed each of the subjects listed in CBJ 49.65.155(b)(2)(A)(iii) in the application narrative and attachments, and through references to the Final Environmental Impact Statement for Greens Creek tailings disposal. The applicant's submittal and the FEIS provide sufficient information to conclude that no significant impact will occur within the roaded service area as a result of the proposed action.

Each of the twelve subjects listed in 49.65.155(b)(2)(A)(iii) is discussed below.

Habitat. Expansion of the tailings storage area will directly impact approximately 13 acres of wetlands, primarily forested wetlands, which are outside of the categorized area of the 1992 Juneau Wetlands Management Plan. The applicant has proposed 48 acres of wetland preservation on south Douglas Island as mitigation. The selected alternative does not allow Greens Creek Mine to fill or otherwise directly affect any class I or class II stream.

The Final Environmental Impact Statement includes an exhaustive analysis of impacts to surface water, groundwater, air quality, geochemistry, aquatic resources (e.g. resident and non-resident fish populations), vegetation, wildlife, and threatened plant and animal species according to each alternative. Alternative D Modified has a limited degree of impact in many of these areas. This impact has been minimized because the expansion area is directly contiguous with existing operations and because the U.S. Forest Service's final decision granted authorization for less than 10 percent of Greens Creek Mine's original expansion request.

In each of these habitat areas, impacts have been confined within the mine site, outside of the roaded service area. There is potential for minor impacts to water quality and air quality in areas immediately adjacent to the mine site. However these impacts are unlikely to extend across Stephens Passage and into the roaded service area.

The selected alternative, like all of the alternatives, requires Greens Creek Mine to collect and treat water for a minimum of 100 years until it can meet Alaska Water Quality Standards. The treated water will continue to discharge into Hawk Inlet, in compliance with the Federal Clean Water Act, under an Alaska Pollution Discharge System (APDES) permit.

Sound. Operation of the tailings storage area produces several sources of sound including the operation of dump trucks and heavy equipment, a tire-washing station, a water treatment plant and a rock pit. Ambient noise at the tailings facility is discernable at the site but is not discernable at the ore loading facility at Hawk Inlet one mile away. Episodic noise may be discernable at a further distance from the site, but is not expected to be audible within the roaded service area of the City and Borough.

Screening. The Tailings Disposal Facility, at its final height, may be visible from Hawk Inlet, partially screened by a buffer of evergreen trees between the site and the shoreline. The top layer of the four-layer, engineered cap on the tailings pile will be vegetated with native species. No portion of the site is visible from the roaded service area, nor are there nearby residences or other permanent activities or uses that might benefit from screening.

Drainage. As noted in the Habitat sub-category and other sections of this report, Greens Creek Mine is required to collect and treat water for a minimum of 100 years. The Greens Creek deposit is a massive sulfide deposit, which means that when the tailings are exposed to air, sulfuric acid is formed that can leach metals from the tailings material.

The Tailings Disposal Facility is constructed to minimize surface and groundwater penetration. During mine operations, surface water is collected in ditches and routed around the tailings pile. Groundwater flow into the tailings pile is minimized by underground barrier structures placed around the perimeter of the pile during construction. Other measures used to manage water flow around and through the tailings pile include diversions, french drains, finger drains, blanket drains, sumps and temporary capping of the pile.

The mine operation includes many additional measures, all of which are heavily scrutinized by state and federal regulatory agencies, to minimize or eliminate acid rock drainage. These measures include, in part, the following:

- Backfill of approximately 50 percent of the tailings within existing mine voids
- Collection ditches to gather and treat all water that comes into contact with waste rock or tailings
- Wheel wash facilities to reduce tracking of mine waste onto clean roads
- A detailed interim and final reclamation plan that includes an engineered four-layer tailings soil cover
- An extensive water quality monitoring program

Traffic. Expansion of the tailings storage area will not result in expanded employment at the mine. Employment is forecast by the mining company to remain at approximately 400 employees. The marine commute from the Gitkov dock at Auke Bay to the mine dock at Young Bay will remain the same. Consequently, no change or increase in existing traffic within the roaded service area is anticipated as a result of this action.

Lighting. The Greens Creek mine operates 24 hours a day, 7 days a week, 365 days a year. During nighttime operations, and during operations in the winter months, on-site lighting will be used at the tire-washing station and could be placed elsewhere on the site to aid trucks that are hauling tailings. This light will be visible from Hawk Inlet, but will not be visible from the roaded service area.

Safety. Greens Creek Mining Company has implemented a mining and worker safety program beyond the minimum requirements of the Mine Safety and Health Administration (MSHA). All mine operations except for the ferry transportation facility are outside of the roaded service area. No changes to transportation are proposed with the development which would lead to impacts within the roaded service area.

Dust. Tailings are composed of silt-sized particles and have a moisture content of approximately 12%. This is the ideal percentage for placement and compacting. Though the tailings are moist, precautions are still taken to mitigate wind-borne dispersal. Tailings are transported by covered truck to the Tailings Disposal Facility and trucks are required to exit through a high-pressure tire-washing station that hoses down the tires, rims and lower bodies of vehicles. Tailings are placed on specific locations of the pile, are mechanically spread into 18-inch lifts, then compacted with a vibratory roller. The resulting hard, smooth surface is resistant to airborne erosion. The sloped perimeter portions of the site are initially covered in argillite (a net neutralizing waste rock) or peat moss, then hydro-seeded with a combination of grass and clover, or layered with coarse rock, to hold the surface material in place.

Dry, windy weather conditions, primarily in the winter months, can result in the dispersal of tailings from the site as a localized condition. Greens Creek Mine has an extensive dust monitoring program, implemented in 2007. Loading concentrations of dust have decreased since then due to a variety of abatement measures voluntarily implemented by mine personnel. Dust impacts have been localized and are not expected to have any discernable effect within the roaded service area approximately 18 miles away.

Surface Subsidence. Expansion of the tailings disposal area is not anticipated to result in surface subsidence. The tailings pile itself will reach a height of 330 feet above sea level. Porous areas and voids are significantly minimized by careful, thin placement of lifts which are continuously compacted, while up to fifty percent of the mine tailings and waste rock are back-filled within mine tunnels. The resulting tailings pile will not be susceptible to subsidence.

Avalanches. No avalanches have occurred within the mine lease area since the original construction of the mine began in 1987, nor are any avalanche chutes mapped with the mine lease area. There are

no known avalanche chutes along the routes used by Greens Creek on Admiralty Island. There are probable avalanche chute areas on the opposite (south) side of Greens Creek from the road, near the mine and mill. Avalanche events, if they were to occur, would have no physical impact within the roaded service area.

Landslides. The areas most likely for landslides are in the steep, up-valley creek drainages, such as the location of the mine portal on Greens Creek. Localized events, if they were to occur, would have no physical impact within the roaded service area.

Erosion. The tailings pile is designed and constructed to minimize water penetration. Over the course of time, water will penetrate the tailings pile and flow through it, but at an incremental pace, not at an erosive pace. No erosion impacts related to the proposed action will occur within the roaded service area.

Staff recommends that Summary Approval Criterion Five is met.

6. ***49.65.155(b)(2)(A)(iv). The proposed change in mining operations has undergone or is undergoing environmental review and approval by one or more federal agencies, state agencies, or both.***

The Final Environmental Impact Statement and Record of Decision were completed for the project in September 2013. The U.S. Forest Service acted as the lead agency for the project, with the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers as Cooperating agencies under 40CFR 1501.6. The Alaska Departments of Fish and Game, Natural Resources and Environmental Conservation, and City and Borough of Juneau Community Development Department served as coordinating agencies under a Memorandum of Understanding (MOU) to assist in development and review of the Draft and Final Environmental Impact Statements.

Staff finds that Summary Approval Criterion Six is met.

FINDINGS

The Director makes the following findings for each of the Summary Approval requirements:

1. The proposed activity is neither a new land use nor a separate development. The tailings storage area, in both its current and its proposed configuration, can be classified only under the "mining operations" category, 14.400, in the Table of Permissible Uses in CBJ 49.25.300. The Tailings Disposal Facility and related facilities are not a separate development. The facilities are located within the land area encompassing the mining operation, and are an integral part of the mining operation, for which a development permit already exists.
2. The mine is located entirely outside of the roaded service area.
3. The application material and subsequent material submitted by Greens Creek Mine is complete, and provides, or references in the Final Environmental Impact Statement, all of the information needed by the Director to make a Summary Approval determination.

4. The proposed change in mining operations will have no significant impact within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches or erosion.
5. The proposed change in mining operations has undergone environmental review and approval through the preparation of Draft and Final Environmental Impact Statements under the National Environmental Policy Act.

RECOMMENDATION

Based on an analysis of the proposed change in mining operations with regard to the standards in CBJ 49.65.155(b)(2)(A), the Director recommends that Summary Approval should be granted.

DEVELOPMENT PERMIT APPLICATION

Project Number	CITY and BOROUGH of JUNEAU	Date Received:
Project Name (City Staff to Assign Name)		

PROJECT / APPLICANT INFORMATION

Project Description
The Hecla Greens Creek Mine is requesting summary approval of the proposed expansion of our Tailings Disposal Facility (TDF) under the City and Borough's mining ordinance. A project description is attached.

PROPERTY LOCATION

Street Address	City/Zip
Admiralty Island	Juneau, AK 99801

Legal Description(s) of Parcel(s) (Subdivision, Survey, Block, Tract, Lot)
Greens Creek Mine (per CBJ Assesor's database)

Assessor's Parcel Number(s)
3A0101000010

LANDOWNER/ LESSEE

Property Owner's Name	Contact Person:	Work Phone:
United States Forest Service	Forrest Cole	907 228 6281
Mailing Address	**Home Phone:**	**Fax Number:**
648 Mission Street		907 228 6292
E-mail Address	**Other Contact Phone Number(s):**	
fcole@fs.fed.us	Chad VanOrmer 907 789 6202	

LANDOWNER/ LESSEE CONSENT

Required for Planning Permits, not needed on Building/ Engineering Permits

I am (we are) the owner(s)or lessee(s) of the property subject to this application and I (we) consent as follows:

A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission.
B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.

X _____ 6.17.2014
Landowner/Lessee Signature — Date

X _____
Landowner/Lessee Signature — Date

NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.

APPLICANT

If the same as OWNER, write "SAME" and sign and date at X below

Applicant's Name	Contact Person:	Work Phone:
Hecla Greens Creek Mining Company	Mike Satre	907-523-1410
Mailing Address	**Home Phone:**	**Fax Number:**
PO Box 32199 Juneau, Alaska 99803-2199	(c) 907-957-2149	
E-mail Address	**Other Contact Phone Number(s):**	
msatre@hecla-mining.com		

X _____
Applicant's Signature — Date of Application

---OFFICE USE ONLY BELOW THIS LINE---

STAFF APPROVALS

✓	Permit Type	***SIGN	Date Received	Application Number(s)
	Building/Grading Permit			
	City/State Project Review and City Land Action			
	Inquiry Case (Fee In Lieu, Letter of ZC, Use Not Listed)			
	Mining Case (Small, Large, Rural, Extraction, Exploration)			
	Sign Approval (If more than one, fill in all applicable permit #'s)			
	Subdivision (Minor, Major, PUD, St. Vacation, St. Name Change)			
	Use Approval (Allowable, Conditional, Cottage Housing, Mobile Home Parks, Accessory Apartment)			
	Variance Case (De Minimis and all other Variance case types)			
	Wetlands Permits			
	Zone Change Application			
	Other (Describe)			

***Public Notice Sign Form filled out and in the file.

Comments:

Permit Intake Initials

NOTE: DEVELOPMENT PERMIT APPLICATION FORMS MUST ACCOMPANY ALL OTHER COMMUNITY DEVELOPMENT DEPARTMENT APPLICATIONS

LARGE MINE PERMIT APPLICATION

(Urban)

Project Number	Project Name (15 characters)	Case Number	Date Received
		MLG20140001	6/20/14

LOCATION OF PROPOSED MINE: GREEN'S CREEK MINE

WILL THE PROPOSED MINING ACTIVITIES HAVE IMPACTS ON THE MINING AND EXPLORATION EXCLUSION DISTRICT? ☐ Yes ☐ No

IMPACTS:

DESCRIPTION OF ACTIVITY WHICH REQUIRES A MINING PERMIT: SUMMARY APPROVAL OF PROPOSED EXPANSION OF TAILINGS DISPOSAL FACILITY

PREVIOUS EXPLORATION NOTICES AND/OR MINING PERMITS? ☒ Yes ☐ No

Previous Case Number(s), if known:

UNIQUE CHARACTERISTICS OF LAND OR BUILDING(S):

WHAT IS THE TOTAL AREA TO BE DISTURBED? _____ acres

HAS A FINANCIAL WARRANTY BEEN ESTABLISHED? ☐ Yes ☐ No

AMOUNT $_____ WARRANTY HOLDER_____

CONTACT INFORMATION OF WARRANTY HOLDER:

TO BE COMPLETED BY THE APPLICANT

For more information regarding the permitting process and the submittals required for a complete application, please see the reverse side.

If you need any assistance filling out this form, please contact the Permit Center at 586-0770.

LARGE MINE PERMIT FEES

	Fees	Check No.	Receipt	Date
Application Fees	$1600.00			
Admin. of Guarantee	$			
Adjustment	$			
Pub. Not. Sign Fee	$			
Pub. Not. Sign Deposit	$			
Total Fee	$1600.00	30072	CDDS381	6/20/14

NOTE: MUST BE ACCOMPANIED BY DEVELOPMENT PERMIT APPLICATION *FORM*

Large Mine Permit Application Instructions

Applications for Large Mine Permits are reviewed by the Planning Commission as a Conditional Use permit at a public hearing. The permit procedure is intended to provide the Commission the flexibility necessary to make decisions tailored to individual applications. The Commission may stipulate conditions to mitigate external adverse impacts from proposed use. If it is determined that these impacts cannot be satisfactorily overcome, the permit shall be denied.

Pre-Application Conference: A pre-application conference is required prior to submitting an application. The applicant will meet with City & Borough of Juneau and Agency staff to discuss the proposed development, the permit procedure and to determine the application fees. To schedule a pre-application conference, please contact the Permit Center at 586-0770 or via e-mail at Permits@ci.juneau.ak.us.

Application: An application for a Large Mine Permit will not be accepted by the Community Development Department until it is determined to be complete. The items needed for a complete application are:

Forms: A completed Large Mine Permit Application and Development Permit Application form. The "land owner or lessee consent" signature is mandatory for all landowners on the Development Permit Application form.

Fees: The fee for a Large Mine Permit Application is $3,600.00, plus any special fee established pursuant to CBJ49.65.130. Any development, work or use done without a permit issued will be subject to double fees. All fees are subject to change.

Project Description: A detailed letter or narrative describing the proposed mining activities, which includes:

A. A map on a scale of 1:63,360, or a more detailed scale, a description of the mine site and affected surface; description and timetable of the proposed mining operation; including all roads, buildings, processing and related facilities;
B. A description and timetable of proposed reclamation of affected surface;
C. A description of proposals for the sealing of open shafts, adits and tunnels upon the completion or temporary cessation of mining operations;
D. A description of methods to be used to control, treat, transport and dispose of hazardous substances, sewage and solid waste;
E. A description of other potential environmental, health, safety and general welfare impacts, as well as impacts on neighboring property and measures to be taken to mitigate their adverse effects; and
F. A Socioeconomic Impact Assessment 49.65130(C)(1) through (2).

Supplemental Information: The application shall also contain:

A. Additional information prepared by the operator for its feasibility studies and mining plans, including information establishing the right to use the affected surface, labor force characteristics and timing, payroll projections, anticipated duration of the mining operation, construction schedules, infrastructure description, and other information reasonably requested by the department in the pre-application conference held pursuant to subsection 49.15.330(b); and
B. An Environmental Impact Statement if it is required by the National Environmental Policy Act.

Plans: All plans are to be drawn to scale and clearly show the items listed below:

A. Site plan, floor plan and elevation views of existing and proposed structures, describing the materials and colors proposed;
B. Existing and proposed parking areas, including dimensions of the spaces, aisle width and driveway entrances;
C. Proposed traffic circulation within the site including access/egress points and traffic control devices;
D. Existing and proposed lighting;
E. Existing and proposed landscaping with location, area, height and type of plantings; and
H. Existing physical features of the site (i.e. drainage, eagle trees, hazard areas, salmon streams, wetlands, etc.).

Document Format: All information that is submitted as part of an application shall be submitted in either of the following formats:

A. Electronic copies may be submitted by CD, DVD or E-mail in the following formats: .doc, .txt, .xls, .bmp, .pdf, .jpg, .gif, .xlm, .rtf or other formats pre-approved by the Community Development Department.
B. Paper copies may not be larger than 11" X 17" (Unless a larger paper size is preapproved by the Community Development Department).

Please consult with the Community Development Department to discuss whether additional information may be required for your application. The "Planner-On-Call" can be reached by contacting the Permit Center at 586-0770 or via e-mail at Permits@ci.juneau.ak.us.

ATTACHMENT 2

Application Review, Hearing Procedure and Permit Issuance: Once the application is determined to be complete, the Community Development Department will initiate the review and scheduling of the application. This process includes:

Review: Within 20-days of receipt of an application the Community Development Department (Department) will conduct a preliminary review of the application and schedule a meeting with the applicant/operator to request additional information and to establish a procedure/schedule for the coordinated review of the application with the review by other agencies.

Unless the operator agrees to an extension, within 90 days after the Department has received all additional information requested at the initial meeting described in 49.65.130(d) and the fee has been established, the Department shall complete its review of the application, unless an Environmental Impact Statement (EIS) is required by the National Environmental Policy Act (NEPA). The Department shall form a recommendation as to whether the permit should be approved and, if so, it shall make a recommendation on the amount of the financial warranty as provided in section 49.65.140. The Department's recommendation may include such conditions or stipulations as the Department deems to be reasonably necessary to mitigate any adverse environmental, health, safety or general welfare impacts which may result from the proposed mining operation. The Department's recommendations shall be provided to the operator and forwarded to the Planning Commission where the matter shall be placed on agenda for the next regularly scheduled meeting after notice has been published as provided in section 49.15.230. The application shall then be heard as a Conditional Use Permit application as provided in chapter 49.15, article III, as modified by this article.

If the department determines that the proposed mining operation does not meet the standards of sections 49.65.135 and 49.15.330, the Department shall advise the operator. The operator may then either withdraw its application or allow the Department's recommendation to be forwarded to the Planning Commission. If the application is withdrawn, it may be revised and submitted within 180 days upon payment of an additional processing fee as determined by the Department to be reasonably necessary to defray its cost of reviewing the revised application. Revised applications shall be processed in accordance with the procedures set forth in CBJ49.65.130 subsections (d), (e), (f) and (h).

Hearing: All Large Mining Permit Applications will be heard by the Planning Commission as a Conditional Use permit. Once the Planning Commission has determined the application, with stipulations or conditions as appropriate, satisfies the standards of CBJ49.65.135 and CBJ49.15.330, it shall approve the application and set the amount of the financial warranty.

Permit Issuance: The permit will not be issued until the applicant/operator has submitted a financial warranty in the amount set by the Planning Commission that is in a form satisfactory to the City and Borough of Juneau Attorney.

Please consult with the Community Development Department to discuss the review procedure required for your specific application. The "Planner-On-Call" can be reached by contacting the Permit Center at 586-0770 or via e-mail at Permits@ci.juneau.ak.us.

Public Notice Responsibilities: As part of the Conditional Use permitting process, all permit requests must be given proper public notice, which consists of the following:

Community Development Department: Will give notice of the pending Planning Commission meeting and its agenda in the local newspaper a minimum of 10-days prior to the meeting. Furthermore, the department will mail abutters notices to all property owners within 500-feet of the project site.

Applicant: Will post a sign on the site at least 14-days prior to the meeting. The sign shall be visible from a public right-of-way or where determined appropriate by the Department. Signs may be produced by the Community Development Department for a preparation fee of $50, and a $100 deposit that will be refunded in full if the sign is returned by 4:30 p.m. on the Monday following the scheduled hearing date. If the sign is returned later than the Monday after the Planning Commission meeting, but within two weeks of the meeting, $50.00 may be refunded. The applicant may make and erect their own sign. Please speak with the Community Development Department for more information.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

ATTACHMENT 2

Hecla Greens Creek Mining Company
P.O. Box 32199
Juneau, AK 99803-2199

Date: June 20, 2014

The Hecla Greens Creek Mine is requesting summary approval of the proposed expansion of our Tailings Disposal Facility (TDF) under the City and Borough's mining ordinance. We believe that our application meets the requirements for summary approval per CBJ Code 49.65.155(2)(A) as follows:

The mine and TDF is located completely outside of the roaded service area established in CBJ 01.30.320. The proposed expansion of the TDF is approximately 18 miles southwest of Juneau, and due to its location near Hawk Inlet is not visible from any part of the roaded service area. This ensures that there will be no additional impact from this proposed project within the roaded service area on habitat, sound, screening, drainage, traffic, lighting, safety, dust, surface subsidence, avalanches, landslides, or erosion.

During the pre-application meeting, questions regarding additional traffic impacts due to employees commuting to work within the roaded service area were posed. There will be no additional impact to traffic as expansion of the TDF will not result in expanded employment at the mine. Employment is forecasted to remain at approximately 400 employees and the daily marine commute to Admiralty Island from Gitkov Dock in Auke Bay will remain unchanged with 5 AM and 5 PM departures.

The proposed expansion has been the subject of a National Environmental Policy Act (NEPA) review that was coordinated by the United States Forest Service (USFS) and involved multiple federal and state agencies as well as the City and Borough of Juneau. The Record of Decision (ROD) and Final Environmental Impact Statement (FEIS) for the expansion was finalized in December of 2014. The project record for the NEPA process, including the ROD and FEIS may be found on the USFS website here: http://www.fs.usda.gov/wps/portal/fsinternet/!ut/p/c5/04_SB8K8xLLM9MSSzPy8xBz9CP0os3gDfxMDT8MwRydLA1cj72BTUwMTAwgAykeaxRtBeY4WBv4eHmF-YT4GMHkidBvgAI6EdIeDXlvfdrAJuM3388jPTdUvyA2NMMgyUQQAyrgQmg!!/dl3/d3/L2dJQSEvUUt3QS9ZQnZ3LzZfS000MjZOMDcxT1RVODBJN0o2MTJQRDMwODQ!/?project=32662

Hard copies of the ROD and FEIS were hand delivered to CDD on 6/2/14.

While the NEPA process is complete, prior to construction activities the TDF will require a US Army Corps of Engineers (USACOE) 404 Permit and a State of Alaska Department of Environmental Conservation (ADEC) Waste Management Permit. Details of the public notice and associated maps for the 404 permit and mitigation plan may be found here: http://www.poa.usace.army.mil/Missions/Regulatory/PublicNotices/tabid/3350/Article/478834/poa-1988-269-m5-hawk-inlet.aspx

The ADEC Waste Management permit has been issued for public comment on 6/20/14 and may be found here: http://dnr.alaska.gov/mlw/mining/largemine/greenscreek/pdf/gcwmp_draft.pdffound

ATTACHMENT 3

To support this request, we are also submitting the following materials:

1. CBJ Development Permit Application and $1,600 Fee
2. Project Description
3. 11x17 Map titled "Site Location Plan"
4. 11x17 Map titled "Tailings Storage Area General Arrangement"
5. 11x17 Map titled "Tailings Storage Area General Arrangement" with wetlands overlay.
6. 11x17 Aerial photo of site titled "Lease Boundary Points Hecla Greens Creek Mine"
7. Photo of existing waste water treatment plant.
8. Photo of existing truck wash.
9. Photo of TDF, waste water treatment plant and pond 7 looking south towards Hawk Inlet.
10. Photo of placement of tailings on existing TDF.
11. Draft ADEC Waste Management Permit
12. USACOE Public Notice for 404 Permit Application and Mitigation Plan
13. Mitigation Plan for USACOE 404 Permit

A site visit to support the application has also been requested and we have agreed to hold that on July 9 when we host the annual regulatory agency site visit at the mine.

Thank you for your consideration,

Mike Satre
Manager of Government and Community Relations
Hecla Greens Creek Mining Co.
PO Box 32199 Juneau, AK 99801
T: 907.523.1410
C: 907.957.2149
E-Mail: msatre@hecla-mining.com

ATTACHMENT 3

Project Description:

The Greens Creek Mine is located on Admiralty Island approximately 18 miles southwest of Juneau, Alaska. The mine has been in operation since 1989 with a 2-year period of temporary closure. Major mine facilities include the underground mine, mill, waste rock disposal areas, tailings disposal facility (TDF), a port site and camp, roads and power infrastructure among the mine components. The mine produces lead and zinc concentrates that also contain silver. The Greens Creek Mine is operated by Hecla Greens Creek Mining Company (HGCMC).

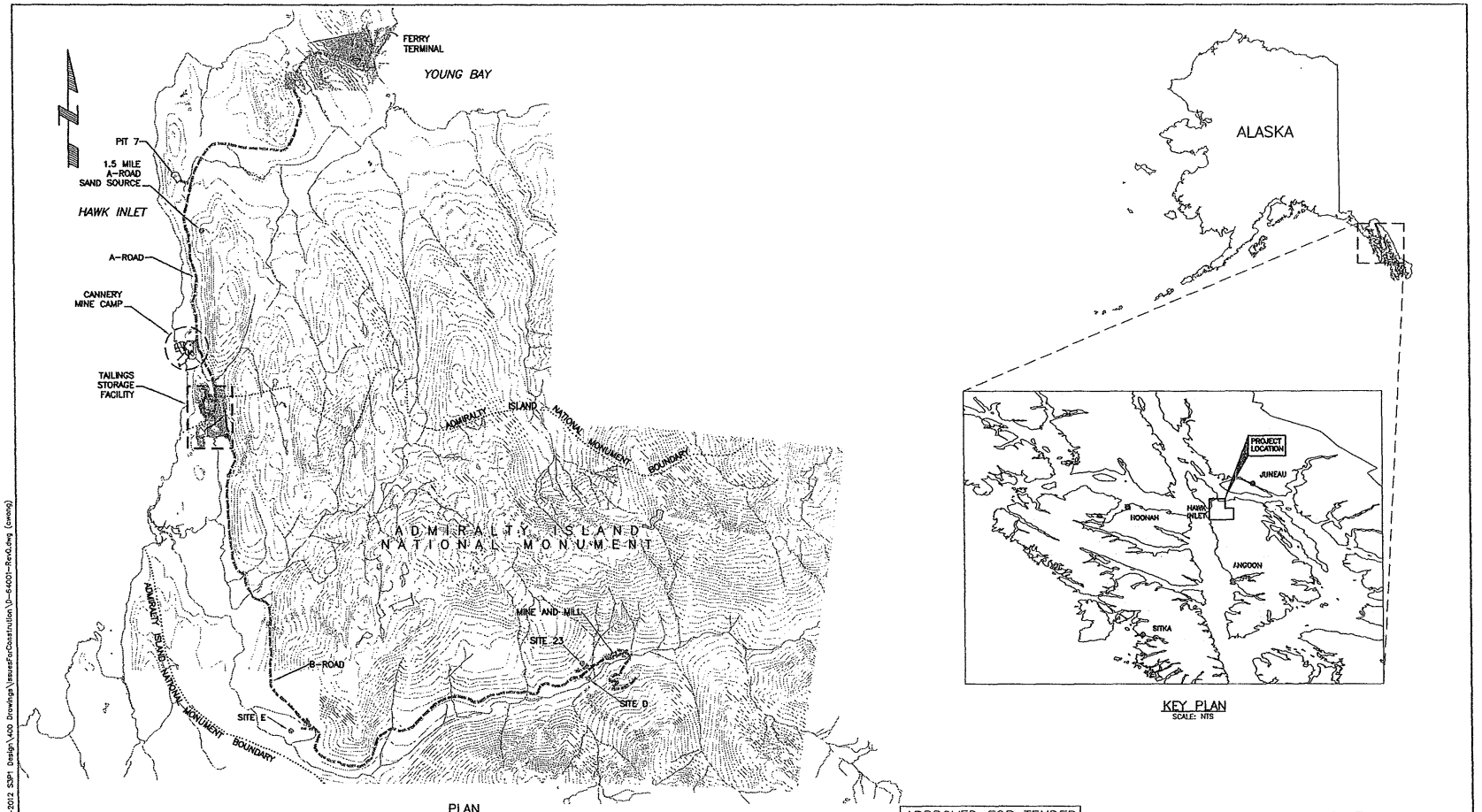
In 2010, HGCMC proposed a modification to its General Plan of Operations (GPO) to expand the TDF so that it can accommodate an additional 30 to 50 years' worth of tailings and waste rock. Tailings are disposed via dry stacking along with co-disposed waste rock. The TDF is currently approved to hold 5.3 million cubic yards of tailings and waste rock and cover approximately 62 acres. At the current mining rate, the TDF will be filled to capacity in 2019. In order to continue operations, HGCMC has requested an expansion of the TDF to hold an additional 14.2 million cubic yards of tailings and waste rock.

In December of 2013, the United States Forest Service (USFS) issued a Record of Decision (ROD) and Final Environmental Impact Statement (FEIS) that allowed for significantly smaller expansion that had been originally requested. The USFS selected a modified Alternative D as the preferred alternative which allows for 2.1 million cubic yards of tailings and waste rock to be placed resulting in approximately 10 more years of operation at the currently projected rates of fill. More specifically, the modified Alternative D allows for:

- Expansion of the existing tailings disposal facility (TDF) southward into the Monument;
- Development of a reclamation material storage area near the junction of the A and
- B roads, outside of the Monument;
- Development of a rock quarry north of the existing TDF, and access from within the existing facility, outside of the Monument;
- Development of a new water management pond south of the existing TDF and expansion of existing water management ponds; and
- Relocation of the B road and truck wheel wash facility to accommodate the TDF expansion.

The entire project record related to the FEIS may be found at the USFS website: http://www.fs.usda.gov/wps/portal/fsinternet/!ut/p/c5/04_SB8K8xLLM9MSSzPy8xBz9CP0os3gDfxMDT8MwRydLA1cj72BTUwMTAwgAykeaxRtBeY4WBv4eHmF-YT4GMHkidBvgAI6EdIeDXIvfdrAJuM3388jPTdUvyA2NMMgyUQQAyrgQmg!!/dl3/d3/L2dJQSEvUUt3QS9ZQnZ3LzZfS000MjZOMDcxT1RVODBJN0o2MTJQRDMwODQ!/?project=32662

ATTACHMENT 3



APPROVED FOR TENDER

SCALE A 0 5000 FT

NOTES:

1. BASE PLAN PROVIDED BY HGCMC, OCTOBER 2000.
2. CONTOUR INTERVAL IS 100 FT.
3. ELEVATIONS ARE IN FEET UNLESS OTHERWISE NOTED.
4. COORDINATES AND ELEVATIONS ARE REFERENCED TO MINE DATUM FOR TAILINGS FACILITY ONLY.

REVISION	DESCRIPTION OF REVISION	DATE (YYYY-MM-DD)	DRAWN	DESIGNED	CHECKED	APPROVED
0	APPROVED FOR TENDER	2013-12-19	CW	BD	LC	LM

AS A MUTUAL PROTECTION TO OUR CLIENTS, THE PUBLIC AND OURSELVES, ALL REPORTS AND DRAWINGS ARE SUBMITTED FOR THE CONFIDENTIAL INFORMATION OF OUR CLIENT FOR A SPECIFIC PROJECT AND AUTHORIZATION FOR USE AND/OR PUBLICATION OF MAPS, STATEMENTS, CONCLUSIONS OR ABSTRACTS FROM OR REGARDING OUR REPORTS AND DRAWINGS IS NOT GRANTED HEREIN BUT ONLY UPON APPLICATION TO AND WRITTEN APPROVAL FROM KLOHN CRIPPEN BERGER.

CLIENT: HECLA GREENS CREEK MINING COMPANY

Klohn Crippen Berger

PROJECT: TAILINGS STORAGE FACILITY STAGE 3 – PHASE 1 EXPANSION

TITLE: SITE LOCATION PLAN

SCALE	PROJECT NO.	DWG. NO.	REV.
AS SHOWN	M07802A64	D-64001	0

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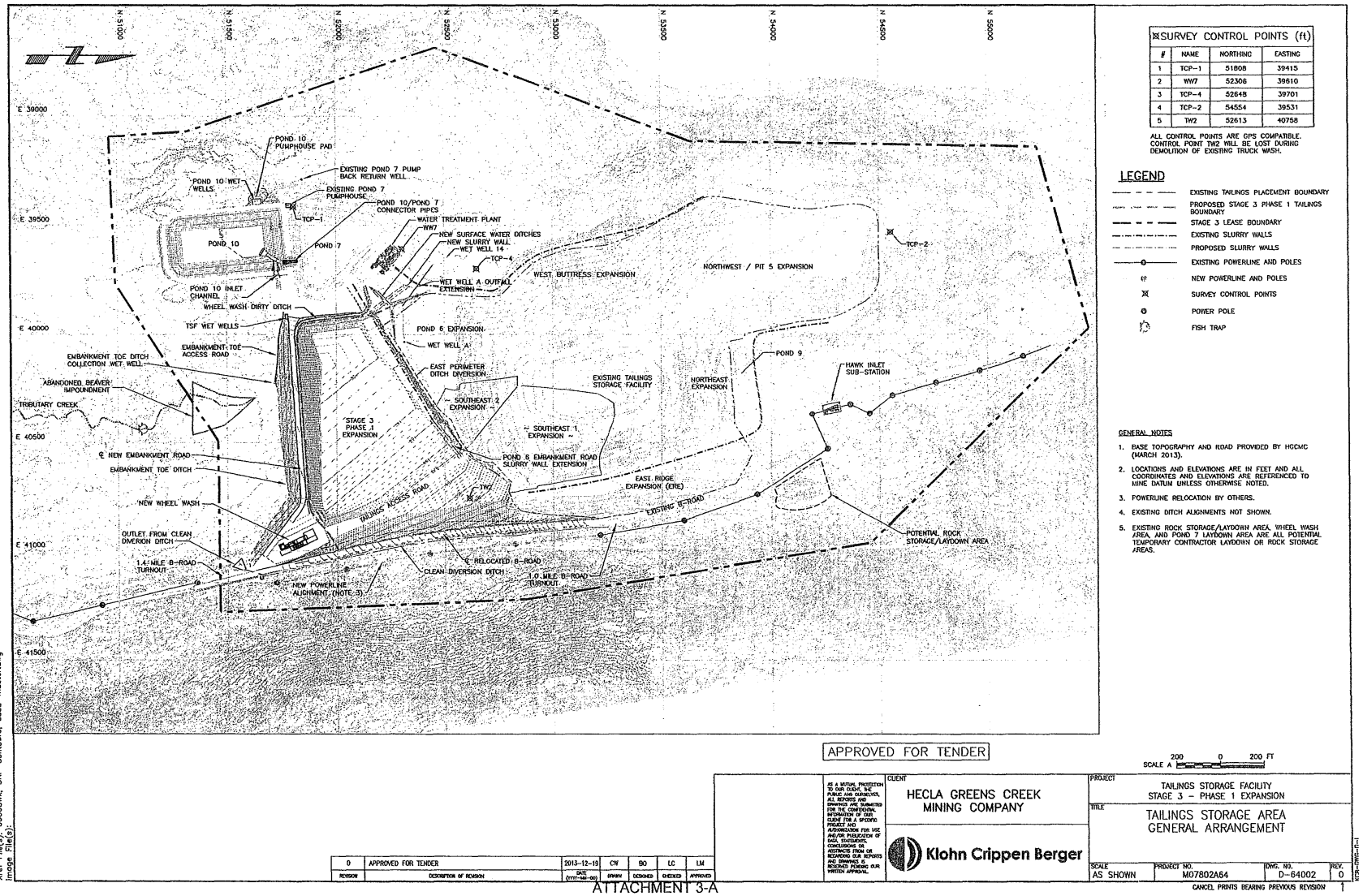
KCB-DWG-D-L

ATTACHMENT 3-A



SURVEY CONTROL POINTS (ft)

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2	WW7	52306	39610
3	TCP-4	52648	39701
4	TCP-2	54554	39531
5	TW2	52613	40758

ALL CONTROL POINTS ARE GPS COMPATIBLE. CONTROL POINT TW2 WILL BE LOST DURING DEMOLITION OF EXISTING TRUCK WASH.

LEGEND

- EXISTING TAILINGS PLACEMENT BOUNDARY
- PROPOSED STAGE 3 PHASE 1 TAILINGS BOUNDARY
- STAGE 3 LEASE BOUNDARY
- EXISTING SLURRY WALLS
- PROPOSED SLURRY WALLS
- EXISTING POWERLINE AND POLES
- NEW POWERLINE AND POLES
- SURVEY CONTROL POINTS
- POWER POLE
- FISH TRAP

GENERAL NOTES

1. BASE TOPOGRAPHY AND ROAD PROVIDED BY HGCMC (MARCH 2013).
2. LOCATIONS AND ELEVATIONS ARE IN FEET AND ALL COORDINATES AND ELEVATIONS ARE REFERENCED TO MINE DATUM UNLESS OTHERWISE NOTED.
3. POWERLINE RELOCATION BY OTHERS.
4. EXISTING DITCH ALIGNMENTS NOT SHOWN.
5. EXISTING ROCK STORAGE/LAYDOWN AREA, WHEEL WASH AREA, AND POND 7 LAYDOWN AREA ARE ALL POTENTIAL TEMPORARY CONTRACTOR LAYDOWN OR ROCK STORAGE AREAS.

APPROVED FOR TENDER

SCALE A: 200 0 200 FT

REVISION	DESCRIPTION OF REVISION	DATE (YYYY-MM-DD)	DRAWN	DESIGNED	CHECKED	APPROVED
0	APPROVED FOR TENDER	2013-12-19	CW	BO	LC	LM

AS A MUTUAL PROTECTION TO OUR CLIENT, THE PUBLIC AND OURSELVES, ALL REPORTS AND DRAWINGS ARE SUBMITTED FOR THE CONFIDENTIAL INFORMATION OF OUR CLIENT FOR A SPECIFIC PROJECT AND AUTHORIZATION FOR USE AND/OR PUBLICATION OF DATA, STATEMENTS, CONCLUSIONS OR ABSTRACTS FROM OR REFERRING TO OUR REPORTS AND DRAWINGS IS RESERVED PENDING OUR WRITTEN APPROVAL.

CLIENT: HECLA GREENS CREEK MINING COMPANY

Klohn Crippen Berger

PROJECT: TAILINGS STORAGE FACILITY STAGE 3 – PHASE 1 EXPANSION

TITLE: TAILINGS STORAGE AREA GENERAL ARRANGEMENT

SCALE	PROJECT NO.	DWG. NO.	REV.
AS SHOWN	M07802A64	D-64002	0

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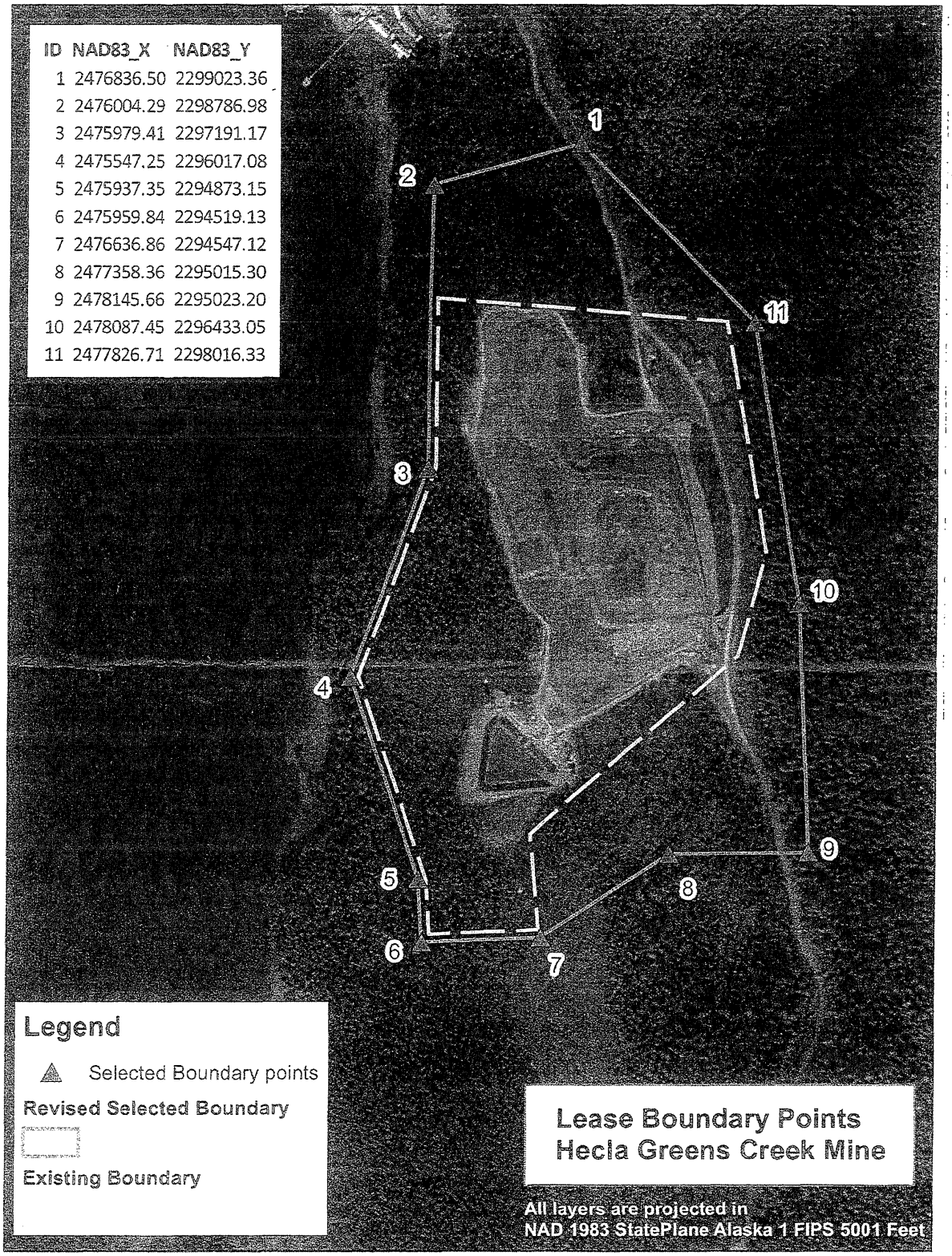
ATTACHMENT 3-A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Legend
Selected Boundary points
Revised Selected Boundary
Existing Boundary
Lease Boundary Points
Hecla Greens Creek Mine
All layers are projected in
NAD 1983 StatePlane Alaska 1 FIPS 5001 Feet
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Feet

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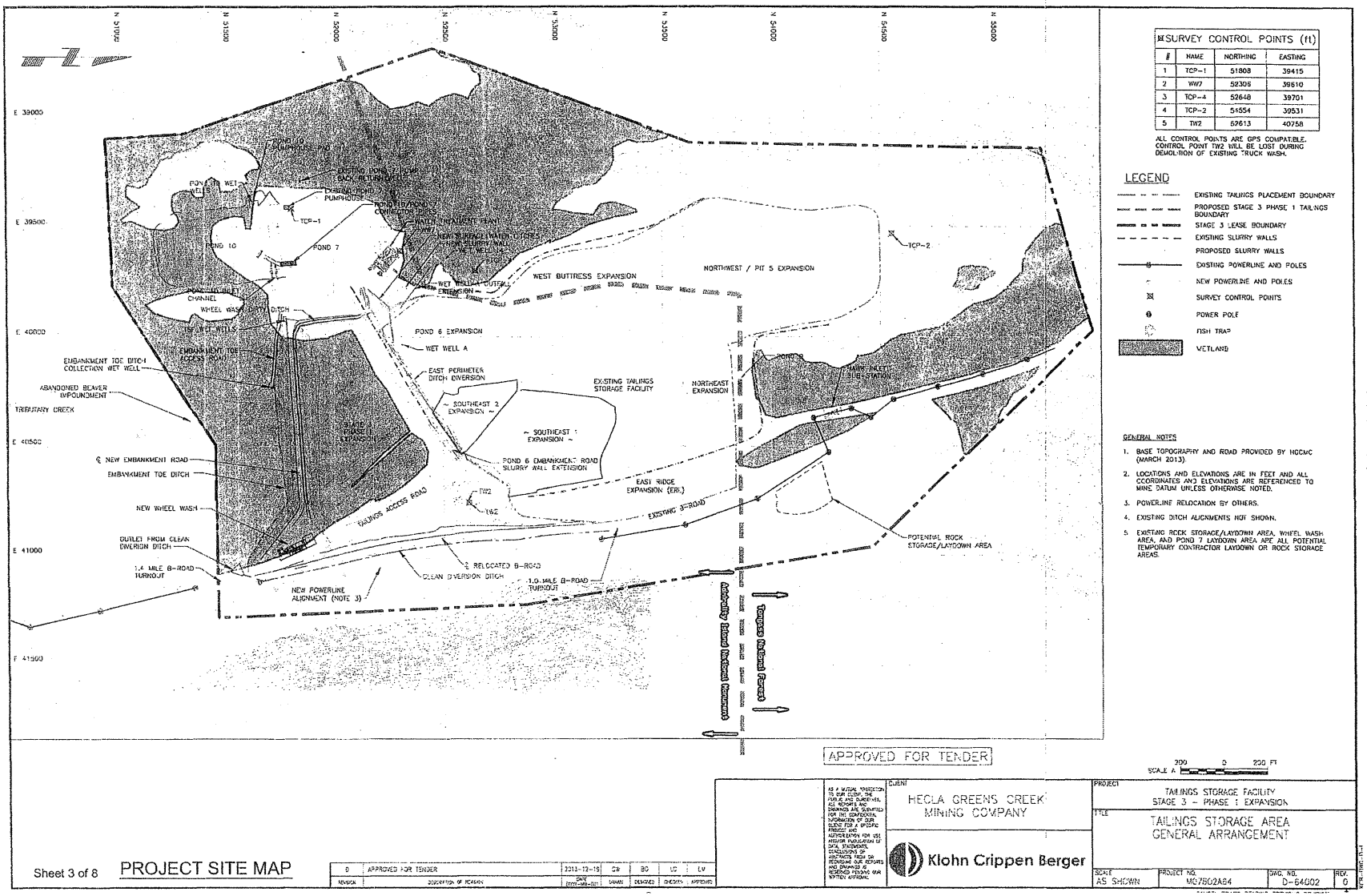

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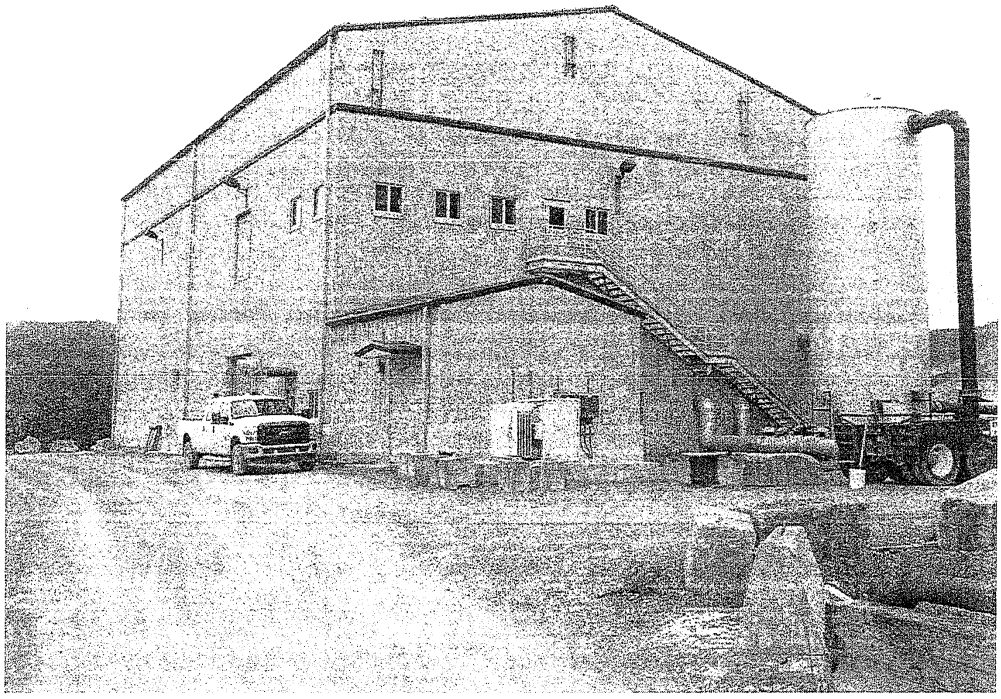

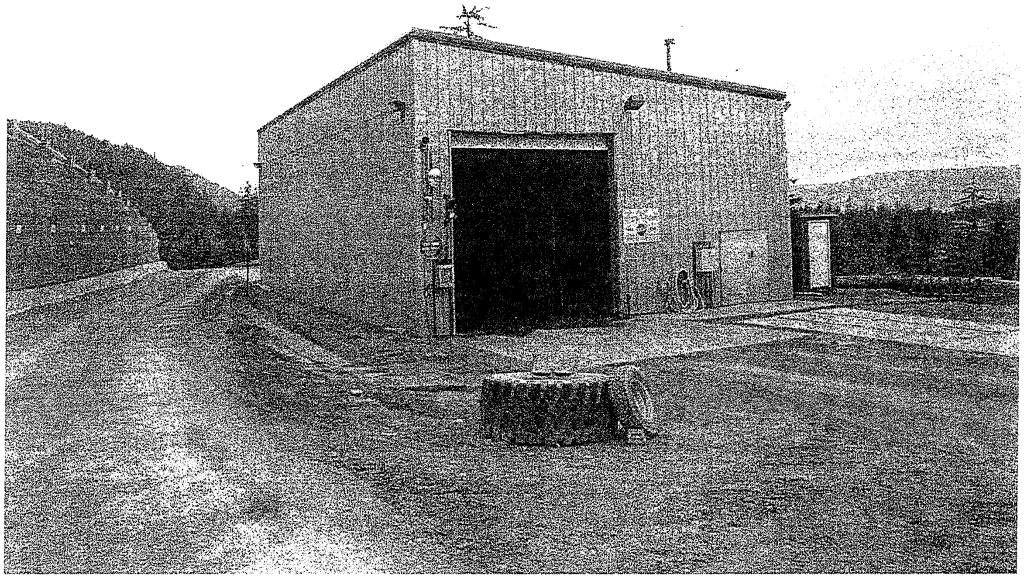

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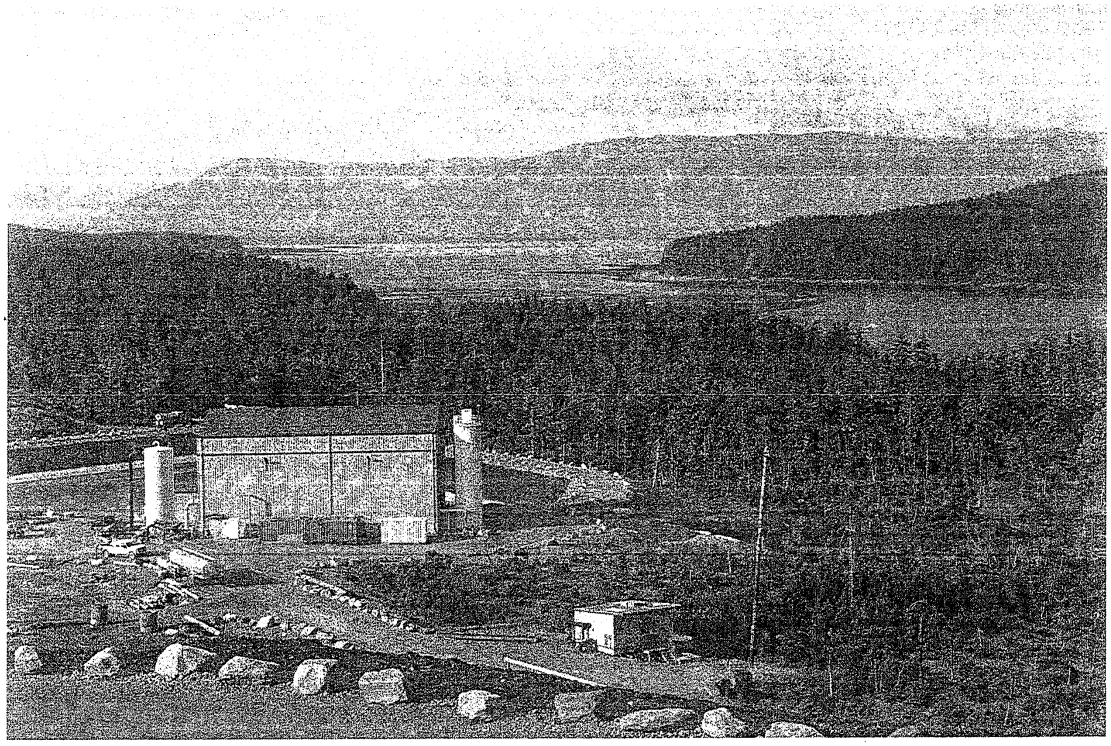
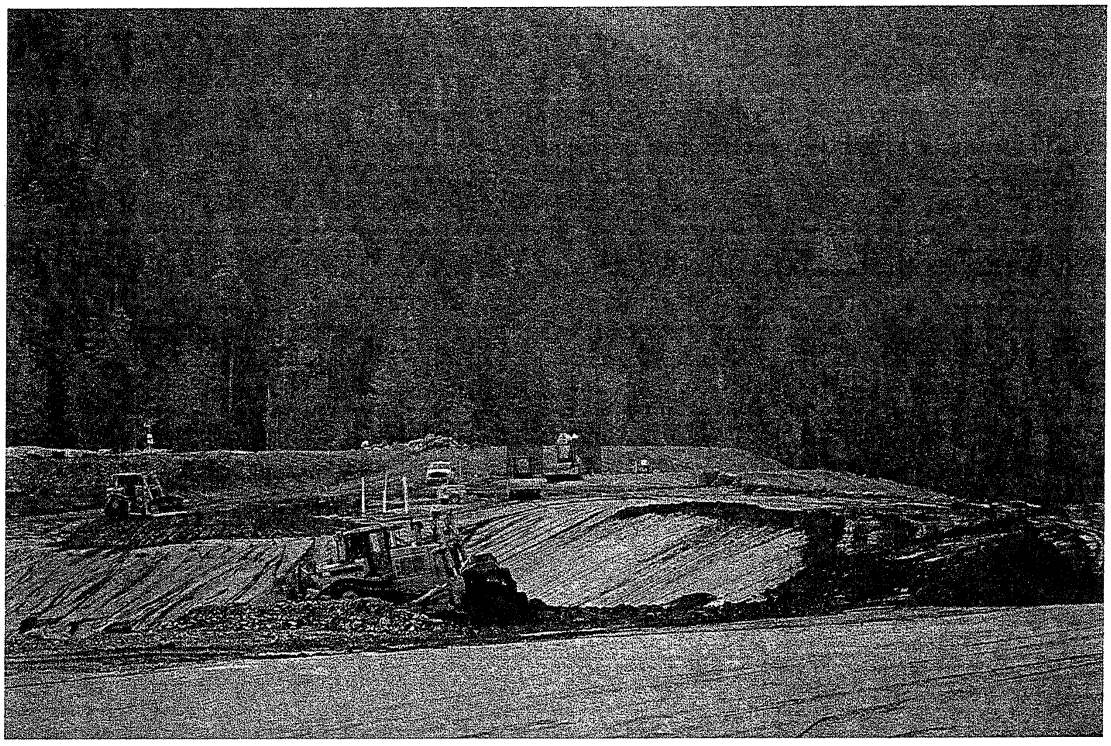




ATTACHMENT 3-B

PUBLIC NOTICE

Alaska Department of Environmental Conservation
Wastewater Discharge Authorization Program
410 Willoughby Avenue, Suite 303
Juneau, Alaska 99811-1800

Alaska's Department of Environmental Conservation (DEC), Division of Water received an application for reissuance of a State of Alaska, Waste Management Permit under Alaska Statutes 46.03 and the Alaska Administrative Code (AAC), 18 AAC 15, 18 AAC 60, 18 AAC 70, and 18 AAC 72.

Contact **Kyle Moselle, Large Project Coordinator**
ADNR / Office of Project Management & Permitting
400 Willoughby Avenue
Fairbanks, AK 99801
907-465-6849
kyle.moselle@alaska.gov

Public Notice Start **June 20, 2014**

Public Notice End **July 21, 2014**

RECEIVED
JUN 2 0 2014
DEC/DOW/CONTRACTS

Permit Draft Waste Management Permit No. 2014DB0003

Applicant Hecla Greens Creek Mining Company
Greens Creek Mine
P.O. Box 32199
Juneau, Alaska 99803-2199

Project Greens Creek Mine is an underground lead, zinc, silver, and gold mine. Containment and disposal of mine tailings, waste rock, and other mine-related wastes are subject to regulation under a DEC Waste Management Permit.

Location Greens Creek Mine is located 18 miles southwest of Juneau, Alaska near Hawk Inlet on northern Admiralty Island with federal and patented.

The DEC has tentatively determined to reissue a permit to the above listed applicant.

Public Comments

Written comments on the proposed permit must be submitted within 32 days of the first publication of this public notice or no later than July 21, 2014. Please direct written comments to the attention of Kyle Moselle at the address or email identified above. All comments should include the name, address, and telephone number of the commenter and a concise statement of comment on the permit condition(s) and the relevant facts upon which the comment is based. Comments of either support or concern which are directed at specific, cited, permit requirements

ATTACHMENT 3-C

are appreciated. Comments must be postmarked on or before the expiration date of the public notice.

Any interested person may submit a written request for a public hearing. A request for a public hearing shall state the nature of the issues to be raised, as well as the requester's name, address and telephone number. DEC will hold a public hearing if it determines that good cause exists.

DEADLINE FOR WRITTEN COMMENTS
July 21, 2014 at 5:00 pm AKDT

Administrative Record

Copies of the proposed permit and application documents are available for public review at Juneau and Fairbanks DEC offices. Please contact either office to review hard copies of available documents.

410 Willoughby Avenue, Suite 303
Juneau, AK 99811
907-465-5300

610 University Avenue
Fairbanks, AK 99709
907-451-2100

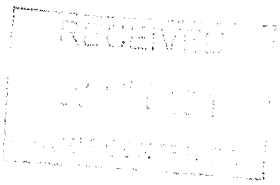
These documents are also accessible at the following State website.
http://www.dnr.alaska.gov/mlw/mining/largemine/greenscreek/

The public notice bulletin may be viewed at the DEC Public Notices website,
http://www.dec.state.ak.us/public_notices.htm

For other inquiries, contact Kyle Moselle at the address listed above, email kyle.moselle@alaska.gov, or call **907-465-6849**.

Disability Reasonable Accommodation Notice

The State of Alaska, Department of Environmental Conservation complies with Title II of the Americans with Disabilities Act of 1990. If you are a person with a disability who may need a special accommodation in order to participate in this public process, please contact Deborah Pock at 907-269-0291 or TDD Relay Service 1-800-770-8973/TTY or dial 711 within 32 days of publication of this notice to ensure that any necessary accommodations can be provided.



ATTACHMENT 3-C

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
610 UNIVERSITY AVENUE
FAIRBANKS, AK 99709-3643

WASTE MANAGEMENT PERMIT

for

Hecla Greens Creek Mining Company

Permit No. 2014DB0003 **Date: Pending**

This draft Waste Management Permit is proposed to be issued to Hecla Greens Creek Mining Company (HGCMC), P.O. Box 32199, Juneau, Alaska 99803-2199 for disposal of wastes from the Greens Creek Mine as described in permit section 1. HGCMC is a wholly owned subsidiary of Hecla Mining Company. The Greens Creek Mine facilities are located near Hawk Inlet on northern Admiralty Island, in the Tongass National Forest, approximately 18 miles southwest of Juneau, Alaska. The mine site is situated partly within the Admiralty Island National Monument and completely within the municipal boundary for the City and Borough of Juneau. The land is comprised of federal and patented mining claims. This permit is authorized under the provisions of Alaska Statutes (AS) 46.03, and the Alaska Administrative Code (AAC), 18 AAC 15, 18 AAC 60, 18 AAC 70 and 18 AAC 72, as amended or revised, and other applicable state laws and regulations. This permit is effective **pending**, and expires after **pending**. This permit may be terminated or modified according to AS 46.03.120. This permit succeeds Waste Management Permit No. 0211-BA001.

This permit is subject to the conditions and stipulations contained in sections 1 through 6, and it incorporates by reference *Hecla Greens Creek General Plan of Operations Appendix 1 Integrated Monitoring Plan* June 2014 (*IMP*), *Hecla Greens Creek General Plan of Operations Appendix 3 Tailings Disposal Facility Management Plan* June 2014 (*tailings facility SOPs*), *Hecla Greens Creek General Plan of Operations Appendix 7 Integrated Waste Management and Disposal Plan* June 2014 (*solid waste management plan*), *Hecla Greens Creek General Plan of Operations Appendix 11 Waste Rock Management Plan* June 2014 (*waste rock management plan*), and *Hecla Greens Creek General Plan of Operations Appendix 14 Reclamation and Closure Plan* June 2014 (*reclamation and closure plan*). Changes to the documents incorporated herein must be approved by the Alaska Department of Environmental Conservation (Department or DEC) if they affect this permit. All changes approved by the Department will become part of this permit.

After completing reclamation activities and terminating active wastewater treatment, the Department requires the permittee to conduct post-closure maintenance and monitoring for a minimum of 30 years. The permittee shall assess the conditions at the facility and respond accordingly throughout the post-closure care period. At the end of the post-closure period, the Department will determine whether post-closure care and monitoring should be extended beyond 30 years based upon the information collected by that time.

DRAFT

Wade Strickland
Program Manager

ATTACHMENT 3-C

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ATTACHMENT 3-C

1 PERMIT COVERAGE & ADOPTED REFERENCES

1.1 COVERAGE

Greens Creek Mine ore is mined via underground methods. Waste rock removed from the mine is disposed of in waste rock site 23 and the Tailings Disposal Facility (TDF). At the mill, the ore is ground and processed by flotation producing concentrates containing primarily lead and zinc with smaller portions of silver and gold. Flotation concentrates are thickened, filter pressed, and then trucked to the Hawk Inlet terminal for shipment off-site. Tailings from the flotation process are thickened and filter-pressed. The mill generates approximately 1,800 dry tons of filter-pressed tailings per day, or approximately 650,000 tons of tailings annually. Approximately half of the tailings are backfilled into the underground mine. The remainder of the dry tailings are covered and transported to the TDF, which is located in the upper reaches of the Tributary Creek drainage.

1.1.1 This permit covers disposal of waste or monitoring at the following sites. This permit does not authorize the discharge of wastewater to surface water. Surface water discharges from the Greens Creek Mine are authorized under Alaska Pollutant Discharge Elimination System Permit (APDES) AK0043206.

1.1.1.1 Tailings Disposal Facility (TDF)

The TDF consists of a drystack tailings pile and runoff surge pond situated adjacent to one another. In 2003, an Environmental Impact Statement (EIS) for expansion of the TDF was finalized by the U.S. Forest Service and followed by approval to expand the TDF to a footprint of approximately 62 acres. On August 30, 2013, an EIS for another expansion of the TDF was completed. Afterward, the U.S. Forest Service approved plans to expand the TDF footprint southward by about 18 acres. The projected total area of the TDF is about 80 acres, and it serves as the final disposal site for tailings, waste rock, and other solid waste as allowed in section 2.1.

1.1.1.2 Site 23

Site 23, in addition to the TDF and the underground workings, is one of three active areas that receive waste rock. Its ultimate footprint is 11 acres and has an estimated capacity of 1.2 million cubic yards. At closure or before, all Site 23 waste rock will be relocated to the TDF for final co-disposal.

1.1.1.3 Underground Mine Workings

Waste rock, tailings, and other wastes as specified in section 2.1 may be disposed underground in the mine workings.

1.1.1.4 Inactive Waste Rock Disposal Sites

The following sites contain but no longer receive waste rock. Removal of all waste rock from these sites for final disposal underground or in the TDF is either underway or forthcoming. All waste rock in Sites 1350, C, D, and E will eventually be removed and either placed underground or in the TDF for final disposal.

1.1.1.4.1 **Site 1350** has a footprint of about 5 acres and is no longer open for disposal of waste rock. This site originally stored about 100,000 cubic

yards of waste rock. Its waste rock is being relocated to Site 23 for temporary storage and final disposal underground is ongoing.

1.1.1.4.2 **Site C** has a footprint of about two acres and is no longer open for disposal of waste rock. This site stores about 48,000 cubic yards of waste rock, which will be relocated for final co-disposal in the TDF or permanent disposal underground.

1.1.1.4.3 **Site D** has a footprint of about seven acres and is no longer open for disposal of waste rock. This site stores about 300,000 cubic yards of waste rock that will be relocated for final co-disposal in the TDF or permanent disposal underground.

1.1.1.4.4 **Site E** has a footprint of about nine acres and is no longer open for disposal of waste rock. This site stores about 365,000 cubic yards of waste rock that is actively being relocated for final co-disposal in the TDF.

1.1.1.5 Pond 7

Pond 7 is a settling pond that collects storm water, TDF runoff, TDF underflow, and mine water before it is treated and discharged. It is located hydrologically and topologically downgradient and southwest of the TDF. The Pond 7 containment structure is classified as a Class 3 low hazard potential dam.

1.1.1.6 Fresh Water Monitoring Sites

The Fresh Water Monitoring Program (FWMP) contained in *Hecla Greens Creek General Plan of Operations Appendix 1 Integrated Monitoring Plan* designates locations for monitoring the mine's impacts on fresh water quality.

1.1.2 This permit also contains geochemical monitoring requirements for waste rock, construction rock, and tailings to characterize metal leaching and acid rock drainage potential; geotechnical monitoring to evaluate stability of disposal sites; biological monitoring to assess any potential impacts on the fresh water aquatic ecosystem, and stipulations on chemical storage and containment.

1.1.3 The Department may set or modify permit conditions based on monitoring results or changes in facility processes according to permit amendment or modification procedures.

1.2 ADOPTED REFERENCES

1.2.1 In addition to the stipulations in this permit, the permittee shall adhere to the applicable requirements of 18 AAC 15 Administrative Procedures,18 AAC 60 Solid Waste Management Regulations, 18 AAC 70 Alaska Water Quality Standards (WQS), and 18 AAC 72 Wastewater Disposal. The permittee shall also adhere to Department-approved plans authorized under the permit. When the terms of this permit differ from the terms of Department-approved project documents adopted by reference in this section, the most recent term with written Department approval is controlling. If there is doubt as to which conflicting term is newer, this permit shall control. The Department-approved plans adopted by reference in this section must be updated incorporating any changes necessary to be consistent with

the terms of this permit, and these plans may be revised provided that written Department approval is received. Department-approved plans adopted by reference into this permit include the following documents:

1.2.1.1 *Hecla Greens Creek General Plan of Operations Appendix 1 Integrated Monitoring Plan* June 2014 (*IMP*),

1.2.1.2 *Hecla Greens Creek General Plan of Operations Appendix 3 Tailings Disposal Facility Management Plan* June 2014 (*tailings facility SOPs*),

1.2.1.3 *Hecla Greens Creek General Plan of Operations Appendix 7 Integrated Waste Management and Disposal Plan* June 2014 (*solid waste management plan*),

1.2.1.4 *Hecla Greens Creek General Plan of Operations Appendix 11 Waste Rock Management Plan* June 2014 (*waste rock management plan*), and

1.2.1.5 *Hecla Greens Creek General Plan of Operations Appendix 14 Reclamation and Closure Plan* June 2014 (*reclamation and closure plan*).

2 SPECIFIC CONDITIONS

2.1 ACTIVE WASTE DISPOSAL FACILITIES

2.1.1 All Active Waste Disposal Facilities - Waste disposal is permitted in three areas (TDF, Site 23, and underground mine workings) listed in section 2.1 provided that the conditions of this permit are satisfied.

2.1.1.1 Limitations

2.1.1.1.1 Except as otherwise authorized in an APDES permit, the permittee shall control and treat onsite surface water, groundwater and seepage as necessary to prevent offsite water quality exceedances.

2.1.1.1.2 The permittee shall ensure that all wastes are deposited in a manner that will not damage or otherwise jeopardize the integrity of containment.

2.1.1.1.3 Activities at the site that will cause a greater amount of waste material to be treated and disposed than considered in this section of the permit are prohibited without the prior approval by the Department. This condition excludes mining and milling rates which are not considered in this section.

2.1.1.1.4 The following materials shall not be disposed onsite, unless approved in writing by the Department:

2.1.1.1.4.1. Laboratory wastes other than wash waters, neutralized acids and neutralized bases; however disposal or recycling of refinery slag, fire assay crucibles and cupels is permitted;

2.1.1.1.4.2. Discarded, unused chemical not associated with the beneficiation process; however chemicals that have been added through the beneficiation process may be disposed in the TDF or underground workings;

2.1.1.1.4.3. Contaminated soils, spill boom, liners used for the containment of spilled hazardous materials, chemicals used in the cleanup of spills or

other spill cleanup wastes other than chemicals used in the beneficiation process,

2.1.1.1.4.4. Uncombusted household waste;

2.1.1.1.4.5. Sewage solids that are untreated or have less than 10% solids by weight;

2.1.1.1.4.6. Asbestos waste;

2.1.1.1.4.7. Acute hazardous wastes, as defined by 18 AAC 60.990(157), including radioactive material, explosives, strong acids and untreated pathogenic waste; however, this prohibition does not preclude disposal of natural minerals found in mine rock or residual wastes included as byproducts of the beneficiation;

2.1.1.1.4.8. Fuels, oil, transformers, paint, or associated equipment and packing material; and

2.1.1.1.4.9. Glycol and solvents.

2.1.2 TDF – The primary function of the TDF is for disposal of drystack tailings. It must be designed, operated, and reclaimed as waste containment facility preventing any discharge of solids or liquids according to the *tailings facility SOPs* and *reclamation and closure plan*. The following conditions under section 2.1.2 apply to the TDF and its appurtenances.

2.1.2.1 The following inert wastes may be disposed in the TDF:

2.1.2.1.1 Settled solids from sumps, ditches, settling ponds, and degritting basins;

2.1.2.1.2 Incinerator ash and residue;

2.1.2.1.3 Ash from burning scrap wood;

2.1.2.1.4 Iron (drill steel, balls, empty cans, etc.);

2.1.2.1.5 Empty plastic and glass containers;

2.1.2.1.6 Inert, non-putrescible, domestic waste;

2.1.2.1.7 Construction debris;

2.1.2.1.8 Non-terne plated used oil filters that have been gravity hot-drained; and

2.1.2.1.9 Such other material as would otherwise be disposed of in an inert solid waste landfill without special handling.

2.1.2.2 Sewage solids may be disposed in the TDF provided that they

2.1.2.2.1 Contain no less than 10% solids by weight,

2.1.2.2.2 Are treated with lime so that a pH of 12 is maintained in the solids after one hour of contact before disposal, and

2.1.2.2.3 Are covered with at least six inches of cover material on the day of disposal.

2.1.2.3 Co-disposal of Class 4 waste rock in the TDF is prohibited.

2.1.2.4 Class 1 and Class 2/Class 3 waste rock from underground, Site 23, Site D, Site E, or construction rock may be co-disposed with tailings in the TDF.

2.1.2.5 The permittee shall ensure that wastes are deposited into the TDF in a manner that will not damage or otherwise jeopardize the integrity of the containment of the TDF.

2.1.2.6 Pond 7, an appurtenance of the TDF, must be operated in conformance with the current *Certificate of Approval to Operate a Dam* issued by Alaska Department of Natural Resources (ADNR), Division of Mining, Land and Water, Dam Safety and Construction Unit.

2.1.2.7 Water quality in FWMP monitoring stations associated with the TDF must not exceed WQS. If a WQS is exceeded for a given parameter, then corrective action as designated in section 2.5.3 must be implemented.

2.1.3 Site 23 – Site 23 must be designed, operated, and reclaimed as a waste containment facility preventing any discharge of solids or liquids according to the *waste rock management plan* and *reclamation and closure plan*. The following conditions under section 2.1.3 apply to Site 23 and its appurtenances.

2.1.3.1 Only Class1 and Class 2/Class 3[1] waste rock may be disposed at Site 23.

2.1.3.2 Waste rock that is neither Class 1 nor Class2/Class 3 may be temporarily stored at Site 23 provided that it is placed on an impermeable liner, containment and drainage controls prevent release of leachate and runoff, and written Department approval is received.

2.1.3.3 Surface water in the TDF monitoring stations, as designated in the *IMP*, must not exceed WQS. If there is an exceedance of a WQS, then corrective action as designated in section 2.5.3 must be implemented.

2.1.3.4 The permittee shall ensure that all wastes are deposited in a manner that will not damage or otherwise jeopardize the integrity of Site 23 containment.

2.1.4 Underground Mine Workings – The underground mine workings must be operated and reclaimed as a waste containment facility preventing any discharge of solids or liquids according to the *solid waste management plan*, *waste rock management plan*, and *reclamation and closure plan*. The following conditions under section 2.1.4 apply to the waste disposal in the mine.

2.1.4.1 The following wastes may only be disposed in the underground mine:

2.1.4.1.1 Class 4 waste rock, and

2.1.4.1.2 Tires.

2.1.4.2 The following inert wastes may be disposed in the underground mine:

2.1.4.2.1 Settled solids from sumps, ditches, settling ponds, and degritting basins;

[1] Waste rock is classified based on acid generation potential ranging from Class 1 waste rock (least acid generation potential) to Class 4 waste rock (greatest acid generation potential).

2.1.4.2.2 Incinerator ash and residue;

2.1.4.2.3 Ash from burning scrap wood;

2.1.4.2.4 Iron (drill steel, balls, empty cans, etc.);

2.1.4.2.5 Empty plastic and glass containers;

2.1.4.2.6 Inert, non-putrescible, domestic waste;

2.1.4.2.7 Construction debris;

2.1.4.2.8 Non-terne plated used oil filters that have been gravity hot-drained; and

2.1.4.2.9 Such other material as would otherwise be disposed of in an inert solid waste landfill without special handling.

2.2 SITE CONSTRUCTION, MAINTENANCE, & OPERATION

2.2.1 General

2.2.1.1 Changes that may have a significant impact on mine closure, reclamation, or water quality; information on engineering changes to the mill; new waste treatment processes; changes to solid waste disposal facilities, changes to ground and surface water interception, conveyance or monitoring systems; and the addition of new waste streams that discharge to TDF including Pond 7, Site 23, or underground workings must be submitted to the Department and approval must be obtained prior to any such changes or discharges.

2.2.1.2 The permittee shall develop the site in accordance with Department-approved plans and amendments thereof, which are submitted by the applicant as required by this permit and referenced in section 1.2.1. Pollution prevention concepts shall be incorporated into operations plans for the project.

2.2.1.3 The permittee shall design, operate, and reclaim surface disposal facilities to minimize run-on of storm water.

2.2.2 Secondary Containment

2.2.2.1 Secondary containment of all hazardous substances, as defined at AS 46.03.826(5), must be impermeable to those stored hazardous substances.

2.2.2.2 The permittee shall provide and maintain secondary containment for all chemical mix tanks containing hazardous or toxic materials and new piping associated with that tankage. Secondary containment is considered to be 110% of the largest tank within a containment area or the total volume of manifolded tanks. The permittee must design and install secondary containment structures in a manner that ensures that solid waste and leachate will not escape from the structures. To prevent such discharges, facilities shall be maintained in good working condition at all times by the permittee.

2.2.3 Notification

2.2.3.1 The permittee shall notify the Department in writing at least 15 days before the introduction of a new chemical into the process or waste treatment streams. Safety Data Sheets on new chemicals must be forwarded to the Department at

time of notification and maintained onsite. Introduction of new chemicals into the process requires written Department approval.

2.2.3.2 Under 18 AAC 72.600, the permittee shall submit engineering plans to the Department at least 60 days before construction or modification of an applicable system, and receive Department approval of any changes that will significantly modify the quality or quantity of waste stream, the operation of a waste treatment component, or the disposal facilities.

2.2.3.3 With respect to any Department approved change as described in section 2.2.3.2, the permittee must submit to the Department within 90 days after completing construction of a significant modification to an existing process component:

2.2.3.3.1 As-built drawings of the process component(s) that show any changes of those aspects that would affect performance of that process component as required in 18 AAC 72.600,

2.2.3.3.2 A summary of the quality control activities that were carried out during construction, and

2.2.3.3.3 The revised operating plans that reflect modifications made during construction.

2.2.4 Fuel and Hazardous Substances

2.2.4.1 The permittee shall design and install all process piping and chemical mix tanks to allow for routine inspections for leaks. New process piping installed outside of the mill building must not be buried unless secondary containment is used that provides the ability to inspect for leaks.

2.2.4.2 The permittee shall maintain fuel handling and storage facilities in a manner that will minimize the discharge of hazardous substances.

2.3 MONITORING

2.3.1 The *IMP* dated June 2014, submitted by Hecla Greens Creek Mining Company (HGCMC) and approved by the Department, is incorporated into this permit. Future Department-approved changes to project monitoring will be included as modifications to the *IMP* and do not require re-issuance or modification of this permit. The *IMP* shall contain monitoring procedures to include the following and must be updated, as needed to conform to the permit, within 90 days of permit issuance.

2.3.1.1 Visually monitor the facilities for signs of damage or potential damage from settlement, ponding, leakage, instability, frost action, erosion, thawing of the waste, or operations at the site. Visual monitoring shall be at least weekly and documented monthly.

2.3.1.2 Monitor surface and groundwater near the site to ensure that WQS are not exceeded and that sample results are statistically valid.

2.3.1.3 Water chemistry analytical methods employed must be sensitive enough to determine compliance with for all applicable WQS. The minimum level of

quantification (ML) for a given parameter's measurement must be less than or equal to the most stringent applicable WQS for that substance.

2.3.1.4 Monitor fresh water quality as designated in the FWMP.

2.3.1.5 Conduct biological monitoring in Greens Creek and Tributary Creek in accordance with the FWMP to document the continued health of the aquatic communities. The permittee shall measure:

2.3.1.5.1 The abundance and condition of juvenile fish;

2.3.1.5.2 Whole body concentrations of cadmium, copper, mercury, lead, selenium, silver, and zinc in juvenile fish tissue;

2.3.1.5.3 Periphyton biomass, estimated by chlorophyll-a concentrations; and

2.3.1.5.4 Abundance and community structure of benthic invertebrates.

2.3.1.6 Geochemical monitoring of Greens Creek Mine overburden, construction rock, waste rock, and tailings is required to ensure that there is low potential for production of leachate that is acidic or contains levels of metals that would contaminate surface or groundwater.

2.3.1.7 Monitor the geotechnical stability of the TDF and Site 23.

2.3.1.8 Monitor amounts and geochemistry, including numerical classification where applicable, of waste rock and tailings disposed.

2.3.1.9 Water flow and management monitoring is required to account for process water discharged to the Pond 7, process water recycled to the mill, storm water entering Pond 7, flow under the TDF into Pond 7, water levels in piezometers, and meteorology.

2.3.1.10 Signs of stress to wildlife associated with facility activities must be monitored.

2.3.2 The permittee must develop a quality assurance project plan (QAPP) for all sampling required by this permit. The QAPP may be contained in the *IMP*. The QAPP, or the QAPP portion of the *IMP*, must be completed within 60 days of the effective date of this permit and made available upon request. Any changes made to the existing QAPP shall be completed according to section 2.3.2.3.

2.3.2.1 The QAPP must be designed to assist in planning for the collection and analysis of water samples in support of the permit and in explaining data anomalies when they occur and the QAPP must be formatted as specified in the most recent edition of Elements of a Tier 2 Water Quality QAPP by DEC, Division of Water, Water Quality Standards, Assessment, and Restoration Program, Quality Assurance Section.

2.3.2.2 Throughout all sample collection and analysis activities, the permittee must use chain-of-custody procedures described in the most recent edition of Elements of a Tier 2 QAPP by DEC, Division of Water, Water Quality Standards, Assessment, and Restoration Program, Quality Assurance Section.

2.3.2.3 The permittee must amend the QAPP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAPP.

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2.3.2.4 A copy or copies of the QAPP must be kept onsite and made available to the Department upon request.

2.3.3 The permittee must monitor Pond 7 in conformance with current *Certificate of Approval to Operate a Dam* issued by ADNR, Division of Mining, Land and Water, Dam Safety and Construction Unit.

2.3.4 Samples taken as required by section 2.3 shall be analyzed in conformance with the most recent *IMP* and QAPP submitted by HGCMC, as approved by the Department.

2.3.5 Maintenance of inspection and sampling logs and procedures for processing, consolidating, and reporting inspection and sampling data shall be in conformance with the *IMP* and QAPP submitted by HGCMC, as approved by the Department.

2.3.6 Groundwater and surface water monitoring and corrective action monitoring shall be in accordance with section 2.5, 18 AAC 60 Solid Waste Management Regulations, and the *IMP* and QAPP submitted by HGCMC, as approved by the Department.

2.3.7 The Department may modify monitoring requirements, including the establishment of additional compliance points in response to trends showing changes in the concentration of parameters being monitored.

2.3.8 If the permittee monitors any influent, effluent, receiving water, or solid waste characteristic, with the exception of monitoring associated with a wastewater discharge permit, or more frequently than required, the permittee shall notify the Department that the additional monitoring has occurred in the quarterly report for the period when the monitoring has occurred. The results of such monitoring shall be available for inspection by the Department at the project site, or other location proposed by the permittee and agreed upon by the department. The permittee shall provide copies of the results to the Department upon request.

2.4 REPORTING

2.4.1 When a statistically significant increase in the concentration of a constituent above a WQS is discovered at a groundwater or surface water monitoring location, or if noncompliance with a requirement set out in sections 2.1 or 2.2 is discovered, the permittee shall verbally notify the Department no later than the end of the next working day after discovery, and shall conduct corrective actions according to section 2.5.3.

2.4.2 The permittee shall provide the Department with quarterly monitoring reports summarizing inspection and monitoring results required in section 2.3. Reports shall satisfy the following conditions.

2.4.2.1 Due Dates - Reports for the first three calendar quarters are due within 60 days after the quarter ends, and the report for the fourth calendar quarter shall be submitted by March 1st of the following year.

2.4.2.2 Form – Reports shall be provided in electronic form using commercially available software or according to other electronic reporting requirements approved by the Department. Paper copies of the reports are not required unless specifically requested.

2.4.2.3 Content - Reports shall contain a narrative portion discussing data and

information collected during the preceding quarter.

2.4.2.4 Graphing - Reports shall present water quality data in graphical form indicating trends as well as the margin of compliance with limits.

2.4.2.4.1 Graphs of concentration measurement versus time must include the past five years of data, if available, and may contain all historic data.

2.4.2.4.2 The graphs must also include the parameter, units, and applicable permit limit or WQS.

2.4.2.4.3 Multiple stations, identified using symbols in a legend, may be included in the same graph.

2.4.2.4.4 Scales shall be proportioned to display the limit or WQS, as indicated by a highlighted line, near the top of the graph or when data exceeds the limit, the maximum value shall be near the top of the graph.

2.4.2.4.5 Formatting shall allow addition of new data to each graph's cumulative data when producing the next quarterly report.

2.4.2.4.6 For graphical purposes, non-detect values shall be plotted at one half the method detection limit (MDL), and values between the ML and MDL shall be plotted at the value of the qualified measurement.

2.4.3 Annual Report - In addition to satisfying the requirements of section 2.4.2, the fourth calendar quarter report serves as the annual report. The annual report shall:

2.4.3.1 Be submitted to the Department by April 15th of the following year;

2.4.3.2 Contain an electronic copy (preferably Excel) of the water quality data for the reporting year, including the past five years' data, if available, and may contain all historic data in spreadsheet form. When a value is less than the ML, it must be identified as less than the ML, and the ML must be provided. Non-detect values must be identified as less than the MDL or non-detect and the MDL must be provided in the electronic water quality data spreadsheets;

2.4.3.3 Address the adequacy of the financial responsibility including, but not limited to, significant changes in reclamation activity costs, concurrent reclamation, expansion or other changes to the operation of the facility;

2.4.3.4 Be presented at an annual meeting with the Department and open to the public; and

2.4.3.5 Be submitted to the Department at least two weeks prior to the annual meeting.

2.4.4 The permittee shall provide the Department with copies of any amendments to the plan of operations, including the *reclamation and closure plan*, when they affect the waste disposal operations authorized by the permit.

2.4.5 All records and information and reports resulting from the monitoring activities required by this permit, including but not limited to all records of analyses performed, calibration and maintenance of instrumentation, and recordings from continuous monitoring instrumentation, shall be retained in Alaska for observation by the Department for a minimum of five years. Upon request from the Department,

the permittee shall submit certified copies of such records.

2.4.6 Any onsite wildlife casualties associated with facility activities shall be reported within one working day of discovery to the Department.

2.4.7 All printed reports submitted under the requirements of this permit shall be sent to:

Dept. of Environmental Conservation
Division of Water, Compliance Program
555 Cordova St.
Anchorage, AK 99501

2.4.8 Knowingly making a false statement, by the permittee, the operator or other employees, including contractors, on any such report may result in the imposition of criminal penalties as provided under AS 46.03.790.

2.5 CORRECTIVE ACTIONS

2.5.1 The permittee shall comply with 18 AAC 60.815 if the visual monitoring program in section 2.3.1.1 discovers damage or potential damage to the waste disposal-related facility that could lead to water quality violations.

2.5.2 When a statistically significant increase in a constituent concentration above the background water quality in any of the water sampling locations is discovered, the permittee shall comply with 18 AAC 60.820-860. Statistical significance shall be determined using one of the methods outlined in 18 AAC 60.830(h). The permittee shall comply with the notification requirements in 18 AAC 60.850(c) upon determining a statistically significant increase in a constituent concentration.

2.5.3 For a single constituent, when a statistically significant increase in concentration is discovered at a water monitoring station or if noncompliance with a requirement set out in sections 2.1 or 2.2 is discovered, the permittee shall:

2.5.3.1 Orally notify the Department no later than the end of the next working day;

2.5.3.2 Determine the extent of the exceedance or noncompliance;

2.5.3.3 In consultation with the Department and documented in writing, implement a plan to restore compliance and determine the cause of the exceedance or noncompliance;

2.5.3.4 Submit to the Department, within seven working days after an exceedance or noncompliance is verified by the permittee, a plan for corrective actions to prevent adverse environmental impacts and avoid future exceedances of a similar nature; and

2.5.3.5 Implement the corrective action plan as approved by the Department.

2.6 SUSPENSION OF OPERATIONS

2.6.1 Suspension of operations is defined as a suspension of mining and milling/processing activities for more than 90 days but less than three years. The length of time for the period of suspension may be extended beyond three years by written authorization from the Department. The permittee shall submit a conceptual suspension of operations plan to the Department within 90 days of permit issuance.

2.6.2 The permittee must notify the Department within three days of suspending operations. The notice shall provide the nature of and reason for the suspension and its anticipated duration.

2.6.3 No later than ten days after operations have been suspended, the permittee shall submit a detailed suspension of operations plan that replaces the suspension of operations conceptual plan required by section 2.6.1 with current information and specific details. The suspension plan shall address the following:

2.6.3.1 Explanation of what would reasonably result in resuming or permanently terminating mining or milling/processing activities;

2.6.3.2 Reclamation or construction activities during the period of temporary suspension;

2.6.3.3 Procedures, methods, and schedule to be implemented for the treatment, disposal, or storage of process water;

2.6.3.4 The control of surface and groundwater drainage to and from the facility and the surrounding area;

2.6.3.5 The control of erosion from the drystack, waste rock disposal areas, mill and camp site, and any other disturbed areas within the facility boundary;

2.6.3.6 The secure storage of chemicals during the period of suspended operations; and

2.6.3.7 Procedures for maintaining and monitoring the Pond 7 dam and site-wide water balance.

2.6.4 The Department shall have 15 days to review and approve or request modifications to the suspension plan.

2.6.5 Once a suspension of operations plan has been approved, it becomes enforceable under the conditions of this permit and full implementation of the approved suspension plan is required. The plan can be amended by submitting a revised plan to the Department for approval.

2.6.6 During suspension of operations, the permittee shall:

2.6.6.1 Continue pollution control activities associated with waste disposal and management, including but not limited to dust control, maintenance of the drainage diversion structures, maintenance of all discharge and leakage control structures and processes, and maintenance of the Pond 7 dam as specified by the current *Certificate of Approval to Operate a Dam* and the suspension plan.

2.6.6.2 Continue monitoring and reporting activities of all active portions of the site as specified by this permit or the suspension plan.

2.6.6.3 Continue reclamation and corrective action requirements under the *reclamation and closure plan* in light of the nature of the closure.

2.6.7 Written Department approval is required before resuming operations after a period of temporary closure.

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2.7 TERMINATION OF MINING & MILLING

2.7.1 Termination of mining and milling/processing activities is defined as the permanent cessation of those activities. Updated reclamation and monitoring plans must be submitted for approval within 90 days after initiating termination of mining and milling/processing. The updated plans must address current conditions at the facility. Updates and changes to those plans must be approved in writing by the Department.

2.7.2 Termination of mining and milling at the site must be implemented and completed according to the conditions of this permit and with the *reclamation and closure plan* approved by the Department and incorporated by reference into this permit.

2.7.3 Closure of the waste disposal facilities will be complete when the following criteria are met:

2.7.3.1 Department-approved covers are installed on the 1350 portal area, 920 portal area including the mill site, Sites C, D, and E, Site 23, TDF, and drainage channels are constructed and stable;

2.7.3.2 A stable vegetative cover is established on the waste rock, re-contoured areas, and other infrastructure or other facilities as prescribed in *reclamation and closure plan* approved by the Department and incorporated by reference into this permit; and

2.7.3.3 The Department determines that active water treatment is no longer required for any water discharged from the facility.

2.7.4 Closure must be achieved before terminating any care and maintenance activities required by section 2.6.6 and the approved suspension plan if a period of suspended operations immediately preceded termination of mining and milling.

2.7.5 The permittee shall maintain the facility correcting any erosion or settlement of the TDF, waste rock disposal sites, and drainage channels that may impair water quality or otherwise threaten the environment, up until the time that this permit, or any successor permit, is transferred to another entity or terminated by the Department.

2.7.6 Disposal of demolition debris onsite may be approved during closure activities according to a plan approved by the Department.

2.7.7 Post-closure monitoring of ground and surface water quality and visual monitoring for settlement, seeps, and erosion is required in years 1, 2, 5, 10, 15, 20, and 30 after satisfying the criteria in section 2.7.3. Post-closure monitoring shall be performed according the reclamation and closure plan approved by the Department. This schedule and the parameters monitored may be modified by the Department based on the monitoring results received.

2.8 FACILITY AUDIT

A periodic third-party environmental audit shall be completed during the final year of the permit term or sooner if final closure starts during the permit term. However, the field inspection portion of the audit shall be conducted during the snow free season the year before permit expiration. The audit will include all aspects of this Waste Management Permit. The environmental audit is required to verify HGCMC's compliance with applicable environmental laws associated with this permit. The third party contractor

should be mutually agreed on by the state and HGCMC, but in the event that agreement cannot be reached, the state retains the final contractor selection decision. Costs for the third-party contractor shall be borne by HGCMC. The intent of the audit is to evaluate whether both HGCMC management and DEC permit administration provide reasonable assurances that the facility and environmental controls are functioning as intended. The environmental audit shall include an evaluation of the adequacy of the approved financial assurance.

3 GENERAL CONDITIONS

3.1 ACCESS AND INSPECTION

The permittee shall allow the Commissioner or his/her representative access to the permitted facility at reasonable times to conduct scheduled or unscheduled inspections or tests to determine compliance with this permit, state laws, and regulations.

3.2 INFORMATION ACCESS

Except where protected from disclosure by applicable State or Federal law, all records and reports submitted in accordance with the terms of this permit shall be available for public inspection at the State of Alaska, Department of Environmental Conservation, Fairbanks, Alaska.

3.3 CIVIL AND CRIMINAL LIABILITY

Nothing in this permit shall relieve the permittee from any potential civil or criminal liability for noncompliance with the permit or with applicable laws.

3.4 AVAILABILITY

The permittee shall post or maintain a copy of this permit available to the public at the facility.

3.5 ADVERSE IMPACT

The permittee shall take all necessary means to minimize any adverse impacts to the receiving waters or lands resulting from noncompliance with any limitation specified in this permit, including any additional monitoring needed to determine the nature and impact of the noncomplying activity. The permittee shall cleanup and restore all areas adversely impacted by the noncompliance.

3.6 CULTURAL OR PALEONTOLOGCAL RESOURCES

Should cultural or paleontological resources be discovered as a result of this activity, work, which would disturb such resources, is to be stopped, and the State Historic Preservation Office, Division of Parks and Outdoor Recreation, ADNR (907-465-4563), is to be notified promptly.

3.7 APPLICATIONS FOR RENEWAL

In accordance with 18 AAC 15.100(d), an application for renewal or amendment of this permit must be made no later than 30 days before the expiration date of the permit or the planned effective date of the amendment.

3.8 OTHER LEGAL OBLIGATIONS

This permit does not relieve the permittee from the duty to obtain any other necessary permits from the department or from other local, state, or federal agencies, and to comply with the requirements contained in any such permits. All activities conducted and all plans implemented by the permittee pursuant to the terms of this permit shall comply with all applicable local, state, and federal laws and regulations.

3.9 TRANSFER OF OWNERSHIP

In the event of any change in control or ownership of the permitted facility, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Director of the Division of Water. The original permittee remains responsible for permit compliance unless and until the succeeding owner or controller agrees in writing to assume such responsibility, and the department approves assignment of the permit. The Department will not unreasonably withhold such approval.

As between the State and the permittee, no transfer of this permit shall relieve the permittee of any liability arising out of operations conducted prior to such transfer, regardless of whether such liability accrues before or after such transfer.

3.10 TOXIC POLLUTANTS

If during the life of this permit a new or revised toxic pollutant (including oil, grease, or solvents) concentration standard is established in accordance with 18 AAC 70 for a pollutant managed at this facility and that standard is more stringent than previously, then upon the effective date of the new rule, this permit automatically adopts the new toxic pollutant concentration standard and applies it to management of facility wastes.

3.11 POLLUTION PREVENTION

In order to prevent and minimize present and future pollution, when making management decisions that affect waste generation, the permittee shall consider the following order of priority options as outlined in AS 46.06.021:

1st waste source reduction,
2nd recycling of waste,
3rd waste treatment, and
4th waste disposal.

4 FINANCIAL RESPONSIBILITY

4.1 PROOF OF FINANCIAL RESPONSIBILITY

Under AS 46.03.100(f), 18 AAC 15.090, and 18 AAC 60.265, the Department has authority and responsibility to require proof of financial responsibility for closure of the facility and post-closure monitoring.

4.1.1 The permittee shall provide the Department with proof of financial responsibility for reclamation and closure of the facilities and post-closure monitoring. The proof of financial responsibility shall cover costs incurred for reclamation and closure and post-closure monitoring of all mine facilities, including the mill area, 1350 portal area, 920 portal area, underground workings, Site C, Site D, Site E, Site 23, TDF, and related facilities, shall cover the activities set out in section 4, and shall be in the amount shown in section 4. An overview of the areas covered by the financial responsibility for reclamation and closure is shown in figure 6.1.

4.1.2 The Department will review and modify if necessary, the financial responsibility requirements including adjustments for concurrent reclamation, expansion, or other changes to the operation of the facility. The permittee shall address the adequacy of the financial responsibility in the annual report required in section 2.4.3.3.

4.1.3 The proof of financial responsibility may be in the form of a trust fund, surety bond, letter of credit, insurance, or another Department-approved mechanism.

4.1.4 Approved proof of financial responsibility must remain available through the post-closure period and may not be released in its entirety until the Department certifies in writing that closure of the facility and the required post-closure monitoring have been successfully concluded or that another entity has assumed responsibility for permit compliance, reclamation and closure activities, and post-closure monitoring.

4.1.5 The permittee must provide acceptable proof of financial responsibility within 60 days of the permit's effective date. The Department will accept or reject the financial surety as expeditiously as possible but in no event later than 30 days after its receipt.

4.1.6 If the permittee is unable to provide acceptable proof of financial responsibility to the Department, as approved by the Department in writing, within the time period stated above, this permit will expire automatically at that time, notwithstanding any other approvals to the contrary, unless the Department's failure to act is responsible for the delay in accepting or rejecting this proof.

4.1.7 If the permittee fails to comply with the terms and conditions of this permit and if the Department concludes that such failure may prevent, inhibit or delay satisfactory reclamation and closure or post-closure monitoring of the facility, then the Department may exercise its rights, under an approved mechanism, to access financial responsibility funds and use them for reclamation and closure and post-closure activities.

4.1.8 The permittee can apply to have the amount of the financial responsibility adjusted during the life of the permit if, for example, concurrent reclamation has been completed.

4.2 AMOUNT OF FINANCIAL RESPONSIBILITY

The total proof of financial responsibility for the life of this permit, unless modified, shall be **$65,392,347**. A detailed breakdown of the financial responsibility cost estimate can be found in the *reclamation and closure plan*. The Greens Creek Mine financial responsibility is based on the following.

Years *(after permit issuance)*	Reclamation[1] *(years 1-4 earthwork and water treatment)*	Long Term Care and Water Treatment[2] *(years 5-100 plus the principal for another 100 years)*	Annual Cash Flows[3]	Net Present Value[4] *(3.97% estimated real rate of return)*	Inflation[5] *(2.31% average of the last 5 years of the Anchorage CPI)*
0				$58,335,980	
1	$5,922,414		$5,922,414		$59,683,541
2	$15,990,460		$15,990,460		$61,062,231
3	$13,918,395		$13,918,395		$62,472,769
4	$13,542,169		$13,542,169		$63,915,890
5		$14,148,963	$14,148,963		$65,392,347

Notes:

1. This column represents the present values for reclamation costs that are scheduled during the first four years after the termination of mining and milling. Amounts include both direct and indirect costs that are detailed in the *reclamation and closure plan*.

2. This column represents the present value cost for long term care and water treatment beginning on the fifth year after termination of mining and milling. Costs include the net present value for water treatment during years 5 through 100 and the net present value for water treatment from years 101 to 200 including water treatment plant replacement and maintenance. The total includes both direct and indirect costs that are detailed in the *reclamation and closure plan*.

3. This column represents a schedule of annual present value costs required for reclamation, long term care and water treatment.

4. This amount represents the net present value assuming a real rate of return of 3.97%.

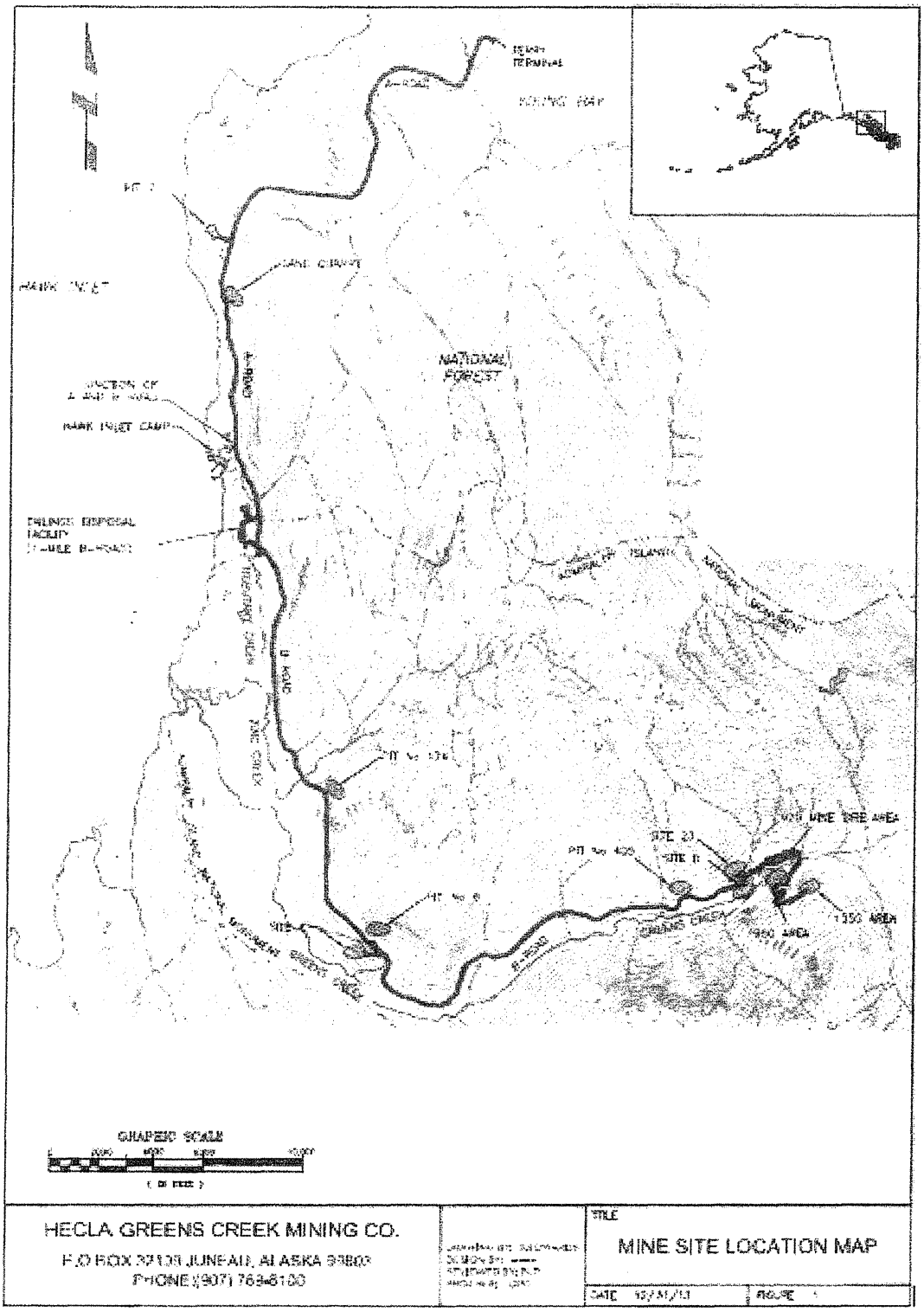
5. This column represents the net present value adjusted by adding five years of inflation covering inflation incurred during the permit term. The cost at year five is the final required financial responsibility amount.

5 GLOSSARY OF TERMS

AAC	Alaska Administrative Code
ADNR	Alaska Department of Natural Resources
APDES	Alaska Pollutant Discharge Elimination System
AS	Alaska Statutes
FWMP	Fresh Water Monitoring Program
GPO	General Plan of Operations – comprised of several appendices. This permit references and adopts GPO appendices 1, 3, 7, 11, and 14.
HGCMC	Hecla Greens Creek Mining Co.
MDL	Method Detection Limit
ML	Minimum Level of Quantification
Permittee	Hecla Greens Creek Mining Co.
QAPP	Quality Assurance Project Plan
TDF	Tailings Disposal Facility
WQS	Alaska Water Quality Standards

6 Figures

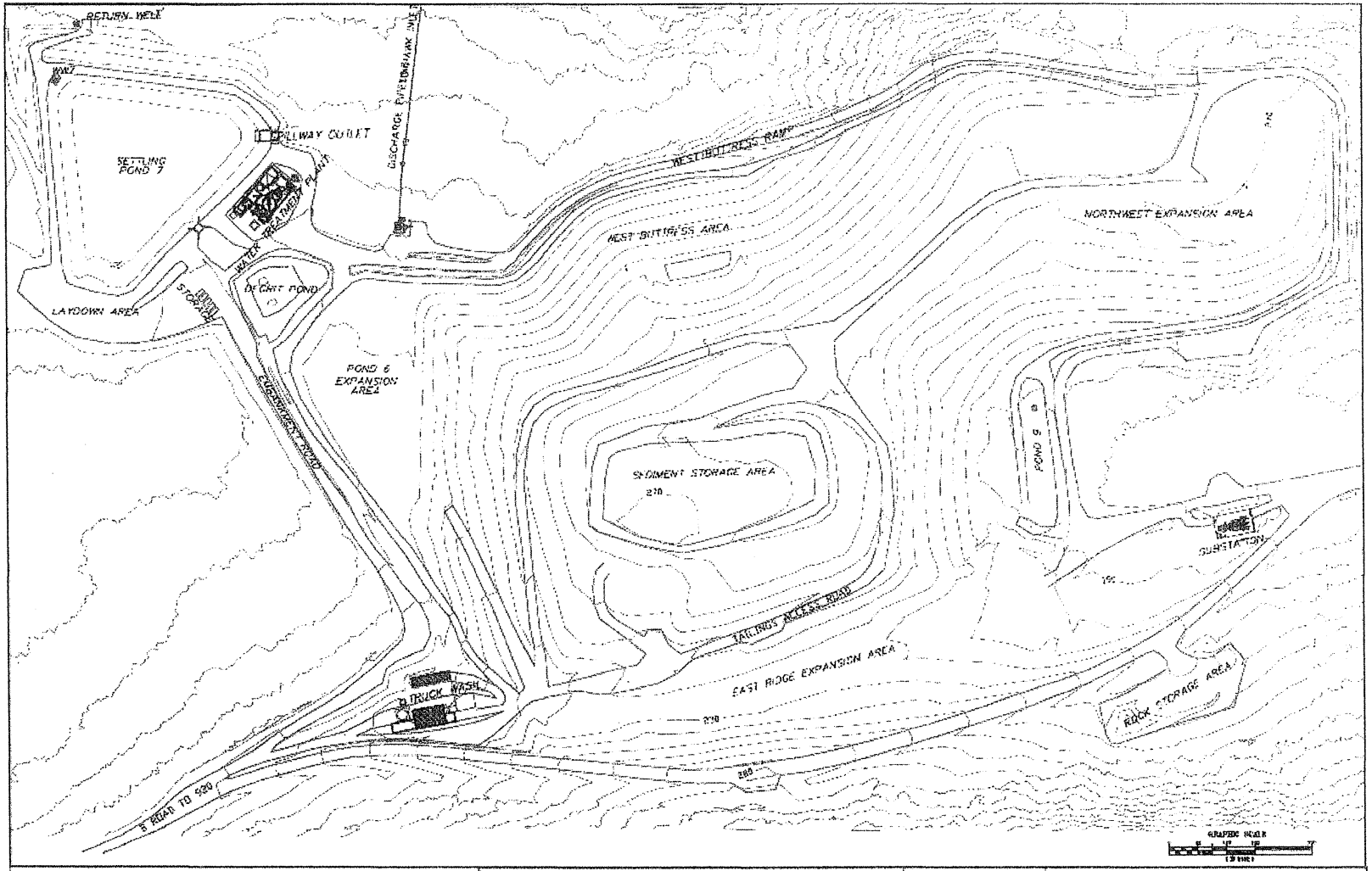
6.1 MINE FACILITY LOCATIONS



ATTACHMENT 3-C

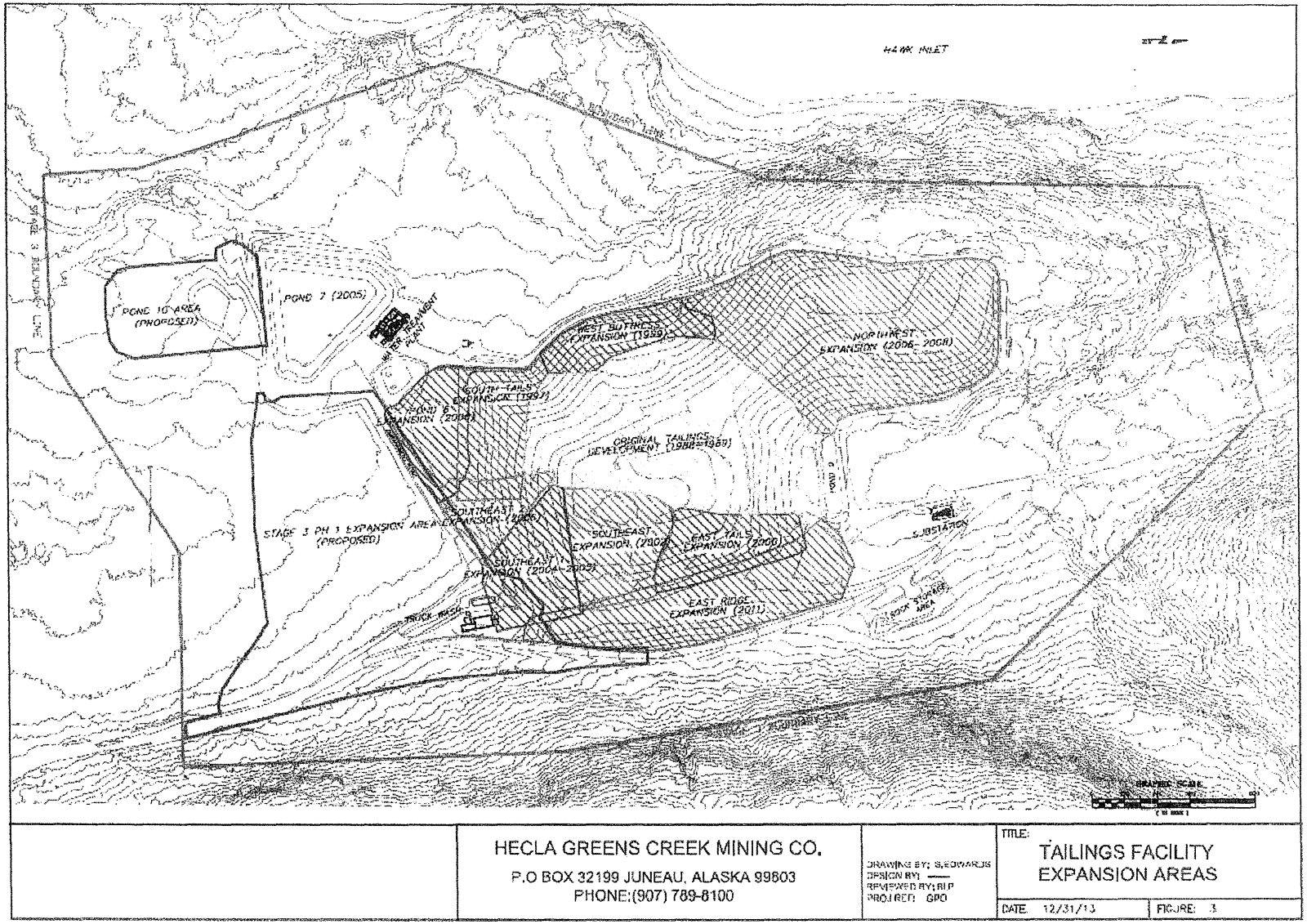
6.2 CURRENT TAILINGS DISPOSAL FACILITY

ATTACHMENT 3-C



6.3 TAILINGS DISPOSAL FACILITY EXPANSION PLANS

ATTACHMENT 3-C



	HECLA GREENS CREEK MINING CO. P.O BOX 32199 JUNEAU, ALASKA 99803 PHONE:(907) 789-6100	DRAWING BY: S.EDWARDS DESIGN BY: —— REVIEWED BY: RLP PROJECT: GPO	TITLE: TAILINGS FACILITY EXPANSION AREAS DATE: 12/31/13 FIGURE: 3

US Army Corps
of Engineers
Alaska District

Public Notice of Application for Permit

Regulatory Division (1145)
CEPOA-RD
2175 University Avenue, Suite 201E
Fairbanks, Alaska 99709-4927

PUBLIC NOTICE DATE: April 9, 2014

EXPIRATION DATE: May 8, 2014

REFERENCE NUMBER: POA-1988-269-M5

WATERWAY: Hawk Inlet

*****PUBLIC NOTICE REVISION*****

On April 20, 2012, the Alaska District Corps of Engineers published a Public Notice, concurrently with the U.S. Forest Service's Draft Environmental Impact Statement (EIS), for Department of the Army (DA) permit number POA-1988-269-M5, Hawk Inlet for a DA permit application from Hecla Greens Creek Mining Company (HGCMC) to expand their Tailings Disposal Facility (this would be the fifth modification to the original permit (POA-1988-269). The April 20, 2012 Public Notice solicited comments for all four alternatives identified in the U.S. Forest Service's EIS including the applicants preferred alternative. In the U.S. Forest Service's Record of Decision the selected alternative was not the applicants preferred alternative and subsequently the applicant's mitigation proposal changed. The Corps of Engineers has determined that the changes to the proposed mitigation warrant a revised Public Notice. This revised Public Notice covers only the changes to the Mitigation Plan, as the proposed work was sufficiently noticed under the April 20, 2012 Public Notice. Information regarding the proposed project at Hecla Greens Creek Mine is included only to provide background for the proposed mitigation for the impacts to waters of the United States (U.S.) due to the expansion of the Tailings Disposal Facility.

Comments on the described Mitigation Plan, with the reference number, 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 **Ellen Lyons** at (907) 474-2166, by fax at (907) 474-2164, or by email at **ellen.h.lyons@usace.army.mil** if further information is desired concerning this notice.

APPLICANT: Hecla Greens Creek Mining Company

AGENT: Mr. Steve Sego, Waterman Mitigation Partners, P.O. Box 32542, Juneau, Alaska 99803

ATTACHMENT 3-D

LOCATION: The proposed impact site is located within Section 26, T. 43 S., R. 65 E., Copper River Meridian; USGS Quad Map Juneau A-3; Latitude 58.1172° N., Longitude -134.7466° W.; Located on Admiralty Island, near Juneau, Alaska.

The proposed mitigation site is located within Section 16, T. 42 S., R. 68 E., Copper River Meridian; USGS Quad Map Juneau A-1; Latitude 58.2276° N., Longitude -134.3134° W.; Located on Douglas Island, in Juneau, Alaska.

SPECIAL AREA DESIGNATION: The area of impacts to waters of the U.S. due to the proposed expansion of the tailings disposal facility is located entirely within Admiralty Island National Monument. The proposed mitigation site does not have a special area designation.

PURPOSE: The applicant proposes to permanently preserve 51.6 acres of land on Douglas Island, which contains 48.3 acres of waters of the U.S., of which 18 acres are Forested Wetlands, 30.3 acres are Bog Wetlands, 3.2 acres are Nevada Creek, and an additional 0.1 acres of uplands (See sheet 12 of 17) to compensate for the 13.9 acres of unavoidable impacts to wetlands associated with their proposed Tailings Disposal Facility (TDF) expansion.

PROPOSED WORK: All work would be performed in accordance with the attached plans, Sheets 1-17 dated March 2014 and in the attached "Mitigation Plan for Hecla Greens Creek Mining Company Greens Creek Mine Stage 3 Expansion" (Sheets 1-35, dated March 2014).

The applicant proposes off-site, permittee-responsible mitigation through preservation and restoration, at slightly greater than a three to one ratio. They are proposing to preserve in perpetuity 48.3 acres of waters of the U.S. (see table 1 below) as described in the attached "Mitigation Plan for Hecla Greens Creek Mining Company Greens Creek Mine Stage 3 Expansion" (Sheets 1-35, dated March 2014). The proposed mitigation site, identified as the Nevada Creek Mitigation Site, is located on southeast Douglas Island in the City/Borough of Juneau.

Table 1: 2014 Tailings Facility Expansion
PROPOSED MITIGATION:

Wetland Type	*Total Proposed Impacts (acres)*	*Total Proposed Mitigation (Acres)*
Forested Wetlands	0.59	51.6 total acres containing 48.3 acres of wetlands.
Fen	10.87	
Bog	2.45	
Total	**13.91**	

This mitigation proposal is for 13.9 acres impacts to waters of the U.S. that would occur if the proposed work described below were authorized by the Corps of Engineers:

1) Expansion of the existing TDF southward into the Admiralty Island National Monument (Monument) (see plan Sheets 1-10) including:
   - Development of a new water management pond (identified as Pond 10) south of existing TDF and immediately south of existing Pond 7 (Sheets 4, 9 and 10).
   - Development of a truck wheel wash facility at the southern boundary of the expansion (Sheets 4 and 6)

   This work would expand the existing TDF allowing continued operation of the mine by approximately 10 years at the expected rate of fill.

ADDITIONAL INFORMATION: The Nevada Creek Mitigation Site includes the Alaska Treasure Mine, located along Nevada Creek on Douglas Island near Juneau. The Alaska Treasure Mine will be

ATTACHMENT 3-D

designated a contaminated site by The Alaska Department of Environmental Conservation (DEC) and listed on the DEC Contaminated Sites Database. A Corrective Action Plan for work proposed by the applicant at the Alaska Treasure Mine was approved by DEC on March 5, 2014. The Middle Reach of Nevada Creek is located within the proposed preservation site and drains into Gastineau Channel.

Applicants Mitigation Objectives:

The following objectives were submitted by the applicant:

Objective 1) permanently protect aquatic ecosystem functions at the mitigation site by instituting the mitigate plan, and implementing an approved legal protection instrument.

Objective 2) restoration of the portion of Nevada Creek's riparian area impacted by a waste rock dump through stabilization of the dump side slopes.

The applicant also proposes to restrict access to tunnel and adit by gating or closing them.

CULTURAL RESOURCES:

Mitigation Site: The applicant has been coordinating with State Historic Preservation Office (SHPO) regarding potential impacts to cultural resources at the Nevada Creek Mitigation Area. The SHPO sent a letter to Sea Level Consulting on July 26, 2013 concurring with the determination that the site is eligible for the National Register of Historic Places.

The permit area was identified as 51.6 acres within the middle mine area of the historic district. Of these, it is anticipated that 1.5 acres will be adversely affected by the proposed project. A copy of the March 2014 archaeological assessment and historic survey (Supplemental Report II, Area of Potential Effect Revision) and a letter explaining the Corps of Engineers determination will be provided to 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.**

Hecla Greens Creek Mine Site: The lead Federal agency, United States Forest Service, was responsible for compliance with the requirements of Section 106 of the National Historic Preservation Act for the Hecla Greens Creek Mine site. The Forest Service "determined that no historic properties would be adversely affected by the project alternatives resulting in a determination of "No Adverse Effect"" (Page 3-256, FEIS Volume I).

ENDANGERED SPECIES:
No threatened or endangered species are known to use the proposed mitigation site. 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 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).

No EFH species are known to use the proposed mitigation site. We have determined the described activity would not adversely affect EFH in the mitigation area.

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)(l) 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) 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).

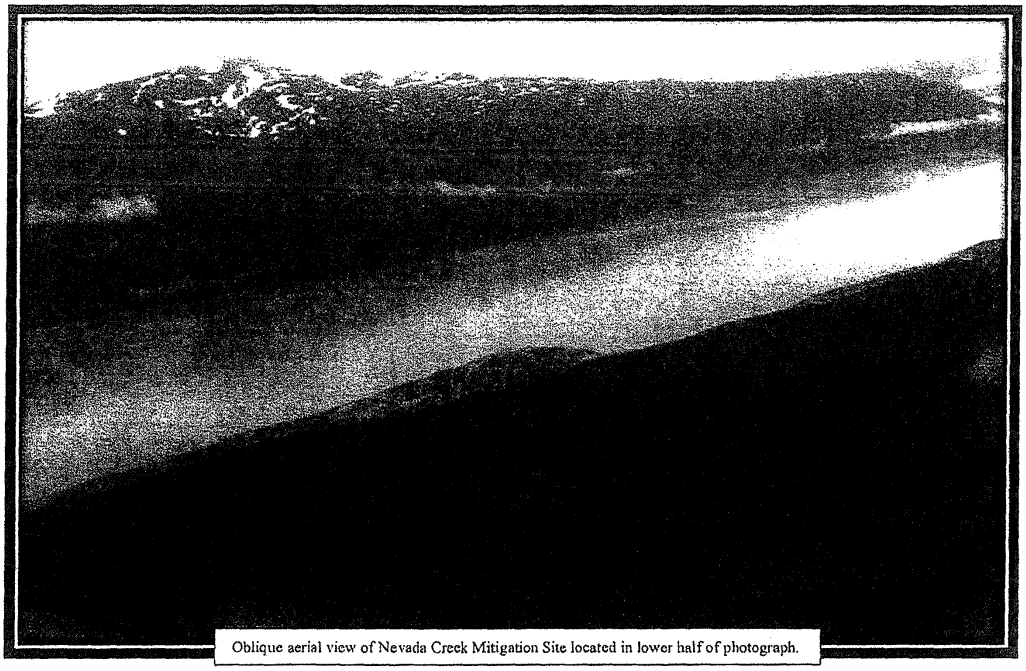
Project drawings and Notice of Application for State Water Quality Certification are enclosed with this Public Notice.

District Commander
U.S. Army, Corps of Engineers

Enclosures

ATTACHMENT 3-D

Mitigation Plan
for
Hecla Greens Creek Mining Company
Greens Creek Mine Stage 3 Expansion



Oblique aerial view of Nevada Creek Mitigation Site located in lower half of photograph.

March 2014

Prepared by:

Ecological Land Services
1157 3rd Avenue, Suite 220
Longview, WA 98632
(360) 578-1371

RECEIVED
[illegible]
ELS MAIL ROOM

Prepared for:
Nevada Creek Mitigation Partners
P.O. Box 32542
Juneau, Alaska 99803
Phone: (206) 661-2401

ELS Project Number 2039.01

ATTACHMENT 3-E

Executive Summary

Ecological Land Services, Inc. (ELS) was contracted by Nevada Creek Mitigation Partners to prepare this mitigation plan for the Hecla Greens Creek Mining Company (HGCMC) existing Greens Creek Mine tailings disposal facility expansion identified as the Stage 3 Expansion project. This mitigation plan was prepared according the *Federal Rule on Compensatory Mitigation: Compensatory Mitigation for Losses of Aquatic Resources; Final Rule (33 Code of Federal Regulations (CFR) Parts 325 and 332* 2008) as implemented by the U.S. Army Corps of Engineers (USACE/Corps) Alaska District Regulatory Guidance Letter Identification Number 09-01.

HGCMC initially submitted a Section 404 permit application in 2012 that was put out for public notice on April 20, 2012 (Reference Number POA-1988-0269-2). In September 2013 the U.S. Forest Service (USFS) issued the Final Environmental Impact Statement (FEIS) and Record of Decision (ROD), titled the *Final Environmental Impact Statement and Record of Decision for the Greens Creek Mine Tailings Disposal Facility Expansion Project on the Admiralty Island National Monument and Juneau Ranger District, Tongass National Forest* (USFS 2013) that the Forest Service prepared in cooperation with other agencies such as the USACE. The *Amended Section 404 Permit Application* (ELS 2014) which includes this mitigation plan, incorporates amendments to the 2012 Section 404 application to align with the ROD Selected Alternative.

The Stage 3 Expansion project will impact a total of 13.91 acres of wetlands, comprised of 0.59-acre of Forested Wetland, 2.45 acres of Scrub-Shrub Bog, and 10.87 acres of Fen occurring within the eight digit hydrologic unit code (HUC) 19010204. Due to the impracticability of on-site or off-site Admiralty Island compensatory mitigation options, HGCMC is proposing off-site permittee-responsible mitigation through wetland preservation and restoration of a site with similar in-kind resources as compensation for proposed project impacts. Using a three to one ratio, compensation for the proposed wetland impacts requires 41.73 acres of mitigation. The proposed mitigation site, identified as the Nevada Creek Mitigation Site, occurs within the eight digit HUC number 19010301 located on southeast Douglas Island in the City/Borough of Juneau. The proposed mitigation site totals 51.6 acres and contains 48.3 acres of wetlands comprised of 30.3 acres of Bog/Bog Woodland and 18 acres of Forested Wetlands. The total of 48.3 acres of wetland mitigation proposed as compensation for impacts to 13.91 acres of wetland more than satisfies the required amount of 41.73 acres of permittee-responsible mitigation using a three to one ratio[1].

Summary of Project Impacts &Proposed Mitigation			
Proposed Impact Area	*Total Proposed Impacts (acres)*	*Total Proposed Impacts (acres)*	*Total Proposed Mitigation*
Fen	10.87	13.91	51.6 total acres containing 48.3 acres of wetlands
Bog	2.45		
Forested Wetland	0.59		

[1] The 3 to 1 ratio for proposed mitigation follows the USACE *Alaska District Regulatory Guidance Letter No. 09-01 (RGL 09-01)*, and is the highest mitigation ratio presented by the guidance letter.

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Jurisdictional Wetland Delineation Report for Stage 3 Tailings Expansion for Hecla Greens Creek Mining Company (Bosworth Botanical Consulting 2011)

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APPENDIX E
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ATTACHMENT 3-E

Introduction

Ecological Land Services, Inc. (ELS) was contracted by Nevada Creek Mitigation Partners to prepare this mitigation plan for the Hecla Greens Creek Mining Company (HGCMC) for the expansion of the existing Greens Creek Mine tailings disposal facility (TDF), identified as the Stage 3 Expansion project (U.S. Army Corps of Engineers (USACE) Reference Number POA-1988-0269-2). The Greens Creek Mine is an underground metals mine (primarily lead, zinc, silver, and gold) located near Hawk Inlet on northern Admiralty Island in Section 26, Township 43 South, Range 65 East of the Copper River Meridian (Sheets 1 and 2). The Greens Creek Mine is located approximately 18-miles southwest of Juneau, Alaska, and 38-miles north of Angoon, Alaska. The mine portal and mill processing facilities, portions of the existing TDF and the Stage 3 Expansion project are situated within the Admiralty Island National Monument (Monument). The remainder of the mine's facilities, north of the existing TDF, are located on National Forest system lands (Tongass National Forest Juneau Ranger District) or on privately held land near Hawk Inlet where the mine's onsite headquarters, staff facilities, and marine terminal are located. The National Forest system lands, and the Monument lands, are both administered by the U.S. Forest Service (USFS).

Bosworth Botanical Consulting conducted a delineation of jurisdictional waters of the U.S. in and adjacent to the Stage 3 Expansion project area as documented in the *Jurisdictional Wetland Delineation Report Stage 3 Tailings Expansion for Hecla Greens Creek Mining Company* (Bosworth Botanical Consulting 2011; Appendix A). Koren Bosworth of Bosworth Botanical Consulting also contributed to the WESPAK-SE functional assessment of the wetlands potentially affected by the expansion project (Adamus 2012; Appendix B).

HGCMC initially submitted a Section 404 permit application in 2012 that was put out for public notice on April 20, 2012. In September 2013 the USFS issued the Final Environmental Impact Statement (FEIS) and Record of Decision (ROD), titled the *Final Environmental Impact Statement and Record of Decision for the Greens Creek Mine Tailings Disposal Facility Expansion Project on the Admiralty Island National Monument and Juneau Ranger District, Tongass National Forest* (USFS 2013) that the USFS prepared in cooperation with other agencies such as the USACE. To align with the 2013 FEIS and ROD, the initial Section 404 permit application has been amended (*Amended Section 404 Permit Application* ELS 2014) and now includes this mitigation plan prepared according the *Federal Rule on Compensatory Mitigation: Compensatory Mitigation for Losses of Aquatic Resources; Final Rule (33 Code of Federal Regulations (CFR) Parts 325 and 332* 2008) as implemented by the USACE Alaska District Regulatory Guidance Letter (RGL) Identification Number 09-01.

Project Description

With continued positive exploration results, improved metal prices, and ongoing operational efficiencies, HGCMC requires additional tailings and waste rock disposal capacity to allow for continued operations. To extend the timeline that the existing TDF will reach full capacity, HGCMC is proposing expansion of the facility, identified as the Stage 3 Expansion project (Sheets 3 through 10).

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The ROD Selected Alternative authorizes the Greens Creek Mine to expand the existing tailings disposal facility by about 18 acres, further south into the Admiralty Island National Monument (Monument); please see Appendix A of Section 404 Permit Application for a copy of the 2013 FEIS and ROD). The Selected Alternative expands the existing facility's capacity by about 2.1 million cubic yards which at the expected rate of fill, delays the time at which capacity is reached by approximately 10 years. Components of the ROD Selected Alternative include:

- Expansion of the existing tailings disposal facility southward into the Monument;
- Development of a reclamation material storage area near the junction of the A and B Roads, outside of the Monument;
- Development of a rock quarry north of the existing TDF, and access from within the existing facility, outside of the Monument;
- Development of a new water management pond south of the existing TDF and expansion of existing water management ponds; and
- Relocation of the B Road and truck wheel wash facility to accommodate the TDF expansion.

In moving forward, HGCMC is not proposing all of the aforementioned ROD Selected Alternative project components. The major Stage 3 Expansion Project components that HGCMC is proposing is as follows; Pond 10, the Clean Rock Storage Area, and the Tailings Storage Area which includes tailings storage, tailings access road, new wheel wash, outlet from clean diversion ditch and embankment toe access road (Sheets 3 through 10). Details on the project components that HGCMC is proposing for the Stage 3 Expansion is also presented in Table 1 below:

Table 1. Summary of Stage 3 Expansion Project Components & Wetland Impacts

Project Component	Project Component Impact		Project Component Fill Volume (Cubic Yards/CY)
	Impact Footprint	Wetland Type Impacted	
Tailings Storage Area			
Tailings Storage	10.13 acres	10.13 acres Fen	220K[1] CY
Tailings Access Road	0.56 acre	0.56 acre Fen	
New Wheel Wash	0.12 acre	0.12 acre Fen	
Outlet from Clean Diversion Ditch	0.01 acre	0.01 acre Fen	
Embankment Toe Access Road	0.07 acre	0.05 acre Fen 0.02 acre Forested Wetland	
Clean Rock Storage Area	0.69 acre	0.34 acre Scrub-Shrub Bog 0.35 acre Forested Wetland	13K[1] CY
Pond 10	2.33 acres	2.11 acres Scrub-Shrub Bog 0.22 acre Forested Wetland	20K[1] CY
Total	***13.91 acres***	*10.87 acres Fen* *2.45 acres Scrub-Shrub Bog* *0.59 acre Forested Wetland*	*253K[1] CY*

[1]K = abbreviation for thousand.

ATTACHMENT 3-E

The Stage 3 Expansion Project component identified as the Tailings Storage Area requires placement of approximately 220,000 cubic yards of fill within 10.89 acres of wetland to develop the tailings storage, the tailings access road, the new wheel wash, the outlet from clean diversion ditch and the embankment toe access road (Table 1; Sheets 3 through 7). The relocation of the section of the B Road that is part of the Tailings Storage Area component does not impact wetlands, therefore no impact footprint/fill volume is presented for this project component. The project component identified as the Clean Rock Storage Area requires placement of approximately 13,000 cubic yards of fill within 0.69 acre of wetland (Table 1; Sheets 3, 4 and 8). The project component identified as Pond 10 requires placement of approximately 20,000 cubic yards of fill within 2.33 acres of wetland (Table 1; Sheets 3, 4, 9 and 10). HGCMC has discussed the proposed location of Pond 10, now located immediately south of an existing treatment pond identified as Pond 7, with the USFS as it is located in a different area than indicated in the ROD (identified as New Facilities-G-Pond by the ROD-Figure 2 on of the 2013 FEIS). Although the ROD Selected Alternative authorizes the Greens Creek Mine to develop an additional 8 acres outside of the Monument for the development of a rock quarry north of the existing TDF, expansion of an existing water management pond identified as Pond 9, and new reclamation material storage site near the junction of the A Road and B Road (ROD-Figure 2 of the 2013 FEIS), HGCMC is not proposing to develop these areas and/or facilities.

The Stage 3 Expansion project will impact a total of 13.91 acres of wetlands, comprised of 0.59-acre of Forested Wetland, 2.45 acres of Scrub-Shrub Bog, and 10:87 acres of Fen occurring within the eight digit hydrologic unit code (HUC) 19010204. Due to the impracticability of on-site or off-site Admiralty Island compensatory mitigation options, HGCMC is proposing off-site permittee-responsible mitigation through wetland preservation and restoration of a site with similar in-kind resources as compensation for proposed project impacts. Using a three to one ratio, compensation for the proposed wetland impacts requires 41.73 acres of mitigation. The proposed mitigation site, identified as the Nevada Creek Mitigation Site, occurs within the eight digit HUC number 19010301 located on southeast Douglas Island in the City/Borough of Juneau (Sheet 11). The proposed mitigation site totals 51.6 acres and contains 48.3 acres of wetlands comprised of 30.3 acres of Bog/Bog Woodland and 18 acres of Forested Wetlands (Sheet 12). The total of 48.3 acres of wetland mitigation proposed as compensation for impacts to 13.91 acres of wetland more than satisfies the required amount of 41.73 acres of permittee-responsible mitigation using a three to one ratio[2]. The following Table 2 presents a summary of proposed wetland impacts and required mitigation:

Table 2. Summary of Stage 3 Expansion Project Wetland Impacts &Proposed Mitigation

Proposed Impact Area	*Total Proposed Impacts (acres)*[1]	*Total Proposed Impacts (acres)*	*Total Proposed Mitigation*
Fen	10.87	13.91	51.6 total acres containing 48.3 acres of wetlands
Bog	2.45		
Forested Wetland	0.59		

[1]Mapping from the delineation wetland boundaries documented by the *Jurisdictional Wetland Delineation Report for Stage 3 Tailings Expansion for Hecla Greens Creek Mining Company* (Bosworth Botanical Consulting 2011; Appendix A) was used to calculate proposed project impacts.

[2] The 3 to 1 ratio for proposed mitigation follows the USACE *Alaska District Regulatory Guidance Letter No. 09-01 (RGL 09-01)*, and is the highest mitigation ratio presented by the guidance letter.

Project Site Wetland Delineation

Bosworth Botanical Consulting delineated wetlands within the Stage 3 Expansion project area as it was proposed at that time by the initial Section 404 permit dated February 2012 that was submitted prior to the release of the 2013 FEIS and ROD prepared by the USFS. The delineation followed the *Routine Determination Method* according to the U.S. Army Corps of Engineers, Wetland Delineation Manual (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region* (USACE Research and Development Center 2007). The delineated was conducted in 2010 from July 5 through July 9, and September 22 to September 25. The *Jurisdictional Wetland Delineation Report for Stage 3 Tailings Expansion for Hecla Greens Creek Mining Company*, dated January 2011, prepared by Koren Bosworth of Bosworth Botanical Consulting, documents the wetland delineation methodology and findings (Appendix A).

Soils

Classifications of subgroup/soil series and complete soil series descriptions that occur within the project site area are included in Appendix I of the *Jurisdictional Wetland Delineation Report Stage 3 Tailings Expansion for Hecla Greens Creek Mining Company* (Bosworth Delineation) (Bosworth Botanical Consulting 2011). This report identifies and maps the area soils to the subgroup level. To include micro site variation, two subgroups are listed for each identified unit and discussed at the series level.

Hydrology

Section 5.4 Hydrology of the Bosworth Delineation discusses the drainage basins that the existing TDF, and proposed Stage 3 Expansion project, occur in. The Stage 3 Expansion project will be further extended southward into the Tributary Creek drainage, Section 5.4.1 Tributary Creek of the delineation report specifically addresses this drainage as follows:

> *The Tributary Creek basin gently slopes to the south towards Zinc Creek, and primarily consists of bog vegetation interspersed with stands of forested wetland and upland vegetation. Prior to construction of the <existing> tailings facility, the headwaters of Tributary Creek were forested slopes east of the <existing> tailings facility and the bog areas currently within the footprint of the <existing> tailings facility. Since construction of the <existing> tailings facility, the headwaters of Tributary Creek are small seeps and numerous small channels flowing through the bog vegetation south of the <existing> tailings. Additionally, surfaced run-off flows from east of the <existing> tailings facility are captured and routed in ditches south to Tributary Creek and north in ditches to Cannery Creek. The seeps and channels lying to the south of the <existing> tailings facility are fed from the shallow groundwater regime in the peat and sand substrate. High flows generally result in the fall (high rainfall period) and in the spring (snowmelt), while low flows occur in late summer and mid-winter (Bosworth Botanical Consulting 2011).*

Vegetation

Section 5.6 Vegetation of the Bosworth Delineation discusses the project area vegetation, National Wetland Inventory (NWI) mapping, and related Cowardin classification (Cowardin et al. 1979).

Project Site Baseline Information

Admiralty Island's topography ranges from gentle, rolling, near sea-level elevations to snowcapped mountains up to 3,000 feet high. The island is generally dominated by temperate Sitka spruce-western hemlock rainforest interspersed with freshwater wetlands. Timberline typically begins at 1,500 to 2,000 feet, above timberline, the temperate rainforest forest gradually transitions to alpine-tundra with rock outcrops and permanent to semi-permanent ice fields. All but the northern end of the island that contains an unpopulated section of the City/Borough of Juneau, is designated wilderness. The northern end of the island also falls within the Juneau non-subsistence use area. Angoon, approximately 38-miles south of the Greens Creek Mine Tlingit community, is the only settlement on the island.

The FEIS (USFS 2013) and prior EIS documents discuss the current and historic ecological condition of the proposed Stage 3 Expansion project area. The 2013 FEIS document has in-depth information on ecological conditions as the following is a generalized discussion of the project area ecological condition using information from the 2013 FEIS and prior EIS documents.

Historic Baseline Conditions

Prior to mining, historic baseline conditions within and in the vicinity of the project area were similar to the existing conditions found elsewhere on Admiralty Island. The historic habitat consisted primarily of upland Sitka spruce-western hemlock forests interspersed with a mosaics of lowland, non-forested plant communities that included aquatic habitats such as peat wetlands, scrub-shrub wetlands, and sedge meadows, with riparian habitats occurring along streams. These habitats supported a number of mammals, avian, and fish species (USFS 2012).

Upland vegetation primarily occurred within well-drained bedrock ridge slopes, and the flatter basin and terrace areas, underlain by uplifted marine silts and glacial tills that perch the water table, supported wetland vegetation of various types (Bosworth 2011). According to the 2013 FEIS little is known about historic baseline conditions prior to mining of the wetlands that occur within areas that have already been disturbed. Prior EIS documents discuss wetlands and state that muskeg plant communities occurred within areas that have already been disturbed. These wetlands were characterized as poorly drained, non-forested areas covered with sphagnum and lichens, as well as vascular plants including sedges, ericaceous shrubs, and goldthread, and Western hemlock and mountain hemlock that ranged in size from small shrubs to stunted trees. Riparian plant communities were characterized by alder (*Alnus* spp.), graminoids, ferns, and *Ribes* spp (USFS 2012 & 2013).

Prior to development of the Greens Creek Mine, wildlife and habitats in the vicinity were exposed to an existing level of localized disturbance. The mine's current marine terminal at the mouth of Cannery Creek previously served as a fish cannery and a limited amount of mining in

adjacent areas has historically taken place. Hawk Inlet and Admiralty Island as a whole has also been, and continues to be, used for recreation and subsistence.

Existing Baseline Conditions

The Stage 3 Expansion project area is generally located within an area of poorly drained lower elevation basin and terrace landforms located west of upper elevation bedrock ridge and mountain slopes. The current baseline conditions from the construction and operation of the existing Greens Creek Mine has resulted in the majority of disturbance occurring within upland Sitka spruce-western hemlock forested habitats, with a small amount of disturbance occurring within aquatic habitats such as the freshwater wetland communities and riparian areas (USFS 2013). The wetlands that occur within the Stage 3 Expansion are located on the poorly drained lower elevation basin and terrace landforms where peat wetlands such as bogs and fens are generally dominant.

Wildlife & Habitat

Occurrence of wildlife in the vicinity of the mine site and project area is described in more detail within the 2013 FEIS; please refer to the 2013 FEIS for detailed information. Sitka spruce-western hemlock forested uplands and aquatic habitats occurring within and adjacent to the project area support a number of species. However, no Endangered Species Act (ESA) listed species occur within the project area. Other important wildlife populations and/or associated habitats occurring in or near the vicinity of the Greens Creek Mine include brown bear, bald eagle, Sitka black-tailed deer, waterfowl/shorebirds, and furbearers such as marten, river otter, beaver, and mink. Brown bears and Sitka black-tailed deer, both Tongass National Forest management indicator species (MIS), are frequently observed in the vicinity of the mine site, and thus appear have adapted to ongoing operations to some degree.

Cultural Resources

According to the 2013 FEIS, nine documented historical and cultural resource sites are located in an area bounded by the head of Hawk Inlet to the north, the southwest corner of Young Bay to the east, Chatham Strait to the west, and as far south as the mouth of Hawk Inlet. Site types in the area include mining sites with accompanying built environment resources, early twentieth century homestead claims cabins, prehistoric shell middens, a reported petroglyph/pictograph, and the Hawk Inlet Cannery. Five sites of the nine sites have been evaluated for inclusion on the National Register of Historic Places (NRHP) with two sites determined eligible for the NRHP, and three sites determined to be ineligible for inclusion on the NRHP. The remaining four sites have not been evaluated for eligibility to the NRHP. No cultural resources are expected to be encountered during construction of the Stage 3 Expansion. However, if any inadvertent discoveries of unknown cultural or historic resources are made or otherwise encountered during the construction and pre-development of the tailings facility expansion, work will cease in the area of the discovery and HGCMC will notify the USFS for identification, and development and implementation of appropriate resource protection measures.

Project Site WESPAK-SE Assessments

In September 2011, Paul Adamus of Adamus Resource Assessment Inc. and Koren Bosworth of Bosworth Botanical Consulting performed a functional assessment of wetlands occurring within and adjacent to the Stage 3 Expansion project area. The wetland assessment was documented within a report prepared by Paul Adamus titled the *Application of Final WESPAK-SE for Rapid Assessment of Functions and Values of Wetlands Associated with Some Proposed Hecla Activities at Greens Creek, Southeast Alaska Report for Hecla Greens Creek Mining Company* (Adamus 2012). To view the entire WESPAK-SE assessment document prepared by Paul Adamus see Appendix B; assessment unit locations are shown in the report's enclosed Figure 1 and the assessment scores are presented in Table 1.

As documented within the wetland assessment report, three of the wetland assessment units identified as GC Forested Althea, GC Forested North Creek, and GC Forested Helipad are located outside of the currently proposed expansion area. These units are therefore not discussed in this mitigation plan. The assessed units that occur within or immediately adjacent to the expansion area are identified as follows; GC Forested Trib, GC Fen, GC Bog, and GC Shrub Bog.

The WESPAK-SE assessment scores for the units that occur within or immediately adjacent to the expansion area exceeded regional median reference site scores as presented within Appendix B and below:

- GC Fen - 12 scored functions exceeded regional median scores
- GC Forested Trib - 8 scored functions exceeded regional median scores
- GC Shrub Bog - 11 scored functions exceeded regional median scores
- GC Bog - 6 scored functions exceeded regional median scores

As shown in Table 1 of the assessment report (Appendix B), the assessed wetland unit wetland that had both the most above-average function scores and above-average value scores associated with those same functions was the GC Fen wetland. To view the entire WESPAK-SE assessment document prepared by Paul Adamus please see Appendix B; assessment unit locations are shown in the report's enclosed Figure 1 and the assessment scores are presented in Table 1.

Mitigation Sequencing & Site Selection

The consideration, or analysis, of alternatives to the proposed TDF Expansion project has been reviewed through the NEPA process as detailed in the 2013 FEIS. According to the 2013 FEIS, full avoidance is not feasible as there is no practicable or less environmentally damaging alternative to the proposed Stage 3 Expansion project due to the technical constraints of constructing a geotechnically stable disposal facility. Additionally, according to the FEIS ROD, it was determined that the project as proposed in this mitigation plan and amended Section 404 application, and identified in the FEIS as the Selected Alternative, includes all reasonable measures to minimize impacts to wetlands. The Clean Water Act (CWA) Section 404(b)(1) guidelines requiring consideration of wetland impacts through avoidance (first) and minimization (following avoidance) prior to consideration of compensatory mitigation, have been also been

addressed through current and prior NEPA processes for the proposed project. In accordance with CWA Section 404(b)(1) guidelines, various onsite compensatory mitigation measures involving restoration, enhancement, establishment, and preservation have been assessed. Assessments of onsite compensatory mitigation measures demonstrate the difficulties that onsite compensatory mitigation poses, as described below:

- Major portions of the mine are located on National Forest system lands and the proposed Stage 3 Expansion is located in the Admiralty Island National Monument (Monument). National Forest system and Monument lands are administered by the USFS, and in accordance with USFS mandates, the Greens Creek Mine is required to reasonably minimize mine operation disturbance footprint(s). Currently, there are no areas of disturbance that are not in use that could be reclaimed at this time for compensatory mitigation purposes for the proposed expansion. To the extent possible, and practical, HGCMC will restore wetlands as part of future reclamation activities. During final reclamation wetland restoration will likely occur on flat areas that remain after permanent project cessation, however, creation of wetlands on reclaimed dry-stack tailings will be avoided as the disposal facility must be designed and constructed to shed water rather that allowing water to infiltrate into the facility.

- As the areas surrounding the mine are comprised of relatively undisturbed National Forest System and Monument lands administered by the USFS, there are no opportunities for wetland restoration, enhancement, or establishment near the current HGCMC mine site facilities. It is not practicable to mitigate (through creation) project impacts within the steep upland areas within and adjacent to the mine site.

To comply with the U.S. Army Corps of Engineers (Corps) Federal Compensatory Mitigation for Losses of Aquatic Resources Final Rule (2008), mitigation plans must include an evaluation of options for compensatory mitigation types and locations whether an option is available or not. Options for compensatory mitigation are mitigation bank credits, in-lieu fee program credits, permittee-responsible mitigation using a watershed approach, permittee-responsible mitigation through on-site and in-kind mitigation or off-site and out-of-kind mitigation. Upon evaluation, the following types of compensatory mitigation were found to not be available or practicable:

- Wetland Mitigation Bank - No wetland mitigation banks issuing bank credits currently exist within the CBJ.

- In-lieu Fee Program (ILF) - Currently there are two ILF programs that service Southeast Alaska, the Southeast Alaska Land Trust (SEAL) and the Great Alaska Land Trust (GALT). Both of these third party mitigation programs offer only preservation opportunities to Section 404 permit applicants. There are no active and approved third party mitigation programs in Southeast Alaska (mitigation banks and/or In-lieu Fee Programs) that carry out restoration, enhancement and/or creation to offset permitted unavoidable impacts with no-net-loss to aquatic resources, which results in temporal loss and can result in negative cumulative impacts to wetlands and resources in the long term. With preservation-only options available, there was a desire to explore mitigation options

that actually performed some degree of wetland and/or habitat restoration or enhancement.

- Permittee-responsible Onsite/In-kind or Offsite/In-kind Compensatory Mitigation - Onsite in-kind compensatory mitigation that is tied to the impact location is not feasible. Mitigation sites on Admiralty Island were looked for, and outreach was conducted with Admiralty Island residents to find a mitigation site or mitigation effort that would be potentially acceptable. No site was found on Admiralty Island that would provide wetland or habitat functional lift through restoration, enhancement or remediation.

Due to the lack of on-site or Admiralty Island mitigation options, effort was made to seek potential mitigation sites in the proximity of the City and Bureau of Juneau (CBJ) that had previous disturbances to wetlands and habitat that could be restored or enhanced. Several sites in this area were examined and considered, including old gravel mine sites, borrow sites, fill sites, and shaft mining sites. These sites were assessed for their capacity for functional lift through restoration or enhancement, their availability, cost, and potential to successfully achieve mitigation goals and objectives in advance of impacts.

HGCMC is proposing off-site permittee-responsible mitigation for impacts to wetlands through preservation and restoration of a site with similar in-kind resources. Restoring high quality aquatic habitat impacted by historic mining is appropriate mitigation for proposed impacts to wetlands at the Greens Creek Mine. Offsite/in-kind mitigation allows for a more thorough consideration of resources such as wildlife habitat corridors and watershed dynamics in locating a mitigation site, and wetland impacts are off-set in advance of impacts. It allows for mitigation to be sited at a selected, pre-approved mitigation site, thereby focusing economic resources where they provide the most benefit to the environmental resources to be preserved and restored.

The selected site is an abandoned mine site on south Douglas Island at Nevada Creek, potentially threatened by future mining and/or logging. High quality wetlands such as fens that are sensitive and would benefit from protection occur within the site. Potential contaminants from un-stabilized waste rock piles that continue to erode into Nevada Creek offer functional lift opportunities through restoration of these areas. Human access to the site, caused by the attraction to mine tunnels, shafts, adits, and abandoned equipment is a further perturbation to wetlands through use of trails and foot traffic on the historic mine road.

Site Selection Rationale

In evaluating the potential mitigation site, considered sites had to be located within a relatively similar geomorphic setting with similar resources, and be located relatively near the impact site. Potential sites also needed to offer enough acreage to accommodate compensatory mitigation for the proposed project and be cost effective. Other factors in determining the site selection are as follows:

- Self-sustaining mitigation site that can achieve mitigation objectives and performance standards without continual long-term maintenance. Mitigation efforts are also achievable

within logistical constraints for access, timing, and technology.

- Offers opportunity for preservation and restoration of a mitigation site likely eligible for listing on the National Register of Historic Places that has experienced similar mining impacts.

- Free of ownership or legal constraints that would prevent long term protection.

Proposed Mitigation Site

Due to the impracticability of onsite, or Admiralty Island offsite, in-kind compensatory mitigation options, HGCMC is proposing off-site permittee-responsible mitigation through preservation and restoration of a site with similar in-kind resources as compensation for proposed impacts to 13.91 acres of wetlands. Using a three to one ratio, compensation for the proposed wetland impacts requires 41.73 acres of mitigation. The proposed mitigation site, identified as the Nevada Creek Mitigation Site, occurs within the eight digit HUC number 19010301 located on southeast Douglas Island in the City/Borough of Juneau (Sheet 11). The proposed mitigation site totals 51.6 acres and contains 48.3 acres of wetlands comprised of 30.3 acres of Bog/Bog Woodland and 18 acres of Forested Wetlands (Sheet 12). The total of 48.3 acres of wetland mitigation proposed as compensation for impacts to 13.91 acres of wetland more than satisfies the required amount of 41.73 acres of permittee-responsible mitigation using a three to one ratio[3].

The proposed mitigation site has historically experienced similar impacts as the Greens Creek site and consists of two and one-half platted mining lodes totaling 51.6 acres owned by one landowner. The proposed mitigation site offers similar in-kind natural resources such as 30.3 acres of Bog/Bog Woodland wetlands, 18 acres of Forested Wetlands with occurrences of toe-slope fens, and a portion of the lower reach of Nevada Creek and the associated riparian area of the stream (3.2 acres). Preservation of the site's natural resources also presents an opportunity to preserve the cultural resources associated with the Alaska Treasure Mine middle adit that occurs within the proposed mitigation site. Through the Section 106 review process, it is anticipated that the cultural resources associated with the Alaska Treasure Mine will be deemed eligible for listing on the National Register of Historic Places.

Site Description

The Nevada Creek Mitigation Site is situated on a wide glaciomarine terrace with an eastern aspect that ranges in elevation from approximately 150- to 250-feet above Gastineau Channel before the terrace gently slopes down to sea-level at the channel's shore. The middle reach of Nevada Creek is located within the mitigation site. Nevada Creek is a small second-order stream that originates east of McDonough Peak. The stream generally drains to the east and eventually discharges into Gastineau Channel. Wetlands occurring within the mitigation site typically occur within drainage slopes, shallowly sloped depressions, riparian zones, and throughout the wide glaciomarine terrace perched above Gastineau Channel.

[3] The 3 to 1 ratio for proposed mitigation follows the USACE *Alaska District Regulatory Guidance Letter No. 09-01 (RGL 09-01)*, and is the highest mitigation ratio presented by the guidance letter.

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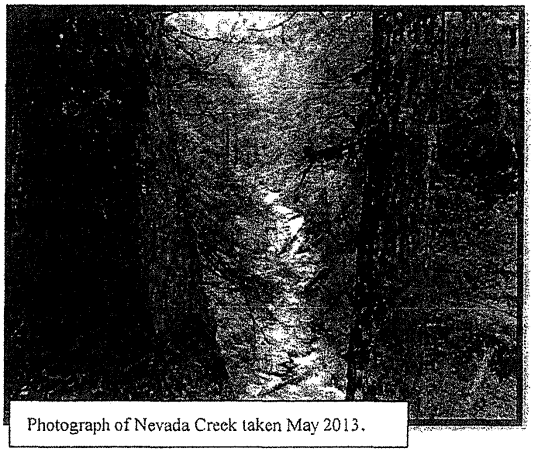
Landscape Position & Geomorphology

The proposed Nevada Creek Mitigation Site is located on southeast Douglas Island where metamorphosed slates, schists, and phyllites generally occur. The mitigation site is situated on a wide glaciomarine terrace with an eastern aspect that ranges in elevation from approximately 150- to 250-feet above Gastineau Channel before gently sloping down to sea-level at the channel's shore.



Photograph of Nevada Creek taken May 2013.

Nevada Creek

Nevada Creek is a small second-order stream that originates east of McDonough Peak. The stream generally drains to the east and eventually discharges into Gastineau Channel. The middle reach of Nevada Creek is located within the mitigation site. The stream is generally only deeply incised in areas where it flows down from steep upslope gradients to terrace elevations that flatten out, such as the northern mitigation site boundary were steeper upslope gradients converge with terrace elevations that flatten out, and shortly inland from the stream's confluence with Gastineau Channel where the terrace drops down to the channels' shorelands. High flows within the stream are generally during high rainfall periods in the fall and in the spring snowmelt, while low flows occur in late summer and mid-winter.

Project Site Wetland Delineation

Delineation of wetlands occurring within the proposed mitigation site was performed by ELS and Bosworth Botanical Consulting during May and June of 2013 using the Routine Determination Method according to the U.S. Army Corps of Engineers *Wetland Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region* (U.S. Army Engineer Research and Development Center 2007).

Delineation of the mitigation site generally confirmed National Wetlands Inventory (NWI) mapping of palustrine, scrub-shrub, broad-leaved evergreen, saturated and scrub-shrub, needle-leaved evergreen, saturated wetland (PEM1B/SS4B) with occurrences of palustrine, emergent, persistent saturated wetland (PEM1B) as the delineation identified 30.3 acres of Bog/Bog Woodland, with the aforementioned mapped NWI Cowardin vegetation classes, located within the mitigation site on the wide glaciomarine terrace perched above Gastineau Channel (Sheets 12 and 13). However, the delineation identified 18 acres of sloped Forested Wetlands with occurrences of toe-slope fens that were not mapped as wetlands according to the NWI mapping of the slopes above the wide glaciomarine terrace perched above Gastineau Channel (Sheets 12 and 13).

Soils

The entire Douglas Island area has been overridden by glaciers, and glacial till occurs throughout the island, especially in mid- to lower elevation areas. The majority of the Nevada

Creek site's soils range from well-developed, deep, colluvial soils occurring on moderate to steep slopes, to poorly drained organic soils occurring on shallowly sloped areas and glaciomarine terraces. The USDA Soil Conservation Service (NRCS) does not offer digital information on the mapped soils that occur on the site. However, the *Soils of the Juneau Area, Alaska* (NRCS 1974) maps lower elevation soils occurring adjacent or near to the Gastineau Channel. The site soils mapped by the NRCS are as follows:

- KaD- Kaikli mucky peat, 12 to 20 percent slopes
- KiB- Kina peat, 3 to 7 percent slopes
- KiC- Kina peat, 7 to 12 percent slopes
- MaC- Maybeso mucky peat, 7 to 12 percent slopes
- MaD- Maybeso mucky peat, 12 to 20 percent slopes
- ToF- Tolstoi-McGilvery complex, 35 to 75 percent slopes

Soils within the Bog/Fen Mosaic wetlands are generally saturated, deep organic peat soils with low chroma soil colors. Soils occurring within the Forested wetlands located on steeper slopes areas occurring within the site were generally comprised of organic mucks with low chroma soil colors (Appendix C).

Hydrology

Wetlands

Hydrology within the Bog/Bog Woodland wetlands is driven by precipitation and shallow groundwater levels. Hydrological regimes within the wetlands range from saturated to seasonally inundated with areas of permanent inundation within acidic pools. Hydrology within the Forested Wetlands is driven by shallow groundwater levels and groundwater flows, and surface water flows during periods of high precipitation. Hydrological regimes within the wetlands range from saturated to seasonally inundated (Appendix C).

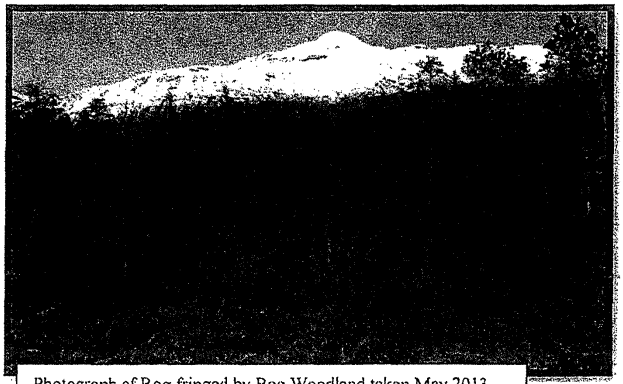
Streams

High flows within Nevada Creek and associated tributaries typically occur in the fall during the high rainfall period and in the spring during snowmelt. Low flows typically occur in late summer and mid-winter.

Vegetation

Bog/Bog Woodland: PEM1B/SS4B & PFO4B

National Wetlands Inventory (NWI) mapping generally captures the full extent of the Bog/Bog Woodland comprised of bogs with emergent and scrub-shrub Cowardin vegetation classes. However, the areas mapped by the NWI as PFO4B coincide with a



Photograph of Bog fringed by Bog Woodland taken May 2013.

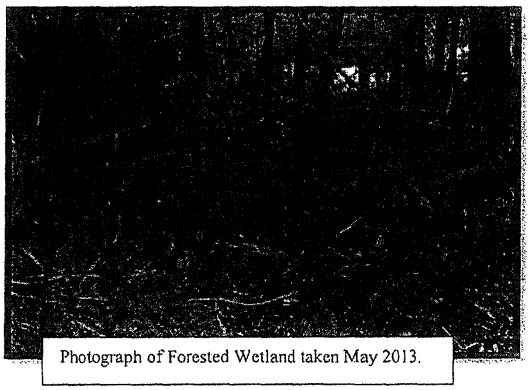
ATTACHMENT 3-E

larger extent of scrub-shrub bog (PSS4B) as the area mapped as PFO4B is dominated by acid tolerant *Vaccinium* species and stunted trees that generally do not reach heights over 20 feet (Sheet 13; Appendix C).

The Bog/Bog Woodland wetlands that occur within the mitigation site are located throughout the glaciomarine terrace above Gastineau Channel. These wetlands transition/grade from pockets of open emergent bog with obligate wetland species such as roundleaf sundew (*Drosera rotundifolia*, OBL), cotton grass (*Eriophorum angustifolium*, OBL), and *Carex* spp. grow amongst *Sphagnum* to a stunted tree bog woodland with lodgepole pine (*Pinus contorta*, FAC), and mountain hemlock (*Tsuga mertensiana*, FAC) dominant in the overstory, and Labrador tea (*Ledum groenlandicum*, FAC), crowberry (*Empetrum nigrum*, FAC), cloudberry (*Rubus chamaemorus*, FACW), and *Sphagnum* dominant in the understory. Species dominant within areas of the Bog Woodland where trees are sparse are acid tolerant species such as oval-leaved blueberry (*Vaccinium ovalifolium*, FAC) and Alaska blueberry (*Vaccinium alaskaense*, FAC).

Forested Wetlands (PFO4B)

The Forested Wetlands are comprised of slope and toe-slope fen wetlands. National Wetlands Inventory (NWI) mapping generally captures the occurrence of the toe-slope fen wetlands. However, the NWI does not capture the forested slope wetlands that occur on the slopes above the wide glaciomarine terrace perched above Gastineau Channel (Sheet 13; Appendix C).



Photograph of Forested Wetland taken May 2013.

The Forested slope wetland community is comprised of the facultative species western hemlock (*Tsuga heterophylla*, FAC) dominant in the overstory, and Alaska blueberry (*Vaccinium alaskaense*, FAC) and the facultative upland species false azalea (*Menziesia ferruginea*, FACU) dominant in the sparse understory, and obligate wetland species such as American skunk cabbage (*Lysichiton americanus*, OBL) dominant within the herbaceous stratum (Appendix D). The Forested Wetland toe-slope fen community is comprised of facultative species such as red alder (*Alnus rubra*, FAC) dominant in the overstory, with lady fern (*Athyrium felix-femina*, NI) and skunk cabbage dominant in the herbaceous stratum.

Uplands

The uplands that occur within the mitigation site are primarily forestlands comprised of facultative upland species such as Sitka spruce (*Picea sitchensis*, FACU) dominant in the overstory and western oakfern (*Gymnocarpium dryopteris*, FACU) and bunchberry dogwood (*Cornus Canadensis*, FACU) dominant within the herbaceous stratum (Appendix C).

Mitigation Site WESPAK-SE Assessment

Using the *Wetland Ecosystem Services Protocol for Alaska–Southeast* (Adamus Resource Assessment Inc. 2012) (Appendix D) to assess the functions and values of the wetlands occurring at the Nevada Creek site typically yielded function scores that were comparable, or exceed, the function scores of the wetlands within the proposed permit expansion boundary area. ELS biologists initially completed the WESPAK-SE assessment of the wetlands that occur within the proposed mitigation site on September of 2012, and finalized the assessments in June and July of 2013. Two generalized wetland assessment units, Forested Wetland and Forested Peatland, drawn from hydrological patterns and the dominant vegetation/habitat type occurring within the site, were assessed as summarized by Table 3 below:

Table 3. Summary of proposed mitigation site WESPAK-SE wetland service ratings.

Services	Forested Wetland	Forested Peatland (Bog/Bog Woodland)
Aquatic Habitat		
Streamwater Cooling	+3	+2
Streamwater Warming	+3	+2
Stream Flow Support	+3	+1
Aquatic Invertebrate Habitat	+3	+3
Anadromous Fish Habitat	+1	+1
Resident & Other Fish Habitat	+3	+3
Amphibian Habitat	+3	+3
Terrestrial Habitat		
Waterbird Feeding Habitat	+1	+3
Waterbird Nesting Habitat	+1	+1
Songbird, Raptor & Mammal Habitat	+3	+3
Pollinator Habitat	+3	+3
Native Plant Habitat	+2	+3
Wetland Sensitivity	+3	+3
Wetland Ecological Condition	+1	+3
Wetland Stressors	+2	+2
Services Score Key:		
+3	Above median score compared to other wetlands in the region	
+2	Median scores compared to other wetlands in the region	
+1	25% < Median score compared to other wetlands in the region	

ATTACHMENT 3-E

The EIS and ROD (USFS September 2013, on Page 3-118) provides an interpretation of the project area assessed WESPAK-SE wetland service rating scores, and this approach was used for the comparison of the wetland service rating scores for the wetlands proposed for impact, and the wetlands proposed as mitigation, as summarized by Table 4 below:

Table 4. Comparison of WESPAK-SE service function scores summary.

Services	Greens Creek Fen Wetlands[1,2]	Greens Creek Bog Wetlands[1]	Nevada Creek Forested Peatland (Bog/Bog Woodland)	Greens Creek Forested (Tributary Creek) Wetlands[1,2]	Nevada Creek Forested Wetlands
Aquatic Habitat					
Streamwater Cooling	+3	+1	+2	+3	+3
Streamwater Warming	+2	+3	+2	+3	+3
Stream Flow Support	+3	+2	+1	+3	+3
Aquatic Invertebrate Habitat	+3	+2	+3	+3	+3
Anadromous Fish Habitat	+3[2]	NA	+1	+3[2]	+1
Resident & Other Fish Habitat	+3	+2	+3	+2	+3
Amphibian Habitat	+3	+2	+3	+3	+3
Terrestrial Habitat					
Waterbird Feeding Habitat	+3	+2	+3	+1	+1
Waterbird Nesting Habitat	+3	+1	+1	+1	+1
Songbird, Raptor & Mammal Habitat	+3	+3	+3	+3	+3
Pollinator Habitat	+1	+1	+3	+3	+3
Native Plant Habitat	+3	+2	+3	+3	+2
Wetland Sensitivity	+3	+3	+3	+3	+3
Wetland Ecological Condition	+3	+2	+3	+1	+1
Wetland Stressors	+1	+1	+2	+1	+2

Services Score Key:	
+3	Above median score compared to other wetlands in the region
+2	Median scores compared to other wetlands in the region
+1	25% < Median score compared to other wetlands in the region

[1] Greens Creek wetland service ratings taken from 2013 final EIS Table 3.8-2 Wetland Service Ratings on Page 3-118.

[2]The final EIS explains (see Page 3-117) that Greens Creek Fen and Forested (Tributary Creek) wetlands support anadromous fish habitat within Tributary Creek, and thus were given additional service points because the original 2012 Adamus Resource Assessment study did not recognize this.

Using the WESPAK-SE, assessment of the Nevada Creek Forested Peatland wetlands resulted in service function scores that were comparable to the service function scores of the Fen wetlands proposed for project impacts, as shown by the Table 4 above. Although few of the individual the WESPAK-SE function service scores of the Forested Peatland wetlands occurring at the proposed Nevada Creek mitigation site match up with the service scores of the Bog wetlands proposed for project impacts, as shown by the Table 4 above, the Nevada Creek Forested Peatlands offer comparable overall services when the service scores are averaged.

Assessment of the Forested Wetlands occurring at the proposed Nevada Creek mitigation site typically yielded service function scores that were comparable to the service function scores of the Greens Creek forested wetlands proposed for project impacts, as shown by the Table 3 above. Both the service scores for the Nevada Creek and Greens Creek Forested Wetlands were above the regional median for downstream temperature regulation, aquatic invertebrate and amphibian habitat, including habitat for songbird, raptors and mammals.

Mitigation Site Baseline Information

Gold was discovered in Nevada Creek in the late 1880s and by the early 1900s the Alaska Treasure Mine was established and worked/explored for gold occurrences (CEC 1980; Redman et al. 1988). A portion of the Alaska Treasure Mine Site, identified as the middle adit where the main working tunnel is located to this day, occurs within the proposed Nevada Creek Mitigation Site.

Historic Baseline Condition

Before the Nevada Creek Mitigation Site was impacted by historic mining, the site's environmental condition was likely similar to the intact areas that surround the site today. Well-drained areas were likely comprised of forested uplands with Sitka spruce and western hemlock in the overstory, early and Alaska blueberry in the understory, and spiny wood fern and dwarf dogwood within the herbaceous stratum. Poorly-drained areas areas were likely comprised of forested wetlands with western hemlock in the overstory, false azalea and devils club dominant within the understory, and skunk cabbage dominant within the herbaceous stratum. Depending on the topography along the stream, Nevada Creek's riparian zone vegetation was likely comprised of a combination species that occurred within the site's uplands and wetlands.

Upon the establishment of the Alaska Treasure Mine, the middle adit area that occurs within the mitigation site consisted of a mining camp, the main working tunnel located on the west bank of Nevada Creek immediately above a small gorge channel carved by the stream, and waste rock dump area along the what is now the east bank of Nevada Creek. West of the middle adit a narrow gauge railroad with associated steam piping ran from the middle adit to a lower mine area adjacent to the Gastineau Channel shoreline. Remnants of the railroad and associated steam piping are evident to this day, as are portions of a log corduroy road that connected the middle adit to the Alaska Treasure Mine Hudson Tunnel upper adit and a lower mine area adjacent to the Gastineau Channel.

Historic impacts within the middle adit area consisted of waste rock dumping into Nevada Creek and clear-cut logging of the surrounding riparian areas, forested uplands, and wetlands. The waste rock dump at the middle adit is the most extensive of associated Alaska Treasure Mine dump areas in the vicinity. Due to the extent and proximity of the waste rock dump to Nevada Creek, the dump likely historically altered the course of the stream significantly. Wood from logging the surrounding riparian areas, forested uplands, and wetlands was likely used for the construction of the mining camp and corduroy road connecting the middle adit to upper and lower mine areas, and reinforcing of the main working tunnel and associated shafts. Wood would have also been used for the mining camp heating and cooking. Increased human presence, and initial and ongoing mining activities, would have also historically impacted wildlife that occurred within the middle adit and corduroy road/narrow gage railroad areas.

Existing Baseline Conditions

The middle mine area's main working tunnel remains accessible to this day. Side-slope areas (adjacent to Nevada Creek) of the main working tunnel waste rock dump were observed to be actively eroding. However, testing of Nevada Creek conducted in 2012 concluded that there are no existing water quality issues (HGCMC Memo 2012); see paragraph below. Assorted small pieces of metal and remnant equipment were also observed within the vicinity of the area's historic mining camp. Today, the vegetation within the middle adit area consists of a sparse understory, but an overstory comprised of Sitka spruce, western and mountain hemlock that have colonized the waste rock dump and previously disturbed adjacent areas. Red alder has was observed to have colonized the majority of the corduroy road alignment, with spiny wood fern and dwarf dogwood dominant within road alignment's upland herbaceous stratum, and skunk cabbage dominant within road alignment's wetland herbaceous stratum.

The waste rock dump area exhibits evidence of continual erosion and material deposition into Nevada Creek as little to no vegetation has colonized the dump side slope contiguous with the stream. Dr. Pete Condon with PetrosGeo Consulting visited the site and assessed the condition of the waste rock area. Dr. Condon identified a significant disproportion of pyrite material within the waste rock that has the potential to produce acid rock drainage. Dr. Condon confirmed that "Stabilization of the bank would slow the rate at which the waste rock enters the creek. If vegetation can be established it will replace some of the strength lost by the rock as it weathers." Therefore, the restoration component of this mitigation plan involves stabilization of the waste rock dump side slope contiguous with Nevada Creek by constructing anchored terraces and establishing native vegetation within the terraces. The construction and in-perpetuity establishment of these stabilization features will prevent the introduction of acidifed material, should acidification of the waste rock occur in the future.

Main Working Tunnel Water Quality

On August 9, 2012, Kerry Lear of Hecla Greens Creek Mining assessed the existing water quality conditions within the Alaska Treasure Mine's middle adit main working tunnel. The main working tunnel was explored for approximately the first 1000 feet. The tunnel is generally wetter than the upper adit Hudson tunnel as small seeps and drips occurred more frequently throughout the length explored. Oxide coatings along the ribs are also more common and are dominated by dark reddish-brown to black manganese-oxides mottled with yellowish to orange-brown (iron) Fe-oxides. The wetter conditions lead to a discernible flow along the tunnel floor

which is covered by a heavy, orange- brown sludge up to 1 centimeter thick. This sludge rises 5 to 10 centimeters up the rib which may indicate that water levels fluctuate inside tunnel. During a previous trip there was a low-volume (2-1 parts per millionth (pm)) direct discharge of contact water flowing directly into Nevada Creek. A water chemistry sample site was selected approximately 100-feet inside the tunnel. There was a very low but distinct flow at the site. Water sampling indicates that there are no immediate water quality issues from the tested main working tunnel. However, if hydrologic conditions were to change inside the tunnel, there are enough oxide coatings that could become soluble to be of concern, and the main working tunnel appears to have a larger reservoir of this type of material than the upper adit Hudson Tunnel (HGCMC Memo 2012).

Nevada Creek Water Quality in Vicinity of Main Working Tunnel

Two Nevada Creek water quality samples were also taken, one upstream and one downstream of the main working tunnel discharge. However, the downstream sample could also be influenced by any contact water discharge from the waste rock dump adjacent to the stream. The two samples returned essentially the same constituents values with the upstream sample values slightly, but not significantly, greater than the downstream sample. None of the metals analyzed are near levels of concern with regard to Alaska Water Quality Standards (HGCMC Memo 2012).

Wildlife & Habitat

The Nevada Creek Mitigation Site contains forested upland habitat, and aquatic habitats such wetlands and riparian areas that have remained relatively undisturbed since historic mining activities ceased. No Endangered Species Act (ESA) listed threatened or endangered species occur on the site, although the Queen Charlotte goshawk, a Forest Service listed Sensitive Species is suspected or known to occur on Douglas Island. Queen Charlotte goshawks are inhabitants of late seral forests and are closely associated with productive old-growth (POG).

Upper elevations areas adjacent to the mitigation site that were not disturbed by historic mining contain stands of old growth. The table below and on the following Page 19 includes the native mammals that occur on Douglas Island as indicated by *Mammals and Amphibians of Southeast Alaska* (MacDonald, S.O. and J.A. Cook 2007), and presents the occurrence of the mammals associated habitat within the Nevada Creek Mitigation Site, in comparison to the occurrence of the species and/or habitat on Admiralty Island within the Greens Creek Mine permit expansion boundary area that includes the Stage 3 Expansion project.

Comparison of Native & MIS Mammal Associated Habitat Occurrence[1]					
Species Common Name	Species Scientific Name	Habitat Association	Associated Habitat Occurs within Nevada Creek Mitigation Site	Tongass National Forest Management Indicator Species (MIS)[2]	MIS or Other Species and/or Associated Habitat Occurs within Proposed Permit Expansion Area
Rodents					
American Beaver	*Castor canadensis*	Forested riparian	Yes	--	Not likely to be American beaver. Likely beaver endemic to Admiralty Island (*Castor Canadensis phaeus*)
Hoary Marmot	*Marmota caligata*	Tree lined slopes	Yes	--	-
Long-tailed Vole	*Microtus longicaudus*	Forested meadows	Yes	--	--
Northern Red-backed Vole	*Myodes rutilus*	Forested & Shrubland	Yes	--	-
Northwestern Deermouse (Keen's Mouse)	*Peromyscus keeni*	Forested & Shrubland	Yes	--	-
Porcupine	*Erethizontidae dorsatum*	Forested	Yes	--	-
Red Squirrel	*Tamiasciurus hudsonicas*	Forested	Yes	✓	Yes
Pikas & Hares					
-	*Lepus americanus*	Forested	Yes	--	-
				--	-
-	*Sorex cinereus*	Forested	Yes	--	-
-	*Sorex monticolus*	Forested	Yes	--	-
Bats					
Little Brown Bat	*Myotis lucifgus*	Forested	Yes	--	-
Carnivores					
American Black Bear	*Ursus americanus*	Forested	Yes	✓	-
American Mink	*Neovison vison*	Forested riparian	Yes	--	-
Ermine	*Mustela ermine alascensis*	Forested	Yes	--	-
North American River Otter	*Lontra canadensis*	Aquatic	Yes	✓	Yes
Red Fox	*Vulpes vulpes*	Forested	Yes	--	-
Wolf	*Canis lupus*	Forested	Yes	✓	-
Ungulates					
Sitka Black-tailed Deer	*O.h. sitkensis*	Forested-meadows	Yes	✓	Yes

[1]As indicated by Mammals and Amphibians of Southeast Alaska (MacDonald, S.O. and J.A. Cook 2007).
[2]Management indicator species for the Tongass National Forest according to 2012 DEIS (USFS 2012).

Aquatic Wildlife & Habitat

Nevada Creek is identified as a small order stream that originates on the east side of McDonough Peak, and generally flows east for approximately two miles until discharging into Gastineau Channel. Cutthroat trout (*Oncorhynchus clarki*), Dolly Varden (*Salvelinus malma*), coho salmon (*O. kisutch*), pink salmon (*O. gorbuscha*), chum salmon (*O. keta*), and sculpin (*Cottus* sp.) occur within the lower reach of Nevada Creek, with pink salmon the most abundant (CH2MHILL 1996). Resident fish are assumed to occur within the middle reaches of Nevada Creek. According to the *Channel Type User Guide - Tongass National Forest Southeast Alaska* (CTUG) (USFS 1992) the classification of the mainstem of Nevada Creek and two of its mapped tributaries, are as follows (Sheet 13):

- HC6 (Deeply Incised Mountain Slope Channel) - HC6 is a channel type that is a shallowly to deeply incised, high gradient (over 6 percent) moutainslope stream. HC6 channels are most commonly found on mountainslope or hill landforms and are primarily sediment transport systems. They occur in large ravines, with a consistent sideslope length greater than 10 meters. They usually initiate as first order streams and commonly extend to ridgetops and summits. Because of high stream gradient, high flow velocity, seasonally low water and migration barriers, HC6 streams are generally not accessible to anadromous or resident fish species. These channels contain negligible spawning or rearing habitat (USFS 1992). ELS field observations of the higher elevation drainage areas within the Nevada Creek site were consistent with the HC6 classification.

- MM1 (Narrow Mixed Control Channel) - MM1 is a moderate gradient channel type with mixed control process where sediment deposition processes is limited. The MM1 stream is normally situated in the middle reaches of small drainages basins. Small bedrock knickpoints and short cascades or falls may be present. According to the CTUG, MM1 channels are generally accessible to anadromous fish species, with downstream barriers accounting for most cases where access is restricted (USFS 1992). ELS field observations of the middle reaches of Nevada Creek were consistent with the MM1 classification.

- MC1 (Narrow Shallow Contained Channel) - MC1 is a moderate gradient channel contained process with narrow, shallow incisions. Stream flow is completely contained by adjacent landforms and upper channel banks. A MC1 stream is found consistently in glacially scoured lowland landforms (USFS 1992). Although MC1 channels are generally not accessible to anadromous species because of downstream barriers, an anadromous waters catalog has mapped approximately last 300 feet of Nevada Creek's MC1 classified channel as salmon bearing (CH2MHill 1996).

Cultural Resources

The cultural resources associated with the middle adit portion of the Alaska Treasure Mine that occurs within the proposed Nevada Creek Mitigation Site is currently in the process of Section 106 coordination and review by the Army Corps of Engineers and the Alaska State Historic Preservation Office (SHPO). It is likely that through the Section 106 review process the middle adit area will be deemed eligible for listing on the National Register of Historic Places. Initial assessment of the proposed mitigation site's potential to contain cultural resources related to sites and materials of prehistoric Native American, and historic Tlingit origin, has been determined to

be unlikely. However, the Section 106 review process is still on-going, and a final determination has yet to be made.

Risks to Mitigation Site Resources

Mining

Gold was discovered in Nevada Creek in the late 1880s, and the Alaska Treasure Mine (Redman et al. 1988), that occurs within the proposed Nevada Creek Mitigation Site, was established by the early 1900s, and the areas identified as the upper, middle, and lower adits had been worked/explored for gold occurrences (CEC 1980). A report completed in 1914, the *Report of the Alaska Treasure Mine* prepared by Fred Close, valued the Alaska Treasure Mine remaining ore upwards of thirty-five million dollars. According to a more recent report prepared by the California Exploration Corporation (CEC 1980) titled the *Geology, Economic Potential and Exploration Recommendations for the Nevada Creek Property* dated November 12, 1980, the entire Alaska Treasure Mine site has been re-visited several times by exploratory mining and survey companies to determine the extent of mineral deposits and the viability of mining. Documented exploration of the site was conducted by the Al Ven Corporation during 1968 and 1969, and the Occidental Minerals Corporation in 1979 (CEC 1980). The CEC evaluation completed in 1980 concluded that the site had a gross mining value of 2.8 billion at that time (CEC 1980).

There will continue to be interest in the future as worldwide economic demand increases for precious metals such as gold and silver, and industrially important metals such as copper and zinc. The site has a history of mining and mine surveys, an historic access road that could be restored–operationally and good access to navigable water for import of equipment and supplies, and export of mined product. A previously considered mine operation, the AJ Mine Project, contemplated the Alaska Treasure Mine site for vast deposition of mine overburden and tailings (CH2MHil 1996). Obviously, mining at this location would entail multiple potentially significant impacts to aquatic resources from clearing, overburden placement, mine tailings and other associated mining-related impacts.

Timber Harvest

Forested habitat within the mitigation site is at risk from clearcut and selective timber harvest. A timber valuation of the all the Alaska Treasure Mine lode plats conducted in 1996 by Curran Consulting, Incorporated, documented a gross log sales revenue value of $2,764,800.00 (Curran Consulting, Inc. 1996). While access remains the greatest challenge to timber harvest at the site, the evidence on the ground of past timber harvests is a reminder that economic conditions drive the feasibility of logging. The site has a mix of both large and medium-sized timber, both hardwood (red alder) and softwood (western hemlock, Sitka spruce, and Alaska yellow cedar). The site has relic access from the shoreline area that could be made passable for log hauling to the shoreline area and shipping via barge to market.

Mitigation Objectives & Performance Standards

The primary overall goal of the proposed mitigation is to compensate for project impacts by preserving the aquatic resources occurring within the Nevada Creek Mitigation Site in perpetuity and restoring Nevada Creek riparian habitat. Preservation of the mitigation site also provides an opportunity to preserve the cultural resources associated with the Alaska Treasure Mine middle adit that occurs within the site. Through the Section 106 review process, it is anticipated that the mining area and cultural resources associated with the Alaska Treasure Mine Site, will be deemed eligible for listing on the National Register of Historic Places.

Long-term Protection

Objective 1. Long Term Protection of Aquatic Ecosystem Functions
Permanently protect aquatic ecosystem functions at the mitigation site by instituting the mitigation plan, and implementing an approved legal protection instrument.

Performance Standard 1a. Preserve through long-term, legally-binding protection the functional condition of the mitigation site's aquatic resources by protecting a total of 51.6-acres located within the middle reaches of the Nevada Creek Watershed. Performance Standard 1a for Objective 1 is completed when the long-term, legally-binding protection instrument is signed by all pertinent parties, placed on the property title, and is officially recorded with the City/Borough of Juneau.

Restoration

Objective 2. Restoration of Nevada Creek Riparian Area Impacted by Waste Rock Dump
Restoration of the portion of Nevada Creek's riparian area impacted by a waste rock dump through stabilization of the dump side slopes.

Stabilization of Waste Rock Dump Side Slopes:

Performance Standard 2a. Stabilize the waste rock dump side slopes eroding into Nevada Creek and promote soil formation through creation of stair-stepped terraces through installation of anchored waddles or (anchored) wood cribs/horizontal logs and planting native trees and/or shrubs within created terraces (e.g. behind waddles or wood cribs/horizontal logs) (Sheet 10). Performance Standard 2a for Objective 2 is completed when the creation and total amount of stair-stepped terraces and planting of native trees and/or shrubs is documented within an As-built Report or Year 1 monitoring report.

Performance Standard 2b. By Year 5, 100 percent of the created stair-stepped terraces along the waste rock dump side slopes will still remain.

Vegetative Structure:

Performance Standard 2c. By Year 5, the aerial cover of planted native trees and/or shrubs, and/or naturally colonizing native trees, shrubs, herbaceous species, or organic material (duff) occurring within created stair-stepped terraces along the waste rock dump side slopes will be 30 percent.

Table 5. Summary of performance standards completion or achievement & documentation.

Anticipated Completion or Achievement of Establishment Period Performance Standards			
Performance Standard	**Year**	**Completed or Achieved**	**Documentation**
1a	Year 0	Completed	As-Built Report
2a	Year 0 or Year 1	Completed	As-Built Report or Year 1 Monitoring Report
2b	Year 5	Achieved	Year 5 Monitoring Report
2c	Year 5	Achieved	Year 5 Monitoring Report

Long-Term Maintenance and Monitoring Plan & Adaptive Management

During the mitigation site's establishment period, the applicant will be responsible for ensuring that maintenance and monitoring plan is implemented to protect and maintain the functional condition of the mitigation site. Once the mitigation site is transferred to a long-term steward, the steward will be responsible for any required long-term maintenance and monitoring.

Maintenance
General maintenance will be periodically performed to address conditions that may limit the success of the mitigation site and attainment of performance standards and objectives. The applicant, and eventually the long-term steward, is responsible for all site maintenance activities. Maintenance activities will include, but are not limited to, repair of any areas subject to erosion, control of invasive species, general maintenance including garbage removal, and repairing damage from vandalism.

Monitoring
Establishment period performance monitoring will be implemented in Years 1, 3, and 5, to determine the degree of success of the mitigation site's restoration activities and to demonstrate to the regulatory agencies that pertinent performance standards have been achieved. Long-term monitoring site evaluations may include periodic surveys to assess encroachment such as garbage dumping and vandalism, and documentation of the functional condition of the site.

Monitoring Reports
The applicant will prepare and submit establishment period monitoring reports to the regulatory agencies in Years 1, 3, and 5 that will document of the status of the mitigation site and success of restoration activities. These reports will document site conditions and provide the supporting

information required to document the attainment of objectives and performance standards. Monitoring reports will be submitted by February 1 of the following year. Each monitoring report will contain the following information:

Permanent Representative Sample Plots
Representative sample plots will be established within the Nevada Creek riparian restoration area. Monitoring photo point locations will also be established within the restoration area and throughout the mitigation site. The restoration area will have at least one monitoring plot per created terrace. Sample plot locations will be placed on an As-built drawing and submitted with a Year 0 As-built Report or Year 1 Monitoring Report. The As-built drawing will be included in the annual monitoring reports.

Monitoring Report Contents
Monitoring reports will follow the guidance outlined by the USACE's *Mitigation Monitoring Report Format* (2008). Monitoring reports will provide the following required monitoring report elements:

Project Overview

1. Project name and USACE Permit Reference Number.
2. Name of the party responsible for conducting the monitoring and the date(s) the monitoring was conducted.
3. Description of the project, acreage and type of aquatic resources impacted, and mitigation acreage, and type of aquatic resources authorized to compensate for the aquatic impacts.
4. Description of the location, any identifiable landmarks of the mitigation project including information to locate the site perimeter(s), and coordinates of the mitigation site (expressed as latitude and longitude).
5. Dates the mitigation project commenced and/or was completed.
6. Statement on whether the performance standards are being met.
7. Dates of any recent corrective or maintenance activities conducted and a description of those activities since the previous report submission.
8. Specific recommendations for any additional corrective or remedial actions. The recommendations will include a detailed discussion about the likely cause and impact of any setback or failure that occurred along with the recommendations for future actions and strategies that might resolve these problems.

Monitoring Overview

9. Listing of the monitoring requirements and performance standards, as specified in the approved mitigation plan and any special conditions of the permit.

10. Evaluation of whether the mitigation project site is successfully achieving the approved performance standards; tables are recommended for comparing the performance standards to the mitigation site conditions.

Monitoring Data

11. The following monitoring data as specified by yearly performance standards will be collected and documented within the annual monitoring reports:

    Nevada Creek Riparian Restoration Area Vegetation
    To assess the establishment of planted native trees and/or shrubs within created terraces along the waste rock dump side slopes the vegetation monitoring will measure the following:

    a) Percent cover of planted species and beneficial recruits; visually determine percent cover using 5-foot diameter sample plots.

    b) Document the mitigation site over time, and changes in the restoration area plant community using photographs from permanent photo points and panoramic view(s).

    Soils
    To assess the development of soil and/or duff within the created terraces within the waste rock dump restoration area document the following:

    c) Using a Munsell Soil Chart Soil, description of soil profile and matrix percentages from 0" to 6" or until waste rock is encountered.

Monitoring Summary

1. Provide summary data to substantiate the compensatory mitigation project's success and/or potential challenges.

2. Provide monitoring data to assess the measureable criteria of each mitigation performance standard. Summarized monitoring report data collection efforts must focus on determining whether performance standards are being met.

3. Provide photo documentation to support the findings and recommendations referenced in the monitoring report and to assist in assessing whether the compensatory mitigation project is meeting applicable performance standards for that monitoring period.

4. In addition to photos at designated photo points, photo documentation to include panoramic views of appropriate areas of the mitigation site. Photos should be formatted on standard 8.5" by 11" paper, or 11" by 17" paper for panoramic views, and dated with the date the photo was taken, in addition to clearly labeling the area of the mitigation site shown in the photograph and the direction from which the photo was taken.

Maps

Maps are to clearly delineate the mitigation site perimeter(s), in order to assist regulatory agencies in locating the mitigation area(s) during site inspections. Provide maps to showing the location of the following compensatory mitigation site features:

5. Photo location points to be identified on the appropriate maps.

6. Habitat types

7. Sampling data points, locations of photographic reference points, and other features pertinent to the mitigation plan.

8. As-built plans may be included.

Conclusions

9. Provide an overview of the current ecological condition of the mitigation site, including a discussion of the restoration areas.

10. Effectiveness of the mitigation restoration activities accomplished to date, and progress of the mitigation site in achieving the specific performance standards. If performance standards are not being met, provide details about the likely cause and impact of any setback or failure that occurred and recommendations of future actions and strategies and/or contingency or remedial measures that might resolve the problem(s). Explanations of the need for any future actions and strategies and/or contingency or remedial measures, and detailed proposals for their implementation, along with an implementation timetable is to be provided.

11. Pertinent additional information on such aspects of the mitigation site as wildlife use of the area, recreational and scientific use, and natural events such as disease, wildfire, and flooding, etc., that may have occurred.

Adaptive Management Plan

If the monitoring reports, or inspection by regulatory agency representatives, indicate persistent failure to achieve and maintain the prescribed performance standards, the applicant will propose adaptive management actions to correct shortcomings. A thorough analysis may result in the identification of other factors, not identified in the performance standards or monitoring data, causing the project to fall short of its objectives. The adaptive management plan shall specify the nature of further examination of potential causes of failure and/or corrective action to be

conducted, the schedule of completion for those activities, and a monitoring report for assessing the effectiveness of the corrective action. The objective of the adaptive management plan shall be to attain the originally prescribed project objectives, either through achieving the original performance standards or through new standards subsequently developed based on evaluation of the site as temporal changes occur and are assessed. All adaptive management actions will be undertaken only after consulting and gaining approval from the appropriate regulatory agencies.

Long-Term Protection & Financial Assurances

The proposed Nevada Creek Mitigation Site is owned by the Nevada Creek Mitigation Partners. As a means of long-term site protection, a conservation easement will be placed on the proposed mitigation site; a draft conservation easement is provided in Appendix E. Additionally, a financial assurance fund of $5,000.00 will be created for completion of all tasks related to the restoration of the Nevada Creek riparian area at the middle adit, as described in Performance Standards 2a through 2c. The amounts required for the Financial Assurance of the Performance Standards, described above, will be deposited by Nevada Creek Mitigation Partners into an escrow account accessible by the appropriate permitting agency, or agencies, for the completion of said tasks if necessary to comply with the objectives of the Mitigation Plan. Upon receipt and approval of the final monitoring reports confirming the satisfactory completion of the Performance Standards, any and all remaining amounts remaining in the escrow account shall be returned to Nevada Creek Mitigation Partners.

Mitigation Site Work Plan

The majority of the project work for the Nevada Creek Mitigation Site is anticipated to take place during the summer of 2014 from June to August, except where noted otherwise, and specifically consists of the following elements:

Restoration of Nevada Creek Riparian Area Impacted by Waste Rock Dump
Proposed work associated with the restoration of the Nevada Creek riparian area impacted by a historic mining waste rock dump through stabilization of the eroding side slopes involves the creation of stair-stepped terraces through installation of either anchored waddles or (anchored) wood cribs/horizontal logs along eroding slopes, and planting native trees and/or shrubs within terraces (Sheet 14).

To provide materials for the proposed anchored wood cribs/horizontal logs, and to increase heterogeneity in stand density and canopy cover within the closed canopy dense re-growth upland forest that now dominates the top of the waste rock dump, a "skips and gaps" (Christensen 2012) treatment is proposed. The treatment is also proposed in order to provide more light for subdominant trees and understory plants that provide wildlife forage as the top of the waste rock dump completely lacks an understory. Thinning intensity will be generally be light as specific trees, not stands, will be targeted to create gaps with some stand areas left completely un-thinned ("skips"). Trees targeted for thinning will be carefully identified using the following considerations and criteria:

Basic Guidelines

- Trees above 12" DBH will not be targeted for thinning
- Retain canopy closure at least 25-feet from what is now the top-of-bank for the Nevada Creek stream valley
- No Alaska yellow cedar will be targeted for thinning
- No saplings will be targeted for thinning

Hand tools and chainsaws will be used for the proposed work associated with restoration through waste rock dump side slope stabilization. Equipment and supplies for the aforementioned work will likely be dropped off and picked up by helicopter and/or walked in and out.

Main Working Tunnel Closure

To restrict public access, closure of the main working tunnel is proposed by the installation of either permanent or locking rebar grates at the adit openings, according to guidance presented by *Managing Abandoned Mines for Bats* (Bat Conservation International 2009). The grates at the adit opening will be constructed onsite using rebar, welding equipment, rock drills, and cement that will be transported on and off-site by helicopter (Sheet 15).

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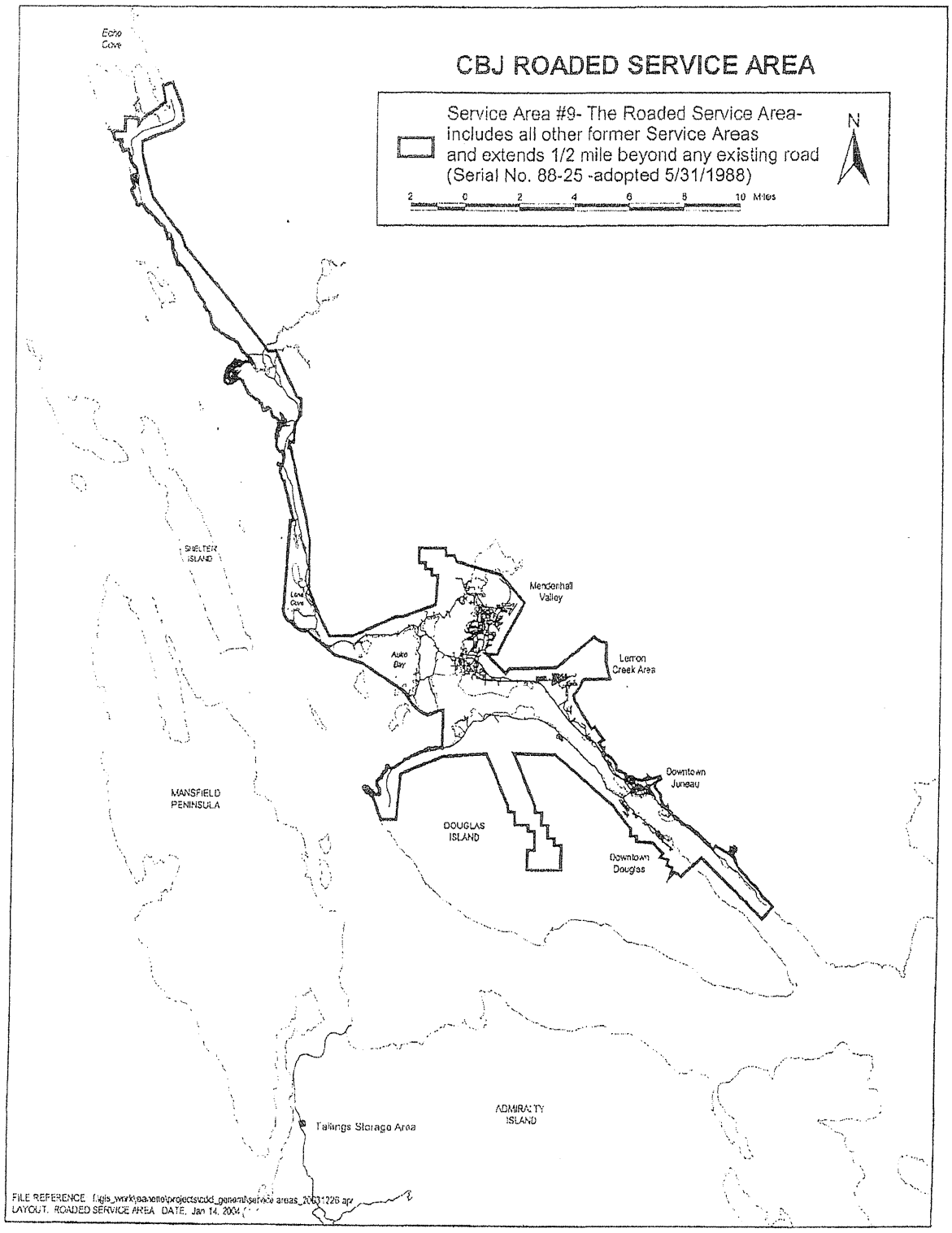


ATTACHMENT 4

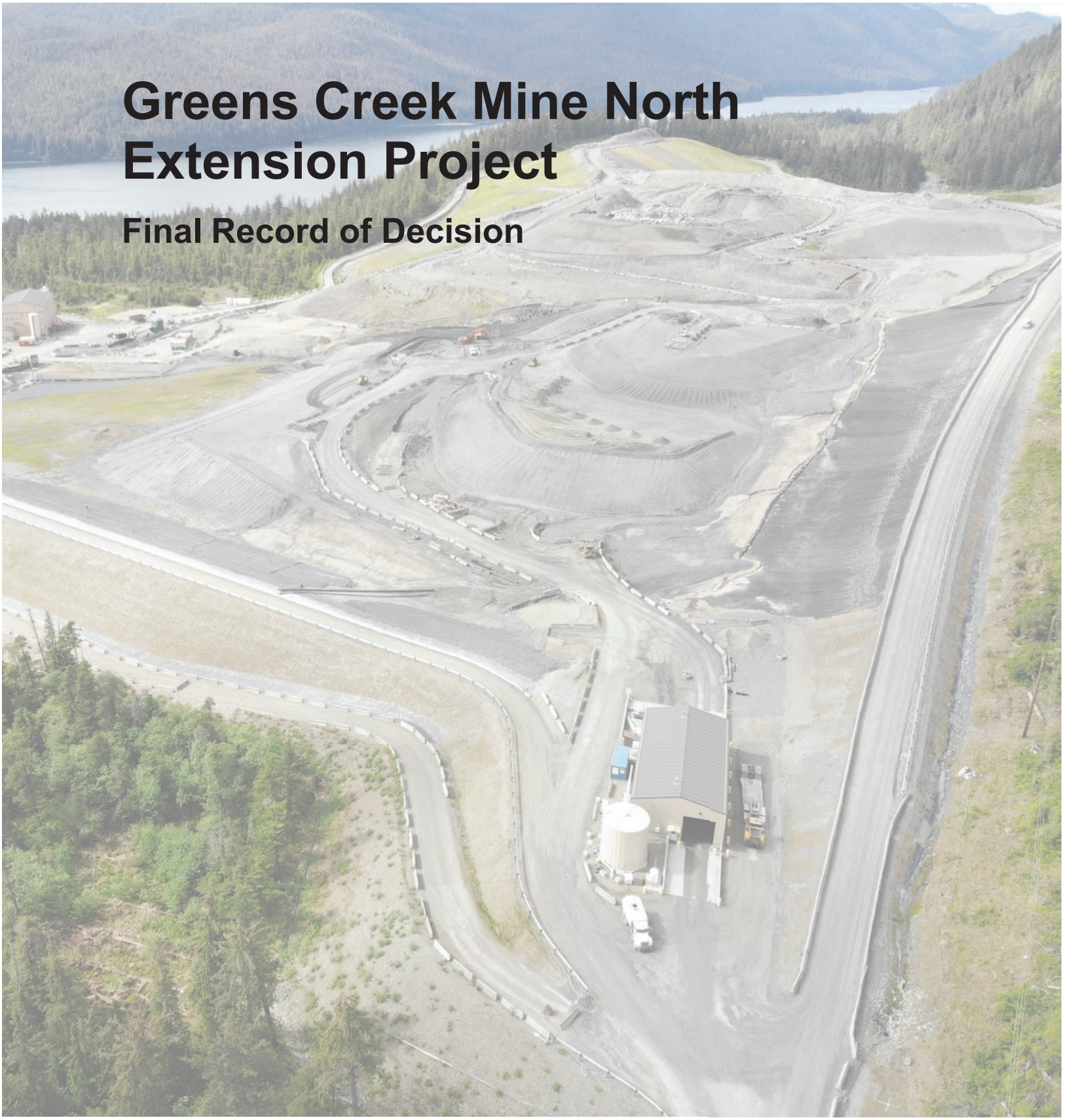
Forest Service
U.S. DEPARTMENT OF AGRICULTURE

US Army Corps of Engineers

Tongass National Forest | R10-MB-891e | November 2024

Greens Creek Mine North Extension Project

Final Record of Decision



Cover Photo Credit: Hecla Mining Company

Acronyms and Abbreviations

AAQS	Ambient Air Quality Standards
ACA	Angoon Community Association
ACEPM	Applicant-Committed Environmental Protection Measures
ADEC	Alaska Department of Environmental Conservation
ADNR	Alaska Department of Natural Resources
ANILCA	Alaska National Interest Lands Conservation Act
APDES	Alaska Pollutant Discharge Elimination System
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DSEIS	Draft Supplemental Environmental Impact Statement
EIS	Environmental Impact Statement
EFH	Essential Fish Habitat
EO	Executive Order
EPA	U.S. Environmental Protection Agency
FEIS	Final Environmental Impact Statement
FMEA	Failure Modes Effect Analysis
FSEIS	Final Supplemental Environmental Impact Statement
FWMP	Freshwater Monitoring Plan
GHG	Greenhouse Gases
GPO	General Plan of Operations
IERB	Independent Engineering Review Board
IMP	Integrated Management Plan
MMPA	Marine Mammal Protection Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act (United States Code 421 et seq.)
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
PM	Particulate Matter
PSLERA	Preliminary Screening Level Ecological Risk Assessment
ROD	Record of Decision
SEIS	Supplemental Environmental Impact Statement
TDF	Tailings Disposal Facility
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service

United States Department of Agriculture | Forest Service | Tongass National Forest Alaska Region | 648 Mission Street, Suite 110 Ketchikan, AK 99901 907-225-3101

File Code: 1950; 2810
Date: November 7, 2024

Dear Planning Participant,

I am pleased to announce the Record of Decision (ROD) for the Greens Creek North Extension Project on the Tongass National Forest has been signed. The ROD and Errata to the Final Supplemental Environmental Impact Statement (SEIS) are available for review at the Juneau Ranger District, the Ketchikan Forest Supervisors office, and online at: https://www.fs.usda.gov/project/?project=57306.

This ROD documents my decision to select a Modified Alternative B, hereafter referred to as the selected Alternative and describes my rationale for the Decision. This decision authorizes Hecla Greens Creek Mining Company, the project applicant, to construct and operate the North Extension to the Tailings Disposal Facility (TDF) at the Greens Creek Mine, includes modifications to the approved 2013 General Plan of Operations extending the TDF on National Forest System lands, increasing the authorized storage capacity of the TDF, modifying or installing new supporting infrastructure, and extending the operational life of the mine by an estimated 12 to 18 years.

The final SEIS and draft ROD were available for public review prior to this final decision, pursuant to the pre-decisional administrative review process (objection process) under 36 CFR 218, subparts A and B, and four objections with standing were received during the 45-day objection filing period. The Reviewing Officer reviewed the draft decision in accordance with 36 CFR 218.3(a) and provided instructions. I have complied with the instructions from the Reviewing Officer prior to signing the ROD. Project implementation may commence once all other associated Federal and State permits have been received.

Copies of this letter have been directly mailed or emailed to those who have expressed interest in the project through scoping, comments, consultation, or requests to be on the mailing list.

For additional information, contact Matthew Reece, Regional Geologist, at (907) 586-7876 or email at matthew.a.reece@usda.gov.

As the Acting Forest Supervisor, I am responsible for this decision. Your interest in the Greens Creek North Extension Project and management of the Tongass National Forest is appreciated.

Sincerely,

Clint R. Kolarich

CLINT KOLARICH
Acting Forest Supervisor

We make every effort to create documents that are accessible to individuals of all abilities; however, limitations with our word processing programs may prevent some parts of this document from being readable by computer-assisted reading devices. If you need assistance with any part of this document, please contact the Tongass National Forest at 907-228-4100.

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Greens Creek Mine North Extension Project
Final Record of Decision

United States Department of Agriculture
Forest Service Alaska Region

Lead Agency:	USDA Forest Service Tongass National Forest
Cooperating Agencies	U.S. Army Corps of Engineers U.S. Environmental Protection Agency State of Alaska City and Borough of Juneau
Responsible Official:	Clint Kolarich, Acting Forest Supervisor Tongass National Forest Federal Building 648 Mission Street, Suite 110 Ketchikan, AK 99901
For Information Contact:	Matthew Reece Regional Geologist Alaska Region P.O. Box 21628 Juneau, AK 99802 907-586-7876 matthew.a.reece@usda.gov

Abstract:

The Responsible Official has prepared a record of decision for the Greens Creek Mine North Extension Project and has selected a Modified Proposed Action (Alternative B) from the Final Supplemental Environmental Impact Statement (FSEIS). The Modified Alternative B expands the existing dry stack tailings facility and associated infrastructure as described in Chapter 2 of the FSEIS, but with the relocation of the B Road west of the Tailings Disposal Facility (TDF). Alternative B includes phased implementation as discussed further in this decision.

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Exhibit R-1. Response to Objection
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Greens Creek Mine North Extension Project

Final Record of Decision

Introduction

This final record of decision (ROD) documents my selected alternative from the Greens Creek Mine North Extension Project Final Supplemental Environmental Impact Statement (FSEIS) and the rationale for my decision. It contains a summary of the environmental analysis and the findings required by law.

The FSEIS analyzes the potential impacts of the no-action alternative and three action alternatives that propose authorizing the construction, continued operation, and maintenance of the proposed Greens Creek Mine North Extension Project, from Hecla Greens Creek Mining Company, the owner/operator of the Greens Creek Mine (Applicant), and was prepared in response to a request from the Applicant to amend their existing 2013 General Mine Plan of Operations (GPO) (HGCMC 2020a). The Greens Creek Mine is on Admiralty Island approximately 18 miles southwest of Juneau, Alaska, and 40 miles north of Angoon, Alaska (**Figure 1**).

The Modified Alternative B will expand the disturbance area analyzed in the 2013 Greens Creek Mine Tailings Disposal Facility Expansion Environmental Impact Statement (EIS) (Forest Service 2013) and approved by the Forest Service under the 2013 ROD (Forest Service 2013). The FSEIS for the North Extension Project considers and discloses direct, indirect, and cumulative impacts, regardless of land ownership or jurisdiction; however, my decision addresses only those project components subject to my authority on National Forest System lands.

Other Federal and State agencies and the City and Borough of Juneau have authority to issue specific permits on National Forest System lands and elsewhere. In particular, the U.S. Army Corps of Engineers (USACE) has yet to exercise their permitting authority over this project and will issue a separate ROD based on the FSEIS. The State of Alaska will also rely on much of this analysis to approve activities and applicable permits. Implementation of the Selected Alternative is subject to the completion of those necessary permit processes by the other Federal, State, and local authorities.

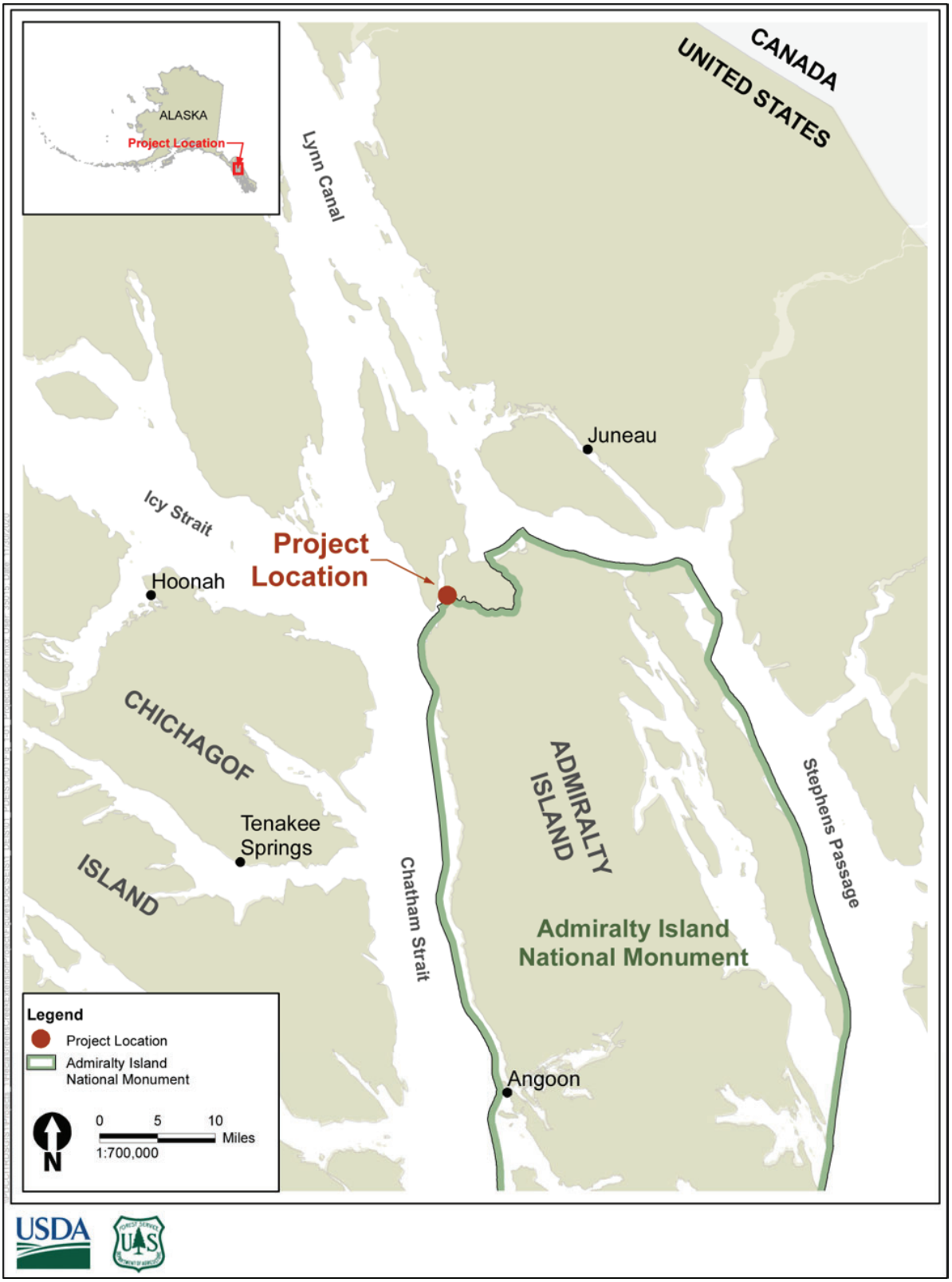

Figure 1. Greens Creek Mine vicinity map

Background

The Greens Creek Mine is an existing underground metals mine (primarily lead, zinc, silver, and gold) near Hawk Inlet on northern Admiralty Island in Southeast Alaska. The Mine began operation in 1989 (under different ownership) and has been owned and operated by Hecla Greens Creek Mining Company (the Applicant) since 2008. The Mine is on privately owned and National Forest System lands administered and managed by the Tongass National Forest, including a portion of the Admiralty Island National Monument.

In February 2010, the Applicant submitted a proposed modification to the 2008 GPO to expand both the area and capacity of the tailings disposal facility (TDF) to extend the life of the Mine. In response to this request, the Forest Service prepared the 2013 "Greens Creek Mine Tailings Disposal Facility Expansion Environmental Impact Statement" (EIS) to analyze the effects of proposed changes to the TDF. The Forest Service approved the proposed expansion with modifications through the publication of the August 2013 ROD (Forest Service 2013), and subsequent development and modification of the existing 2013 GPO (HGCMC 2020a).

In May 2020, the Applicant submitted a proposed amendment to modify the existing 2013 GPO to extend the existing TDF to provide permanent disposal capacity within the Forest Service-approved lease boundary (lease boundary) for an additional 4 to 5 million cubic yards of tailings and waste rock produced by existing operations, and modify or install new supporting infrastructure to allow continued mining operations (HGCMC 2020b). The scope of the proposed project encompasses only this extension and associated infrastructure. The Mine includes a variety of active areas such as the underground mining area, processing and milling facilities, port facilities, the TDF area, and other areas.

The 2020 proposal is similar to the proposed action analyzed in the 2013 final EIS (FEIS), although smaller in scale and magnitude. Therefore, a Supplemental Environmental Impact Statement (SEIS) to the 2013 FEIS has been prepared to analyze potential effects of the proposed Project. The SEIS incorporates direction from the 2013 Greens Creek Mine ROD and tiers to the analysis in the 2013 FEIS.

Decision

This Final ROD documents my decision to implement a Modified Alternative B, hereafter referred to as the Selected Alternative, from the Greens Creek Mine North Extension Project FSEIS.

In making this decision I considered:

- How best to meet the purpose and need for this project;
- Issues raised during scoping;
- Input provided by cooperating agencies and other agencies;
- The relative environmental effects and outputs of the no-action alternative and three action alternatives described in the FSEIS;
- Public comments received;
- Consistency with the 2016 Tongass National Forest Land and Resource Management Plan (Forest Plan);

- Consistency with Laws and Regulations, including the Alaska National Interest Conservation Lands Act and the General Mining Law of 1872; and
- Additional direction provided by the Objection Reviewing Officer to remedy some of the concerns expressed during the objection and resolution review process.

Selected Alternative

The Selected Alternative (Modified Alternative B) authorizes the Applicant to construct and operate the North Extension Project and includes extending the TDF on National Forest System lands, increasing the authorized storage capacity of the TDF, modifying or installing new supporting infrastructure, and extending the operational life of mine by an estimated 12 to 18 years. The TDF extension would continue the use of existing facilities and infrastructure where possible to limit new surface disturbance. The Applicant would continue to implement waste rock disposal techniques, environmental management procedures, and reclamation measures previously approved for the Project by the Forest Service and other Federal and State agencies. The Selected Alternative also includes the following project components:

- Relocation of the existing B-Road west of, and adjacent to, the TDF, including construction of a new crossing of Cannery Creek;
- Relocation of the existing power line and electrical substation;
- Raising the embankment around and between Ponds 7 and 10 by approximately 5 feet to meet water storage and management requirements (99.7 acre-feet or 32,487,387 gallons) and installation of a sump pumping system (the north sump) to capture runoff from the northern end of the TDF. The emergency spillway will also be raised by 5 feet to match the level of the raised embankment, but the design and location will remain similar to that of the existing spillway;
- Relocation of the existing freshwater collection system at Cannery Creek; and
- Placement of peat and overburden within designated disposal areas within the TDF footprint or other approved locations.

The Selected Alternative will generate up to 10.6 acres of new surface disturbance on National Forest System lands within the Juneau Ranger District and 0.3 acres of new surface disturbance within the Admiralty Island National Monument (**Table 1**). In addition to the proposed tailings stack extension, additional areas of surface disturbance would be required for the development of associated support facilities and infrastructure including the B-Road relocation, realignment of the existing power line, construction of a new power substation, the north sump and associated embankment, the freshwater collection system, and Pond 7/10 enlargement**. Figure 2** depicts the Selected Alternative features and **Figure 3** depicts the Selected Alternative disturbance compared to the currently authorized disturbance area under the no-action alternative. **Figure 4** shows the existing and authorized tailings stack area and the vertical and lateral extension areas for the Selected Alternative. **Figure 5** depicts the full buildout of the TDF extension and other facilities at the end of the operational life of the Mine for this alternative. The Selected Alternative would result in 33.3 acres of surface disturbance (including 27.6 acres in the Juneau Ranger District and 5.7 acres in the Monument), for a total cumulative disturbance of 130 acres as indicated in Table 1. Key features of the Selected Alternatives as compared to alternatives analyzed in the FSEIS is provided in **Table 2**. **Table 3** summarizes the environmental consequences of the Selected Alternative as compared to alternatives analyzed in the FSEIS. The comparison of environmental consequences was evaluated considering existing Applicant- committed environmental protection measures (ACEPMs) (Chapter 2, Section 2.5, “Applicant- Committed

Environmental Protection Measures") and best management practices (BMPs) found in the Applicant's GPO. However, the effects analysis does not include the new mitigation and monitoring measures that would be implemented to avoid, minimize, or mitigate impacts (see Table Attachment A, Table A-1). The Forest Service expects that the additional mitigation measures will effectively mitigate environmental impacts from the extension of the TDF. For example, additional fugitive dust mitigation will reduce or eliminate the projected potential effects on watersheds and aquatic and terrestrial resources including the Monument.

Table 1.Selected Alternative (Modified Alternative B) surface disturbance

Project Component	Juneau Ranger District			Admiralty Island National Monument			Total Proposed Disturbance (acres)	Total Existing and Authorized Disturbance (acres)[1]	Total Existing, Authorized, and Proposed Disturbance (acres)[2]
	Proposed Disturbance (acres)			*Proposed Disturbance (acres)*					
	New	*Previously Disturbed*	*Total*	*New*	*Previously Disturbed*	*Total*			
Tailings stack	5.1	11.6	16.7	-	1.0	1.0	**17.7**	**66.0**	**83.7**
Pond 7/10	-	0.1	0.1	-	0.1	0.1	**0.2**	**6.4**	**6.6**
Fill and embankment	2.4	1.0	3.4	0.3	0.3	0.6	**4.0**	**11.3**	**15.3**
Freshwater collection system	0.3	-	0.3	-	-	-	**0.3**	**-**	**0.3**
B-Road corridor relocation	1.3	1.6	2.9	-	0.6	0.6	**3.5**	**0.1**	**3.6**
Construction Road Corridor	0.2	1.9	2.1	-	2.6	2.6	**4.7**	**-**	**4.7**
Electrical substation relocation	0.5	-	0.5	-	-	-	**0.5**	**-**	**0.5**
Power line relocation	0.3	0.4	0.7	-	-	-	**0.7**	**-**	**0.7**
North sump (emergency spillway, north sump, north sump embankment)	0.4	-	0.4	-	-	-	**0.4**	**-**	**0.4**
Water treatment plant	-	-	-	-	-	-	**-**	**0.2**	**0.2**
Additional disturbance[3]	0.1	0.4	0.5	-	0.8	0.8	**1.3**	**12.7**	**14.0**
TOTAL[4]	**10.6**	**17.0**	**27.6**	**0.3**	**5.4**	**5.7**	**33.3**	**96.7**	**130.0**

Source: HGCMC 2024.

Notes: Due to rounding and other factors there may be slight differences between individual disturbance feature totals and the total disturbance numbers reported in the table. The peat and overburden materials would be placed within the disturbance footprint of the TDF, resulting in no additional surface disturbance.

[1] Includes existing and authorized disturbance that occurs within the footprint of this alternative.

[2] The existing and proposed disturbance total includes the total disturbance acreage of existing features in the TDF footprint area plus the proposed disturbance area under the alternative. The existing disturbance totals include features in the TDF footprint area where no additional disturbance is proposed.

[3] The additional disturbance category includes disturbance areas that are not associated with specific Project components under other categories.

[4] The total surface disturbance numbers are rounded up to the nearest tenth of an acre to provide a conservative estimate of surface disturbance totals.

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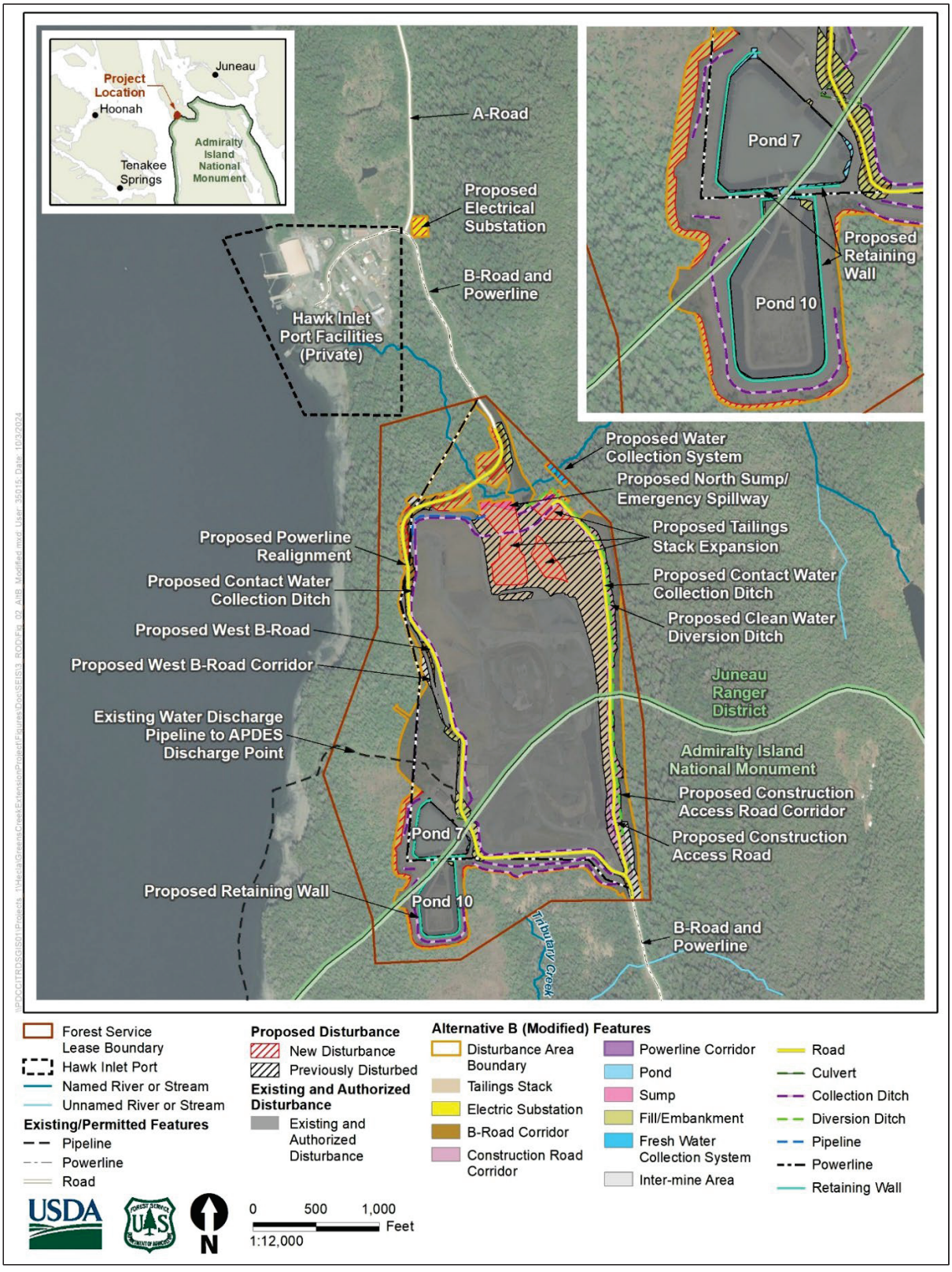

Figure 2. Selected Alternative - Features

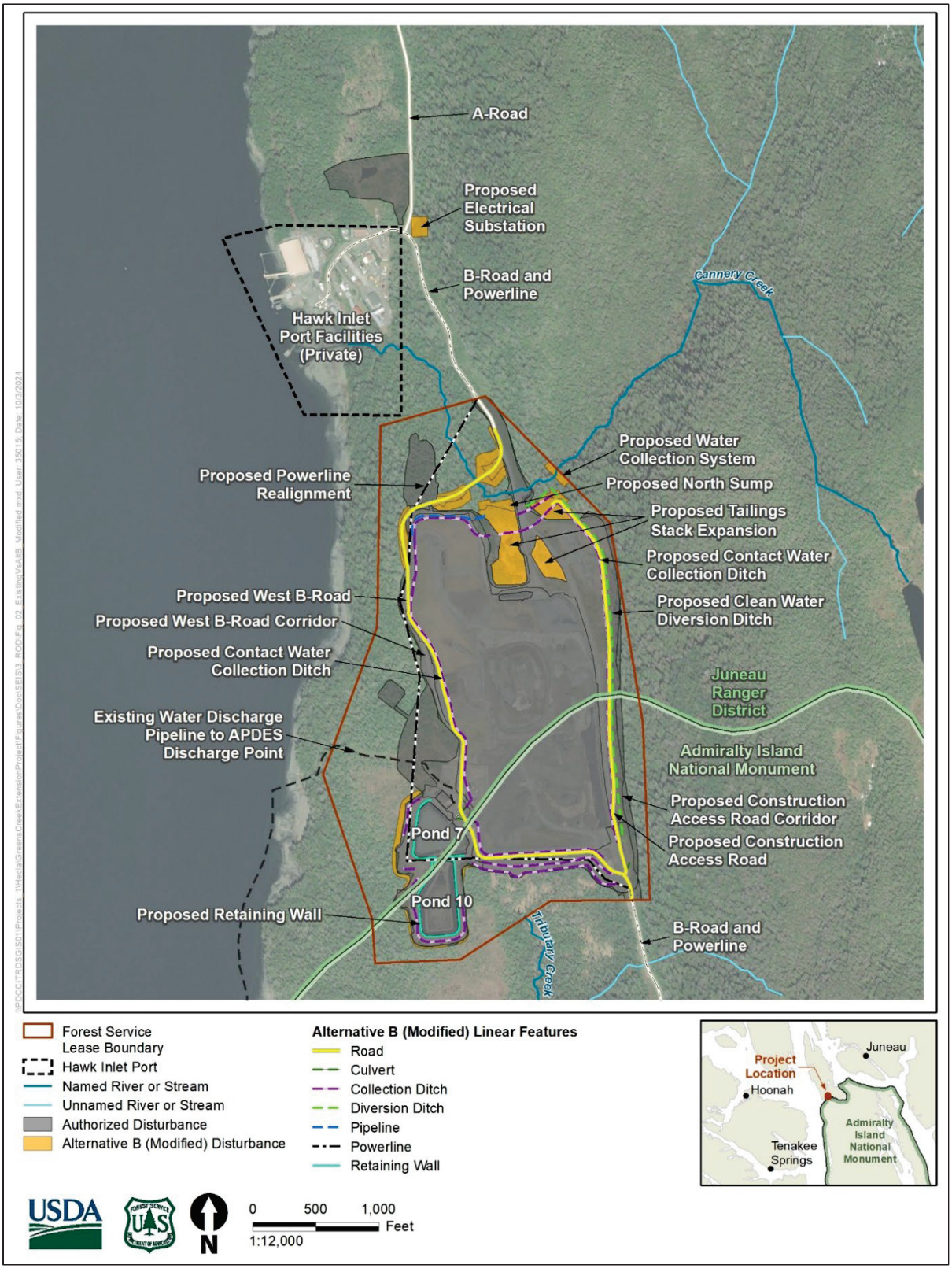

Figure 3. Selected Alternative - Disturbance compared to authorized disturbance area under the no-action alternative

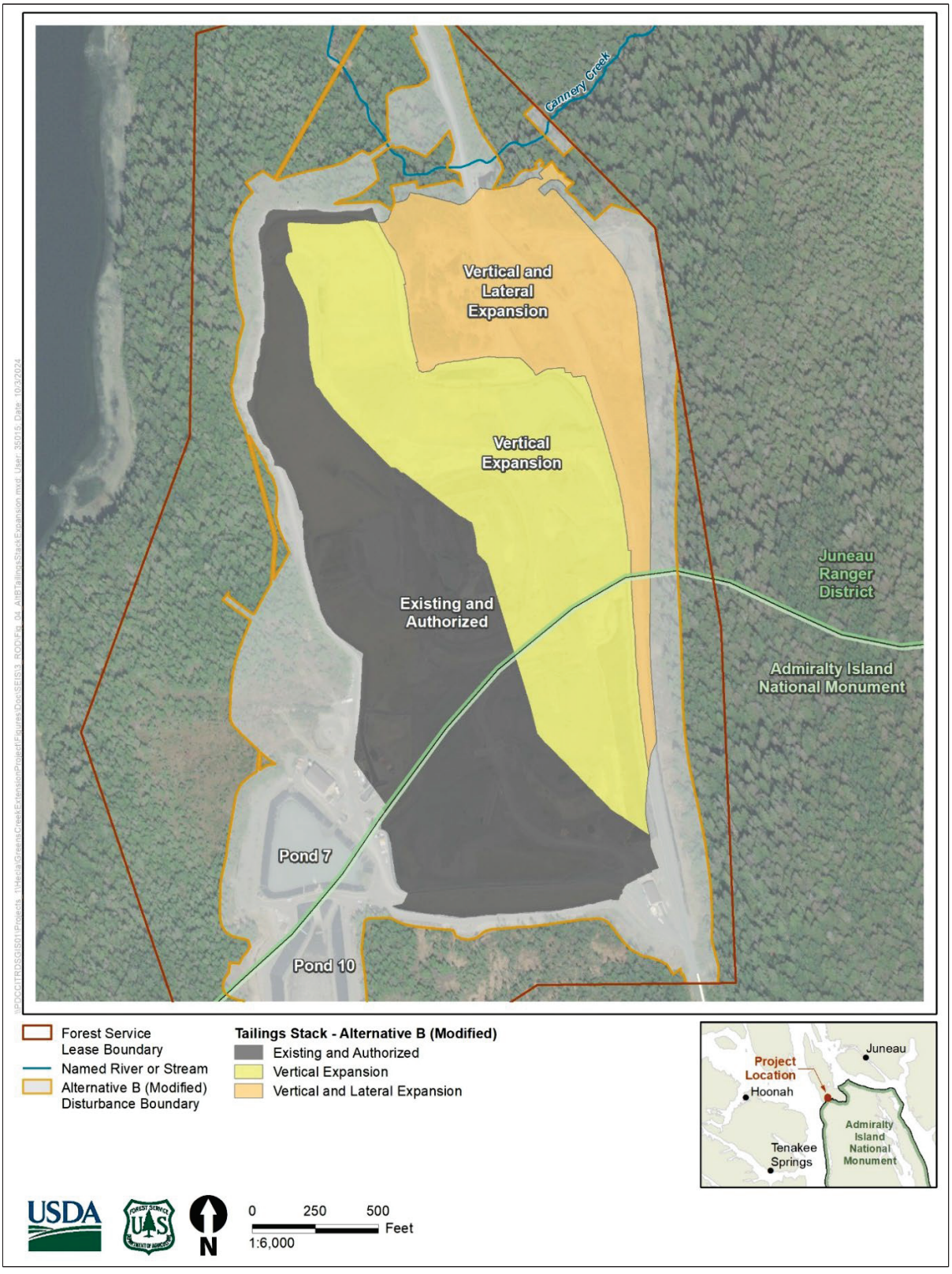

Figure 4. Selected Alternative - Existing and authorized tailings stack area and the vertical and lateral extension areas

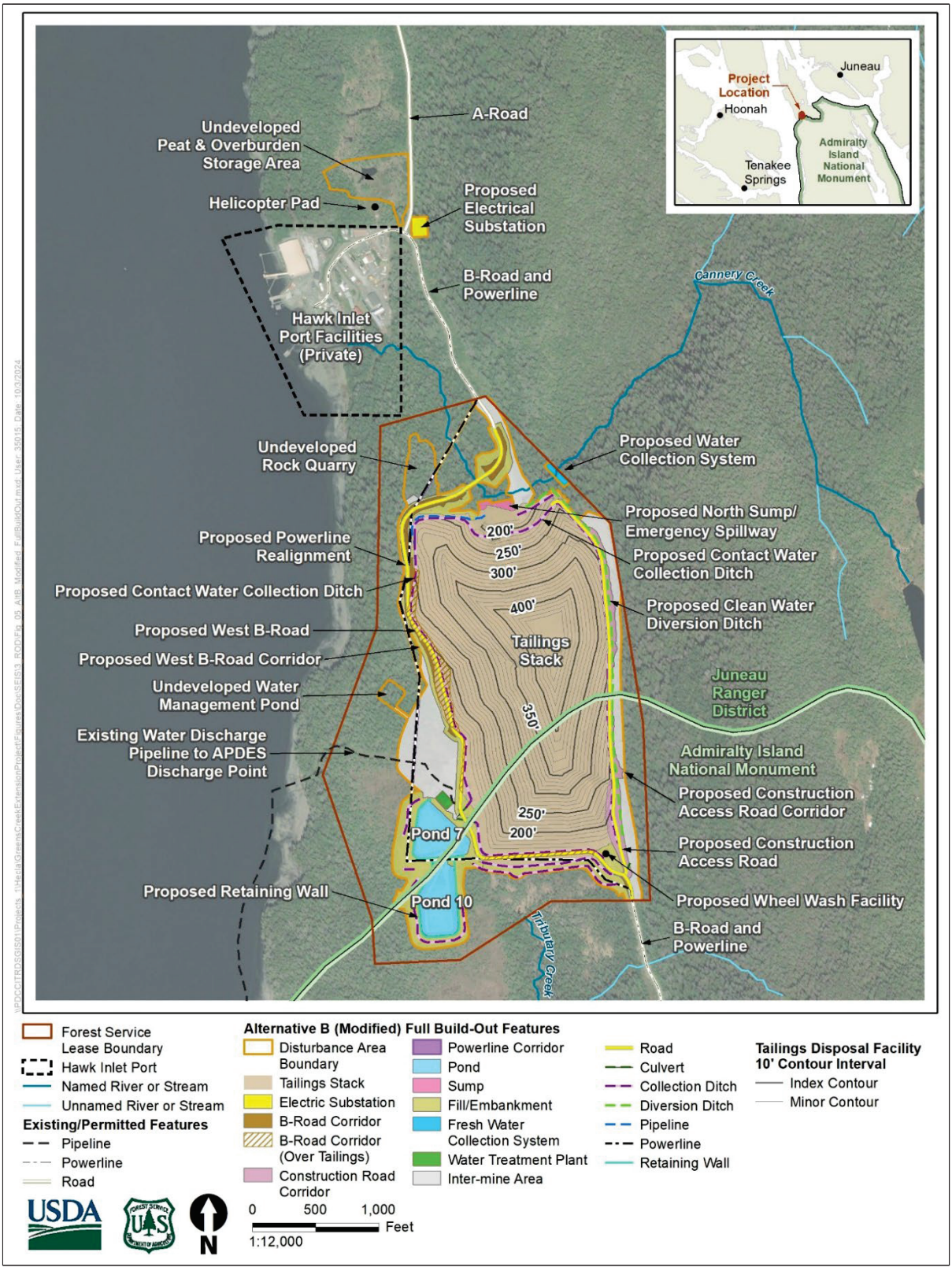

Figure 5. Selected Alternative - Full buildout of the TDF extension and other facilities

The proposed schedule for the TDF extension includes two phases of development. Phase 1 would occur over a 3-year period and start upon final approval of this ROD and approval of all other required Federal and State permits. Major components completed during Phase 1 would include the decommissioning of Pond 9, modification of existing water management ponds, extension of the TDF, and approximately 1.9 million cubic yards of additional TDF storage capacity.

Phase 2 would occur during years 8 to 10, before final closure and reclamation of facilities occurring during years 16 to 20 from approval. Prior to authorization of Phase 2, the Forest Service must observe that fugitive dust is being mitigated to show consistent, long-term downward trends in environmental effects or meet the natural environmental condition, such that there is no long-term ecological risk to aquatic and terrestrial habitat as determined by a Preliminary Screening Level Ecological Risk Assessment (PSLERA) (Mitigation Measure AQ-2). Major components of Phase 2 would include relocation of the existing B-Road, relocation of the existing power line and electrical substation, development of new freshwater collection system at Cannery Creek, and further extension of the TDF, which would increase storage capacity by approximately 2.7 million cubic yards. Implementation of Phase 1 and Phase 2 TDF extensions would increase tailings storage capacity by 4.6 million cubic yards under the Selected Alternative.

Table 2. Key features of the Selected Alternative compared to alternatives analyzed in the FSEIS

Feature	Alternative A (No-Action Alternative)	Alternative B (Proposed Action)	Selected Alternative (Modified Alternative B)	Alternative C (B-Road West Relocation Option 1)	Alternative D (B-Road West Relocation Option 2)
Total surface disturbance (existing and proposed) on National Forest System lands and the Monument (acres)	127.0	132.3	130.0	132.5	141.9
Total proposed new surface disturbance within the Juneau Ranger District (acres)	0	11.4	10.6	12.0	17.1
Total proposed new surface disturbance within the Monument (acres)	0	2.3	0.3	2.9	6.8
Total new surface disturbance on National Forest System lands and the Monument (acres)	0	13.7	10.9	14.9	23.9
Tailing stack footprint (acres)	66.7	83.9	83.7	81.8	89.1
TDF capacity (million cubic yards)	8.5	13.5	13.5	15.3	19.0

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Feature	Alternative A (No-Action Alternative)	Alternative B (Proposed Action)	Selected Alternative (Modified Alternative B)	Alternative C (B-Road West Relocation Option 1)	Alternative D (B-Road West Relocation Option 2)
Operational life of the Mine (years)	Due to reclamation requirements, mining activities would cease in 2025 (excluding waste rock disposal to the underground)	TDF extension would provide an additional 12 to 18 years of operational capacity	Same as alternative B	TDF extension would provide an additional 17 to 26 years of operational capacity	TDF extension would provide an additional 27 to 40 years of operational capacity
Final elevation of the tailings stack (feet)	360	440	Same as alternative B	460	560
Water management	Use of Pond 7/10 and 9; would meet 25-year, 24-hour design storm event	Pond 7/10 enlarged to increase capacity and decommissioning of Pond 9; would meet 50-year, 48-hour design storm event	Same as alternative B	Pond 7/10 enlarged to increase capacity and decommissioning of Pond 9; would meet 50-year, 48-hour design storm event	Pond 7/10 enlarged to increase capacity and decommissioning of Pond 9; would meet 50-year, 48-hour design storm event
Peat management	Peat stored in the sandpit and on outer slopes of TDF	Additional peat excavated during TDF extension; peat to be stored in the existing TDF footprint in either a containment cell or on existing slopes or other previously approved storage facilities	Same as alternative B	Additional peat excavated during TDF extension; peat to be stored in the existing TDF footprint in either a containment cell or on existing slopes or other previously approved storage facilities	Additional peat excavated during TDF extension; peat to be stored in the existing TDF footprint in either a containment cell or on existing slopes or other previously approved storage facilities

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Feature	Alternative A (No-Action Alternative)	Alternative B (Proposed Action)	Selected Alternative (Modified Alternative B)	Alternative C (B-Road West Relocation Option 1)	Alternative D (B-Road West Relocation Option 2)
B-Road location	No change; approximately 4,450 feet of existing road located on the east side of the existing TDF	Approximately 4,450 feet of the existing B-Road realigned up to 350 feet to the east to accommodate the TDF extension, including new Cannery Creek crossing construction	Same as alternative C	Realigned to the west side of the TDF; approximately 600 feet of new road to be constructed and upgrades made to approximately 2,100 feet of existing road, including new Cannery Creek crossing construction	Realigned to the west side of the TDF; approximately 600 feet of new road to be constructed and upgrades made to approximately 2,100 feet of existing road, including new Cannery Creek crossing construction
B-Road crossing of Cannery Creek	No new road crossing of Cannery Creek	Design specifications for the new B-Road crossing at Cannery Creek would be consistent with "Forest Service Transportation Structures Handbook 7709.56b" (Forest Service 2014a) and would meet other applicable guidelines	Same as alternative B	Design specifications for the new B-Road crossing at Cannery Creek would be consistent with "Forest Service Transportation Structures Handbook 7709.56b" (Forest Service 2014a) and would meet other applicable guidelines	Design specifications for the new B-Road crossing at Cannery Creek would be consistent with "Forest Service Transportation Structures Handbook 7709.56b" (Forest Service 2014a) and would meet other applicable guidelines
Electric power line and substation	Power line runs east of the TDF and the substation north of Pond 9	Electric power line realigned west to accommodate the extended TDF; new substation to be constructed near the A- and B-Road junction and existing substation to be removed	Same as alternative B	Electric power line realigned west to accommodate the extended TDF; new substation to be constructed near the A- and B-Road junction and existing substation to be removed	Electric power line realigned west to accommodate the extended TDF; new substation to be constructed near the A- and B-Road junction and existing substation to be removed
Freshwater collection system	North of the TDF	Relocated immediately upstream of the B-Road crossing at Cannery Creek	Same as alternative B	Relocated immediately upstream of the B-Road crossing at Cannery Creek	Relocated immediately upstream of the B-Road crossing at Cannery Creek

Attachment D – 2024 Greens Creek Mine North Extension Project – Final Record of Decision (FROD)
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Feature	Alternative A (No-Action Alternative)	Alternative B (Proposed Action)	Selected Alternative (Modified Alternative B)	Alternative C (B-Road West Relocation Option 1)	Alternative D (B-Road West Relocation Option 2)
Reclamation materials and closure plan	Return disturbed areas to stable, self-sustaining vegetated conditions in near-natural conditions for fish and wildlife habitat and recreation	Same as alternative A	Same as alternative A	Same as alternative A	Same as alternative A
Service roads	Continued use for access to the TDF and ongoing maintenance of existing roads	Continued use for access to the TDF and ongoing maintenance of existing roads; eastward relocation of a segment of the B-Road	Same as alternative C	Continued use for access to the TDF and ongoing maintenance of existing roads; westward relocation of a segment of the B-Road	Continued use for access to the TDF and ongoing maintenance of existing roads; westward relocation of a segment of the B-Road
Workforce	440 full-time staff	440 full-time staff employed for additional 12 to 18 years of extended life of Mine; additional 40 to 60 people employed for 5 to 7 months during extension of the TDF over a 3-year period	Same as alternative B	440 full-time staff employed for additional 17 to 26 years of extended life of Mine; additional 40 to 60 people employed for 5 to 7 months during extension of the TDF over a 3-year period	440 full-time staff employed for additional 27 to 40 years of extended life of Mine; additional 40 to 60 people employed for 5 to 7 months during extension of the TDF over a 3-year period
Stormwater management	Non-contact water released per APDES permit; contact water treated and discharged to Hawk Inlet	Same as alternative A	Same as alternative A	Same as alternative A	Same as alternative A

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Feature	Alternative A (No-Action Alternative)	Alternative B (Proposed Action)	Selected Alternative (Modified Alternative B)	Alternative C (B-Road West Relocation Option 1)	Alternative D (B-Road West Relocation Option 2)
Groundwater management	Managed through diversion structures and liners under the TDF	Managed through diversion structures and liners under the TDF; new sub-drains beneath liner installed	Same as alternative B	Managed through diversion structures and liners under the TDF; new sub-drains beneath liner installed	Managed through diversion structures and liners under the TDF; new sub-drains beneath liner installed

Table 3. Comparison of environmental consequences of the alternatives

Resource / Key Impacts	Impact	Alternative A (No-Action Alternative)	Alternative B (Proposed Action)	Selected Alternative (Modified Alternative B)	Alternative C (B-Road West Relocation Option 1)	Alternative D (B-Road West Relocation Option 2)
Air quality and climate	$PM_{10}/PM_{2.5}$	70.5 tpy/27.2 tpy	70.6 tpy/27.2 tpy	Same as alternative B	Same as alternative B	Same as alternative B
	Greenhouse gas emissions (metric tons CO_2 emissions per year)	1,101 mtpy	1,231 mtpy	Same as alternative B	Same as alternative B	Same as alternative B
	Fugitive dust deposition (amount)	Low to moderate	Low to moderate	Low to moderate	Low to moderate	Low to high
Geotechnical stability	Likelihood of TDF failure	Unlikely failure of TDF and Pond 7/10 due to design measures	Same as alternative A	Same as alternative A	Same as alternative A	Same as alternative A
	Hillslope Stability/Landslide Potential	The project occurs adjacent to the mass movement index high hazard area for potential landslide risk	The B-Road relocation would cut upslope to the east into a mass movement index high hazard area with potential landslide risk	Same as alternative B, except that the B-Road would be relocated to the west side of the TDF and outside of the mass movement index high hazard area to the east	Same as alternative the Selected Alternative	Same as alternative the Selected Alternative
Geochemistry	Likelihood of TDF ARD developing (uncontrolled)	Low due to very low permeability, low availability of oxygen, and closure and reclamation of TDF	Same as alternative A	Same as alternative A	Same as alternative A	Same as alternative A

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Resource / Key Impacts	Impact	Alternative A (No-Action Alternative)	Alternative B (Proposed Action)	Selected Alternative (Modified Alternative B)	Alternative C (B-Road West Relocation Option 1)	Alternative D (B-Road West Relocation Option 2)
Surface water resources	Additional water management infrastructure such as diversions, groundwater slurry walls, and water management ponds	No	Yes: Water management Pond 9 would be removed; water management Ponds 7/10 would be heightened; and new or modified water diversion ditches would be developed around the TDF	Same as alternative B	Same as alternative B	Same as alternative B
	Need for long-term water treatment	Yes: until WQS meet APDES permitting requirements	Same as alternative A, except for a longer duration	Same as alternative B	Same as alternative B	Same as alternative B
	New disturbance by watershed	0: (Nothing beyond previous approvals)	Cannery Creek WS: 4.9 acres Tributary Creek WS: 2.4 acres Middle Hawk Inlet WS: 0.1 acre South Hawk Inlet WS. 1.0 acre	Cannery Creek WS: 3.8 acres Tributary Creek WS: 0.1 acres Middle Hawk Inlet WS: 0.1 acre South Hawk Inlet WS. 1.7 acre	Cannery Creek WS: 4.4 acres Tributary Creek WS: 2.9 acres Middle Hawk Inlet WS: 0.1 acre South Hawk Inlet WS: 1.7 acres	Cannery Creek WS: 6.7 acres Tributary Creek WS: 4.5 acres Middle Hawk Inlet WS: 0.1 acre South Hawk Inlet WS: 1.7 acres
	Watersheds potentially affected by fugitive dust	Hawk Inlet Camp WS: Low Cannery Creek WS: Low Fowler Creek WS: Low Middle Hawk Inlet WS: Low South Hawk Inlet WS: Moderate Tributary Creek WS: Moderate Greens Creek WS: Low Zinc Creek WS: Low	Same as alternative A	Same as alternative A	Same as alternative A	Hawk Inlet Camp WS: Low Cannery Creek WS: Moderate Fowler Creek WS: Low Middle Hawk Inlet WS: Low South Hawk Inlet WS: High Tributary Creek WS: High Greens Creek WS: Low Zinc Creek WS: Low
Groundwater resources	Change in groundwater flow or water quality	Minimal effect on local hydrogeology; no	Same as alternative A except for the lowering of groundwater under the	Same as alternative B	Same as alternative B except for longer Project duration (17 to	Same as alternative B except that there would be increased water

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Resource / Key Impacts	Impact	Alternative A (No-Action Alternative)	Alternative B (Proposed Action)	Selected Alternative (Modified Alternative B)	Alternative C (B-Road West Relocation Option 1)	Alternative D (B-Road West Relocation Option 2)
		impacts on groundwater quality	TDF and increased water treatment from slightly larger tailings stack and longer Project duration (12 to 18 years of operation beyond alternative A)		26 years of operation beyond alternative A)	treatment from a larger tailings stack and longer Project duration (27 to 40 years of operation beyond alternative A)
Aquatic resources	Habitat permanently lost	0 acres	< 1 acre at Cannery Creek depending on crossing design to accommodate the new B-Road crossing.	Same as alternative B	Same as alternative B	Same as alternative B
	Risk of chemical or mining product spill	Low, due to Applicant's ACEPMs and BMPs including SPCC Plan and Facility Response Plan for Oil Spill Prevention	Same as alternative A, except for a longer Project duration for potential spills.	Same as alternative B	Same as alternative B	Same as alternative B
	Risk of watersheds affected by heavy metals (including lead) from fugitive dust	Hawk Inlet Camp WS: Low Cannery Creek WS: Low Fowler Creek WS: Low Middle Hawk Inlet WS: Low South Hawk Inlet WS: Moderate Tributary Creek WS: Moderate Greens Creek WS: Low Zinc Creek WS: Low	Same as alternative A, but would persist for a longer period due to an extended Mine life.	Same as alternative B	Same as alternative B	Hawk Inlet Camp WS: Low Cannery Creek WS: Moderate Fowler Creek WS: Low Middle Hawk Inlet WS: Low South Hawk Inlet WS: High Tributary Creek WS: High Greens Creek WS: Low Zinc Creek WS: Low
Wetlands	Acres and types of new disturbance	0: (Nothing beyond previous approvals)	Wet Sedge Moss Bog: 0.3 acre Moist Graminoid Meadow: 0.7 acre	Wet Sedge Moss Bog: 0.3 acre Moist Graminoid Meadow: 0.7 acre	Wet Sedge Moss Bog: 0.3 acre Moist Graminoid Meadow: 0.7 acre	Wet Sedge Moss Bog: 0.3 acre Moist Graminoid Meadow: 0.7 acre

Resource / Key Impacts	Impact	Alternative A (No-Action Alternative)	Alternative B (Proposed Action)	Selected Alternative (Modified Alternative B)	Alternative C (B-Road West Relocation Option 1)	Alternative D (B-Road West Relocation Option 2)
			Fresh Sedge Marsh: 1.0 acre Open Western Hemlock: 3.7 acres Total: 5.7 acres	Fresh Sedge Marsh: 1.0 acre Open Western Hemlock: 2.9 acres Total: 4.9 acres	Fresh Sedge Marsh: 1.0 acre Open Western Hemlock: 2.9 acres Total: 4.9 acres	Fresh Sedge Marsh: 1.0 acre Open Western Hemlock: 2.9 acres Total: 4.9 acres
Soils	New loss in soil productivity (measured in acres disturbed)	0: (Nothing beyond previous approvals)	13.7 acres	10.9 acres	14.9 acres	23.9 acres
Vegetation	Acres of new disturbance	0: (Nothing beyond previous approvals)	Wetlands: 5.7 acres Mixed Sitka Spruce/Western Hemlock: 7.3 acres Total: 13 acres	Wetlands: 4.9 acres Mixed Sitka Spruce/Western Hemlock: 5.5 acres Total: 10.4 acres	Wetlands: 4.9 acres Mixed Sitka Spruce/Western Hemlock: 9.6 acres Total: 14.5 acres	Wetlands: 4.9 acres Mixed Sitka Spruce/Western Hemlock: 18.2 acres Total: 23.1 acres
	Off-site effects	Indirect effects on vegetation from fugitive dust deposition within a 300-foot buffer around surface disturbance associated with the TDF	Same as alternative A	Same as alternative A	Same as alternative A	Same as alternative A
Wildlife	Habitat Affected	0: (Nothing beyond previous approvals)	Wetlands: 5.7 acres Mixed Sitka Spruce/Western Hemlock: 7.3 acres Total: 13 acres	Wetlands: 4.9 acres Mixed Sitka Spruce/Western Hemlock: 5.5 acres Total: 10.4 acres	Wetlands: 4.9 acres Mixed Sitka Spruce/Western Hemlock: 9.6 acres Total: 14.5 acres	Wetlands: 4.9 acres Mixed Sitka Spruce/Western Hemlock: 18.2 acres Total: 23.1 acres
	Duration of activities that could disturb wildlife and marine mammals	Up to 10 years	12 to 18 years beyond alternative A	Same as alternative B	5 to 8 years beyond alternative B	15 to 22 years beyond alternative B
	Number of goshawk nests potentially affected	No goshawk nests have been identified in the Project area	Same as alternative A	Same as alternative A	Same as alternative A	Same as alternative A

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Resource / Key Impacts	Impact	Alternative A (No-Action Alternative)	Alternative B (Proposed Action)	Selected Alternative (Modified Alternative B)	Alternative C (B-Road West Relocation Option 1)	Alternative D (B-Road West Relocation Option 2)
Threatened and endangered species	Result in "take" of ESA-listed species[5]	No	No	No	No	No
Land use	Meet management prescriptions	Yes	Yes	Yes	Yes	Yes
Scenic resources	Compliance with applicable scenic integrity objective	Yes	Yes	Yes	Yes	Yes
	Duration of visual effects	Approximately 10 years plus reclamation establishment period	Additional 12 to 18 years plus reclamation establishment period	Same as alternative B	Additional 5 to 8 years beyond alternative B plus reclamation establishment period	Additional 15 to 22 years beyond alternative B plus reclamation establishment period
Recreation	Duration of operations (when public may be excluded from areas)	Up to 10 years	12 to 18 years beyond alternative A	Same as alternative B	5 to 8 years beyond alternative B	15 to 22 years beyond alternative B
Subsistence	Duration of TDF operation	Up to 10 years	12 to 18 years beyond alternative A	Same as alternative B	5 to 8 years beyond alternative B	15 to 22 years beyond alternative B
Cultural resources	Effects on historic properties	No historic properties identified with the area of potential effect	Same as alternative A	Same as alternative A	Same as alternative A	Same as alternative A
Socioeconomics	Duration of annual economic and employment benefit from operations	Up to 10 years	12 to 18 years beyond alternative A	Same as alternative B	5 to 8 years beyond alternative B	15 to 22 years beyond alternative B
Monument resources	New disturbance within Monument (acres)	0: (Nothing beyond previous approvals)	2.3 acres	0.3 acres	2.9 acres	6.8 acres

[5] Effects on threatened and endangered species and Forest Service sensitive species would be the same as detailed in the 2013 Biological Assessment/Biological Evaluation for the 2013 FEIS (Forest Service 2013).

[6] The requirement for "near zero" fugitive dust detection at monitoring sites as discussed in the Draft SEIS was replaced with additional Mitigation and Monitoring Measure AQ-1, which requires a decreasing trend in deposition prior to approving the 2nd phase of Project construction. Please see Section 2.6-1, Additional Mitigation and Monitoring.

Resource / Key Impacts	Impact	Alternative A (No-Action Alternative)	Alternative B (Proposed Action)	Selected Alternative (Modified Alternative B)	Alternative C (B-Road West Relocation Option 1)	Alternative D (B-Road West Relocation Option 2)
	Post-mining condition	Near-natural condition following reclamation	Same as alternative A	Same as alternative A	Same as alternative A	Same as alternative A
Inventoried roadless areas	New disturbance	0: (Nothing beyond previous approvals)	0.2 acre within the Greens Creek (037) IRA	Same as alternative B	Same as alternative B	Same as alternative B
Environmental justice	Disproportionately affect minority or low income populations	No	No	No	No	No

ARD = acid rock drainage; CO_2 = carbon dioxide; ESA = Endangered Species Act; IRA = inventoried roadless area; mtpy = metric tons per year; $PM_{10}/PM_{2.5}$ = particulate matter 10 microns or less in diameter/2.5 microns or less in diameter; SPCC = Spill Prevention, Control, and Countermeasure; tpy = tons per year; WQS = water quality standards; WS = watershed

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Rationale for the Decision

My rationale for this decision is based on the full project record, including the project-specific environmental analysis included in the Greens Creek North Extension Project FSEIS and appendices, comments received during the development of the project, and previous analyses and decisions (Forest Service 1988, Forest Service 2003; Forest Service 2013). I considered the purpose and need for the project and the issues that arose during scoping, public meetings and the Draft Supplemental Environmental Impact Statement (DSEIS) comment period, both in support of and in opposition to this project. Two significant issues, surface water quality and water flow impacts, and wetlands and aquatic habitat impacts, were identified for evaluation in the FSEIS and used to develop alternatives to the proposed action based on public scoping, internal review, and cooperating agency input. A third issue, fugitive dust emissions from the TDF, was central to the analysis in the FSEIS. This issue resulted in additional mitigation and monitoring measures common to all alternatives (FSEIS Section 2.6) and development of a Fugitive Dust Mitigation and Monitoring Plan (FSEIS Appendix B). These are discussed further in the mitigation and monitoring sections of this decision.

I have evaluated the beneficial and adverse environmental effects of the action alternatives as documented in the environmental analyses and this Final ROD, and considered Forest Plan direction relevant to this project and the competing interests and values of the public. I also considered consistency of this project with statutory and regulatory requirements, including those found in ANILCA § 503 and 36 C.F.R. 228.80. I reviewed and incorporated responses to Draft ROD objections as provided in Exhibit R-1, Response to Objection. In addition, I have reviewed comments from the cooperating agencies, including USACE, U.S. Environmental Protection Agency (EPA), the State of Alaska, and City and Borough of Juneau prior to making my decision. I considered all viewpoints and incorporated them where feasible and consistent with the purpose and need of the project.

How the Selected Alternative Meets the Purpose and Need

The Forest Service's purpose is to consider the Applicant's proposed modification to the approved GPO regarding tailings and waste rock disposal facilities, water management facilities, and related infrastructure and decide whether to approve, approve with modifications, or deny (no-action alternative) the Applicant's proposed GPO modification. The need for the Forest Service's action is to comply with ANILCA § 503 and regulations governing the use of surface resources for operations authorized by United States mining laws on National Forest System lands under 36 CFR 228, subpart A.

The Selected Alternative is the Applicant's original proposed action except that the B-Road will be relocated west of the TDF (analyzed in the FSEIS (alternatives C and D)), which will reduce impacts to the environment as compared to the original proposed action (alternative B) and alternatives C and D (see Tables 2 and 3).The Selected Alternative minimizes impacts including total surface disturbance, new surface disturbance in Admiralty Island National Monument, removal of vegetation, loss and degradation of wetlands, and loss of soil productivity. The Selected Alternative also allows the Forest Service the opportunity to confirm the expected effectiveness of the mitigation and monitoring measures by authorizing the TDF expansion in two phases over the estimated 12- to 18-year period of operation, pending monitoring results and review of subsequent PSLERA(s).

How Issues were Considered and Addressed

The FSEIS provides an in-depth analysis of the issues raised during project development and describes the environmental consequences associated with implementing each alternative. There are many

commonalities among the action alternatives; therefore, my decision focused largely on developing mitigation and monitoring actions common to all alternatives and ensuring opportunities to understand and respond to the effectiveness of those actions. Analysis of the two significant issues identified in the FSEIS, surface water quality and water flow impacts, and wetlands and aquatic habitat impacts, informed my decision and allowed emphasis on the third issue described here, fugitive dust.

Surface Water Quality and Water Flow Impacts

> *Issue Statement: Water quality and flows in surface water may be affected by runoff and sediment associated with surface disturbance, the TDF extension and associated infrastructure, and wastewater discharge into Hawk Inlet. The impacts on water quality and flows could adversely affect water quality and aquatic life including marine mammals, fish, shellfish, invertebrates, and other species.*

Impacts to surface water quality and water flow were similar among alternatives, as indicated by similar additional water management infrastructure needed, need for long-term water treatment, and watersheds potentially affected by fugitive dust. In all alternatives, the effects on surface water would be minimized through the implementation of the stormwater pollution prevention plan, best management practices, and existing Applicant-committed environmental protection measures.

Due to the Water Quality Impairment and Category 4b Listing of Tributary Creek, I paid particular attention to that watershed. In 2022, the Alaska Department of Environmental Conservation (ADEC) designated Tributary Creek as a category 4b waterbody in its Integrated Water Quality Monitoring and Assessment Report due to exceedance of the dissolved lead water quality criteria "for toxic and other deleterious organic and inorganic substances standard for the chronic freshwater aquatic life designated use" (ADEC 2020a). As part of the category 4b listing of Tributary Creek, ADEC has established a water quality standard target for lead to be achieved by 2030 through "source controls and best management practices" outlined in the Integrated Monitoring Plan (IMP) (HGCMC 2020a). My decision includes implementation of the Applicant's Fugitive Dust Mitigation and Monitoring Plan, in addition to new mitigation and monitoring measures (see Attachment A, Table A-1), to address this issue.

I also paid particular attention to the concerns raised regarding Hawk Inlet. I took note of the comments I received related to the baseline study from 1981, prior to construction of the Greens Creek Mine, and requests to replicate the study. Follow-up studies to the 1981 baseline study include the Aquatic Biomonitoring Report (ADFG 2022), ADFG 19-01 Technical Report – Freshwater Resource Investigations Near the Greens Creek Mine (ADFG 2020), Surface Water Hydrology Baseline Report (EDE 2021), Hawk Inlet Annual Monitoring Report (HGCMC 2022), and Environmental Risk Characterization Report (HGCMC 2020g). These documents address elements of the 1981 baseline studies. There are instances where the 1981 baseline studies cannot be replicated because the baseline methodology was not sufficiently documented, or data were below detection limits of that time. In such cases the monitoring plan has been adapted to support long-term datasets that meet data quality standards established by State and Federal agencies. For additional information, please see objection response NEPA-1(1), in Exhibit R-1, Response to Objection. In order to present the monitoring and survey information that has occurred at the Mine, the Forest Service has developed a working survey and monitoring table that is available for review on the project website. Also, consolidated figures showing monitoring site locations is provided in the FSEIS Errata.

The FSEIS describes existing conditions of the affected environment by resource area. Specific to Hawk Inlet, APDES water monitoring reports indicate no exceedances of marine water quality standards. The Greens Creek Mine discharges treated water from Pond 7/10 into Hawk Inlet and must comply with the APDES permit requirements. The APDES permit also requires regular testing of Hawk Inlet marine water quality and metals in sediments and invertebrate tissue. This monitoring is designed to ensure compliance with AWQS at the outfall and to detect long-term trends and changes in metal concentrations in Hawk Inlet. Compliance with the discharge standards ensures that adverse impacts on marine life are unlikely to occur and, if they occur, they would be minor.

As presented in the Environmental Risk Characterization Report for the Applicant (HGCMC 2020g) and Section 3.7 of the FSEIS, examination of freshwater biomonitoring data found healthy, diverse aquatic communities containing reproducing fish and invertebrate populations characteristic of waters with limited environmental stressors, such as metals. Metal concentrations in seawater, sediments, and invertebrate tissues in Hawk Inlet were generally consistent with or lower than other local, regional, and national values, indicating that the Greens Creek Mine is not significantly affecting the Hawk Inlet ecosystem.

Additional mitigation and monitoring measures and the Fugitive Dust Mitigation and Monitoring Plan included in this decision are intended to address the potential effects to surface waters (see AQ-1, AQ-2, AQ-3, SW-1 and G-5, and AR-1, and AR-2).

Wetlands and Aquatic Habitat Impacts

Issue Statement: Extension of the TDF and associated infrastructure may cause impacts on wetlands and aquatic habitats. Loss of wetlands and altered riparian conditions can affect fish and other aquatic habitats.

Wetlands

Section 3.8 of the FSEIS analyzes wetland impacts from all alternatives. The Selected Alternative has direct wetland impacts resulting in the permanent loss of 4.9 acres of wetlands, including approximately 0.3 acres of new direct wetland disturbance within Admiralty Island National Monument (see tables 2 and 3). The three action alternatives have the same impacts to wet sedge moss bogs, moist graminoid meadows, fresh sedge marshes, and open western hemlock wetlands. Indirect effects to wetlands from fugitive dust deposition, potential spills, and acid rock drainage are similar among alternatives and will be minimized through existing and additional monitoring and mitigation measures and existing permits and water treatment requirements.

My decision to choose the Selected Alternative balances direct impacts to wetlands and the extent of new surface disturbance of the total project footprint as compared to the other alternatives analyzed in the FSEIS. While the Selected Alternative will have the same overall affects to wetlands as compared to Alternatives C and D, it will also generate less total new wetland surface disturbance than Alternatives B, C or D and results in the lowest amount of new surface disturbance in the Admiralty Island National Monument (see tables 2 and 3).

My decision applies only to activities for which I have jurisdiction on National Forest System lands. The FSEIS acknowledges the U.S. Army Corps of Engineers administers Clean Water Act Section 404 permitting, and potential compensatory mitigation options for the proposed unavoidable impacts on wetlands, if required, may include permittee-responsible or in-lieu programs. Compensatory mitigation would be planned based on the final direct impact footprint and the calculated functional

loss to wetlands indirectly impacted. Functional loss would be determined after a preferred alternative is identified and carried forward to the Section 404 wetland permitting process.

In 2020, the Tongass National Forest and U.S. Army Corps of Engineers Alaska District entered into a Conservation Land Use Memorandum of Agreement (USFS 2020). That agreement states that, at the discretion of the Corps, compensatory mitigation requirements associated with wetland permits may be satisfied by establishing, restoring or enhancing aquatic resources located on suitable lands comprising the National Forest System. Compensatory mitigation projects include the establishment, restoration, enhancement, and/or in certain circumstances, the preservation of aquatic resources implemented through a permittee-responsible mitigation plan, or by a mitigation bank, or an in-lieu-fee program.

Aquatic Habitats

Section 3.7 of the FSEIS analyzes impacts to aquatic resources from all alternatives. None of the alternatives are expected to result in a significant (less than 1 acre) loss of freshwater stream or marine aquatic habitat, and the risk of chemical or mining product spill is low. Although the Selected Alternative has a higher risk of watersheds being affected by heavy metals than the no action alternative due to the longer duration of mining activity, it does not include the higher risks to South Hawk Inlet and Tributary Creek that would likely result from Alternative D. Existing measures that would continue under the Selected Alternative require the Applicant to conduct routine inspections and maintenance of culverts and ditches to minimize effects on surface waters. Application of best management practices, Applicant-committed environmental protection measures, and the Fugitive Dust Monitoring and Mitigation Plan are intended to minimize fugitive dust deposition on surface waters, and tidal flushing of Hawk Inlet waters is expected to transport fugitive dust away from the study area and therefore it is not expected that fugitive dust would accumulate in the environment in quantities to affect marine habitat or aquatic organisms differently than under the no-action alternative.

The Selected Alternative would likely result in the potential for only minor reductions to spawning and rearing habitat or anadromous fish production in Tributary Creek freshwater essential fish habitat. Other impacts to freshwater essential fish habitat include the potential for increased sedimentation from roadways and fugitive dust, and deteriorated habitat conditions including water quality from expansion and construction of the TDF. Marine essential fish habitat may be potentially affected from the Selected Alternative by loading and off-loading procedures at marine facilities and the associated potential for spills. The Selected Alternative also has the potential for fugitive dust to deposit directly to marine waters which may contribute metals affecting water quality which may be harmful to fish and prey biota. Based on this analysis, the Forest Service determined freshwater and marine essential fish habitat may be adversely affected by all action alternatives, but impacts are expected to be minor. My decision includes existing and additional best management practices and mitigation measures to address the essential fish habitat conservation recommendations provided through consultation with NOAA National Marine Fisheries Service. These measures are expected to prevent permanent effects on fish habitat.

Fugitive Dust

Several fugitive dust-related issues were raised during public comment periods and in the objections received on the project; these included:

- Potential impacts from the Project on Monument objectives and values, Kootznoowoo Wilderness Areas, and the Greens Creek Delta from fugitive dust;

- Potential impacts of fugitive dust and bioconcentration and accumulation of metals in subsistence food items used by the Angoon Community Association other users resulting in impacts on subsistence and traditional tribal uses and food sources in Hawk Inlet, which may pose health issues for tribal members; and
- Potential impacts on air quality and biological resources, such as vegetation and wildlife, from fugitive dust emissions from the TDF and other Project-related surface disturbances resulting in potential bioconcentration and accumulation of metals.

To better understand the potential for impacts from fugitive dust, the Forest Service required that fugitive dust deposition modeling be completed to estimate the potential extent of current and future fugitive dust deposition and to analyze the potential effects of the Project on resources from metals associated with fugitive dust. The modelling approach, model scenarios, and other model information including limitations of the modelling effort are included in the FSEIS (pp. 3-16 to 3-23). The interdisciplinary team acknowledged uncertainty in the model but determined the model is effective at providing relative comparisons of particulate matter deposition among alternatives for the eight watersheds included in the analysis. Because of these uncertainties, my decision includes additional monitoring to validate the fugitive dust modeling results and expand the spatial extent of data collection, and a phased expansion approach. My decision also includes expanded mitigation that is expected to reduce fugitive dust as referenced in the Fugitive Dust Mitigation and Monitoring Plan. This will improve understanding, reduce uncertainty of modeling results, and enable evaluation of fugitive dust mitigation effectiveness.

My decision to select the Modified Alternative B considered the purpose and need of the project to act on the Applicant's proposed modification to the approved GPO, which seeks extension of the existing TDF to provide permanent disposal capacity within the existing lease boundary for an additional 4 to 5 million cubic yards of tailings, waste rock, and other materials. My decision relies on the demonstrated effectiveness of existing applicant-committed mitigation and monitoring measures, as well as the expected effectiveness of additional mitigation and monitoring requirements to minimize fugitive dust deposition and associated effects. The Selected Alternative provides additional storage capacity and an estimated additional 12 to 18 years to the life of mine. Because this decision requires two phases for implementation, it also gives the Forest Service and cooperating agencies time to verify model accuracy, confirm the expected effectiveness of the Applicant's Fugitive Dust Mitigation and Monitoring Plan, and implement new mitigation measures and monitoring requirements before authorizing further expansion (see Table A-1, Monitoring Measure AR-2).

Other Issues

Other issues identified during the scoping process were evaluated in the FSEIS and informed this decision. These issues are addressed through Project design and best management practices already employed for the Project, or through the additional mitigation and monitoring measures common to all alternatives including the no-action alternative.

The other issues analyzed in the FSEIS include the following:

- Project-related geotechnical stability and capacity of the TDF and water treatment system and ponds during operations and closure and potential effects on these facilities from seismic activities that could result in tsunamis, landslides, or avalanches in the region. This issue was analyzed in Sections 3.3 - Geotechnical Stability and 3.22 - Cumulative Effects of the FSEIS.

- Risks associated with the TDF and the water treatment system and ponds. This issue was analyzed in Sections 3.2 - Air Quality and Climate, 3.3 - Geotechnical Stability, 3.4 - Geochemistry, 3.5 - Surface Water, 3.7 Aquatic Resources, 3.8 Wetlands, 3.11 - Wildlife, 3.20 - Inventoried Roadless Areas and 3.22 - Cumulative Effects of the FSEIS.
- Project-related surface disturbances adversely affecting resident and anadromous fish stream habitat important for rearing, migration, and spawning and other aquatic habitat. This issue was analyzed in Sections 3.7 - Aquatic Resources, 3.12 - Threatened, Endangered, Candidate, and Forest Service Alaska Sensitive Species, and 3.22 - Cumulative Effects of the FSEIS.
- Project operation causing irreparable harm to Admiralty Island National Monument resources. This issue was analyzed in Sections 3.19 - Admiralty Island National Monument resources and 3.22 - Cumulative Effects of the FSEIS, and is also addressed in the Findings Required by Law in this ROD.

Other Factors Considered

Throughout analysis and decision making, I worked with the interdisciplinary team to understand how climate change could affect elements of the Selected Alternative or contribute cumulatively to its effects. As noted in the FSEIS, there is inherent uncertainty in climate modeling. However, most models suggest warmer, wetter conditions for Southeast Alaska. They generally project that rainfall may increase and snowfall may decrease at lower elevations in Southeast Alaska over the next 50 to 100 years. While warmer and wetter conditions may provide beneficial effects in terms of fugitive dust reduction, they could introduce additional complexities with water management.

The Selected Alternative will provide additional time to confirm the effectiveness of the civil and hydraulic design changes to infrastructure to accommodate climate-hydrology effects, the Applicant's Fugitive Dust Mitigation and Monitoring Plan, and implementation of new mitigation and monitoring on the environment.

How the 2013 Record of Decision was Considered and Addressed

In making my decision, I revisited the 2013 Greens Creek Mine Tailings Disposal Facility Expansion ROD. In 2013, the Responsible Official explained his rationale in selecting Alternative D with modifications was to provide a relatively short-term solution that avoided direct impacts affecting the fish-bearing sections of Tributary Creek and also avoided a second tailings facility, thus offering more protection of Admiralty Island National Monument. The Responsible Official at that time did not believe there would be an option to further expand the existing Greens Creek Tailings Disposal Facility without direct effects on the fish-bearing sections of Tributary Creek. Thus, to support any additional future expansion of the Greens Creek TDF, the Responsible Official stated that the Tongass National Forest should develop a supplement to the Forest Service Directives to clarify how to apply the complex set of legal requirements that are specific to Admiralty Island National Monument and Misty Fjords National Monument and for Hecla (the Applicant) to provide feasibility analyses regarding the construction and use of alternative tailings disposal facilities.

The Forest Service proposed a Forest Service Manual supplement in 2014 following the 2013 FEIS and ROD. A majority of the comments received were in opposition to the supplement, and in December 2014 the Regional Forester determined that the supplement would not accomplish the intended objectives and was therefore not finalized. Rather, the Forest Service is implementing the language of the statute and demonstrates compliance with ANILCA § 503 and regulations applicable

to the Monument, such as 36 CFR 228.80, in Section 3.19 of the FSEIS and in the Required Findings section below.

Also, contrary to the expectations of the Responsible Official in 2013, none of the alternatives considered in detail for the current proposed expansion present a choice between expanding the TDF into fish-bearing portions of Tributary Creek (resulting in a permanent loss of habitat), or constructing a second tailings disposal facility. Instead, the FSEIS for this project considered three action alternatives that involve expanding the existing facility vertically, as well as laterally to the north and away from Tributary Creek.

Section 503(i)(1) of ANILCA provides that the Greens Creek Mine is entitled to a lease only if the Forest determines that certain conditions are met, including that milling activities necessary to develop such claims cannot be feasibly carried out on such claims or on other land owned by such holder, that use of the leased area does not cause irreparable harm to Admiralty Island National Monument, and that use of the leased area will cause less environmental harm than the use of any other reasonably available locations. In evaluating proposed expansion of the Greens Creek Mine tailings disposal facility, the Forest Service and Hecla (the Applicant) analyzed potential alternative tailings disposal facilities consistent with the 2013 ROD and ANILCA § 503(i)(1). This NEPA history review is provided Attachment B, Forest Service NEPA History, to this Final ROD.

The Applicant and the Forest Service considered options that would avoid any surface disturbance in the Monument by developing or expanding the TDF on claims outside the Monument or on other lands owned by the Applicant. The TDF expansion could not feasibly occur on claims or other lands owned by the Applicant on Admiralty Island, as neither the land owned or leased by the Applicant near the Mine site or at Young Bay is of sufficient size or suitable for holding the volume of tailings under the Selected Alternative. The area available for tailings disposal within these parcels accounts for less than 6 acres while the TDF under the Selected Alternative would require approximately 33 acres of surface disturbance to accommodate the extended tailings stack and associated infrastructure (see Table 1. Additionally, tailing disposal is not feasible on other lands owned by the Applicant due to the limited acreage available, existing soil conditions not being suitable to support construction of a new TDF because significant portions of the parcel support freshwater wetlands, and approximately 5.5 miles of the existing A-Road requiring new surface disturbance from widening and other upgrades in order to support tailings haulage from the Mine site to a Young Bay TDF location. In addition, the additional 5.5 miles of tailings haulage would result in additional fuel consumption, greenhouse gas emissions, noise, fugitive dust, and additional safety impacts due to the presence of large haul trucks traveling on the A-Road. This was documented in Chapter 2.4 of the FSEIS: Options and Alternatives Considered but Not Analyzed in Detail and is supported by FSEIS Appendix A: Alternatives Review, and Forest Service NEPA History (see Attachment B).

A remote site would require disturbance in an area where none presently exists, the installation of new support infrastructure, increased complexity of tailings and waste rock transport logistics, and elevated energy use for material transport. In addition, disturbance for a new remote facility would occur in one or more currently undisturbed habitats, wetlands and watersheds, which could cause fisheries impacts and would create greater disturbance to Waters of the U.S. than an extension of the existing tailings stack. The Forest Service considered alternatives for new remote TDFs in both the 2003 and 2013 EIS analyses. However, in the RODs for these analyses, the Responsible Official concluded that there would be considerably more environmental impacts if a new remote TDF was constructed and operated and the agency chose to extend the existing tailings stack.

Summary of Decision Rationale

Based on my review of the project information, stated above, the primary factors for the Selected Alternative included evaluation of the significant issues and fugitive dust impacts, as well as additional mitigation and monitoring to minimize those impacts. The Forest Service recognizes that the Selected Alternative has the least environmental impact as shown in Tables 2 and 3 and has the same 12 to 18 year TDF capacity as the proposed action (alternative B). I also considered the agency's responsibility to address climate change as part of the decision processes, how additional issues identified from public and cooperating agency comments were addressed, and how the 2013 ROD was considered and addressed. For each of these factors, the approval duration of the Project as well as the new mitigation and monitoring required for the Project will allow time for the collection and data synthesis for future Project decisions. Additionally, the Selected Alternative keeps expansion-related disturbances to a minimum compared to other action alternatives and within the existing lease boundary.

Alternatives

Alternatives Considered in Detail

Four alternatives were considered in detail, including the no-action alternative. All alternatives respond to the purpose and need. The action alternatives provide differing volumes of additional tailings placement in slightly different footprints. Tables 2.4-2, 2.8-1, and 2.9-1 in the FSEIS compare alternatives by key project components and by resource (see tables 2 and 3).

No-action Alternative

The no-action alternative represents currently approved operations. The no-action alternative serves as an environmental baseline for evaluating effects of the Proposed Action (Selected Alternative) and other Action Alternatives. Under the no-action alternative, the Forest Service would not approve an amendment to the 2013 GPO, the USACE would not issue a Clean Water Act Section 404 Department of the Army permit, and no additional tailings placement would be developed beyond what is currently permitted under the 2013 GPO. Approximately 239 acres are currently disturbed, including 170 acres of disturbance on National Forest System lands. The 2005 GPO approved 249.2 acres of disturbance.

The Applicant would continue to operate under the 2013 GPO until the existing storage capacity has been filled, which is estimated to occur in 2031 based on current production rates and using the underground mine for waste rock disposal. Once the existing storage is consumed, the mine would discontinue operations and reclamation would begin.

ANILCA § 503 states that the holder of a valid mining claim at Greens Creek is entitled to a lease of National Forest System lands for mining and milling purposes only if the Forest Service determines that certain conditions are met (as discussed further in this document, below). ANILCA's withdrawal of Admiralty Island National Monument from entry or appropriation under the public land laws is subject to valid existing rights, including certain rights under United States mining laws. Exercise of these rights remains subject to reasonable regulation (ANILCA § 503(f)(2); 36 C.F.R. Part 228; 36 C.F.R. 228.80).

Alternative B: Proposed Action

This alternative would authorize the construction and operation of a TDF extension on National Forest System lands, increasing the authorized storage capacity of the TDF, modifying or installing new

supporting infrastructure, and extending the operational life of mine by an estimated 12 to 18 years. The TDF extension would continue the use of existing facilities and infrastructure where possible to limit new surface disturbance. The Applicant would continue to implement waste rock disposal techniques, environmental management procedures, and reclamation measures that have been approved for the Project by the Forest Service and other Federal and State agencies. This alternative would also include the following project components:

- Relocation of the existing B-Road east of, and adjacent to, the TDF, including construction of a new crossing of Cannery Creek;
- Relocation of the existing power line and electrical substation;
- Raising the embankment around and between Ponds 7 and 10 by approximately 5 feet to meet water storage and management requirements (99.7 acre-feet or 32,487,387 gallons) and installation of a sump pumping system (the north sump) to capture runoff from the northern end of the TDF. The emergency spillway will also be raised by 5 feet to match the level of the raised embankment, but the design and location will remain similar to that of the existing spillway;
- Relocation of the existing freshwater collection system at Cannery Creek; and
- Placement of peat and overburden within designated disposal areas within the TDF footprint or other approved locations.

Alternative C: B-Road West Relocation Option 1

This alternative includes relocating a portion of the existing B-Road to the west side of the extended tailings stack to avoid challenges with road design on the east side of the tailings stack that may occur under the Proposed Action, and to remove anticipated elevation-related constraints to the design of the tailings stack. Under this alternative, the tailings stack would extend to the eastern edge of the existing lease boundary and would provide more storage capacity than the Proposed Action. This alternative would include 0.6 additional acres of new surface disturbance in the Monument than the Proposed Action and would extend the life of mine by an estimated 17 to 28 years.

Alternative D: B-Road West Relocation Option 2

This alternative includes relocating a portion of the existing B-Road to the west side of the extended tailings stack to avoid challenges with road design on the east side of the tailings stack that may occur under the Proposed Action and to increase the overall storage capacity of the TDF. Under this alternative, the tailings stack would extend beyond the eastern edge of the existing lease, providing substantially more tailings storage capacity than alternative C. This alternative would include about 4.5 acres more new surface disturbance in the Monument than the Proposed Action and would extend the life of mine by an estimated 27 to 40 years.

Alternatives Considered but Eliminated from Detailed Study

As part of developing the proposed action, and during the NEPA process for this SEIS, the Applicant and the Forest Service considered a variety of alternatives for the TDF extension location, water management, peat and overburden management, B-Road realignment, substation relocation and transmission line realignment, no new disturbance in the monument, and other alternatives. The options and alternatives that were considered by the Applicant and the Forest Service but not analyzed in detail as well as the rationale for not analyzing these alternatives in detail are described in FSEIS section 2.4 and Attachment B (Forest Service NEPA History) to this Final ROD.

Previous NEPA analyses for the Mine considered a variety of new locations for the development of new TDFs, marine deposition of tailings, and off-island deposition of tailings (HGCMC 2020d). See the 1983 FEIS, the 1998 EA, 2003 FEIS, Forest Service NEPA History (Attachment B) to this Final ROD, and the 2013 FEIS for additional detail.

Environmentally Preferable Alternative

The no-action alternative is the environmentally preferable alternative because the no-action alternative would result in no additional project-related environmental disturbance as compared to the Selected Alternative and other action alternatives. Impacts disclosed in the 2013 FEIS would continue from activities authorized in the 2013 GPO, and the Applicant would continue to operate under the 2013 GPO (updated June 2020) until the existing storage capacity has been filled, which is estimated to occur in 2031 based on current production rates and using the underground mine for waste rock disposal. Once the existing storage is consumed, the Mine would discontinue operations and reclamation would begin. No additional environmental effects would occur from further expansion, and the duration of effects would be shorter, therefore the no-action alternative is the environmentally preferable alternative.

Public Involvement

To seek input on the North Extension Project, the Forest Service hosted public meetings, published *Federal Register* notices and newspaper ads, participated in government-to-government consultation, and presented at group and individual meetings.

The Forest Service conducted public scoping beginning with the publication of a Notice of Intent to prepare a SEIS published in the *Federal Register* on October 9, 2020 (85 FR 64108). The publication of the NOI initiated the 45-day scoping process. The formal scoping period ended November 23, 2020. Scoping information and notice of the comment period was also announced via a letter distributed to recipients on the Forest Service's email list of subscribers for the Greens Creek North Extension Project and posted to the Project website. This information provided background on the Mine; a description of the Proposed Action, agency involvement, required permits and authorizations, and the scoping process; a SEIS preparation schedule; and information sources. During the scoping period, the Forest Service hosted two public meetings: on October 20 and 29, 2020. Both meetings were held virtually due to the COVID-19 pandemic. A total of 18 people participated in the October 20, 2020, meeting and 21 people participated in the October 29, 2020, meeting. All scoping materials were also posted on the Forest Service website at https://www.fs.usda.gov/project/?project=57306. The project was listed on the Tongass National Forest Schedule of Proposed Actions beginning January 1, 2020.

The DSEIS comment period started on March 24, 2023, with publication of the Notice of Availability in the *Federal Register* (88 FR 17848). The original 45-day comment period was extended to about 60 days, at the request of the public. During that time, the Forest Service held three open house public meetings. An open house was held at the Juneau Ranger District office on April 12, 2023, and open houses were held in Angoon on April 19, 2023, and May 12, 2023.

Comments within the scope of this project have been addressed and incorporated into the FSEIS to the extent practicable. I have reviewed public and agency comments received during this analysis; the responses to those comments are provided in the FSEIS, Appendix C. I also considered the objections that were received on the project, and the Reviewing Officer's response to those objections, as discussed further below.

Mitigation

The analysis documented in the FSEIS discloses the possible adverse effects of implementing the Selected Alternative. Mitigation measures are guided by Forest-wide goals and objectives, applicable Land Use Designation (LUD) management prescriptions, and Standards and Guidelines from the Forest Plan. The Selected Alternative would continue to implement conservation measures and conduct monitoring similar to the 2013 GPO. These Applicant-committed environmental protection measures are described in Section 2.5 of the FSEIS. Based on analysis in the FSEIS, resource-specific impact assessments, and the effectiveness of existing protection measures, additional mitigation measures, which include a Fugitive Dust Mitigation and Monitoring Plan (FSEIS Appendix B), have been identified for approval of the GPO. BMPs, mitigation and monitoring contained in the GPO are mandated by the Forest Service and are also enforced by ADEC through the Applicant's Waste Management Permit, which is effective for 5 years. A summary of identified mitigation, conservation, and monitoring measures and requirements is provided in Attachment A.

All appropriate Forest Service Region 10 best management practices (BMP), updated Forest Service National Core BMPs (Forest Service, 2012), and State of Alaska BMPs (State of Alaska, Department of Environmental Conservation) will apply as appropriate and are being applied under current operations.

Following the release of the USACE ROD, the Forest Service and USACE will utilize their 2020 Conservation Land Use Agreement to address unavoidable impacts requiring compensatory mitigation outlined by USACE permits. Compensatory mitigation projects will be developed in coordination with the Forest Service, the Applicant, and cooperating agencies and may include the establishment, restoration, enhancement, and/or the preservation of aquatic resources implemented through a permittee-responsible mitigation plan, mitigation banks, or an in-lieu-fee program. Implementation of any compensatory mitigation projects on National Forest System lands will require Forest Service approval to ensure compliance with the Forest Plan Forest-wide Standards and Guidelines for Wetlands, Riparian, and Fish, and to apply BMPs to all land-disturbing activities as a process to protect the beneficial uses of water from non-point sources of pollution. The Forest will utilize National Core BMP Technical Guide FS-990a and Alaska Region Soil and Water Conservation Handbook, FSH 2509.22, and consult Forest Service Manual 2530, USACE Regulations (33 CFR 323.4), and the Clean Water Act (Sections 401, 402, 404, as applicable) to maintain the present and continued productivity of wetland, riparian, and fish habitat. The final reclamation plan will incorporate, as applicable, any additional USACE compensatory mitigation requirements following the above process.

With implementation of these measures, I conclude that all feasible means necessary to prevent or minimize potential environmental harm from the Selected Alternative have been adopted, and all practicable measures to maintain and protect fisheries and wildlife habitat have been adopted. A variety of alternatives for the TDF extension location, water management, peat and overburden management, B-Road realignment, substation relocation and transmission line realignment, no new disturbance in the monument, and other alternative were considered which may have further avoided or minimized environmental harm. Rationale for why these alternatives were not adopted and analyzed in detail, such as infeasibility or impracticality, is documented in Section 2.4 of the FSEIS.

Monitoring

The FSEIS describes in Chapter 2, Section 2.5 that, as a common element of all action alternatives including the Selected Alternative, the Applicant would continue to implement committed

environmental protection measures in accordance with the 2013 FEIS and BMPs and monitoring plans from the GPO. This includes an Integrated Monitoring Plan (IMP) (freshwater monitoring plan, fugitive dust monitoring plan, and biological monitoring plan), National Pollutant Discharge System Marine Water and Sediment Sampling Program, Tailing Disposal Facility Management Plan, Best Management Practices, Clean Water Act Section 404 Permit mitigations, and Fish and Wildlife Monitoring.

Based on analysis in the FSEIS, resource-specific impact assessments, and the effectiveness of existing protection measures, additional mitigation measures, which includes a Fugitive Dust Mitigation and Monitoring Plan (FSEIS, Appendix B), have been identified for approval of the GPO, and are identified in Chapter 2, Section 2.6 of the FSEIS and by resource in Chapter 3. BMPs, mitigation and monitoring contained in the GPO are mandated by the Forest Service and are also enforced by ADEC through the Applicant's Waste Management Permit, which is effective for 5 years. Monitoring of the Selected Alternative will be done during and after implementation. These monitoring items will be included in the construction stipulations and the project Applicant is required to comply with all terms and conditions of Federal and State permits.

A summary of identified mitigation, conservation, and monitoring measures and requirements is provided in Table A-1.

Compliance with Mitigation and Monitoring Requirements

The Forest Service regularly inspects operations at Greens Creek to determine if the operator is complying with the applicable regulations and the approved plan of operations. The Forest Service has the authority to serve a notice of noncompliance if an operator fails to comply with the regulations or approved plan of operations, and the noncompliance is unnecessarily or unreasonably causing injury, loss or damage to surface resources (36 CFR 228.7(b)).

Federal and State permits, authorizations, and approvals are required to authorize the North Extension Project and continued operation of the Greens Creek Mine. Enforcement responsibility is generally the jurisdiction of the issuing agency, however other Federal and State agencies may participate in oversight of compliance and/or direct enforcement.

In response to objections received on the FSEIS and draft ROD and Tribal government to government consultation and Alaska Native Claims Settlement Act (ANCSA) government to corporation consultation, the objection reviewing officer directed me to establish a Collaborative Integrated Monitoring Panel (CIMP). My intent is to convene interested and responsible parties with the goals of providing transparency to mitigation and monitoring activities, building trust and improved working relationships through regular interaction and exposure to consistent information, and support adaptive management outcomes. The CIMP will be an opportunity to provide transparency in monitoring activities where participating individual members and organizations can provide input to regulatory agencies. It is not intended to provide group or consensus recommendations. I retain decision-making authority regarding permitting the GPO for Greens Creek Mine.

Initially, the panel will be asked to:

- Complete a comprehensive review of existing monitoring data and summary reports. Consider how the data and reports relate to findings of no significant impacts to subsistence resources and no irreparable harm to Admiralty Island National Monument values, and how the data and reports can adaptively inform prospective operational adjustments.

- Make transparent available information and data to illustrate trends or thresholds that trigger action. Review monitoring data across time to demonstrate how changes or trends are being tracked and addressed and to provide a more inclusive approach to identifying potential concerns or thresholds.
- Evaluate trends in air quality, water quality, sediment, and biomonitoring data to assess the effectiveness of BMPs and mitigation measures and identify potential concerns that could lead to additional monitoring and adaptive management.
- Provide input on any monitoring gaps or needed adjustments to current monitoring to ensure a comprehensive and timely understanding of environmental conditions and BMPs effectiveness.
- Provide input to adapt methods to monitor impacts on subsistence food resources.
- Consider developing a collaborative ecosystem monitoring program to foster greater collaboration, transparency, and trust.

As directed by the reviewing officer, I will invite appropriate Forest Service resource specialists, Angoon Community Association (federally recognize tribe), Kootznoowoo Inc. (ANCSA village corporation), and Hecla (mining company) to voluntarily participate on the panel. I will also invite representatives of Federal, State, and local regulatory agencies to participate. I will balance participation between federal, state, local, and tribal entities. Following these initial invitations, I will consider inviting other stakeholders that may broaden representation and enhance the effectiveness of the panel's collaboration.

During initial convenings within 90 days of my decision, the Forest Service or a third-party facilitator will facilitate development of a Memorandum of Understanding (MOU) or other agreement that sets forth the scope of work and panel participants. The MOU or other agreement will make clear that the Forest Service will seek individual input from each member or organization rather than consensus recommendations or advice from the panel. The MOU will also establish a recurring meeting and review cycle that will include key timeframes, such as outcomes of the PSLERA and other periodic studies (such as the Waste Management Permit 5-Year Environmental Audit and the Fugitive Dust Mitigation and Monitoring Plan review meetings) to share information and interpretations of the data.

Panel member input will be considered for incorporation into the Integrated Monitoring Plan (GPO, Appendix 1), which will support a comprehensive approach to adaptive management as the Greens Creek project is implemented. If I find changes are necessary to the mitigation and monitoring plan, these can be made through existing decisional or operational space in collaboration with Hecla and in consultation with Tribal governments, Alaska Native Corporations, and State and Federal agencies. I will commit to listening to the input of each member of the panel to ensure that all parties' voices and concerns are heard.

Required Findings

Law and Regulation

Alaska National Interest Lands Conservation Act of 1980

Subsistence Evaluation and Findings (Section 810)

A subsistence evaluation in the FSEIS was conducted for the four alternatives in accordance with ANILCA § 810(a), which requires that the Forest Service conduct an evaluation of subsistence uses

and needs for any determination to "withdraw, reserve, lease or otherwise permit the use, occupancy or disposition of public lands." ANILCA § 810(a)(2) provides for the Forest Service to give notice of and hold a hearing in the vicinity of the area involved. Consistent with this section, the Forest Service held a public hearing in Angoon, Alaska, on June 27, 2023. Nine people testified during the hearing in Angoon, and recordings of the meeting are included in the project record. Additional engagements and meetings have been conducted and are included in the FSEIS Errata. The impacts under the Selected Alternative would minimally limit resource distribution and abundance, access to resources, or competition for use of resources. As such, all impacts under the Selected Alternative would be of limited extent and duration and would not significantly restrict or result in a significant possibility of a significant restriction of subsistence resources or uses as defined under ANILCA § 810.

Protection of Admiralty Island National Monument (Section 503(i)(1))

Section 503(i)(1) of ANILCA provides that the Applicant is entitled to a lease of National Forest System lands, including lands within the Admiralty Island National Monument, only if the Forest Service determines that certain conditions are met. Section 501(i)(1) reads as follows:

> *With respect to the mineral deposits at Quartz Hill and Greens Creek in the Tongass National Forest, the holders of valid mining claims under subsection (f)(2)(B) shall be entitled to a lease (and necessary associated permits) on lands under the Secretary's jurisdiction (including lands within any conservation system unit) at fair market value for use for mining or milling purposes in connection with the milling of minerals from such claims situated within the Monuments only if the Secretary determines—*
>
> > *(A) that milling activities necessary to develop such claims cannot be feasibly carried out on such claims or on other land owned by such holder;*
> >
> > *(B) that the use of the site to be leased will not cause irreparable harm to the Misty Fjords or the Admiralty Island National Monument; and*
> >
> > *(C) that the use of such leased area for such purposes will cause less environmental harm than the use of any other reasonably available location.*
>
> *With respect to any lease issued under this subsection, the Secretary shall limit the size of the area covered by such lease to an area he determines to be adequate to carry out the milling process for the mineral bearing material on such claims.*

ANILCA § 503(f)(2)(A) also requires the Secretary of Agriculture to promulgate reasonable regulations to assure that mining operations related to Greens Creek Mine, including operations with the Monument, are compatible, to the maximum extent feasible, with the purposes for which the Monument was established. The regulations promulgated pursuant to this section are found at 36 C.F.R. § 228.80 and provide that operations meet the statutory requirement of ANILCA § 503(f)(2)(A) if they include all feasible measures which are necessary to prevent or minimize potential adverse impacts on the resources the Monument was established to protect. Like all mining operations on National Forest System lands, the operator of Greens Creek Mine must also take all practicable measures to maintain and protect fisheries and wildlife habitat (36 C.F.R. § 228.8(e)).

In making the requisite determinations for ANILCA specific to Admiralty Island National Monument, I evaluated pertinent information and analysis from the project record.

Alternative Tailings Locations – §§ 503(i)(1)(A) and (C)

The operator submitted compelling information regarding the technical infeasibility of alternative tailings disposal locations (FSEIS Appendix A pp. A-16 and A-69 – A-71; and FSEIS Chapter 2.4 pp. 2-34 and 2-40), which supplemented prior information and analysis of that issue in 2013. (Forest Service 2013). The Forest Service NEPA History (see Attachment B) provides information about tailings location reviews and decisions since the 1983 EIS. As noted above in "Rationale for the Decision, How the 2013 ROD was Considered," the operator has provided data demonstrating that the use of other lands for the proposed tailings expansion is not technically feasible. For example, existing topography constraints, such as slope degrees on patented mining claims controlled by Hecla Greens Creek Mining Company that are steeper than required for constructing an industrial solid waste landfill in compliance with ADEC solid waste regulations and required surface area render the available claims infeasible (FSEIS Appendix A pp. A-69 – A-71). In addition, any new, remote TDF site would require disturbance in an area where none presently exists, the installation of new support infrastructure, increased complexity of tailings and waste rock transport logistics, and elevated energy use for material transport.

Based on the FSEIS analysis, the tailings expansion and associated features in the Selected Alternative have been determined to have limited effects on most Monument resources, including cultural, historical, and prehistorical resources (FSEIS Section 3.17.2.3); geologic resources (FSEIS Sections 3.3.2.3 and 3.4.2.3); select resources as a component of the ecology including groundwater (FSEIS Section 3.6.3.3), soils (FSEIS Section 3.9.2.3), forestry/vegetation (FSEIS Section 3.10.2.3), wildlife (FSEIS Sections 3.11.2.3 and 3.12.2.3; *see also* Endangered Species Act of 1973 (as amended), below); recreation/public access (FSEIS Section 3.15.2.3); scenic resources (FSEIS Section 3.14.2.3); and subsistence (FSEIS Section 3.16.2.3). The additional mitigation measures to which the Applicant has committed, combined with increased monitoring and reporting (FSEIS Chapters 2.5 pp. 2-45 – 2-49; Chapter 2.6 pp. 2-49 – 2-53; ROD Attachment A), also informed my finding that the requirements of 36 C.F.R. § 228.80 are met. Disturbance for a new remote facility would occur in one or more currently undisturbed habitats, wetlands and watersheds, which could cause fisheries impacts and would create greater disturbance to waters of the U.S. than an extension of the existing tailings stack (FSEIS Appendix A p. A-16). Please refer to the Forest Service NEPA History (see Attachment B).

I considered information provided by the operator, along with the analysis and data submitted prior to the 2013 Record of Decision. I also considered the analysis of environmental harm to wetlands, wildlife habitat, and other watersheds associated with potential additional tailings disposal facilities. (Forest Service 2013). Based on the information before me, a relatively small expansion of the existing tailings disposal capacity using efficient methods within the current lease boundary continues to meet the requirements of ANILCA § 503(i)(1)(A) and (C) with respect to feasibility, and lesser environmental harm than the creation of a new tailings disposal facility. (Forest Service 2013 and FSEIS Section 3.19.2.3, Appendix A p. A-16).

No Irreparable Harm - § 503(i)(1)(B)

ANILCA § 503(i)(1)(B) does not authorize use of leased lands where the proposed use would cause irreparable harm to Admiralty Island National Monument. In considering potential irreparable harm to these resources, the Forest Service has previously determined that relevant assessment measures include the potential for reclamation of impacted areas, the extent of acres disturbed within the Monument, and whether surface waters within the Monument will be impacted in the long term

(Forest Service 2013). I have determined that the Selected Alternative will not cause irreparable harm to the Monument.

Under the Selected Alternative, few additional acres within the Monument will be disturbed (see tables 2 and 3), and these will be reclaimed at the cessation of mining or earlier, pursuant to the reclamation and closure plan in place (FSEIS Section 2.7 pp. 2-53 – 2-54). Considering the proposed expansion, conditions following reclamation of the project area are not expected to materially differ from those considered in 2013. Following successful reclamation of the TDF and associated facilities and closure of the Mine, recreational and subsistence users could return to the area. Vegetation similar to the surrounding hillsides will be allowed to regenerate on top of the engineered soil cover, providing habitat, food, and cover for wildlife. The topography and vegetation will look similar to surrounding areas. Anadromous and resident fish will continue to use streams within the Monument, and the cycle of vegetation generation and decay would promote soil genesis on top of the cover. In the long term when mining is completed, the Mine and TDF will be returned to a reclaimed condition. It remains the case that water treatment systems will be maintained over the long term and present on the Monument long after the reclamation of other facilities.

With respect to the potential for impacts to surface waters, I considered the monitoring data and analysis indicating that activities at the TDF have not caused significant adverse impact on the biological components of the aquatic ecosystem to date (FSEIS Section 3.7.1.4 pp. 3-113 – 3-118 [describing aquatic biomonitoring and species protections for periphyton, benthic macroinvertebrates, and fish] and Section 3.7.1.5 pp 3-118 – 3-127 [describing baseline marine conditions]). Episodic exceedances for dissolved lead in Tributary Creek have resulted in a portion of that creek being designated by ADEC as an impaired waterbody in 2022 (FSEIS Section 3.5.1.4 pp. 3-54 – 3-61; FSEIS Section 3.7.1.3 pp. 3-111 – 3-112; ADEC 2022; *see also, id*.). In addition to data and analysis indicating that the biological aquatic ecosystem in Tributary Creek is generally healthy, I considered that fugitive dust mitigation measures are expected to effectively mitigate fugitive dust deposition bring Tributary Creek back into compliance with water quality standards for lead by 2030.

Fugitive dust deposition modeling indicates that the Selected Alternative would likely result in higher cumulative dust deposition on watersheds within the project area and Monument than the No-action Alternative but less than with Alternatives C and D (FSEIS Section 3.2.2.4 pp. 3-36 – 3-37). The Forest Service anticipates that additional fugitive dust mitigation and monitoring measures will prevent harm to Monument resources. Effects on surface water resources would be minimized through implementation of applicable management plans, BMPs, and ACEPMs, and in accordance with the existing APDES permit and additional mitigation and monitoring (see Table A-1).

The proposed expansion will be authorized in two phases. A small expansion of the TDF will be authorized in Phase 1. Prior to authorization of Phase 2, the Forest Service must observe that fugitive dust is being mitigated to show consistent, long-term downward trends[6] in environmental effects or meet the natural environmental condition, such that there is no long-term ecological risk to aquatic and terrestrial habitat as determined by a PSLERA (Table A-1, Measures AQ-2 and AR-2). This will confirm the Forest Service's expectations regarding the effectiveness of the Fugitive Dust Mitigation

[6] The requirement for "near zero" fugitive dust detection at monitoring sites as discussed in the Draft SEIS was replaced with additional Mitigation and Monitoring Measure AQ-1, which requires a decreasing trend in deposition prior to approving the 2nd phase of Project construction. Please see Section 2.6-1, Additional Mitigation and Monitoring.

and Monitoring Plan, and additional required mitigation and monitoring measures (see Attachment A, Table A-1).

Based on my review of the entire project record, and for the reasons described in the Rationale for the Decision section of this ROD, I find that the proposed operations in the Selected Alternative include all feasible measures necessary to prevent or minimize potential adverse impacts on Monument resources. I have also determined that:

- Additional disposal of tailings authorized under the Selected Alternative cannot be feasibly carried out on the valid mining claims within Admiralty Island National Monument or other land owned by Hecla Greeks Creek Mining Company;
- Use of the site to be leased under the Selected Alternative for additional storage of tailings from Greens Creek Mine will not cause irreparable harm to the Admiralty Island National Monument; and
- Use of such leased area for such purposes will cause less environmental harm than the use of any other reasonably available location.

Bald and Golden Eagle Protection Act of 1940 (as amended)

The Selected Alternative was designed to be in compliance with the National Bald Eagle Management Guidelines published by the U.S. Fish and Wildlife Service to maintain habitat to support long-term nesting, perching and winter roosting habitat for bald eagles. The Guidelines recommend activities inconsistent with bald eagle use should apply timing, distance, or landscape buffer restraints, which vary with the type of activity and the landscape characteristics. Active and inactive nests have been inventoried within 0.5 miles of the project area. If nests in this area are found to be active prior to construction, the project would adhere to National Bald Eagle Management Guidelines. Section 3.11 of the FSEIS analyzes impacts of alternatives on bald eagles. Potential impacts would be minimal based on existing mitigation measures including restriction on activities during the nesting season and maintaining management zones around known nest sites.

Clean Air Act of 1970 (as amended)

Emissions from the implementation of the Selected Alternative are not expected to exceed State of Alaska ambient air quality standards (18 AAC 50). The Alaska Department of Environmental Conservation (ADEC) has issued air permits that serve as a framework for the operation of the Mine site. Permits are in place to regulate air emissions at the Mine site. Temporary increases in emissions would occur during construction of the TDF extension and new infrastructure including relocation of the existing B-Road, relocation of the existing power line and substation, decommissioning of the existing Pond 9, raising of the embankment of Pond 7/10 to increase its capacity and installation of a sump pumping system, development of a new freshwater collection system at Cannery Creek, and management of peat and overburden. Estimated construction emissions for the Selected Alternative would be the same as shown in Table 3.2-7 in the FSEIS. Construction emissions are not expected to lead to pollutant concentrations that would exceed the National Ambient Air Quality Standards (NAAQS) or Alaska Ambient Air Quality Standards (AAQS).

Clean Water Act of 1977 (as amended)

Project activities are consistent with the Clean Water Act. The State of Alaska has the authority to administer several Clean Water Act programs. The State regulates the discharge of pollutants through the Alaska Pollutant Discharge Elimination System (APDES) permitting process and ensures

compliance with water quality standards and the Clean Water Act through permitting, monitoring, assessment, reporting, listing of impaired waterbodies, and development and implementation of Total Maximum Daily Loads.

The management, transfer, disposal, and monitoring of wastewater and tailings is regulated by ADEC's Waste Management Permit (2020DB0001) and APDES permit (AK0043206); ambient monitoring of water quality, sediment quality, and other biological parameters is required in numerous waterbodies including Greens, Zinc, and Cannery creeks and in Hawk Inlet. Section 3.5.1 of the FSEIS discusses water quality conditions in the Project area and how water quality impairments are being addressed through Clean Water Act program mechanisms. For example, the Tributary Creek impairment caused by exceedances of water quality standards for lead is being addressed through a Category 4b listing and associated requirements for the Applicant to either demonstrate that water quality objectives have been met or implement BMPs to meet the ambient water quality standards for lead within 10 years (February 2030). The Forest Service also identified additional monitoring and mitigation measures (AQ-1, AQ-2, AQ-3, and SW-1) to achieve compliance with water quality standards in Tributary Creek sooner than required by ADEC (see Table A-1).

Regulations at 36 CFR 228.8(h) state that "certification or other approval issued by State agencies or other Federal agencies of compliance with laws and regulations relating to mining operations will be accepted as compliance… with these regulations." The Forest Service therefore accepts the APDES permit as compliance with Clean Water Act requirements.

Forest Service BMPs outlined in the Soil and Water Conservation Handbook and the National Core BMP Technical Guide (2012) are included in the Applicant's water management monitoring and mitigation requirements (FSEIS p. 2-45) to minimize disturbance and meet Clean Water Act objectives.

The U.S. Army Corps of Engineers administers a regulatory program under Section 404 of the Clean Water Act (33 CFR 328) and would decide whether or not to issue any permits required for activities related to the project. The FSEIS provides analyses to support the Section 404 permit required for discharge of fill into jurisdictional Waters of the U.S. (including wetlands). The FSEIS includes analytical compliance requirements for permitting discharges is provided under Section 404(b)(1) of the Clean Water Act elements (FSEIS Table 3.8-1). The U.S. Army Corps of Engineers Alaska District Engineer would document his/her respective decision in a separate ROD, which would include the reasons within his/her respective authorities for his/her decision based on the analyses presented in the Final SEIS and this Final ROD. In addition, the Forest Service and USACE would include mitigation and monitoring measures under their respective authorities.

Based on the foregoing, I have determined the Selected Alternative is consistent with the Clean Water Act.

Endangered Species Act of 1973 (as amended)

A biological assessment has been submitted to the NOAA National Marine Fisheries Service (NMFS) as part of the consultation under Section 7 of the Endangered Species Act. Based on the analysis, the Forest Service made species-specific determinations (Table 4). On September 20, 2024, NMFS completed the consultation and provided concurrence with the determinations in Table 2. There are no federally listed species managed by the U.S. Fish and Wildlife Service within the project area.

Table 4. Summary of determinations for federally listed species

Federally Listed Species	Listing Status	Determination
Humpback Whale (Mexico DPS)	Threatened	May affect, but not likely to adversely affect
Sperm Whale	Endangered	May affect, but not likely to adversely affect
Fin Whale	Endangered	May affect, but not likely to adversely affect
Steller Sea Lion (Western DPS)	Endangered	May affect, but not likely to adversely affect
Sunflower Sea Star	Proposed	May impact individuals but not jeopardize the continued existence.
Chinook Salmon (Six ESUs) Lower Columbia River Upper Columbia Spring Puget Sound Snake River Spring/Summer Snake River Fall Upper Willamette River	 Threatened Endangered Threatened Threatened Threatened Threatened	May affect, but not likely to adversely affect
Steelhead (All five DPSs) Lower Columbia River Middle Columbia River Snake River Basin Upper Columbia River Upper Willamette River	 Threatened Threatened Threatened Threatened Threatened	May affect, but not likely to adversely affect
Snake River Sockeye Salmon	Endangered	May affect, but not likely to adversely affect
Columbia River Coho Salmon	Threatened	May affect, but not likely to adversely affect
Hood Canal Chum Salmon	Threatened	May affect, but not likely to adversely affect
Green Sturgeon (Southern DPS)	Threatened	May affect, but not likely to adversely affect

Magnuson-Stevens Fishery Conservation and Management Act of 1996

Potential effects of the project on Essential Fish Habitat (EFH) were addressed in Section 3.7.1.6, of the FSEIS. The Magnuson-Stevens Fisheries Conservation Act requires the Forest Service to consult with NMFS.

The Forest Service determined that the project may adversely affect coho, pink, and chum salmon EFH in freshwater because fish streams would be directly or indirectly affected by current operations, changes in water quality, or by new clearing and construction activities. The Forest Service determined that the project may adversely affect marine EFH because an extended mine life would result in an extension of time for loading concentrates onto marine vessels at the port facility, and expose marine waters to the potential for additional impacts from fugitive dust. Adverse effects from the Selected Alternative on water quality and aquatic habitat would be minor. By following the standards and

guidelines in the Forest Plan, all appropriate Region 10 BMPs, updated Forest Service National Core BMPs (Forest Service 2012), State of Alaska BMPs (ADEC 2011), additional mitigation measures AR-1, AR-2, and AR-3 in the FESIS, and the project-specific conservation measures, the effects on EFH will be minimized.

The DSEIS was provided to NMFS to formally initiate the consultation process on March 27, 2023, and the Forest Service received formal comments on the DSEIS from NMFS on May 3, 2023. NMFS provided seven EFH conservation recommendations under the EFH provisions in Section 305(b)(2)-(4) of the Magnuson-Stevens Fisheries Conservation and Management Act and the Fish and Wildlife Coordination Act. Additionally, NMFS participated in interagency meetings on fugitive dust plan development, freshwater monitoring, and nearshore marine monitoring. The Forest Service has reviewed each of the conservation recommendations and provided responses noting how recommendations are addressed by existing measures or new mitigation and monitoring measures adopted in the FSEIS. See Section 3.7.4.5 of the FSEIS and responses to comments 71-1 through 71-9 in Appendix C of the FSEIS.

Marine Mammal Protection Act of 1972

By extending the mine life, exposure of marine mammals in Hawk Inlet and Young Bay to disturbance and noise associated with the marine terminal, barge and crew shuttle traffic, and the potential for fuel or oil spills would be unchanged from current operations. Marine mammal viewing guidelines administered by NMFS and enforced by the Coast Guard are sufficient for their protection. Contractors, purchasers and employees will be required to follow provisions on Marine Wildlife Guidelines, including special prohibitions on approaching whales in Alaska as defined in 50 CFR 224.103. NMFS administers the Marine Mammal Protection Act (MMPA), which prohibits the "take" of all marine mammal species in U.S. waters. "Take" is defined as "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal." Harassment is defined in the MMPA as "any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild; or has the potential to disturb a marine mammal stock in the wild by causing disruption of behavior patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering."

National Forest Management Act of 1976 (as amended)

2016 Tongass National Forest Land and Resource Management Plan

The Project is consistent with all applicable Forest Plan components. The Selected Alternative will implement conservation measures and conduct monitoring similar to the 2013 GPO and will implement additional mitigation and monitoring as described in Table 2.6-1 of the FSEIS.

National Historic Preservation Act of 1966 (as amended)

Section 106 of the National Historic Preservation Act of 1966 requires Federal agencies to consider the effects on historic properties by projects they carry out, assist, fund, permit, license, or approve. If a Federal or federally permitted undertaking has the potential to affect historic properties, a Section 106 review is required. Section 106 review was completed in consultation with the required partners including the Alaska State Historic Preservation Officer and the federally recognized tribes associated with the undertaking's "Area of Potential Effect". The final determination of that analysis was no historic properties adversely affected for the proposed undertaking.

Roadless Area Conservation Rules

On October 29, 2020, the U.S. Department of Agriculture adopted a final rule to exempt the Tongass National Forest from the 2001 Roadless Area Conservation Rule (85 Fed. Reg. 68688). On January 27, 2023, the U.S. Department of Agriculture repealed the October 2020 Alaska Roadless Rule that exempted the Tongass National Forest from the 2001 Roadless Area Conservation Rule (88 FR 5252). The 2023 final rule returned roadless management on the Tongass to the regulatory regime previously in force; therefore, all activities proposed within inventoried roadless areas must comply with the 2001 Roadless Rule as provided for in the U.S. District Court for the District of Alaska's judgement in *Organized Village of Kake v. USDA*, 776 F. Supp. 2d 960 (D. Alaska 2011).

The Project area intersects the Greens Creek Inventoried Roadless Area (IRA) (#307). Approximately 0.2 acres of new surface disturbance from the expansion of the 7/10 pond embankment in the inventoried roadless area would occur under the Selected Alternative, but no tree removal or road construction in the IRA is necessary as part of the Selected Alternative. These activities are consistent with the 2001 Roadless Rule, which permits the construction and reconstruction of roads pursuant to rights granted by statute (ANILCA § 503, and the General Mining Law of 1872), or pursuant to reserved or outstanding rights. The Roadless Rule also permits tree cutting and removal incidental to activities not otherwise prohibited by that Rule.

Executive Orders

Executive Order 11593 (Cultural Resources)

Executive Order 11593 directs Federal agencies to inventory cultural resources under their jurisdiction, to nominate to the National Register of Historic Places all federally owned properties that meet the criteria, to use due caution until the inventory and nomination processes are completed, and to assure that Federal plans and programs contribute to the preservation and enhancement of properties not federally owned. This project considered impacts to cultural resources and historic properties in Section 3.17 of the FSEIS and as part of the National Historic Preservation Act compliance, thus satisfying the requirements of Executive Order 11593.

Executive Order 11988 (Floodplains)

Executive Order 11988 directs agencies to avoid construction in and modification of floodplains. Although this act focuses on avoiding flood damage and hazards, it also directs agencies to restore and preserve the natural and beneficial values of floodplains while planning for land use. The project proponent will be required to account for flood hazards in the design of the project and minimize the footprint of disturbance within any floodplain. Plans and designs are subject to review and approval by the Forest Service. There are no mapped flood hazard areas within the project area; however, in compliance with EO 11988, I find that the Selected Alternative includes all practicable measures to minimize harm to floodplains. The project design and the application of BMPs and Riparian Management Area protection measures described in the Forest Plan Standards and Guidelines will protect riparian zone interactions among streams, floodplains, riparian wetlands, and uplands to reduce overall disturbance.

Executive Order 13690 (Flood Risk Management)

Executive Order 14030 of May 20, 2021 (Climate-Related Financial Risk) reinstated Executive Order 13690 (Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input). Executive Order 13690 is aimed at ensuring that Federal

investments located in or near floodplains will be resilient in the face of climate change. Executive Order 13690 revised Executive Order 11988 (Floodplain Management) and proposed a new Federal Flood Risk Management Standard to address current and future flood risk and ensure that projects funded with taxpayer dollars last as long as intended. Effects of climate change and other threats caused by flooding affect the environment, our economic prosperity, and public health and safety, each of which affects our national security.

Executive Order 13690 was revoked by Section 6 of Executive Order 13807, *Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure*. Executive Order 13807 did not revoke or otherwise alter Executive Order 11988. As such, USACE will continue to implement Executive Order 11988 according to USACE Engineering Regulation (ER) 1165-2-26. The project proponent is required to account for flood hazards in the design of the project and minimize the footprint of disturbance within any floodplain. Plans and designs are subject to review and approval by the Forest Service. As noted under Executive Order 11988, there are no mapped flood hazard areas within the project area; however, the project design will apply BMPs and Riparian Management Area protection measures described in the Forest Plan Standards and Guidelines to protect riparian zone interactions among streams, floodplains, riparian wetlands, and uplands to reduce overall disturbance.

Executive Order 11990 (Wetlands)

Executive Order 11990 requires Federal agencies to avoid, to the extent possible, the long- and short-term adverse effects associated with the destruction or modification of wetlands. Due to the extensive nature of wetlands and the interspersed nature of wetlands within the project area, complete avoidance of all wetlands is not possible under any of the action alternatives. In compliance with EO 11990, I find that the Selected Alternative includes all practicable measures to minimize harm to jurisdictional and isolated wetlands.

Executive Order 13007 (Indian Sacred Sites)

Executive Order 13007, Indian Sacred Sites, provides presidential direction to Federal agencies to give consideration to the protection of American Indian sacred sites and allow access where feasible. In a government-to-government relationship, the tribal government is responsible for notifying the agency of the existence of a sacred site. A sacred site is defined as a site that has sacred significance due to established religious beliefs or ceremonial uses, and which has a specific, discrete, and delineated location that has been identified by the tribe. Tribal governments or their authorized representatives have not identified any specific sacred site locations in the project area.

Executive Order 13112 (Invasive Species)

Executive Order 13112 requires Federal agencies (in part) to evaluate whether the proposed activities will affect the status of invasive species, and to not carry out activities that promote the introduction or spread of invasive species unless the agency has determined that the benefits of such action outweigh the potential harm caused by invasive species, and that all feasible and prudent measure to minimize risk of harm will be taken in conjunction with the actions. A risk assessment for invasive plant spread was conducted and determined the risk would be low (FSEIS Section 3.10.1.3). The Selected Alternative includes additional mitigation measures to identify and minimize the introduction and spread of invasive species.

Executive Order 13175 (Consultation and Coordination with Tribal Governments)

Executive Order 13175 directs Federal agencies to respect tribal self-government, sovereignty, and tribal rights, and to engage in regular and meaningful government-to-government consultation with tribes on proposed actions with tribal implications. The Forest Service conducts ongoing consultations with tribal governments and Alaska Native corporations. On August 7, 2020, the Forest Service sent a letter to initiate government-to-government consultation for the Project with the Angoon Community Association (ACA), Kootznoowoo Incorporated, and Sealaska Corporation. The Forest Service did not receive responses to invitation to formally consult with the Alaska Native Corporations. Multiple consultations were held with ACA and are summarized in section 1.6 of the FSEIS. Section 1.6 of the FSEIS provides a summary of consultation and coordination with Alaska Tribal Governments and Native Organizations through June 2023. Additional consultation regarding the project occurred on June 14, 2024, between the ACA and the USFS. The Forest Service will continue to conduct ongoing government-to-government consultation with the respective tribal governments and Alaska Native corporations regarding the proposed TDF extension throughout the NEPA process. Tribal consultation does not imply that the tribes endorse the Selected Alternative or any of the alternatives. A record of communications and consultation with tribal governments and Alaska Native corporations is provided in the FSEIS Errata.

Executive Order 13186 (Migratory Birds)

The Migratory Bird Treaty Act of 1918 (amended in 1936 and 1972) prohibits the taking of migratory birds, unless authorized by the Secretary of Interior. The decision will not have a significant direct, indirect, or cumulative effect on any migratory bird species in the project area. The project would continue to comply with the requirements of the Migratory Bird Treaty Act; therefore, no population-level effects to migratory birds are anticipated.

Executive Order 13443 (Hunting Heritage and Wildlife Conservation)

Executive Order 13443 directs Federal agencies to facilitate the expansion and enhancement of hunting opportunities and the management of game species and their habitat. The analysis considered and disclosed the effects on hunting activities. The Selected Alternative will maintain current hunting opportunities by adhering to the Forest Plan Standards and Guidelines that maintain habitat for game species.

EO 13953 (Critical Minerals)

Executive Order 13953 addresses the threat to the domestic supply chain from reliance on critical minerals from foreign adversaries and supporting the domestic mining and processing industries, which directs agencies to examine potential authorities and prepare agency-specific plans to improve the mining, processing, and manufacturing of critical minerals and materials. The Selected Alternative provides for continued production of critical minerals by extending the life of the mine by an estimated 12 to 18 years.

EO 12088 (Federal Compliance with Pollution Control Standards)

Executive Order 12088 requires all Federal agencies to be in compliance with environmental laws and fully cooperate with EPA, State, interstate, and local agencies to prevent, control, and abate environmental pollution. EO 13148 revoked Section 1-4 titled ‘‘Pollution Control Plan.’’ No other portions of this EO were revoked by EO 13148. The Forest Service will ensure that the Applicant complies with all of the Federal, State and local agency environmental laws for the construction and operation of this Project, as specified in the FSEIS and Record of Decision.

EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations)

Executive Order 12898 directs Federal agencies to address whether a disproportionately high and adverse human health or environmental impact on minority populations, low-income populations, or Indian tribes is likely to result from the proposed action and any alternatives. The analysis area does not meet the CEQ's definition of a minority or low-income community (Section 3.21.3 of the FSEIS). While the Mine site is part of the CBJ, it is approximately 15 miles from the closest populated areas. The nearest minority communities are Hoonah (28 miles) and Angoon (44 miles). None of these communities is expected to be affected due to the distance of the communities from the Selected Alternative.

Impacts on subsistence use and food consumption, including the potential for contamination, are addressed in Section 3.16, "Subsistence." The Applicant prohibits its employees from hunting and fishing while working at the site; therefore, continued operation of the Mine past 2031 would not affect competition for subsistence resources. Additionally, because the TDF extension would be co-located with the existing TDF in an already developed area, the impacts on subsistence use would be minimal. Increased boat traffic during the construction phases in years 1-3 and 8-10 may temporarily limit subsistence use of the area, but similar habitat would be available nearby. Hawk Inlet has long been used for subsistence hunting, fishing, and gathering. However, reliance on subsistence resources harvested in this area is minor, and the impacts of the Selected Alternative on fish and wildlife resources are expected to be minimal. As a result, the potential impacts of the Selected Alternative on the subsistence use of wildlife, fish, and other resources are expected to be very low and would not disproportionately affect minority or low-income populations.

EO 12962 (Recreational Fisheries)

Executive Order 12962 mandates that Federal agencies, to the extent permitted by law and where practicable, improve the quality, function, and sustainable productivity and distribution of U.S. aquatic resources for increased recreational fishing opportunities. Recreational fisheries in the Project vicinity would not be affected by construction and operation of the Selected Alternative.

EO 13990 (Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis)

Executive Order 13990 declares the Administration's policy to listen to science; to improve public health and protect our environment; to ensure access to clean air and water; to reduce greenhouse gas emissions; to bolster resilience to the impacts of climate change; and to prioritize both environmental justice and the creation of the well-paying union jobs necessary to deliver on these goals. Executive Order 13990 directed Federal agencies to immediately review and take action to address the promulgation of Federal regulations and other actions during the last four years that conflict with these important national objectives and to immediately commence work to confront the climate crisis.

The Selected Alternative includes the implementation of the existing mitigation and monitoring measures (Section 2.5 of the FSEIS) and additional mitigation and monitoring measures (Section 2.6 of the FSEIS), which would minimize impacts to the environment. The FSEIS disclosed impacts of climate change on the project area, and expected annual operational emissions, including greenhouse gases (GHG) (FSEIS Section 3.2.2 and Table 3.2-7). The duration of expected operations at the Greens Creek Mine represents the primary difference in GHG emissions among alternatives and serves as a reasonable surrogate to inform the public and guide me in assessing potential climate change impact among alternatives.

The Selected Alternative includes the Applicant's goals in pursuing reductions in GHG emissions through its agreement to purchase surplus hydropower from a local utility. In 2018, the City and Borough of Juneau (CBJ) adopted a "Juneau Renewable Energy Strategy" to reduce GHG emissions by increasing the use of renewable energy (primarily hydropower) to 80% of the total community energy use by 2045. This innovative agreement allowed for accelerating the development of hydropower resources in the region without creating a financial burden for the existing customers, thus reducing emissions for both the Mine and the community. Since this power was available in 2009, the Applicant has continued to seek ways to decrease GHG emissions, including seeking additional hydropower development in the region and evaluation of electric vehicles at the Mine, however at this time neither of these are considered technically or economically feasible at the Mine.

Nationally, the overall Long-Term Strategy of the United States: Pathway to Net-Zero GHG Emissions by 2050 (US Department of State, 2021) calls for a near-term goal of 50 to 52% reduction in GHG emissions below 2005 levels by 2030, the Applicant has already met that goal with the 2009 agreement for the purchase of excess hydroelectric power, which decreased their GHG emission by about 90% (CBJ, 2023). The two other national goals for 100% carbon-free electricity by 2035 and net-zero emissions no later than 2050 are part of the Applicant's company-wide sustainability goals, which includes net zero carbon emissions in 2020 and 2021 through reducing company-wide GHG emission reductions or through purchasing of certified emission reduction credits and to continue that commitment into future years.

EO 13985 (Advancing Racial Equity and Support for Underserved Communities Through the Federal Government; and EO 14096, Revitalizing Our Nation's Commitment to Environmental Justice for All}

Executive Order 13985 charged the head of each agency to consult with the Assistant to the President for Domestic Policy and Director of the Office of Management and Budget to produce a plan for addressing: 1) any barriers that limit full and equal participation for underserved communities and individuals seeking to enroll or access Federal benefits, services or programs; and 2) any barriers that limit full and equal participation for underserved communities and individuals seeking to take advantage of agency procurement and contracting opportunities. Engagement with the Angoon Community Association during the NEPA process is discussed in section 1.6 of the FSEIS and FSEIS Errata. To maintain continued meaningful engagement with the Angoon Community Association, the Forest Service has committed to annual engagements with the community by the Monument Ranger to share monitoring results from the previous year. The Forest Service will provide meaningful engagement on a regular basis with the respective tribal governments and Alaska Native corporations, particularly regarding mitigation and monitoring updates, and will offer to meet one-on-one with these organizations to discuss any questions or concerns regarding the Mine throughout the operation, closing, and reclamation of the Project.

Federal and State Permits

As noted in Section 1.8.2 of the FSEIS, authority and jurisdiction to issue permits, authorizations, or approvals for the Project are the responsibility of Federal, State, and local agencies including the Forest Service, U.S. Army Corps of Engineers, State of Alaska agencies, and City and Borough of Juneau. These include:

- Approval of modifications to the GPO: Forest Service, State of Alaska
- Approval of the Reclamation Bond: Forest Service, State of Alaska, and CBJ

- Section 404 permit for discharge of fill into waters of the United States: USACE
- Waste Management Permit Amendment: State of Alaska
- Air Quality Permit to Operate Amendment: State of Alaska
- Alaska Pollutant Discharge Elimination System Permit Amendment: State of Alaska
- Reclamation and Closure Plan Amendment: State of Alaska
- Water Authorizations for Diverting and Intercepting Water Amendment: State of Alaska
- Certificate of Approval to Modify a Dam and Certificate of Approval to Operate a Dam: State of Alaska
- Fish Habitat Permit: Alaska Department of Fish and Game

Enforcement responsibility is generally the jurisdiction of the issuing agency; however, other Federal and State agencies may participate in oversight of compliance and/or direct enforcement.

Administrative Review – Opportunity to Object

The Draft ROD was published at the same time as the FSEIS in February 2024 and provided direction for anyone wishing to object to the draft decision. Eight objections were received within the objection filing period. One objection was received outside of the filing period and was set aside from review in accordance with 36 CFR § 218.10(a)(1). The Objection Reviewing Officer held a resolution meeting with the objectors on October 15, 2024. The outcome of the discussions in the resolution meeting and a thorough review of the objections was a letter of instruction issued to me by the Reviewing Officer dated June 13, 2024. The purpose of these instructions was to clarify some of the discussion in the FSEIS and Final ROD so that the effects of the Selected Alternative are clearly and concisely summarized and articulated, ensure that the project is implemented in a manner consistent with law, regulation, and policy, and to better explain my rationale for the Selected Alternative. My response to the Reviewing Officer's instructions is attached to this ROD as Exhibit R-1. The Reviewing Officer's response indicated I could move forward with this decision to authorize the Selected Alternative once I have complied with these instructions (39 CFR 218.12(b)).

Implementation

Implementation of the Selected Alternative will be in two phases.

- The first phase would occur over a 3-year period and start upon final approval of this ROD and approval of all other required Federal and State permits. Major components completed during Phase 1 would include the decommissioning of Pond 9, modification of existing water management ponds, extension of the TDF, and approximately 1.9 million cubic yards of additional TDF storage capacity. I will approve this phase as soon as the Applicant has incorporated the related mitigation measures and monitoring into their GPO and posted the sufficient financial assurance for the additional associated disturbance.
- The second phase would occur during years 8 to 10, before final closure and reclamation of facilities occurring during years 16 to 20 from approval. Prior to authorization of Phase 2, the Forest Service must observe that fugitive dust is being mitigated to show consistent, long-term downward trends in environmental effects or meet the natural environmental condition, such that there is no long-term ecological risk to aquatic and terrestrial habitat as determined by a PSLERA (Mitigation Measure AQ-2). Major components of Phase 2 would include relocation of

the existing B-Road, relocation of the existing power line and electrical substation, development of new freshwater collection system at Cannery Creek, and extension of the TDF, which would increase storage capacity by approximately 2.7 million cubic yards. Implementation of Phase 1 and Phase 2 TDF extensions would increase tailings storage capacity by 4.6 million cubic yards under the Selected Alternative.

Adjustments are expected during final engineering design for the purpose of improving boundaries or project facility locations and to better meet on-site resource management objectives. These adjustments are not expected to represent substantial changes to environmental concerns or require additional NEPA analysis. However, changes made during implementation will be reviewed, documented, and approved by the Responsible Official following Forest Service Handbook 1909.15 Chapter 18.

Contact Information

For additional information concerning this decision, contact: Matthew Reece, Regional Geologist, Alaska Region at matthew.a.reece@usda.gov or (907) 586-7876.

Responsible Official

CLINT KOLARICH

November 7, 2024
Date

Acting Forest Supervisor
Tongass National Forest

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Attachment A. Required Mitigation, Conservation, and Monitoring Measures

The Applicant operates the Mine under Federal and State permits and other approvals that are required practices and procedures to avoid, minimize, or mitigate environmental impacts and to reclaim disturbed areas.

The Applicant is committed to environmental protection in all aspects of its operation through continued implementation of BMPs based on currently available technology and applicable Federal, State, and local laws and regulations. The Applicant also conducts ongoing monitoring of the effectiveness of BMPs consistent with existing State and Federal permits and authorizations. The purpose of these practices is to maintain responsible operations, avoid or minimize adverse impacts detrimental to human health and the environment, and reclaim disturbed areas.

The following subsections outline specific environmental goals and actions that the Applicant would undertake to achieve these goals. In addition, the Applicant would continue to meet and comply with applicable Federal, State, and local air quality, water quality, and other operational regulatory requirements.

The Applicant would continue to implement the following Applicant-committed environmental protection measures (ACEPM) in accordance with the 2013 FEIS (Forest Service 2013). In addition, the Applicant would continue to implement BMPs and monitoring plans as provided in the Applicant's GPO (HGCMC 2020a). Additional mitigation and monitoring measures have been identified based on the analysis in FSEIS Chapter 3 of baseline conditions, resource-specific impact assessments, and the effectiveness of existing protection measures.

Table A-1. Required Mitigation, Conservation, and Monitoring Measures

Activity/Resource	Measure
Applicant-Committed Environmental Protection Measures	
Water Management	Non-contact water will be managed through the construction and maintenance of diversion channels to route precipitation runoff away from the TDF. Prevent contact water runoff into surface waterbodies. Mine contact water will be captured and routed to Pond 7/10 and treated before discharge into Hawk Inlet, in compliance with the Applicant's APDES permit. Water bars, culverts, wattles, diversion ditches, diversion tubes, stormwater detention basins, stormwater ponds, revegetation, rock armoring, hydro-seeding, weed-free jute matting, silt fencing, swales, and other erosion control techniques will be utilized to reduce erosion and soil loss. Culverts and ditches along roads will be routinely inspected and maintained. Clean culverts when more than 4 inches of sediment accumulates (6 inches in ditches). Contact water runoff from the TDF will be routed and managed at appropriate collection sites to prevent contact water runoff into surface waterbodies. Vehicles will have their wheels cleaned at the designated wheel wash facility prior to transitioning from dirty roads to clean roads. Slopes will range from 3H:1V to 2H:1V. Erosion control measures (e.g., silt fences, swales, and weed-free jute matting) will continue to be used to slow water and reduce erosion while vegetation becomes established.

Activity/Resource	Measure
	Channels and channel banks will be stabilized in areas subject to highly erosive stream flows. Hydroseeding will be used on channel banks to aid in stabilization; channels will be stabilized using techniques such as degradable fiber mat to establish vegetation and riprap or other engineered systems used to stabilize constructed channels. Slopes and road cuts will be monitored for exposed soil and appropriate measures (e.g., hydroseeding or other engineered systems) will be applied as appropriate to minimize erosion. Liners and sub-drains beneath the TDF and slurry walls surrounding the TDF will be installed to minimize tailings contact with groundwater, as required. Covers, liners, and surface water diversions will be installed in the TDF to minimize tailings contact with surface water and groundwater, as required. Water management infrastructure will be maintained as needed to treat contact water.
Air Quality	The Applicant will design, construct, and operate Project facilities in compliance with appropriate air pollution controls to comply with applicable regulations and any air quality permits issued by ADEC. Applicable State and Federal air quality standards will be met through the use of best available control technology to control emissions, as required by ADEC. Dust abatement and monitoring will continue. Dust controls include periodic watering during dry periods, or the use of surfactants or other methods to control fugitive dust generation. Internal and external roads to the TDF will be maintained by a motor grader. Smooth and clean road surfaces are essential for not only minimizing dust but to allow for efficient, safe, and economical use of the road. The B-Road will continue to be periodically resurfaced with crushed rock or gravel. Dust controls will continue to be implemented on the tailings stack via operational sequencing, interim revegetation, temporary storage of reclamation material (soil/peat), placement of snow fences, watering systems, and chemical agents as approved. Haul trucks will be inspected to ensure covers are in place and tailgate latches are secured to avoid spillage of material.
Cultural Resources	The Applicant's employees and contractors will be informed about relevant governmental regulations intended to protect cultural and historic resources. Cultural surveys will be completed prior to Project construction, in coordination with the Forest Service. If any previously unidentified cultural resources are unearthed or otherwise encountered during Project construction, such activities will cease in the area of discovery, and the Applicant will notify the Forest Service so that such cultural resources can be identified and appropriate resource protection measures can be developed and implemented.

Activity/Resource	Measure
Vegetation	Surface disturbance and vegetation clearing will occur only in those areas necessary for expansion of the TDF and will be done in a way to minimize and maintain the smallest reasonable footprint. Interim revegetation will be employed where practical to stabilize slopes and other embankments (e.g., reclamation material stockpiles, long-term tailings facility slopes, and road cuts and fills), which are expected to remain in place until final reclamation. Upon permanent cessation of Project activities, disturbed areas will be stabilized and reclaimed in accordance with the reclamation plans set forth in GPO appendix 14, Reclamation and Closure Plan. Continue to perform triennial monitoring for invasive and nonnative species. Continue to mitigate and control invasive plants as practicable (e.g., hand-removal of thistle along road corridors). Continue to follow Forest Service guidance on management of invasive and nonnative species.
Wetlands and Jurisdictional Waters of the U.S.	The Applicant will locate the TDF and associated infrastructure to minimize direct disturbance to Waters of the U.S. The Applicant will work with USACE under the Clean Water Act Section 404 permitting process to provide mitigation as required for any dredge or fill impacts on wetlands or jurisdictional Waters of the U.S.
Fish and Wildlife	Hunting and fishing by Applicant employees are prohibited at the Mine site during their work rotations. Employees may access Admiralty Island by their own means to hunt and fish during their time off. The Applicant will inform both contractors and employees about the sensitive nature of the workplace environment, particularly the high density of brown bears on Admiralty Island. The Applicant's contractors and employees understand the unique environment in which the Mine is located and are required to abide by the Applicant's Bear Management Program safety standards. The Applicant will minimize disturbance to fish and wildlife habitat by maintaining a small footprint. Vegetation will be cleared only in those areas necessary for the TDF extension. Forest Service-approved seed mixes will be used as necessary for stabilization and reclamation, and to promote reestablishment of wildlife habitat. The Applicant will provide safeguards to ensure that the water discharged to Hawk Inlet conforms to APDES standards. The Applicant will continue to conduct quarterly sampling in Hawk Inlet for sea water quality. The Applicant will collect and analyze sediment and bioassay samples annually from various locations in Hawk Inlet for monitoring purposes under the APDES permit. Refuse will be carefully managed and hauled to the Hawk Inlet Port Facility for site removal. Special care is taken with used oils, grease, antifreeze, solvents, and other chemicals; these items are handled separately from

Activity/Resource	Measure
	normal trash and garbage, and they are taken off-island for disposal or reuse. Specified speed limits for trucks and other vehicles operating on roads will be followed. This measure will reduce the potential for vehicle/wildlife collisions.
Required Mitigation and Monitoring Measures by Resource	
General	
G-2	The Applicant, ADNR Dam Safety, and the Forest Service will collaborate on the establishment of an Independent Engineering Review Board (IERB) to provide ongoing independent review of the design, construction, and operation of the TDF and associated infrastructure. The IERB will consist of qualified third-party technical experts who are not, and have not been, directly involved with the design or operation of the TDF. The expertise of the IERB members shall reflect the range of issues relevant to the facility and its context and the complexity of these issues. The Applicant will work closely with the Forest Service and appropriate State of Alaska representatives to ensure that the individuals selected for the IERB represent the necessary disciplines for the facility. Material summaries of all final IERB reviews will be provided to the Forest Service. The Forest Service and the State of Alaska will work collaboratively with the Applicant to evaluate the IERB reviews and determine if additional mitigation, monitoring, or other measures are necessary to minimize potential effects on National Forest System lands and resources, to the extent feasible. This activity will commence within 2 years of the signing of the Final ROD.
G-3	The Applicant will prepare a Failure Modes Effect Analysis (FMEA) as part of the final detailed design process for the Selected Alternative.
G-4	The Applicant and the Forest Service will work together to ensure that all of the historic cannery debris remaining at the north end of the TDF is removed, and that appropriate testing and characterization of the material occurs to ensure proper disposal in accordance with Appendix 7 to the GPO.
G-5	The Applicant, the Forest Service, and ADEC will collaborate to determine a reasonable timeframe for Project Site Water Balance updates, based upon past site-specific data, but should stipulate that one update must be completed prior to Phase 2 construction so that the FSEIS assumptions regarding storm design events can be validated. The Site Water Balance updates will include both surface and groundwater conditions, to show sufficient wastewater treatment potential under both current and future climate conditions. Precipitation values considered in the water balance should include both local and regional values and mitigation referenced climate scenarios in coordination with the Forest Service, ADNR and ADEC.
Air Quality	
AQ-1	The Applicant has developed a Fugitive Dust Mitigation and Monitoring Plan in coordination with the Forest Service, and State and Federal agencies (Appendix B in

Activity/Resource	Measure
	the FSEIS). This plan is intended to improve existing BMPs and mitigation practices listed in Section 3.2.2.2. Improvements include additional measures to prevent the mobilization of fugitive dust from the TDF and additional monitoring to evaluate the effectiveness of the dust mitigation and monitoring program.
AQ-2	As identified in Section 2.3.3.6 in the FSEIS, Project Schedule and Workforce, the Project will be developed in 2 phases under all the action alternatives. Following the construction of phase 1, phase 2 of the Project will not be approved until monitoring results from water quality at Tributary Creek, ADC, and lichen monitoring (and other measures as identified in AR-2) indicates that fugitive dust is being mitigated to show consistent, long-term downward trends of environmental effects or meet the natural environment conditions, such that there is no long-term ecological risk to aquatic and terrestrial habitat as determined by a Preliminary Screening Level Ecological Risk Assessment, in coordination with the Forest Service.
AQ-3	To demonstrate that the Applicant can adequately reduce the dispersal and deposition of fugitive dust from the TDF, and to provide a more robust analysis of lichen monitoring data, the analysis of lichen monitoring and reporting will occur every 2 years after the approval of the ROD through phase 1. If lichen monitoring (and other measures as identified in AR-2) indicates that fugitive dust is being mitigated to show consistent, long-term downward trends of environmental effects as compared to the natural environment, the monitoring and reporting interval of lichen may be increased to every 5 years through the construction of phase 2, and through the life of Mine in coordination with the Forest Service.
Surface Water Resources	
SW-1	Utilize all relevant measures currently included in the GPO and AQ-1 to identify, develop, and include in an updated IMP: Additional water quality and sediment monitoring locations and sampling frequency in Tributary Creek, to evaluate performance of BMPs, in coordination with the Forest Service, and State and Federal agencies to document trends toward compliance with ambient water quality standards. Additional monitoring will include: (a) Measuring continuous discharge and stream temperature at upper Tributary Creek to better inform the biomonitoring data analyses for Tributary Creek and other monitoring locations. The variability in biomonitoring, water quality, and sediment monitoring may be reflective of changes in streamflow volumes. (b) Sampling sediment and water quality (three annual sample events, taking 5 sediment sample replicates per collection concurrent with the timing of biomonitoring) in the lowest Tributary Creek beaver pond to evaluate water quality and characterize any potential contaminant storage in beaver ponds adjacent to the TDF. If elevated levels of lead are present, sampling will proceed annually.

Activity/Resource	Measure
	(c) Sampling sediment concurrent with the existing annual biomonitoring at sites 9 and 1847. Add water quality sampling (Suite Q) to site 1847 to improve contaminant tracking through Tributary Creek. Additional water quality and sediment monitoring locations in coordination with the Forest Service, and State and Federal agencies in Cannery, Green, and Zinc creeks (all alternatives, including the no-action alternative) and Fowler Creek (Proposed Action and alternatives C and D) to monitor water quality trends in these locations. Additional monitoring will include: (a) Sampling sediment at site 1923 in lower Cannery Creek annually in addition to existing water quality monitoring per GPO Appendix 1. (b) Measuring continuous discharge and stream temperature at lower Cannery Creek to document potential changes in water volume associated with proposed activities in the Cannery Creek Watershed. (c) Sampling sediment annually and add water quality sampling (Suite Q) in Fowler Creek (near bend in the A-road) to characterize baseline conditions and trends through time. (d) Sampling sediment at Greens Creek delta at a location approximately 200 meters above mean high tide as an annual measurement. This sample location would complement the ADFG Technical 19-01 report sample site locations in other waterbodies draining into Hawk Inlet. (e) Sampling sediment annually at Greens Creek Sites 63 and 54 to complement sediment sampling at Greens Creek Delta. (f) Sampling sediment annually and add water quality sampling sites (Suite P) at Zinc Creek (Site 371) upstream of the bridge, and Zinc Creek (Site 10) downstream of the confluence with Tributary Creek to detect potential impacts of road sediments and fugitive dust. (g) Integrating surface water discharge measurements into the IMP-FWMP Annual Report and/or Aquatic Biomonitoring Program. (h) The Alaska ADEC APDES permit requires stormwater outfall monitoring during storm events twice annually. Although the Applicant conducts sampling and/or observations more frequently than required as part of the Stormwater BMP Monitoring Program. There are patterns of WQ exceedances during some of these events and resultant discharges to downstream waterbodies. The Forest Service is requiring enhanced techniques to visually assess frequency and duration of these outfall discharges at C Pond Overflow and D Pond Overflow such as using time lapse camera photo logs or other practical approaches to evaluate efficacy of these WQ BMPs. Relate outfall discharge frequency and duration to precipitation.

Activity/Resource	Measure
Groundwater Resources	
GW-1	In coordination with the Forest Service and ADEC, update the IMP to include additional groundwater monitoring locations and sampling frequency to effectively monitor groundwater levels proximal to Cannery Creek. Additional groundwater monitoring wells required in the updated IMP would be constructed and monitoring would be implemented prior to the initiation of phase 1 construction of the Project. Relate existing wells to new sites to establish baseline elevations. Incorporate outputs from groundwater monitoring into water balance revisions and closure plans.
GW-2	In coordination with the Forest Service and ADEC, update the IMP to include development of additional groundwater monitoring locations (wells) and sampling frequency, as appropriate, to effectively monitor groundwater water levels and water quality within the areas potentially affected by fugitive dust deposition.
Aquatic Resources	
AR-1	To enhance existing aquatic resource monitoring and validate effectiveness of additional fugitive dust mitigation under AQ-1 and AQ-2, use AQ-1, AQ-2, and SW-1 to update the Mine's IMP to include additional (spatial and temporal) aquatic biomonitoring (following ADFG protocols) in the locations identified under SW-1. (a) Retain the aquatic biomonitoring site at Tributary Creek Site 9 for continuity of data inclusive of fish elemental analysis and abundance. (b) Add Zinc Creek sites for streamflow monitoring and biomonitoring including Site 371 at the confluence of Tributary Creek and Zinc Creek (Site 10) downstream of the confluence with Tributary Creek, and include periphyton and macroinvertebrate sampling to site 1847 in Tributary Creek. (c) Incorporate Zinc Creek and Tributary Creek streamflow data into aquatic biomonitoring data synthesis, analysis, and reporting. (d) Add juvenile coho salmon to whole body metals analyses to biomonitoring sampling in Tributary Creek. (e) Add one additional Hawk Inlet marine sample site located immediately west of Pond 7/10 using the same methods as described in the Applicants GPO, Appendix 2, APDES QAPP, Sections 7 and 8. Sampling will include a marine sediment and invertebrate in-situ bioassay. If adjacent ADC monitoring indicates that fugitive dust is being effectively mitigated, sampling at this location could be discontinued in coordination with the Forest Service.
AR-2	To ensure that elevated concentrations of substances of concern such as trace metals are not at levels that could pose an ecological risk to aquatic and terrestrial habitat, the Applicant will update the 2020 Environmental Risk Characterization Report (HGCMC 2020) through the life of the Project in coordination with the Forest Service. This document will serve as a Tier I, Preliminary Screening Level Ecological Risk Assessment (PSLERA) that will be updated and submitted to the Forest Service every 5 years. The first PSLERA submittal will occur

Activity/Resource	Measure
	during year 1 of phase 1 construction, and the second PSLERA submittal will occur 2 years prior to the anticipated completion of phase 1. The PSLERA will be developed using a qualified ERA specialist approved by the Forest Service. The framework of the PSLERA will be approved by the Forest Service prior to the development of each PSLERA to ensure that applicable monitoring data is addressed into the document. The updated PSLERA document(s) will utilize, where appropriate, the most recent chemical and physical environmental data for substances of concern. The data will be collected from existing and/or new aquatic and terrestrial sites, including the lichen study locations which will provide a conservative estimate of potential accumulation of substances of concern in the terrestrial environment. Current ambient water quality standards for the State of Alaska will be utilized in the comparative assessments of potential impacts to the aquatic communities. If the results of the PSLERA updates fail to indicate consistent, long-term stable downward trends of environmental effects as compared to the current environmental metrics, the Forest Service will require additional risk management activities that could include a Tier II or Tier III ERA and development of a human health risk assessment, using the EPA framework (https://www.epa.gov/risk/conducting-human-health-risk-assessment), be completed prior to the approval of phase 2 construction of the Project, in coordination with the Forest Service.
AR-3	The Applicant will work with the Forest Service and ADFG to develop a Culvert Remediation Plan based on the September 2021 Road Survey Report (USFS 2021). This plan will outline the specific actions and strategies to maintain, repair, or replace culverts that impede fish passage, have blockages, corrosion, damage, or are functioning at reduced capacity to transport non-“contact” waters through their natural flow paths. Additionally, the Applicant will update the GPO, Appendix 8, Road Maintenance and Operations, to include criteria in Section 2.5.1 regarding water management. This update will include provisions for routine monitoring of functionality and condition, as well as annual reporting on water crossing monitoring and maintenance efforts. The plan will be developed within two years of the approved Project ROD, and include an agreed-upon schedule for addressing each culvert identified in the survey report.
Soils	
S-1	Based on this analysis and on the recommendations outlined in the 2013 FEIS, an additional reclamation cover test plot in addition to the existing test plot at Site 23 will be established to specifically evaluate depths up to 36 inches and determine the optimum depth of the plant growth layer for the desired plant communities. Results will be incorporated into an updated Reclamation and Closure Plan.

Activity/Resource	Measure
Vegetation	
V-1	Standardize the survey methodology for invasive species and areas assessed based on the recommendations outlined in the 2013 FEIS to allow changes in the abundance and distribution of invasive species to be accurately monitored. Update the Mine's Weed Management and Monitoring Plan and Reclamation and Closure Plan to include Weed Best Management Practices the "Guidance for Invasive Plant Management Program, Tongass National Forest" (Krosse 2019), in coordination with the Forest Service.

ADFG = Alaska Department of Fish and Game; IMP= Integrated Monitoring Plan; FWMP = Fresh Water Monitoring Program; MP = mile post; ROD = record of decision

Note: Mitigation Measure G-1 was removed from the table based on objection comments.

Exhibit R-1. Response to Objection

Exhibit R-1 - Response to the Reviewing Officers Instructions

As discussed in this ROD, eight objections were received during the objection filing period. On June 3, 2024, after a deliberative and extensive review of concerns raised and remedies suggested by objectors during the resolution meeting, the Reviewing Officer issued written responses to the objectors responding to their objection points, summarized as issue statements. The response letter is available online at: https://www.fs.usda.gov/project/?project=57306. The outcome of the objection review also included a letter of instruction issued to me by the Regional Forester to clarify some of the discussion in the FSEIS and Final ROD so that the effects of the Selected Alternative are clearly and concisely summarized and articulated, to ensure that the project is implemented in a manner consistent with law, regulation, and policy, and to better explain the rationale for the Selected Alternative. This direction has been incorporated in the decision.

Specifically, the objection response directed me to complete the following items before signing the Final ROD for the Plan of Operations Amendment 1 for the Greens Creek Mine North Extension Project. My response to each instruction follows the enumerated instruction.

Rationale for Selected Alternative (1): Rationale for Selected Alternative (2): *If the proposed remedy and associated impacts are within the range of alternatives and impacts analyzed and disclosed in the FSEIS, the Responsible Official must weigh selection of a modified Alternative B using the same decision factors articulated in the Draft ROD. Objector suggests a modified Alternative B has less direct impacts than Alternative B on some resources, and potentially less cumulative impacts than any of the action alternatives if Hecla needs more tailings capacity in the future. This appears to be plausible, given the analysis in the FSEIS showing additional wetlands impacted by the B-road corridor under Alternative B, as discussed above. If consideration of the proposed remedy discussed above demonstrates that a modified Alternative B, when compared to Alternatives B, C, and D, is more favorable in light of the primary decision factors previously articulated by the Responsible Official, he must document that determination and include appropriate rationale for the change to the Selected Alternative in the Final ROD.*

Tongass Response: The Forest Service Modified Alternative B in this Final ROD, and provided figures of this alternative as well as text and comparison tables (see tables 2 and 3) to the alternatives that were addressed in the FSEIS. This information is located in the Final ROD under Selected Alternative. I feel that the Modified Alternative B falls within the range of alternatives analyzed. Please see Table 2 and 3 in the Final ROD.

NEPA-1(1): *In the documentation of all known monitoring and survey efforts discussed below in the instructions in response to Mitigation and Monitoring Adequacy, include a statement about why repeat studies are not needed for certain parameters (or species) to justify the existing conditions and analysis under the proposed action.*

Tongass Response: As indicated in the FSEIS, Appendix C (Comment Response 21-1), and as discussed in this ROD under "Rationale for the Decision": Follow-up studies to the 1981 Baseline include the Aquatic Biomonitoring Report (ADFG 2022), ADFG 19-01 Technical Report - Freshwater Resource Investigations Near Greens Creek Mine (ADFG 2020), Surface Water Hydrology Baseline Report (EDE 2021), Hawk Inlet Annual Monitoring Report (HGCMC 2022), and Environmental Risk Characterization Report (HGCMC 2021). With the development of these monitoring programs and the preparation of the Environmental Risk Characterization Report, these efforts address the dominant

elements of the 1981 baseline studies. Terrestrial studies through the monitoring of fugitive dust uptake in lichen will continue to be used to assess potential effects to the terrestrial ecosystem. Aquatic studies to monitor freshwater fish tissue, invertebrates, and sediment in streams and marine environments have been added to bolster the data to more fully evaluate trends and effects. Please see Table A-1, Required Mitigation, Conservation, and Monitoring Measures, and a monitoring and survey table that is being prepared with interagency and Applicant contributions. Additionally, the Applicant, in cooperation with the Forest Service and cooperating federal and state agencies, has developed a Fugitive Dust Mitigation and Monitoring Plan (see Appendix B in the FSEIS) which includes the requirements needed to monitor and further minimize fugitive dust from leaving the TDF. These products will also be used to further evaluate baseline conditions and provide context and guidance for any future investigations.

There are instances where the 1981 baseline studies cannot be replicated because the baseline methodology was not sufficiently documented, or data were below detection limits of that time. In such cases the monitoring plan has been adapted to support long-term datasets that meet data quality standards established by state and federal agencies.

NEPA-1(2): *Ensure the project record is up to date with all relevant survey information, data, and monitoring reports from all entities (including the "baseline" pre-mining surveys and terrestrial/wildlife surveys). This is to ensure that the project record contains all relevant information that supports the analysis of and decision on this project. It may also help identify information gaps that could improve monitoring in the future.*

Tongass Response: The Forest Service has reviewed the project record and verified that all citations referenced in the FSEIS have been included in the project record, including the comprehensive monitoring and survey table that is being prepared with interagency and Applicant contributions. These products will be used to further evaluate baseline conditions and provide context and guidance for any future investigations.

NEPA-1(3): *Add the unpublished Hambleton eagle study (2014) to the project record as it is best available and recent information relevant to the project. If the Responsible Official determines that information in this study necessitates further review or changes any of the assumptions or conclusions in the FSEIS, he should take appropriate action consistent with the Forest Service Handbook at FSH 1909.15, Chapter 10, Section 18.*

Tongass Response: Text has been added to the FSEIS Errata describing a change to the FSEIS, Section 3.11.1.3, Bald Eagle (end of first sentence): "A study of blood samples from bald eagles captured in Southeast Alaska found that lead levels were low (only 3 of 32 eagles had blood lead levels above background levels) and there was no significant relationship between lead levels and the distance between the Greens Creek Mine and the location where the eagles were captured (Hambleton 2014)."

Hambleton, J. 2014. Blood lead levels in bald eagles (Haliaeetus leucocephalus) in Southeast Alaska by gender and capture location. Hecla Mining Company--Greens Creek.

http://www.hecla-mining.com/operations/operations_greenscreek.php.

NEPA-1(4): *Add a monitoring requirement to take a hard look at available information and data to determine if there are any trends or thresholds that may trigger a more robust assessment. Looking at monitoring data through time would ensure changes are being tracked and would provide a more*

proactive approach in identifying potential concerns or thresholds. This work can be incorporated into the scope of the Collaborative Integrated Monitoring Panel (CIMP) (discussed below) and the individual input of panel members will be considered for incorporation into the Integrated Monitoring Plan (GPO, Appendix 1), which will assist in ensuring that a holistic approach to adaptive management is achieved as the Greens Creek project is implemented.

Tongass Response: Available information and data on the environmental concentrations of chemicals of potential concern were included in the assessment described in detail in the 2020 Environmental Risk Characterization Report (HGCMC 2020). As stated in Mitigation Measure AR-2, this report has been adopted as the Tier I, Preliminary Screening Level Ecological Risk Assessment (PSLERA). The thresholds for potential aquatic environmental impacts were the Alaska Ambient Water Quality Standards (AWQS); in particular, those pertaining to sublethal, or chronic, impacts to aquatic life. Since these AWQS for the State of Alaska are derived primarily from USEPA Criteria, which are established to protect survival and propagation of aquatic species, their use as effects thresholds in the current and future updated PSLERA documents (which will incorporate ongoing monitoring data), as described in AR-2, sets a rigorous metric for monitoring possible changes in potential risk over time as related to the Selected Alternative. Any future promulgated and published modifications to current AWQS will be thoroughly assessed and considered for use in PSLERA updates. Additional monitoring of ecological metrics, including the aquatic communities themselves, as discussed in the Tier I, PSLERA, will provide valuable accessory data in the ongoing assessment of potential ecological risk related to the Selected Alternative. In the terrestrial environment, changes in the concentrations of chemicals of potential concern will be monitored through the lichen study which will collect, and measure, levels in lichens at various sampling locations. Since lichens are known to be hyper-accumulators of airborne chemicals, data from the monitoring of this important ecosystem component will act as a conservative indicator of changes during construction and post-construction operations. Mitigation Measure AR-2 is provided in Attachment A, Table A-1, Required Mitigation, Conservation, and Monitoring Measure – Required Mitigation and Monitoring Measures by Resource.

As part of the review and assessment process for the PSLERA updates, the Forest Service will seek to establish a Collaborative Integrated Monitoring Panel (CIMP) that will, among other duties, evaluate trends in air quality, fugitive dust, water quality, sediment, and biomonitoring data to validate the effectiveness of BMPs and mitigation measures and consider additional monitoring and adaptive management. The CIMP members will provide individual input on any monitoring gaps or adjustments to ensure a comprehensive and timely understanding of environmental conditions and effectiveness of BMPs. Please see Mitigation and Monitoring Adequacy (6) below.

NEPA-1(5): *Clarify and disclose any assumptions used for the FSEIS (for example, clarify if it was assumed that if indicators measured in the aquatic environment are not exceeding threshold levels of heavy metals, then they likely would not be at concerning levels in the terrestrial environment). Also clarify and define if there are thresholds identified for existing monitoring that would lead to a more thorough investigation for both the aquatic and terrestrial environment and other species not monitored or analyzed. This ensures that there is a clear connection to the known information and data that is being collected to the species and habitats that are not monitored or sampled directly and identifies when a more robust assessment may be warranted.*

Tongass Response: The levels of specific indicators (e.g., chemicals of potential concern) in the aquatic environment(s) are not a direct measure of whether there may be risk concerns in the terrestrial environment, although they (aquatic concentrations) can be a secondary indicator and may come into play as one route of intake for terrestrial organisms in a risk assessment. Establishing thresholds for

selected terrestrial receptor species is an integral component of the ecological risk assessment process and is affected by numerous variables, including the species itself. The primary metric by which concentrations of chemicals of potential concern will be monitored in the terrestrial environment is by ongoing lichen studies and increased dust monitoring studies. By analyzing the tissues of lichens, which are known to be hyper-accumulators of certain airborne molecules, a conservative assessment is made of the possibility of overall increases in environmental concentrations in various media, including food items that may be a route of exposure to animals higher on the food chain. The direct chemical concentrations measured in the lichen study, and the spatial and temporal trends shown from that study, will be the metric that will trigger a more robust assessment, including possible Tier II or Tier III Ecological Risk Assessment, as stated in Mitigation Measure AR-2. Site-specific collection and analysis of chemical concentration of other receptor and/or food-chain species may be part of future analyses. For additional information Please see Mitigation Measure AR-2 that is provided in Attachment A, Table A-1, Required Mitigation, Conservation, and Monitoring Measure – Required Mitigation and Monitoring Measures by Resource. Also, please see comment response Mitigation and Monitoring Adequacy (6) below.

NEPA-1(6): *Objectors' recommendation to develop a collaborative ecosystem monitoring program is a worthy consideration and would enhance collaboration, transparency, and trust. I believe this can be incorporated into the CIMP, with the scope and participants determined by the Forest Supervisor. The Final ROD should demonstrate this commitment.*

Tongass Response: Text has been added to the Environmentally Preferable Alternative-Compliance with Mitigation and Monitoring Requirements Section of the Final ROD indicating that the Collaborative Integrated Monitoring Panel (CIMP) (see Mitigation and Monitoring Adequacy (6) below) will be convened to aid in considering environmental monitoring data and other analyses derived from HGCMC's Integrated Monitoring Plan (IMP) holistically, and to provide individual views on trends in air quality, water quality, sediment, and biomonitoring data to assist in determining the effectiveness of Best Management Practices (BMPs) and other mitigation measures, and identify potential concerns that may warrant additional monitoring and adjustments using adaptive management processes. The Forest Service will take the lead to work with interagency partners and the Applicant to further define the scope and function of the CIMP to achieve these objectives, and shall initiate establishment of the CIMP within 90-days from the signature of the Final ROD.

NEPA-6(1): *In the Final ROD, clarify why December 1 through March 1 was selected as the "historical high dust deposition periods" for which the mitigation measure to limit the open active tailings placement areas to 3 acres or less applies by specifying which data in the project record were used to support this time period. The Responsible Official should consider the feasibility of expanding the temporal application of this mitigation measure to November 1 through April 1 and provide a rationale if this expanded time period is not adopted. Clarify that if meteorological events are forecasted to generate dust outside of this period, how that would be addressed in the Fugitive Dust Mitigation and Monitoring Plan.*

Tongass Response: The Forest Service appreciates the Applicant's adaptive mitigation measure in their Fugitive Dust Mitigation and Monitoring Plan (Section 5.1) to limit the open tailings area to 3 acres during forecasted or identified fugitive dust generating periods. Although the Applicant did not include specific rationale or data to support the December 1 through March 1 period for this mitigation measure, I have determined that the effectiveness of this measure will be reviewed and monitored as part of the CIMP activities (see Mitigation and Monitoring Adequacy (6) below). If the Forest Service determines through monitoring and data review that fugitive dust dispersal and deposition levels do

not show an annual downward trend, coinciding with the PSLERA updates, the Forest Service may require modification of the Fugitive Dust Mitigation and Monitoring Plan to extend the mitigation measure period (i.e., December 1 through March 1).

NEPA-6(2): *In the Final ROD, clarify if cessation of all mechanical activity on the open acreage of the TDF during forecasted or identified dust-generating periods, except for activity that is specifically directed towards mitigating the generation of dust from the open acreage, was considered and/or addressed in the FSEIS, Fugitive Dust Mitigation and Monitoring Plan (such as adaptive mitigation measures based on Meteorological Monitoring and Forecasting and Corrective Measures), or elsewhere in the project record. If not already addressed in the project record, determine if this is "practical or feasible from the technical and economic standpoint using common sense, rather than simply desirable from the standpoint of the applicant." If not practical or feasible, disclose this in the Final ROD in "other alternatives considered." If it is practical or feasible, the Responsible Official should take appropriate action to address whether the mitigation measures should include cessation of activity on the TDF during forecasted or identified dust- generating periods.*

Tongass Response: As discussed for NEPA-6(1), the Forest Service appreciates HGCMC's adaptive mitigation measure in their Fugitive Dust Mitigation and Monitoring Plan (Section 5.1) to limit the open tailings area to 3 acres during forecasted or identified fugitive dust generating periods. The Forest Service also understands that a percentage of tailings is also placed underground and other measures to minimize fugitive dust is included in the Fugitive Dust Mitigation and Monitoring Plan. Cessation of tailings placement (mechanical activity) during forecasted dust-generating periods was discussed in meetings during the development of the Fugitive Dust Mitigation and Monitoring Plan. The Mine currently places up to 50 percent of the tailings underground, while the remainder of tailings must be mechanically placed in the TDF. I have determined that further restrictions to tailings construction and operation, including limiting mechanical activities during the fugitive dust generating periods would not be feasible for the Applicant to continue their mining activities.

NEPA-7(1): *As part of the CIMP review discussed above and below, provide for ongoing review and comment on the Fugitive Dust Mitigation and Monitoring Plan. Any comments should be reviewed by members of the CIMP I am instructing the Responsible Official to convene, considered by Hecla and the Forest Service during the Plan review meetings discussed below, and incorporated into the Plan as appropriate.*

Tongass Response: As indicated in the Final ROD under the Environmentally Preferable Alternative-Compliance with Mitigation and Monitoring Requirements Section, the Forest Service will also establish a Collaborative Integrated Monitoring Panel (CIMP) (see Mitigation and Monitoring Adequacy (6) below) to ensure that environmental monitoring data and other analyses derived from the Applicant's Integrated Monitoring Plan (IMP) are to consider and proactively assess the effectiveness of Best Management Practices (BMPs), and request modifications to monitoring and data acquisition and identify prospective operational adjustments using adaptive management processes. Because the Fugitive Dust Mitigation and Monitoring Plan will be incorporated into the IMP, the CIMP members will be evaluating the effectiveness of the environmental measures that have been provided in the Fugitive Dust Mitigation and Monitoring Plan.

NEPA-7(2): *Section 5.3.4 of the Fugitive Dust Mitigation and Monitoring Plan, titled Plan Review Meetings, indicates that Hecla and the Forest Service have committed to convene for an annual Plan review meeting in the spring of each year starting in 2024. The objective of the meetings will be to assess the effectiveness of the Plan at minimizing fugitive dust emissions from the TDF based on dust deposition monitoring results in the surrounding environment. The Plan indicates that these annual*

review meeting may be changed to a biennial frequency if both parties agree, and that the Forest Service may invite other agencies to participate. The Plan also indicates that reports required by Section 5.3.3 of the Plan will be shared at these annual meetings. Given the interest in the Plan and the effectiveness of the measures outlined in the Plan, I instruct the Responsible Official to add the following text to this section of the Fugitive Dust Mitigation and Monitoring Plan:

- *Information including meeting notes and outcomes from plan review meetings referenced in Section 5.3.4 and semiannual reports referenced in 5.3.3. shall be made publicly available on the Forest Service's website.*

Tongass Response: The Forest Service will make available the annual data and meeting notes from the Fugitive Dust Mitigation and Monitoring Plan annual meetings to the project website.

ANILCA-2:*Clarify, in the Final ROD, whether or how the Forest Service considered "any other reasonably available location[s]," for potential tailings disposal, and which factors were used to determine the Selected Alternative "will cause less environmental harm" than at such locations, consistent with Section 503(i)(1)(C)'s requirement to determine "that the use of the area for such purposes will cause less environmental harm than the use of any other reasonably available location.*

Tongass Response: The Forest Service has included the following document to the Final ROD: Forest Service NEPA History. Tailings Storage Facility, Greens Creek Mine – Alaska (see Attachment B). This document provides the background and NEPA history for evaluating the disposal of tailings at the Greens Creek Mine.

Consultation/Collaboration(1): *In the Final ROD, improve the summary of meaningful consultation and engagement with Tribal governments, including ACA, and ANCs by describing the results from this consultation consistent with FSH 1509.13, Chapter 10. This discussion should include the process and actions taken to consult with Tribes and ANCs, the results of those actions, how comments and input received during the consultation efforts were incorporated into the project, and other information as appropriate. If applicable, information provided by an Alaska Native tribe during consultation with an expectation of confidentiality must be kept confidential, consistent with applicable law.*

Tongass Response: A summary of government-to-government consultation with Alaska Tribal governments and native organizations, including Angoon Community Association (ACA) is described in Section 1.6, Consultation and Coordination with Alaska Tribal Governments and Native Organizations, and is discussed in the Final ROD under Executive Orders – Executive Order 13175 (Consultation and Coordination with Tribal Governments). Also, please see a summary table of government-to-government consultation with Alaska Tribal governments and native organizations in the FSEIS Errata titled: Consultation and Coordination History with Alaska Tribal Governments and Native Organizations.

Consultation/Collaboration (2): *Add any records related to the May 29, 2024, consultation meeting with the Angoon Community Association to the project record and summarize the discussion at this consultation meeting in the Final ROD.*

Tongass Response: Text was added to the Final ROD under Executive Orders – Executive Order 13175 (Consultation and Coordination with Tribal Governments). Also, a summary table of government-to-government consultation with Alaska Tribal governments and native organizations, including Angoon Community Association (ACA) is included in the FSEIS Errata titled: Consultation and Coordination History with Alaska Tribal Governments and Native Organizations.

Consultation/Collaboration (3): *Ensure that all other records for consultation, coordination, engagement, and subsistence hearings are in the Greens Creek project record. For example, PR #0262 references "meeting notes were taken by a FS ranger," at a meeting in Angoon on the DSEIS; however, the objection review team could not locate these notes in the project record.*

Tongass Response: The Forest Service included a summary table of government-to-government consultation with Alaska Tribal governments and native organizations, including Angoon Community Association (ACA) in the FSEIS Errata titled: Consultation and Coordination History with Alaska Tribal Governments and Native Organizations. In summary, all consultation and coordination documents with Alaska Tribal record are now linked to the Project Record.

Mitigation/Monitoring Feasibility (1)*: Clarify that Mitigation Measure G-1 is an "applicant-committed" mitigation measure, as part of the IMP, and stipulate that Hecla should continue to adhere to its existing practices, as defined in Section 3.2.4 of the IMP, for the duration of operations.*

Tongass Response: The Forest Service agrees that Mitigation Measure G-1 is currently included in the Applicant's Integrated Management Plan (IMP), Section 3.2.4, Construction Rock Characterization. Therefore, Mitigation Measure G-1 has been removed from Attachment A, Table A-1, Required Mitigation, Conservation, and Monitoring Measure – Required Mitigation and Monitoring Measures by Resource. The Applicant should continue to adhere to its existing practices, as defined in Section 3.2.4 of the IMP, for the duration of operation.

Mitigation/Monitoring Feasibility (2): *Clarify Mitigation Measure G-2 to allow for Hecla, State of Alaska Department of Natural Resources Dam Safety, and the Forest Service to collaborate on defining the size, scope, frequency, and expectations for the Independent Engineering Review Board (IERB) and resulting reporting to achieve the stated goal of minimizing potential impacts on NFS lands and resources, to the extent feasible. Also clarify, in the record, the connection between the IERB and the adaptive management component.*

Tongass Response: The Forest revised Mitigation Measure G-2 to state: The Applicant, ADNR Dam Safety, and the Forest Service will collaborate on the establishment of an Independent Engineering Review Board (IERB) to provide ongoing independent review of the design, construction, and operation of the TDF and associated infrastructure. The IERB will consist of qualified third-party technical experts who are not, and have not been, directly involved with the design or operation of the TDF. The expertise of the IERB members shall reflect the range of issues relevant to the facility and its context and the complexity of these issues. The Applicant will work closely with the Forest Service and appropriate State of Alaska representatives to ensure that the individuals selected for the IERB represent the necessary disciplines for the facility. Material summaries of all final IERB reviews will be provided to the Forest Service. The Forest Service and the State of Alaska will work collaboratively with the Applicant to evaluate the IERB reviews and determine if additional mitigation, monitoring, or other measures are necessary to minimize potential effects on National Forest System lands and resources, to the extent feasible. The modified Mitigation Measure G-2 is also provided in Attachment A, Table A-1, Required Mitigation, Conservation, and Monitoring Measure – Required Mitigation and Monitoring Measures by Resource. This activity will commence within 2 years of the signing of the Final ROD.

Mitigation/Monitoring Feasibility (3): *Reword Mitigation Measure G-4 to more clearly describe the expectations of the Forest Service regarding the removal and disposal of this material. While the Responsible Official may modify this language, I suggest the mitigation measure be reworded as follows: Hecla and the Forest Service will work together to ensure that all of the historic cannery*

debris remaining at the north end of the TDF is removed, and that appropriate testing and characterization of the material occurs to ensure proper disposal in accordance with Appendix 7 to the GPO.

Tongass Response: The Forest revised Mitigation Measure G-4 to state: The Applicant and the Forest Service will work together to ensure that all of the historic cannery debris remaining at the north end of the TDF is removed, and that appropriate testing and characterization of the material occurs to ensure proper disposal in accordance with Appendix 7 to the GPO. The modified Mitigation Measure G-4 is also provided in Attachment A, Table A-1, Required Mitigation, Conservation, and Monitoring Measure – Required Mitigation and Monitoring Measures by Resource.

Mitigation/Monitoring Feasibility (4): *Clarify, in the record, how the water balance update required in Mitigation Measure G-5 will be used as an adaptive management tool to assess whether storm water pond capacity and assumptions for other water-related infrastructure remain valid. Also clarify whether a five-year timeframe is necessary, as real-time data may not change with such frequency as to show true trends, although a recurring update is reasonable. The mitigation measure could include a statement that Hecla, the Forest Service, and ADEC can collaborate to determine a reasonable timeframe for the updates, based upon past site-specific data, but should stipulate that one update must be completed prior to Phase II construction so that the FSEIS assumptions regarding storm design events can be validated.*

Tongass Response: The Forest revised Mitigation Measure G-5 to state: The Applicant, the Forest Service, and ADEC will collaborate to determine a reasonable timeframe for Project Site Water Balance updates, based upon past site-specific data, but one update must be completed prior to Phase II construction so that the FSEIS assumptions regarding storm design events can be validated. The Site Water Balance updates will include both surface and groundwater conditions, to show sufficient wastewater treatment potential under both current and future climate conditions. Precipitation values considered in the water balance should include both local and regional values and mitigation referenced climate scenarios in coordination with the Forest Service, ADNR and ADEC. The modified Mitigation Measure G-5 is also provided in Attachment A, Table A-1, Required Mitigation, Conservation, and Monitoring Measure – Required Mitigation and Monitoring Measures by Resource.

Mitigation/Monitoring Feasibility (5): *Add the studies cited in regard to Mitigation Measure AQ-3 to the project record, along with supporting documentation, data, and discussion that demonstrate lichen biomonitoring is an effective tool to measure lead contamination decreases over time.*

Tongass Response: The Forest Service has updated the Project Record to include citations and supporting studies, data, and other information that support Mitigation Measure AQ-3. Mitigation Measure AQ-3 is provided in Attachment A, Table A-1, Required Mitigation, Conservation, and Monitoring Measure – Required Mitigation and Monitoring Measures by Resource.

Mitigation/Monitoring Feasibility (6): *Re-word Mitigation Measure AQ-3 to clarify that the intent of this mitigation measure is to demonstrate that Hecla is able to adequately address fugitive dust concerns. Mitigation Measure AQ-3 should also include language that indicates the Forest Service will work with Hecla, including sharing the studies that the objection review team identified, to develop methodology that is proven and best available science.*

Tongass Response: The Forest revised Mitigation Measure AQ-3 to state: To demonstrate that the Applicant can adequately reduce the dispersal and deposition of fugitive dust from the TDF, and to provide a more robust analysis of lichen monitoring data, the analysis of lichen monitoring and

reporting will occur every 2 years after the approval of the ROD through phase 1. If lichen monitoring (and other measures as identified in AR-2) indicates that fugitive dust is being mitigated to show consistent, long-term downward trends of environmental effects as compared to the natural environment, the monitoring and reporting interval of lichen may be increased to every 5 years through the construction of phase 2, and through the life of Mine in coordination with the Forest Service. The modified Mitigation Measure AQ-3 is also provided in Attachment A, Table A-1, Required Mitigation, Conservation, and Monitoring Measure – Required Mitigation and Monitoring Measures by Resource.

Mitigation/Monitoring Feasibility (7): *Revise Mitigation Measure SW-1 to emphasize the need for the specific information it is intended to obtain, and indicate that Hecla should work with appropriate agencies to revise the IMP so that the needed information is captured. An updated IMP should include results-based, information-driven questions, devising acceptable methods with the Forest Service, Hecla, and relevant State and other Federal agencies. If the IMP collaborative review or revision process has been lost through personnel attrition, the Responsible Official should work with Hecla and other appropriate entities to revive the methods of review and revision of the IMP.*

Tongass Response: Additional water quality and sediment monitoring locations and sampling frequency in Tributary Creek are intended to evaluate the performance of BMPs and document trends toward compliance with ambient water quality standards. The Forest Service made modifications to Mitigation Measures SW-1 and AR-1 based on coordination with ADFG. SW-1 includes a new requirement to include "(e) Sampling sediment annually at Greens Creek Sites 63 and 54 to complement sediment sampling at Greens Creek Delta". AR-1 has been modified to include the following updates: "(a) Retain the aquatic biomonitoring site at Tributary Creek Site 9 for continuity of data inclusive of fish elemental analysis and abundance. (b) Add Zinc Creek sites for streamflow monitoring and biomonitoring including Site 371 at the confluence of Tributary Creek and Zinc Creek (Site 10) downstream of the confluence with Tributary Creek, and include periphyton and macroinvertebrate sampling to site 1847 in Tributary Creek. (c) Incorporate Zinc Creek and Tributary Creek streamflow data into aquatic biomonitoring data synthesis, analysis, and reporting". The modified Mitigation Measures SW-1 and AR-1 are provided in Attachment A, Table A-1, Required Mitigation, Conservation, and Monitoring Measure – Required Mitigation and Monitoring Measures by Resource.

The Forest Service will establish a Collaborative Integrated Monitoring Panel (CIMP) to ensure that environmental monitoring data and other analyses derived from the Applicant's Integrated Monitoring Plan (IMP) are shared with stakeholders to consider and proactively assess the effectiveness of Best Management Practices (BMPs) and other mitigation measures, and to provide for individual input from CIMP members regarding modifications to monitoring and data acquisition, which will inform prospective operational adjustments using adaptive management processes (see Mitigation and Monitoring Adequacy (6) below).

Mitigation/Monitoring Feasibility (8): *With regard to Mitigation Measure AR-2, correct the record to reflect the 5-year cycle of the PSLERA everywhere this is mentioned. Specifically, for the following statement – "The first PSLERA submittal will occur during year 1 of phase 1 construction, if an action Alternative is selected in the ROD, and the second PSLERA submittal will occur 2 years prior to the completion of phase 1 construction" – the final word ("construction") should be removed. The statement should read as follows: "The first PSLERA submittal will occur during year 1 of phase 1 construction, if an action Alternative is selected in the ROD, and the second PSLERA submittal will occur 2 years prior to the completion of phase 1."*

Tongass Response: The Forest revised Mitigation Measure AR-2 to state: To ensure that elevated concentrations of substances of concern such as trace metals are not at levels that could pose an ecological risk to aquatic and terrestrial habitat, the Applicant will update the 2020 Environmental Risk Characterization Report (HGCMC 2020) through the life of the Project in coordination with the Forest Service (see Attachment A, Table A-1, Required Mitigation, Conservation, and Monitoring Measure – Required Mitigation and Monitoring Measures by Resource.

This document will serve as a Tier I, Preliminary Screening Level Ecological Risk Assessment (PSLERA) that will be updated and submitted to the Forest Service every 5 years. The first PSLERA submittal will occur during year 1 of phase 1 construction, if an action Alternative is selected in the ROD, and the second PSLERA submittal will occur 2 years prior to the completion of phase 1. The PSLERA will be developed using a qualified ERA specialist approved by the Forest Service. The framework of the PSLERA will be approved by the Forest Service prior to the development of each PSLERA to ensure that applicable monitoring data is addressed into the document. The updated PSLERA document(s) will utilize, where appropriate, the most recent chemical and physical environmental data for substances of concern. The data will be collected from existing and/or new aquatic and terrestrial sites, including the lichen study locations which will provide a conservative estimate of potential accumulation of substances of concern in the terrestrial environment. Current ambient water quality standards for the State of Alaska will be utilized in the comparative assessments of potential impacts to the aquatic communities.

If the results of the PSLERA updates fail to indicate consistent, long-term stable downward trends of environmental effects as compared to the current environmental metrics, the Forest Service will require additional risk management activities that could include a Tier II or Tier III ERA and development of a human health risk assessment, using the EPA framework (https://www.epa.gov/risk/conducting-human-health-risk-assessment), be completed prior to any approval of phase 2 construction of the Project, in coordination with the Forest Service.

Mitigation/Monitoring Feasibility (9): *Modify Mitigation Measure AR-3 as follows: The applicant will work with the Forest Service and ADFG to develop a Culvert Remediation Plan based on the September 2021 Road Survey Report (USFS 2021). This plan will outline the specific actions and strategies to maintain, repair, or replace culverts that impede fish passage, have blockages, corrosion, damage, or are functioning at reduced capacity to transport non-"contact" waters through their natural flow paths. Additionally, the Applicant will update the GPO, Appendix 8, Road Maintenance and Operations, to include criteria in Section 2.5.1 regarding water management. This update will include provisions for routine monitoring of functionality and condition, as well as annual reporting on water crossing monitoring and maintenance efforts. The plan will be developed within two years of the approved Project ROD, and include an agreed-upon schedule for addressing each culvert identified in the survey report.*

Tongass Response: The Forest revised Mitigation Measure AR-3 to state: The Applicant will work with the Forest Service and ADFG to develop a Culvert Remediation Plan based on the September 2021 Road Survey Report USFS 2021). This plan will outline the specific actions and strategies to maintain, repair, or replace culverts that impede fish passage, have blockages, corrosion, damage, or are functioning at reduced capacity to transport non-"contact" waters through their natural flow paths. Additionally, the Applicant will update the GPO, Appendix 8, Road Maintenance and Operations, to include criteria in Section 2.5.1 regarding water management. This update will include provisions for routine monitoring of functionality and condition, as well as annual reporting on water crossing monitoring and maintenance efforts. The plan will be developed within two years of the approved

Project ROD, and include an agreed-upon schedule for addressing each culvert identified in the survey report. The modified Mitigation Measure AR-3 is also provided in Attachment A, Table A-1, Required Mitigation, Conservation, and Monitoring Measure – Required Mitigation and Monitoring Measures by Resource.

Mitigation and Monitoring Adequacy (1): *Incorporate monitoring/sampling site locations conducted by all entities (ADF&G, Hecla, etc.) into a set of clear, detailed, and comprehensive maps.*

Tongass Response: The Forest Service developed map sets to provide monitoring and sampling site locations for the project. These map sets are located in the FSEIS Errata.

Mitigation and Monitoring Adequacy (2): *Improve Figure 3.5-2, a map of surface water monitoring sites. For example, the numbering on this map appears incomplete (e.g. Site 10 is not shown), and terms need to be better explained (e.g. does "gaged site" mean discharge?). I suggest that monitoring types and symbology be color coded based on terms used in FSEIS (e.g., blue for all water quality monitoring, then different shapes for chemical/discharge/ temperature) to make the map congruent with terms used in FSEIS.*

Tongass Response: The Forest provided a clearer map-set for Figure 3.5.-2, Surface Water Monitoring Sites in the FSEIS. This information is provided in the FSEIS Errata. In Figure 3.5-2, Gage sites refer to continuous discharge at an established station.

Mitigation and Monitoring Adequacy (3): *Add more detailed maps to the project record in addition to one provided for the TDF (Zinc/Tributary Creek, the mine portal area, Cannery Creek, Hawk Inlet, and the Greens Creek estuary). The C and D Pond locations should be indicated on the map(s) as well.*

Tongass Response: The Forest provided a clearer map-set for Figure 3.5-2, Surface Water Monitoring Sites in the FSEIS. The map-set has been updated to include more detail to highlight the requested areas. This information is provided in the FSEIS Errata.

Mitigation and Monitoring Adequacy (4): *Document all known historical monitoring and survey efforts (i.e., "baseline" to current time period) in a single table in order to clarify what has been monitored and by whom. Include the period of record for each monitoring parameter to demonstrate which monitoring requirements continue to the present day. Include a statement about the rationale of sufficiency for each parameter and whether it is considered more robust than historical studies. Include a statement about why repeat studies are not needed for those parameters (or species) which are not ongoing.*

Tongass Response: The Forest Service developed a master monitoring and survey table to the degree that the agencies and the Applicant provided requested information. The Forest Service will make available the table to the project website. With respect to monitoring sufficiency over time, the Forest Service has developed monitoring measure AR-2 and historic data has been included in the Applicant's Environmental Risk Characterization Report.

Mitigation and Monitoring Adequacy (5): *Provide information to support why existing indicator species or aquatic variables were chosen, and include a justification or assumptions made about why they sufficiently represent those species not directly sampled for heavy metals (e.g., eagles, bears, deer, marine mammals). Consider developing specific triggers if environmental trends exceed defined thresholds which may initiate the need for more direct sampling of species. For example, if air or*

water quality trends downward, additional marine or terrestrial species monitoring should begin to determine the pervasiveness of these impacts throughout the ecosystem.

Tongass Response: In the aquatic environment the aquatic community as a whole is considered when assessing risk, with threshold for effects being the Ambient Water Quality Standard (AWQS) adopted by the State of Alaska. The most stringent (lowest concentration) standard (chronic) is used during the assessment of potential risk to the aquatic organisms, and thus is considered protective of the aquatic community. Updates to the Tier I, Preliminary Screening Level Ecological Risk Assessment (PSLERA) will also rely on the AWQS as a potential effects threshold in the aquatic environment. Since direct tissue sampling of many animals is impractical and might not yield usable data, the lichen study will continue to be used as a monitoring tool and conservative indicator of the possible need for more site-specific sampling. Such site-specific data, if collected, will be used as input variables to Tier II and/or Tier III risk assessments. For additional information Please see Mitigation Measure AR-2 that is provided in Attachment A, Table A-1, Required Mitigation, Conservation, and Monitoring Measure – Required Mitigation and Monitoring Measures by Resource. Also please see NEPA-1(4) and (5) for further clarification.

Mitigation and Monitoring Adequacy (6): *Establish a Collaborative Integrated Monitoring Panel (CIMP) (post-decision), to ensure that any environmental monitoring data (such as Annual ADF&G Biomonitoring, Annual Hawk Inlet Monitoring Report, and Biannual Waste Management Permit Report) and other analyses derived from the Integrated Monitoring Plan (such as lichen studies) are considered holistically and that they adaptively inform prospective operational adjustments. Membership of this panel should include appropriate Forest Service resource specialists, ACA and Kootznoowoo, Hecla, and other identified stakeholders, as determined by the Responsible Official, and should operate in accordance with a signed Memorandum of Understanding (MOU) or other agreement that sets forth the scope and participants. As the MOU should make clear, the Forest Service would be seeking individual input from each member or organization, rather than any consensus recommendations or advice from the panel. It will consider each member's input in ongoing oversight of implementation of the GPO. The CIMP should establish a recurring review cycle and convene around outcomes of the PSLERA and other periodic studies (such as the Waste Management Permit 5-Year Environmental Audit and the Fugitive Dust Mitigation and Monitoring Plan review meetings) to share information and views of the data. The CIMP members should evaluate trends in air quality, water quality, sediment, and biomonitoring data to illuminate the effectiveness of BMPs and mitigation measures and identify potential concerns that could lead to additional monitoring and adaptive management. The CIMP members should provide input on any monitoring gaps or adjustments to ensure a comprehensive and timely understanding of environmental conditions and BMPs effectiveness. The CIMP members should also provide input on methods to monitor the impact of the project on subsistence food resources. Potential changes to mitigation or monitoring parameters can be made through existing decisional or operational space in collaboration with Hecla and in consultation with State and Federal agencies.*

Tongass Response: In response to objections received on the FSEIS and draft ROD and Tribal government to government consultation and Alaska Native Claims Settlement Act (ANCSA) government to corporation consultation, the objection reviewing officer directed me to establish a Collaborative Integrated Monitoring Panel (CIMP). My intent is to convene interested and responsible parties with the goals of providing transparency to mitigation and monitoring activities, building trust and improved working relationships through regular interaction and exposure to consistent information, and support adaptive management outcomes. The CIMP will be an opportunity to provide transparency in monitoring activities where participating individual organizations can provide input to

regulatory agencies. It is not intended to provide group or consensus recommendations. I will reserve decision-making authority regarding permitting the GPO for Greens Creek Mine. A discussion of the CIMP is included in the Environmentally Preferable Alternative-Compliance with Mitigation and Monitoring Requirements Section of the Final ROD.

Mitigation and Monitoring Adequacy (7): *Add the April 29, 2024, email from ADF&G to the project record, and consider incorporating the additional monitoring sites and parameters ADF&G recommended. These site additions and location changes are relatively minor but would add depth of understanding and improve the ability to evaluate the impacts of mine operations.*

Tongass Response: In consideration of the April 29, 2024, email from ADFG, the Forest Service made modifications to Mitigation Measures SW-1 and AR-1. SW-1 includes a new requirement to include "(e) Sampling sediment annually at Greens Creek Sites 63 and 54 to complement sediment sampling at Greens Creek Delta". AR-1 has been modified to include the following updates: "(a) Retain the aquatic biomonitoring site at Tributary Creek Site 9 for continuity of data inclusive of fish elemental analysis and abundance. (b) Add Zinc Creek sites for streamflow monitoring and biomonitoring including Site 371 at the confluence of Tributary Creek and Zinc Creek (Site 10) downstream of the confluence with Tributary Creek, and include periphyton and macroinvertebrate sampling to site 1847 in Tributary Creek. (c) Incorporate Zinc Creek and Tributary Creek streamflow data into aquatic biomonitoring data synthesis, analysis, and reporting". The modified Mitigation Measures SW-1 and AR-1 are provided in Attachment A, Table A-1, Required Mitigation, Conservation, and Monitoring Measure – Required Mitigation and Monitoring Measures by Resource. The email has been added to the project record.

Mitigation and Monitoring Adequacy (8): *Add the following reference and monitoring documents to the project record:*

- *AK DEC 2022 Final Integrated Report with Tributary Creek Category 4b Waterbody Determination Paper;*
- *HGCMC H1 2022 Biannual Report for State of Alaska Waste Management Permit No. 2020DB0001;*
- *HGCMC H2 2022 Biannual Report for State of Alaska Waste Management Permit No. 2020DB0001;*
- *ADFG Aquatic Biomonitoring at Greens Creek Mine 2022 report; and*
- *HGCMC Hawk Inlet Monitoring Program 2022 Annual Report.*

Tongass Response: The Forest Service has updated the project record to include the aforementioned references.

Attachment B. Forest Service NEPA History, Tailings Storage Facility, Greens Creek Mine - Alaska

FOREST SERVICE NEPA HISTORY

Tailings Storage Facility

Greens Creek Mine – Alaska

August 5, 2020

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ACRONYMS AND ABBREVIATIONS

ACOE	Army Corps of Engineers
CY	cubic yards
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
HGCMC	Hecla Greens Creek Mining Company
LEDPA	Least environmentally damaging practicable alternative
Monument	Admiralty Island National Monument
NEPA	National Environmental Policy Act
Project	North Extension Project
ROD	Record of Decision
TDF	Tailings Disposal Facility
U.S.	United States

1.0 INTRODUCTION

The Forest Service has completed three final environmental impact statement (EIS) documents that examined tailings disposal at the Greens Creek Mine; these EISs were issued in 1983, 2003 and 2013. In 1988, the Forest Service released an environmental assessment (EA) that analyzed tailings disposal techniques. The Forest Service conducted these past analyses in compliance with the National Environmental Policy Act (NEPA). The synopsis of this work for the four aforementioned NEPA documents is illustrated in **Figure 1, Action Alternative Screening Analysis History**.

This report provides an overview of the issues developed for these previous NEPA analyses, along with an overview of the proposed actions and alternatives that the Forest Service analyzed in these past EIS and EA documents. The discussion herewithin underscores the nature of the Forest Service's past alternative analyses for tailings disposal at the Greens Creek Mine and how numerous alternatives were either dismissed from detailed evaluation or rejected as a result of the detailed evaluation.

This analysis was prepared to provide background for Hecla Greens Creek Mining Company's (HGCMC's) 2020 proposed extension of the existing tailings disposal facility (TDF) and associated infrastructure, under a project entitled the North Extension Project (NEP), and the company believes this information should be helpful to preclude unnecessary reconsideration of alternatives that have been eliminated by past NEPA evaluations.

NEPA requires inclusion of a no action alternative in EIS and EA documents to function as a baseline case to compare to the impacts of the proposed action and other action alternatives that are analyzed in the environmental documents. In each of the past NEPA analyses completed for the Greens Creek Mine, the Forest Service has addressed the no action alternative. However, for purposes of this report, HGCMC will omit discussion on the no-action alternative, except only to say that NEPA requires its consideration.

2.0 ISSUES

As part of the past NEPA analysis work for the Greens Creek Mine, the Forest Service conducted scoping to comply with 40 CFR §1501.7 and the agency's internal NEPA guidance. From this scoping, the Forest Service identified a number of issues regarding the actions proposed for the Greens Creek Mine site. See **Table 1, Issues identified during Previous NEPA Analyses for Tailings Disposal – Greens Creek Mine**.

Of the various issues identified in previous NEPA work, the Forest Service focused on key or significant issues to help guide the identification and development of possible alternatives to the company's proposed action. Principally, these key issues centered on activities in the Admiralty Island National Monument (Monument) and possible impacts to water quality, wildlife, fisheries and Waters of the U.S. (jurisdictional wetlands). For the Greens Creek Mine TDF, the Forest Service had designated a lease boundary for that facility and supporting infrastructure and, in their previous environmental reviews, has attempted to maintain the TDF within that boundary, although when needed, the Forest Service expanded this lease boundary to accommodate the TDF extension.

Figure 1, Action Alternative Screening Analysis History

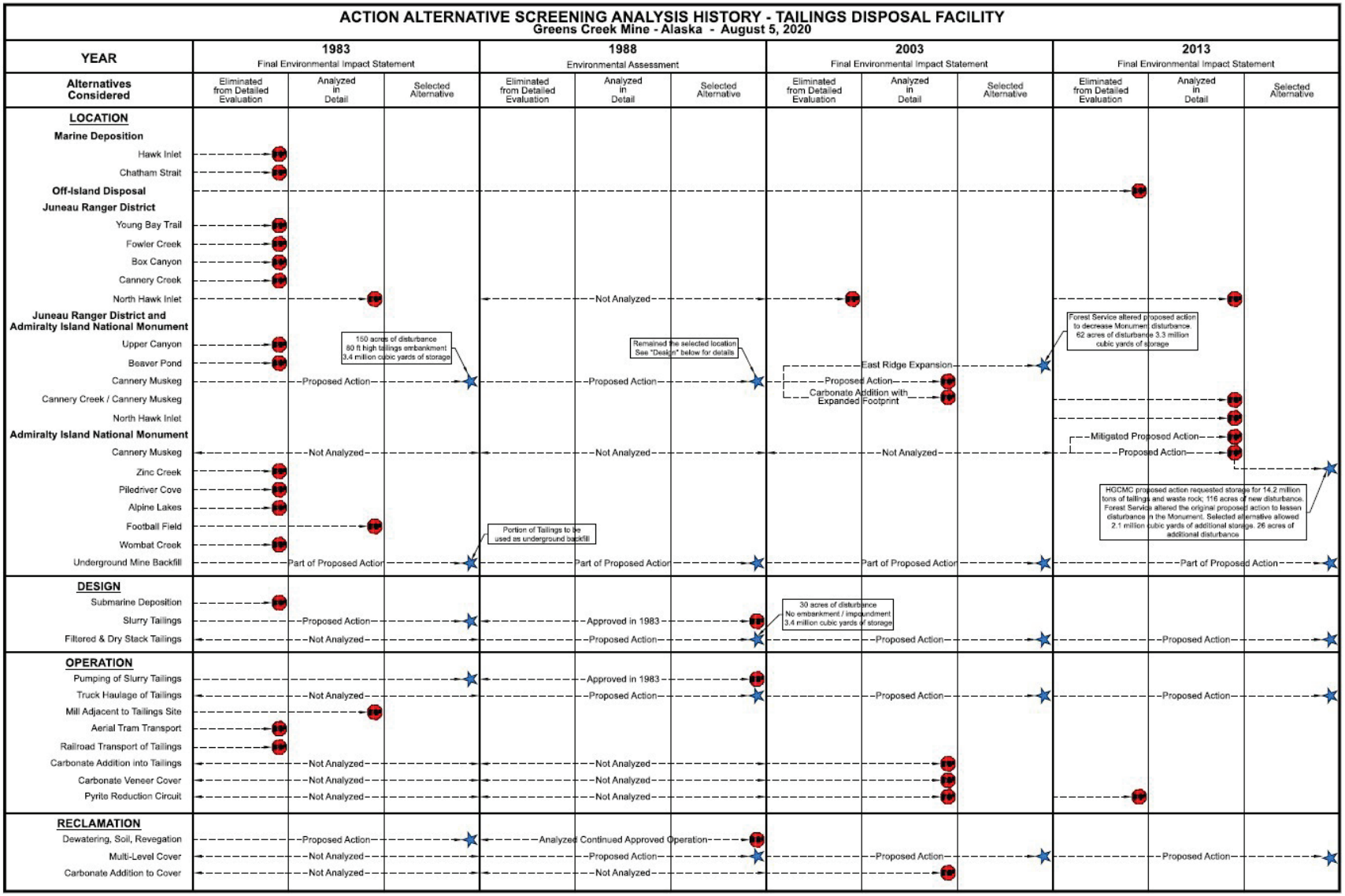


Table 1, Issues identified during Previous NEPA Analyses for Tailings Disposal – Greens Creek Mine

Issue and Concern Subject	1983 EIS	1988 EA (tiered to 1983 EIS)	2003 EIS	2013 EIS
Purpose and Need	Develop and operate a mining operation.	Evaluate changes in the development of the Greens Creek Mine, specifically the handling and disposal of tailings.	Consider extension of the TDF to allow for continued operations.	Extend the TDF footprint south into the Monument providing tailings and waste rock disposal capacity for an additional 30 years.
Admiralty Island National Monument (Monument) (Key Issue)	Management objectives for the Monument prescribed in ANILCA (Alaska National Interest Lands Conservation Act of 1980) are to protect objectives of ecological, cultural, geological, historical, prehistorical and scientific interests. Although ANILCA permits holders of valid mining claims can conduct activities related to the rights under those claims, the development of a mine within a Monument is still a local and national issue. If viable alternatives exist outside of the Monument, they should be favored. In addition, management objectives for a project in the Monument require reclamation to as near natural conditions as feasible.	None listed.	The impacts of proposed actions in the Monument must be considered. Consideration may require the formulation of an alternative in which the footprint of the proposed development is altered to minimize impacts within the Monument boundaries.	Any proposed mining related action in the Monument must avoid irreparable harm to Monument values. Assessment measures: - Availability of suitable lands within existing mine claims, HGCMC controlled lands, or other lands outside the Monument; - The potential for reclamation of impacted areas to pre-project conditions; - Whether or not surface waters within the Monument will be impacted in the long term; and, - Acres disturbed within the Monument.
Recreation	Minimize or prevent any increased recreation competition that negatively impacts or decreases recreation opportunities.	Minimize or prevent impacts to recreation, visual and wetland resources in the Monument.	None listed.	None listed.

Issue and Concern Subject	1983 EIS	1988 EA (tiered to 1983 EIS)	2003 EIS	2013 EIS
Aquatic Resources	Section 505(a) of ANILCA states that mining activities "…maintain habitats, to the maximum extent feasible, of anadromous fish and other foodfish, and to maintain the present and continued productivity of such habitat..." Therefore, the protection of fresh and saltwater quality and the protection of spawning and rearing habitat must be considered.	None listed	Direct and cumulative impacts to fish and wildlife resources should be considered among the alternatives. Mitigation measures to reduce impacts should be described.	Consider impacts of the tailings disposal area expansion, contact water ponds and roads along or over creeks could negatively impact anadromous and resident salmonids and other fish species. Assessment measures: - Length of anadromous (Class I) and resident (Class II) streams lost; - Area of facilities that could affect groundwater discharge (wetland fills); and, - Potential flow reduction due to basin fill and water capture.
Wildlife	Brown bear, bald eagles and Sitka black-tailed deer garner special attention. Assessment measures: - Direct habitat loss. - Indirect habitat loss, due to increased activity; and, - Water quality degradation, resulting in biologic contamination.	Potential increased disturbance to wildlife due to proposed truck haul and mechanical tailings placement.	Direct and cumulative impacts to fish and wildlife resources should be considered among the alternatives. Mitigation measures to reduce impacts should be described.	None listed.

Issue and Concern Subject	1983 EIS	1988 EA (tiered to 1983 EIS)	2003 EIS	2013 EIS
Water Quality (Key Issue)	Consider potential degradation of freshwater systems in the project area. Assessment measures: - Increased sediment loads in area streams from disturbed areas; - Alteration of streamflow rates that could affect fish habitat; and, - Degradation of surface and/or groundwater through acid mine drainage, heavy metal and trace element leachates, and the addition of reagent chemicals.	Maintain adequate water quality in Greens Creek watershed to protect Monument values and provide for efficient milling.	Ensure isolation of contact water from TDF operations and enlargement. Assessment measures: - The potential for metals loading and/or acid rock drainage (ARD); - Reduction of contaminants in the TDF; - Post-closure maintenance of water standards; - The effectiveness of control measures; and, - The potential to increase in-stream sediments and bioaccumulation of metals in plants and animals.	Prevent water quality impacts from contact water runoff from the TDF, especially those water quality impacts that could adversely impact aquatic life. Assessment measures: - Percent of drainage area and flow lost in area streams; - Compliance with applicable Alaska water quality standards in marine and fresh water; and - Potential for ARD conditions developing in the TDF.
Water Quantity	None listed.	Maintain adequate flows in Greens Creek for freshwater-dependent Monument values and provide for efficient mill processing.	None listed.	None listed.
Marine Environment	Prevent degradation of marine water quality, due to effluent discharge or shipping activity.	None listed.	None listed.	Prevent seafloor flora and fauna impacts from discharge to Hawk Inlet, as well as from any contaminated sediments at the loading dock.
Technical Feasibility	Avoid technical complexity that could cause higher capital and operating costs, as well as increase potential risk of failure.	None listed.	Ensure adequate TDF design to meet appropriate engineering standards.	None listed.
Economic Feasibility	Avoid excessive costs for project components or mitigation, such that costs would cause economic feasibility to become an issue.	None listed.	None listed.	None listed.
Impacts on Juneau (Socioeconomic Resources)	Consider the impact of mine on Juneau's housing market from influx of new workers and construction of additional docking and support facilities in or near Auke Bay.	None listed.	None listed.	None listed.

Issue and Concern Subject	1983 EIS	1988 EA (tiered to 1983 EIS)	2003 EIS	2013 EIS
Visual Resources	None listed.	Consider impacts to Monument visual resources.	None listed.	None listed.
Wetland Resources (Key Issue)	None listed.	Changed impacts to recreation, visual and wetland resources in the Monument.	Impacts to wetlands should be considered.	Consider direct and indirect impacts to wetlands. Mitigate wetland impacts. Assessment Measures: - Acres of wetlands affected; - Type of wetlands affected; and, - Habitat functions of affected areas.
Cumulative Impacts	None listed.	None listed.	Consider cumulative impacts from extended life of mine operation and other projects in the area.	None listed.
Air Quality	None listed.	None listed.	None listed.	Minimize and restrict air emissions and fugitive dust from TDF expansion, especially in areas adjacent to the TDF.
Closure and Reclamation Bond	None listed.	None listed.	None listed.	Evaluate closure bonds to meet HGCMC's obligation to protect the environment, including the Monument, from significant damage. Adequate bonding for long-term water quality management, monitoring and treatment should be examined.
Transportation	None listed.	None listed.	None listed.	Consider environmental impacts of site's transportation and utility corridors.
Cultural Resources	None listed.	None listed.	None listed.	Address Hawk Inlet area as a traditional trade route, important food source and area where Native Alaskan traditions were taught, especially those of the nearby Angoon community.

3.0 1983 FINAL EIS

In the early 1980s, prior to the start-up and development of the Greens Creek Mine, the Forest Service conducted a thorough NEPA analysis of the proposed mining and milling operation, which included tailings placement. Both marine and on-land locations for tailings disposal were considered. This

included the assessment of issues and concerns to help determine potential alternatives to the proposed action. See **Table 1, Issues identified during Previous NEPA Analyses for Tailings Disposal – Greens Creek Mine**.

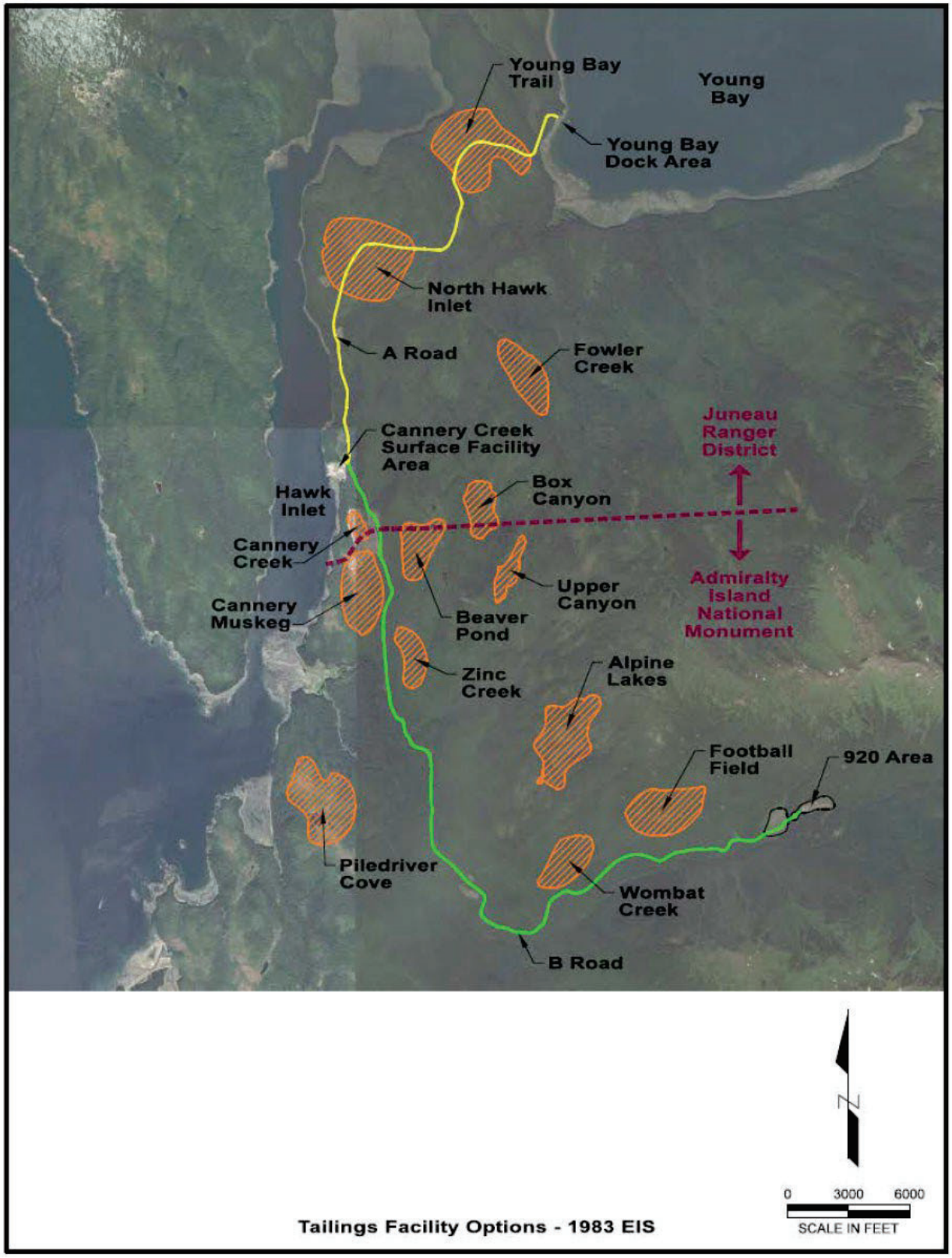
For a TDF, the company had proposed the "Cannery Muskeg" site as the preferred site, with a storage capacity for an estimated 3.4 million cubic yards (CY) of tailings materials. The proposal was for slurry placement of tailings behind an embankment, which was the customary and established technique for mill tailings disposal during this time period.

Early in its analysis, the Forest Service eliminated the marine deposition option into either Hawk Inlet or Chatham Strait from any detailed evaluation given potential environmental problems, known public objections and the availability of adequate on-land disposal sites. There were also legal considerations, since ocean sub-marine disposal of tailings was believed to violate federal law.

After elimination of potential marine deposition, the Forest Service focused on the proposed action site and twelve other potential alternative on-land sites for tailings placement, in addition to the company's proposed "Cannery Muskeg" site. See **Figure 2, 1983 EIS Tailings Facility Locational Options**.

None of the thirteen sites (including the company's proposed tailings disposal site) were located directly adjacent to the proposed "920 Portal Area", the location for accessing the underground deposit and placement of the mine's surface support facilities. The terrain around the 920 Portal Area was simply too steeply sloped to accommodate the expected tailings volume, and the Forest Service did not want tailings placement directly in Greens Creek.

Figure 2, 1983 EIS Tailings Facility Locational Options



For tailings transport, the Forest Service agreed with the company that pumping of slurry tailings through a pipeline would be the most appropriate transport mode of tailings from the mill to the TDF site, and the agency rejected the use of an aerial tram or a railroad.

In its preliminary screening of TDF sites, the Forest Service eliminated six options (Box Canyon, Cannery Creek, Beaver Pond, Upper Canyon, Alpine Lakes, and Wombat Creek) of the preliminary thirteen sites. The chief reason for this elimination was the technical inability to safely construct and operate a slurry TDF at these areas. Of the seven remaining sites, the Forest Service sought to further shrink the number of TDF sites for detailed analysis in the EIS based on a qualitative consideration (small, moderate and large) of the issues and associated impacts as listed in **Table 2, 1983 EIS Effects Rating on Potential Tailings Disposal Sites.**

Table 2, 1983 EIS Effects Rating on Potential Tailings Disposal Sites

Issue	Cannery Muskeg (Proposed Action)	Young Bay Trail	North Hawk Inlet	Fowler Creek	Zinc Creek	Football Field	Piledriver Cove
Construction on Monument Lands	large	small	small	small	large	large	large
Reduction of Fish Habitat	large	small	small	large	small	small	small
Deterioration of Water Quality	moderate	small	small	large	large	large	moderate
Effects upon the Marine Environment	moderate	large	moderate	small	small	small	large
Reduction of wildlife habitat	moderate	large	large	small	small	small	large
Effect upon recreation	large	large	large	small	moderate	small	large
Economic feasibility	small	large	large	large	large	large	moderate
Technical feasibility	small	large	large	large	moderate	moderate	small

Because four of the remaining seven tailings storage sites essentially affected the same issues, the Forest Service further narrowed the alternative search to three without reducing the ability of the selection process to address important issues. For example, the Young Bay Trail and the North Hawk Inlet sites agreed in all but one issue ("Effects upon the Marine Environment"), so the Forest Service decided to eliminate the Young Bay Trail from detailed evaluation. Similarly, Zinc Creek and Football Field sites have the same relative effect on all issues except one ("Effect upon Recreation"), so the Forest Service excluded Zinc Creek from further evaluation.

The three tailings storage alternatives analyzed in detail in the 1983 EIS were:

1. Cannery Muskeg (proposed action);
2. Football Field; and,
3. North Hawk Inlet.

The proposed configurations of these three alternatives are illustrated in the following figures:

1. **Figure 3, Schematic Layout of Cannery Muskeg Tailings Disposal Facility**;
2. **Figure 4, Schematic Layout of Football Field Tailings Disposal Facility**; and,
3. **Figure 5, Schematic Layout of North Hawk Inlet Tailings Disposal Facility**.

Figure 3, Schematic Layout of Cannery Muskeg Tailings Disposal Facility

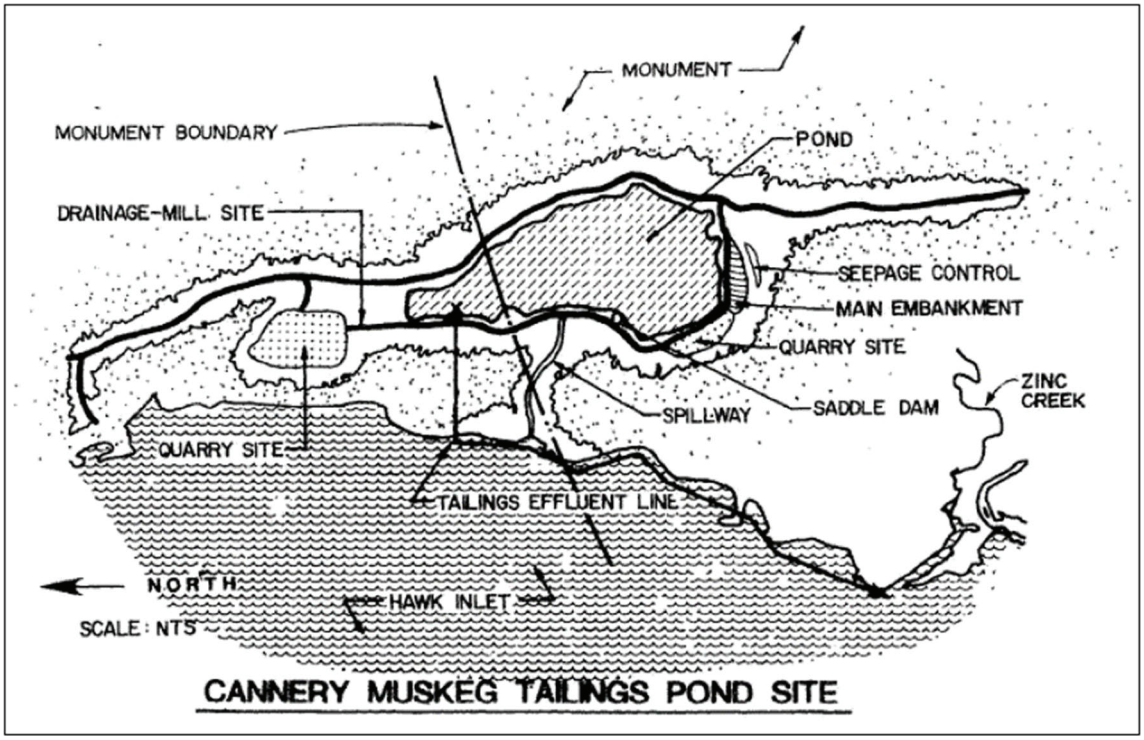


Figure 4, Schematic Layout of Football Field Tailings Disposal Facility

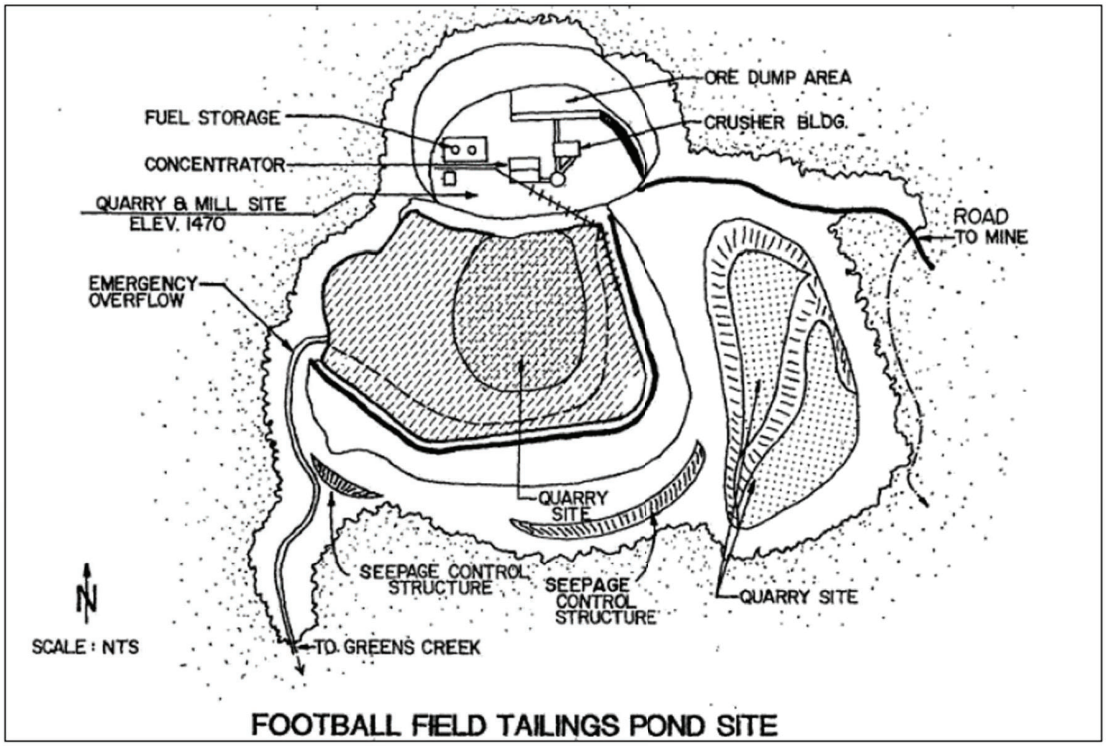
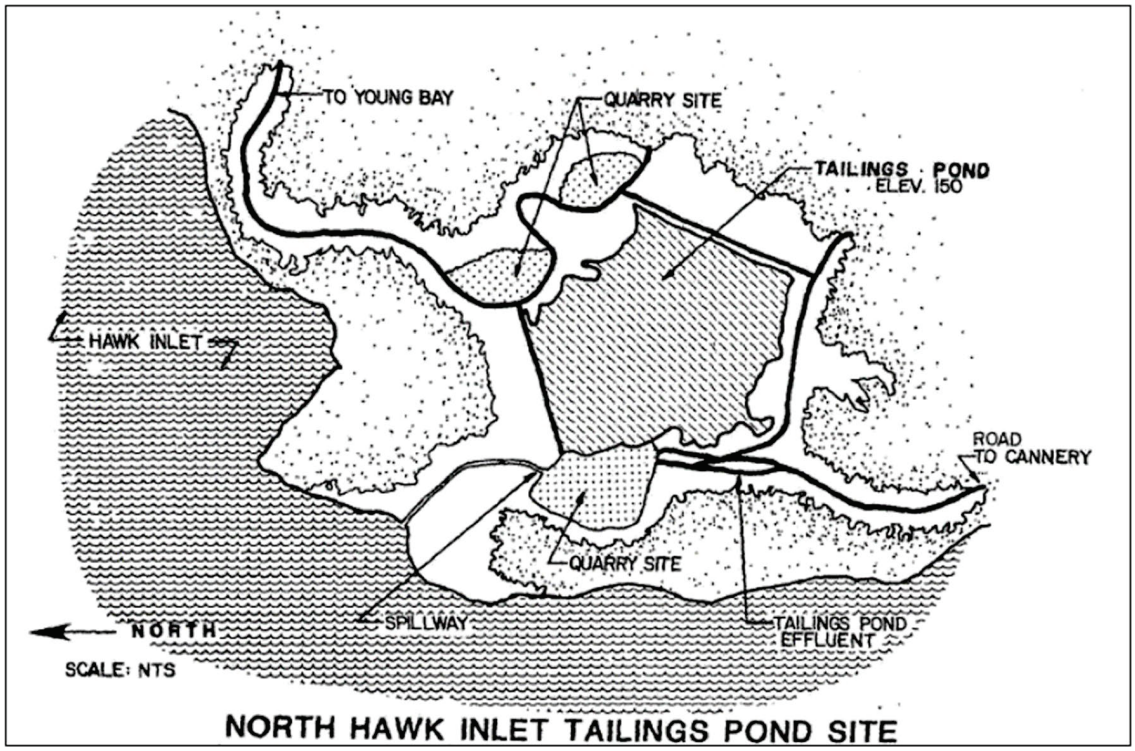


Figure 5, Schematic Layout of North Hawk Inlet Tailings Disposal Facility



For all of the 1983 EIS action alternatives, both tailings and water would be stored behind an embankment, which would be a varying height, crest length and volume for each site. See **Table 3, 1983 EIS Tailings Alternative Comparison**.

Table 3, 1983 EIS Tailings Alternative Comparison

General Sizing and Design Information	Cannery Muskeg (Proposed Action)	North Hawk Inlet	Football Field
Embankment Height (feet)	80	47 and 33 (two embankments)	106
Embankment Fill (million cubic yards)	0.76	1.35	3.12
Crest Length (feet)	950	4,200	3,500
Tailings Pond Capacity (million cubic yards)	3.4	3.4	3.4
Surface Area of Pond (acres)	93	126	45
Total Disturbed Area (acres)	150	270	163
Extreme Rainfall Event Overflow Location	Lower Hawk Inlet	Upper Hawk Inlet	Upper Greens Creek

In the 1983 EIS, typical solid densities of slurry tailings were projected to range from 20% to 40% (percent solids by weight). Tailings would be discharged from spigots surrounding the perimeter of the TDF, with tailings "beaches" created using thin-layer, subaerial deposition techniques. Discharge operations would be conducted to direct tailings deposition to allow a pool of water to form at the rear of the impoundment (known as a decant pond), from which water could be reclaimed and pumped back

(recycled) to the mill. As tailings beaches formed, spigot discharges would progress around the perimeter of the facility, and this action would promote drying and consolidation of the tailings.

After a detailed and systematic examination of the three action alternatives, the Forest Service determined that the Cannery Muskeg alternative was the appropriate TDF location for the Greens Creek Mine, and the agency selected this site[1] as the preferred tailings disposal alternative[2] in its Record of Decision (ROD) for the January 1983 Final EIS. The Cannery Muskeg alternative disturbed the fewest acres of the action alternatives considered; and, although part of the TDF would have been located in the Monument, the rock fill needed for the embankment construction behind which tailings would be stored and the overall embankment crest length was considerably less than the other alternatives.

Although the North Hawk Inlet[3] TDF alternative was considered in the 1983 EIS, mainly because it would have been located entirely out of the Monument, this alternative would have involved the longest distance for pumping of tailings and nearly twice the disturbance of the other two alternatives.

4.0 1988 EA

In 1986, with final planning still underway for the Greens Creek Mine, additional in-field geotechnical drilling at the site of the selected Cannery Muskeg tailings embankment location revealed considerably more alluvial and glacial material, to depths of over a hundred feet, than either the Forest Service or the company assumed or knew about during the preparation of the 1983 EIS. To ensure long-term stability of an embankment behind which tailings would be placed, this alluvial and glacial material needed to be removed, so the tailings embankment could be anchored into bedrock. Such an earthmoving operation presented a daunting logistical and geotechnical stability challenge, as this material would have to been stockpiled remote from the TDF and a significant volume of acceptable rock material would have to be excavated (or brought in from off island) to construct the tailings embankment.

Given this new knowledge, the company sought an alternative to the slurry deposition of tailings and filed an amendment with the Forest Service to change the tailings disposal method to a new and innovative disposal technique known as filtered tailings storage, commonly described as "dry-stack" tailings disposal. With this amendment, the target area for tailings placement remained the same as approved in 1983, but the Forest Service decided to conduct a NEPA assessment to assess the environmental effects of this method versus the previously-approved slurry method of deposition.

The use of the dry-stack tailing storage technique involved greater investment, increased labor requirements and higher operating and maintenance costs than conventional (slurry) tailings placement;

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[1] Nearly 35 years later, even after numerous subsequent NEPA reviews, this location (originally known as the "Cannery Muskeg" alternative) remains the site utilized by HGCMC for tailings disposal.

[2] It should be noted that the mine plans for the Greens Creek Mine always contemplated that a portion of mill tailings would be backfilled into mined-out underground workings, when such backfilling would not interfere with mining. This practice of backfilling tailings underground continues today, with approximately 50% of the tailings being returned underground. It is impossible to return all tailings materials underground, given both the bulking or swell factor associated with rock material mined and that sufficient room must be left underground in drifts (i.e., tunnels) to access current and future mining areas and to transport ore and waste rock to the surface.

[3] The Forest Service revisited versions of tailings disposal in the North Hawk Inlet area at part of the NEPA assessment work conducted for the 2003 and 2013 EIS documents. Again, in these documents, no alternative in this area was selected for tailings disposal.

however, the use of dry stack disposal method at the Greens Creek Mine would eliminate the approved tailings embankment and slurry pond and reduce the tailings disposal footprint from 150 acres to less than 30 acres. And, perhaps more importantly, as discussed above, the use of the dry-stack method would eliminate the aforementioned geotechnical and logistical considerations involved with massive excavation of alluvial and glacial material and the construction of an 80-foot high embankment.

After analysis of the slurry versus dry-stack method of tailings handling and placement, the Forest Service agreed that the preferred alternative for tailings disposal at the Greens Creek Mine would be the dry-stack tailings disposal method[4], not the earlier approved conventional slurry deposition. In addition, the Forest Service established a lease boundary around the TDF to provide a designated area for tailings storage and supporting infrastructure.

5.0 2003 EIS

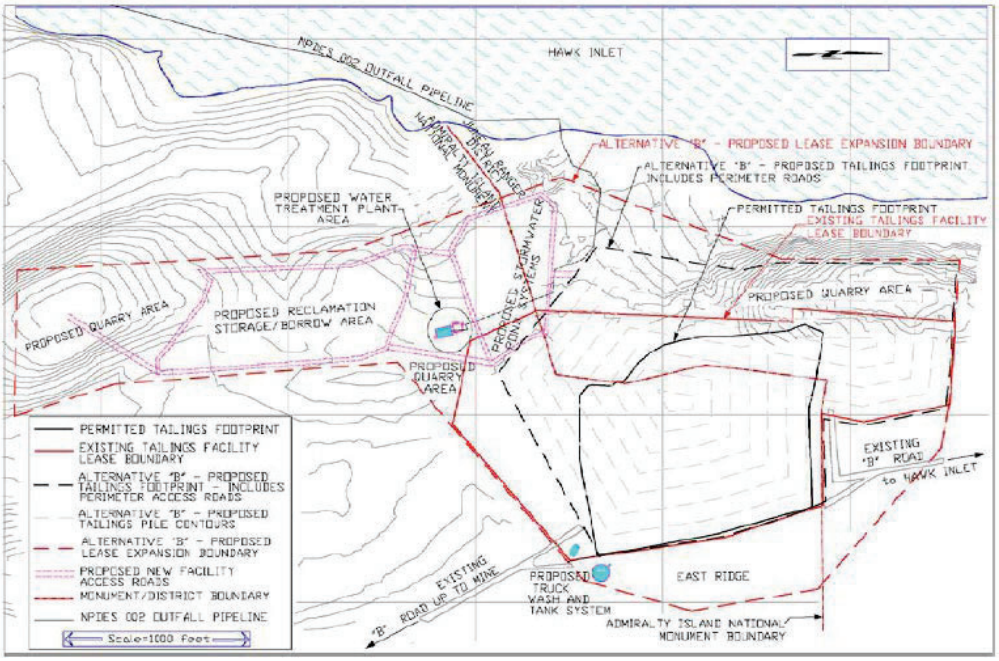
In the early 2000, after more than a decade of operation at the Greens Creek Mine, during which time ongoing site exploration work added ore reserves at the site, the company recognized that more tailings storage room would be necessary for future operations and filed an amendment for an extension of the existing TDF. As a result, the Forest Service initiated another NEPA review and revisited the potential issues for the requested extension, confirming that those previously identified in the 1983 EIS and the 1988 EA still applied to this latest request for an extension. See **Table 1, Issues identified during Previous NEPA Analyses for Tailings Disposal – Greens Creek Mine**.

5.1 PROPOSED ACTION (ALTERNATIVE B)

The company's plan amendment involved an extension of the existing Cannery Muskeg TDF and was designated as Alternative B by the Forest Service. This amendment proposed to enlarging the approved TDF site with the addition of approximately six million tons of tailings for disposal and would create an additional estimated 62 acres of disturbance. Most of the proposed extension was targeted to the west of the existing disposal area. The company would continue the use of the dry-stack tailings disposal method, and the extended configuration would allow tailings to be stacked higher. In addition, the company would construct a new water treatment plant, add stormwater management pond(s), move the truck wheel wash facility, relocate the B-Road further to the east, and add a quarry and a reclamation storage/borrow area. To accommodate the TDF extension and increased support infrastructure, the company also requested an extension of the lease boundary, most of which required an expansion further southward into the Monument. See **Figure 6, Proposed Action (Alternative B) in 2003 EIS – Proposed Expanded Lease Area**.

[4] After nearly 30 years of operations, even after numerous other Forest Service NEPA reviews and assessments, the dry-stack method of tailings disposal remains the preferred method used at the site.

Figure 6, Proposed Action (Alternative B) in 2003 EIS – Proposed Expanded Lease Area



5.2 ALTERNATIVES ELIMINATED FROM DETAILED EVALUATION

5.2.1 Mile 2.2 Tailings Disposal Facility

In the assessment of potential alternatives, the Forest Service revisited the possibility of tailings placement at a location that would be separate and remote from the existing TDF site, and outside the Monument. A potential remote tailings disposal site was identified at mile 2.2 on the A-Road, at a site previously analyzed in the 1983 EIS as the "North Hawk Inlet" site. However, once again, as in the 1983 EIS, the Forest Service, concluded a TDF at this site would create significant new disturbance in undisturbed watersheds, increase impacts to wetlands and wildlife, and pose the potential for increased water quality impacts over the existing TDF site. Therefore, the Forest Service eliminated the mile 2.2 site (and any other "remote" sites) from detailed evaluation in the 2003 EIS.

5.2.2 Reduction of Pyrite Concentrations in Tailings

The Forest Service also considered the use of pyrite-removal infrastructure at the 920 area, adjacent to the existing mill facilities, but this option was eliminated given safety concerns of containing and disposing of combustible pyrite concentrate, the ineffectiveness of removing ARD-causing minerals from the tailings, potential damage to Monument values, high risk of water quality contamination, the technical difficulty of reclaiming areas where pyrite concentrates would be placed, and its high cost.

5.3 OTHER ACTION ALTERNATIVES IN 2003 EIS

With the rejection of a remote site from detailed information, the Forest Service concentrated on a reconfiguration of the company's proposed extension of the existing TDF, along with possible operational options. Besides the company's proposed action, the alternatives carried forth for detailed evaluation in the 2003 EIS were:

- East Ridge Expansion;
- Carbonate Veneer or Continuous Carbonate Addition; and,
- Reduction of Pyrite Concentrations in Tailings.

5.3.1 East Ridge Expansion – Alternative C

Under the East Ridge Expansion alternative, identified by the Forest Service as Alternative C for the 2003 EIS, the existing TDF would be expanded to the east of the present facility location (instead of a westward extension as contemplated in the proposed action); the Forest Service expected that this location would increase the overall stability of the tailings facility by using natural topographic features as a buttress for the TDF. This alternative would eliminate the company's proposed rock quarry and associated access roads in the Monument and shrink the requested lease boundary, but this alternative still required relocation of the B-Road, construction of a new water treatment plant and the addition of stormwater management pond(s). See **Figure 7, Alternative C in 2003 EIS - East Ridge Expansion**.

5.3.2 Carbonate Addition – Alternative D

The Forest Service also examined a number of options involving the addition of carbonate (limestone), either through a carbonate layer on top of the tailings or by mixing carbonate within the tailings materials. It was believed that the use of carbonate would help neutralize potential acid-forming tailings, avoid acidification in the tailings and defer future metal leaching from the tailings.

The Forest Service eliminated the carbonate veneer option from detailed evaluation in the 2003 EIS as bench scale testing did not prove to effective in reducing the potential for metals leaching; however, the Forest Service did consider the alternative where a volume of limestone equal to the amount of tailings would be added to the tailings material, and the agency designated this option as Alternative D.

The ongoing addition of limestone would enlarge the footprint of the TDF and necessitate an expanded lease boundary. Like Alternatives B and C, this alternative still required relocation of the B-Road, a new water treatment plant, moving the truck wheel-wash facility, and the addition of stormwater management pond(s). See **Figure 8, Alternative D in 2003 EIS – Continuous Carbonate Addition**.

Figure 7, Alternative C in 2003 EIS - East Ridge Expansion

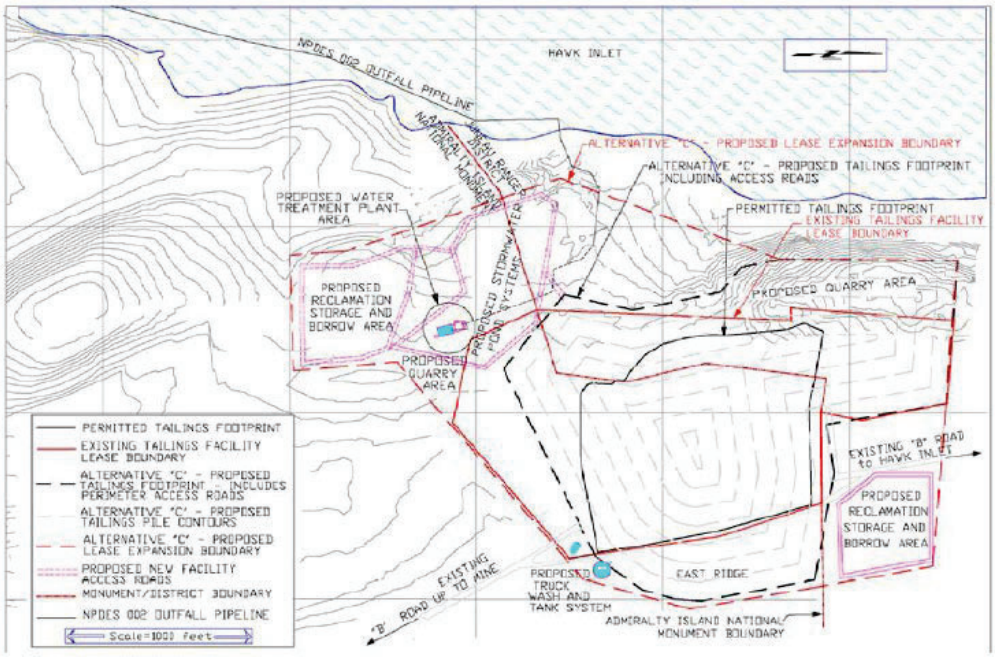
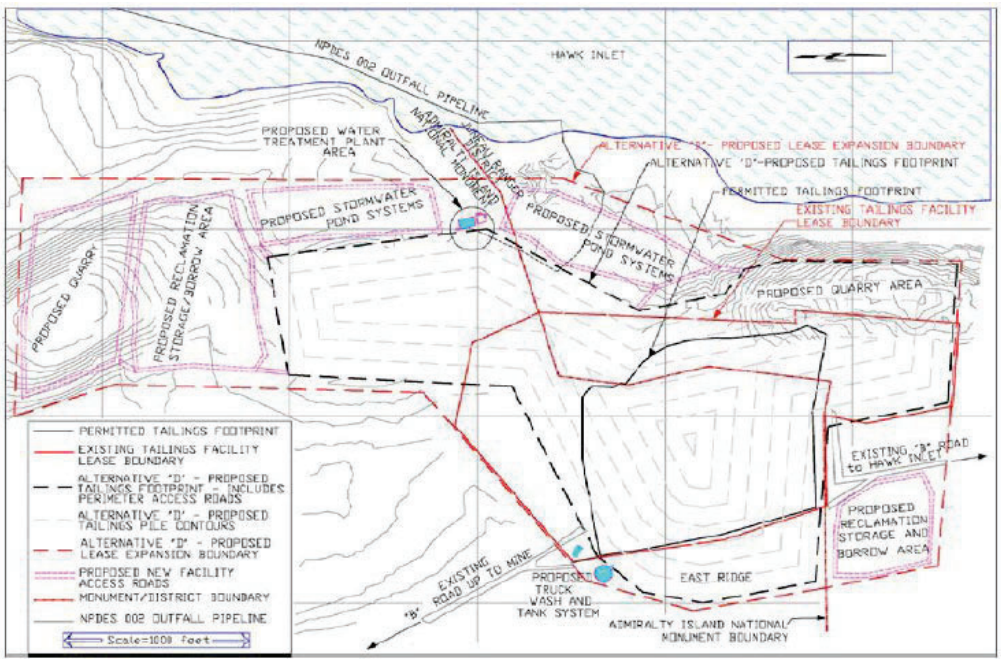


Figure 8, Alternative D in 2003 EIS – Continuous Carbonate Addition



As no limestone deposits were found in or around the site on Admiralty Island, the limestone material used under this alternative would have to be transported from off-island, necessitating off-loading infrastructure and an estimated 18,000 square foot structure for its dry storage. Additional trucks would be required to transport the limestone to the TDF. The addition of the projected volume of limestone to the tailings also would enlarge the area of disturbance.

5.4 2003 EIS PREFERRED ACTION ALTERNATIVE

A comparison of the action alternatives (including the proposed action) and the eventual alternative selected by the Forest Service is shown in **Table 4, Comparison of 2003 Alternatives**.

Table 4, Comparison of 2003 Alternatives

General Sizing and Other Information	Alternative B Proposed Alternative	Alternative C East Ridge Expansion	Alternative D Carbonate Addition
Tailings placed in TDF (tons)	6,000,000	6,000,000	6,000,000
Total TDF lease area after expansion (acres)	140	123	172
Lease area in Monument (acres)	90	68	115
Lease area outside Monument (acres)	50	55	57
TDF lease area expansion (acres)	84	67	116
Total TDF disturbed area (acres)	125	110	162
TDF footprint after expansion (acres)	61	62	81
TDF footprint in Monument (acres)	28	36	56
TDF footprint outside Monument (acres)	33	26	25
Carbonate amendment quantity (tons)	0	0-60,000	2,034,000
New Roads (miles)	1.93	1.19	4.30
Eliminated Roads (miles)	0.63	0.94	0.94
Wetlands impacted (acres)	22	10	42

In the November 2003 ROD, the Forest Service selected Alternative C, the East Ridge Expansion Alternative, at the existing Cannery Muskeg site as the preferred action alternative; this option allowed the placement of the company's targeted tailings volume with a lesser amount of disturbance as contemplated under Alternative B, the Proposed Action. This "east" location also improved TDF geotechnical stability, lessened the footprint of the TDF (including the footprint within the Monument), and eliminated infrastructure (quarry, access roads and reclamation storage areas) from placement in the Monument. Alternative D was eliminated because of logistical complexity and the larger disturbance than either Alternatives B and C.

6.0 2013 EIS

At the end of 2009, given exploration success in adding additional reserves to the site, improving metal prices and ongoing operational efficiencies, HGCMC again determined the need to extend the TDF to accommodate ongoing future Greens Creek Mine operations.

In early 2010, HGCMC projected that the mine had approximately six to seven years of remaining storage capacity subject to remaining at the current production levels. HGCMC recognized that mine-related NEPA analyses in the U.S. were taking three to five years to complete, and this task would be followed by another two to three years of detailed engineering and actual construction work to prepare a site to receive tailings, the later constrained to the summer months as the time available for Alaska construction work. Thus, HGCMC knew it was prudent to seek a tailings expansion in 2010 and submitted notice to the Forest Service regarding the need to extend the existing TDF.

With the initiation of the NEPA process, the Forest Service conducted scoping for this proposed TDF extension and confirmed that the issues expressed in the past NEPA analyses remained the same or similar. See **Table 1, Issues identified during Previous NEPA Analyses for Tailings Disposal – Greens Creek Mine**.

6.1 PROPOSED ACTION (ALTERNATIVE B)

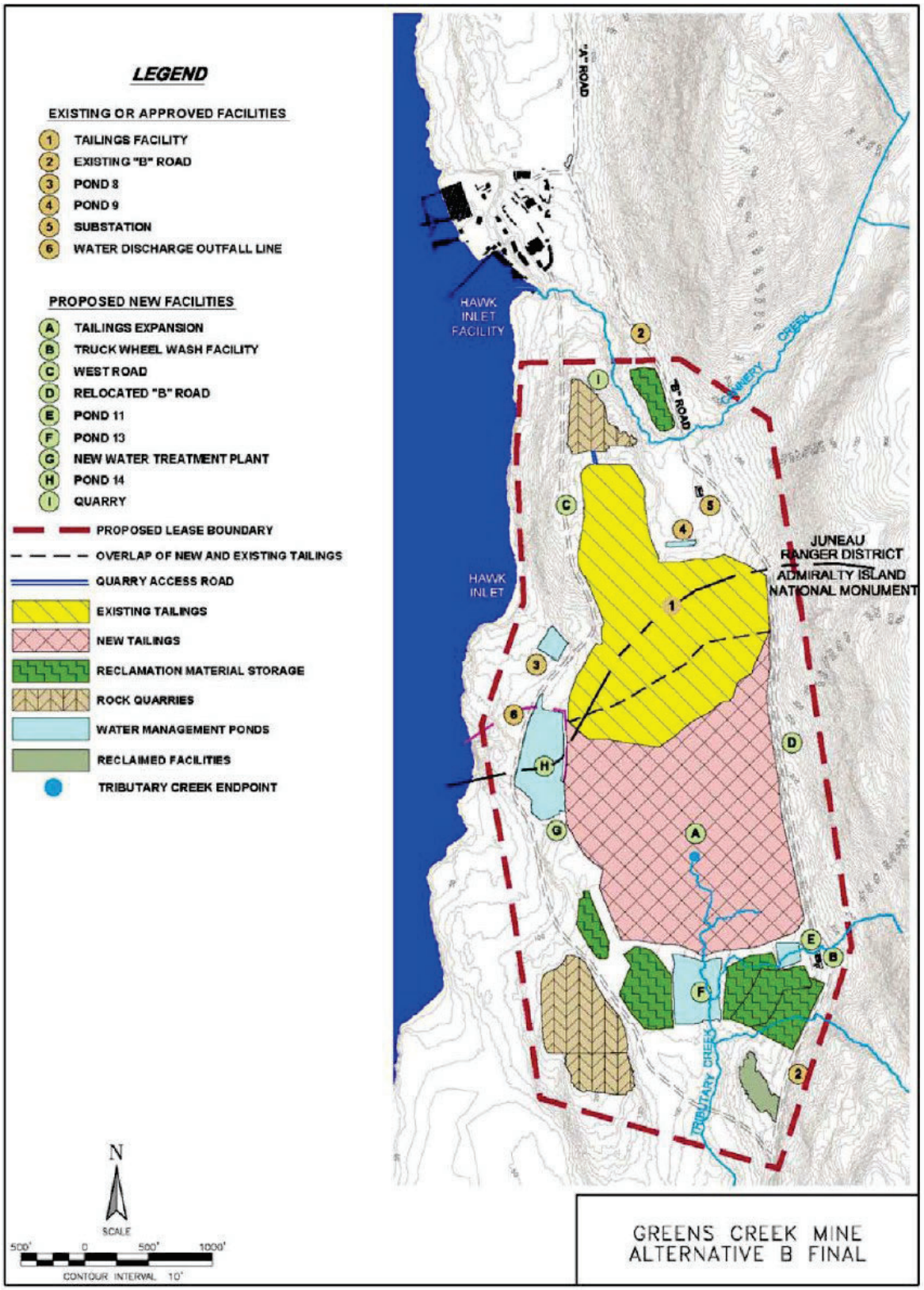
HGCMC proposed the continued use of the "dry-stack" tailings disposal technique and requested a southward expansion of the existing TDF for a long-term (30-year minimum) capacity of 14.2 million cubic yards of additional tailings and waste rock materials. HGCMC's objective was to allow the Forest Service the ability to conduct a comprehensive analysis for long-term tailings storage and to give HGCMC confidence that sufficient room would be available for mine tailings well into the future.

The proposed future tailings placement would involve four distinct expansions to match mine requirements. With this phased strategy, HGCMC would retain the company's philosophy of not overbuilding the TDF, both to minimize disturbances and to provide for efficient site expansion to match resource potential.

Under the proposed TDF extension, most of the existing infrastructure could be used to support the project, although HGCMC recognized the need for an additional water management pond, a new truck-wheel wash and additional storage for peat and overburden material.

The Forest Service designated this company-proposed plan as Alternative B in the 2013 EIS. See **Figure 9, Proposed Action (Alternative B) in 2013 EIS**.

Figure 9, Proposed Action (Alternative B) in 2013 EIS



6.2 ALTERNATIVES ELIMINATED FROM DETAILED EVALUATION IN 2013 EIS

For the 2013 EIS, the Forest Service did consider a number of potential alternatives and reviewed the previous 1983 and 2003 EIS alternative assessment work. After this review work, the agency reaffirmed the findings of those earlier TDF alternative analyses, where many alternatives were eliminated from detailed evaluation or were not selected as the preferred alternative. For the 2013 EIS work, the Forest Service did formally consider several alternatives, but these were also eliminated early from detailed evaluation.

6.2.1 Off-Island Tailings Disposal

The Forest Service rejected off-island tailings and waste rock disposal for logistical, technical and economic reasons. Mainly, the Forest Service was concerned about tailings spills into the marine environment and the need to construct intricate infrastructure at an already compact Hawk Inlet marine terminal. In addition, under this alternative, the Forest Service concluded that the environmental impacts of tailings disposal would simply be shifted to another area, and that off-island shipment and disposal of tailings would be significantly more expensive than current (on-island) handling and disposal of tailings and waste rock.

6.2.2 Tailings Pyrite Concentration Reduction

As part of the analysis in the 2003 EIS, the Forest Service had scrutinized (and eliminated) an alternative involving the reduction of pyrite concentration in tailings; however, for the 2013 EIS, the agency felt that potential technology changes over the past decade might have evolved since that earlier conclusion. After careful consideration of the current technology, the Forest Service again eliminated this option from detailed evaluation for the same or similar reasons that were articulated in the 2003 EIS.

6.3 OTHER ACTION ALTERNATIVES IN 2013 EIS

Besides HGCMC's proposed action (Alternative B), the Forest Service assembled and analyzed three other action alternatives. These alternatives were developed to principally respond to the issues involving Monument values, water quality, wetlands and fish habitat.

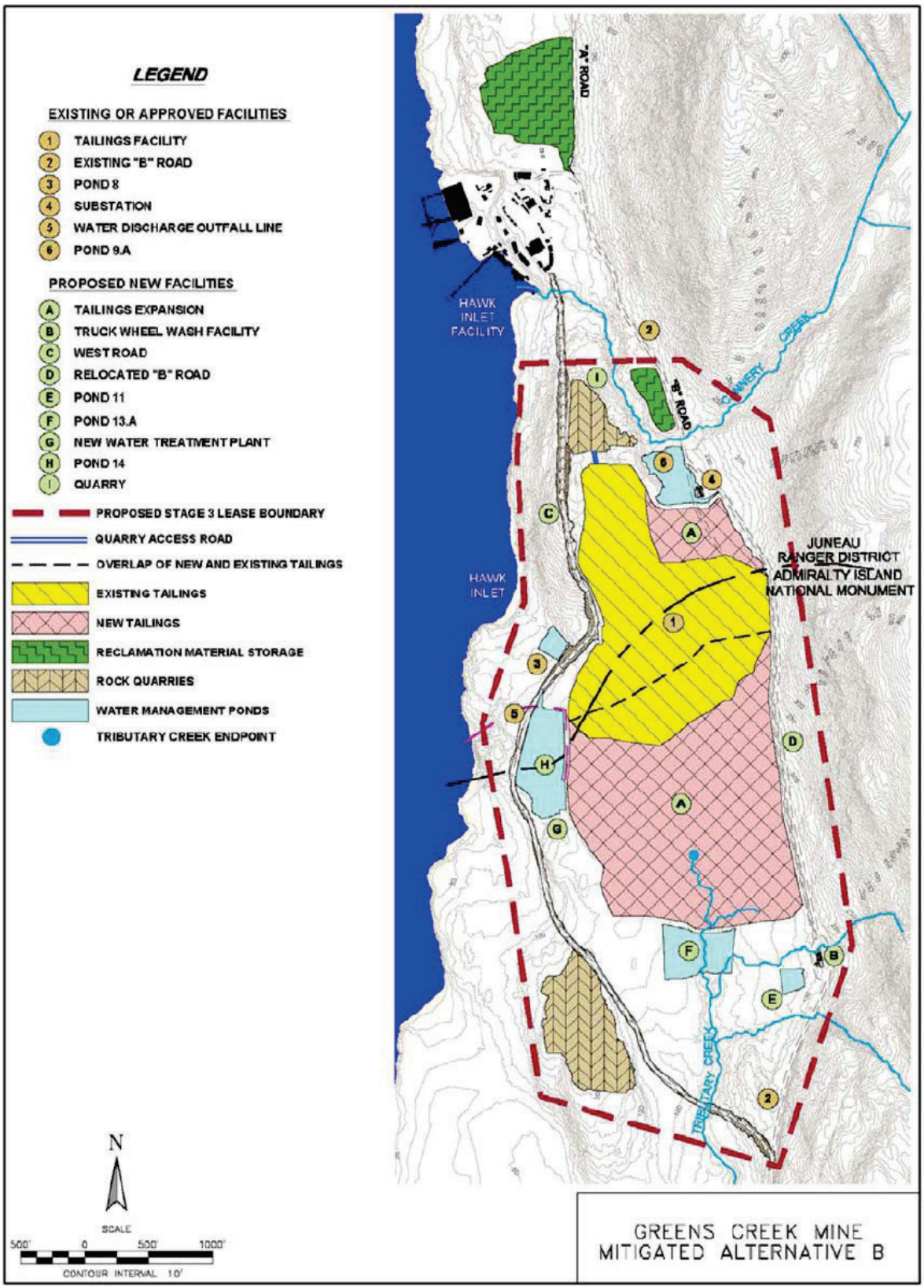
6.3.1 Mitigated Alternative B

Under this alternative, the Forest Service kept the same tailings storage volume (14.2 million CY) as Alternative B but shifted approximately one million CY of tailings and waste rock material for disposal to the northeast of the existing TDF into the Cannery Creek watershed[5]. See **Figure 10, Mitigated Alternative B in 2013 EIS.**

This action would retain tailings and related infrastructure in a single facility but would lessen Monument impacts. Further disturbance to the Monument could be reduced by relocating ancillary facilities such as peat and overburden material storage stockpiles to the north in areas outside the Monument. This further lowered Monument disturbance versus that in the proposed action (Alternative B); however, the Forest Service ultimately rejected a modified proposed action (Mitigated Alternative B) because this alternative, similar to the proposed action (Alternative B), still posed the potential to create impacts to Monument values and anadromous fisheries habitat in Tributary Creek.

[5] Similar, albeit less volume to what is being proposed by HGCMC in 2020.

Figure 10, Mitigated Alternative B in 2013 EIS



6.3.2 On-Land Options Outside of Monument (Alternatives C and D)

The alternative search that garnered the most consideration from the Forest Service in their NEPA analyses involved potential on-land TDF sites located outside the Monument that could handle the 30 plus year volume of tailings and waste rock. Given potential significant impact to Monument values, the Forest Service, in consultation with the U.S Army Corps of Engineers (ACOE) and the Environmental Protection Agency (EPA) decided to forego any search for TDF locations within the Monument.

One of the basic goals for the Forest Service in looking for another location outside the Monument was to avoid drainages that could support anadromous fish (i.e., salmon). The Forest Service did look hard at the Fowler Creek watershed area north of the existing TDF and outside the Monument, but the agency eliminated a number of sites in this watershed because Fowler Creek is a substantial drainage that feeds into Young Bay and supports anadromous fish populations. The Fowler Creek search involved essentially the same areas (identified as the "Young Bay Trail" and "Fowler Creek" sites) that the Forest Service had considered but rejected in the 1983 EIS.

The search continued on areas adjacent to the A-Road that the Forest Service had previously scrutinized in the original 1983 EIS (the "North Hawk Inlet" site) and in the 2003 EIS (mile 2.2 on the A-Road – basically the same location as the above-mentioned North Hawk Inlet site). For this search, the Forest Service wanted to avoid hillsides having a slope greater than 30 percent because of potential geotechnical stability problems and impacts to Waters of the U.S.[6]

Ultimately, the Forest Service decided upon TDF sites located near mile 2.6 on the A-road and included these options in alternatives identified as "C" and "D" in the 2013 EIS. The Forest Service understood and stated in the 2013 EIS that the site preparation and construction for a new and remote TDF off the A-road would require a minimum of three to five years for detailed engineering, site preparation and construction, during which time HGCMC must have sufficient storage capacity at the existing tailings facility to prevent uninterrupted operations at the Greens Creek Mine. This situation promoted the Forest Service to include some extension of the existing TDF in both Alternatives C and D.

Alternative C involved a new north TDF (see **Figure 11, Alternative C in 2013 EIS – North Layout**) and also presented a small southward extension of the existing TDF into the Monument (see **Figure 12, Alternative C in 2013 EIS – South Extension of Existing TDF**

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[6] The Army Corps of Engineers (ACOE) is responsible for issuance of permits under Section 404 of the Clean Water Act, which requires permits for the discharge of dredged or fill material into "Waters of the US". Guidelines promulgated by the Environmental Protection Agency (EPA) under Section 404(b)(1) require the ACOE to select the practicable alternative that is determined to be the least environmentally damaging practicable alternative (LEDPA) to jurisdiction wetlands. Practicability is defined in 40 CFR §230.3(q) and §230.10(a)).

The ACOE must comply with Executive Orders 11990 and 11988 with respect to impacts to the nation's wetlands and floodplains. The "no net loss" wetlands policy is outlined in an agreement between the ACOE and the EPA. In addition, in reviewing Section 404 permit applications, the ACOE must evaluate whether the benefits from the project outweigh the predicted environmental impacts. This is called a "public interest review".

Even after the LEDPA is established, the ACOE must evaluate and require mitigation measures to offset unavoidable impacts to waters of the United States. These measures may include on-site and/or off-site measures to restore, establish, enhance or preserve aquatic resource functions and values. Mitigation measures for impacts to Waters of the United States will become special conditions for a 404 permit, if such a permit is issued.

Figure 11, Alternative C in 2013 EIS – North Layout

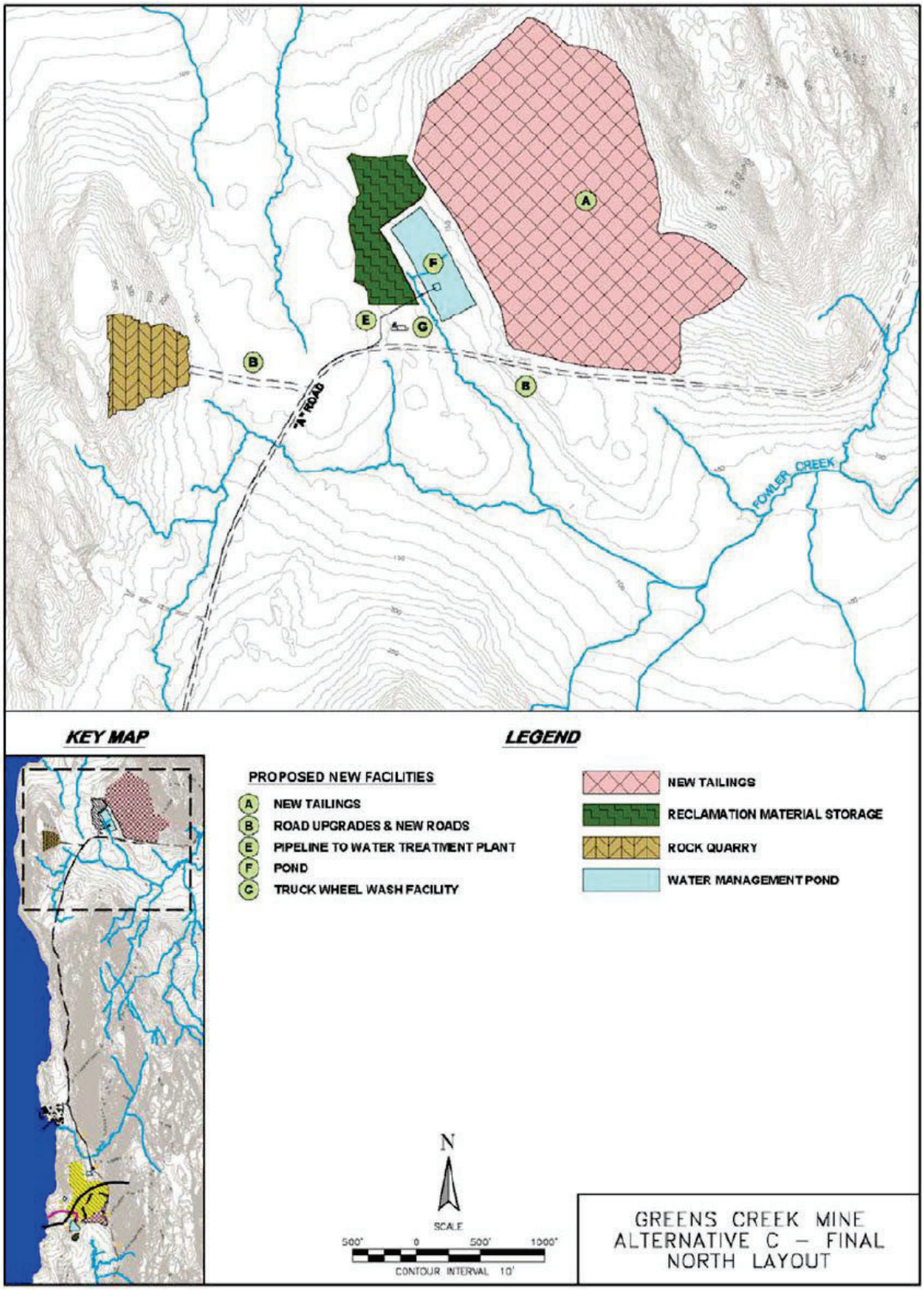
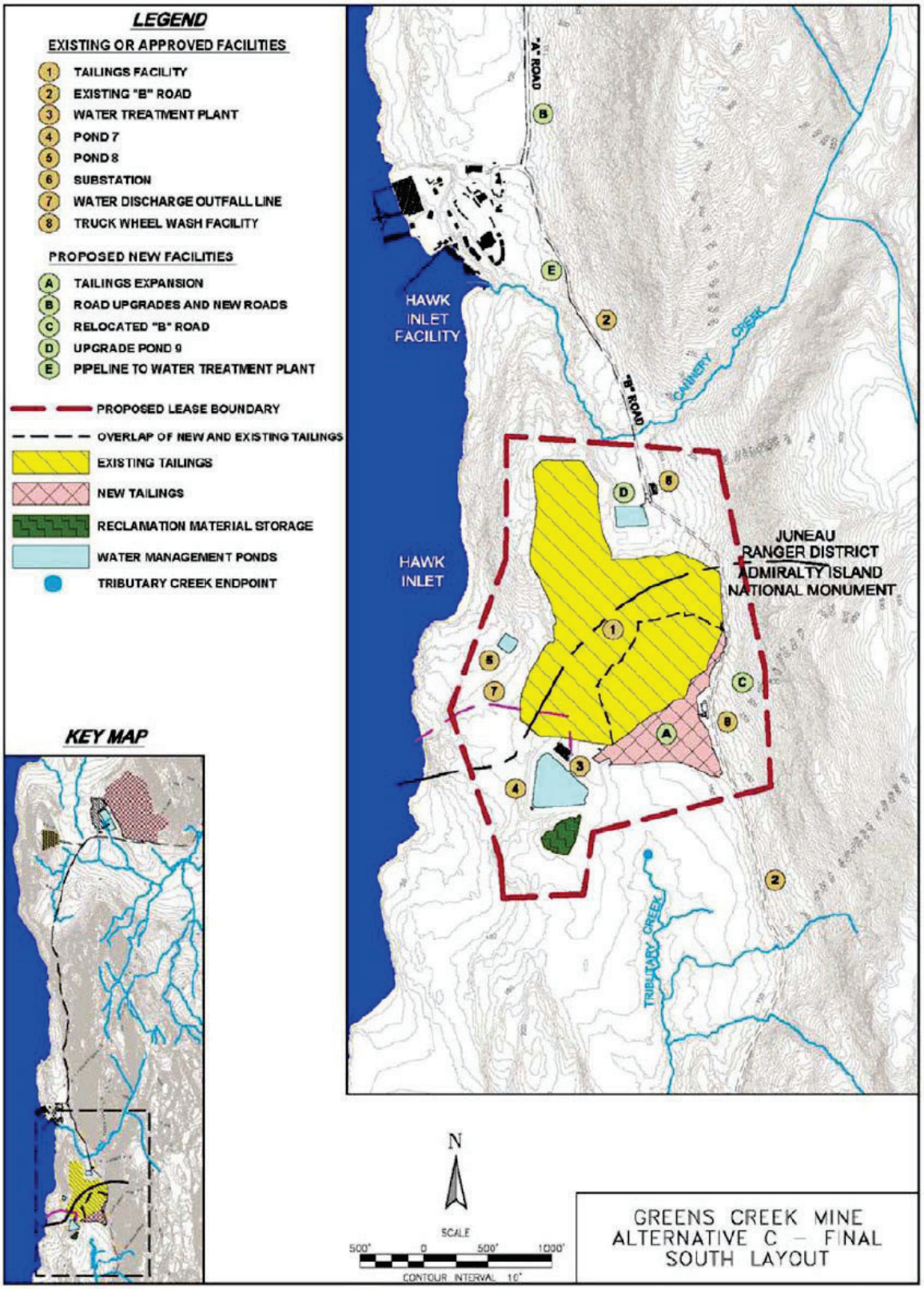
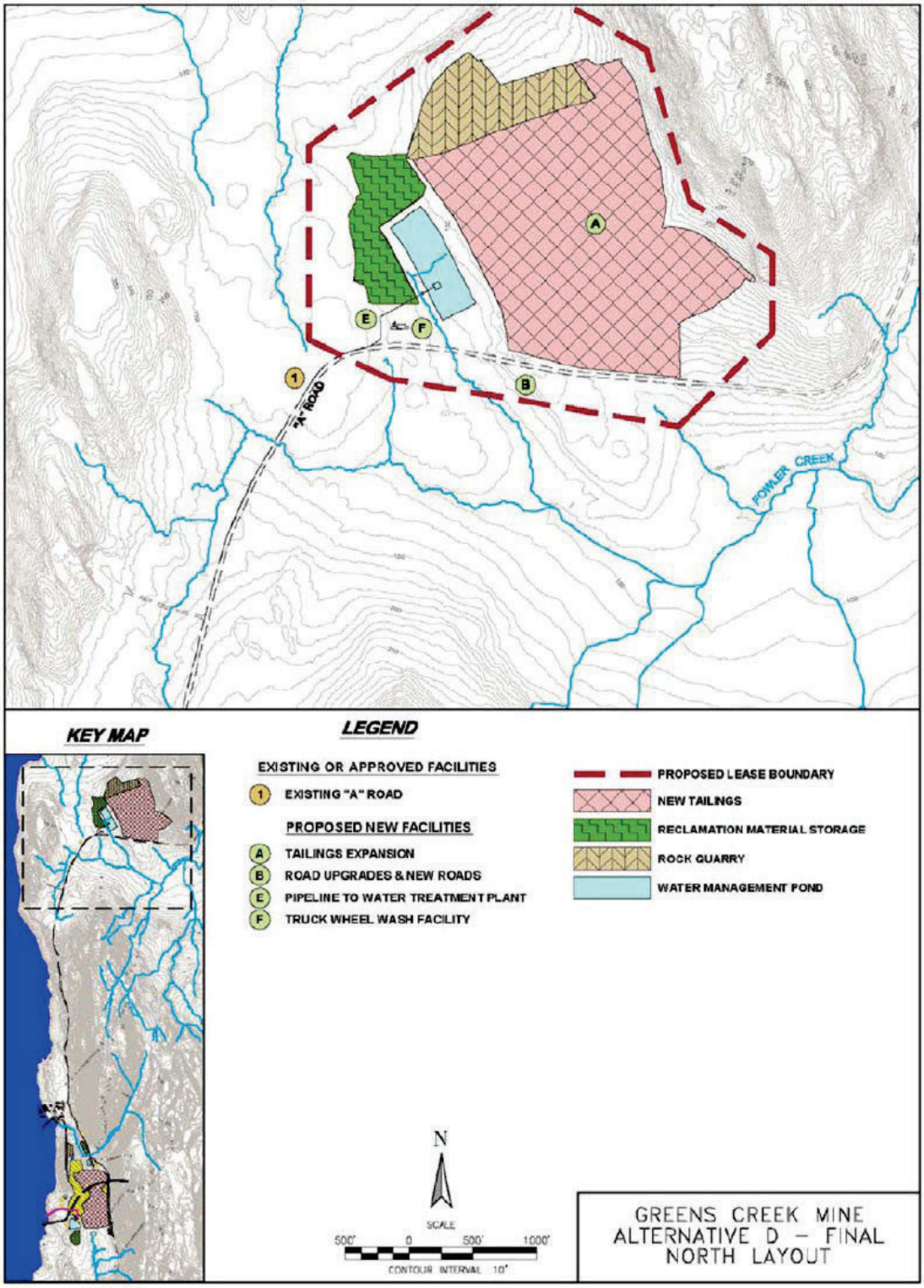


Figure 12, Alternative C in 2013 EIS – South Extension of Existing TDF



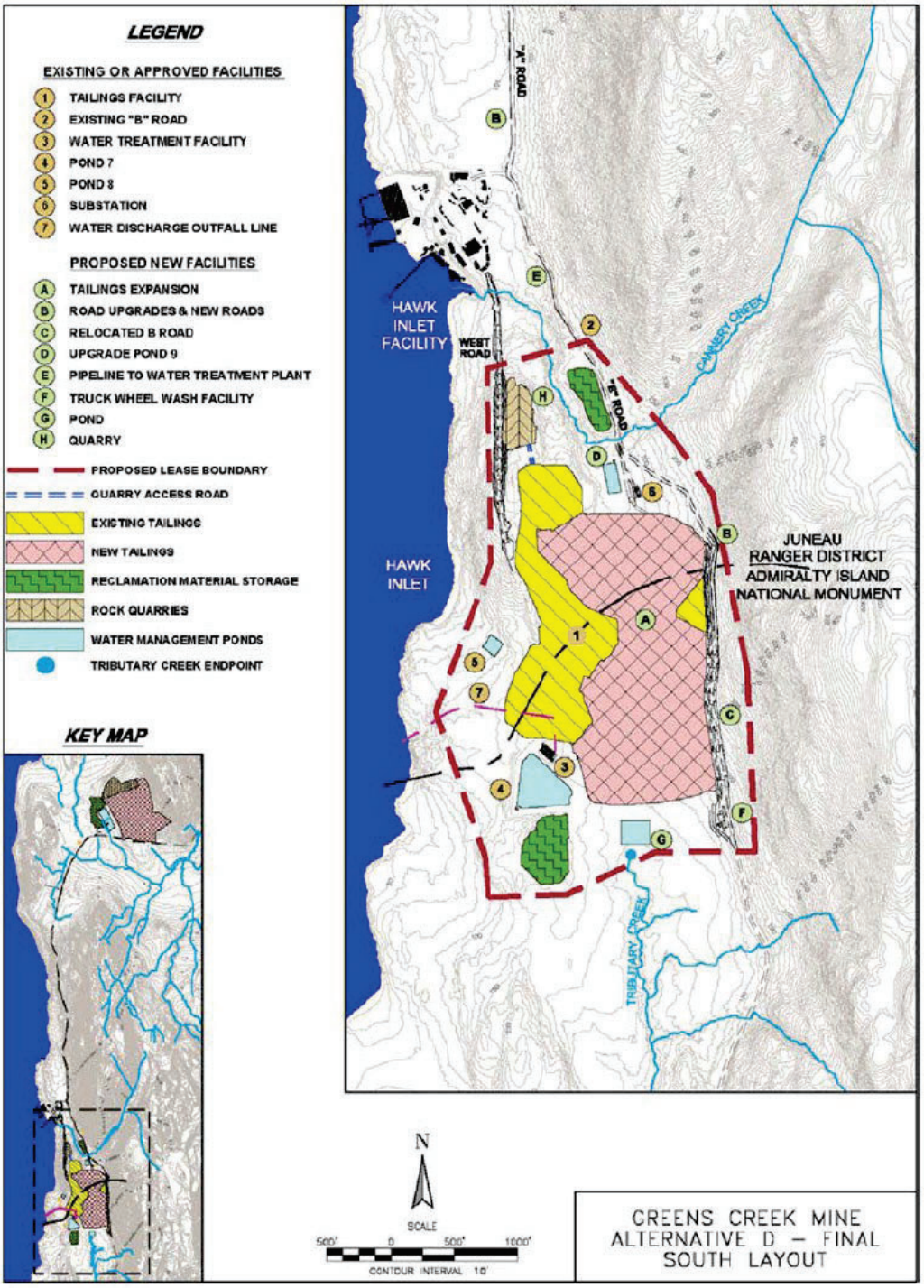
Alternative D provided a slightly smaller northern TDF footprint than Alternative C, but this alternative still presented the construction and operation of a new and remote north TDF. See **Figure 13, Alternative D in 2013 EIS – North Layout**.

Figure 13, Alternative D in 2013 EIS – North Layout



As part of Alternative D, the Forest Service wanted to add disposal capacity to the existing TDF and extended the existing TDF southward into the Monument to contain approximately 3 million cubic yards of tailings and waste rock materials, but with no placement of these materials into Tributary Creek past the point where it was projected there would be a direct impact to the assumed anadromous fisheries habitat. See **Figure 14, Alternative D in 2013 EIS – Final South Layout.**

Figure 14, Alternative D in 2013 EIS – Final South Layout



Both Alternatives C and D would require new supporting infrastructure for the new remote north sites, including water management ponds and other drainage control facilities, reclamation material storage, a rock quarry, and a truck wheel-wash facility. Electric power would be also needed at the north sites, both in terms of new powerlines and switchgear. The dry-stack tailings technology would continue to be used, but additional trucks would be required for tailings and waste haulage to a new north TDF. In addition, under both Alternatives C and D, the existing A-Road would have to be widened, straightened in several locations, and upgraded to support heavy haul traffic. Stormwater and contact water would be pumped back from the north facility to the existing water treatment plant at the existing TDF.

Again, as the Forest Service had concluded in the 2003 EIS, a site adjacent to the A-Road would increase impacts to wetlands and wildlife, as well as present an increased potential for impacts to water quality since there would be two separate sites being used for tailings disposal. In addition, based on economic information that the Forest Service requested from HGCMC in 2013, the cost of constructing and operating a new (remote) tailings facility adjacent to A-Road would be more expensive than the expanded use of the existing TDF. However, the Forest Service did not conclude that a second TDF, as described in Alternatives C and D of the 2013 EIS, would be infeasible.

6.4 2013 EIS PREFERRED ACTION ALTERNATIVE

A comparison of the action alternatives (including the proposed action) and the eventual alternative selected by the Forest Service is shown in **Table 5, Comparison of 2013 Alternatives**.

After a comprehensive review of alternatives, the Forest Service Supervisor was reticent to approve an expansion of the existing TDF southward into the Monument for the requested 30 plus years of capacity; and, at the same time, the agency was also uninterested in approving a new remote facility adjacent to the A-Road given increased disturbance and impacts to wetlands and wildlife.

Knowing a lack of a decision would impact the continued, uninterrupted operation of the Greens Creek Mine, the Forest Service recognized in the 2013 EIS that HGCMC would need additional storage room at the existing TDF to allow time for HGCMC to complete the necessary detailed engineering, site preparation and construction work if the company decided to pursue the construction and operation of a new remote facility adjacent to the A-Road or if the company could determine another course for tailings handling and disposal.

Therefore, after much internal deliberation, the Forest Service selected a "compromise" scenario, that would be a subset of Alternative D in the 2013 EIS. This selected preferred alternative[7] would allow HGCMC to expand southward from the existing TDF into the Monument, but only to a point where there would be no direct impact to the assumed anadromous fisheries habitat of Tributary Creek. See **Figure 15, Forest Service Selected Alternative in 2013 ROD**.

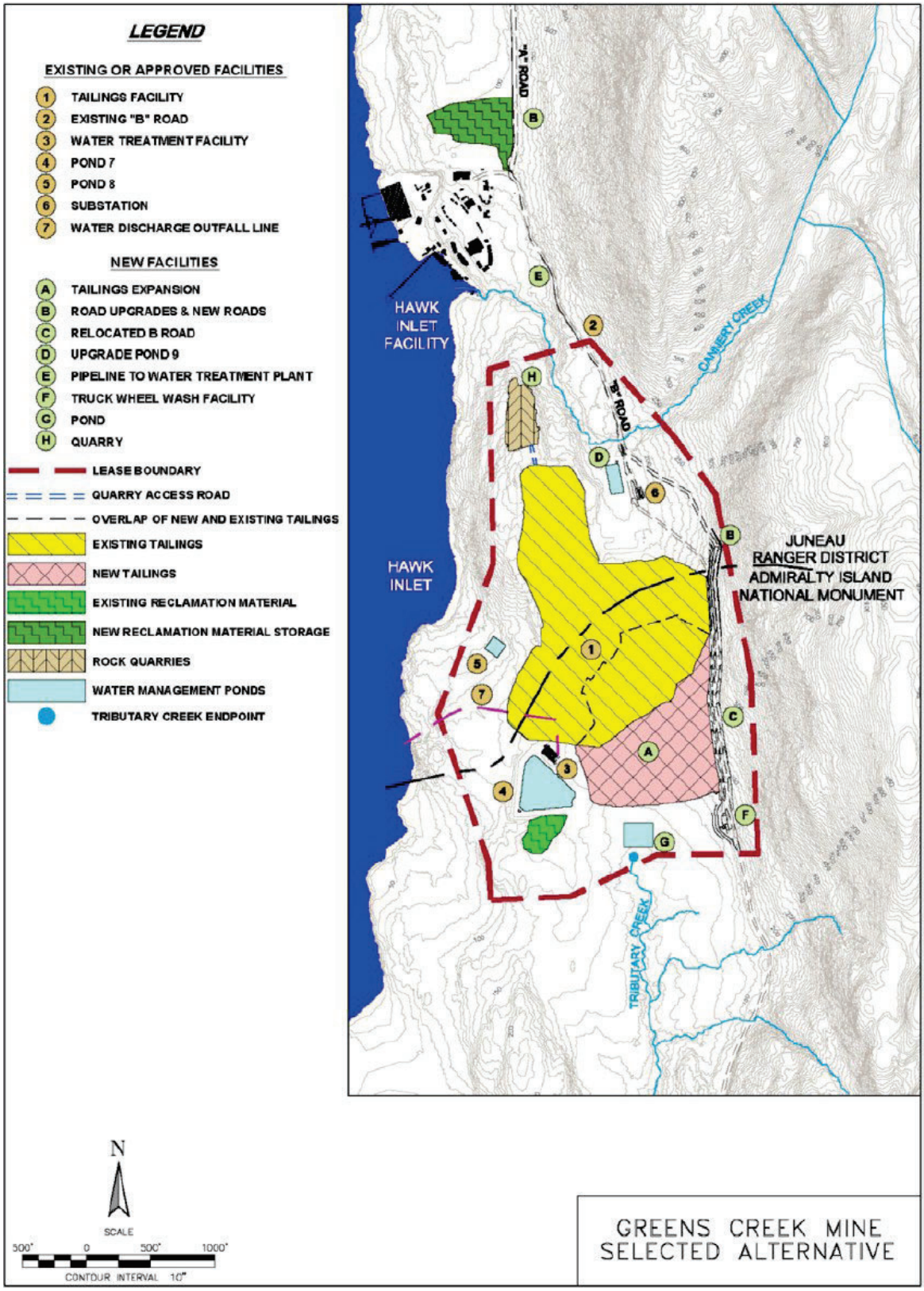
[7] HGCMC had wanted storage for an estimated 14.2 million CY as set forth in the company's original plan amendment submittal, but the Forest Service approved only approximately 15% of the requested amount. The storage for 2.1 million CY would provide HGCMC with an additional five to seven years of tailings and waste rock storage time (assuming a fill range rate of 300,000 to 400,000 CY per year). The Forest Service believed that this extra capacity would provide HGCMC ample time to re-examine its long-term needs, obtain additional information to make another request for tailings expansion, allow the Forest Service time for a follow-up NEPA review, plus the necessary two to three years for site TDF preparation and construction.

Table 5, Comparison of 2013 Alternatives

Key Alternative Comparison Criteria	Alternative B	Alternative B Mitigated	Alternative C	Alternative D	Forest Service Selected Alternative
General					
Storage Volume (million cubic yards)	14.2	14.2	14.2	14.2	2.1
Duration of TDF [(1)]	30-50 years	30-50 years	30-50 years	30-50 years	5-7 years
New or Multiple TDF Sites	No	No	Yes	Yes	No
Ability to Use Existing Infrastructure	Yes	Yes	Partially	Partially	Yes
Disturbance					
Total New Disturbance (acres)	128	126	224	245	26
Monument New Disturbance (Acres)	104	83	18	31	18
Waters of the U.S. New Disturbance (acres)	85	77	112	121	14
Aquatic Resources					
Direct Disturbance to Class I Fish Habitat in Tributary Creek (feet)	1,646	1,646	0	0	0
Direct Disturbance to Class I Fish Habitat in Fowler Creek (feet)	0	0	0	0	0
Direct Disturbance to Class II Habitat in Tributary Creek (feet)	2,400	1,169	0	0	0
Direct Disturbance to Class II Habitat in Fowler Creek (feet)	0	0	1.044	1,044	0

Notes:
Assumes 300,000 – 400,000 CY of tailings and waste rock per year.

Figure 15, Forest Service Selected Alternative in 2013 ROD



For more information, contact: Matthew Reece
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US Army Corps of Engineers
Alaska District

Juneau Field Office
Regulatory Division (1145)
CEPOA-RD
Post Office Box 22270
Juneau, Alaska 99802-2270

Public Notice of Application for Permit

PUBLIC NOTICE DATE:	**March 4, 2025**
EXPIRATION DATE:	**April 7, 2025**
REFERENCE NUMBER:	**POA-1988-00269**
WATERWAY:	**Cannery Creek**

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 Randal Vigil at (907) 201-5022, or by email at Randal.P.Vigil@usace.army.mil if further information is desired concerning this public notice.

APPLICANT: Hecla Greens Creek Mining Company, PO Box 32199, Juneau, AK 99803.

AGENT: Ms. Paula Lillesve, Hecla Greens Creek Mining Company.

LOCATION: The project site is located within Section 26, T. 43 S., R. 65 E., Copper River Meridian; USGS Quad Map Juneau A-3; Latitude 58.116299º N., Longitude 134.746648º W.; Admiralty Island; HECLA Greens Creek Mine, near Juneau, Alaska.

SPECIAL AREA DESIGNATION: The project is located within the Tongass National Forest, Admiralty National Monument.

PURPOSE: The applicant's stated purpose is to extend the existing Tailings Disposal Facility (TDF) to provide increased permanent disposal capacity by maximizing use of areas within the existing U.S. Forest Service-approved HECLA Greens Creek Mining Company (HGCMC) lease boundary for disposal of tailings and waste rock produced by existing operations. This additional disposal capacity is intended to meet HGCMC's objectives for continued uninterrupted tailings and waste rock disposal operations at the Mine site in a safe, environmentally sound, technically and economically practicable, and cost-effective manner, while remaining in compliance with regulatory requirements.

PROPOSED WORK: The applicant requests authorization for the proposed discharge of fill material into waters of the United States, including wetlands, to construct the following proposed components: 1. Tailings Stack Expansion, 2. Water Ponds and Conveyance System, and 3. Relocation of B-Road.

Proposed Permanent Impacts to Waters of the U.S.

NWI Code	Wetland/Waters Type	Impact (Acres)
PEM1	Wet Sedge Moss Bog (Palustrine Emergent	0.3
PEM1H	Fresh Sedge Marsh (Palustrine Emergent)	1.0
PEM1 Cleared	Palustrine Emergent Cleared (Moist Graminoid Meadow	0.7
PFO4	Open Western Hemlock (Palustrine Forested)	2.9
	Total:	**4.9**

Fill Volumes and Type

Project Component	Fill Volume (Cubic Yards)	Fill Type
North Sump	500	Sand and Gravel Mix 6 Inch Minus, Leveling Course
Tailings Stack	18,500	Sand and Gravel Mix 6 Inch Minus, Leveling Course
Pond 7/10 Raise	10,500	Unconsolidated General Fill Material
B Road Relocation	2,600	Unconsolidated General Fill Material

All work would be performed in accordance with the enclosed plan (sheets 1-7), dated 02/05/2025.

ADDITIONAL INFORMATION: The United States Forest Service (USFS), Alaska Region, Tongass National Forest completed a Final Supplemental Environmental Impact Statement (FSEIS) dated February 2, 2024, for the Greens Creek Mine North Extension Project on the Juneau Ranger District and Admiralty Island National Monument, Tongass National Forest. This document analyzes a No Action Alternative and three action alternatives. The alternatives range from continuing the current mining activities and tailings disposal until 2025 when the current TDF would reach functional capacity (No Action) to three action alternatives - each offering a slightly different approach to tailings expansion under various configurations and locations.

The above-described proposed work represents a modified Alternative B in the FSEIS.

The FSEIS is available for review online at:
https://www.fs.usda.gov/project/tongass/?project=57306.

The applicant would need the following additional authorizations:

- Approval of modifications to the General Plan of Operations: USFS, State of Alaska
- Approval of the Reclamation Bond: USFS and the State of Alaska
- Waste Management Permit Amendment: State of Alaska
- Air Quality Permit to Operate Amendment: State of Alaska
- Alaska Pollutant Discharge Elimination System Permit Amendment: State of Alaska
- Reclamation and Closure Plan Amendment: State of Alaska
- Water Authorizations for Diverting and Intercepting Water Amendment: State of Alaska
- Certificate of Approval to Construct and Operate a Dam Amendment: State of Alaska

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 of impacts to waters of the U.S. is not practicable due to the prevalence of wetlands surrounding the existing Mine and TDF, and the need for the TDF to be located in close proximity to the Mine and to the existing disposal facility and its attendant features.

b. Minimization: The following measures have been incorporated into design and construction of the project:

- Avoid new disturbance outside the existing NFS-approved HGCMC lease boundary and minimize disturbance to the portion of the Monument within the lease boundary.
- Avoid direct disturbance to fish-bearing reaches of Tributary Creek and Cannery Creek.
- Avoid construction of a new “remote” TDF.
- Construct the Project in two stages. Prior to authorization of Stage 2, the NFS must observe that fugitive dust is being mitigated to show consistent, long-term downward trends in environmental effects or meet the natural environmental conditions, such that there is no long-term ecological risk to aquatic and terrestrial habitats as determined by a PSLERA.
- Continue the same or similar dry stack tailings disposal method, which has been previously reviewed and approved by the NFS.
- Extend the existing tailings stack in a manner that minimizes new disturbance and impacts to aquatic resources. To the extent practical, locate the extended TDF and new supporting infrastructure on areas already disturbed or on areas immediately adjacent to existing disturbance. Where feasible, use in place infrastructure (such as roads, water treatment facilities, and drainage control).
- Minimize new disturbance to environmental resources and sensitive habitats, such as WOTUS.

- Consider closure and reclamation as part of design and operations.
- Design and construct the TDF to be technically feasible and environmentally sound.
- Comply with applicable federal, state, and local legal and regulatory standards.
- Ground disturbing activities will be limited to the project footprint. Project boundaries shall be clearly identified in the field (e.g., staking, flagging, silt fencing, etc.) prior to site clearing and construction to ensure avoidance of impacts to WOTUS, including wetlands, beyond the authorized project footprint.
- An Alaska Department of Environmental Conservation (ADEC) 401 Water Quality Certification will be obtained.
- A Dam Safety Permit or Approval will be obtained from Alaska Department of Natural Resources (ADNR) for raising Pond 7/10.
- The existing ADEC solid waste permit will be modified, or a new permit will be obtained.
- Clearing limits will be clearly demarcated prior to construction to ensure impacts stay confined within the project footprint for areas that are near waterbodies. Construction limits will also be staked to ensure that ground disturbing impacts are limited.
- Prior to construction activities the applicant, or contractor, will obtain coverage under and comply with the Alaska Construction General Permit. They will develop and implement a SWPPP, implement BMPs for erosion and sediment control, and maintain a spill clean- up kit on-site at all times.
- Effective erosion control measures shall be installed and maintained before, during, and after construction to prevent erosion and the introduction of sediments and/or contaminants into adjacent WOTUS, including wetlands. These structures shall remain in place until all fills (including side slopes) or other disturbed areas subject to potential erosion have been permanently stabilized.
- To minimize erosion and sedimentation, disturbed areas resulting from site clearing and excavation shall be adequately stabilized by appropriate erosion and sedimentation control structures and devices (e.g., silt fences, straw wattles, check dams, berms, sediment ponds, slope drains, vegetated and/or rock lined ditches, etc.). These control devices and structures shall be properly installed, and of sufficient size, number, and type to filter or settle out suspended sediments from all construction-related wastewater.
- All overburden and material stockpiles shall be stockpiled at such a location and in such a manner as to control erosion and subsequent sedimentation into nearby surface waters.
- All fill material (below the liner) for the authorized work shall be clean, and free from toxic pollutants in toxic amounts. Material used for construction or discharge shall not consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.).
- Excess fill material shall not be disposed within wetlands or other WOTUS, outside of the permitted area.
- All synthetic erosion control features (e.g., silt fencing, netting, mats), which are intended for temporary use during construction, shall be completely removed and properly disposed of after their initial purpose has been served. Only natural fiber materials, which will degrade after time, may be used as permanent measures, or if used temporarily, may be abandoned in place.

- All disturbed areas will be stabilized and revegetated upon completion of final grading using vegetation and organic material salvaged from the impact area. NFS approved seed mixes will be used as necessary for soil stabilization.

c. Compensatory Mitigation: HGCMC proposes to provide compensatory mitigation through the purchase of credits from the Southeast Alaska Land Trust, a USACE approved in-lieu-fee provider with an approved service area that includes the Project location.

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: A Final Supplemental Environmental Impact Statement (FSEIS) was prepared for the proposed project. The lead Federal agency, the USFS, is responsible for compliance with the requirements of Section 106 of the National Historic Preservation Act. The Corps will review the USFS's documentation and either concur with their documentation or continue to work with them until any issues are resolved. A permit for the described work will not be issued until the Section 106 process has been completed and the Corps concurs with the USFS's work or documentation.

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, the USFS as lead Federal agency in preparation of the FSEIS is responsible to initiate the appropriate consultation procedures under Section 7 of the Endangered Species Act with NMFS as needed. Any comments NMFS 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 (Magnuson-Stevens 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 mapped EFH for coho (*Oncorhynchus kisutch*), pink (*Oncorhynchus gorbuscha*) and chum salmon (*Oncorhynchus keta*).

As the lead agencies for the FSEIS, the USFS determined that the project may adversely affect coho, pink, and chum salmon EFH in freshwater because fish streams would be directly or indirectly affected by current operations, changes in water quality, or by new clearing and

construction activities. The USFS determined that the project may adversely affect marine EFH because an extended mine life would result in an extension of time for loading concentrates onto marine vessels at the port facility and expose marine waters to the potential for additional impacts from fugitive dust. Adverse effects from the Selected Alternative on water quality and aquatic habitat would be minor. By following the standards and guidelines in the Forest Plan, all appropriate Region 10 BMPs, updated USFS National Core BMPs (USFS 2012), State of Alaska BMPs (ADEC 2011), additional mitigation measures AR-1, AR-2, and AR-3 in the FESIS, and the project-specific conservation measures, the effects on EFH will be minimized.

The Draft SEIS (DSEIS was provided to NMFS to formally initiate the consultation process on March 27, 2023, and the Forest Service received formal comments on the DSEIS from NMFS on May 3, 2023. NMFS provided seven EFH conservation recommendations under the EFH provisions in Section 305(b)(2)-(4) of the Magnuson-Stevens Fisheries Conservation and Management Act and the Fish and Wildlife Coordination Act. Additionally, NMFS participated in interagency meetings on fugitive dust plan development, freshwater monitoring, and nearshore marine monitoring. The USFS has reviewed each of the conservation recommendations and provided responses noting how recommendations are addressed by existing measures or new mitigation and monitoring measures adopted in the FSEIS. See Section 3.7.4.5 of the FSEIS and responses to comments 71-1 through 71-9 in Appendix C of the FSEIS.

TRIBAL CONSULTATION: The Corps 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 Corps, 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 rights or resources. Consultation may be initiated by the affected Tribe upon written request to the District Commander. This application is being coordinated with federally recognized tribes and other consulting parties. Any comments federal recognized tribes and other consulting parties may have concerning presently unknown archeological or historic data that may be lost or destroyed by the work under the requested permit will be considered in the Corps final assessment of the described work.

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 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 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.

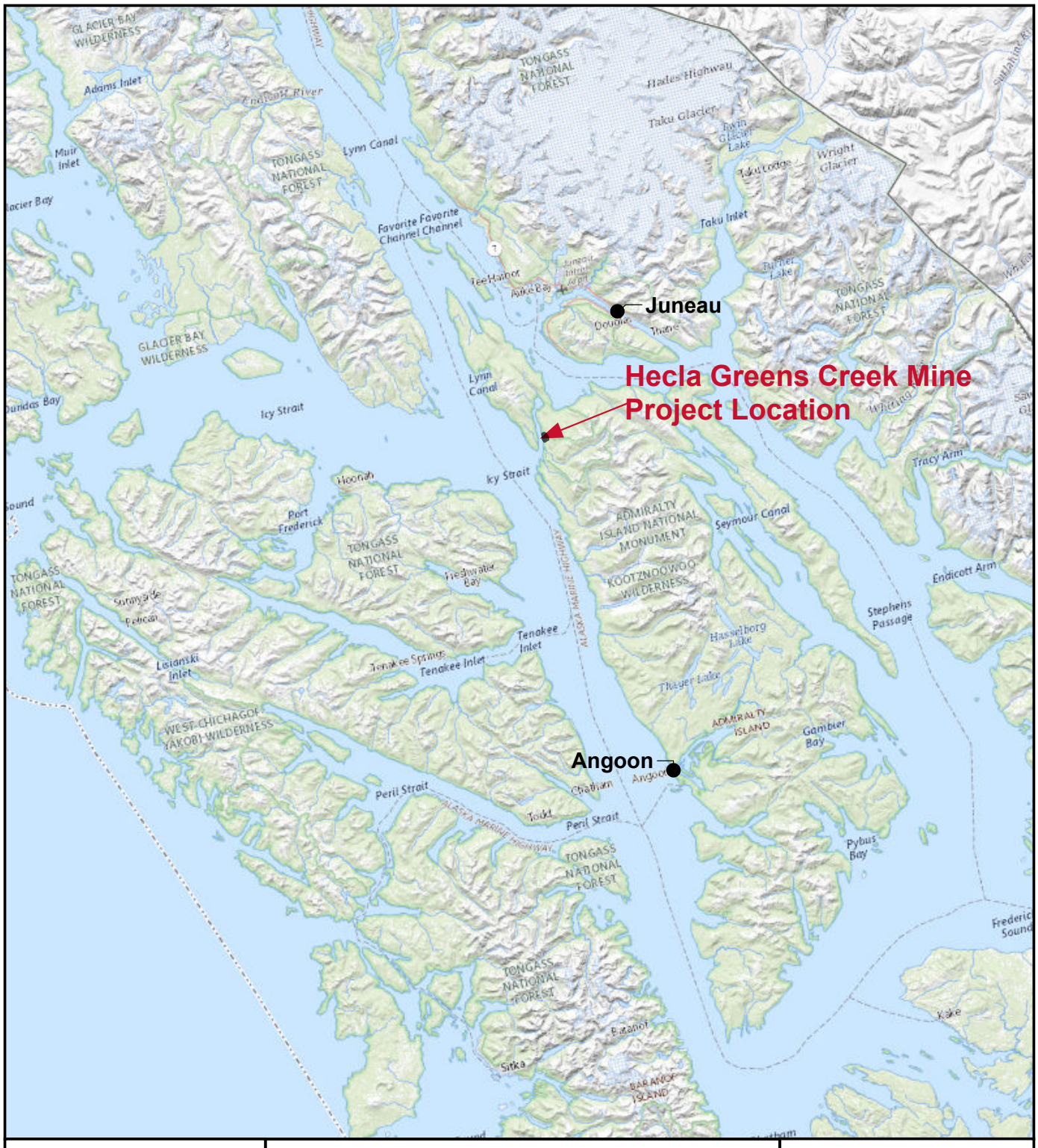
AUTHORITY: This permit will be issued or denied under the following authority:

(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 are enclosed with this public notice.

District Commander
U.S. Army, Corps of Engineers

Enclosures



Northern Expansion Project - Project Vicinity

Hecla Greens Creek

0 5 10 Miles

HORIZONTAL DATUM: NAD 1983, State Plane Zone 4

Project Location

Community

APPLICANT: Hecla Greens Creek

FILE NO: POA-1988-269

WATERWAY: Cannery Creek

LOCATION: 58.1163N 134.7467W

SHEET 1 OF 7

DATE: 02/05/2025

PATH: \\ANC-SRV04\PROJECT_SAN\22226_HECLA_GREENSCREEK\10170535_HGCMC_404_404B_WATQUAL\7.2_WP\MAP_DOCS\PERMIT_404\PERMIT404_FIGURESET\PERMIT404_FIGURESET.APRX - USER: CBRISBOIS - DATE: 5/23/2022

Northern Expansion Project
Modified Alternative B - Wetland Impact

Hecla Greens Creek

0 200 400 Feet

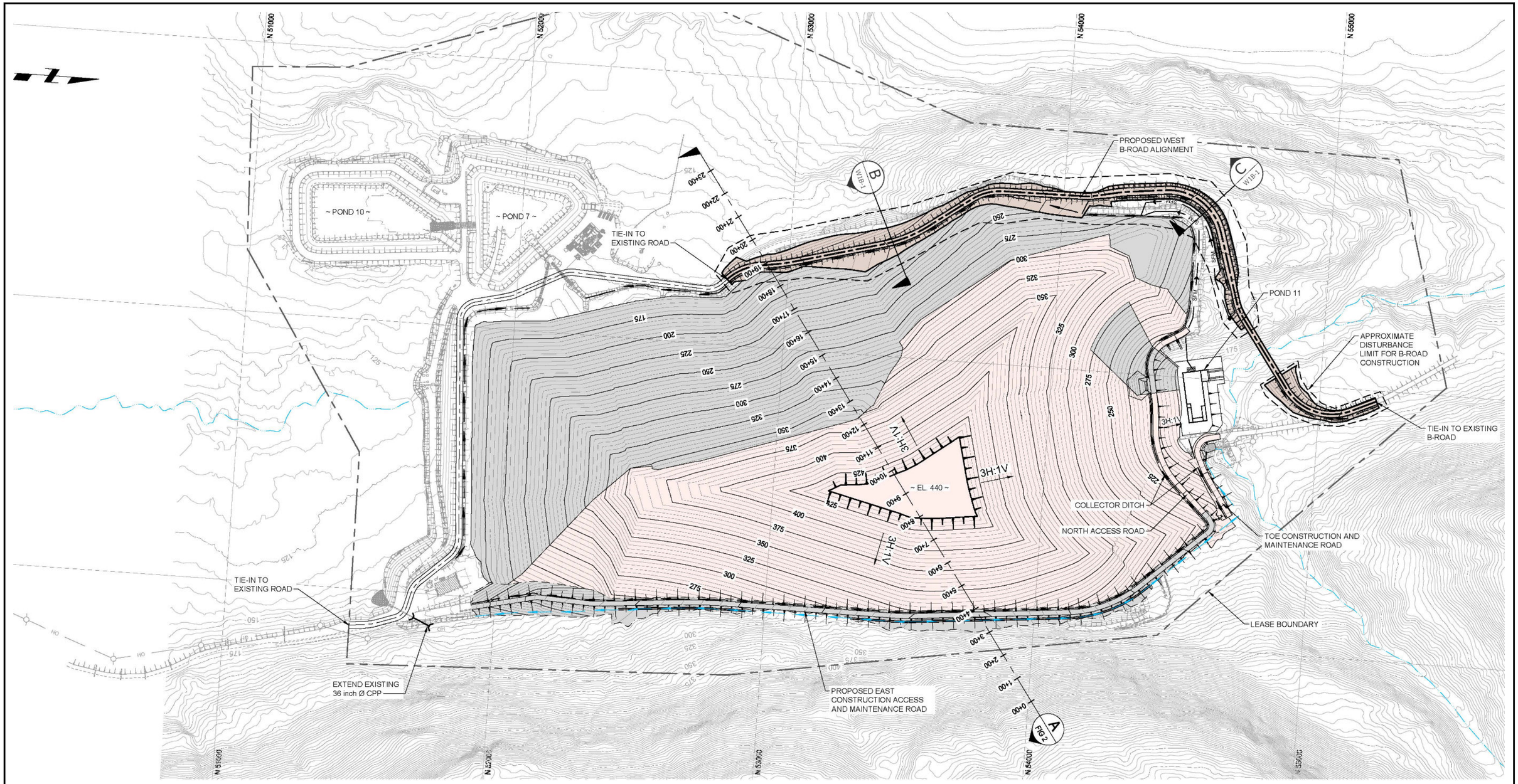
HORIZONTAL DATUM:
NAD 1983, State Plane Zone 4

Existing Permitted Disturbance Area
Lease Boundary
NEP Additional Proposed Disturbance Area
Stream

Wetland Impact
PEM1H
PFO4
PEM1
PEM1 cleared

APPLICANT: Hecla Greens Creek
FILE NO: POA-1988-269
WATERWAY: Cannery Creek
LOCATION: 58.1163N 134.7467W
SHEET 2 OF 7
DATE: 02/05/2025

PATH: Z:\22226_HECLA_GREENSCREEK\10170535_HGCMC_404_404B_WATQUAL\7.2_WP\MAP_DOCS\PERMIT_404\PERMIT404_FIGURESET\PERMIT404_FIGURESET.APRX - USER: TLILLY - DATE: 2/7/2025



NOTE

1. EXISTING TOPOGRAPHY AND INFRASTRUCTURE LOCATIONS PROVIDED BY HECLA GREENS CREEK MINING COMPANY.

LEGEND

EXISTING

- MINE LEASE BOUNDARY
- EXISTING TOP OF SLOPE
- EXISTING DITCH
- SURFACE CONTOURS (MAJOR)
- SURFACE CONTOURS (MINOR)
- CREEK
- TRANSMISSION LINE AND POLES
- CURRENTLY APPROVED FULL BUILDOUT

PROPOSED

- PROPOSED TOP OF SLOPE
- CLEAN WATER DIVERSION DITCH
- CONTACT WATER COLLECTION DITCH
- CULVERT
- STAGE 2 FULL BUILDOUT
- RELOCATED B-ROAD

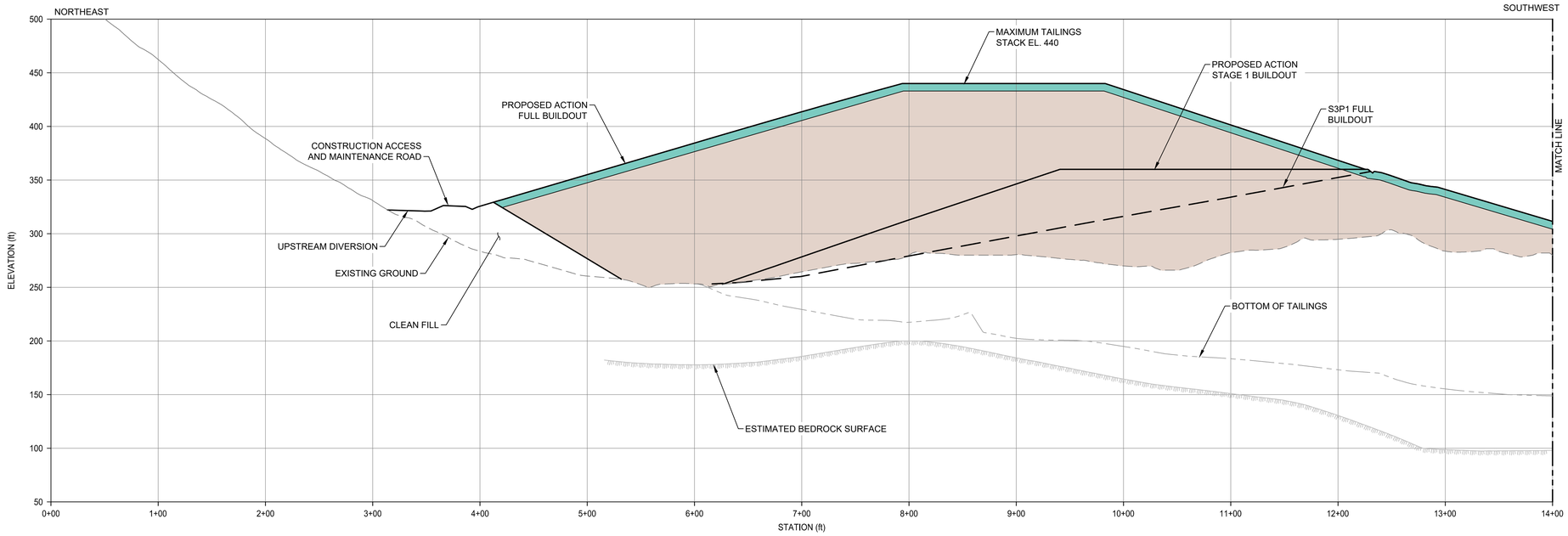
PLAN

SCALE A

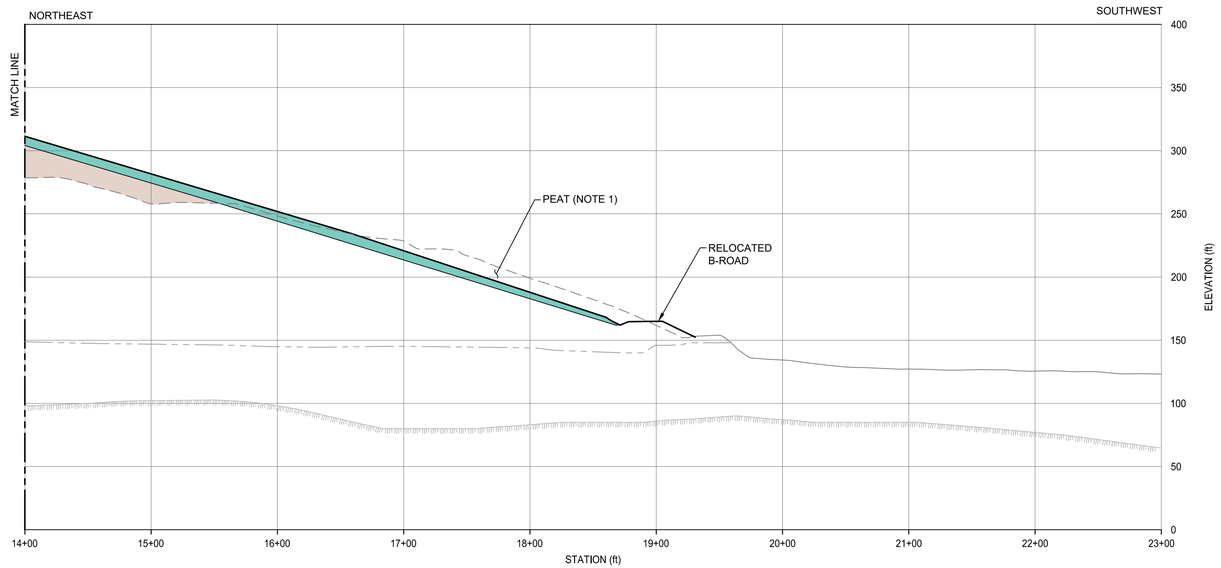
NOT FOR CONSTRUCTION

SCALE A 200 0 200 FT

Proposed Mine Expansion - Tailings Disposal Facility B-Road Trade-Off Modified Alternative B Hecla Greens Creek	APPLICANT: Hecla Greens Creek FILE NO: POA-1988-269 WATERWAY: Cannery Creek LOCATION: 58.1163N 134.7467W SHEET 3 OF 7 DATE: 02/05/2025



SECTION A STA. 0+00 TO STA. 14+00
SCALE A FIG 1



SECTION A STA. 14+00 TO STA. 23+00
SCALE A FIG 1

NOT FOR CONSTRUCTION

NOTE

1. PEAT CURRENTLY ON THE SLOPE OF THE TAILINGS STACK MAY BE REMOVED BEFORE CLOSURE COVER CONSTRUCTION (TO BE CONFIRMED).

LEGEND

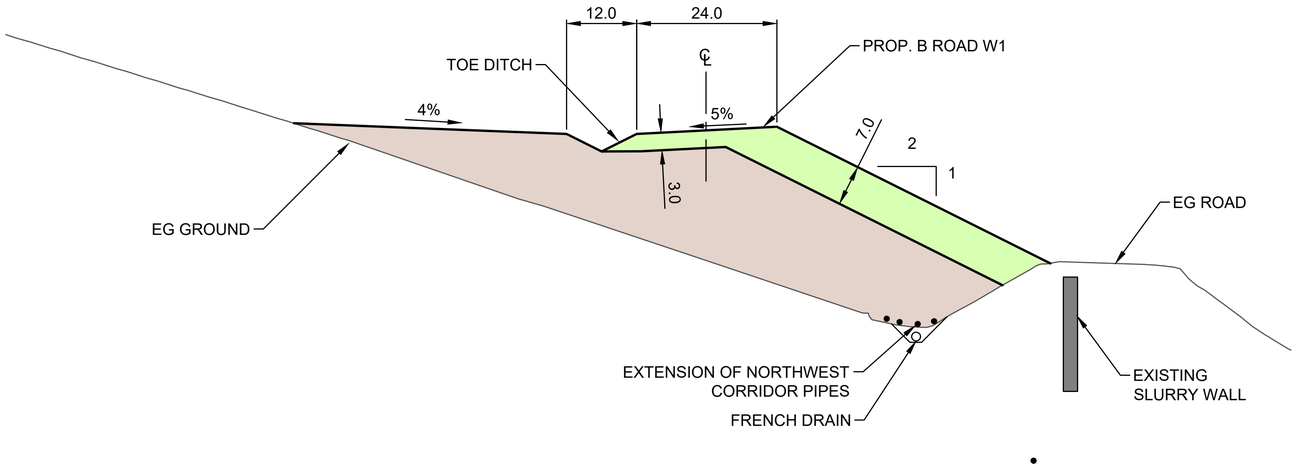
EXISTING
- BEDROCK SURFACE
- BOTTOM OF TAILINGS
- 2020 GROUND SURFACE

PROPOSED
- CLOSURE COVER
- PROJECT TAILINGS
- PROJECT STAGE 1 BUILDOUT
- S3P1 FULL BUILDOUT

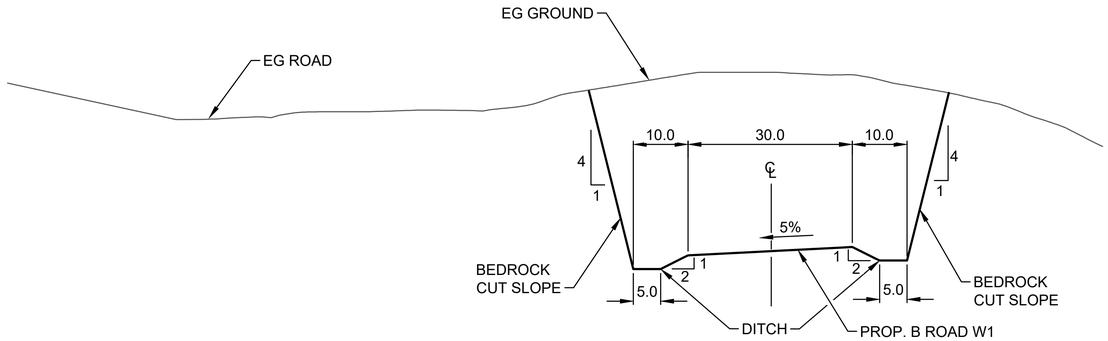
SCALE A 60 0 60 FT

Proposed Mine Expansion
-Tailings Disposal Facility
Full Buildout
Cross Sections
Hecla Greens Creek

APPLICANT: Hecla Greens Creek
FILE NO: POA-1988-269
WATERWAY: Cannery Creek
LOCATION: 58.1163N 134.7467W
SHEET 4 OF 7
DATE: 02/05/2025



SECTION B
SCALE A W1B-1



SECTION C
SCALE A W1B-1

NOTE

1. EXISTING TOPOGRAPHY AND INFRASTRUCTURE LOCATIONS PROVIDED BY HECLA GREENS CREEK MINING COMPANY.
2. SECTIONS C AND D APPLY TO THE WEST 1, 2 AND 3 OPTIONS.

LEGEND

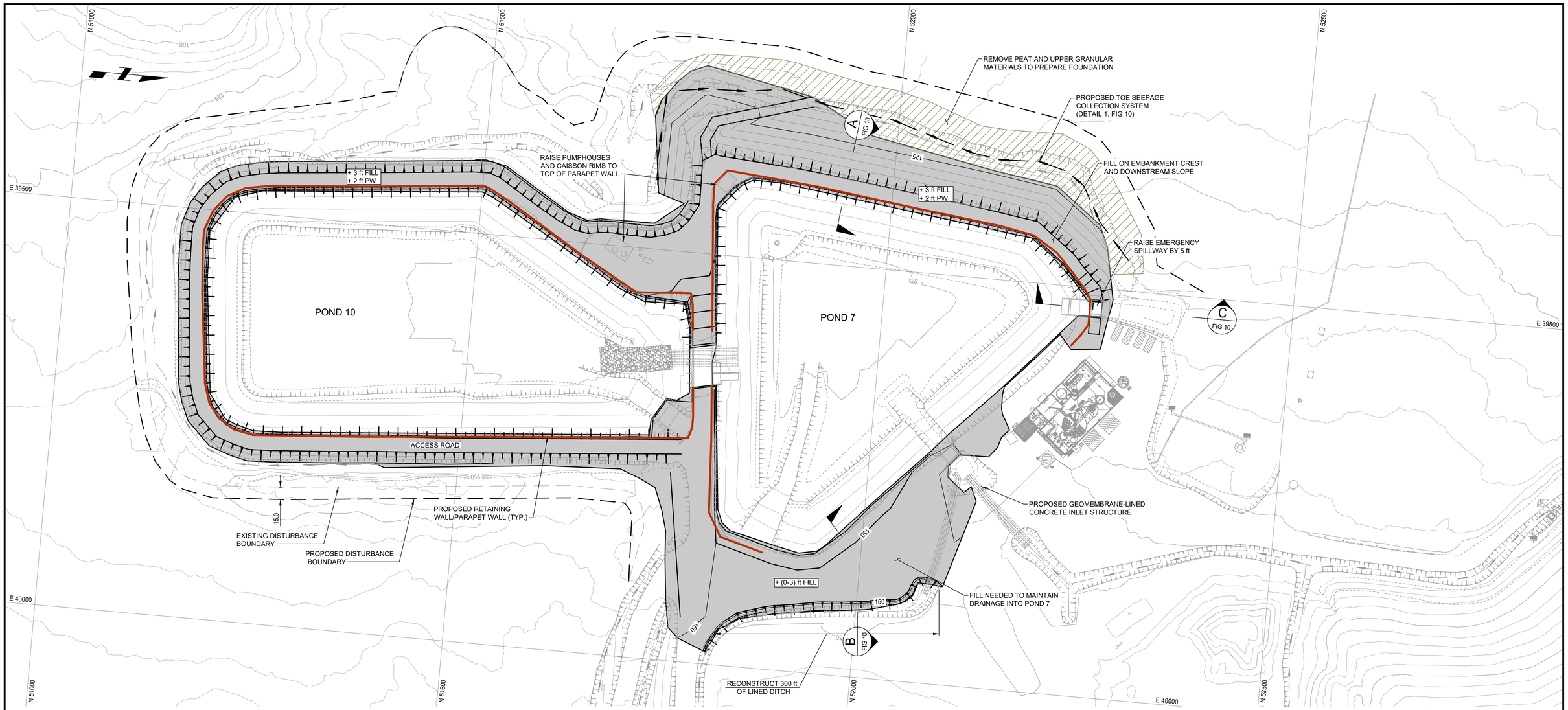
PROPOSED

- CLEAN FILL (ROAD BASE / COVER MATERIAL)
- TAILINGS
- SERVICE LAYER
- GRANULAR FILL
- GEOMEMBRANE

NOT FOR CONSTRUCTION

SCALE A 20 0 20 FT

Proposed Mine Expansion - Tailings Disposal Facility Full Buildout Cross Sections Hecla Greens Creek	APPLICANT: Hecla Greens Creek FILE NO: POA-1988-269 WATERWAY: Cannery Creek LOCATION: 58.1163N 134.7467W SHEET 5 OF 7 DATE: 02/05/2025



NOTES

1. EXISTING TOPOGRAPHY AND INFRASTRUCTURE LOCATIONS PROVIDED BY HECLA GREENS CREEK MINING COMPANY.

LEGEND

EXISTING		PROPOSED	
	EXISTING TOP OF SLOPE		PROPOSED TOP OF SLOPE
	EXISTING DITCH		PROPOSED SEEPAGE
120	SURFACE CONTOURS (MAJOR)	+ 3 ft FILL + 2 ft PW	HEIGHT OF FILL AND PARAPET WALL (PW)
	SURFACE CONTOURS (MINOR)		PROPOSED CLEAN FILL

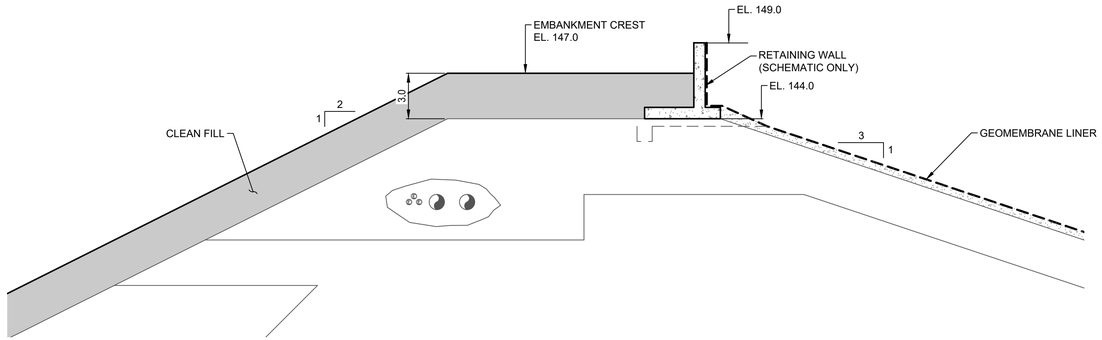
PLAN

1:60

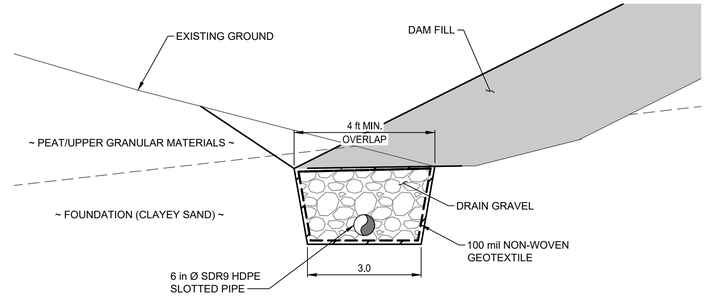
NOT FOR CONSTRUCTION

SCALE A 60 0 60 FT

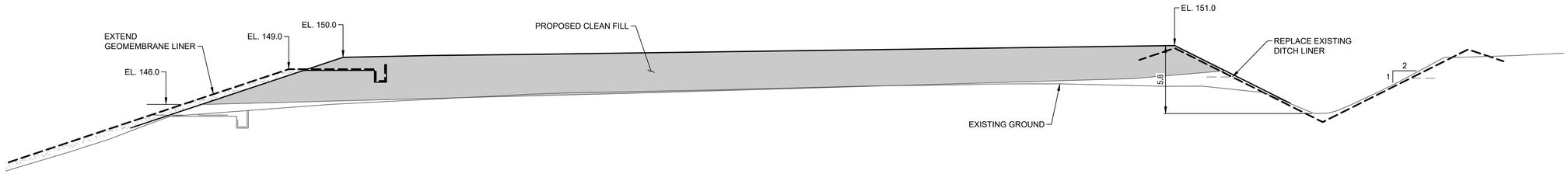
Proposed Mine Expansion - Pond 7/10 Expansion Hecla Greens Creek	APPLICANT: Hecla Greens Creek FILE NO: POA-1988-269 WATERWAY: Cannery Creek LOCATION: 58.1163N 134.7467W SHEET 6 OF 7 DATE: 02/05/2025



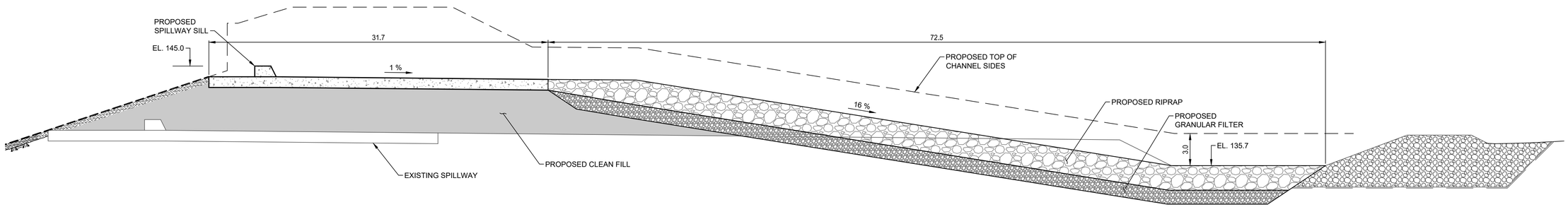
SECTION A (FIG 9) EMBANKMENT CREST AND GEOMEMBRANE DETAIL (TYP.)
SCALE A



DETAIL 1 (FIG 9) TOE SEEPAGE COLLECTION SYSTEM (TYP.)
SCALE B



SECTION B (FIG 9) POND 7 LAYDOWN FILL
SCALE A



SECTION C (FIG 9) EMERGENCY SPILLWAY PROFILE
SCALE A

SCALE A 5 0 5 FT

SCALE B 2 0 2 FT

NOT FOR CONSTRUCTION

Proposed Mine Expansion -	APPLICANT: Hecla Greens Creek
Pond 7/10 Expansion	FILE NO: POA-1988-269
Cross Sections A/B/C	WATERWAY: Cannery Creek
Hecla Greens Creek	LOCATION: 58.1163N 134.7467W
	SHEET 7 OF 7
	DATE: 02/05/2025

June 4, 2025

Hecla Greens Creek Mining Company
Attn: Bill Kloth, General Manager
PO Box 32199
Juneau, AK 99803

Re: Hecla Greens Creek Mining Company, Hecla Greens Creek Tailings North Extension Project - POA-1988-00269, Cannery Creek

Dear Bill Kloth,

In accordance with Section 401 of the Federal Clean Water Act and provisions of the Alaska Water Quality Standards, the Department of Environmental Conservation (DEC) is issuing the enclosed water quality certification with conditions that the discharge from the proposed project will comply with water quality requirements for dredging and/or fill material in waters of the U.S., authorized by an Army Corps of Engineers (USACE) permit/license POA-1988-269 - Hecla Greens Creek Tailings North Extension Project - project.
A person authorized under a provision of 18 AAC 15 may request an informal review of a contested decision by the Division Director in accordance with 18 AAC 15.185 and/or an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340. See DEC's "Appeal a DEC Decision" web page https://dec.alaska.gov/commish/review-guidance/ for access to the required forms and guidance on the appeal process. Please provide a courtesy copy of the adjudicatory hearing request in an electronic format to the parties required to be served under 18 AAC 15.200. Requests must be submitted no later than the deadline specified in 18 AAC 15.

By copy of this letter, we are advising the U.S. Army Corps of Engineers of our actions and enclosing a copy of the certification for their use.

If you have any questions regarding the attached certification, please contact Willow Weimer at 907-269-6096, dec-401cert@alaska.gov.

Sincerely,

N Waldo
Nick Waldo
Program Manager, Storm Water and Wetlands

Enclosure: 401 Water Quality Certificate

cc: (with encl.)
Paula Lillesve, Hecla
Nicholas Baggett, USACE
Bill Kloth, Hecla
Chad VanOrmer, USFS
Kate Kanouse, ADF&G
USFWS Field Office Juneau
Matthew LaCroix, EPA AK Operations
Jeffrey Brittain, EPA AK Operations

Alaska DEC Watermark
POA-1988-00269 v1.0
Approved
Issued On:06/05/2025
Expires On:<unspecified>

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Water Quality Certification

In accordance with Section 401 of the Federal Clean Water Act (CWA) and the Alaska Water Quality Standards (18 AAC 70), a water quality certification with conditions is issued to the Hecla Greens Creek Mining Company, Attn: Bill Kloth, PO Box 32199, Juneau AK 99803 for a permit/license to be issued by Army Corps of Engineers (USACE), reference POA-1988-00269 *Hecla Greens Creek Tailings North Extension Project.*

Based upon the review of the federal application, readily available water quality-related materials, and certification request[1] in accordance with the CWA § 121.5(b) and (c), and 121.7 (c), DEC certifies that if the permittee complies with the terms and conditions imposed by the permit and the conditions set forth in this water quality certification, then it is reasonable for DEC to conclude that the activity will comply with water quality requirements, including applicable requirements of the CWA §§ 301, 302, 303, 306, and 307, Alaska's Water Quality Standards (WQS, 18 AAC 70) and other appropriate water quality requirements of state law.

The scope of certification is limited to the water quality-related impacts of the activity subject to the Federal license or permit (40 CFR 121.3, 18 AAC 15.180). Public notice of the application for this certification was given as required by 18 AAC 15.180 in the DEC Public Notice POA-1988-00269 posted from 05/02/2025 to 06/02/2025. One comment was received, but it was not relevant to the content of this certification.

Project Purpose, Description, and Location

Project Name: Hecla Greens Creek Tailings North Extension Project

Dates of the proposed activity are planned to begin and end: 08/01/2025 to 08/01/2035

Location: The proposed activity is located within Section S23, T. T43S, R. R65E, Copper River Meridian, in City and Borough of Juneau, Alaska. Project Site (Latitude, Longitude): 58.120769, -134.74764.

With potential discharge location(s) as follows: 58.12163, -134.74772 and 58.120769, -134.747642

Purpose: The applicant's stated purpose and need for the Project is to extend the existing Tailings Disposal Facility (TDF) to provide increased permanent disposal capacity by maximizing use of areas within the existing U.S. Forest Service-approved HECLA Greens Creek Mining Company (HGCMC) lease boundary for disposal of tailings and waste rock produced by existing operations. This additional disposal capacity is intended to meet HGCMC's objectives for continued uninterrupted tailings and waste rock disposal operations at the Mine site in a safe, environmentally sound, technically and economically practicable, and cost-effective manner, while remaining compliant with regulatory requirements. The proposed Project would extend the operational life of the mine by an estimated 12 to 18 years.

Description: The applicant requests authorization for the proposed discharge of fill material into waters of the United States, including wetlands, to construct the following components: 1. Tailings Stack Expansion, 2. Water Ponds and Conveyance System, and 3. Relocation of B-Road.

The proposed schedule for the TDF extension would occur in two stages of development. Stage 1 would include decommissioning of Pond 9, modification of existing water management ponds, and extension of

[1] Reference EDMS Submission Ref Nbr: HQB-J3P5-YHEXS, Rcv 4/2/2025 12:27:00 PM

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the TDF, resulting in approximately 1.9 million CY of additional TDF storage capacity. Major components of Stage 2 include relocation of the existing B-Road, relocation of the existing power line and electrical substation, development of a new freshwater collection system at Cannery Creek, and further extension of the TDF, which would increase storage capacity by approximately 2.7 million CY.

Proposed Permanent Impacts to Waters of the U.S.:

NWI Code	Wetland/Waters Type	Impact (Acres)
PEM1	Wet Sedge Moss Bog (Palustrine Emergent)	0.3
PEM1H	Fresh Sedge Marsh (Palustrine Emergent)	1.0
PEM1 Cleared	Palustrine Emergent Cleared (Moist Graminoid Meadow	0.7
PFO4	Open Western Hemlock (Palustrine Forested)	2.9
	Total:	**4.9**

Fill Volumes and Type:

Project Component	Fill Volume (Cubic Yards)	Fill Type
North Sump	500	Sand and Gravel Mix 6 Inch Minus, Leveling Course
Tailings Stack	18,500	Sand and Gravel Mix 6 Inch Minus, Leveling Course
Pond 7/10 Raise	10,500	Unconsolidated General Fill Material
B Road Relocation	2,600	Unconsolidated General Fill Material

Total fill quantity is 32,100 CY and the total amount of impact to wetlands is 4.9 acres.

Additional Information: The United States Forest Service (USFS), Alaska Region, Tongass National Forest, completed a Final Supplemental Environmental Impact Statement (FSEIS) dated February 2, 2024, for the Greens Creek Mine North Extension Project on the Juneau Ranger District and Admiralty Island National Monument, Tongass National Forest. This document analyzes a No Action Alternative and three action alternatives. The alternatives range from continuing the current mining activities and tailings disposal until 2025 when the current TDF would reach functional capacity (No Action) to three action alternatives – each offering a slightly different approach to tailings expansion under various configurations and locations.

The above-described proposed work represents a modified Alternative B in the FSEIS. The FSEIS is available for review online at: https://www.fs.usda.gov/project/tongass/?project=57306

The applicant has listed the need for the following additional authorizations:

- Approval of modifications to the General Plan of Operations: USFS, State of Alaska
- Approval of the Reclamation Bond: USFS and the State of Alaska
- Waste Management Permit Amendment: State of Alaska
- Air Quality Permit to Operate Amendment: State of Alaska
- Alaska Pollutant Discharge Elimination System Permit Amendment: State of Alaska
- Reclamation and Closure Plan Amendment: State of Alaska
- Water Authorizations for Diverting and Intercepting Water Amendment: State of Alaska

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- Certificate of Approval to Construct and Operate a Dam Amendment: State of Alaska

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 of impacts is not practicable due to the prevalence of wetlands surrounding the existing Mine and Tailings Disposal Facility (TDF), and the need for the TDF to be located close to the Mine and to the existing disposal facility and its attendant features. The following avoidance measures have been incorporated into the design and construction of the project:
    - Avoid new disturbance outside the existing USFS-approved HGCMC lease boundary and minimize disturbance to the portion of the Monument within the lease boundary.
    - Avoid direct disturbance to fish-bearing reaches of Tributary Creek and Cannery Creek.
    - Avoid construction of a new "remote" TDF.

b. Minimization: The following minimization measures have been incorporated into the design and construction of the project:
    - Avoid new disturbance outside the existing NFS-approved HGCMC lease boundary and minimize disturbance to the portion of the Monument within the lease boundary.
    - Avoid direct disturbance to fish-bearing reaches of Tributary Creek and Cannery Creek.
    - Avoid the construction of a new "remote" TDF.
    - Construct the Project in two stages. Before authorization of Stage 2, the NFS must observe that fugitive dust is being mitigated to show consistent, long-term downward trends in environmental effects or meet the natural environmental conditions, such that there is no long-term ecological risk to aquatic and terrestrial habitats as determined by a PSLERA.
    - Continue the same or similar dry stack tailings disposal method, which has been previously reviewed and approved by the NFS.
    - Extend the existing tailings stack in a manner that minimizes new disturbance and impacts to aquatic resources. To the extent practical, locate the extended TDF and new supporting infrastructure in areas already disturbed or in areas immediately adjacent to existing disturbance. Where feasible, use existing infrastructure (such as roads, water treatment facilities, and drainage control).
    - Minimize new disturbance to environmental resources and sensitive habitats, such as WOTUS.
    - Consider closure and reclamation as part of design and operations.
    - Design and construct the TDF to be technically feasible and environmentally sound.
    - Comply with applicable federal, state, and local legal and regulatory standards.
    - Ground-disturbing activities will be limited to the project footprint. Project boundaries shall be identified in the field (e.g., staking, flagging, silt fencing, etc.) before site clearing and construction to ensure avoidance of impacts to WOTUS, including wetlands, beyond the authorized project footprint.
    - An Army Corps of Engineers 404 Certification will be obtained.
    - A Dam Safety Permit or Approval will be obtained from the Alaska Department of Natural Resources (ADNR) for raising Pond 7/10.
    - The existing ADEC solid waste permit will be modified, or a new permit will be obtained.
    - Clearing limits will be clearly demarcated prior to construction to ensure impacts stay confined within the project footprint for areas that are near waterbodies. Construction limits will also be staked to ensure that ground-disturbing impacts are limited.

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Expires On:<unspecified>

- Prior to construction activities, the applicant or contractor will obtain coverage under and comply with the Alaska Construction General Permit. They will develop and implement a SWPPP, implement BMPs for erosion and sediment control, and maintain a spill clean-up kit on-site at all times.
- Effective erosion control measures shall be installed and maintained before, during, and after construction to prevent erosion and the introduction of sediments and/or contaminants into adjacent WOTUS, including wetlands. These structures will remain in place until all fill (including side slopes) or other disturbed areas subject to potential erosion have been permanently stabilized.
- To minimize erosion and sedimentation, disturbed areas resulting from site clearing and excavation shall be adequately stabilized by appropriate erosion and sedimentation control structures and devices (e.g., silt fences, straw wattles, check dams, berms, sediment ponds, slope drains, vegetated and/or rock-lined ditches, etc.). These control devices and structures shall be properly installed and of sufficient size, number, and type to filter or settle out suspended sediments from all construction-related wastewater.
- All overburden and material stockpiles shall be stockpiled at such a location and in such a manner as to control erosion and subsequent sedimentation into nearby surface waters.
- All fill material (below the liner) for the authorized work shall be clean and free from toxic pollutants in toxic amounts. Material used for construction or discharge shall not consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.).
- Excess fill material shall not be disposed of within wetlands or other WOTUS outside of the permitted area.
- All synthetic erosion control features (e.g., silt fencing, netting, mats), which are intended for temporary use during construction, shall be completely removed and properly disposed of after their initial purpose has been served. Only natural fiber materials, which will degrade after time, may be used as permanent measures, or if used temporarily, may be abandoned in place.
- All disturbed areas will be stabilized and revegetated upon completion of final grading using vegetation and organic material salvaged from the impact area. NFS approved seed mixes will be used as necessary for soil stabilization.

c. Mitigation: Hecla Greens Creek Mining Company has designed the proposed Project to avoid and minimize impacts to WOTUS to the greatest extent practicable. The proposed Project would result in 4.9 acres of unavoidable impacts to WOTUS. HGCMC proposes to provide compensatory mitigation through the purchase of credits from the Southeast Alaska Land Trust, a USACE approved in-lieu-fee provider with an approved service area that includes the Project location.

Pursuant to the Department's Antidegradation Policy and Implementation Methods at 18 AAC 70.015 and 18 AAC 70.016, DEC finds that the project would comply with the requirements for Tiers 1 and 2 regarding water quality impacts to receiving water immediately surrounding the dredge or fill material pursuant to the Corps evaluation and findings of no significant degradation under 33 U.S.C. 1344 and under 40 CFR 230. The use of appropriate best management practices and erosion and sediment control measures would adequately protect the existing water uses and the level of water quality necessary to protect existing uses. Any potential water quality degradation is expected to be temporary, limited, and necessary to accommodate important social and/or economic development in the area.

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Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

The Department of Environmental Conservation (DEC) reviewed the application and certifies that there is reasonable assurance that the proposed activity, as well as any discharge that may result, will comply with applicable provisions of Section 401 of the CWA and the Alaska Water Quality Standards (18 AAC 70) provided the permittee complies with the terms and conditions imposed by the permit/license and that the following additional measures are adhered to.

Pursuant to 18 AAC 70.020(a) and the Toxics and Other Deleterious Organic and Inorganic Substances in 18 AAC 70.020(b), the following conditions are designed to reduce pollutants from construction activity to ensure compliance with the applicable water quality standards.

Pollutants/Toxics

1. Fuel storage and handling activities for equipment must be sited and conducted so there is no petroleum contamination of the ground, subsurface, or surface waterbodies.
2. During construction, spill response equipment and supplies such as sorbent pads shall be available and used immediately to contain and clean up oil, fuel, hydraulic fluid, antifreeze, or other pollutant spills. Any spill amount must be reported in accordance with Discharge Notification and Reporting Requirements (AS 46.03.755 and 18 AAC 75 Article 3). The applicant must report the spill to the DEC Area Response Team office online at https://reportspills.alaska.gov/ or via phone at 1-800-478-9300 or 1-907-269-0667. For Federal reporting requirements, see the National Response Center website: https://nrc.uscg.mil/. For more information, see the DEC Spill Information website: https://dec.alaska.gov/spar/ppr/spill-information/reporting/.
3. Construction equipment shall not be operated below the ordinary high-water mark if the equipment is leaking fuel, oil, hydraulic fluid, or any other hazardous material. Equipment shall be inspected daily for leaks. If leaks are found, the equipment shall not be used and pulled from service until the leak is repaired.
4. Fill material (including dredge material) must be clean soil, sand, gravel, or rock, free from petroleum products and toxic contaminants in toxic amounts.

Turbidity, Erosion, and Sediment Control

5. Runoff discharged to surface water (including wetlands) from a construction site disturbing one or more acres must be covered under Alaska's General Permit for Storm Water Discharges from Large and Small Construction Activities in Alaska (CGP, AKR100000, 18 AAC 83). The CGP requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For projects that disturb more than five acres, this SWPPP must also be submitted to DEC before construction, along with the Notice of Intent (NOI). For more information, see DEC's website for the CGP at https://dec.alaska.gov/water/wastewater/stormwater/construction, or call 907-269-6285.
6. If activity includes discharges of process wastewater, dewatering water, or drainage waters from open-cut mines or mechanical dredges, permittees shall obtain additional discharge coverage from an appropriate Alaska Pollutant Discharge Elimination System (APDES) permit. For further information, contact the DEC Engineering and Mining Technical Services (907-451-2142, dec.placer@alaska.gov, or https://dec.alaska.gov/water/wastewater/engineering/).

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7. Excavated or fill material, including overburden, shall be placed so that it is stable, meaning after placement, the material does not show signs of excessive erosion. Indicators of excess erosion include gullying, head cutting, caving, block slippage, material sloughing, etc. The material must be contained with siltation best management practices (BMPs) to preclude reentry into any waters of the U.S., which includes wetlands.
8. Include the following BMPs to handle stormwater and total stormwater volume discharges as they apply to the site:
    a. Divert stormwater from off-site around the site so that it does not flow onto the project site and cause erosion of exposed soils.
    b. Slow down or contain stormwater that may collect and concentrate within a site and cause erosion of exposed soils.
    c. Place velocity dissipation devices (e.g., check dams, sediment traps, or riprap) along the length of any conveyance channel to provide a non-erosive flow velocity. Also, place velocity dissipation devices where discharges from the conveyance channel or structure join a watercourse to prevent erosion and to protect the channel embankment, outlet, adjacent stream bank slopes, and downstream waters.

Vegetation Protection and Restoration

9. Any disturbed ground and exposed soil not covered with fill must be stabilized and re-vegetated with endemic species, grasses, or other suitable vegetation appropriately to minimize erosion and sedimentation, so that a durable vegetative cover is established in a timely manner.
10. All work areas, material access routes, and surrounding wetlands involved in the construction project shall be delineated and marked in such a way that equipment operators do not operate outside of the marked areas.
11. Natural drainage patterns shall be maintained, to the extent practicable, without introducing ponding or drying.

General

12. DEC coordinates with several regulatory programs to review the impacts of proposed projects. A Section 401 Certification does not release the applicant from obtaining all necessary federal, state, and local permits, nor does it limit more restrictive requirements set through any such program. It does not eliminate, waive, or vary the applicant's obligation to comply with all state water statutes and rules through the construction, installation, and operation of the project or mitigation, including, but not limited to, the APDES permitting program 18 AAC 83 and 18 AAC 72.
13. USACE has stated that projects shall be reviewed under the federal rules in place at the time the application is received. This project and its mitigation were reviewed under the federal and state statutes and laws in place at the time the application was received. If the USACE determines any part or condition of this Certification is not lawful or is waived and unenforceable, the determination shall apply only to the part or condition so determined. The determination shall not apply to nor invalidate any remaining parts or conditions of this Certification. If the USACE makes such a determination, the applicant remains responsible for meeting state water quality statutes and rules, and if a violation occurs, may be subject to state enforcement (18 AAC 70.010).

Alaska DEC Watermark
POA-1988-00269 v1.0
Approved
Issued On:06/05/2025
Expires On:<unspecified>

14. This Certification does not release the applicant from any liability, penalty, or duty imposed by Alaska or federal statutes, regulations, rules, or local ordinances, and it does not convey a property right or an exclusive privilege.

15. If your project is not completed by the time limit specified under the USACE Permit and will continue, or for a modification of the USACE permit, you must submit an application for renewal of this certification at least 60 days before the expiration date or any deadline established by USACE for certification action on the modification, or 60 days before the proposed effective date of the modification, whichever is sooner. (18 AAC 15.120(b), 18 AAC 15.130, 18 AAC 15.180).

Date: June 4, 2025

Nick Waldo, Program Manager
Storm Water and Wetlands

Alaska DEC Watermark
POA-1988-00269 v1.0
Approved
Issued On:06/05/2025
Expires On:<unspecified>

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

(907) 586-0715
CDD_Admin@juneau.org
www.juneau.org/community-development
155 S. Seward Street • Juneau, AK 99801

COMMUNITY DEVELOPMENT DEPARTMENT - REQUEST FOR AGENCY COMMENT

DEPARTMENT: CDD Building Division

STAFF PERSON/TITLE: Jeff Hedges, Building Code Official

DATE: 11/04/2025

APPLICANT: Hecla Greens Creek Mining Company

TYPE OF APPLICATION: Large Mine Permit / Summary Approval

PROJECT DESCRIPTION:

Applicant requests Summary Approval for an expansion of the Tailings Disposal Facility (TDF) at Greens Creek Mine.

LEGAL DESCRIPTION: Greens Creek Mine

PARCEL NUMBER(S): 3A0101000010

PHYSICAL ADDRESS: Admiralty Island

SPECIFIC QUESTIONS FROM PLANNER:

N/A

AGENCY COMMENTS:

The Building Division has no comments or concerns at this time.

AGENCY COMMENTS (CONTINUED):

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

PLANNING COMMISSION STAFF REPORT
CITY PROJECT REVIEW CSP2025 0002
HEARING DATE: JANUARY 27, 2026

(907) 586-0715
CDD_Admin@juneau.gov
www.juneau.org/community-development
155 Heritage Way • Juneau, AK 99801

DATE: January 20, 2026

TO: Erik Pedersen, Chair, Planning Commission

BY: Justin Smith, Planner I

THROUGH: Jill Lawhorne, Director, AICP

PROPOSAL: Applicant requests a City Project Review for replacement of the water utility pump station at Cope Park, upgrades to underground piping and valves, and installation of new curb, gutter, and pavement.

STAFF RECOMMENDATION: Approval

KEY CONSIDERATIONS FOR REVIEW:

- The Cope Park water pump station provides water to higher-elevation areas of downtown Juneau.
- The existing pump station is nearing the end of its service life.
- The replacement of the pump station is in compliance with Title 49 Land Use Code and is in general conformity with adopted plans, specifically the 2013 Comprehensive Plan.

GENERAL INFORMATION	
Property Owner	City and Borough of Juneau
Applicant	City and Borough of Juneau
Property Address	1001 Calhoun Ave
Legal Description	USMS 761, 926 & USS 2348 [COPE PARK]
Parcel Number	1C040CR10070
Zoning	D10
Land Use Designation	Medium Density Residential (MDR)
Lot Size	414,256 square feet / 9.51 acres
Water/Sewer	CBJ / CBJ
Access	Calhoun Ave
Existing Land Use	Park / Pump Station
Associated Applications	BLD2025 0463

ALTERNATIVE ACTIONS:

1. **Amend:** amend the recommendation to include conditions and recommend approval to the Assembly.
2. **Deny:** recommend denial of the proposed project. Planning Commission must make its own findings.
3. **Continue:** continue the hearing to a later date if determined that additional information or analysis is needed to make a decision, or if additional testimony is warranted.

ASSEMBLY ACTION REQUIRED:
A Notice of Recommendation will be forwarded to the Assembly for further action.

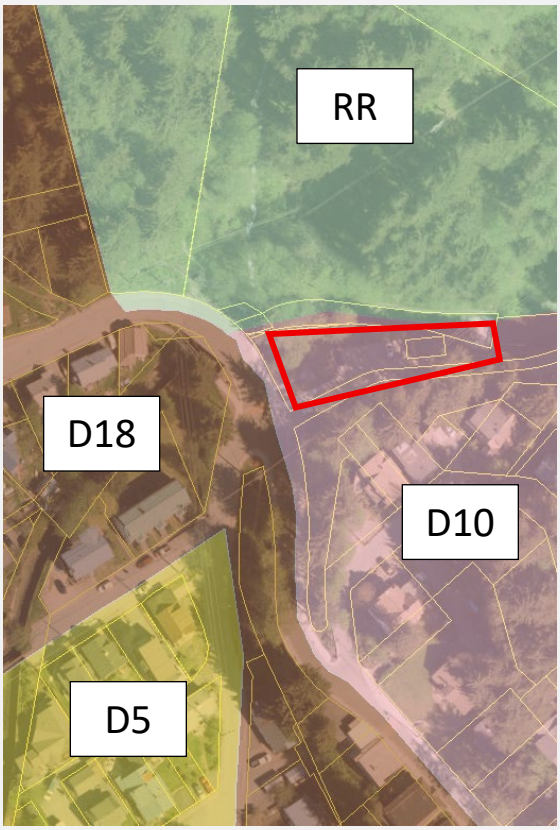
STANDARD OF REVIEW:

- Quasi-legislative decision
- Requires five (5) affirmative votes for approval
- Code Provisions:
  - CBJ 49.15.580(a)
  - CBJ 49.80

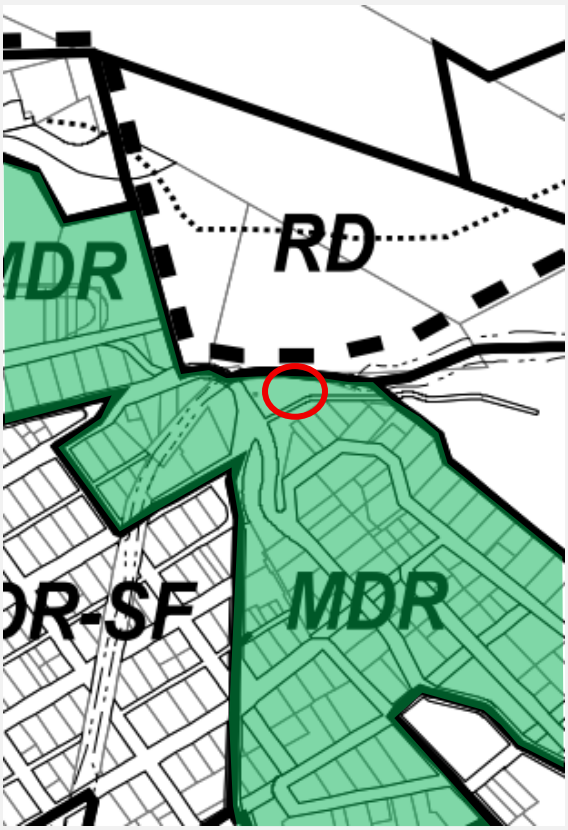
The Commission shall hear and decide the case per CBJ 49.15.580(a) - CBJ Project Review: *The commission shall review all proposed City and Borough capital improvement projects estimated to cost $500,000 or more for consistency with this title. The commission may review, at the director's discretion, all proposed City and Borough capital projects estimated to cost more than $250,000 but less than $500,000. The commission may recommend conditions on and modifications to any project reviewed by the commission through a notice of recommendation. The notice of recommendation shall be forwarded to the assembly for further action.*

CBJ 49.10.170(c) Planning Commission Duties: *The commission shall review and make recommendations to the assembly on land acquisitions and disposals as prescribed by Title 53, or capital improvement project by any City and Borough agency. The report and recommendation of the commission shall be based upon the provisions of this title, the comprehensive plan, and the capital improvements program.*

CURRENT ZONING MAP



LAND USE DESIGNATION MAP



SURROUNDING LAND USES AND ZONING

Direction	Zoning District	Land Use
North	RR	Undeveloped
South	D10	Residential
East	D10	Park
West	D18	Residential

BACKGROUND INFORMATION

Project Description – The CBJ Water Utility operates a municipal water pump station at Cope Park that provides water to higher-elevation areas of downtown Juneau, including the Highlands and Starr Hill neighborhoods. The applicant is requesting a City Project Review (**Attachment A**) to replace the existing pump station, as it is nearing the end of its service life.

The project proposes construction of a new pump station adjacent to the existing facility. The existing station will remain operational during construction to maintain uninterrupted water service. Once the new facility is operational, the existing pump station will be decommissioned and demolished.

Project scope includes construction of a new municipal pump station and pump building with a backup generator; installation of new pumps, motors, piping, valves, electrical systems, instrumentation, and controls; demolition of the existing pump station; installation of new underground piping; and associated site improvements, including grading, curb and gutter, and pavement.

Vehicular access to Cope Park will be maintained during construction, with limited full road closures permitted during utility tie-ins and demolition activities. All closures will be coordinated with Engineering & Public Works, Juneau Police Department, Capital City Fire & Rescue, and CBJ Parks and Recreation. At least one travel lane and a continuous ADA-compliant pedestrian pathway will be maintained at all times.

Project Location – The project site is located at the Cope Park pump station near the intersection of Calhoun Avenue and Cope Park Road in Juneau, Alaska.

Background – The table below summarizes relevant history for the subject parcel and proposed development.

Item	Summary
1934 Unrecorded Plat (**Attachment B**)	1934-1 Unofficial Plat of Juneau, Alaska.
DRP-DR90-41 (**Attachment C**)	Design Review Permit to construct an addition to the existing pump station at the entrance of Cope Park. Filed under Parcel No. 1C030E060010.
BLD-0681101 (**Attachment D**)	Building permit to construct an addition to the existing Cope Park pump station. Filed under Parcel No. 1C030E060010.
CSP2015 0014 (**Attachment E**)	City Project Review for Cope Park Improvements, Phase II. Project plans include existing water pump station area but not pump station replacement.
BLD2025 0463 (**Attachment F**)	Building permit application to replace the pump facility at Cope Park.
Road Ownership Map (**Attachment G**)	Map classifying roadway management.
Adopted Avalanche Hazard Map (**Attachment H**)	Map displaying the severe and moderate avalanche zones.

Current Conditions – The current pump station is nearing the end of its life and needs to be replaced and upgraded, according to the application packet (**Attachment A**).

ZONING ANALYSIS

CBJ 49.05.100 - Purpose and intent. The purpose and Intent of Title 49 Land Use Code is:

(1) To achieve the goals and objectives, and implement the policies, of the Juneau comprehensive plan, and coastal management program;

(2) To ensure that future growth and development in the City and Borough is in accord with the values of its residents;

(3) To identify and secure, for present and future residents, the beneficial impacts of growth while minimizing the negative impacts;

(4) To ensure that future growth is of the appropriate type, design and location, and is served by a proper range of public services and facilities such as water, sewage, and electrical distribution systems, transportation, schools, parks and other public requirements, and in general to promote public health, safety and general welfare;

(5) To provide adequate open space for light and air; and

(6) To recognize the economic value of land and encourage its proper and beneficial use.

Table of Permissible Uses – The Cope Park Pump Station falls under Use 17.100 Utility Facilities, Minor in the Table of Permissible Uses (CBJ 49.25.300). Utilities means all structures involved in the generation, transmission or distribution of electricity, gas, steam, water or sewage (CBJ 49.80). Utilities, minor means utilities which do not produce noise, vibration, air pollution, fire hazard, glare or noxious emission which will disturb or endanger neighboring properties. This category includes most underground utilities (CBJ 49.80).

Table of Dimensional Standards – The new pump station will have to meet the dimensional standards of the D10 zone.

Other Permit Required – A building permit will be required to construct the new pump station. The applicant has already submitted their building permit application, reference BLD2025 0463 (**Attachment F**).

Roadway Classification Maps – Cope Park Road is a CBJ-owned right-of-way maintained by CBJ Parks and Recreation (**Attachment G**).

Hazard Areas – The project site is not in an Avalanche Hazard zone, according to the adopted Avalanche Hazard Areas map (**Attachment H**). The project site has a slope of five percent, according to CBJ Parcel Viewer.

Portions of the parcel fall within a Zone A special flood hazard area. A floodplain development permit is required for any development within mapped special flood hazard areas.

COMMUNITY SERVICES

Service	Summary
Urban Service Boundary	Within
Water/Sewer	CBJ / CBJ
Fire Service Area	Within
Schools	No CBJ school is directly impacted by this project.
CBJ Parks & Recreation	We appreciate the opportunity to review the project and to visit the site with the Project Manager as it is sited on Parks and Recreation lands. We are grateful for the opportunity to suggest a paint color for the building. We have no further comments.

ENVIRONMENTAL, CONSERVATION, HISTORIC, AND ARCHEOLOGICAL RESOURCES

The below table summarizes Conservation, Historic, and Archeological Resources which may be affected by the replacement of the pump station.

Resource	Summary
Conservation Areas	No
Historic	Unknown
Archeological	Unknown
Wetlands	Wetlands are not present in the project site.
Anadromous	Gold Creek is in Appendix B of the 2013 Comprehensive Plan, Catalog #111-40-10200. However, the anadromous section does not extend to the project site. The anadromous section is at the mouth of the creek.
Comprehensive Plan View sheds	No

CONFORMITY WITH ADOPTED PLANS

2013 COMPREHENSIVE PLAN VISION: *The City and Borough of Juneau is a vibrant State Capital that values the diversity and quality of its natural and built environments, creates a safe and satisfying quality of life for its diverse population, provides quality education and employment for its workers, encourages resident participation in community decisions and provides an environment to foster state-wide leadership.*

2013 COMPREHENSIVE PLAN - The proposed pump station replacement is in compliance with this plan.			
Chapter	**Page No.**	**Item**	**Summary**
12	197	Provision of Public Utilities and Facilities	*A full complement of services and facilities to promote the public's health, safety and quality of life is needed to provide adequately for the density and intensity of land uses envisioned in the Urban Service Area and proposed New Growth Areas; this is deemed an adequate "carrying capacity" for these services, and neighborhoods should not be developed beyond the carrying capacity of public infrastructure, utilities and services.*

2013 COMPREHENSIVE PLAN - The proposed pump station replacement is in compliance with this plan.			
			The proposed pump station replacement complies with this statement.
12	200	Water	*Our CBJ water capture, storage and distribution system is a valued utility and we should take great care in managing our clean, high quality water resource and conserve this resource whenever possible.* **The proposed pump station replacement complies with this statement.**

2015 JUNEAU ECONOMIC DEVELOPMENT PLAN - The proposed pump station replacement is in compliance with this plan.			
Chapter	**Page No.**	**Item**	**Summary**
5	44	Initiative: Enhance Essential Infrastructure	*Economic development is a partnership requiring public and private investment in essential infrastructure. For Juneau to build and sustain a resilient, competitive economy, on-going investment is required in transportation infrastructure, access to developable land, communications, and other infrastructure.* **The proposed pump station replacement complies with this initiative.**

2025 BLUEPRINT DOWNTOWN AREA PLAN - The proposed pump station replacement is in compliance with this plan.			
Chapter	**Page No.**	**Item**	**Summary**
3	87	Public Utilities	*Public utilities downtown include water, sewer and stormwater systems. Utilities in the planning area were originally installed many years ago.* **The proposed pump station replacement complies with this statement.**

AGENCY REVIEW

CDD conducted an agency review comment period between November 4, 2025, to January 23, 2026. Comments can be found in Attachment I.

Agency	**Summary**
CBJ Engineering & Public Works	Applicant.
Capital City Fire & Rescue	No comments provided.
School District	No comments provided.

CBJ Parks & Recreation	We appreciate the opportunity to review the project and to visit the site with the Project Manager as it is sited on Parks and Recreation lands. We are grateful for the opportunity to suggest a paint color for the building. We have no further comments.
CBJ CDD – Building Division	The Building Division has no comments or concerns at this time.

PUBLIC COMMENTS

Public notice was mailed to property owners within 500 feet of the proposed disposal. CDD conducted a public comment period from January 2, 2026, through January 23, 2026. Public comments received by January 5, 2026, at 11:59pm are included in this staff report. Comments received between January 6, 2026, and January 23, 2026, at noon are forwarded to the Commissioners for review in advance of the hearing. A public notice sign was also posted on-site two weeks prior to the scheduled hearing (**Attachment J**). As of January 6, 2026, no public comments have been submitted.

FINDINGS

In accordance with CBJ 49.15.580 staff finds the proposed replacement of the water utility pump station at Cope Park, upgrades to underground piping and valves, and installation of new curb, gutter, and pavement complies with Title 49 Land Use Code and is in general conformity with adopted plans, specifically the 2013 Comprehensive Plan.

RECOMMENDATION

Staff recommends the Planning Commission adopt the Director's analysis and findings and recommend APPROVAL of the water pump station replacement to the Assembly.

STAFF REPORT ATTACHMENTS

Item	Description
Attachment A	Application Packet
Attachment B	1934 Unrecorded Plat
Attachment C	DRP-DR90-41
Attachment D	BLD-0681101
Attachment E	CSP2015 0014
Attachment F	BLD2025 0463 Application
Attachment G	Road Ownership Map
Attachment H	Adopted Avalanche Hazard Map
Attachment I	Agency Comments
Attachment J	Public Notice Sign

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

DEVELOPMENT PERMIT APPLICATION

NOTE: Development Permit Application forms must accompany all other Community Development Department land use applications. This form and all documents associated with it are public record once submitted.

To be completed by Applicant

PROPERTY LOCATION

Physical Address: Cope Park, 1001 Calhoun Avenue, Juneau AK 99801

Legal Description(s) (Subdivision, Survey, Block, Tract, Lot): USMS 761, 926 & USS 2348 [Cope Park]

Parcel Number(s): 1C040CR10070

☐ This property is located in the downtown historic district
☐ This property is located in a mapped hazard area, if so, which _____

LANDOWNER/ LESSEE

Property Owner: City & Borough of Juneau	Contact Person: Alan Steffert
Mailing Address: 155 Heritage Way	Phone Number(s): 907-586-0800 ext 4190
E-mail Address: alan.steffert@juneau.gov	

LANDOWNER/ LESSEE CONSENT

Required for Planning Permits, not needed on Building/ Engineering Permits.

Consent is required of all landowners/ lessees. If submitted with the application, alternative written approval may be sufficient. Written approval must include the property location, landowner/ lessee's printed name, signature, and the applicant's name.

I am (we are) the owner(s)or lessee(s) of the property subject to this application and I (we) consent as follows:
A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission.
B. I (we) grant permission for the City and Borough of Juneau officials/employees to inspect my property as needed for purposes of this application.

Dan Bleidorn — Lands Manager
Landowner/Lessee (Printed Name) — **Title (e.g.: Landowner, Lessee)**

X Daniel Bleidorn — 7/11/25
Landowner/Lessee (Signature) — **Date**

_____ — _____
Landowner/Lessee (Printed Name) — **Title (e.g.: Landowner, Lessee)**

X _____ — _____
Landowner/Lessee (Signature) — **Date**

NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours. We will make every effort to contact you in advance, but may need to access the property in your absence and in accordance with the consent above. Also, members of the Planning Commission may visit the property before a scheduled public hearing date.

APPLICANT — If same as LANDOWNER, write "SAME"

Applicant (Printed Name): City & Borough of Juneau	Contact Person: Alan Steffert
Mailing Address: 155 Hertiage Way, Juneau Alaska 99801	Phone Number(s): 907-586-0800 ext 4190
E-mail Address: alan.steffert@juneau.gov	

X _____ — _____
Applicant's Signature — **Date of Application**

----------**DEPARTMENT USE ONLY BELOW THIS LINE**----------

	Intake Initials:
Case Number: CSP25 -02	Date Received: 10/15/25

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

CITY/STATE PROJECT AND LAND ACTION REVIEW APPLICATION

See reverse side for more information regarding the permitting process and the materials required for a complete application.
NOTE: Must be accompanied by a DEVELOPMENT PERMIT APPLICATION form.

To be completed by Applicant

PROJECT SUMMARY

Replace the Water Utility's pump station at Cope Park. Demolish old pump station. Underground pipe and valve upgrades. New curb and gutter. New pavement.

TYPE OF PROJECT REVIEW: ☑ City Project Review ☑ State Project Review

PROJECT NUMBERS ASSOCIATED WITH PROPOSAL:

Is this project associated with any other Land Use Permits? YES Case No.: _____ NO

Capital Improvement Program # (CIP) W75-070

Local Improvement District # (LID) _____

State Project # _____

ESTIMATED PROJECT COST: $ 1.7 million

ALL REQUIRED MATERIALS ATTACHED

- ☑ **Complete application**
- ☑ **Pre-Application notes** (if applicable)
- ☑ **Narrative including:**
  - Current use of land or building(s)
  - Proposed use of land or building(s)
  - How the proposed project complies with the Comprehensive Plan
  - How the proposed project complies with the Land Use Code (Title 49)
- ☑ **Site Plan** (details on page 2)

NOTE: This application is <u>required</u> even if the proposed project is associated with other Land Use permits.

----------DEPARTMENT USE ONLY BELOW THIS LINE----------

CITY/STATE PROJECT FEES	Fees	Check No.	Receipt	Date
Application Fees (≥$2.5M)	$_____			
Pub. No. Sign Fee	$_____			
Pub. No. Sign Deposit	$_____			
TOTAL FEES	$_____			

This form and all documents associated with it are public record once submitted.

<u>INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED</u>

For assistance filling out this form, contact the Permit Center at 586-0770.

Case Number	Date Received
CSP25-02	10/15/25

City/State Project and Land Action Review Information

City and State project review is outlined in CBJ 49.15.580

Each application for a City/State Project is reviewed by the Planning Commission at a public hearing. The permit procedure is intended to provide the Commission the flexibility necessary to make recommendations tailored to individual applications.

Application: An application for a City/State Project Review will not be accepted by the Community Development Department until it is determined to be complete. The items needed for a complete application are:

1. **Forms:** Completed City/State Project Review Application and Development Permit Application forms.
2. **Fees:** No application fee required for projects that cost less than $2.5 million. For projects costing more than this amount, the fee is $1,600.00. All City/State Project and Land Action Applications must pay public notice sign fees. All fees are subject to change.
3. **Project Narrative:** A detailed narrative describing the project.
4. **Plans:** All plans are to be drawn to scale and clearly show the items listed below:
    a. Plat, site plan, floor plan and elevation views of existing and proposed structures and land;
    b. Existing and proposed parking areas, including dimensions of the spaces, aisle width and driveway entrances;
    c. Proposed traffic circulation within the site including access/egress points and traffic control devices;
    d. Existing and proposed lighting (including cut sheets for each type of lighting);
    e. Existing and proposed vegetation with location, area, height and type of plantings; and,
    f. Existing physical features of the site (i.e. drainage, eagle trees, hazard areas, salmon streams, wetlands, etc.)

Document Format: All materials submitted as part of an application shall be submitted in either of the following formats:

1. Electronic copies in the following formats: .doc, .txt, .xls, .bmp, .pdf, .jpg, .gif, .xlm, .rtf (other formats may be preapproved by the Community Development Department).
2. Paper copies 11" X 17" or smaller (larger paper size may be preapproved by the Community Development Department).

Application Review & Hearing Procedure: Once the application is determined to be complete, the Community Development Department will initiate the review and scheduling of the application. This process includes:

Review: As part of the review process the Community Development Department will evaluate the application for consistency with all applicable City & Borough of Juneau codes and adopted plans. Depending on unique characteristics of the permit request the application may be required to be reviewed by other municipal boards and committees. Review comments may require the applicant to provide additional information, clarification, or submit modifications/alterations for the proposed project.

Hearing: All City/State Project Review Permit Applications must be reviewed by the Planning Commission. Once an application has been deemed complete and has been reviewed by all applicable parties the Community Development Department will schedule the requested permit for the next appropriate meeting. The Planning Commission will make a recommendation based on staff's analysis and forward it to the Assembly for final approval/denial.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

CSP Review Narrative
for the
CBJ Water Utility's Cope Park Pump Station Replacement Project

The CBJ Water Utility operates a water pump station located at Cope Park. The pump station provides water to the higher elevation areas of downtown Juneau including the Highlands and Starr Hill neighborhoods. This pump station is nearing the end of its life and needs to be replaced/upgraded. A new pump station is to be constructed adjacent to the existing pump station while the existing station remains operational to ensure continuity of service. Once the new station is operational the old station will be decommissioned and the building demolished. This project includes construction of a new municipal water pump station and pump building with backup generator, flow meters, valves, pump and motor replacements, mechanical piping, electrical work, pressure sensors, lighting, variable frequency drives, instrumentation and controls; demolition of the existing pump station/building; new underground piping; and site work including grading, new curb and gutter and new paving.

SITE OF WORK. The site of the WORK is the Cope Park Pump Station located near the intersection of Calhoun Avenue and Cope Park Road in Juneau, Alaska.

The CONTRACTOR shall maintain vehicular traffic to Cope Park unless otherwise noted. A full road closure will be allowed during the suction line tie-in and demolition of the existing suction line tie-in. All road closures to be coordinated with the Engineer, JPD, CCFR and CBJ Parks and Recreation at least 48 hours in advance. During the WORK at least one lane with a minimum width of 9 feet shall be maintained. The CONTRACTOR shall maintain a continuous, unimpeded ADA pedestrian pathway through the Project corridor at all times.

Plans previously submitted for the building permit review contain all the information requested for CSP review.

COPE PARK PUMP STATION REPLACEMENT

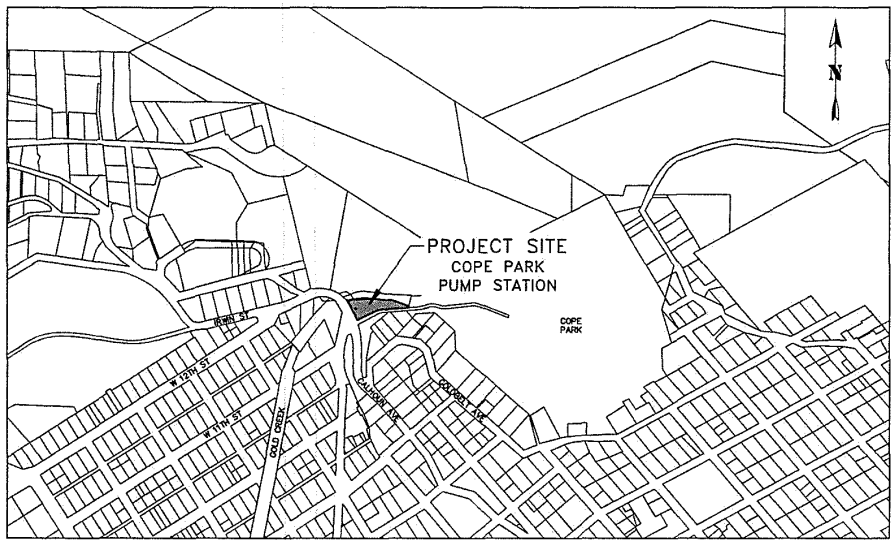
Reviewed For Code Compliance

CBJ PROJECT NO. BE25-317

CITY & BOROUGH OF JUNEAU, ALASKA

Approved
TAR 7/1/2025

JS 7/1/2025



PROJECT LOCATION MAP

NTS

SHEET INDEX	
SHEET NO.	DESCRIPTION
GENERAL	
G-01	COVER SHEET
G-02	CONSTRUCTION SEQUENCING AND SYSTEM INFORMATION
CIVIL	
C-01	LEGEND ABBREVIATIONS & GENERAL NOTES
C-02	EXISTING SITE CONDITIONS
C-03	SITE DEMOLITION PLAN
C-04	SALVAGE DETAILS
C-05	BUILDING LAYOUT PLAN
C-06	CIVIL SITE PLAN
C-07	SITE GRADING PLAN
C-08 TO C-09	CIVIL DETAILS
STRUCTURAL	
S-01	STRUCTURAL GENERAL NOTES
S-02	STANDARD DETAILS AND SPECIAL INSPECTIONS
S-03	STANDARD DETAILS
S-04	ROOF TRUSS LOADING DIAGRAM AND BRIDGE CRANE
S-05	FOUNDATION PLAN
S-06	SLAB PLAN
S-07	FRAMING PLAN
S-08	ROOF FRAMING PLAN
S-09 TO S-10	DETAILS
ARCHITECTURAL	
A-01	FLOOR PLAN
A-02	ELEVATIONS
A-03 TO A-04	BUILDING SECTION
A-05	EXTERIOR DETAILS
MECHANICAL	
M-01	LEGEND, ABBREVIATIONS & P&ID
M-02	PIPING PLAN
M-03	DRAIN PLAN
M-04 TO M-05	PIPING SECTIONS
M-06	MECHANICAL DETAILS
ELECTRICAL	
E-01	ELECTRICAL LEGEND & GENERAL NOTES
E-02	ELECTRICAL DEMOLITION SITE PLAN
E-03	ELECTRICAL SITE PLAN
E-04	ELECTRICAL EQUIPMENT LIST
E-05	ELECTRICAL SINGLE LINE DIAGRAM
E-06	ELECTRICAL PANEL SCHEDULES
E-07	ELECTRICAL BUILDING FLOOR PLAN
E-08	ELECTRICAL LIGHTING PLAN
E-09	GENERATOR MECHANICAL PLAN
E-10	GENERATOR MECHANICAL SECTION
PROGRAMMING	
P-01	LEGEND
P-02	PANEL LAYOUT
P-03 TO P-04	MATERIAL LIST
P-05	NETWORK PANEL
P-06	NETWORK DIAGRAM
P-07	PANEL CONTROL
P-08 TO P-09	VFD DETAIL
P-10 TO P-11	ANALOG INPUTS
P-12 – TO P-13	DIGITAL INPUTS
P-14	DIGITAL OUTPUTS
SURVEY	
L-01	SURVEY CONTROL SHEET

STATE OF ALASKA 49TH — ETHAN C. ROEMELING — 5/15/2025 — CERTIFICATE NO. 16343 — REGISTERED PROFESSIONAL ENGINEER

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

proHNS LLC
CERTIFICATE OF AUTHORIZATION #100662

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CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

COVER SHEET

SHEET NUMBER
G-01

June 18, 2025
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CONSTRUCTION SEQUENCING:

1. PHASE 1 – DEMO EXISTING SITE FEATURES
   1.1. REMOVE ALL ASPHALT PAVEMENT, CONCRETE SIDEWALK, CURB AND GUTTER, SEWER MANHOLE, ETC. DESIGNATED TO BE REMOVED.
   1.2. LOCATE AND PROTECT ALL FEATURES DESIGNATED TO REMAIN.

2. PHASE 2 – UNDERGROUND UTILITY INSTALLATION
   2.1. INSTALL NEW SUCTION AND TEMPORARY DISCHARGE LINES AND ISOLATION VALVES FOR NEW PUMP STATION. CLOSE VALVES AND STUB LINES UP TO FLANGE ELEVATION ABOVE FF.
   2.2. INSTALL SERVICE LATERAL FOR RESIDUAL ANALYZER.
   2.3. INSTALL DRAIN LINES FOR FLOOR DRAINS AND PRESSURE RELIEF VALVE.

3. PHASE 3 – SITE PREP AND BUILDING CONSTRUCTION
   3.1. GRADE SITE AND PERFORM EARTHWORK NECESSARY FOR BUILDING FOUNDATION INSTALLATION.
   3.2. ROUGH-IN SUBSLAB CONDUITS AND PIPING.
   3.3. POUR BUILDING FOUNDATION.
   3.4. COMPLETE BUILDING CONSTRUCTION.

4. PHASE 4 – MECHANICAL PUMPS/PIPING INSTALLATION
   4.1. INSTALL ALL NEW MECHANICAL COMPONENTS INCLUDING PIPING, VALVES, PUMPS, GENERATOR, AND INSTRUMENTATION PER THE DRAWINGS.

5. PHASE 5 – ELECTRICAL INSTALLATION
   5.1 PROVIDE TEMPORARY POWER TO THE EXISTING PUMP STATION AND COPE PARK STREET LIGHTING AND BATHROOM SERVICES WHILE AEL&P TAKES DOWN THE EXISTING 208V 3-PHASE SERVICE.
   5.2 INSTALL THE NEW 480V 3-PHASE AND 120/240V SERVICES. COORDINATE WITH AEL&P TO EITHER REUSE THE EXISTING STREET LIGHTING METER ON THE POLE OR INSTALL A NEW METER MAIN ON THE NEW PUMP STATION BUILDING TO REFEED THE COPE PARK STREET LIGHTING AND BATHROOM.
   5.3 PULL THE BATHROOM METER AND INSTALL SLUGS. PROVIDE GLASS COVER INPLACE OF THE METER.
   5.4 FEED STREET LIGHTING AND BATHROOM FROM SERVICE METER MOUNTED ON THE NEW PUMP STATION.
   5.5 PROVIDE TEMPORARY SCADA AS NEEDED.

6. PHASE 6 – PUMP STATION COMMISSIONING
   6.1. PERFORM PUMP STATION SAMPLING, TESTING AND STARTUP PER THE PROJECT SPECIFICATIONS AND PERMITS.

7. PHASE 7 – DECOMMISSION EXISTING PUMP STATION
   7.1. ISOLATE THE EXISTING PUMP STATION, REMOVE 12" VALVES AND CONNECT TO EXISTING 16" HDPE WATER MAIN.
   7.2. INSTALL FINAL DISCHARGE LINE PIPING TO THE NEW PUMP STATION. DEMO OLD LINE TO THE EXISTING PUMP STATION.

8. PHASE 8 – DEMO EXISTING PUMP STATION
   8.1. DEMO EXISTING PUMP STATION INCLUDING ALL ELECTRICAL, MECHANICAL AND STRUCTURAL.
   8.2. SALVAGE EXISTING EQUIPMENT OUTLINED IN SPECIFICATION SECTION 2050 AND DELIVER TO CBJ.

9. PHASE 9 – SITE FEATURES AND GRADING.
   9.1. REGRADE SITE AS SHOWN IN THE DRAWINGS.
   9.2. INSTALL NEW CURB AND GUTTER, CONCRETE SIDEWALK, ASPHALT PAVEMENT AND OTHER MISCELLANEOUS SITE FEATURES.

10. PHASE 10 – FINAL CLEANUP AND RESTORATION
    10.1. PERFORM ALL REMAINING ITEMS OF WORK PER THE DRAWINGS AND SPECIFICATIONS.

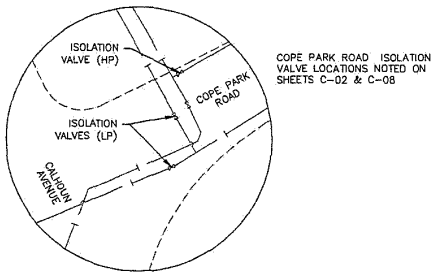
SHEET NOTES:

1. CONSTRUCTION SEQUENCE IS ONLY TO SERVE AS A GUIDE. CONTRACTOR RESPONSIBLE FOR DEVELOPING SEQUENCE PLAN PRIOR TO COMMENCING WORK. CONTRACTOR TO SUBMIT PLAN FOR ENGINEER APPROVAL PRIOR TO CONSTRUCTION.
2. EXISTING PUMP STATION TO REMAIN OPERATIONAL THROUGHOUT PROJECT DURATION.
3. PERFORM ALL WORK PURSUANT TO NEC REQUIREMENTS. ENSURE PROPER GROUNDING TO TEMPORARY SYSTEM.
4. COORDINATE WITH AEL&P ON SERVICE MODIFICATIONS.
5. CONTRACTOR TO COORDINATE WITH AND GET APPROVAL FROM CBJ WATER DEPARTMENT PRIOR TO ANY POWER, SCADA OR WATER SHUTDOWNS. PUMP STATION MUST BE OPERATIONAL AT THE END OF EACH SHIFT.

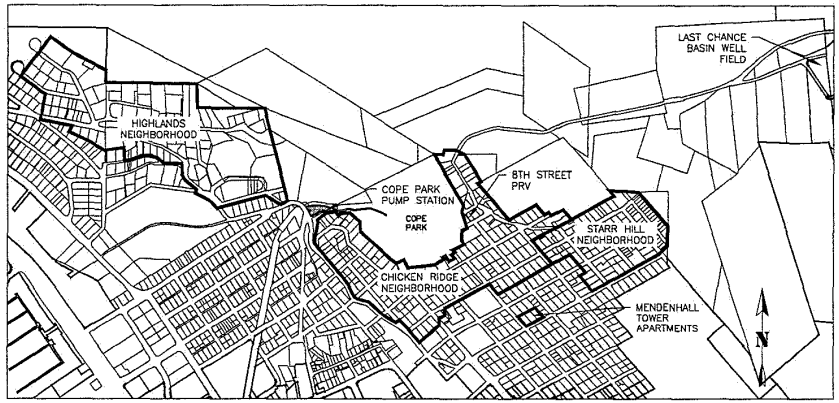
PUMP STATION AND DISTRIBUTION SYSTEM OPERATIONS (EXISTING):

- LCB HIGH ELEVATION SYSTEM AVERAGE FLOW RATE* 90-200 GPM
- COPE PARK PUMP STATION INLET (SUCTION) PRESSURE* 67 PSI
- COPE PARK PUMP STATION OUTLET (DISCHARGE) PRESSURE* 118 PSI
- THE DOWNTOWN JUNEAU HIGH ELEVATION SYSTEM IS SUPPLIED FROM THE LAST CHANCE BASIN VIA WELL 3 AND THE MILL TUNNEL. DURING NORMAL OPERATIONS THE SYSTEM FLOWS THROUGH A DEDICATED HIGH ELEVATION LINE TO THE 8TH STREET HIGH ELEVATION PRV VIA JUALPA TUNNEL. THE PRESSURE IS THEN REDUCED AND CONNECTS TO A DISTRIBUTION SYSTEM THAT PROVIDES WATER TO THE STARR HILL, CHICKEN RIDGE, HIGHLANDS NEIGHBORHOODS, AND THE MENDENHALL TOWER APARTMENTS. THIS SYSTEM ALONE IS UNABLE TO PROVIDE EXTREME HIGH DEMAND FLOWS (FIRE FLOWS) FOR ALL OF THE HYDRANTS IN THE SYSTEM.
- THE COPE PARK PUMP STATION IS CURRENTLY PROGRAMMED TO OPERATE UNDER EXTREME HIGH DEMAND CONDITIONS AND PULLS WATER FROM THE LOW ELEVATION SYSTEM INCREASING ITS PRESSURE AND SUPPLEMENTING THE HIGH ELEVATION SYSTEM FLOWS WHEN NEEDED.
- THE PUMPS ARE PROGRAMMED TO ALTERNATE LEAD OPERATION AFTER EACH START AND ARE CONTROLLED BY PRESSURE SENSORS LOCATED WITHIN THE PUMP STATION.

*THESE ARE MEASURED VALUES FROM CBJ SCADA SYSTEM AND METERS.



CALHOUN AVENUE ISOLATION VALVE SCHEMATIC



DOWNTOWN JUNEAU HIGH ELEVATION SYSTEM

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June 17, 2025

STATE OF ALASKA 49TH — ETHAN C. ROEMELING — 6/16/2025 — REGISTERED PROFESSIONAL ENGINEER

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

proHNS LLC
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ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

CONSTRUCTION SEQUENCING AND SYSTEM INFORMATION

SHEET NUMBER
G-02

LEGEND

DESCRIPTION	EXISTING	REMOVE	PROPOSED
ASPHALT	EDGE OF ASPHALT		MATCH EXIST. AREA
BUILDING			
CONCRETE			
CURB AND GUTTER			
OVERHEAD ELECTRIC	OHE OHE		
SANITARY SEWER PIPE	PIPE SIZE & TYPE		
SANITARY SEWER MANHOLE	SS-EX-1		
SAWCUT & MTE LIMITS			
SIGN			
STORM DRAIN CATCH BASIN			S-1
STORM DRAIN PIPE			SD P-1 SD
UNDERGROUND ELECTRICAL	UGE UGE		
UTILITY POLE			
UTILITY POLE WITH LUMINAIRE			
WATER LINE PIPE	PIPE SIZE & TYPE		
WATER VALVE BOX			

ABBREVIATIONS

CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED POLYETHYENE PIPE
DIP	DUCTILE IRON PIPE
EA	EDGE OF ASPHALT
FF	FINISH FLOOR
HDPE	HIGH DENSITY POLYETHYLENE
MJ	MECHANICAL JOINT
MTE	MATCH TO EXISTING
NSF	NATIONAL SANITATION FOUNDATION
PVC	POLYVINYL CHLORIDE PIPE
TBC	TOP BACK OF CURB
TOA	TOP OF ASPHALT
TOC	TOP OF CONCRETE
TYP	TYPICAL

GENERAL NOTES

1. CBJ ENGINEERING STANDARD DETAILS BOOK FOR CIVIL ENGINEERING PROJECTS AND SUBDIVISION IMPROVEMENTS FOURTH ADDITION DATED AUGUST, 2011 AND CBJ ENGINEERING STANDARD SPECIFICATIONS DATED DECEMBER, 2003 ARE MADE A PART OF THIS CONTRACT, INCLUDING ALL ERRATA (NOS. 1–16) AND CURRENT REVISIONS AS APPLICABLE.
2. CALL 586–1333 BEFORE YOU DIG FOR UNDERGROUND POWER, TELEPHONE AND CABLE. CALL 811 ALASKA DIGLINE BEFORE YOU DIG FOR UNDERGROUND ACS & GCI. LOCATIONS AND ELEVATION OF EXISTING UNDERGROUND WATER, SEWER, POWER, TELEPHONE AND CABLE TELEVISION SHOWN ON THE PLANS WERE DERIVED FROM CBJ AS–BUILTS AND FIELD LOCATES. THE ACTUAL LOCATION OF UTILITIES MAY VARY FROM THOSE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING, PROTECTING AND MAINTAINING THE UTILITIES THROUGHOUT THE CONSTRUCTION OF THE PROJECT. ANY DAMAGE TO THE UNDERGROUND UTILITIES DURING CONSTRUCTION SHALL BE PAID FOR BY THE CONTRACTOR AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
3. THE ESTIMATED TOTAL AREA OF DISTURBANCE RESULTING FROM THIS PROJECT IS APPROXIMATELY 0.1 ACRES.
4. THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC) HAS IDENTIFIED SEVERAL CONTAMINATED SITES WITHIN 1,500 FEET OF THE PROJECT LIMITS THAT ARE CURRENTLY IN "ACTIVE" OR "INSTITUTIONAL CONTROL" CLEANUP STATUS. THERE ARE NO SITES IN THE IMMEDIATE PROJECT AREA. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONSULT DEC AND OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK.
5. PROPERTY LINE LOCATIONS USED IN THESE PLANS ARE DERIVED FROM RECORD PLATS AND DO NOT REPRESENT A BOUNDARY SURVEY.
6. CONTRACTOR SHALL ENSURE ACCESS TO COPE PARK AT ALL TIMES. THE CONTRACTOR SHALL NOTIFY CBJ PARKS AND RECREATION (957–5226) OF PROPOSED CLOSURES OF COPE PARK ROAD FOR APPROVAL AT LEAST 48 HOURS PRIOR TO CLOSURE. DURING CONTRACTOR WORKING HOURS AT LEAST ONE LANE WITH A MINIMUM WIDTH OF 9 FEET SHALL BE MAINTAINED. TWO–WAY TRAFFIC (18" WIDE DRIVING SURFACE) SHALL BE MAINTAINED WHENEVER THE CONTRACTOR IS NOT ON–SITE, UNLESS APPROVED BY THE ENGINEER. A FULL ROAD CLOSURE WILL BE ALLOWED DURING THE SUCTION LINE TIE–IN. ADA PEDESTRIAN ACCESS TO COPE PARK SHALL BE MAINTAINED AT ALL TIMES.
6. THE CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT, OR OPERATE EQUIPMENT WITH ITS TRACKS OR WHEELS PLACED ON PRIVATE PROPERTY, WITHOUT THE WRITTEN APPROVAL OF THE PROPERTY OWNER.
7. THE CONTRACTOR SHALL NOTIFY CBJ WATER UTILITIES (LONI VANKIRK AT 723–4975) OF PROPOSED WATER SERVICE INTERRUPTION AND SUBMIT THE "WATER SYSTEM SPECIAL USE PERMIT" TO CBJ WATER UTILITIES SUPERINTENDENT FOR APPROVAL AT LEAST 48 HOURS PRIOR TO SHUTDOWN OR FLUSHING OF MAINLINE WATER PIPE. NO WATER SERVICE INTERRUPTION MAY PROCEED UNTIL THIS APPROVAL IS OBTAINED.
8. PRIOR TO INTERRUPTING WATER SERVICE THE CONTRACTOR SHALL VERIFY THAT THE PUMPS, PIPES AND FITTINGS FOR THE WORK ARE ON SITE.
9. ALL ITEMS AND MATERIALS DESIGNATED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF–SITE, UNLESS NOTED OTHERWISE IN THE CONTRACT DOCUMENTS.
10. IF CONTAMINATED SOILS ARE ENCOUNTERED DURING THE CONSTRUCTION PROCESS CONTACT ALASKA DEC CONTAMINATED SITES PROGRAM IMMEDIATELY.

STATE OF ALASKA 49TH — ETHAN C. ROEMELING 6/16/2025 CE 15329 PROFESSIONAL ENGINEER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION	BY

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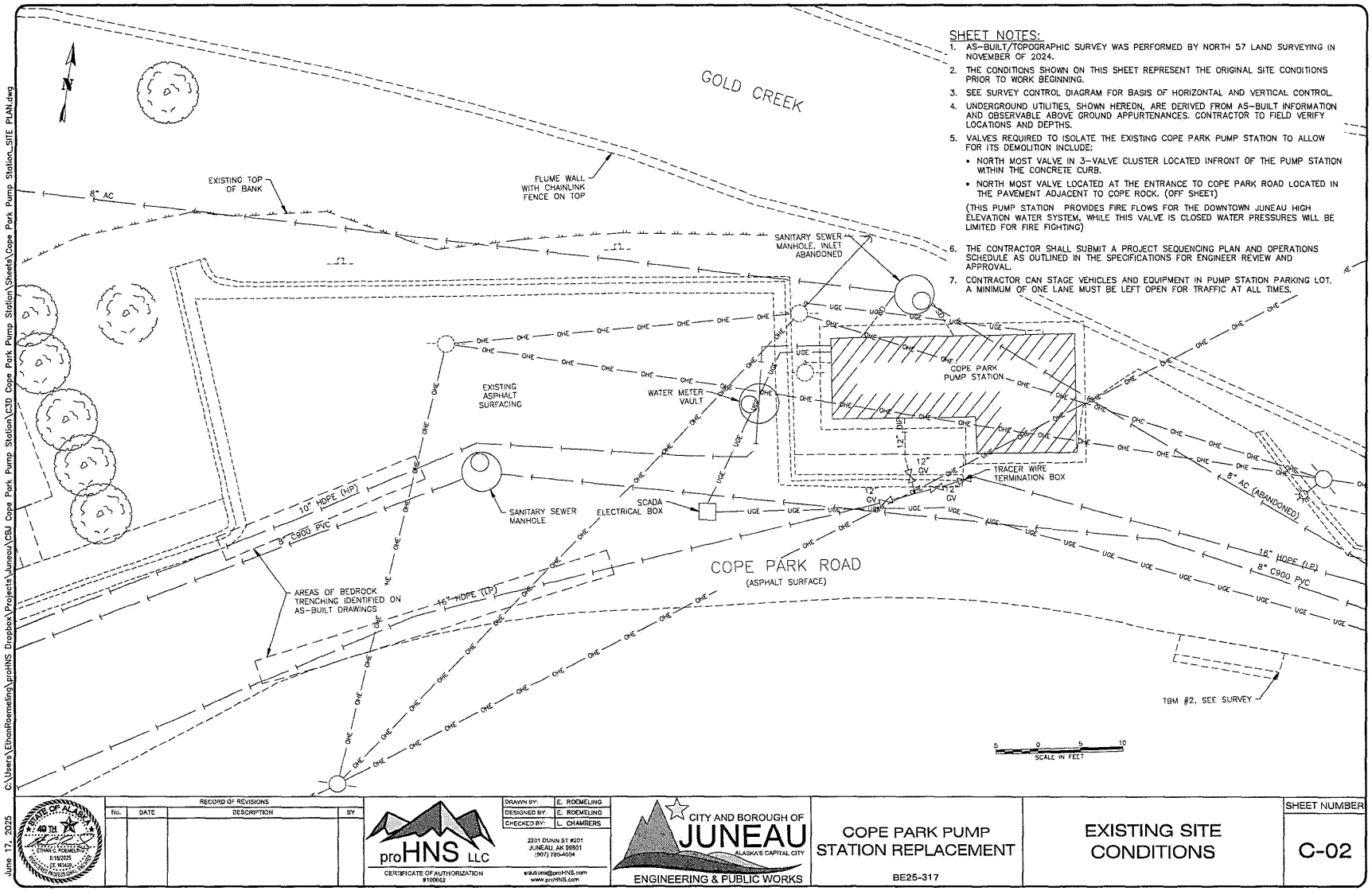
COPE PARK PUMP STATION REPLACEMENT
BE25-317

LEGEND ABBREVIATIONS & GENERAL NOTES

SHEET NUMBER
C-01

June 17, 2025 C:\Users\EthanRoemeling\proHNS Dropbox\Projects\Juneau\CBJ Cope Park Pump Station\C3D Cope Park Pump Station\Sheets\Cope Park Pump Station_LAG.dwg


GOLD CREEK
EXISTING TOP OF BANK
FLUME WALL WITH CHAINLINK FENCE ON TOP
8" AC
SANITARY SEWER MANHOLE, INLET ABANDONED
EXISTING ASPHALT SURFACING
WATER METER VAULT
COPE PARK PUMP STATION
12" DIP
12" GV
TRACER WIRE TERMINATION BOX
8" AC (ABANDONED)
16" HDPE (LP)
8" C900 PVC
10" HDPE (HP)
8" C900 PVC
SANITARY SEWER MANHOLE
SCADA ELECTRICAL BOX
AREAS OF BEDROCK TRENCHING IDENTIFIED ON AS-BUILT DRAWINGS
16" HDPE (LP)
COPE PARK ROAD
(ASPHALT SURFACE)
TBM #2, SEE SURVEY
SCALE IN FEET
SHEET NOTES:
1. AS-BUILT/TOPOGRAPHIC SURVEY WAS PERFORMED BY NORTH 57 LAND SURVEYING IN NOVEMBER OF 2024.
2. THE CONDITIONS SHOWN ON THIS SHEET REPRESENT THE ORIGINAL SITE CONDITIONS PRIOR TO WORK BEGINNING.
3. SEE SURVEY CONTROL DIAGRAM FOR BASIS OF HORIZONTAL AND VERTICAL CONTROL.
4. UNDERGROUND UTILITIES, SHOWN HEREON, ARE DERIVED FROM AS-BUILT INFORMATION AND OBSERVABLE ABOVE GROUND APPURTENANCES. CONTRACTOR TO FIELD VERIFY LOCATIONS AND DEPTHS.
5. VALVES REQUIRED TO ISOLATE THE EXISTING COPE PARK PUMP STATION TO ALLOW FOR ITS DEMOLITION INCLUDE:
• NORTH MOST VALVE IN 3-VALVE CLUSTER LOCATED INFRONT OF THE PUMP STATION WITHIN THE CONCRETE CURB.
• NORTH MOST VALVE LOCATED AT THE ENTRANCE TO COPE PARK ROAD LOCATED IN THE PAVEMENT ADJACENT TO COPE ROCK. (OFF SHEET)
(THIS PUMP STATION PROVIDES FIRE FLOWS FOR THE DOWNTOWN JUNEAU HIGH ELEVATION WATER SYSTEM, WHILE THIS VALVE IS CLOSED WATER PRESSURES WILL BE LIMITED FOR FIRE FIGHTING)
6. THE CONTRACTOR SHALL SUBMIT A PROJECT SEQUENCING PLAN AND OPERATIONS SCHEDULE AS OUTLINED IN THE SPECIFICATIONS FOR ENGINEER REVIEW AND APPROVAL.
7. CONTRACTOR CAN STAGE VEHICLES AND EQUIPMENT IN PUMP STATION PARKING LOT. A MINIMUM OF ONE LANE MUST BE LEFT OPEN FOR TRAFFIC AT ALL TIMES.
C:\Users\EthanRoemeling\proHNS Dropbox\Projects\Juneau\CBJ Cope Park Pump Station\C3D Cope Park Pump Station\Sheets\Cope Park Pump Station_SITE PLAN.dwg
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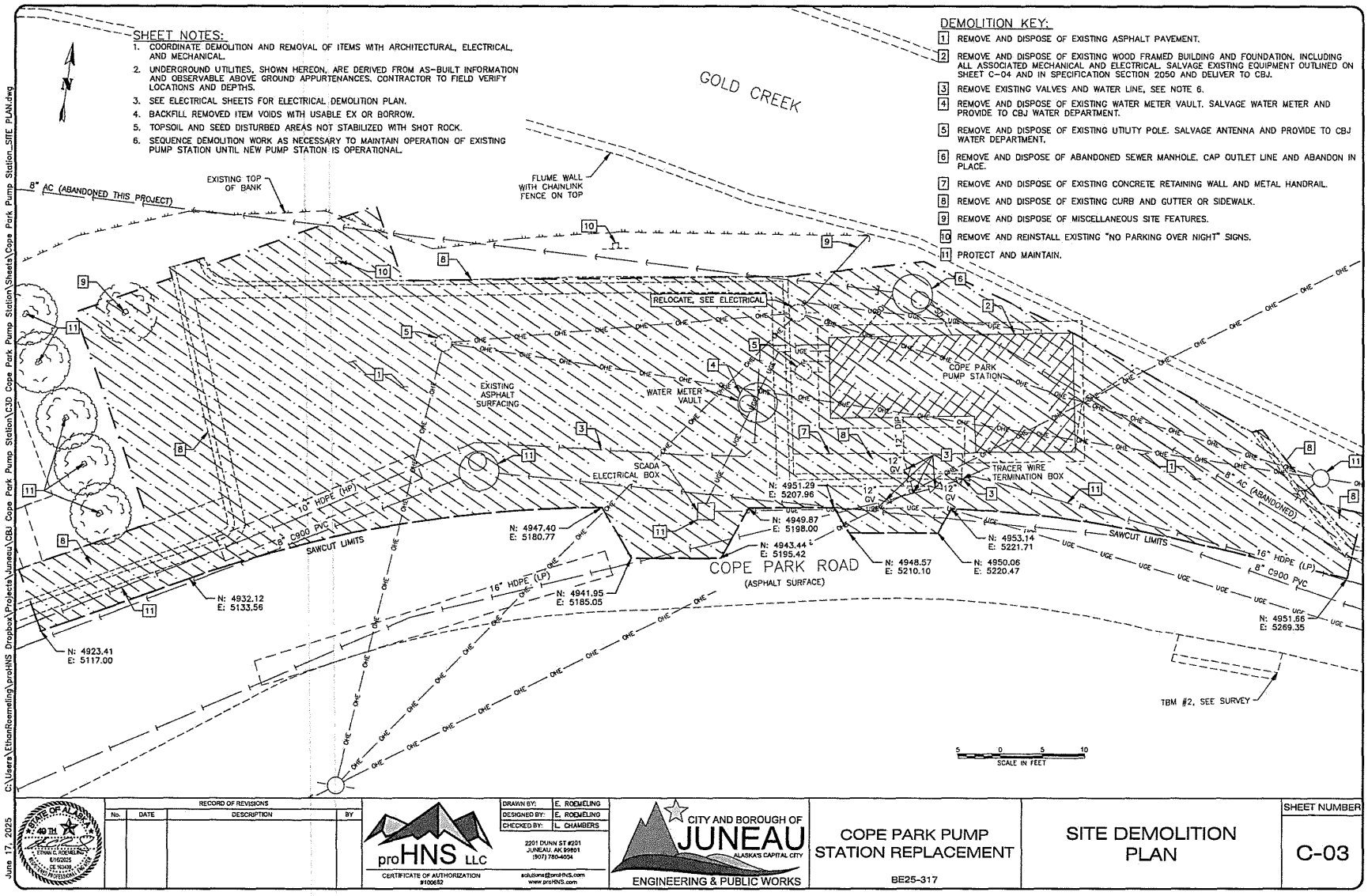
ENGINEERING & PUBLIC WORKS
COPE PARK PUMP STATION REPLACEMENT
BE25-317
EXISTING SITE CONDITIONS
SHEET NUMBER
C-02


SHEET NOTES:
1. COORDINATE DEMOLITION AND REMOVAL OF ITEMS WITH ARCHITECTURAL, ELECTRICAL, AND MECHANICAL.
2. UNDERGROUND UTILITIES, SHOWN HEREON, ARE DERIVED FROM AS-BUILT INFORMATION AND OBSERVABLE ABOVE GROUND APPURTENANCES. CONTRACTOR TO FIELD VERIFY LOCATIONS AND DEPTHS.
3. SEE ELECTRICAL SHEETS FOR ELECTRICAL DEMOLITION PLAN.
4. BACKFILL REMOVED ITEM VOIDS WITH USABLE EX OR BORROW.
5. TOPSOIL AND SEED DISTURBED AREAS NOT STABILIZED WITH SHOT ROCK.
6. SEQUENCE DEMOLITION WORK AS NECESSARY TO MAINTAIN OPERATION OF EXISTING PUMP STATION UNTIL NEW PUMP STATION IS OPERATIONAL.
DEMOLITION KEY:
1 REMOVE AND DISPOSE OF EXISTING ASPHALT PAVEMENT.
2 REMOVE AND DISPOSE OF EXISTING WOOD FRAMED BUILDING AND FOUNDATION. INCLUDING ALL ASSOCIATED MECHANICAL AND ELECTRICAL. SALVAGE EXISTING EQUIPMENT OUTLINED ON SHEET C-04 AND IN SPECIFICATION SECTION 2050 AND DELIVER TO CBJ.
3 REMOVE EXISTING VALVES AND WATER LINE, SEE NOTE 6.
4 REMOVE AND DISPOSE OF EXISTING WATER METER VAULT. SALVAGE WATER METER AND PROVIDE TO CBJ WATER DEPARTMENT.
5 REMOVE AND DISPOSE OF EXISTING UTILITY POLE. SALVAGE ANTENNA AND PROVIDE TO CBJ WATER DEPARTMENT.
6 REMOVE AND DISPOSE OF ABANDONED SEWER MANHOLE. CAP OUTLET LINE AND ABANDON IN PLACE.
7 REMOVE AND DISPOSE OF EXISTING CONCRETE RETAINING WALL AND METAL HANDRAIL.
8 REMOVE AND DISPOSE OF EXISTING CURB AND GUTTER OR SIDEWALK.
9 REMOVE AND DISPOSE OF MISCELLANEOUS SITE FEATURES.
10 REMOVE AND REINSTALL EXISTING "NO PARKING OVER NIGHT" SIGNS.
11 PROTECT AND MAINTAIN.
N
GOLD CREEK
EXISTING TOP OF BANK
FLUME WALL WITH CHAINLINK FENCE ON TOP
8" AC (ABANDONED THIS PROJECT)
RELOCATE, SEE ELECTRICAL
EXISTING ASPHALT SURFACING
WATER METER VAULT
COPE PARK PUMP STATION
SCADA ELECTRICAL BOX
TRACER WIRE TERMINATION BOX
10" HDPE (HP)
8" C900 PVC
SAWCUT LIMITS
16" HDPE (LP)
COPE PARK ROAD
(ASPHALT SURFACE)
8" AC (ABANDONED)
TBM #2, SEE SURVEY
N: 4947.40 E: 5180.77
N: 4951.29 E: 5207.96
N: 4949.87 E: 5198.00
N: 4943.44 E: 5195.42
N: 4941.95 E: 5185.05
N: 4948.57 E: 5210.10
N: 4950.06 E: 5220.47
N: 4953.14 E: 5221.71
N: 4951.66 E: 5269.35
N: 4932.12 E: 5133.56
N: 4923.41 E: 5117.00
5 0 5 10
SCALE IN FEET
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June 17, 2025
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No. DATE DESCRIPTION BY
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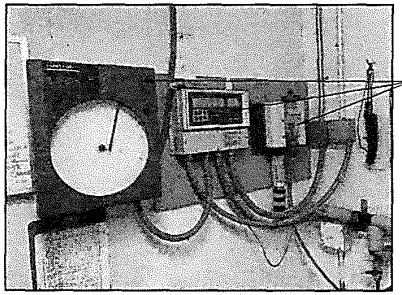
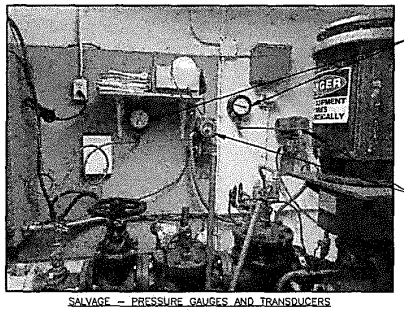
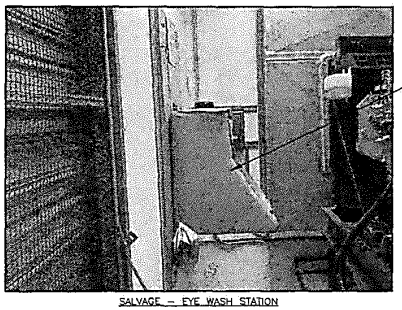
ENGINEERING & PUBLIC WORKS
COPE PARK PUMP STATION REPLACEMENT
BE25-317
SITE DEMOLITION PLAN
SHEET NUMBER
C-03



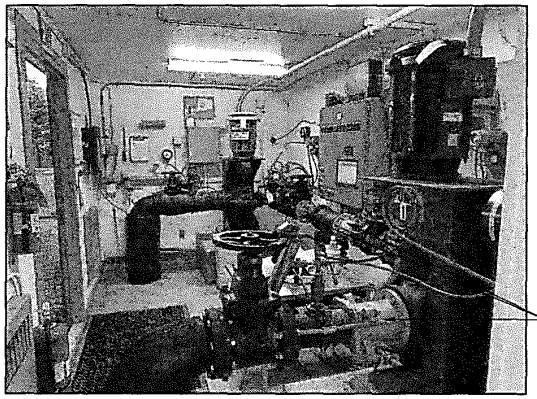
SALVAGE – RESIDUAL ANALYZER



SALVAGE – PRESSURE GAUGES AND TRANSDUCERS

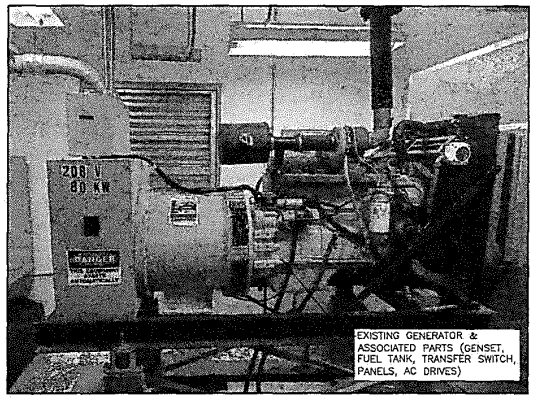


SALVAGE – EYE WASH STATION

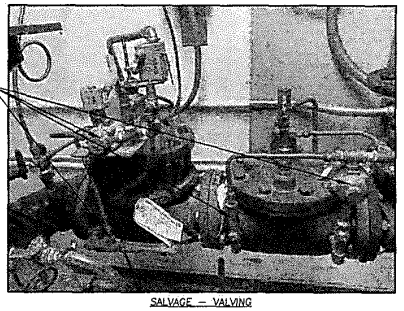


EXISTING PUMP STATION – MECHANICAL ROOM

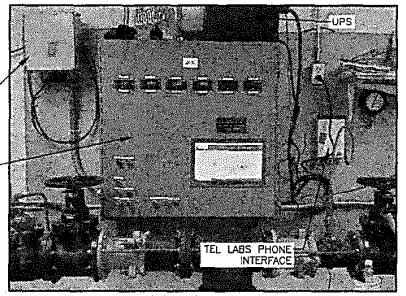
SHEET NOTES:
1. SALVAGE EXISTING EQUIPMENT CALLED OUT ON THIS SHEET AND DELIVER TO CBJ.



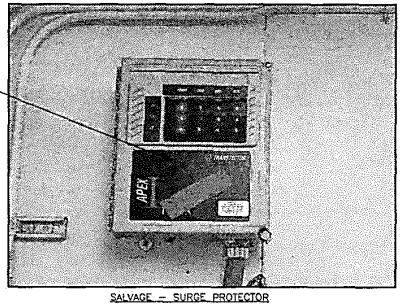
EXISTING PUMP STATION – GENERATOR ROOM



SALVAGE – VALVING



SALVAGE – CONTROL PANNEL



SALVAGE – SURGE PROTECTOR

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June 17, 2025

STATE OF ALASKA 49TH ETHAN C. ROEMELING 8/18/2025 CE 10303 PROFESSIONAL ENGINEER

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No.	DATE	DESCRIPTION	BY

proHNS LLC
CERTIFICATE OF AUTHORIZATION #100662

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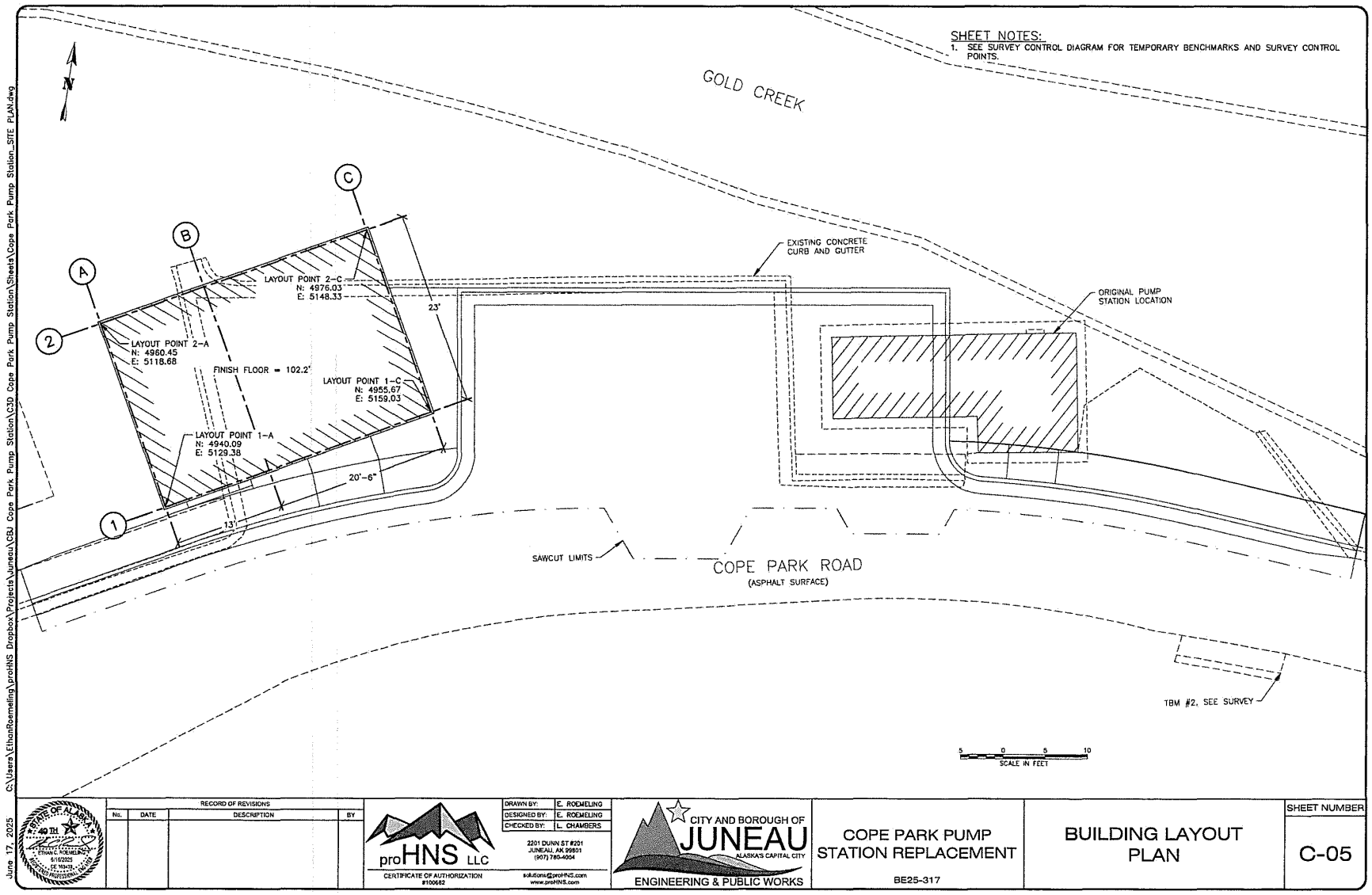
CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

SALVAGE DETAILS

SHEET NUMBER
C-04


SHEET NOTES:
1. SEE SURVEY CONTROL DIAGRAM FOR TEMPORARY BENCHMARKS AND SURVEY CONTROL POINTS.
GOLD CREEK
N
A
B
C
1
2
LAYOUT POINT 2-C
N: 4976.03
E: 5148.33
LAYOUT POINT 2-A
N: 4960.45
E: 5118.68
FINISH FLOOR = 102.2'
LAYOUT POINT 1-C
N: 4955.67
E: 5159.03
LAYOUT POINT 1-A
N: 4940.09
E: 5129.38
23'
20'-6"
13'
EXISTING CONCRETE CURB AND GUTTER
ORIGINAL PUMP STATION LOCATION
SAWCUT LIMITS
COPE PARK ROAD
(ASPHALT SURFACE)
TBM #2, SEE SURVEY
5 0 5 10
SCALE IN FEET
RECORD OF REVISIONS
No. DATE DESCRIPTION BY
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CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS
COPE PARK PUMP STATION REPLACEMENT
BE25-317
BUILDING LAYOUT PLAN
SHEET NUMBER
C-05
June 17, 2025
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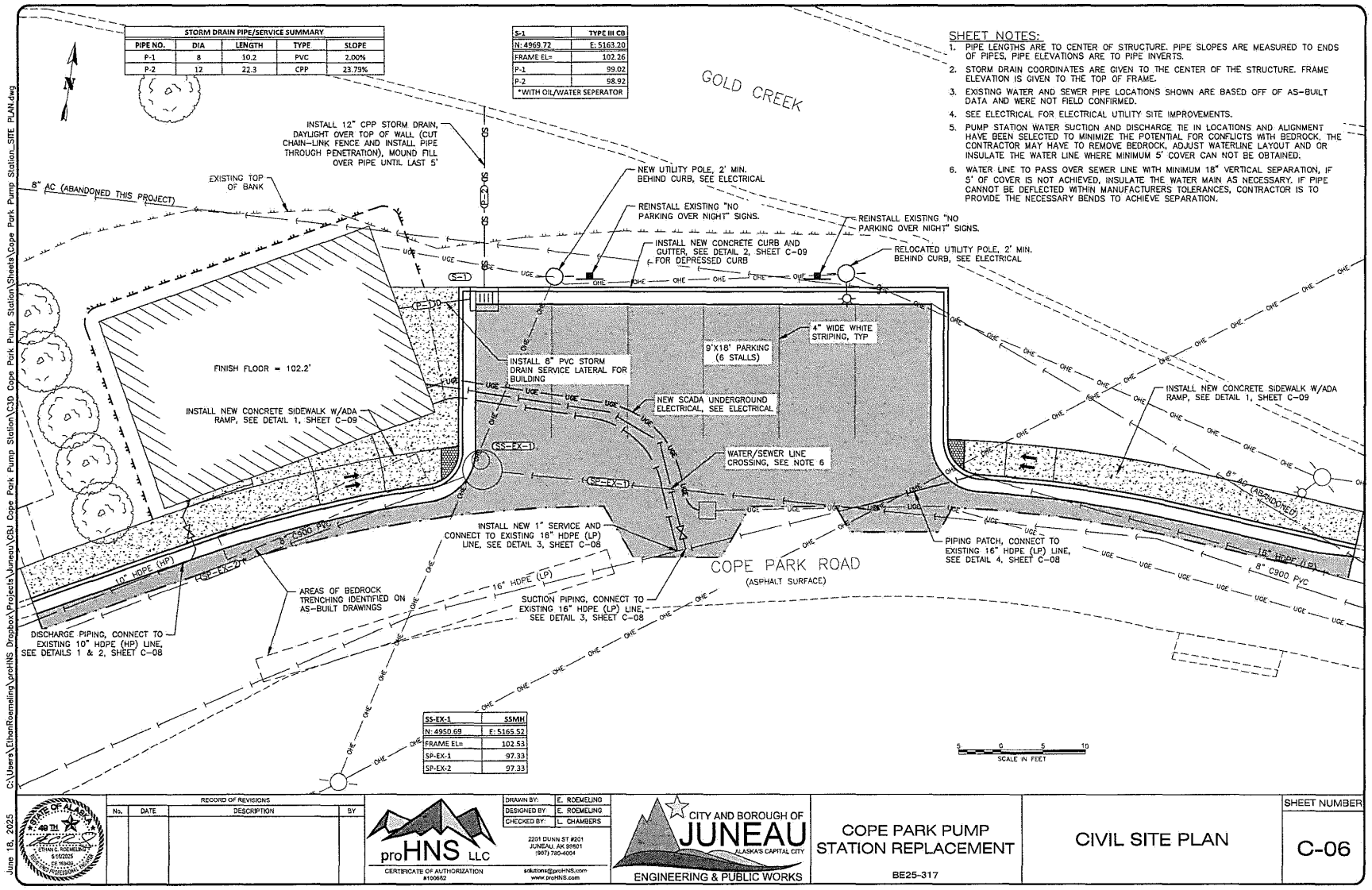
STORM DRAIN PIPE/SERVICE SUMMARY
PIPE NO. | DIA | LENGTH | TYPE | SLOPE
P-1 | 8 | 10.2 | PVC | 2.00%
P-2 | 12 | 22.3 | CPP | 23.79%
S-1 | TYPE III CB
N: 4969.72 | E: 5163.20
FRAME EL= | 102.26
P-1 | 99.02
P-2 | 98.92
*WITH OIL/WATER SEPERATOR
SS-EX-1 | SSMH
N: 4950.69 | E: 5165.52
FRAME EL= | 102.53
SP-EX-1 | 97.33
SP-EX-2 | 97.33
SHEET NOTES:
1. PIPE LENGTHS ARE TO CENTER OF STRUCTURE. PIPE SLOPES ARE MEASURED TO ENDS OF PIPES, PIPE ELEVATIONS ARE TO PIPE INVERTS.
2. STORM DRAIN COORDINATES ARE GIVEN TO THE CENTER OF THE STRUCTURE. FRAME ELEVATION IS GIVEN TO THE TOP OF FRAME.
3. EXISTING WATER AND SEWER PIPE LOCATIONS SHOWN ARE BASED OFF OF AS-BUILT DATA AND WERE NOT FIELD CONFIRMED.
4. SEE ELECTRICAL FOR ELECTRICAL UTILITY SITE IMPROVEMENTS.
5. PUMP STATION WATER SUCTION AND DISCHARGE TIE IN LOCATIONS AND ALIGNMENT HAVE BEEN SELECTED TO MINIMIZE THE POTENTIAL FOR CONFLICTS WITH BEDROCK. THE CONTRACTOR MAY HAVE TO REMOVE BEDROCK, ADJUST WATERLINE LAYOUT AND OR INSULATE THE WATER LINE WHERE MINIMUM 5' COVER CAN NOT BE OBTAINED.
6. WATER LINE TO PASS OVER SEWER LINE WITH MINIMUM 18" VERTICAL SEPARATION, IF 5' OF COVER IS NOT ACHIEVED, INSULATE THE WATER MAIN AS NECESSARY. IF PIPE CANNOT BE DEFLECTED WITHIN MANUFACTURERS TOLERANCES, CONTRACTOR IS TO PROVIDE THE NECESSARY BENDS TO ACHIEVE SEPARATION.
GOLD CREEK
INSTALL 12" CPP STORM DRAIN, DAYLIGHT OVER TOP OF WALL (CUT CHAIN-LINK FENCE AND INSTALL PIPE THROUGH PENETRATION), MOUND FILL OVER PIPE UNTIL LAST 5'
8" AC (ABANDONED THIS PROJECT)
EXISTING TOP OF BANK
NEW UTILITY POLE, 2' MIN. BEHIND CURB, SEE ELECTRICAL
REINSTALL EXISTING "NO PARKING OVER NIGHT" SIGNS.
INSTALL NEW CONCRETE CURB AND GUTTER, SEE DETAIL 2, SHEET C-09 FOR DEPRESSED CURB
REINSTALL EXISTING "NO PARKING OVER NIGHT" SIGNS.
RELOCATED UTILITY POLE, 2' MIN. BEHIND CURB, SEE ELECTRICAL
FINISH FLOOR = 102.2'
INSTALL 8" PVC STORM DRAIN SERVICE LATERAL FOR BUILDING
9'X18' PARKING (6 STALLS)
4" WIDE WHITE STRIPING, TYP
INSTALL NEW CONCRETE SIDEWALK W/ADA RAMP, SEE DETAIL 1, SHEET C-09
NEW SCADA UNDERGROUND ELECTRICAL, SEE ELECTRICAL
WATER/SEWER LINE CROSSING, SEE NOTE 6
INSTALL NEW CONCRETE SIDEWALK W/ADA RAMP, SEE DETAIL 1, SHEET C-09
8" AC (ABANDONED)
INSTALL NEW 1" SERVICE AND CONNECT TO EXISTING 16" HDPE (LP) LINE, SEE DETAIL 3, SHEET C-08
PIPING PATCH, CONNECT TO EXISTING 16" HDPE (LP) LINE, SEE DETAIL 4, SHEET C-08
COPE PARK ROAD
(ASPHALT SURFACE)
8" C900 PVC
10" HDPE (HP)
16" HDPE (LP)
AREAS OF BEDROCK TRENCHING IDENTIFIED ON AS-BUILT DRAWINGS
SUCTION PIPING, CONNECT TO EXISTING 16" HDPE (LP) LINE, SEE DETAIL 3, SHEET C-08
DISCHARGE PIPING, CONNECT TO EXISTING 10" HDPE (HP) LINE, SEE DETAILS 1 & 2, SHEET C-08
SCALE IN FEET
RECORD OF REVISIONS
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CITY AND BOROUGH OF JUNEAU
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ENGINEERING & PUBLIC WORKS
COPE PARK PUMP STATION REPLACEMENT
BE25-317
CIVIL SITE PLAN
SHEET NUMBER
C-06
June 18, 2025
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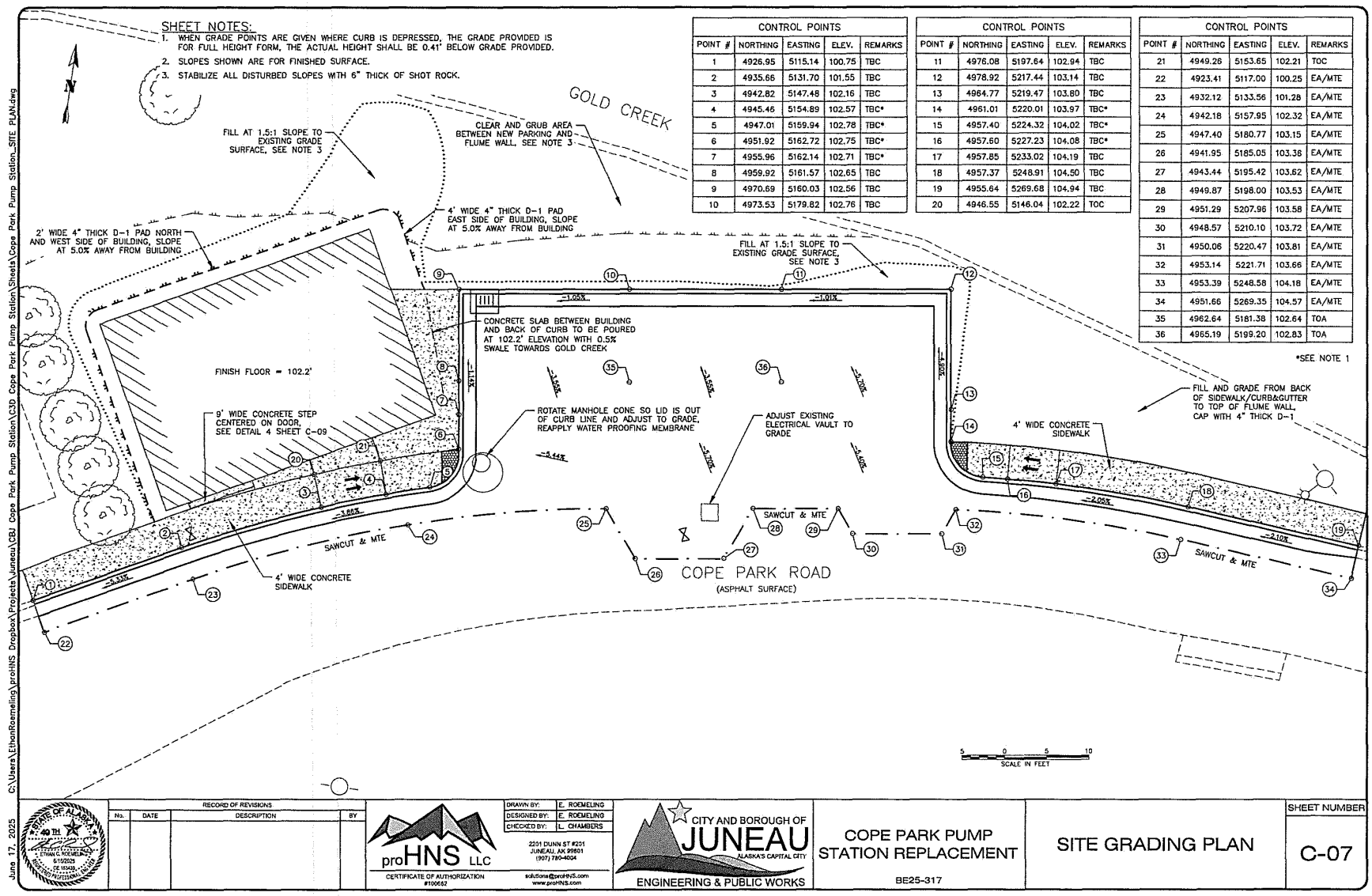

CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEV.	REMARKS
1	4926.95	5115.14	100.75	TBC
2	4935.66	5131.70	101.55	TBC
3	4942.82	5147.48	102.16	TBC
4	4945.46	5154.89	102.57	TBC*
5	4947.01	5159.94	102.78	TBC*
6	4951.92	5162.72	102.75	TBC*
7	4955.96	5162.14	102.71	TBC*
8	4959.92	5161.57	102.65	TBC
9	4970.69	5160.03	102.56	TBC
10	4973.53	5179.82	102.76	TBC

CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEV.	REMARKS
11	4976.08	5197.64	102.94	TBC
12	4978.92	5217.44	103.14	TBC
13	4964.77	5219.47	103.80	TBC
14	4961.01	5220.01	103.97	TBC*
15	4957.40	5224.32	104.02	TBC*
16	4957.60	5227.23	104.08	TBC*
17	4957.85	5233.02	104.19	TBC
18	4957.37	5248.91	104.50	TBC
19	4955.64	5269.68	104.94	TBC
20	4946.55	5146.04	102.22	TOC

CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEV.	REMARKS
21	4949.26	5153.65	102.21	TOC
22	4923.41	5117.00	100.25	EA/MTE
23	4932.12	5133.56	101.28	EA/MTE
24	4942.18	5157.95	102.32	EA/MTE
25	4947.40	5180.77	103.15	EA/MTE
26	4941.95	5185.05	103.38	EA/MTE
27	4943.44	5195.42	103.62	EA/MTE
28	4949.87	5198.00	103.53	EA/MTE
29	4951.29	5207.96	103.58	EA/MTE
30	4948.57	5210.10	103.72	EA/MTE
31	4950.06	5220.47	103.81	EA/MTE
32	4953.14	5221.71	103.66	EA/MTE
33	4953.39	5248.58	104.18	EA/MTE
34	4951.66	5269.35	104.57	EA/MTE
35	4962.64	5181.38	102.64	TOA
36	4965.19	5199.20	102.83	TOA

*SEE NOTE 1

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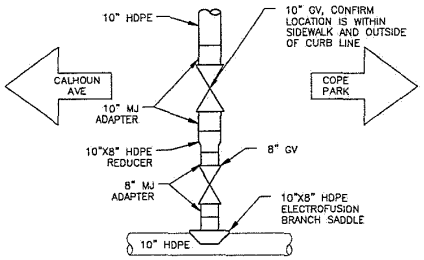
CITY AND BOROUGH OF JUNEAU, ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

SITE GRADING PLAN

SHEET NUMBER
C-07

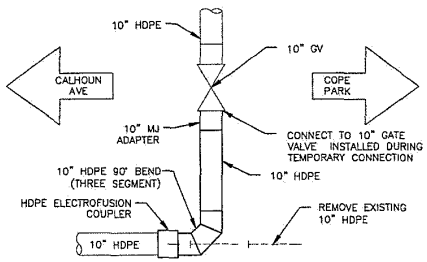
June 17, 2025 C:\Users\EthonRoemeling\proHNS Dropbox\Projects\Juneau\CBJ Cope Park Pump Station\C3D Cope Park Pump Station\Sheets\Cope Park Pump Station_SITE PLAN.dwg



1 C-08 WATERLINE CONNECTION DETAIL
TEMPORARY DISCHARGE LINE
SCALE: NOT TO SCALE

DETAIL 1/C-08 NOTES:

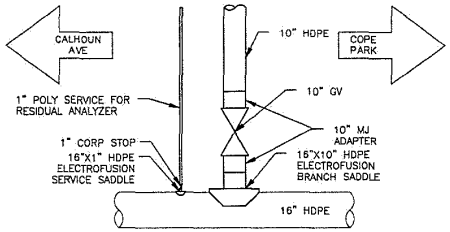
1. HOT TAP EXISTING 10" HDPE (HP) WATER MAIN. CONFIRM THAT ALL REQUIRED PARTS ARE COMPATIBLE WITH CBJ WATER DEPARTMENTS PIPE TAPPING MACHINE.



2 C-08 WATERLINE CONNECTION DETAIL
FINAL DISCHARGE LINE
SCALE: NOT TO SCALE

DETAIL 2/C-08 NOTES:

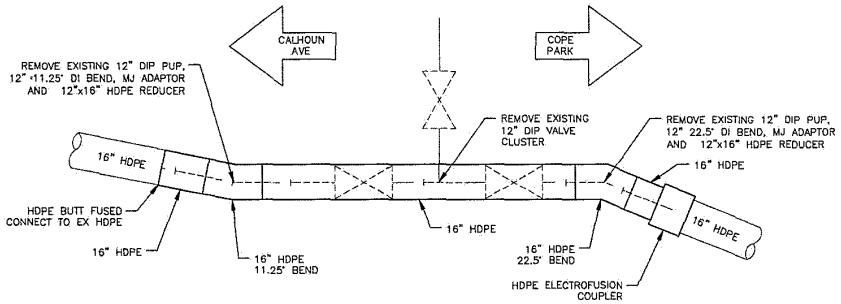
1. THIS CONNECTION WILL REQUIRE ISOLATING THE 10" HDPE (HP) WATER MAIN. THE SYSTEM CAN BE ISOLATED BY CLOSING THE VALVE LOCATED NEAR THE CALHOUN AVENUE INTERSECTION (SEE ISOLATION VALVE SCHEMATIC, SHEET G-02).
2. FINAL CONNECTION TO BE MADE AFTER NEW PUMP STATION HAS BEEN COMMISSIONED.



3 C-08 WATERLINE CONNECTION DETAIL
FINAL SUCTION LINE
SCALE: NOT TO SCALE

DETAIL 3/C-08 NOTES:

1. TAP EXISTING 16" HDPE (LP) WATER MAIN. CONFIRM THAT ALL REQUIRED PARTS ARE COMPATIBLE WITH CBJ WATER DEPARTMENT PIPE TAPPING MACHINE.
2. A HOT TAP IS NOT REQUIRED FOR THIS CONNECTION. THE SYSTEM CAN BE ISOLATED BY CLOSING TWO VALVES LOCATED NEAR THE CALHOUN AVENUE INTERSECTION (SEE ISOLATION VALVE SCHEMATIC, SHEET G-02), AND THE WESTERN MOST VALVE OF THE THREE VALVE CLUSTER LOCATED IN FRONT OF THE EXISTING PUMP STATION.



4 C-08 WATERLINE CONNECTION DETAIL
VALVE CLUSTER REMOVAL
SCALE: NOT TO SCALE

DETAIL 4/C-08 NOTES:

1. THIS CONNECTION WILL REQUIRE ISOLATING THE 16" HDPE (LP) WATER MAIN. THE SYSTEM CAN BE ISOLATED BY CLOSING TWO VALVES LOCATED NEAR THE CALHOUN AVENUE INTERSECTION (SEE ISOLATION VALVE SCHEMATIC, SHEET G-02) AND THE VALVE AT THE EAST END OF COPE PARK ROAD APPROXIMATELY 60' FROM THE END OF THE CONCRETE SIDEWALK.
2. SPLICE TRACER WIRE BETWEEN 16" HDPE LINES.

WATER DETAIL NOTES:

1. SPRAY OR SWAB DISINFECT ALL COMPONENTS TO COME INTO CONTACT WITH POTABLE WATER PER AWWA STANDARDS AND SECTION 02601 SPECIFICATIONS.
2. PRIOR TO COMMISSIONING THE PUMP STATION THE CONTRACTOR SHALL PERFORM BACTERIOLOGICAL TESTING PER SECTION 02601 SPECIFICATIONS.
3. ONCE THIS SECTION OF WATER LINE IS BACK IN SERVICE A VISUAL INSPECTION OF THE JOINTS FOR LEAKS SHALL BE MADE.
4. BED AND BACK FILL WATER LINE CONNECTION PER SECTION 02601, STD. DETAIL 125 AND DETAIL 5 SHEET C-08.
5. ALL ELECTROFUSION BRANCH SADDLES AND SERVICE SADDLES TO BE PRESSURE TESTED AFTER ELECTROFUSION AND PRIOR TO TAPPING.
6. CONTRACTOR TO COORDINATE WITH CBJ WATER DEPARTMENT TO PERFORM BRANCH TAPS.

RECORD OF REVISIONS			
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STATE OF ALASKA 49TH — ETHAN C. ROEMELING — 5/16/2025 — PROFESSIONAL ENGINEER

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CITY AND BOROUGH OF JUNEAU — ALASKA'S CAPITAL CITY — ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

CIVIL DETAILS - 1

SHEET NUMBER
C-08

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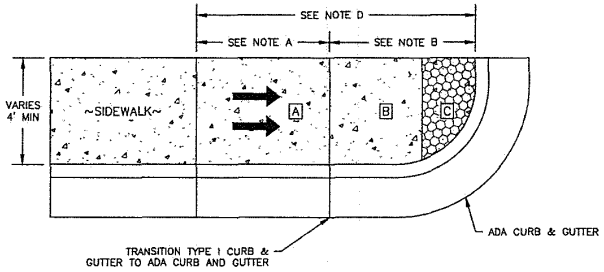


1 C-09 ADA CURB RAMP DETAIL – TYPE I
SCALE: NOT TO SCALE

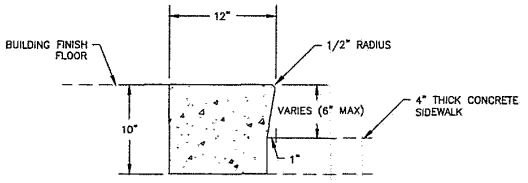
DETAIL 1/C-09 NOTES:

A. CONSTRUCT RAMP SLOPES AT 7.70% NOMINAL GRADE, OR FLATTER. RAMP SLOPES MAY BE INCREASED TO A MAXIMUM 8.33% WHEN SITE CONDITIONS WARRANT IT. 1.50% CROSS SLOPE (MAXIMUM 2.0%).

B. LANDING AREA – 4'x4' MIN DIMENSIONS AND 1.50% SLOPE IN ALL DIRECTIONS (MAXIMUM 2.0%). GRADE TO DRAIN TOWARD GUTTER FLOW LINE.

C. 2'X4' DETECTABLE WARNING TILE. MODIFY AS NECESSARY TO MATCH RADIUS.

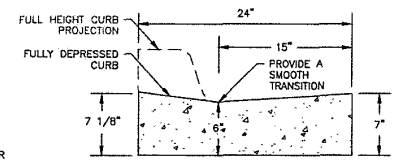
D. ALL CONCRETE SHALL BE 6" IN DEPTH.



4 C-09 CONCRETE DOOR STEP DETAIL
SCALE: NOT TO SCALE

DETAIL 4/C-09 NOTES:

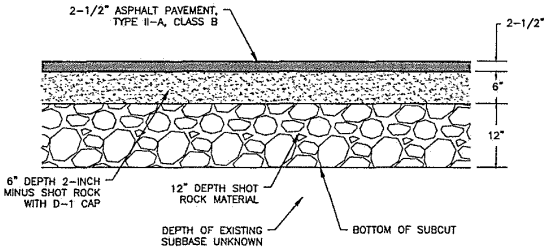
1. CONCRETE TO MEET THE REQUIREMENTS OF CBJ STANDARD DETAIL 111A.



2 C-09 ADA CURB & GUTTER DETAIL
SCALE: NOT TO SCALE

DETAIL 2/C-09 NOTES:

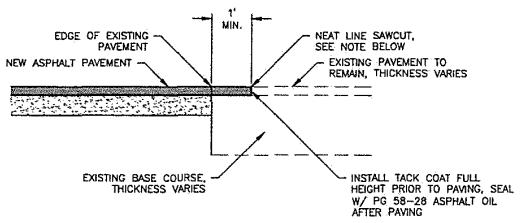
1. ADA CURB & GUTTER DETAIL SHALL BE USED ONLY WHERE SPECIFIED ON THE PLANS. SEE CBJ STANDARD DETAIL 106 FOR ADDITIONAL INFORMATION.
2. SEE CBJ DETAIL 111A FOR FULL HEIGHT TYPE I CURB & GUTTER.
3. USE A SMOOTH TRANSITION BETWEEN FULL HEIGHT CURB AND FULLY DEPRESSED CURB.



5 C-09 PAVING AREA TYPICAL SECTION
SCALE: NOT TO SCALE

DETAIL 5/C-09 NOTES:

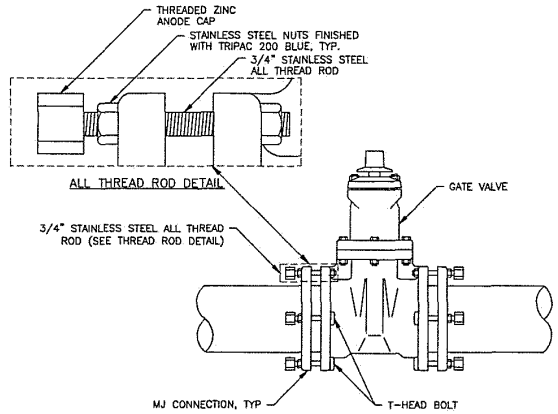
1. COMPACT D-1 BASE COURSE TO MINIMUM 95% OF MODIFIED PROCTOR DENSITY (ASTM D1557)
2. PROOF ROLL BOTTOM OF SUBCUT EXCAVATION SHALL BE PERFORMED USING A MINIMUM 10-TON SELF PROPELLED VIBRATORY COMPACTOR. A MINIMUM OF TWO (2) PASSES (ONE PASS EQUALS DOWN AND BACK) SHALL BE MADE OVER THE SUBCUT SOILS AND AS APPROVED BY THE ENGINEER.
3. AT SITE OF EXISTING PUMP STATION DEMO, VOIDS LEFT BY BUILDING FOUNDATION TO BE FILLED WITH USABLE EX OR BORROW TO BOTTOM OF STRUCTURAL SECTION.



3 C-09 PAVEMENT MATCH JOINT
SCALE: NOT TO SCALE

DETAIL 3/C-09 NOTES:

1. FINAL SAWCUT OF EXISTING ASPHALT SHALL NOT BE MADE UNTIL 24 HOURS PRIOR TO PAVING.



6 C-09 VALVE BOLT CONNECTION DETAIL
SCALE: NOT TO SCALE

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STATE OF ALASKA — 49TH — ETHAN C. ROEMELING — 6/19/2025 — DESIGNED PROFESSIONAL ENGINEER

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COPE PARK PUMP STATION REPLACEMENT
BE25-317

CIVIL DETAILS - 2

SHEET NUMBER
C-09

ABBREVIATIONS

AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTR.
ALT	ALTERNATE
APA	AMERICAN PLYWOOD ASSOCIATION
ARCH	ARCHITECTURAL
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
AWS	AMERICAN WELDING SOCIETY
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BOC	BOTTOM OF CONCRETE
BOD	BOTTOM OF DECK
BOF	BOTTOM OF FOOTING
BOS	BOTTOM OF STEEL
BOT	BOTTOM
BTWN	BETWEEN
℄	CENTER LINE
CIP	CAST IN PLACE (CONCRETE)
CJ	CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
CVN	CHARPY V NOTCH
CY	CUBIC YARD
DBL	DOUBLE
DIAG	DIAGONAL
DIAM	DIAMETER
DWGS	DWGS
(E)	EXISTING
EA	EACH
ELEC	ELECTRICAL
EL/ELEV	ELEVATION
EMBED	EMBED
EOR	ENGINEER OF RECORD
ESR	EVALUATION SERVICES REPORT
EQ	EQUAL
EW	EACH WAY
FC	CONCRETE COMPRESSIVE STRENGTH
FM	MASONRY COMPRESSIVE STRENGTH
FDN	FOUNDATION
FOC	FACE OF CONCRETE
FT	FEET
FTG	FOOTING
GA	GAGE OR GAUGE
GALV	GALVANIZED
GB	GRADE BREAK
GLB	GLUE-LAMINATED BEAM
GR	GRADE
HI	HIGH
HORIZ	HORIZONTAL
HS	HEADED STUD
HSH	HORIZONTAL SLOTTED HOLE
HSS	HOLLOW STRUCTURAL SECTION
IBC	INTERNATIONAL BUILDING CODE
ICC	INTERNATIONAL CODE COUNCIL
IE	INVERT ELEVATION
INV	INVERT
LBS	POUNDS
LO	LOW
LVL	LAMINATED VENEER LUMBER
LW	LONG WAY
MAX	MAXIMUM
MECH	MECHANICAL
MF	MOMENT FRAME
MIN	MINIMUM
MT	MAGNETIC PARTICLE STRIP
NA	NOT APPLICABLE
NFS	NON FROST SUSCEPTIBLE
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OPP	OPPOSITE HAND
OWSJ	OPEN WEB STEEL JOIST
PCF	POUNDS PER CUBIC FOOT
PEMB	PRE-ENGINEERED METAL BUILDING
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
REQ	REQUIRED
REINF	REINFORCING
RT	RADIOGRAPHIC TEST
SCHD	SCHEDULE
SDI	STEEL DECK INSTITUTE
SIM	SIMILAR
SJI	STEEL JOIST INSTITUTE
SQ	SQUARE
STD	STANDARD
SW	SHORT WAY
TBD	TO BE DETERMINED
TEMP	TEMPERATURE
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOS	TOP OF STEEL
TS	TUBE STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UT	ULTRASONIC
VERT	VERTICAL
W	WIDE FLANGE DESIGNATION
WF	WIDE FLANGE
WP	WORK POINT WELDED
WWF	WIRE FABRIC
W/	WITH
ø	DIAMETER

SCHEDULE OF CONSTRUCTION MATERIALS

CONCRETE	LOCATION	28-DAY STRENGTH	MAX. W/C RATIO	AIR ENTRAINMENT
	EXTERIOR CONCRETE (EXPOSED TO FREEZING)	4,000 P.S.I.	0.45	6% +/- 1%
	INTERIOR SLABS (NOT EXPOSED TO FREEZING)	4,000 P.S.I.	0.45	3%
	FOOTINGS, FOUNDATION WALLS, GRADE BEAMS	4,000 P.S.I.	0.45	6% +/- 1%

REINFORCING	APPLICATION	TYPE	COMMENTS
	FABRICATED AND STRAIGHT BARS	ASTM A615, GRADE 60	SEE LAP SPLICE SCHEDULE FOR LAP LENGTHS
	FIELD BENT	ASTM A615, GRADE 60	

STRUCTURAL STEEL	APPLICATION	TYPE	GRADE	Fy
	PLATE & BAR	ASTM A572	GRADE 50	50 KSI
	ANCHOR RODS	ASTM F1554	GRADE 36	36 KSI

WOOD	APPLICATION	SPECIES	GRADE	COMMENTS
	DIMENSION LUMBER — STRUCTURAL WALL STUDS	HEM-FIR	NO. 2	
	DIMENSION LUMBER — PLATES AND LEDGERS	HEM-FIR	NO. 2	
	DIMENSION LUMBER — SAWN BEAMS	DOUG. FIR-LARCH	NO. 1	
	DIMENSION LUMBER — POSTS	DOUG. FIR-LARCH	NO. 1	
	DIMENSION LUMBER — BLOCKING, MISC FRAMING	HEM-FIR	STD & BETTER	

		ALLOWABLE STRESSES -P.S.I.						
		SPECIES COMB	Fb TENSION ZONE	Fb COMP ZONE	Fv	Fc TENSION ZONE	Fc COMP ZONE	1.0 E 6
GLUED-LAMINATED BEAMS	SIMPLE SPANS	DF V4	2400	1850	190	650	650	1.8

WOOD PANEL SHEATHING	APPLICATION	GRADE	MIN. THICK	SPAN RATING	EXPOSURE
	ROOF	APA RATED	23/32"	48/24	EXPOSURE 1
	FLOORS	APA RATED	23/32"	48/24	EXPOSURE 1
	SHEAR WALLS	APA RATED	15/32"	32/16	EXPOSURE 1

STRUCTURAL DESIGN CRITERIA SCHEDULE

CRITERIA	DESCRIPTION	VALUE	COMMENTS
CODE	IBC 2021		AS AMENDED BY THE STATE OF ALASKA & THE CITY & BOROUGH OF JUNEAU
SEISMIC	ANALYSIS PROCEDURE	ELF	PER ASCE 7-16
	SEISMIC DESIGN CATEGORY	D	
	RISK CATEGORY	II	
	SEISMIC IMPORTANCE FACTOR, IE	1.00	
	SITE CLASS	D	
	0.2S SPECTRAL RESPONSE ACCELERATION, Ss	0.534g	
	1.0S SPECTRAL RESPONSE ACCELERATION, S1	0.358g	
	0.2S SPECTRAL RESPONSE COEFFICIENT, Sds	0.489g	
	1.0S SPECTRAL RESPONSE COEFFICIENT, Sd1	0.466g	
	STRUCTURAL SYSTEM RESPONSE MODIFICATION FACTOR R=	6.5	LIGHT FRAME WALLS WITH WOOD STRUCTURAL PANELS
WIND	BASIC WIND SPEED (3 SECOND GUST)	143 MPH	
	RISK CATEGORY	II	
	EXPOSURE FACTOR	C	
	INTERNAL PRESSURE COEFFICIENT, GCpi	±0.18	ENCLOSED BUILDING
ROOF LIVE LOADS	GROUND SNOW LOAD	70 PSF	PER CBJ
	SNOW LOAD EXPOSURE FACTOR	1.0	
	THERMAL FACTOR Ct	1.1	
	SNOW IMPORTANCE FACTOR	1.2	
	FLAT ROOF SNOW LOAD	65 PSF	
	SNOW DRIFT LOADS	PER ASCE 7-16	
LIVE LOADS	SLAB ON GRADE	125 PSF	
	ROOF LIVE LOAD	20 PSF	
FOUNDATIONS	ALLOWABLE SOIL BEARING PRESSURE	2000 PSF	PRESUMPTIVE BEARING PRESSURE PER IBC TABLE 1806.2

DEFERRED SUBMITTALS

DEFERRED SUBMITTAL ITEMS SHALL BE REVIEWED BY THE EOR AND THEN SUBMITTED TO THE BUILDING OFFICIAL.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING CALCULATION AND DRAWINGS STAMPED BY AN ALASKA REGISTERED PROFESSIONAL ENGINEER FOR THE FOLLOWING CONTRACTOR DESIGNED ITEMS:

- SEISMIC RESTRAINT OF ARCHITECTURAL, MECHANICAL AND ELECTRICAL COMPONENTS
- CRANE RAIL DESIGN COMPONENTS AND ATTACHMENTS
- GENERATOR ANCHORAGE AND RESTRAINT TO CONCRETE SLAB & ITS COMPONENT.

STATE OF ALASKA — 49TH — Matthew B. Hohn — CE-11942 — REGISTERED PROFESSIONAL ENGINEER — 6/12/25

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

PND ENGINEERS, INC.
CERTIFICATE OF AUTHORIZATION C.A.N.: AECC250

DRAWN BY:	DRD
DESIGNED BY:	MBH
CHECKED BY:	MBH

PND ENGINEERS, INC.
9360 GLACIER HWY STE 100
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CITY AND BOROUGH OF JUNEAU — ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

STRUCTURAL GENERAL NOTES

SHEET NUMBER
S-01

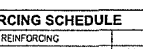
June 17, 2025 N:\23xxx\232014 Cope Park Pump Station\G. Drawings\Structural

SLAB REINFORCING SCHEDULE

THICKNESS	TYPE	REINFORCING	CONCRETE COVER
6"	ON GRADE	#4 @ 12" O.C. EACH WAY	MID-DEPTH
4"	HOUSEKEEPING	#4 @ 12" O.C. EACH WAY	MID-DEPTH

ACI STANDARD 90° HOOK DIMENSIONS

BAR SIZE	#3	#4	#5	#6	#7	#8
MIN. BEND DIAM. (d)	2¼"	3"	3¾"	4½"	5¼"	6"
EXTENSION LENGTH (L)	6"	8"	10"	12"	14"	16"



NOTE: REFERENCE ACI 318-05 SEC. 7.1 & 12.5.4

LAP SPLICES

BAR SIZE	#3	#4	#5	#6	#7	#8
CLASS B SPLICE	28"	37"	47"	56"	81"	93"

NOTE: INCREASE TABULATED LAP LENGTH BY 20% FOR BUNDLES OF 3 BARS

REINFORCING CLEARANCE/COVER

EXPOSURE CONDITION	MIN. COVER	TOLERANCE*
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"	-3/8", +1"
EXPOSED TO EARTH OR WEATHER #5 AND SMALLER BARS:	1-1/2"	-1/4", +1/2"
#6 AND LARGER BARS:	2"	-1/4", +1/2"
NOT EXPOSED TO EARTH, WEATHER OR IN CONTACT WITH GROUND:	3/4"	-1/4", +3/8"
TIES AND STIRRUPS	1-1/2"	-1/4", +1/2"

NOTES: "-" INDICATES TOLERANCE DECREASE TOWARDS MEMBER FACE. "+" INDICATES AWAY FROM MEMBER FACE.

REQUIRED VERIFICATION AND INSPECTION OF CONCRETE

	VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION	REFERENCE FOR CRITERIA: REF. STANDARD	REFERENCE FOR CRITERIA: IBC REFERENCE
1	INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT	PERIODIC	ACI 318: 3.5, 7.1-7.7	1910.4
2	INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2, ITEM 2b	PERIODIC	AWS D1.4 ACI 318: 3.5.2	
3	INSPECTION OF ANCHORS CAST IN CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED	PERIODIC	ACI 318: 8.1.3, 21.2.8	1908.5, 1909.1
4	INSPECTION OF ANCHORS POST INSTALLED IN HARDENED CONCRETE MEMBERS	PERIODIC	ACI 318: 3.8.6, 8.1.3, 21.2.8	1909.1
5	VERIFY USE OF REQUIRED MIX DESIGN	PERIODIC	ACI 318: 4, 5.2-5.4	1904.3, 1910.2, 1910.3
6	AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	CONTINUOUS	ASTM C172 ASTM C31 ACI 318: 5.6, 5.8	1910.10
7	INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	CONTINUOUS	ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8
8	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TECHNIQUES	PERIODIC	ACI 318: 5.11-5.13	1910.9
9	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	PERIODIC	ACI 318: 6.11	

REQUIRED INSPECTION OF SOILS

	VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION	REMARKS
1	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	PERIODIC	
2	VERIFY EXCAVATIONS EXTEND TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	PERIODIC	
3	PERFORM CLASSIFICATION AND TESTING OF FILL MATERIALS.	PERIODIC	
4	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	CONTINUOUS	
5	PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY.	PERIODIC	

STATEMENT OF SPECIAL INSPECTIONS

THE FOLLOWING SPECIAL INSPECTIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL EMPLOYED BY THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT.

SPECIAL INSPECTOR QUALIFICATIONS:
THE SPECIAL INSPECTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO THE BUILDING OFFICIAL DEMONSTRATING THEIR COMPETENCE AND RELEVANT EXPERIENCE OR TRAINING.

INSPECTION TASKS:
INSPECTION TASKS ARE LISTED IN THE ATTACHED TABLES AND IN THE 2021 EDITION OF THE IBC CHAPTER 17.

FABRICATOR APPROVAL:
SPECIAL INSPECTIONS REQUIRED BY SECTION 1705 ARE NOT REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION (IBC 1704.2.5.). HOWEVER, NON DESTRUCTIVE TESTING REQUIREMENTS CANNOT BE WAIVED PER AISC 360-16 CHAPTER N. THE CONTRACTOR'S FABRICATOR SHALL PERFORM OR ENGAGE A QUALIFIED TESTING AGENCY TO PERFORM REQUIRED TESTING ON THE PREMISES OF THE FABRICATOR. TESTING DOCUMENTATION SHOWING COMPLIANCE SHALL BE SUBMITTED TO THE OWNER UPON COMPLETION OF TESTING.

REPORT REQUIREMENTS:
REPORTS SHALL BE COMPLETED ON A DAILY BASIS AND DISTRIBUTED ON A WEEKLY BASIS. COPIES OF REPORTS SHALL BE DISTRIBUTED TO THE GENERAL CONTRACTOR, THE ENGINEER OF RECORD AND THE ARCHITECT OF RECORD. REPORTS SHALL INDICATE WHETHER THE WORK WAS OR WAS NOT COMPLETED IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR. IF THEY ARE NOT CORRECTED, DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. A FINAL REPORT DOCUMENTING THE SPECIAL INSPECTIONS PERFORMED AND THE CORRECTION OF ANY DISCREPANCIES SHALL BE DISTRIBUTED AS NOTED ABOVE.

STRUCTURAL OBSERVATIONS:
THE OWNER SHALL EMPLOY THE REGISTERED DESIGN PROFESSIONAL TO PERFORM STRUCTURAL OBSERVATIONS AS REQUIRED PER IBC CH 1704.6

STRUCTURAL GENERAL NOTES

FOUNDATION
FOUNDATION HAS BEEN DESIGNED WITH AN ALLOWABLE BEARING PRESSURE OF 2,000 PSF BASED UPON THE ANTICIPATION OF ENCOUNTERING TYPE 4 SOILS (SAND, SILTY SAND, CLAYEY SAND, SILTY GRAVEL, AND CLAYEY GRAVEL) AS DEFINED BY TABLE 1806.2 IN THE IBC AT LIMIT OF FOUNDATION. FOUNDATIONS SHALL BEAR ON COMPACTED BASE COURSE OVER COMPACTED NATIVE MATERIAL OR STRUCTURAL FILL.

CONTRACTOR SHALL VERIFY CONDITIONS AT THE LIMIT OF EXCAVATION. SHOULD ANY DEBRIS, GARBAGE, MUCK, FROZEN MATERIAL, ORGANICS OR OTHER UNDESIRABLE OR SOFT MATERIAL BE ENCOUNTERED, CONTRACTOR SHALL REMOVE SUCH MATERIAL AND REPLACE WITH WELL-GRADED SANDY GRAVEL AND PLACE IN LIFTS OF LOOSE THICKNESS NOT GREATER THAN 8 INCHES AND COMPACT WITH A MINIMUM LEVEL OF EFFORT OF 6 PASSES WITH A VIBRATORY DOUBLE DRUM ROLLER OR PLATE COMPACTOR WITH A MINIMUM RATING OF 10,000 POUNDS. CONTRACTOR SHALL NOTIFY THE EOR IF CONDITIONS AT THE LIMIT OF EXCAVATION VARY FOR THE SOILS NOTED ABOVE.

CONTRACTOR SHALL EXCAVATE 32" BELOW FINAL AT-GRADE ELEVATION AND PLACE NON-FROST SUSCEPTIBLE FILL. IN-SITU MATERIAL IS ACCEPTABLE IF FOUND TO BE NON-FROST SUSCEPTIBLE. IF IN-SITU MATERIAL IS NOT ACCEPTABLE, CONTRACTOR SHALL REMOVE UNACCEPTABLE SOILS AND REPLACE MATERIAL WITH UNDISTURBED GRANULAR SOILS OR FILL MATERIAL WITH LESS THAN 5% OF MASS PASSING A #200 (0.074 MM) MESH SIEVE IN ACCORDANCE WITH ASTM D422 OR OTHER NON-FROST SUSCEPTIBLE MATERIALS APPROVED BY THE ENGINEER. CLASSIFICATION OF FROST SUSCEPTIBILITY OF SOIL SHALL BE DETERMINED BY AN ENGINEER, UNLESS OTHERWISE APPROVED. PROOF COMPACT FILL PER PROCEDURE LISTED BELOW. SEE PLANS FOR LIMITS OF OVER-EXCAVATION FOR FOUNDATION.

AS-BUILT DRAWINGS
CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS ON SITE, MODIFIED TO REFLECT ALL DESIGN CHANGES TO THE ORIGINAL DRAWING SET.

PND ENGINEERS INC IS NOT RESPONSIBLE FOR SAFETY PROGRAMS, METHODS, OR PROCEDURES OF OPERATION, OR THE CONSTRUCTION OF THE DESIGN SHOWN ON THESE DRAWINGS. DRAWINGS ARE FOR USE ON THIS PROJECT ONLY AND ARE NOT INTENDED FOR REUSE WITHOUT WRITTEN APPROVAL FROM PND. DRAWINGS ARE ALSO NOT TO BE USED IN ANY MANNER THAT WOULD CONSTITUTE A DETRIMENT DIRECTLY OR INDIRECTLY TO PND.

N:\23xxx\232014 Cope Park Pump Station\C. Drawings\Structural

June 17, 2025

STATE OF ALASKA — 9231 — Matthew B. Holm — CE-11842 — REGISTERED PROFESSIONAL ENGINEER — 6/12/25

RECORD OF REVISIONS

No.	DATE	DESCRIPTION	BY

PND ENGINEERS, INC

DRAWN BY:	DRD
DESIGNED BY:	MBH
CHECKED BY:	MBH

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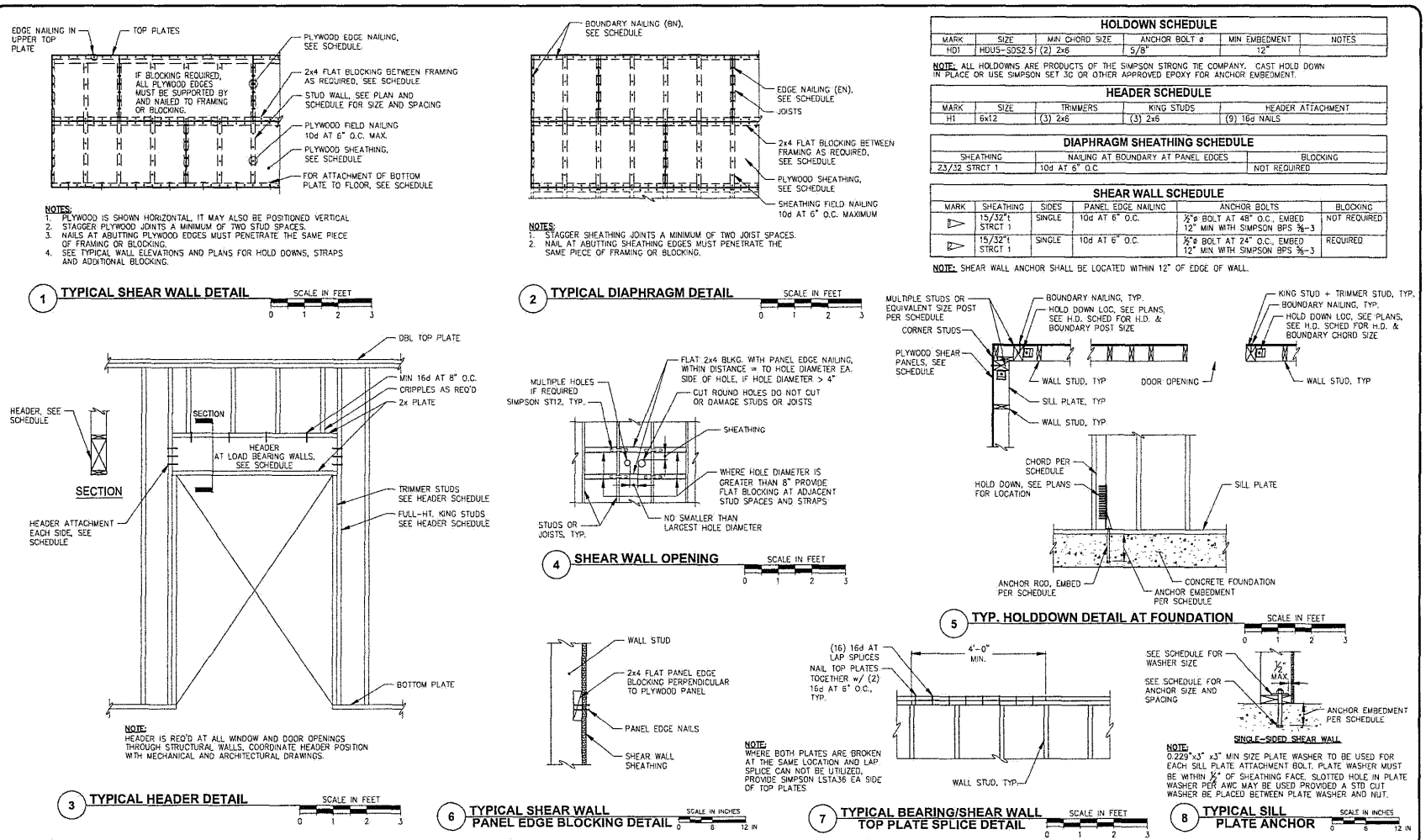
PND #232014

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

STANDARD DETAILS AND SPECIAL INSPECTIONS

SHEET NUMBER
S-02


EDGE NAILING IN UPPER TOP PLATE
TOP PLATES
PLYWOOD EDGE NAILING, SEE SCHEDULE
IF BLOCKING REQUIRED, ALL PLYWOOD EDGES MUST BE SUPPORTED BY AND NAILED TO FRAMING OR BLOCKING.
2x4 FLAT BLOCKING BETWEEN FRAMING AS REQUIRED, SEE SCHEDULE
STUD WALL, SEE PLAN AND SCHEDULE FOR SIZE AND SPACING
PLYWOOD FIELD NAILING 10d AT 6" O.C. MAX.
PLYWOOD SHEATHING, SEE SCHEDULE
FOR ATTACHMENT OF BOTTOM PLATE TO FLOOR, SEE SCHEDULE
NOTES:
1. PLYWOOD IS SHOWN HORIZONTAL. IT MAY ALSO BE POSITIONED VERTICAL
2. STAGGER PLYWOOD JOINTS A MINIMUM OF TWO STUD SPACES.
3. NAILS AT ABUTTING PLYWOOD EDGES MUST PENETRATE THE SAME PIECE OF FRAMING OR BLOCKING.
4. SEE TYPICAL WALL ELEVATIONS AND PLANS FOR HOLD DOWNS, STRAPS AND ADDITIONAL BLOCKING.
1 TYPICAL SHEAR WALL DETAIL
SCALE IN FEET
0 1 2 3
BOUNDARY NAILING (BN), SEE SCHEDULE
EDGE NAILING (EN), SEE SCHEDULE
JOISTS
2x4 FLAT BLOCKING BETWEEN FRAMING AS REQUIRED, SEE SCHEDULE
PLYWOOD SHEATHING, SEE SCHEDULE
SHEATHING FIELD NAILING 10d AT 6" O.C. MAXIMUM
NOTES:
1. STAGGER SHEATHING JOINTS A MINIMUM OF TWO JOIST SPACES.
2. NAIL AT ABUTTING SHEATHING EDGES MUST PENETRATE THE SAME PIECE OF FRAMING OR BLOCKING.
2 TYPICAL DIAPHRAGM DETAIL
SCALE IN FEET
0 1 2 3
HOLDOWN SCHEDULE
MARK | SIZE | MIN CHORD SIZE | ANCHOR BOLT ø | MIN EMBEDMENT | NOTES
HD1 | HDU5-SDS2.5 | (2) 2x6 | 5/8" | 12"
NOTE: ALL HOLDOWNS ARE PRODUCTS OF THE SIMPSON STRONG TIE COMPANY. CAST HOLD DOWN IN PLACE OR USE SIMPSON SET 3G OR OTHER APPROVED EPOXY FOR ANCHOR EMBEDMENT.
HEADER SCHEDULE
MARK | SIZE | TRIMMERS | KING STUDS | HEADER ATTACHMENT
H1 | 6x12 | (3) 2x6 | (3) 2x6 | (9) 16d NAILS
DIAPHRAGM SHEATHING SCHEDULE
SHEATHING | NAILING AT BOUNDARY AT PANEL EDGES | BLOCKING
23/32 STRCT 1 | 10d AT 6" O.C. | NOT REQUIRED
SHEAR WALL SCHEDULE
MARK | SHEATHING | SIDES | PANEL EDGE NAILING | ANCHOR BOLTS | BLOCKING
SW1 | 15/32"ϕ STRCT 1 | SINGLE | 10d AT 6" O.C. | ½"ø BOLT AT 48" O.C., EMBED 12" MIN WITH SIMPSON BPS ⅜-3 | NOT REQUIRED
SW2 | 15/32"ϕ STRCT 1 | SINGLE | 10d AT 6" O.C. | ½"ø BOLT AT 24" O.C., EMBED 12" MIN WITH SIMPSON BPS ⅜-3 | REQUIRED
NOTE: SHEAR WALL ANCHOR SHALL BE LOCATED WITHIN 12" OF EDGE OF WALL.
DBL TOP PLATE
MIN 16d AT 8" O.C.
CRIPPLES AS REQ'D
2x PLATE
HEADER, SEE SCHEDULE
SECTION
HEADER AT LOAD BEARING WALLS, SEE SCHEDULE
SECTION
HEADER ATTACHMENT EACH SIDE, SEE SCHEDULE
TRIMMER STUDS SEE HEADER SCHEDULE
FULL-HT. KING STUDS SEE HEADER SCHEDULE
BOTTOM PLATE
NOTE:
HEADER IS REQ'D AT ALL WINDOW AND DOOR OPENINGS THROUGH STRUCTURAL WALLS. COORDINATE HEADER POSITION WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.
3 TYPICAL HEADER DETAIL
SCALE IN FEET
0 1 2 3
MULTIPLE HOLES IF REQUIRED SIMPSON ST12, TYP.
FLAT 2x4 BLKG. WITH PANEL EDGE NAILING, WITHIN DISTANCE = TO HOLE DIAMETER EA. SIDE OF HOLE, IF HOLE DIAMETER > 4"
CUT ROUND HOLES DO NOT CUT OR DAMAGE STUDS OR JOISTS
SHEATHING
WHERE HOLE DIAMETER IS GREATER THAN 8" PROVIDE FLAT BLOCKING AT ADJACENT STUD SPACES AND STRAPS
NO SMALLER THAN LARGEST HOLE DIAMETER
STUDS OR JOISTS, TYP.
4 SHEAR WALL OPENING
SCALE IN FEET
0 1 2 3
MULTIPLE STUDS OR EQUIVALENT SIZE POST PER SCHEDULE
CORNER STUDS
PLYWOOD SHEAR PANELS, SEE SCHEDULE
BOUNDARY NAILING, TYP.
HOLD DOWN LOC, SEE PLANS, SEE H.D. SCHED FOR H.D. & BOUNDARY POST SIZE
WALL STUD, TYP
SILL PLATE, TYP
WALL STUD, TYP
DOOR OPENING
KING STUD + TRIMMER STUD, TYP.
BOUNDARY NAILING, TYP.
HOLD DOWN LOC, SEE PLANS, SEE H.D. SCHED FOR H.D. & BOUNDARY CHORD SIZE
WALL STUD, TYP
CHORD PER SCHEDULE
HOLD DOWN, SEE PLANS FOR LOCATION
SILL PLATE
ANCHOR ROD, EMBED PER SCHEDULE
CONCRETE FOUNDATION
ANCHOR EMBEDMENT PER SCHEDULE
5 TYP. HOLDDOWN DETAIL AT FOUNDATION
SCALE IN FEET
0 1 2 3
WALL STUD
2x4 FLAT PANEL EDGE BLOCKING PERPENDICULAR TO PLYWOOD PANEL
PANEL EDGE NAILS
SHEAR WALL SHEATHING
6 TYPICAL SHEAR WALL PANEL EDGE BLOCKING DETAIL
SCALE IN INCHES
0 6 12 IN
(16) 16d AT LAP SPLICES
NAIL TOP PLATES TOGETHER w/ (2) 16d AT 6" O.C., TYP.
4'-0" MIN.
WALL STUD, TYP.
NOTE:
WHERE BOTH PLATES ARE BROKEN AT THE SAME LOCATION AND LAP SPLICE CAN NOT BE UTILIZED, PROVIDE SIMPSON LSTA36 EA SIDE OF TOP PLATES
7 TYPICAL BEARING/SHEAR WALL TOP PLATE SPLICE DETAIL
SCALE IN FEET
0 1 2 3
SEE SCHEDULE FOR WASHER SIZE
SEE SCHEDULE FOR ANCHOR SIZE AND SPACING
½" MAX
ANCHOR EMBEDMENT PER SCHEDULE
SINGLE-SIDED SHEAR WALL
NOTE:
0.229"x3" x3" MIN SIZE PLATE WASHER TO BE USED FOR EACH SILL PLATE ATTACHMENT BOLT. PLATE WASHER MUST BE WITHIN ½" OF SHEATHING FACE. SLOTTED HOLE IN PLATE WASHER PER AWC MAY BE USED PROVIDED A STD CUT WASHER BE PLACED BETWEEN PLATE WASHER AND NUT.
8 TYPICAL SILL PLATE ANCHOR
SCALE IN INCHES
0 6 12 IN
STATE OF ALASKA
49TH
Matthew B. Hahn
CE-11342
PROFESSIONAL ENGINEER
6/12/25
RECORD OF REVISIONS
No. | DATE | DESCRIPTION | BY
DRAWN BY: DRD
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COPE PARK PUMP STATION REPLACEMENT
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STANDARD DETAILS
SHEET NUMBER
S-03
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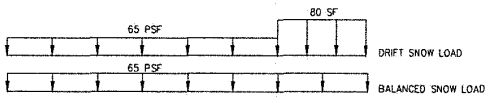
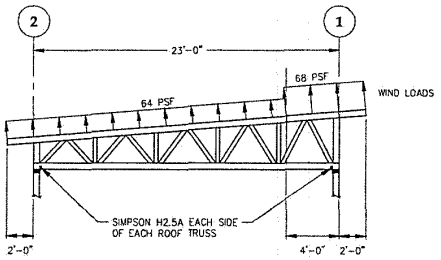
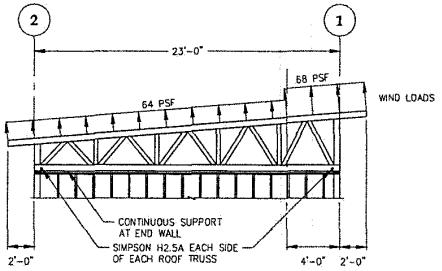


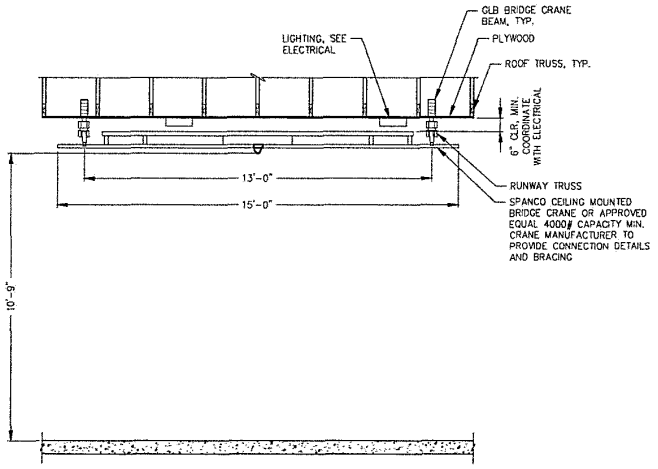


A TYPICAL TRUSS ELEVATION



B END WALL TRUSS ELEVATION

NOTES:
1) WIND LOADS ARE ULTIMATE (LRFD). MULTIPLY BY 0.6 FOR SERVICE (ASD) LOADS.
2) SNOW LOAD APPLIES TO ALL TRUSSES.
3) TRUSS TOP CHORD DEAD LOAD = 15 PSF. ADD ADDITIONAL DEAD LOAD FOR OVERFRAMING TRUSSES WHERE APPLICABLE.
4) TRUSS BOTTOM CHORD DEAD LOAD = 10 PSF.
5) TRUSS BOTTOM CHORD LIVE LOAD = 20 PSF UNO IN SECTION 4.12.1 AND 4.12.2 OF ASCE 7-16.
6) TRUSS BRACING PER MANUFACTURER.



C BRIDGE CRANE SECTION

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STATE OF ALASKA — 49TH — Matthew B. Hahn — CE-11942 — REGISTERED PROFESSIONAL ENGINEER — 6/12/25

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

PND ENGINEERS, INC. — CERTIFICATE OF AUTHORIZATION C.A.N.: AECC250

DRAWN BY:	DRD
DESIGNED BY:	MBH
CHECKED BY:	MBH

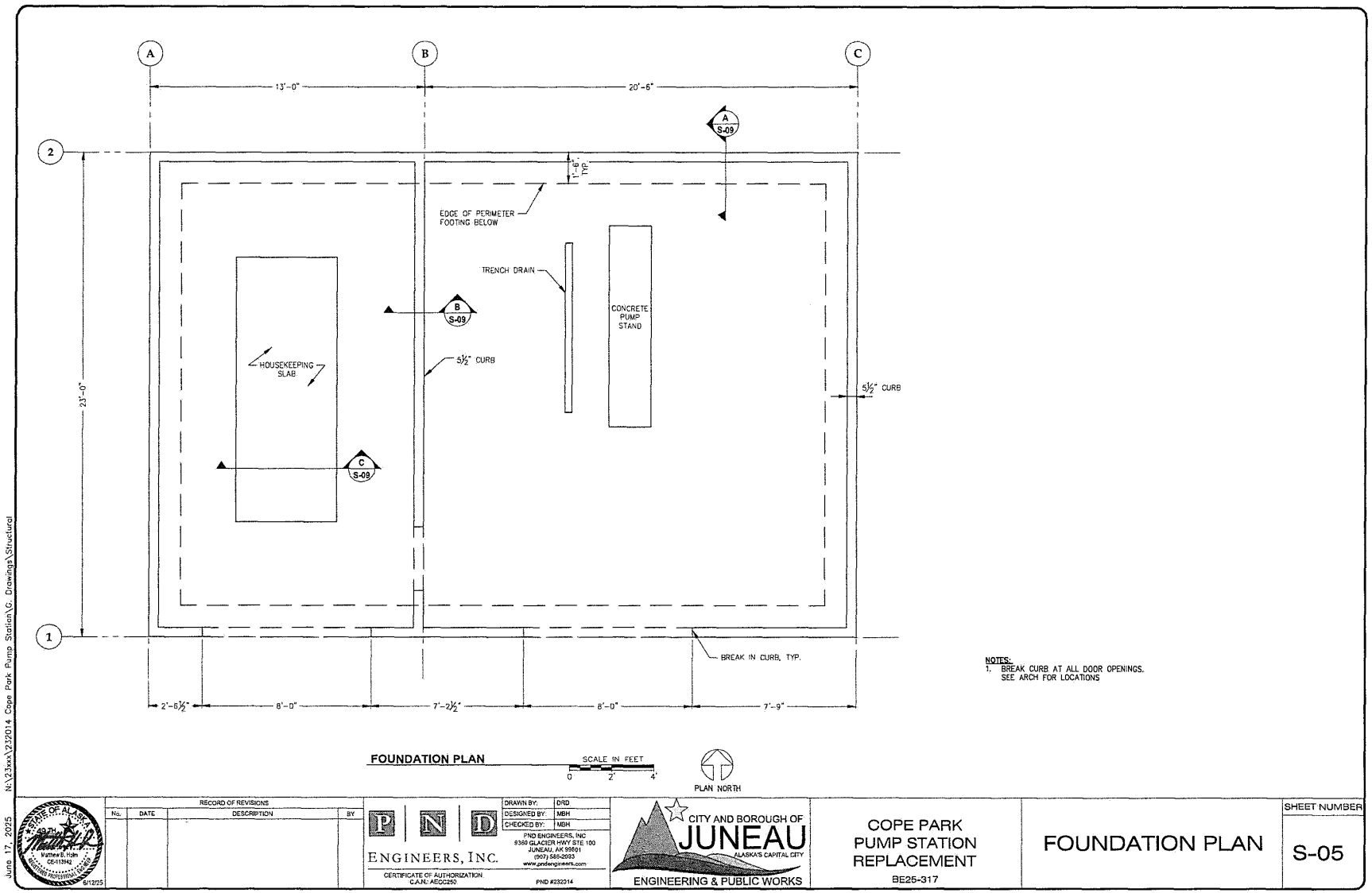
PND ENGINEERS, INC
9360 GLACIER HWY STE 100
JUNEAU, AK 99801
(907) 586-2033
www.pndengineers.com
PND #232014

CITY AND BOROUGH OF JUNEAU — ALASKA'S CAPITAL CITY — ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

ROOF TRUSS LOADING DIAGRAM AND BRIDGE CRANE

SHEET NUMBER
S-04



June 17, 2025 N:\23xxx\232014 Cope Park Pump Station\G- Drawings\Structural

STATE OF ALASKA — Matthew B. Hahn — CE-11942 — 6/12/25

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

PND ENGINEERS, INC
CERTIFICATE OF AUTHORIZATION C.A.N.: AECC250

DRAWN BY:	DRD
DESIGNED BY:	MBH
CHECKED BY:	MBH

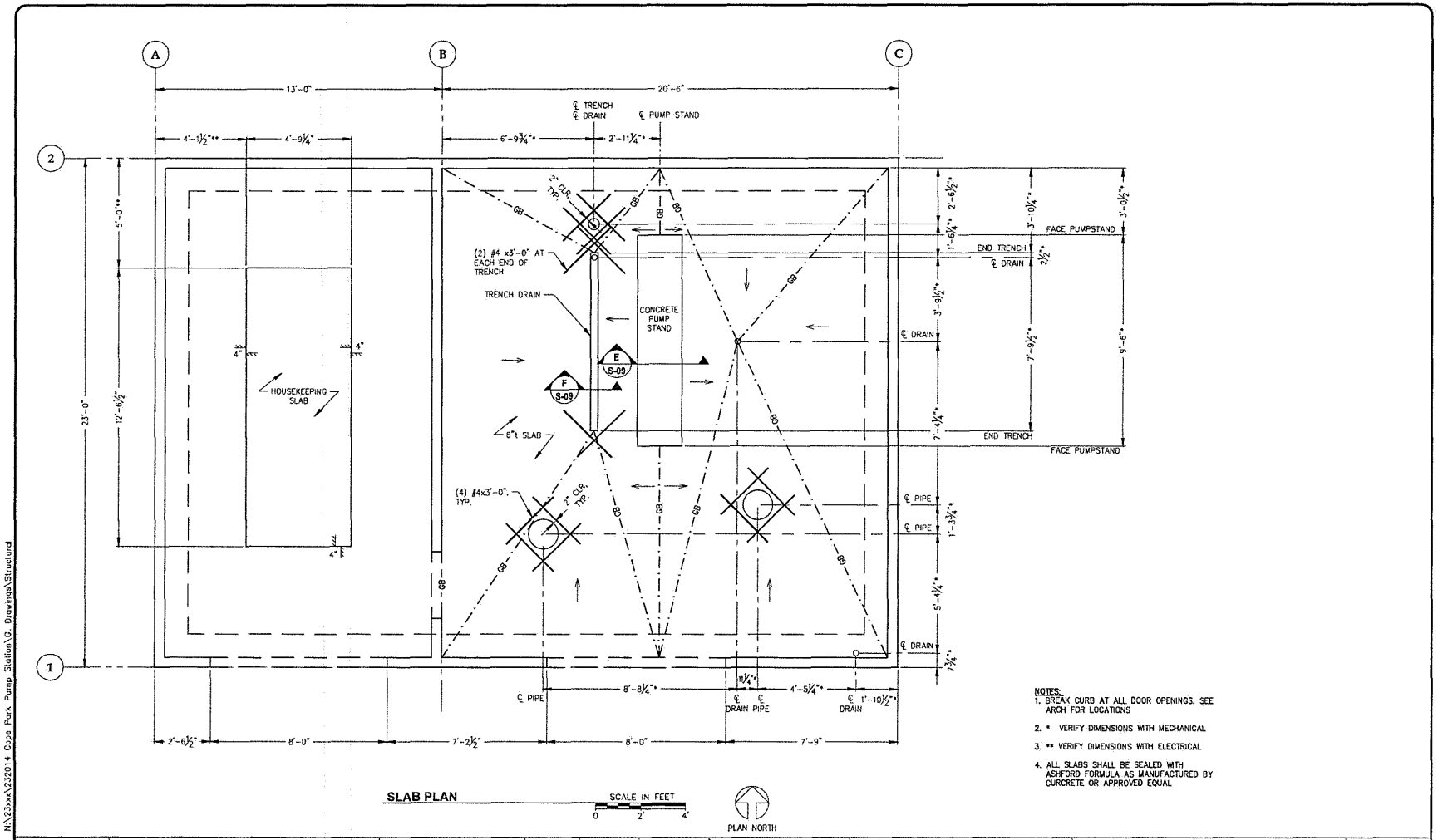
PND ENGINEERS, INC
9360 GLACIER HWY STE 100
JUNEAU, AK 99801
(907) 586-2093
www.pndengineers.com
PND #232014

CITY AND BOROUGH OF JUNEAU — ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK
PUMP STATION
REPLACEMENT
BE25-317

FOUNDATION PLAN

SHEET NUMBER
S-05



NOTES:
1. BREAK CURB AT ALL DOOR OPENINGS. SEE ARCH FOR LOCATIONS
2. * VERIFY DIMENSIONS WITH MECHANICAL
3. ** VERIFY DIMENSIONS WITH ELECTRICAL
4. ALL SLABS SHALL BE SEALED WITH ASHFORD FORMULA AS MANUFACTURED BY CURCRETE OR APPROVED EQUAL

SLAB PLAN SCALE IN FEET 0 2' 4'

PLAN NORTH

June 17, 2025 N:\23xxx\232014 Cope Park Pump Station\G. Drawings\Structural

STATE OF ALASKA — 49TH — Matthew B. Hahn — CE-11342 — PROFESSIONAL ENGINEER — 6/12/25

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

P N D ENGINEERS, INC.
CERTIFICATE OF AUTHORIZATION CAN: AECC250
PND ENGINEERS, INC 9360 GLACIER HWY STE 100 JUNEAU, AK 99801 (907) 586-2093 www.pndengineers.com
PND #232014

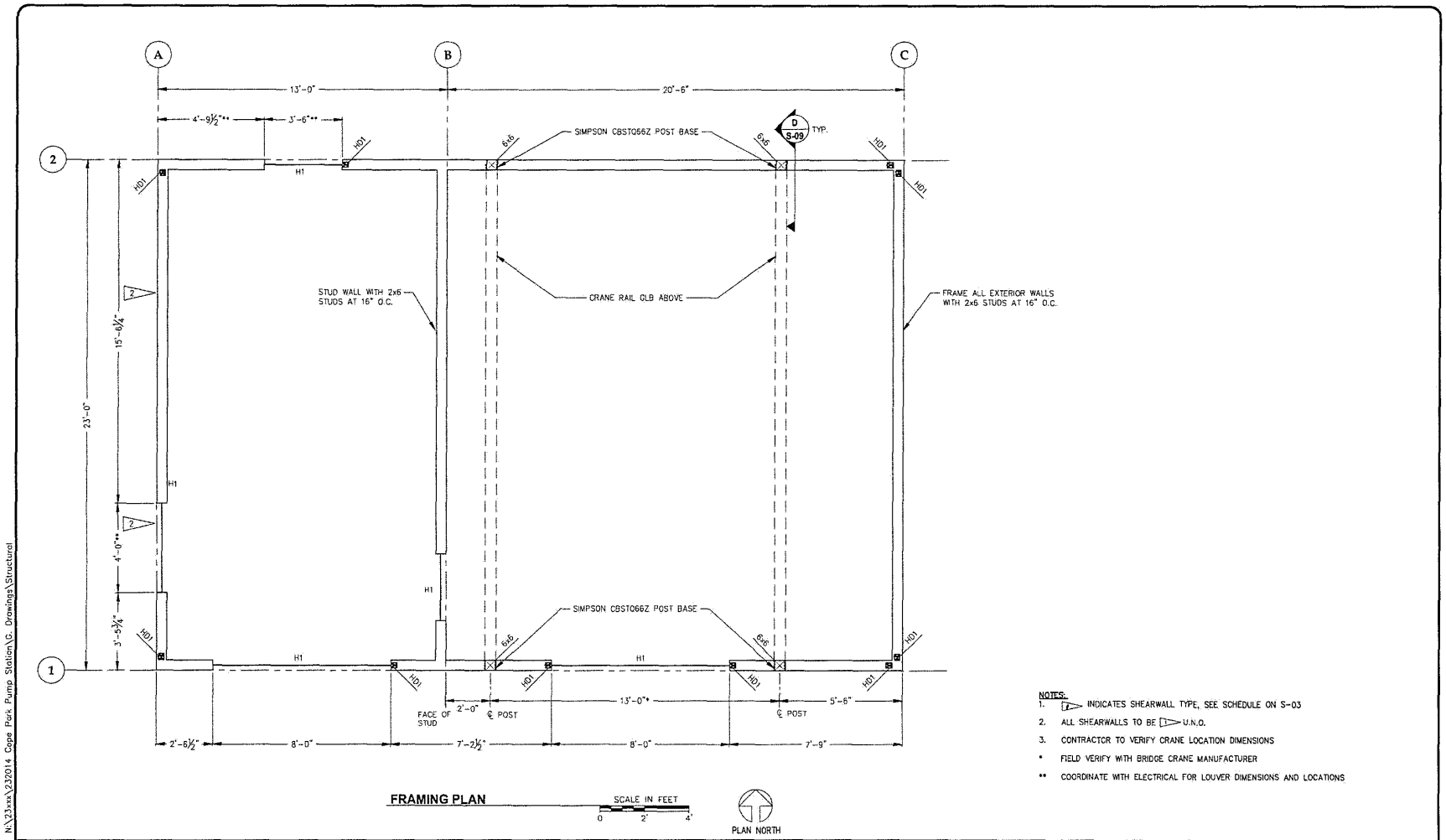
DRAWN BY:	DRD
DESIGNED BY:	MBH
CHECKED BY:	MBH

CITY AND BOROUGH OF JUNEAU — ALASKA'S CAPITAL CITY — ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

SLAB PLAN

SHEET NUMBER
S-06



NOTES:
1. ▽ INDICATES SHEARWALL TYPE, SEE SCHEDULE ON S-03
2. ALL SHEARWALLS TO BE ▽ U.N.O.
3. CONTRACTOR TO VERIFY CRANE LOCATION DIMENSIONS
* FIELD VERIFY WITH BRIDGE CRANE MANUFACTURER
** COORDINATE WITH ELECTRICAL FOR LOUVER DIMENSIONS AND LOCATIONS

FRAMING PLAN

SCALE IN FEET 0 2' 4'

PLAN NORTH

N:\23xxx\232014 Cope Park Pump Station\C. Drawings\Structural

June 17, 2025

STATE OF ALASKA — 49TH — Matthew B. Holm — CE-11394 — REGISTERED PROFESSIONAL ENGINEER — 5/12/25

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

PND ENGINEERS, INC.
CERTIFICATE OF AUTHORIZATION C.A.N.: AECC250

DRAWN BY:	DRD
DESIGNED BY:	MBH
CHECKED BY:	MBH

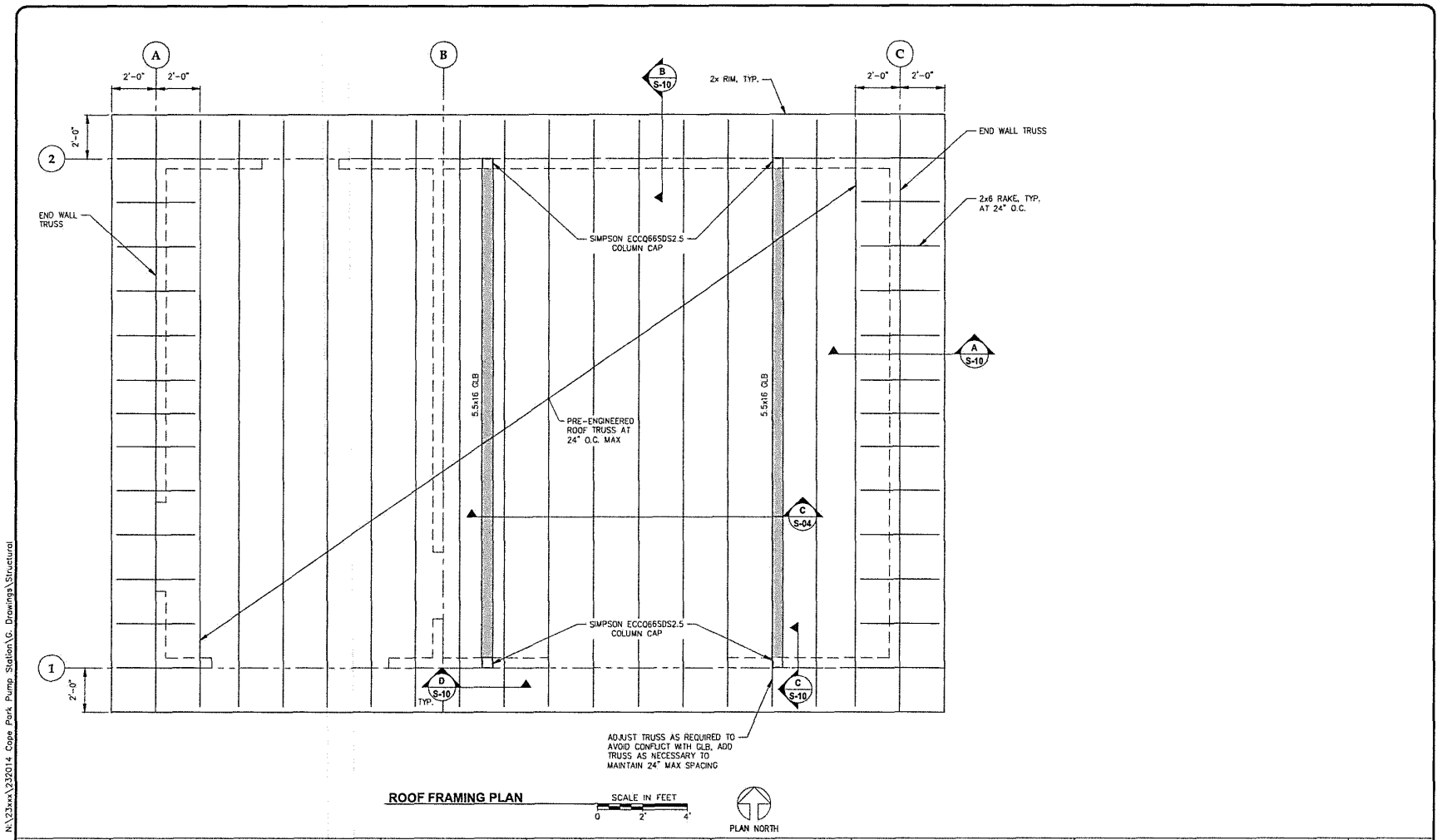
PND ENGINEERS, INC
9360 GLACIER HWY STE 100
JUNEAU, AK 99801
(907) 586-2033
www.pndengineers.com
PND #232014

CITY AND BOROUGH OF JUNEAU — ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

FRAMING PLAN

SHEET NUMBER
S-07



N:\23xxx\232014 Cope Park Pump Station\G. Drawings\Structural

June 17, 2025

STATE OF ALASKA — Matthew E. Hoin — CE-113942 — REGISTERED PROFESSIONAL ENGINEER — 6/12/25

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

PND ENGINEERS, INC
9360 GLACIER HWY STE 100
JUNEAU, AK 99801
(907) 586-2093
www.pndengineers.com
CERTIFICATE OF AUTHORIZATION C.A.N.: AECC250
PND #232014

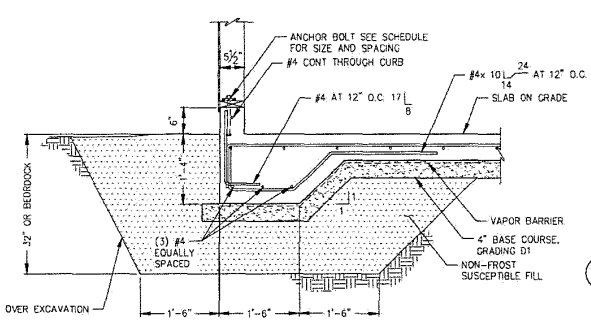
DRAWN BY:	DRD
DESIGNED BY:	MBH
CHECKED BY:	MBH

CITY AND BOROUGH OF JUNEAU — ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

ROOF FRAMING PLAN

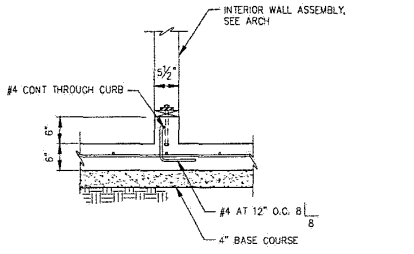
SHEET NUMBER
S-08



A TYPICAL PERIMETER FOOTING SLAB EDGE

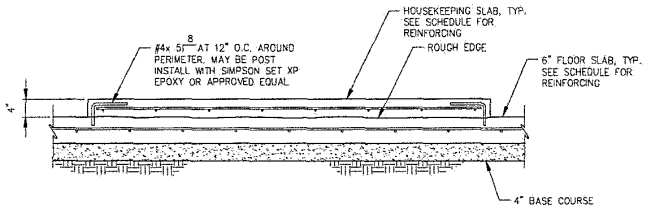
SCALE IN INCHES 0 12 24

NOTE: OVER-EXCAVATE PER DETAIL AROUND PERIMETER



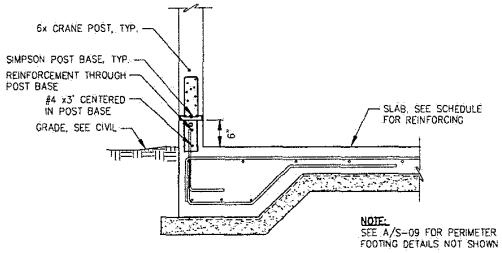
B TYPICAL SECTION AT INTERIOR CURB

SCALE IN INCHES 0 12 24



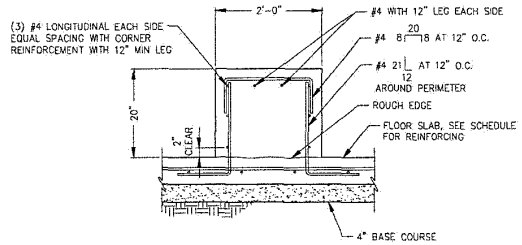
C TYPICAL SECTION AT HOUSEKEEPING PAD

SCALE IN INCHES 0 12 24



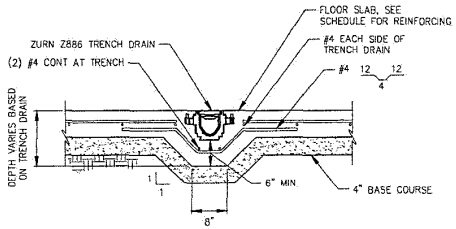
D TYPICAL CRANE POST DETAIL

SCALE IN INCHES 0 12 24



E TYPICAL PUMP PAD SECTION

SCALE IN INCHES 0 12 24



F TRENCH DRAIN SECTION

SCALE IN INCHES 0 12 24

June 17, 2025 N:\23xxx\232014 Cope Park Pump Station\C. Drawings\Structural

STATE OF ALASKA 10TH Matthew B. Hahn CE-11342 PROFESSIONAL ENGINEER 6/12/25

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

PND ENGINEERS, INC.
CERTIFICATE OF AUTHORIZATION C.A.N.: AEC0250

DRAWN BY:	DRD
DESIGNED BY:	MBH
CHECKED BY:	MBH

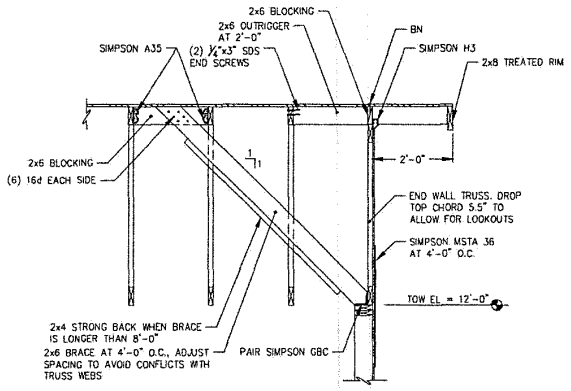
PND ENGINEERS, INC
9360 GLACIER HWY STE 100
JUNEAU, AK 99801
(907) 586-2093
www.pndengineers.com
PND #232014

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

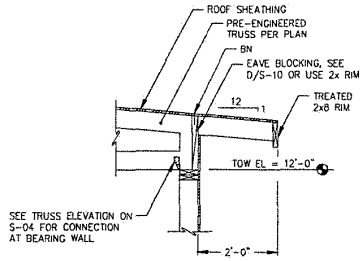
COPE PARK PUMP STATION REPLACEMENT
BE25-317

FOUNDATION DETAILS

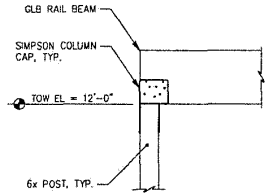
SHEET NUMBER
S-09



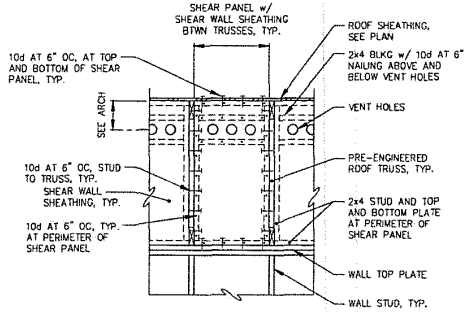
A GABLE END SCALE IN FEET 0 1 2 3



B TYPICAL EAVE SECTION SCALE IN FEET 0 1 2 3



C RAIL CRANE POST SECTION SCALE IN FEET 0 1 2 3



D SHEAR PANEL ELEVATION SCALE IN FEET 0 1 2 3

June 17, 2025 N:\23xxx\232014 Cope Park Pump Station\G. Drawings\Structural

STATE OF ALASKA — Matthew E. Hoin, CE-113942 — 6/12/25

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

PND ENGINEERS, INC
CERTIFICATE OF AUTHORIZATION C.A.H.: AECC250

DRAWN BY:	DRD
DESIGNED BY:	MBH
CHECKED BY:	MBH

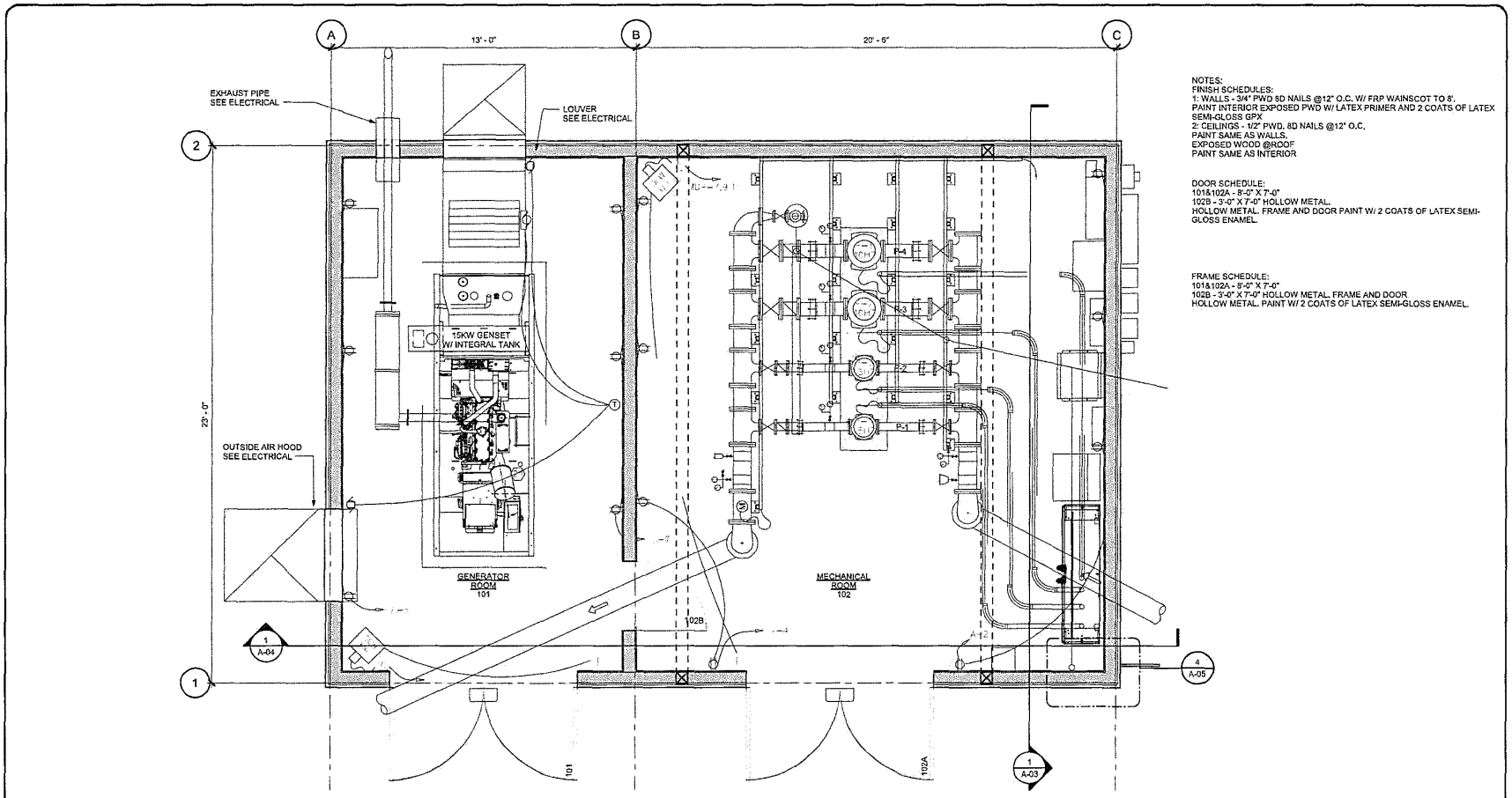
PND ENGINEERS, INC
9360 GLACIER HWY STE 100
JUNEAU, AK 99801
(907) 586-2093
www.pndengineers.com
PND #232014

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK
PUMP STATION
REPLACEMENT
BE25-317

FRAMING DETAILS

SHEET NUMBER
S-10



1 FIRST FLOOR PLAN

SCALE: 0 1" 2" 4"

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

Jensen Yorba Wall Inc.
CERTIFICATE OF AUTHORIZATION
C.A.N. - AECC137

JENSEN YORBA WALL, Inc.
522 WEST TENTH ST
Juneau, Alaska 99801
(907)586- 1970

DRAWN BY	TM
DESIGNED BY	WJ
CHECKED BY	WJ

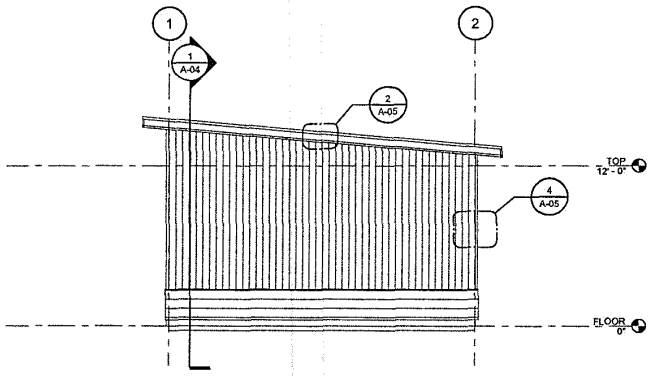
PND #24039

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

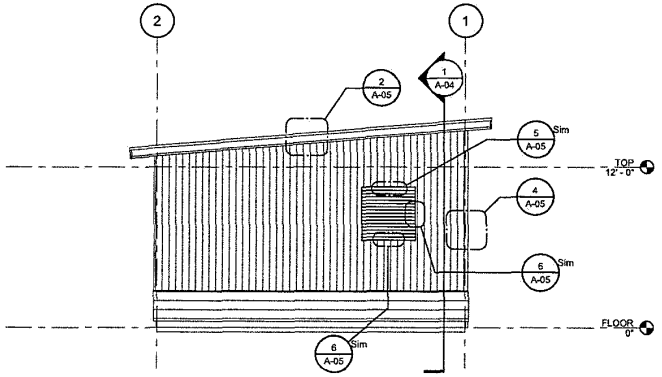
COPE PARK
PUMP STATION
REPLACEMENT
BE25-317

FLOOR PLAN

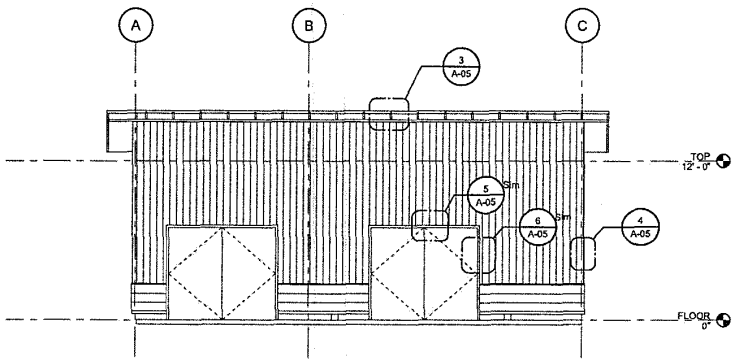
SHEET NUMBER
A-01



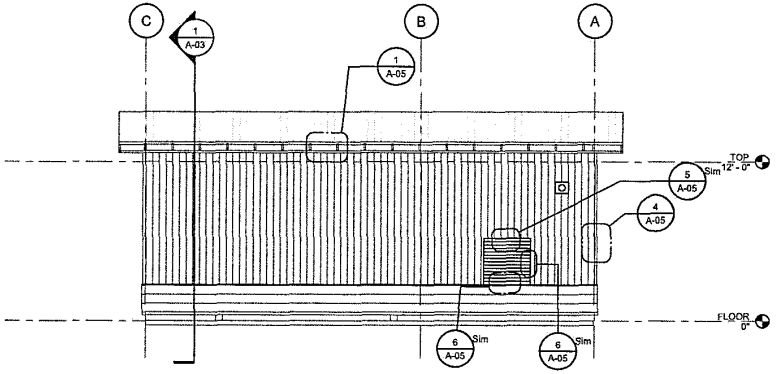
1 EXTERIOR ELEVATION - EAST
SCALE: 0 2' 4' 8'



4 EXTERIOR ELEVATION - WEST
SCALE: 0 2' 4' 8'



2 EXTERIOR ELEVATION - SOUTH
SCALE: 0 2' 4' 8'



3 EXTERIOR ELEVATION - NORTH
SCALE: 0 2' 4' 8'

STATE OF ALASKA — 49 TH — WAYNE K. JENSEN — 06/17/2025 — PE/LS — PROFESSIONAL ENGINEER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION	BY

Jensen Yorba Wall Inc.
CERTIFICATE OF AUTHORIZATION
C.A.N. - AECC137

DRAWN BY:	TM
DESIGNED BY:	WJ
CHECKED BY:	WJ

JENSEN YORBA WALL, Inc.
522 WEST TENTH ST
Juneau, Alaska 99801
(907)586- 1070

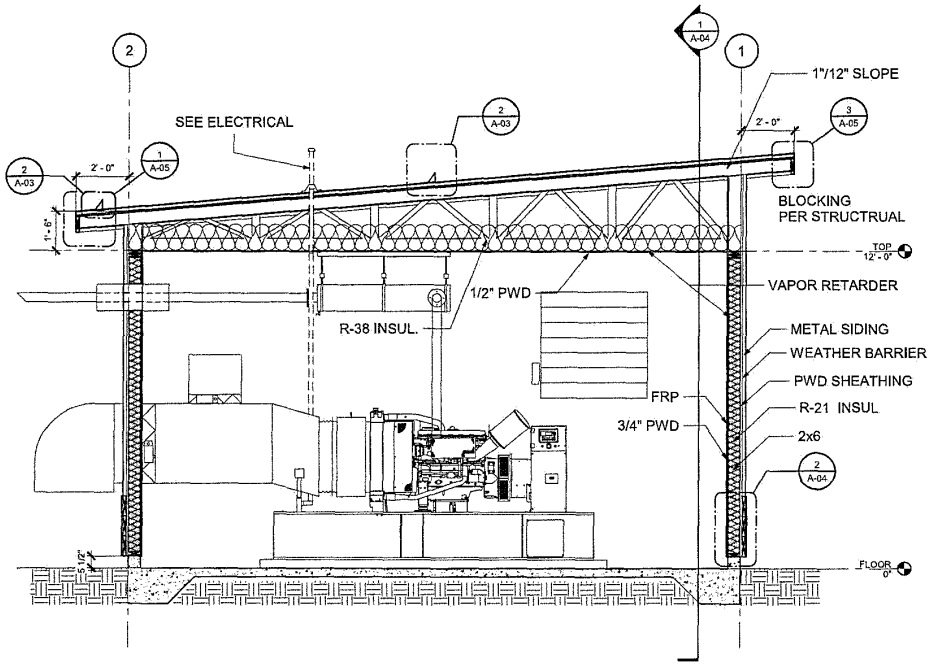
PND #24039

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK
PUMP STATION
REPLACEMENT
BE25-317

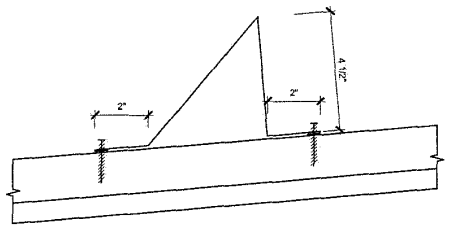
ELEVATIONS

SHEET NUMBER
A-02



1 BUILDING SECTION

SCALE: 0 1" 2" 4"



2 SNOW STOP

SCALE: 0 3" 6"

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

Jensen Yorba Wall Inc.
CERTIFICATE OF AUTHORIZATION C.A.N. - ASCC137
JENSEN YORBA WALL, Inc. 522 WEST TENTH ST Juneau, Alaska 99801 (907)586- 1070
PND #24039

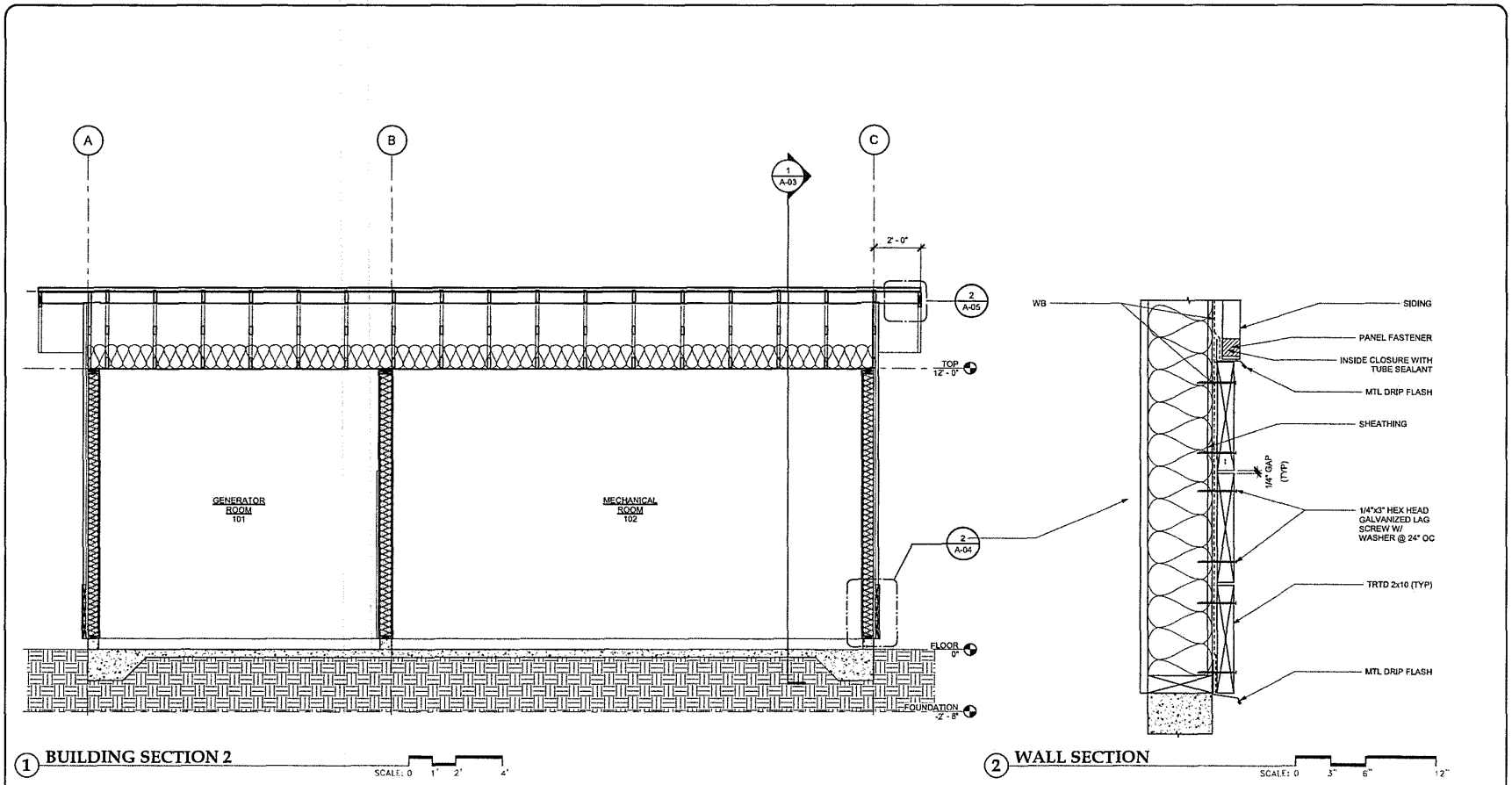
DRAWN BY	TM
DESIGNED BY:	WJ
CHECKED BY	WJ

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK
PUMP STATION
REPLACEMENT
BE25-317

BUILDING SECTION

SHEET NUMBER
A-03



1 BUILDING SECTION 2

SCALE: 0 1' 2' 4'

2 WALL SECTION

SCALE: 0 3" 6" 12"

STATE OF ALASKA
WAYNE K. JENSEN
49 ZH
06/17/2025
PROFESSIONAL ENGINEER

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

Jensen Yorba Wall Inc.
CERTIFICATE OF AUTHORIZATION
C.A.N. - AECC137

DRAWN BY:	TM
DESIGNED BY:	WJ
CHECKED BY:	WJ

JENSEN YORBA WALL, Inc.
522 WEST TENTH ST
Juneau, Alaska 99801
(907)586- 1970

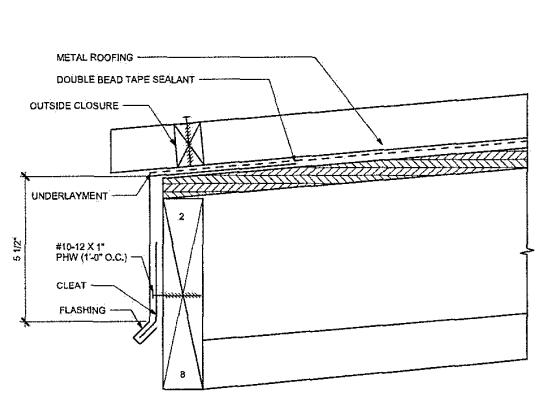
PND #24039

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK
PUMP STATION
REPLACEMENT
BE25-317

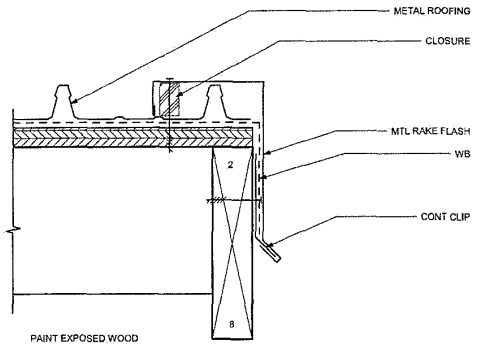
BUILDING SECTION

SHEET NUMBER
A-04



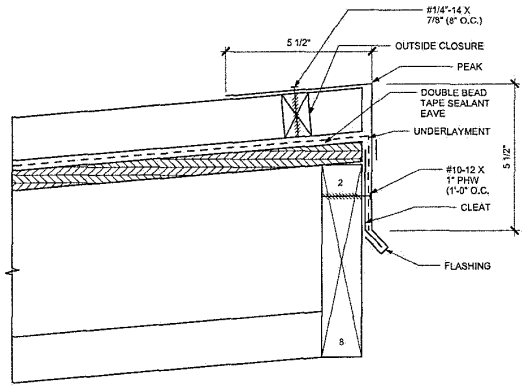
1 ROOF DETAIL LOW EAVE

SCALE: 0 3" 6"



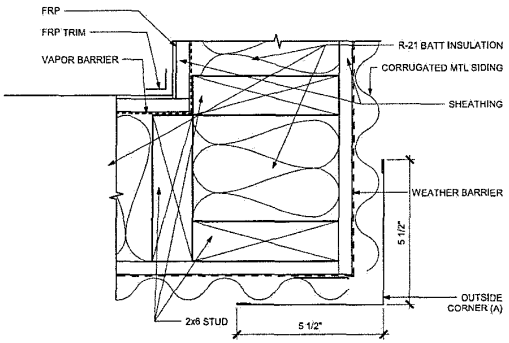
2 ROOF DETAIL RAKE

SCALE: 0 3" 6"



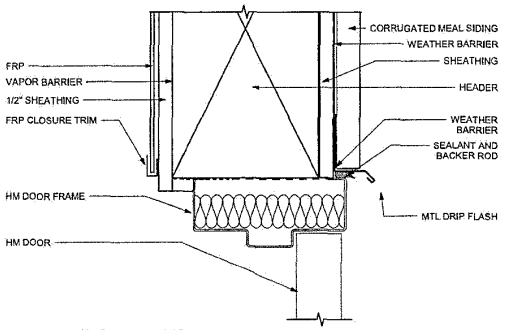
3 ROOF DETAIL HIGH EAVE

SCALE: 0 3" 6"



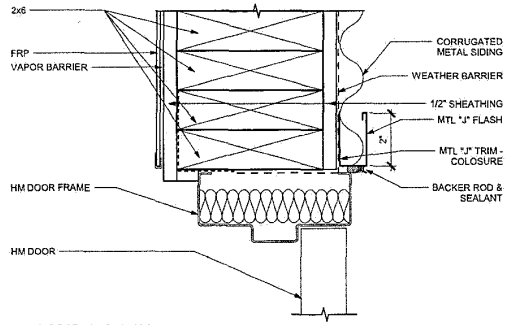
4 OUTSIDE CORNER

SCALE: 0 3" 6"



5 EXT DOOR HEAD

SCALE: 0 3" 6"



6 EXT DOOR JAMB

SCALE: 0 3" 6"

RECORD OF REVISIONS

No.	DATE	DESCRIPTION	BY

Jensen Yorba Wall Inc.

CERTIFICATE OF AUTHORIZATION C.A.N. - AECC137

DRAWN BY	TM
DESIGNED BY	WJ
CHECKED BY	WJ

JENSEN YORBA WALL, Inc. 522 WEST TENTH ST Juneau, Alaska 99801 (907)586- 1070

PND #24039

CITY AND BOROUGH OF JUNEAU ALASKA'S CAPITAL CITY

ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT BE25-317

EXTERIOR DETAILS

SHEET NUMBER A-05

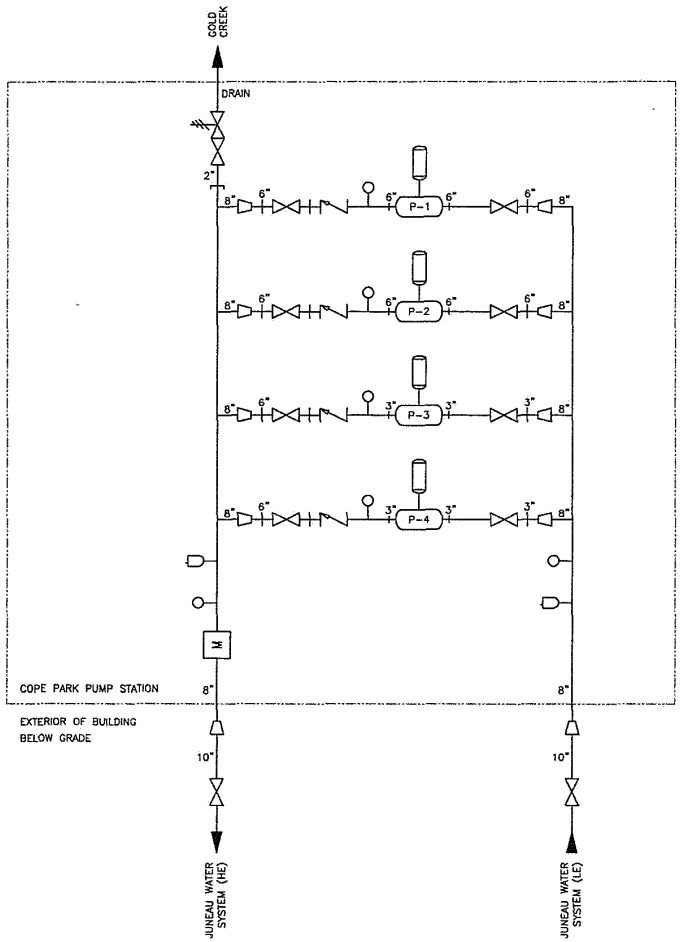
P&ID LEGEND

DESCRIPTION	SYMBOL
PUMP	
GATE VALVE	
CHECK VALVE	
AIR VALVE	
PRESSURE RELIEF VALVE	
PRESSURE GAUGE	
FLOW METER	M
REDUCER	
BLIND FLANGE (TAPPED)	

ABBREVIATIONS

DI	DUCTILE IRON
DIP	DUCTILE IRON PIPE
FL	FLANGED
GPM	GALLONS PER MINUTE
HE	HIGH ELEVATION
HP	HORSE POWER
LE	LOW ELEVATION
NSF	NATIONAL SANITATION FOUNDATION
O.C.	ON CENTER
PE	PLANE END
RJ	RESTRAINED JOINT
RPM	REVOLUTIONS PER MINUTE
SS	SERVICE SADDLE
TDH	TOTAL DYNAMIC HEAD

Plans subject to inspections.
6-30-2025 STW



COPE PARK – P&ID

C:\Users\EthonRoemeling\proHNS Dropbox\Projects\Juneau\CBJ Cope Park Pump Station\C3D Cope Park Pump Station\Sheets\Cope Park Pump Station_P&ID.dwg
June 17, 2025

STATE OF ALASKA 49TH ETHAN C. ROEMELING 6/16/2025 PE 16349 PROFESSIONAL ENGINEER

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

proHNS LLC
CERTIFICATE OF AUTHORIZATION #100682

DRAWN BY:	E. ROEMELING
DESIGNED BY:	E. ROEMELING
CHECKED BY:	L. CHAMBERS

2201 DUNN ST #201
JUNEAU, AK 99801
(907) 780-4004
solutions@proHNS.com
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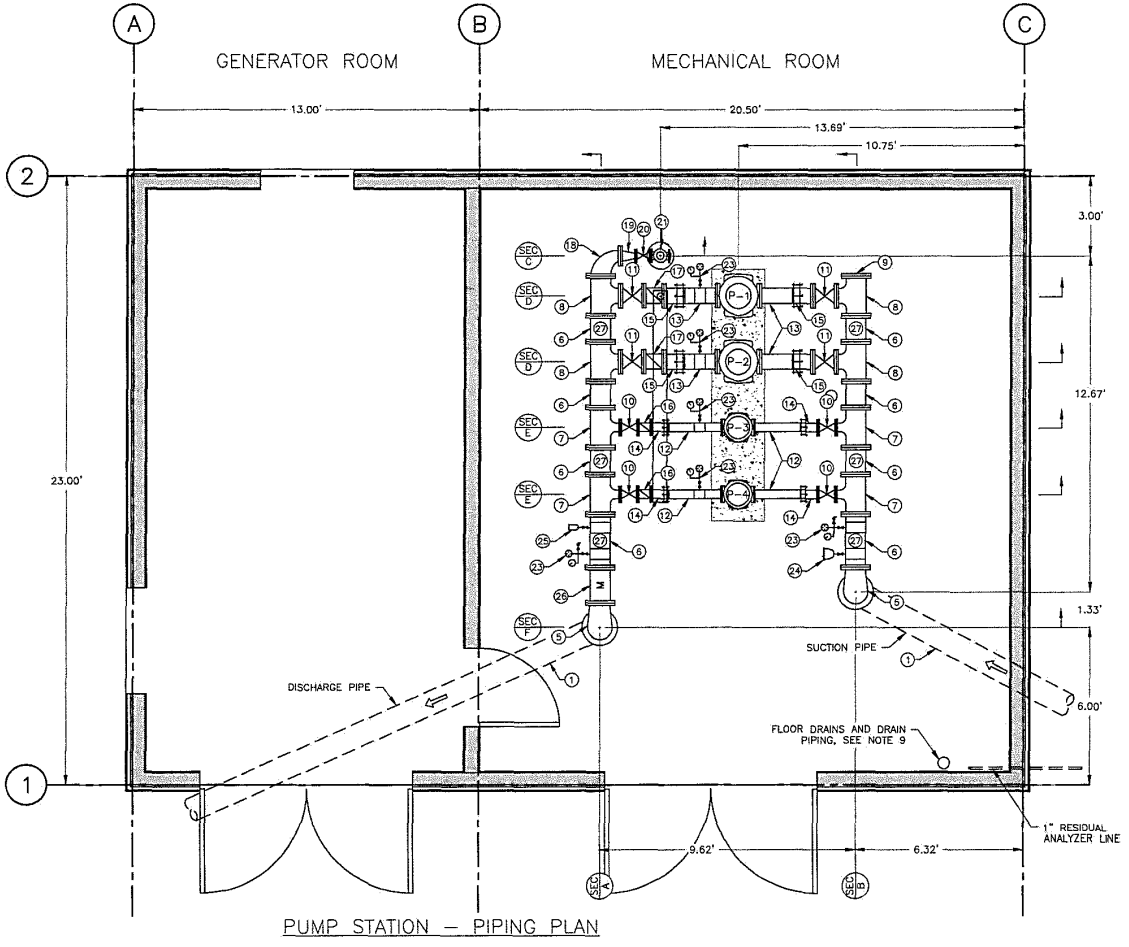
CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

LEGEND, ABBREVIATIONS & P&ID

SHEET NUMBER
M-01



PUMP STATION – PIPING PLAN

PIPING MATERIALS LIST

NUMBER	ITEM (SIZE, DESCRIPTION, CONNECTION)	QUANTITY
1	10", HDPE	4
2	10", HDPE 90° ELBOW, BF	2
3	10", HDPE 90° ELBOW (THREE-SEGMENT), BF	2
4	10", HDPE FLANGE ADAPTER, BF X FL	2
5	10"x8", DI 90° REDUCING ELBOW, FL	2
6	8", DI SPOOL, FL	8
7	8"x8"x3", DI REDUCING TEE, FL	4
8	8"x8"x6", DI REDUCING TEE, FL	4
9	8", DI BLIND FLANGE, FL	1
10	3", GATE VALVE, FL	4
11	6", GATE VALVE, FL	4
12	3", SPOOL, FL x PE	4
13	6", SPOOL, FL x PE	4
14	3", FLANGED COUPLING ADAPTER, RJ X FL	4
15	6", FLANGED COUPLING ADAPTER, RJ X FL	4
16	3", CHECK VALVE, FL	2
17	6", CHECK VALVE, FL	2
18	8"x4", DI 90° REDUCING ELBOW, FL	1
19	4"x2", DI CONCENTRIC REDUCER, FL	1
20	2", GATE VALVE, FL	1
21	2", 90° PRESSURE RELIEF VALVE, FL	1
22	2" SPOOL, FL x PE	1
23	PRESSURE GAUGE/TRANSDUCER & SAMPLING PORT, 0-200 PSI, SS	6
24	COMBINATION AIR VALVE, SS	1
25	AIR RELEASE VALVE, SS	1
26	8" FLOW METER, FL	1
27	U-BOLT PIPE SUPPORT LOCATION	5

PUMP DATA

PUMP NUMBER	PUMP INFORMATION	MOTOR INFORMATION
P-1	700 GPM, 143 TDH, 6"x6" FL	40 HP, 3560 RPM
P-2	700 GPM, 143 TDH, 6"x6" FL	40 HP, 3560 RPM
P-3	200 GPM, 115 TDH, 3"x3" FL	15 HP, 3525 RPM
P-4	200 GPM, 115 TDH, 3"x3" FL	15 HP, 3525 RPM

SHEET NOTES:

1. ALL PIPING, VALVES, FITTINGS, GASKETS, METERS, PUMPS, AND ALL OTHER COMPONENTS COMING IN CONTACT WITH POTABLE WATER SHALL BE NSF/ANSI 61 CERTIFIED; AND SHALL BE DISINFECTED AND PRESSURE TESTED PER SECTION 02601 SPECIFICATIONS PRIOR TO BEING PUT INTO SERVICE.
2. CONSTRUCTION IS TO BE COMPLETED IN ACCORDANCE WITH LEAD FREE REQUIREMENTS OUTLINED IN 18 AAC 80.500. THESE INCLUDE:(A) NOT CONTAINING MORE THAN 0.2 PERCENT LEAD WHEN USED WITH RESPECT TO SOLDER AND FLUX; AND (B) NOT HAVING MORE THAN A WEIGHTED AVERAGE OF 0.25 PERCENT LEAD WHEN USED WITH RESPECT TO THE WETTED SURFACES OF PIPES, PIPE FITTINGS, PLUMBING FITTINGS, AND FIXTURES.
3. INSULATE ALL WATER PIPE, VALVES AND FITTINGS WITH 1/2" ARMAFLEX FOAM INSULATION. INSTALL PER MANUFACTURERS RECOMMENDATIONS.
4. INDICATE DIRECTION OF FLOW WITH ARROWS ON WATER PIPE.
5. CONTRACTOR RESPONSIBLE FOR VERIFYING PART QUANTITIES AND SPOOL PIECE LENGTHS.
6. SEE U-BOLT PIPE SUPPORT DETAIL 2, SHEET M-06.
7. SEE PRESSURE GAUGE AND SAMPLING PORT ASSEMBLY DETAIL 1, SHEET M-06.
8. SEE COMBINATION AIR VALVE DETAIL 3, SHEET M-06.
9. FLOOR DRAIN PIPING NOT SHOWN FOR CLARITY, SEE M-03 FOR LAYOUT.

June 17, 2025 C:\Users\EthanRoemeling\proHNS Dropbox\Projects\Juneau\CBJ Cope Park Pump Station\C3D Cope Park Pump Station\Sheets\Cope Park Pump Station_PIPING PLAN.dwg

STATE OF ALASKA — 49TH — ETHAN C. ROEMELING — 6/16/2025 — CERTIFICATE EXPIRES: DECEMBER 31, 2026

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

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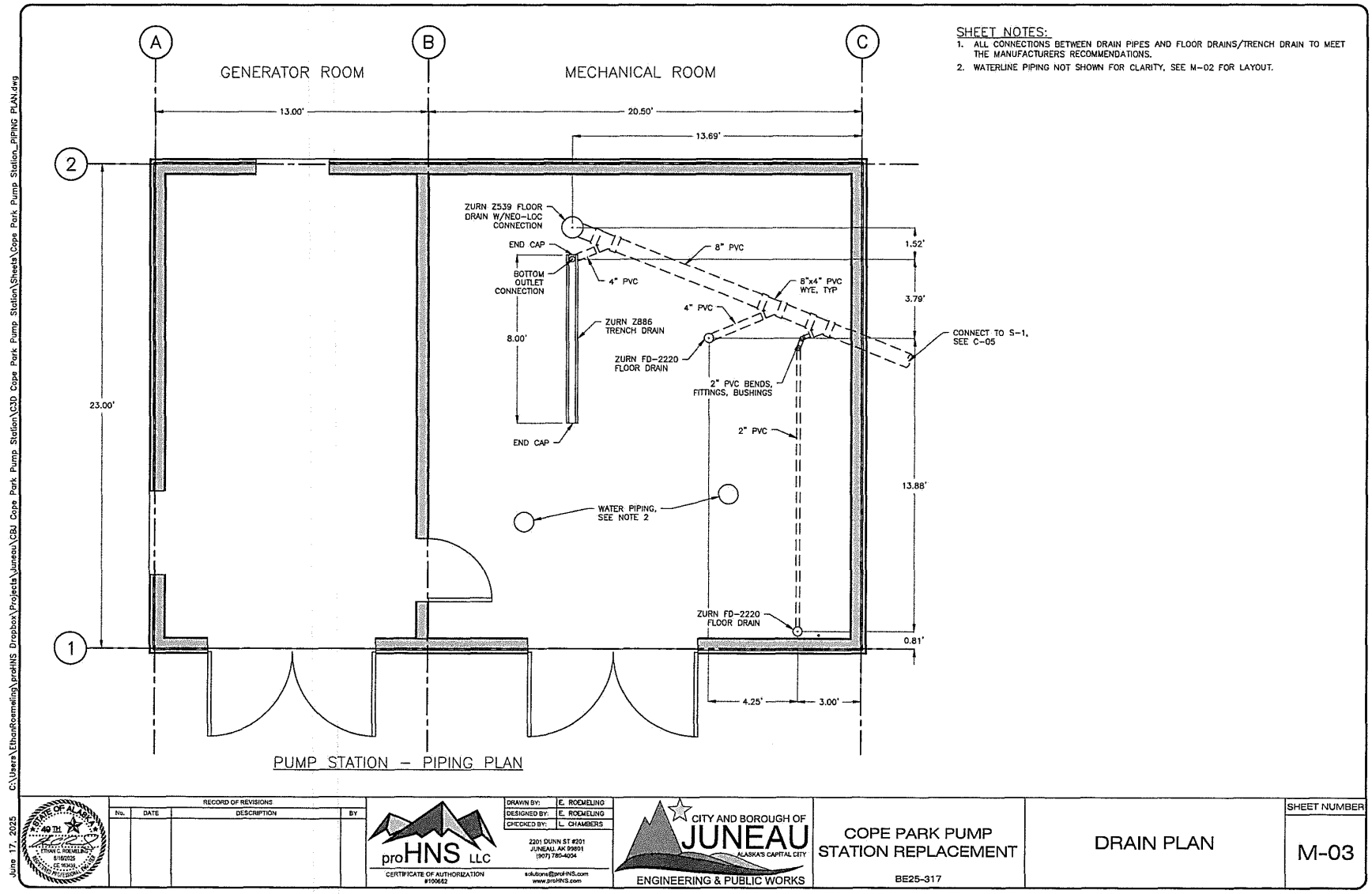
CITY AND BOROUGH OF JUNEAU — ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

PIPING PLAN

SHEET NUMBER
M-02


A
B
C
GENERATOR ROOM
MECHANICAL ROOM
13.00'
20.50'
13.69'
2
1
23.00'
ZURN Z539 FLOOR DRAIN W/NEO-LOC CONNECTION
END CAP
BOTTOM OUTLET CONNECTION
8.00'
END CAP
4" PVC
8" PVC
8"x4" PVC WYE, TYP
4" PVC
ZURN Z886 TRENCH DRAIN
ZURN FD-2220 FLOOR DRAIN
2" PVC BENDS, FITTINGS, BUSHINGS
2" PVC
CONNECT TO S-1, SEE C-05
WATER PIPING, SEE NOTE 2
ZURN FD-2220 FLOOR DRAIN
1.52'
3.79'
13.88'
0.81'
4.25'
3.00'
SHEET NOTES:
1. ALL CONNECTIONS BETWEEN DRAIN PIPES AND FLOOR DRAINS/TRENCH DRAIN TO MEET THE MANUFACTURERS RECOMMENDATIONS.
2. WATERLINE PIPING NOT SHOWN FOR CLARITY, SEE M-02 FOR LAYOUT.
PUMP STATION – PIPING PLAN
C:\Users\EthanRoemeling\proHNS Dropbox\Projects\Juneau\CBJ Cope Park Pump Station\C3D Cope Park Pump Station\Sheets\Cope Park Pump Station_PIPING PLAN.dwg
June 17, 2025
RECORD OF REVISIONS
No. DATE DESCRIPTION BY
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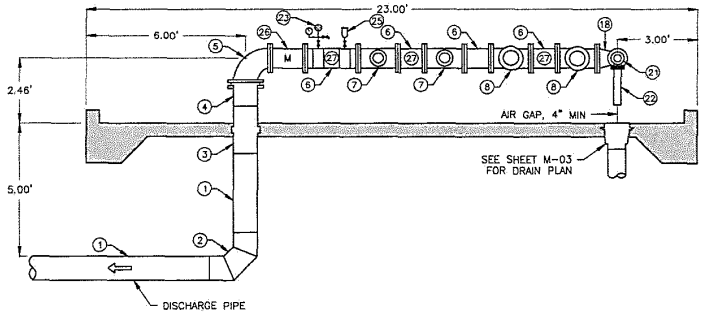
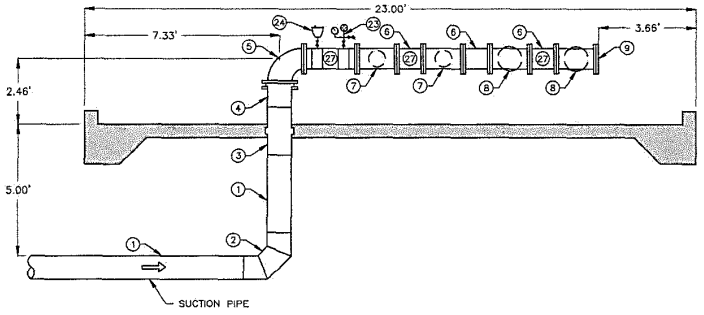
CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS
COPE PARK PUMP STATION REPLACEMENT
BE25-317
DRAIN PLAN
SHEET NUMBER
M-03

SECTION A



SECTION B



PIPING MATERIALS LIST

NUMBER	ITEM (SIZE, DESCRIPTION, CONNECTION)	QUANTITY
1	10", HDPE	4
2	10", HDPE 90° ELBOW (THREE-SEGMENT), BF	2
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5	10"x8", DI 90° REDUCING ELBOW, FL	2
6	8", DI SPOOL, FL	8
7	8"x8"x3", DI REDUCING TEE, FL	4
8	8"x8"x6", DI REDUCING TEE, FL	4
9	8", DI BLIND FLANGE, FL	1
10	3", GATE VALVE, FL	4
11	6", GATE VALVE, FL	4
12	3", SPOOL, FL x PE	4
13	6", SPOOL, FL x PE	4
14	3", FLANGED COUPLING ADAPTER, RJ X FL	4
15	6", FLANGED COUPLING ADAPTER, RJ X FL	4
16	3", CHECK VALVE, FL	2
17	6", CHECK VALVE, FL	2
18	8"x4", DI 90° REDUCING ELBOW, FL	1
19	4"x2", DI CONCENTRIC REDUCER, FL	1
20	2", GATE VALVE, FL	1
21	2", 90° PRESSURE RELIEF VALVE, FL	1
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PUMP DATA

PUMP NUMBER	PUMP INFORMATION	MOTOR INFORMATION
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6. SEE U-BOLT PIPE SUPPORT DETAIL 2, SHEET M-06.
7. SEE PRESSURE GAUGE AND SAMPLING PORT ASSEMBLY DETAIL 1, SHEET M-06.
8. SEE COMBINATION AIR VALVE DETAIL 3, SHEET M-06.

June 17, 2025 C:\Users\EthanReemeling\proHNS Dropbox\Projects\Juneau\CBJ Cope Park Pump Station\C3D Cope Park Pump Station\Sheets\Cope Park Pump Station_PIPING PLAN.dwg

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

proHNS LLC
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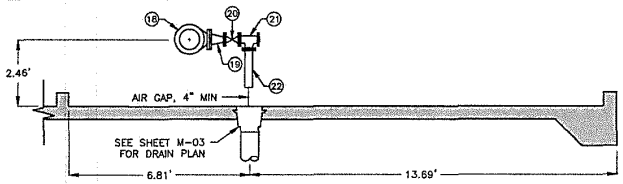
CITY AND BOROUGH OF JUNEAU, ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

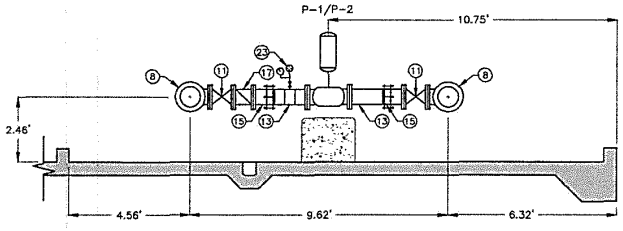
PIPING SECTIONS - 1

SHEET NUMBER
M-04

SECTION C



SECTION D



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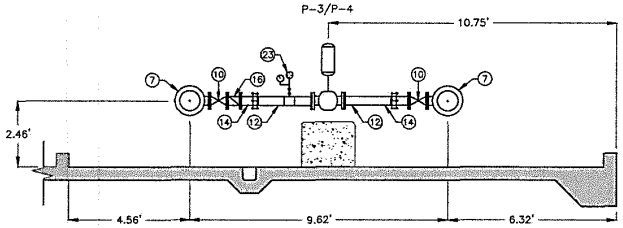

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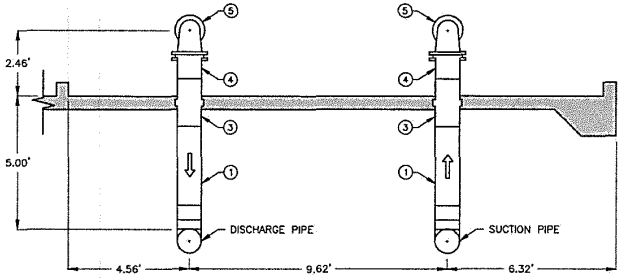

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6. SEE U-BOLT PIPE SUPPORT DETAIL 2, SHEET M-06.
7. SEE PRESSURE GAUGE AND SAMPLING PORT ASSEMBLY DETAIL 1, SHEET M-06.
8. SEE COMBINATION AIR VALVE DETAIL 3, SHEET M-06.

STATE OF ALASKA 49TH — ETHAN C. ROEMELING — 6/6/2025 — CE 18349 — PROFESSIONAL ENGINEER

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

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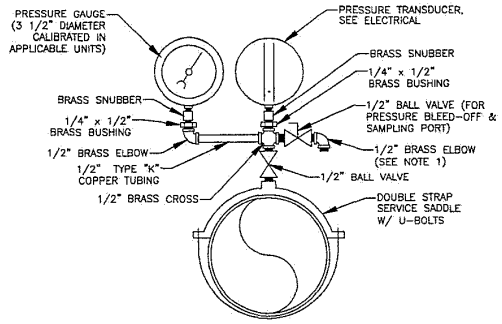
CITY AND BOROUGH OF JUNEAU — ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

PIPING SECTIONS - 2

SHEET NUMBER
M-05

June 17, 2025 C:\Users\EthanRoemeling\proHNS Dropbox\Projects\Juneau\CBJ Cope Park Pump Station\C3D Cope Park Pump Station\Sheets\Cope Park Pump Station_PIPING PLAN.dwg

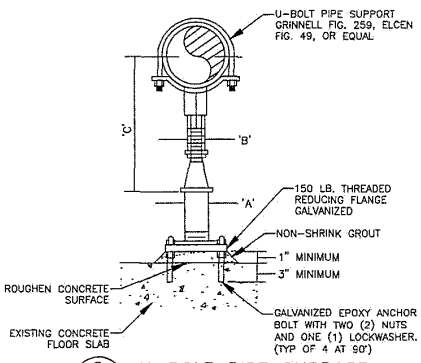


1 M-06 PRESSURE GAUGE & SAMPLING PORT ASSEMBLY
SCALE: NOT TO SCALE

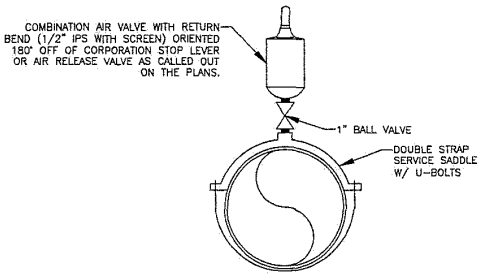
DETAIL 1/M-06 NOTES:

1. END OF PRESSURE BLEED-OFF & SAMPLING PORT TO BE EITHER NON-THREADED OR HAVE VACUUM BREAKER INSTALLED TO PROTECT AGAINST CROSS-CONNECTION.

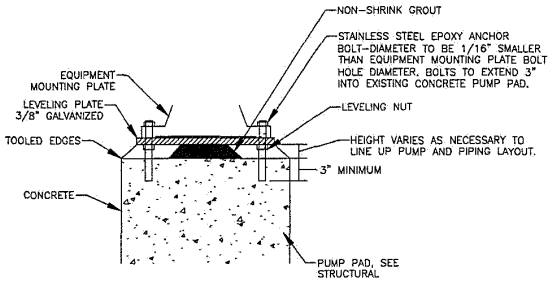
ADJUSTABLE PIPE SUPPORT APPROXIMATE DIMENSIONS IN INCHES				
PIPE SIZE	'A'	'B'	'C' MINIMUM	'C' MAXIMUM
8"	4	2	10	15



2 M-06 U-BOLT PIPE SUPPORT
SCALE: NOT TO SCALE



3 M-06 COMBINATION AIR VALVE OR AIR RELEASE VALVE
SCALE: NOT TO SCALE



4 M-06 EQUIPMENT MOUNTING PLATE
SCALE: NOT TO SCALE

June 17, 2025 C:\Users\EthanRoemeling\proHNS Dropbox\Projects\Juneau\CBJ Cope Park Pump Station\C3D Cope Park Pump Station\Sheets\Cope Park Pump Station_DETAILS.dwg

STATE OF ALASKA 49TH ETHAN C. ROEMELING 6/6/2025 CE 16349 REGISTERED PROFESSIONAL ENGINEER

RECORD OF REVISIONS			
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CHECKED BY:	L. CHAMBERS

CITY AND BOROUGH OF JUNEAU ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

MECHANICAL DETAILS

SHEET NUMBER
M-06

ELECTRICAL LEGEND

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
C/B	CIRCUIT BREAKER
CKT	CIRCUIT
COAX	COAXIAL CABLE
C	CONDUIT
CPT	CONTROL POWER TRANSFORMER
CTS	CURRENT TRANSFORMER
EM	EMERGENCY BATTERY UNIT
EXTG	EXISTING
FBO	FURNISHED BY OWNER
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
GRS	GALVANIZED RIGID STEEL
GRC	GALVANIZED RIGID STEEL CONDUIT
HIM	HUMAN INTERFACE MODULE
HOA	HAND-OFF-AUTO
J-BOX	JUNCTION BOX
kA	KILOAMPERES
kVA	KILOVOLTAMPERES
kW	KILOWATT
LTG	LIGHTING
LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
MDP	MAIN DISTRIBUTION PANEL
MAX	MAXIMUM
MIN	MINIMUM
NEC	NATIONAL ELECTRICAL CODE
NID	NETWORK INTERFACE DEVICE
OC	ON CENTER
OHE	OVERHEAD ELECTRICAL
PVC	RIGID POLYVINYL CHLORIDE CONDUIT
REC	RECEPTACLE
SS	STAINLESS STEEL
SPD	SURGE PROTECTIVE DEVICE
TYP-#	TYPICAL OF # (TYP-2 = TYPICAL OF 2)
UGE	UNDERGROUND ELECTRICAL
WP	WEATHERPROOF
W/	WITH
2 NO. 8	2 CONDUCTORS, NUMBER 8 AWG
3ϕ, 4W	3-PHASE, 4-WIRE
VFD	VARIABLE FREQUENCY DRIVE

CAPACITOR

20/3 CIRCUIT BREAKER (AMPS/POLES)

CONTACTOR

DUPLEX RECEPTACLE

ELECTRIC MOTOR

FLEXIBLE CONDUIT

CEILING LUMINAIRE

FUSE

FUSED DISCONNECT

GROUND

GENERATOR

X-# HOME RUN (PANEL-CKT). ALL CONDUIT SHALL BE 3/4" MIN. PROVIDE THE CORRECT CONDUIT SIZE, CONDUCTOR SIZE, CONDUCTOR QUANTITY AS REQUIRED AND PER NEC. INCREASE CONDUCTOR SIZE AS REQUIRED PER CODE FOR MORE THAN 3 CONDUCTORS IN CONDUIT.

H O A HAND-OFF-AUTO SWITCH

FLOAT SWITCH

M R 2 INDUSTRIAL CONTROL RELAY. NUMBER OR LETTER INDICATES RELAY NUMBER

TDR TDR TIME DELAY RELAY CONTACTS ON DELAY, OFF DELAY

TIMER RELAY CONTACT

JUNCTION BOX

MAIN LUG

METER/MAIN

R R NORMALLY OPEN & NORMALLY CLOSED CONTACTS. NUMBER INDICATES RELAY NUMBER

LIGHT POLE & LUMINAIRE

PE PHOTO CELL

PUSH TO TEST INDICATING LIGHT LETTER INDICATES COLOR

PUSHBUTTON

SPECIAL USE RECEPTACLE

ST SHUNT TRIP COIL

SINGLE POLE SWITCH

TELEPHONE JACK

T THERMOSTAT

TRANSFORMER

GENERAL NOTES:

1. PERFORM ALL WORK PER THE 2020 NATIONAL ELECTRICAL CODE (NEC), AND OTHER APPLICABLE NATIONAL, STATE, AND LOCAL CODES AND STANDARDS.
2. ALL WORK IS NEW UNLESS OTHERWISE NOTED.
3. LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE. OBTAIN LOCATES PRIOR TO DIGGING AND REVIEW ALL AVAILABLE INFORMATION ON THE LOCATION OF EXISTING OBSTACLES. DIG WITH CAUTION AND AVOID ALL WATER SEWER, DRAINAGE PIPES, AND UTILITY INFRASTRUCTURE. COORDINATE WITH POWER AND COMMUNICATIONS UTILITIES TO ALLOW THEM TO PERFORM THEIR WORK.
4. PROVIDE, CONDUIT, CONDUIT BODIES, FITTINGS, JUNCTION BOXES, FLEX CONDUIT, ETC., AS REQUIRED TO MOUNT AND POWER ALL ELECTRICAL DEVICES, EQUIPMENT, LUMINAIRES, ETC. NOT EVERY BOX, FLEX TRANSITION, OR OTHER ELECTRICAL ELEMENTS ARE SHOWN OR SPECIFIED EXACTLY. PROVIDE ALL REQUIRED.
5. PROVIDE GALVANIZED RIGID STEEL CONDUIT ON EXTERIOR OF BUILDING. SCHEDULE 80 PVC FOR UNDERGROUND INSTALLATIONS. PROVIDE ALLL GALVANIZED RMC UNDERGROUND CONDUIT ELBOWS. PROVIDE LISTED COUPLERS FOR TRANSITION FROM RMC TO PVC, DURA-LINE SHUR-LOCK II OR EQUAL.
6. FIELD TREAT ALL HOT-DIPPED GALVANIZED MATERIALS THAT ARE CUT, DRILLED, SCRATCHED, OR DAMAGED.
7. ALL CONDUCTORS SHALL BE COPPER, ALL INSULATION SHALL BE 600V RATED MINIMUM. TYPE XHHW-2 FOR CONDUCTORS IN CONDUIT.
8. USE STAINLESS STEEL BOLTS, WASHERS, ETC. TO MOUNT ELECTRICAL EQUIPMENT AND STRUT CHANNEL. ALL FASTENERS AND OTHER EXPOSED HARDWARE SHALL BE 316L STAINLESS STEEL.
9. PROVIDE OXIDE INHIBITING COMPOUND ON ALL ELECTRICAL CONNECTIONS.
10. CONDUIT ROUTING SHOWN ON THE PLANS AND ELEVATIONS ARE SUGGESTED ROUTES. CONDUITS SHALL BE SURFACE MOUNTED AND/OR INSTALLED UNDER THE CONCRETE SLAB. THE CONTRACTOR MAY ELECT TO ROUTE CONDUITS OTHER THAN AS IS SHOWN ON THE PLANS, PROVIDED THE INSTALLATION MEETS CODE AND AS-BUILTS ARE SUBMITTED AFTER CONSTRUCTION.
11. IF EQUIPMENT TO BE INSTALLED ON THE PROJECT HAS NOT ARRIVED AND TEMPORARY MEANS OF COVERING OR PROTECTING INFRASTRUCTURE IS NECESSARY, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROVISIONS AND TEMPORARY MEANS OF PROTECTION. AT ALL TIMES THE JOB SITE SHALL REMAIN IN A SAFE AND WORKMANLIKE CONDITION.
12. PROVIDE A SUBMITTAL REGISTRY WITH A FULL LIST OF PROJECT SUBMITTALS WHERE REQUIRED PER EACH SPECIFICATION SECTION. INCLUDE IN THE REGISTRY THE DATE OF EACH SUBMISSION, RESPONSES PROVIDED BY THE ENGINEER, ETC. CONTRACTOR IS FULLY RESPONSIBLE TO PROVIDE SUBMITTALS OF ALL EQUIPMENT SHOWN ON THE PLANS PRIOR TO COMMENCEMENT OF ANY APPLICABLE WORK WITHIN THE SECTIONS. CONTRACTOR SHALL NOT COMMENCE WORK UNTIL SUBMITTALS ARE APPROVED IN WRITING.
13. ALL PART NUMBERS ARE GIVEN AS A GUIDE TO WHAT MATERIAL IS BEING SPECIFIED. THEY ARE BASED ON INFORMATION AVAILABLE DURING DESIGN AND MAY NOT BE ACCURATE OR COMPLETE. VERIFY ALL PART NUMBERS DURING BIDDING AND CHANGE AS REQUIRED TO CONFORM TO DRAWINGS AND SPECIFICATIONS. THE DRAWINGS SHALL NOT BE USED AS A BILL OF MATERIALS.
14. NOTIFY OTHER TRADES AND COORDINATE WITH THEM THE SEQUENCE OF INSTALLING THE ELECTRICAL WORK. IF PORTIONS OF OTHER WORK HAS TO WAIT UNTIL THE ELECTRICAL WORK IS DONE, VERIFY ADEQUATE TIME IS ALLOTTED IN THE CONSTRUCTION SCHEDULE TO ALLOW THE ELECTRICAL WORK TO BE DONE AND MAKE SURE OTHER TRADES HONOR THE SCHEDULE TO ALLOW THE ELECTRICAL WORK TO BE DONE. IT IS UP TO THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS TO WORK TOGETHER AS REQUIRED TO PROVIDE THE WORK SHOWN IN THE CONTRACT DOCUMENTS.
15. PROVIDE ALL ELECTRICAL WORK REQUIRED, WHETHER SHOWN OR NOT SHOWN, FOR COMPLETE AND FULLY FUNCTIONAL SYSTEMS.
16. THE NEW PUMP STATION WILL BE CONSTRUCTED WHILE THE EXISTING PUMP STATION REMAINS ONLINE. TEMPORARY POWER SHALL BE PROVIDED TO THE EXISTING PUMP STATION DURING THE CUT OVER FROM 208V 3-PHASE SERVICE TO 480V 3-PHASE SERVICE TO THE NEW PUMP STATION. COORDINATE ELECTRICAL INSTALLATION SEQUENCING PLAN WITH THE GENERAL CONTRACTOR AND OVERALL CONSTRUCTION SEQUENCING PLAN.

SHEET LIST TABLE

SHEET NO.	SHEET TITLE
E-01	LEGEND & GENERAL NOTES
E-02	DEMOLITION SITE PLAN
E-03	SITE PLAN
E-04	EQUIPMENT LIST
E-05	SINGLE LINE DIAGRAM
E-06	PANEL SCHEDULES
E-07	BUILDING FLOOR PLAN
E-08	LIGHTING PLAN
E-09	GENERATOR MECHANICAL PLAN
E-10	GENERATOR MECHANICAL SECTION

JH 06/27/2025

STATE OF ALASKA 49TH — Mark G. Morris — June 16, 2025 — No. EE 8613 — Registered Professional Engineer

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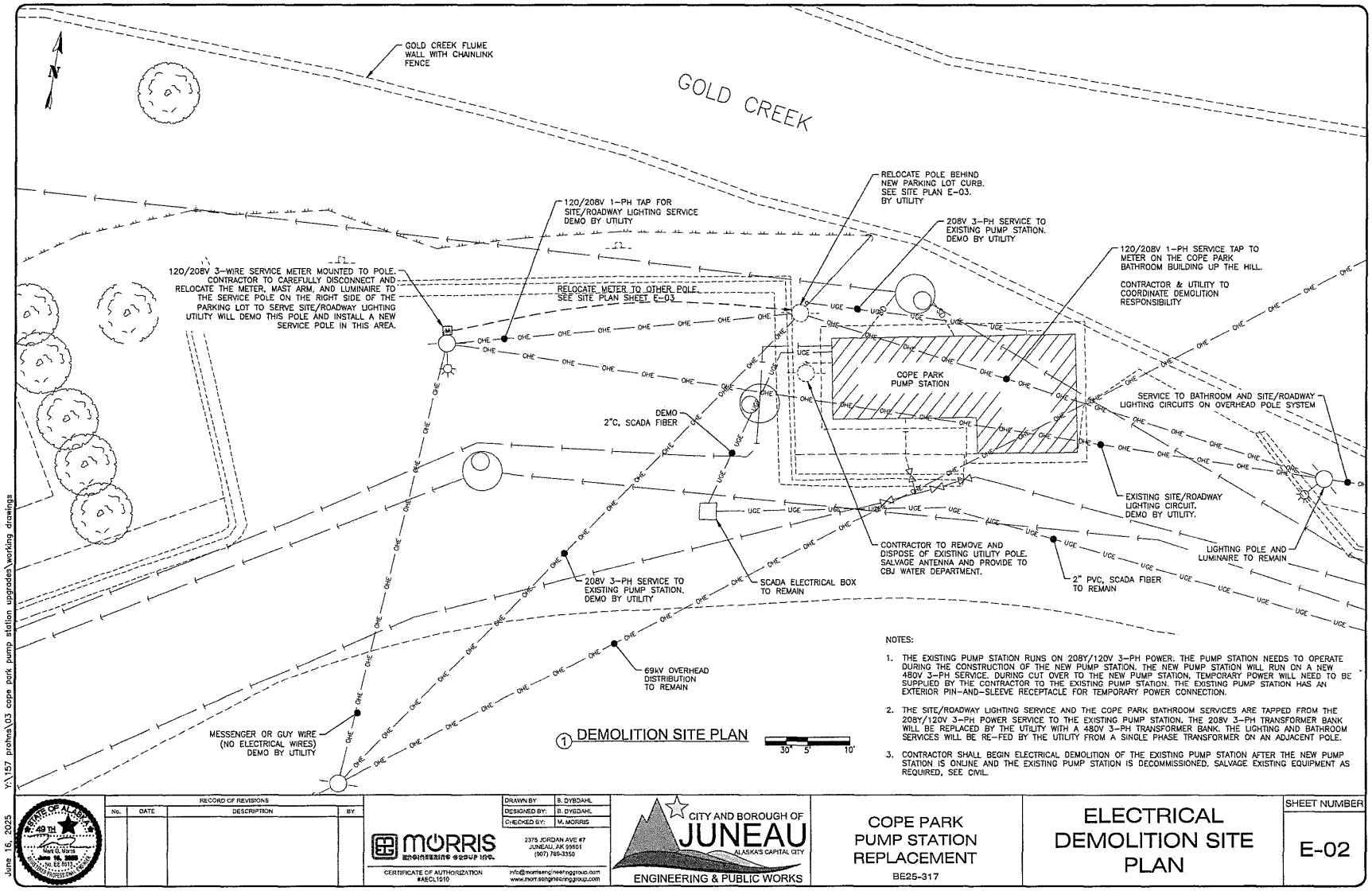
CITY AND BOROUGH OF JUNEAU — ALASKA'S CAPITAL CITY — ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

ELECTRICAL LEGEND & GENERAL NOTES

SHEET NUMBER: E-01

June 16, 2025 Y:\157 prohna\03 cope park pump station upgrades\working drawings



1 DEMOLITION SITE PLAN

NOTES:

1. THE EXISTING PUMP STATION RUNS ON 208Y/120V 3-PH POWER. THE PUMP STATION NEEDS TO OPERATE DURING THE CONSTRUCTION OF THE NEW PUMP STATION. THE NEW PUMP STATION WILL RUN ON A NEW 480V 3-PH SERVICE. DURING CUT OVER TO THE NEW PUMP STATION, TEMPORARY POWER WILL NEED TO BE SUPPLIED BY THE CONTRACTOR TO THE EXISTING PUMP STATION. THE EXISTING PUMP STATION HAS AN EXTERIOR PIN-AND-SLEEVE RECEPTACLE FOR TEMPORARY POWER CONNECTION.
2. THE SITE/ROADWAY LIGHTING SERVICE AND THE COPE PARK BATHROOM SERVICES ARE TAPPED FROM THE 208Y/120V 3-PH POWER SERVICE TO THE EXISTING PUMP STATION. THE 208V 3-PH TRANSFORMER BANK WILL BE REPLACED BY THE UTILITY WITH A 480V 3-PH TRANSFORMER BANK. THE LIGHTING AND BATHROOM SERVICES WILL BE RE-FED BY THE UTILITY FROM A SINGLE PHASE TRANSFORMER ON AN ADJACENT POLE.
3. CONTRACTOR SHALL BEGIN ELECTRICAL DEMOLITION OF THE EXISTING PUMP STATION AFTER THE NEW PUMP STATION IS ONLINE AND THE EXISTING PUMP STATION IS DECOMMISSIONED. SALVAGE EXISTING EQUIPMENT AS REQUIRED, SEE CIVIL.

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COPE PARK PUMP STATION REPLACEMENT
BE25-317

ELECTRICAL DEMOLITION SITE PLAN

SHEET NUMBER: E-02

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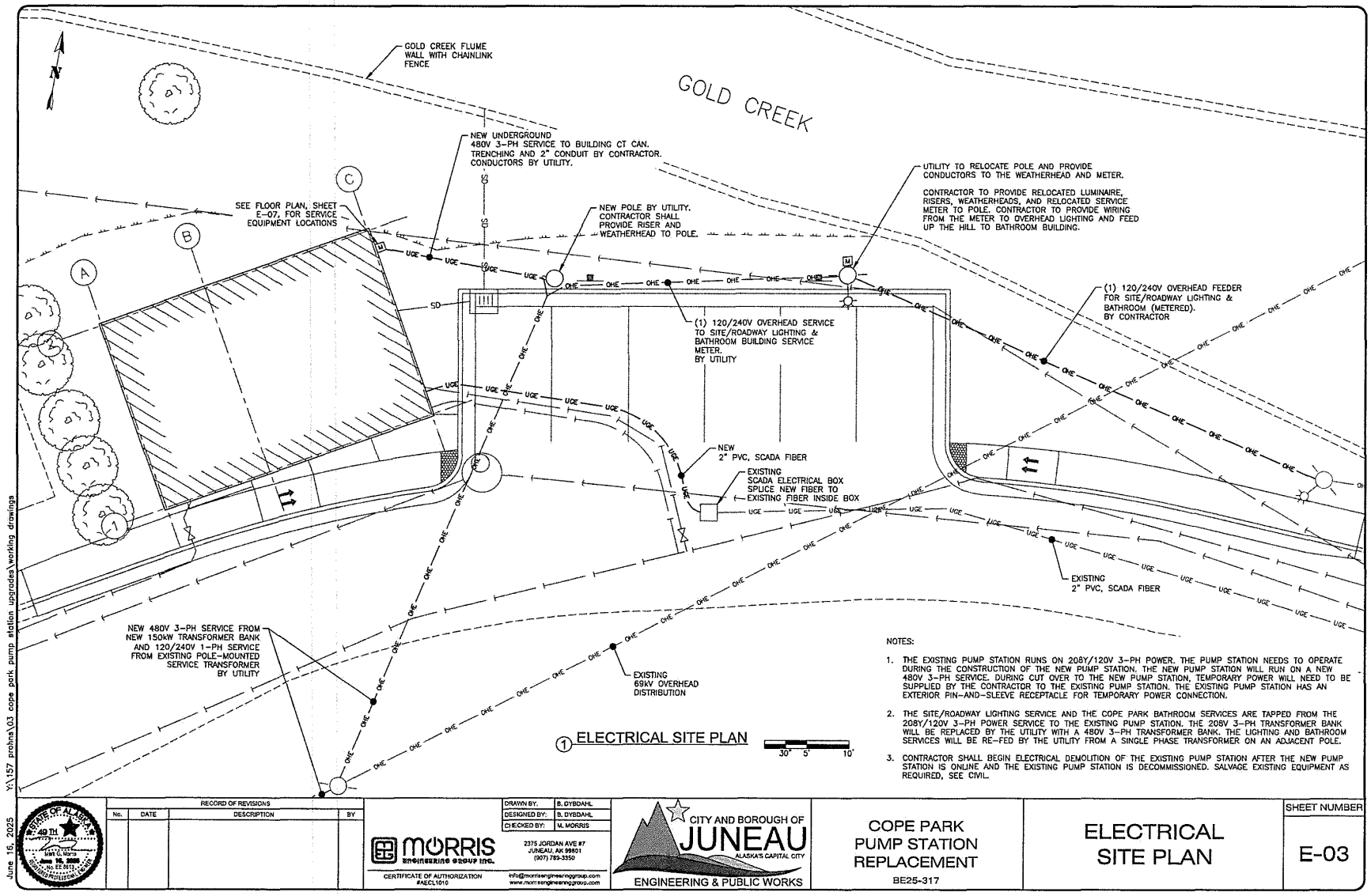

① ELECTRICAL SITE PLAN

30" 5' 10'

NOTES:

1. THE EXISTING PUMP STATION RUNS ON 208Y/120V 3-PH POWER. THE PUMP STATION NEEDS TO OPERATE DURING THE CONSTRUCTION OF THE NEW PUMP STATION. THE NEW PUMP STATION WILL RUN ON A NEW 480V 3-PH SERVICE. DURING CUT OVER TO THE NEW PUMP STATION, TEMPORARY POWER WILL NEED TO BE SUPPLIED BY THE CONTRACTOR TO THE EXISTING PUMP STATION. THE EXISTING PUMP STATION HAS AN EXTERIOR PIN-AND-SLEEVE RECEPTACLE FOR TEMPORARY POWER CONNECTION.
2. THE SITE/ROADWAY LIGHTING SERVICE AND THE COPE PARK BATHROOM SERVICES ARE TAPPED FROM THE 208Y/120V 3-PH POWER SERVICE TO THE EXISTING PUMP STATION. THE 208V 3-PH TRANSFORMER BANK WILL BE REPLACED BY THE UTILITY WITH A 480V 3-PH TRANSFORMER BANK. THE LIGHTING AND BATHROOM SERVICES WILL BE RE-FED BY THE UTILITY FROM A SINGLE PHASE TRANSFORMER ON AN ADJACENT POLE.
3. CONTRACTOR SHALL BEGIN ELECTRICAL DEMOLITION OF THE EXISTING PUMP STATION AFTER THE NEW PUMP STATION IS ONLINE AND THE EXISTING PUMP STATION IS DECOMMISSIONED. SALVAGE EXISTING EQUIPMENT AS REQUIRED, SEE CIVIL.

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CITY AND BOROUGH OF JUNEAU — ALASKA'S CAPITAL CITY — ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

ELECTRICAL SITE PLAN

SHEET NUMBER: E-03

June 16, 2025

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EQUIPMENT LIST

1. SERVICE METER, 480Y/277V, TYPE 3R.
2. CT CABINET, 36" X 36" X 10" TYPE 4X ENCLOSURE. CONTINUOUS HINGE WITH PADLOCKABLE HASP, WITH BACK PANEL, PROVIDE WITH CURRENT TRANSFORMER MOUNTING PROVISIONS. CURRENT TRANSFORMERS AND WIRING BY UTILITY.
3. SERVICE MAIN CIRCUIT BREAKER, 225A, 3-POLE, MOUNTED IN TYPE 4X ENCLOSURE, WITH NEUTRAL ASSEMBLY AND GROUND BAR. SQUARE D JGL26225 CIRCUIT BREAKER, J250DS CIRCUIT BREAKER ENCLOSURE.
4. GROUND RODS, THREE 10-FT GROUND RODS SPACED 10 FT APART
5. PORTABLE GENSET RECEPTACLE, PIN-AND-SLEEVE, 400A, 4-POLE, REVERSE SERVICE, WITH BACK BOX AND ANGLE ADAPTER. EMERSON POWERTITE
6. PORTABLE GENSET CIRCUIT BREAKER, 225A, 3-POLE, MOUNTED IN TYPE 4X ENCLOSURE, WITH NEUTRAL ASSEMBLY AND GROUND BAR.
7. AUTOMATIC TRANSFER SWITCH, 260A, 480Y/277V, 3-POLE, 3-WIRE, DELAYED TRANSITION, WITH NEUTRAL AND GROUND BUS. TYPE 1 ENCLOSURE, BY SAME MANUFACTURER AS BACKUP GENERATOR SET.
8. MANUAL TRANSFER SWITCH, DOUBLE THROW SAFETY SWITCH, 400A, 3-POLE, NON-FUSIBLE, TYPE 1 ENCLOSURE, WITH NEUTRAL BUS AND GROUND BAR. SQUARE D DTU365.
9. PANEL MDP, I-LINE PANELBOARD, 400A, 480VA SYSTEM VOLTAGE, 3-PHASE, 3-WIRE, MAIN LUGS, 45-IN CIRCUIT BREAKER SPACE, ALUMINUM BUS, SQ-D HCP23594, SQ-D HC4259DB TYPE 1 BOX, SURFACE MOUNT TRIM FRONT SQ-D HCW591SD.
   I-LINE CIRCUIT BREAKERS, 18kA: (2) 200/3, (1) 60/3, (1) 80/3
10. SURGE PROTECTIVE DEVICE, 480V, 3-PHASE, 4-WIRE, 100kA, UL TYPE 1, UL1283 COMPONENTS, NEMA 1. SQ-D SURGELOGIC EMA51 OR EQUAL. NIPPLE MOUNT TO PANEL MDP NEAREST FEEDER BREAKER.
11. 3kW UNIT HEATER, QTY 2, 480V, 3-PHASE, PROVIDE REMOTE MOUNT THERMOSTATS, PROVIDE WITH REMOTE MOUNT MOTOR RATED 30A SNAP SWITCH DISCONNECT. MOUNT PER MANUFACTURER'S RECOMMENDATIONS.
12. 30kVA TRANSFORMER, 480VΔ:208Y/120V, 3-PHASE, DRY TYPE, FLOOR MOUNT, COPPER WINDINGS, HPS SGJA0030KB0C.
13. PANEL A, NQ PANELBOARD, 100A RATED, 208Y/120V SYSTEM VOLTAGE, 3-PHASE, 4-WIRE, 30 POLE SPACES, SQ-D NQ430L1C INTERIOR, NQMB2HJ MAIN BREAKER KIT (Q-FRAME), 100A 3-POLE MAIN BREAKER SQ-D QDL32100, TYPE 1 ENCLOSURE BOX SQ-D MH44, SURFACE MOUNT HINGED COVER SQ-D NC44SHR. SEE PANEL SCHEDULE FOR SQ-D QOB-TYPE 10kA BOLT ON FEEDER BREAKERS. MOUNT A RELAY IN A BOX ON PANEL A AND FEED THE COIL FROM A BREAKER; NORMALLY OPEN CONTACT OF THE RELAY SHALL BE A "POWER FAIL" INPUT TO THE PLC, SEE PROGRAMMING SHEETS.
14. INTERIOR LIGHTING, TYPE A, SEE LUMINAIRE SCHEDULE, SHEET E-08.
15. EXTERIOR LIGHTING, TYPE B, SEE LUMINAIRE SCHEDULE, SHEET E-08
16. GENERATOR SHUNT TRIP, MUSHROOM HEAD PUSH BUTTON IN A FIBERGLASS ENCLOSURE WITH WINDOW AND PADLOCK HASP. WIRE TO GENERATOR SET MAIN BREAKER SHUNT TRIP COIL.
17. BACKUP GENERATOR SET, 150kW @0.8PF, 480Y/277V, 3-PHASE, 60HZ, TIER 3, 1800 RPM, 250A MAIN BREAKER, WITH INTEGRAL SUBBASE FUEL TANK, BATTERY CHARGER AND TWO BATTERIES MOUNTED ON GENSET, CONTROL PANEL. TO BE CONFIGURED FOR USE WITH 80 kW AUTOMATIC LOAD BANK W/ 20 kW LOAD STEPS. TO BE PROVIDED WITH THREE CUSTOMER CONFIGURABLE RELAYS TO CONTROL THE LOAD BANK AFTER THE GENERATOR HAS RUN FOR 3 MINUTES AND DURING THE COOL DOWN CYCLE. MOUNT LOAD BANK CIRCUIT BREAKER NEXT TO GENERATOR CIRCUIT BREAKER ON THE SIDE OF THE GENERATOR. PROGRAM THE LOAD BANK TO OPERATE WHENEVER GENERATOR IS RUNNING EXCEPT DURING COOL DOWN. RUN CONTROL CONDUCTORS TO GENERATOR RELAYS TO DUMP LOAD BANK DURING COOL DOWN. PROVIDE CURRENT TRANSFORMER IN AUTOMATIC TRANSFER SWITCH (ATS) AND ALL NECESSARY CONTROL WIRING TO ATS AND GENERATOR TO START THE LOAD BANK AUTOMATICALLY WHEN THE GENERATOR HAS BEEN RUNNING FOR 3 MINUTES. PROVIDE AUTOMATIC LOAD LEVELING TO MAINTAIN A 80 kW LOAD ON THE GENERATOR WHEN THE LOAD BANK IS ON. DISCONNECT THE LOAD BANK FROM THE GENERATOR DURING THE GENERATOR COOL DOWN. PROVIDE 15 MINUTES MINIMUM OF GENERATOR COOL DOWN INCLUDING COOL DOWN OF LOAD BANK ELEMENTS. PROVIDE ALL CONDUIT, WIRING, AND PROGRAMMING REQUIRED. MOUNT ON (4 MIN) ISOLATION PADS. BOLT TO PAD WITH EARTHQUAKE ANGLE STOPS. THE PROJECT'S BASIS OF DESIGN GENERATOR IS THE CATERPILLAR C7.1 GCABR PACKAGED GENERATOR SET (FOOTPRINT IS 52"W X 145"L). PROVIDE ATS, LOAD BANK, AND ALL WORK DESCRIBED HERE FOR GENERATOR. SIZE EVERYTHING PER GENSET. SUBBASE PROVIDED AS PART OF THIS PROJECT, FOOTPRINT IS 145" X 52" X 21".
18. SUBBASE FUEL TANK WITH SPILL CONTAINMENT AND DRAIN VALVE. (SIZE FOR 24 HOURS AT FULL LOAD) PROVIDE WITH TANK QUANTITY INDICATOR, LOW FUEL ALARM CONTACTS, AND VENT PIPING. VENT TANK TO OUTSIDE AT 8' AFG. USE BLACK IRON PIPE FOR VENT PIPING. SIZE PER MANUFACTURER RECOMMENDATIONS. PAINT WITH RUST-PROOF PAINT. ROUTE ACROSS FLOOR ON STRUT. CATERPILLAR OR EQUAL. SIZE FOR DESIGN GENSET.
19. GENSET SILENCER AND EXHAUST PIPE. SIZE PIPE AND SILENCER PER GENSET MANUFACTURER'S REQUIREMENTS. PROVIDE CRITICAL GRADE SILENCER. SEE SHEETS E-09 & E-10.
20. RADIATOR MOUNT AUTOMATIC LOAD BANK, 480Y/277V, 80kW, WITH EXHAUST-SIDE CONTROL PANEL OPTION, 20kW LOAD STEPS, AVTRON 1000 SERIES, MODEL 1100, AUTOMATIC MODE ACTIVATED UPON GENERATOR START, WITH CURRENT TRANSFORMERS PROVIDED BY MANUFACTURER. MOUNT CURRENT TRANSFORMERS ON THE LOAD SIDE OF THE AUTOMATIC TRANSFER SWITCH.
21. FUEL POLISHING SYSTEM. MOUNT TO 36" X 36" X 3/4" PLYWOOD BACKBOARD PAINTED WHITE. TOP AT 6" AFF. CONNECT TO FUEL TANK WITH FLEXIBLE PIPING. COORDINATE WITH GENSET MANUFACTURER TO PROVIDE CORRECT OPENINGS AND MODIFICATIONS IN FUEL TANK. RCI TECHNOLOGIES, FRS 660-5-OF-UL OR EQUAL. NEMA 4, 508A LISTED SYSTEM TO REMOVE 99.9% OF WATER AND 95% OF DUST, DIRT, SLUDGE, ALGAE, AND ALL OTHER NORMAL AND NATURAL CONTAMINATES FOUND IN DIESEL FUEL. THE FUEL PURIFIER SHALL BE GREEN CLEAN CERTIFIED AND HAVE NO MOVING PARTS OR FILTERS. THERE SHALL BE NO ELEMENTS OR CARTRIDGES TO CLEAN, CHANGE, OR REPLACE. PROVIDE WITH OPERATOR TOUCH PANEL INTERFACE, BRASS INLET AND OUTLET BALL VALVES, BRASS SWING CHECK VALVES, SYSTEM EMERGENCY SHUT DOWN POINTS, RECIRCULATING PUMP WITH PRESSURE RELIEF SAFETY SWITCH, CABINET LEAK SENSOR WITH ALARM CONTACTS AND PUMP SHUTOFF. FUEL PURIFIER, WATER SENSOR ALARM AND MAGNETIC FUEL DECONTAMINATION UNIT. PERFORM ALL WORK REQUIRED FOR AN OPERATIONAL SYSTEM.
22. EXHAUST COOLING AIR DUCT. MOUNT ONE END TO LOAD BANK. MOUNT THE OTHER END TO THE BACKDRAFT DAMPER AND FIXED LOUVER. PROVIDE DOOR INSIDE ON BOTH SIDES TO ADJUST BACKDRAFT DAMPER.
23. LOW LEAKAGE CONTROL EXHAUST AIR DAMPER, 42"H X 36"W, OPPOSED BLADES, FLANGED TO DUCT CONNECTIONS, JACK SHAFT SIDE AS SHOWN ON THE PLANS. SALT WATER RESISTANCE OPTION. RUSKIN TED50 OR EQUAL. SEE SHEETS E-09 & E-10.
24. FIXED BLADE EXHAUST LOUVER. 42"H X 36"W, WITH OPTIONAL STAINLESS STEEL BIRD SCREEN, FLANGE AND SLEEVE. VENT PRODUCTS MODEL 2370 OR EQUAL. SEE SHEETS E-09 & E-10.
25. LOW LEAKAGE CONTROL INTAKE AIR DAMPER, 48"H X 48"W, OPPOSED BLADES, FLANGED TO DUCT CONNECTIONS, EXTENDED JACK SHAFT SIDE AS SHOWN ON THE PLANS. SALT WATER RESISTANCE OPTION. RUSKIN TED50 OR EQUAL.
26. LOW LEAKAGE CONTROL RETURN AIR DAMPER, 36" X 24", OPPOSED BLADES, FLANGED TO DUCT CONNECTIONS, EXTENDED JACK SHAFT SIDE AS SHOWN ON PLANS. SALT WATER RESISTANCE OPTION. RUSKIN TED50 OR EQUAL.
27. CONTROL DAMPER ACTUATORS FOR LOUVERS, ALL ACTUATORS SHALL BE 24 VAC CONTROLLED SPRING CLOSED, ON/OFF FOR OUTSIDE AIR DAMPER, MODULATING FOR RETURN AIR DAMPER AND EXHAUST AIR DAMPER, WITH 120V:24V AC TRANSFORMER, BRACKET, ROD EXTENSION, SHAFT CLAMP. BELIMO EFX-24-S OR OUTSIDE AIR DAMPER, AFB24-SR-S FOR EXHAUST AIR DAMPER AND RETURN AIR DAMPER, OR EQUAL. NOTE: OUTSIDE AIR DAMPER TO OPEN 100% UPON GENERATOR OPERATION. RETURN AIR DAMPER TO OPEN AS THE SPACE TEMPERATURE DROPS BELOW SET POINT. THE EXHAUST AIR DAMPER TO CLOSE PROPORTIONALLY TO THE RETURN DAMPER AS IT OPENS AS IT OPENS THIS DAMPER WILL CLOSE. ADJUSTABLE SET POINT ON TEMPERATURE SENSOR INITIALLY SET AT 70°F.
28. ALL INTAKE AND EXHAUST OPENINGS TO BE FABRICATED OUT OF MINIMUM 20 GAUGE GALVANIZED SHEET METAL TO FORM AN INTAKE AND EXHAUST HOOD. STANDARD DUCTMATE FLANGES USED TO CONNECT TO COLLARS PENETRATING THE WALLS AND ALL CONNECTIONS. REMOVABLE 1/2" SQUARE STAINLESS STEEL MESH ON ALL OUTLET AND INTAKES. SEE DRAWINGS FOR SIZES AND CONSTRUCTION.

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June 16, 2025

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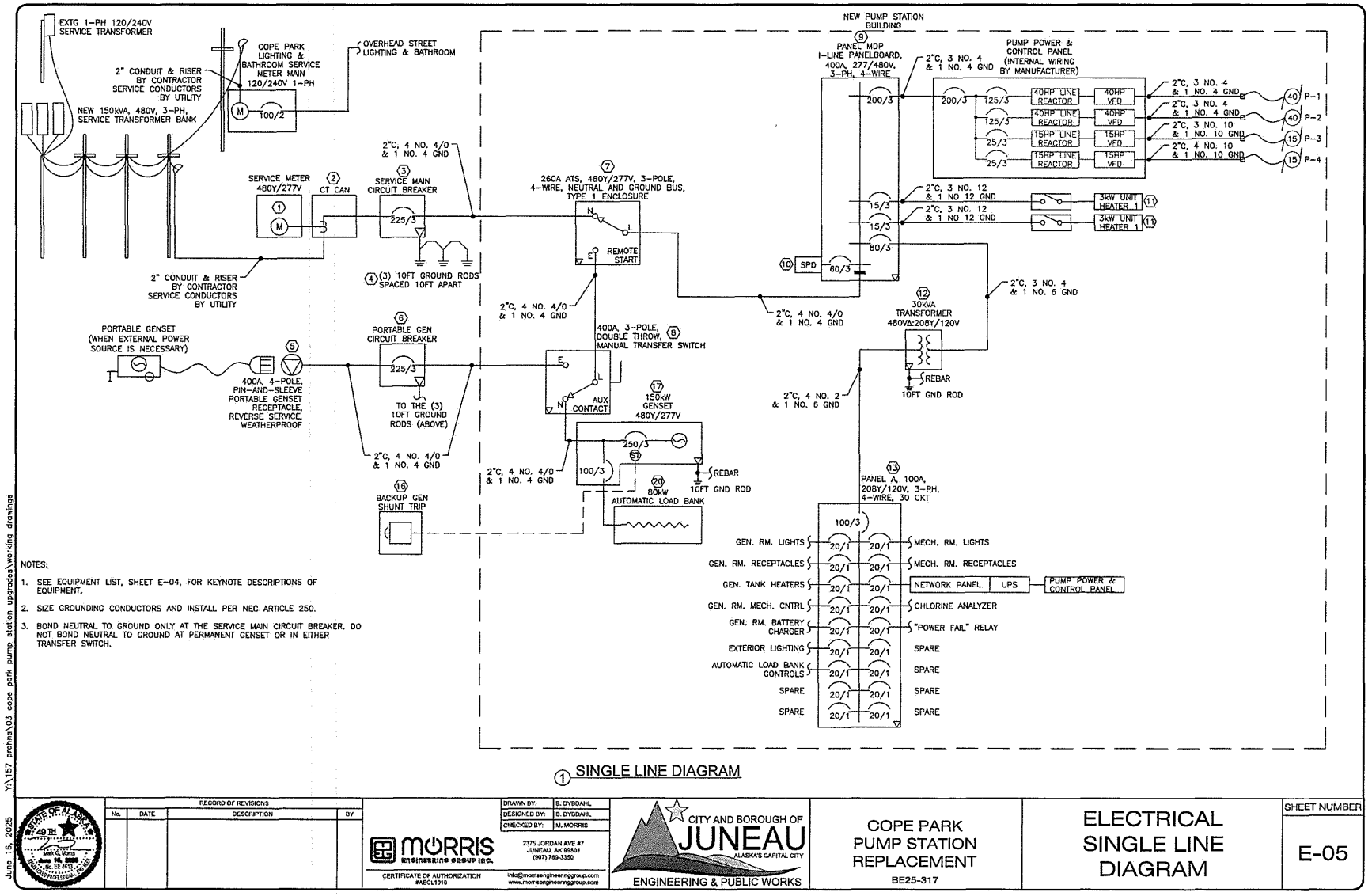
CITY AND BOROUGH OF JUNEAU — ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

ELECTRICAL EQUIPMENT LIST

SHEET NUMBER: E-04



NOTES:

1. SEE EQUIPMENT LIST, SHEET E-04, FOR KEYNOTE DESCRIPTIONS OF EQUIPMENT.
2. SIZE GROUNDING CONDUCTORS AND INSTALL PER NEC ARTICLE 250.
3. BOND NEUTRAL TO GROUND ONLY AT THE SERVICE MAIN CIRCUIT BREAKER. DO NOT BOND NEUTRAL TO GROUND AT PERMANENT GENSET OR IN EITHER TRANSFER SWITCH.

① SINGLE LINE DIAGRAM

Y:\157 prohns\03 cope park pump station upgrades\working drawings

June 16, 2025

STATE OF ALASKA 49TH — Mark C. Morris — No. EE 8413 — REGISTERED PROFESSIONAL ENGINEER

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CITY AND BOROUGH OF JUNEAU — ALASKA'S CAPITAL CITY — ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

ELECTRICAL SINGLE LINE DIAGRAM

SHEET NUMBER
E-05

PANEL MDP		SIZE	VOLTS, PHASE			MOUNTING		MAIN	LOCATION	
		400A	277/480V, 3ϕ, 4W			SURFACE		LUGS	PUMP STATION BUILDING	
CKT NO.	DESCRIPTION	C/B SIZE	kVA CKT	kVA Aϕ	kVA Bϕ	kVA Cϕ	kVA CKT	C/B SIZE	DESCRIPTION	CKT NO.
1	45 kVA TRANSFORMER (FEEDS PANEL A)	80/3	2.5	39.1			36.6	200/3	PUMP POWER & CONTROL PANEL (2) 40HP VFDs & (2) 15HP VFDs	2
3			1.8		38.4		36.6			4
5			1.7			38.3	36.6			6
7	3kW UNIT HEATER	15/3	1.0	2.0			1.0	15/3	3kW UNIT HEATER	8
9			1.0		2.0		1.0			10
11			1.0			2.0	1.0			12
13	SURGE PROTECTIVE DEVICE	60/3	0.0	0.0			0.0			14
15			0.0		0.0		0.0			16
17			0.0			0.0	0.0			18
TOTAL CONNECTED LOAD = 121.8 kVA/ 147 AMPS				41.1	40.4	40.3	ALL BREAKERS SHALL BE 18 kAIC RATED, MINIMUM.			

PANEL A		SIZE	VOLTS, PHASE			MOUNTING		MAIN	LOCATION	
		100A	120/208V, 3ϕ, 4W			SURFACE		100/3	PUMP STATION BUILDING	
CKT NO.	DESCRIPTION	C/B SIZE	kVA CKT	kVA Aϕ	kVA Bϕ	kVA Cϕ	kVA CKT	C/B SIZE	DESCRIPTION	CKT NO.
1	BATTERY CHARGER	20/1	1.2	1.6			0.4	20/1	MECH RM RECEPTACLES	2
3	MECH RM INTERIOR LIGHTING	20/1	0.2		0.6		0.4	20/1	MECH RM RECEPTACLES	4
5	GEN RM RECEPTACLES	20/1	0.3			0.5	0.2	20/1	FUEL TANK AND GEN. CONTROL	6
7	GEN RM RECEPTACLES	20/1	0.3	0.3			0.0	20/1	SPARE	8
9	INTAKE LOUVER HOA ENCLOSURE	20/1	0.1		1.1		1.0	20/1	JACKET WATER HEATER	10
11	GEN RM INTERIOR LIGHTING	20/1	0.2			0.4	0.2	20/1	BUILDING EXTERIOR LIGHTS	12
13	FUEL POLISHING SYSTEM	20/1	0.1	0.1			0.0	20/1	SPARE	14
15	CHLORING ANALYZER	20/1	0.1		0.1		0.0	20/1	SPARE	16
17	PUMP CONTROL PANEL	20/1	0.5			0.7	0.2	20/1	GEN RM MECHANICAL CONTROLS	18
19	NETWORK PANEL	20/1	0.5	0.5			0.0	20/1	SPARE	20
21	SPARE	20/1	0.0		0.0		0.0	20/1	GENSET E-STOP SHUNT TRIP	22
23	SPARE	20/1	0.0			0.1	0.1	20/1	"POWER FAIL" RELAY	24
25	SPARE	20/1	0.0	0.0			0.0		SPACE	26
27	SPARE	20/1	0.0		0.0		0.0		SPACE	28
29	SPARE	20/1	0.0			0.0	0.0		SPACE	30
TOTAL CONNECTED LOAD = 6.0 kVA/ 17 AMPS				2.5	1.8	1.7	ALL BREAKERS SHALL BE 10 kAIC RATED, MINIMUM.			

20a 125v receptacles be GFCI per NEC Article 210.8(B)(6)

June 16, 2025 Y:\157 proj\03 cope park pump station upgrades\working drawings

STATE OF ALASKA 49TH — Mark G. Morris — No. EE 8813 — PROFESSIONAL ENGINEER

RECORD OF REVISIONS

NO.	DATE	DESCRIPTION	BY

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CERTIFICATE OF AUTHORIZATION #AECL1010
2375 JORDAN AVE #7, JUNEAU, AK 99801, (907) 789-3350
info@morrisengineeringgroup.com, www.morrisengineeringgroup.com

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DESIGNED BY:	B. DYBDAHL
CHECKED BY:	M. MORRIS

CITY AND BOROUGH OF JUNEAU — ALASKA'S CAPITAL CITY — ENGINEERING & PUBLIC WORKS

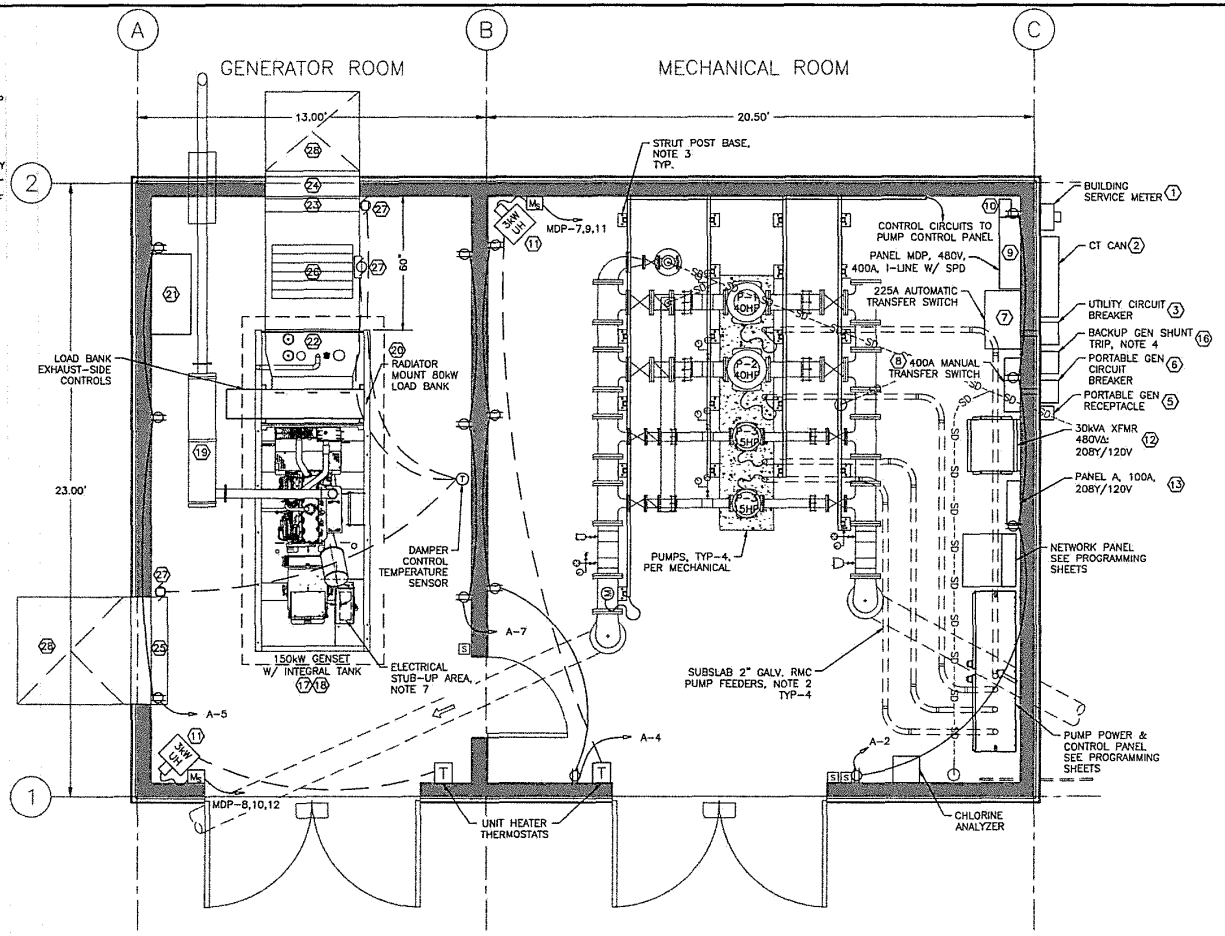
COPE PARK PUMP STATION REPLACEMENT
BE25-317

ELECTRICAL PANEL SCHEDULES

SHEET NUMBER
E-06

NOTES:

1. SEE EQUIPMENT LIST, SHEET E-04, FOR EQUIPMENT KEYNOTE REFERENCE DESCRIPTIONS.
2. INSTALL 2" GALVANIZED RMC UNDER FLOOR SLAB TO FEED THE PUMP MOTORS. CONDUITS TO STUB UP UNDER THE PUMP POWER & CONTROL PANEL AND ROUTED UNDER SLAB TO STUB UP THROUGH THE RAISED CONCRETE PAD NEAR EACH PUMP.
3. CONDUIT FROM THE FLOW METER SHALL BE SUPPORTED ADJACENT TO PIPING UTILIZING VERTICAL STRUT SUPPORTED BY ELECTRO-GALVANIZED POST BASE, UNISTRUT P2941 OR EQUAL ANCHOR POST BASE TO CONCRETE WITH ANCHOR BOLTS. ROUTE CONDUIT FROM CONTROL PANEL, AROUND THE WALL OF THE BUILDING TO THE BACKSIDE, AND ON TO THE VERTICAL SUPPORTS. CONDUIT ROUTING SHALL AVOID THE OVERHEAD PUMP CRANE RAILS.
4. INSTALL A MUSHROOM HEAD PUSH BUTTON IN A FIBERGLASS ENCLOSURE WITH WINDOW AND PADLOCK HASP. WIRE PUSH BUTTON TO THE GENERATOR SHUNT TRIP BREAKER TO SHUTDOWN GENERATOR POWER IN AN EMERGENCY.
5. SEE GENERATOR MECHANICAL SHEETS, E-09 & E-10, FOR DETAILS ASSOCIATED WITH GENERATOR MECHANICAL ITEMS.
6. SURFACE MOUNT ALL RECEPTACLES AT 24" AFF. LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE.
7. THE GENERATOR SET AND TANK HAS AN ELECTRICAL STUB UP AREA UNDER THE GENSET BREAKER. CONTRACTOR MAY ELECT TO ROUTE CONDUITS AND CONDUCTORS UNDER THE SLAB TO MAKE ELECTRICAL CONNECTIONS AT THE GENSET. COORDINATE ALL CONDUIT STUB UPS WITH OTHER TRADES AND INSTALL CONDUITS PRIOR TO CONCRETE INSTALLATION. ALTERNATIVELY, CONTRACTOR MAY ELECT TO ROUTE CONDUITS ALONG THE WALLS AND ON THE CEILING DOWN TO THE GENSET. PROVIDE CODE COMPLIANT SUPPORTS AND WIRING METHODS.



20a 125v receptacles be GFCI per NEC Article 210.8(B)(6)

1 ELECTRICAL BUILDING FLOOR PLAN

6" 1' 2' 4'

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

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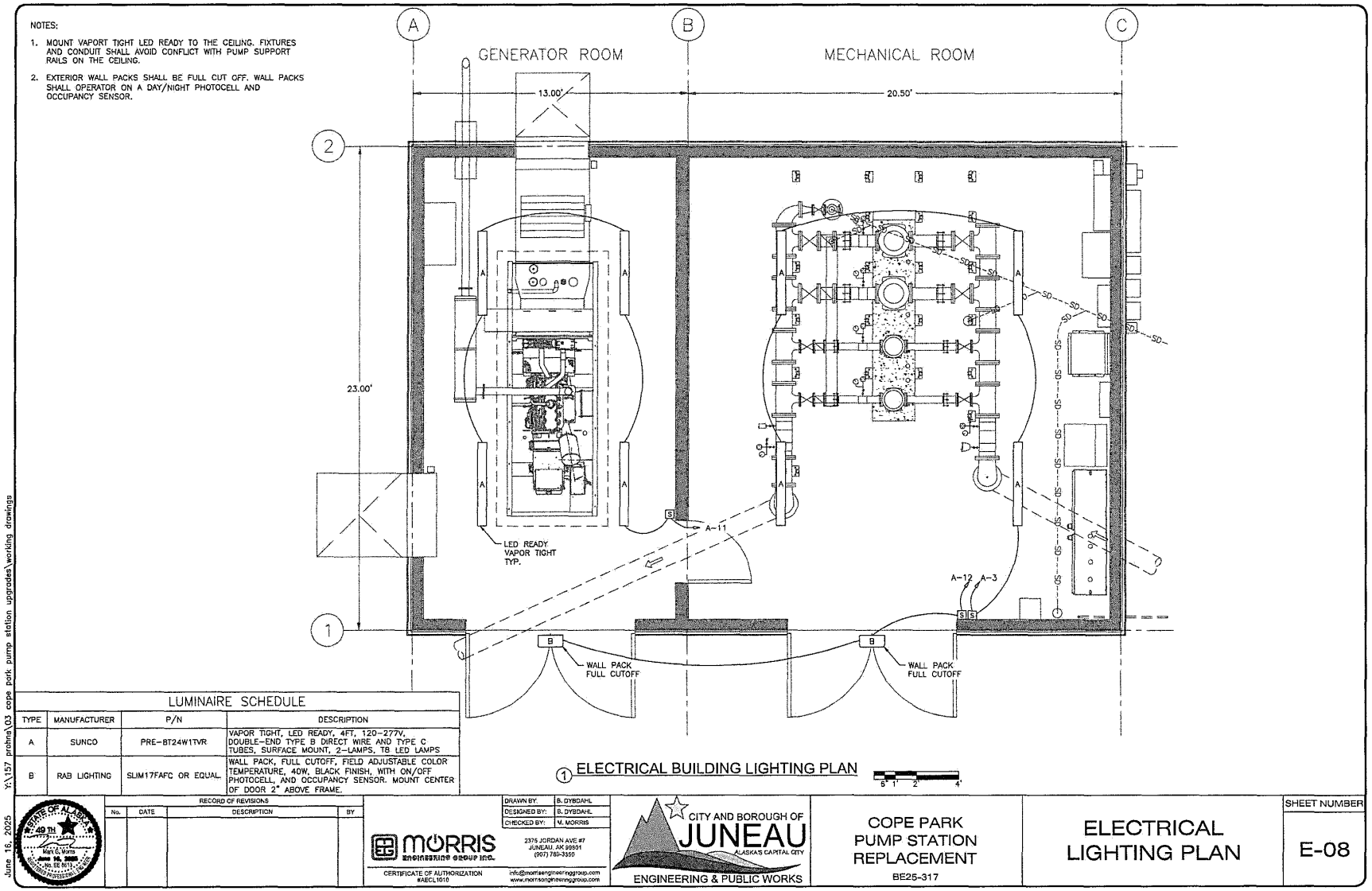
CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

ELECTRICAL BUILDING FLOOR PLAN

SHEET NUMBER
E-07

June 16, 2025 Y:\157 prohns\03 cope park pump station upgrades\working drawings


NOTES:
1. MOUNT VAPORT TIGHT LED READY TO THE CEILING. FIXTURES AND CONDUIT SHALL AVOID CONFLICT WITH PUMP SUPPORT RAILS ON THE CEILING.
2. EXTERIOR WALL PACKS SHALL BE FULL CUT OFF. WALL PACKS SHALL OPERATOR ON A DAY/NIGHT PHOTOCELL AND OCCUPANCY SENSOR.
A
B
C
GENERATOR ROOM
MECHANICAL ROOM
13.00'
20.50'
23.00'
2
1
LED READY VAPOR TIGHT TYP.
A-11
A-12
A-3
WALL PACK FULL CUTOFF
WALL PACK FULL CUTOFF
LUMINAIRE SCHEDULE
TYPE | MANUFACTURER | P/N | DESCRIPTION
A | SUNCO | PRE-BT24W1TVR | VAPOR TIGHT, LED READY, 4FT, 120-277V, DOUBLE-END TYPE B DIRECT WIRE AND TYPE C TUBES, SURFACE MOUNT, 2-LAMPS, T8 LED LAMPS
B | RAB LIGHTING | SLIM17FAFC OR EQUAL | WALL PACK, FULL CUTOFF, FIELD ADJUSTABLE COLOR TEMPERATURE, 40W, BLACK FINISH, WITH ON/OFF PHOTOCELL, AND OCCUPANCY SENSOR. MOUNT CENTER OF DOOR 2" ABOVE FRAME.
1 ELECTRICAL BUILDING LIGHTING PLAN
0 1' 2 4'
RECORD OF REVISIONS
No. | DATE | DESCRIPTION | BY
STATE OF ALASKA 49TH
Mark G. Morris
No. 58 8613
June 16, 2025
MORRIS Engineering Group Inc.
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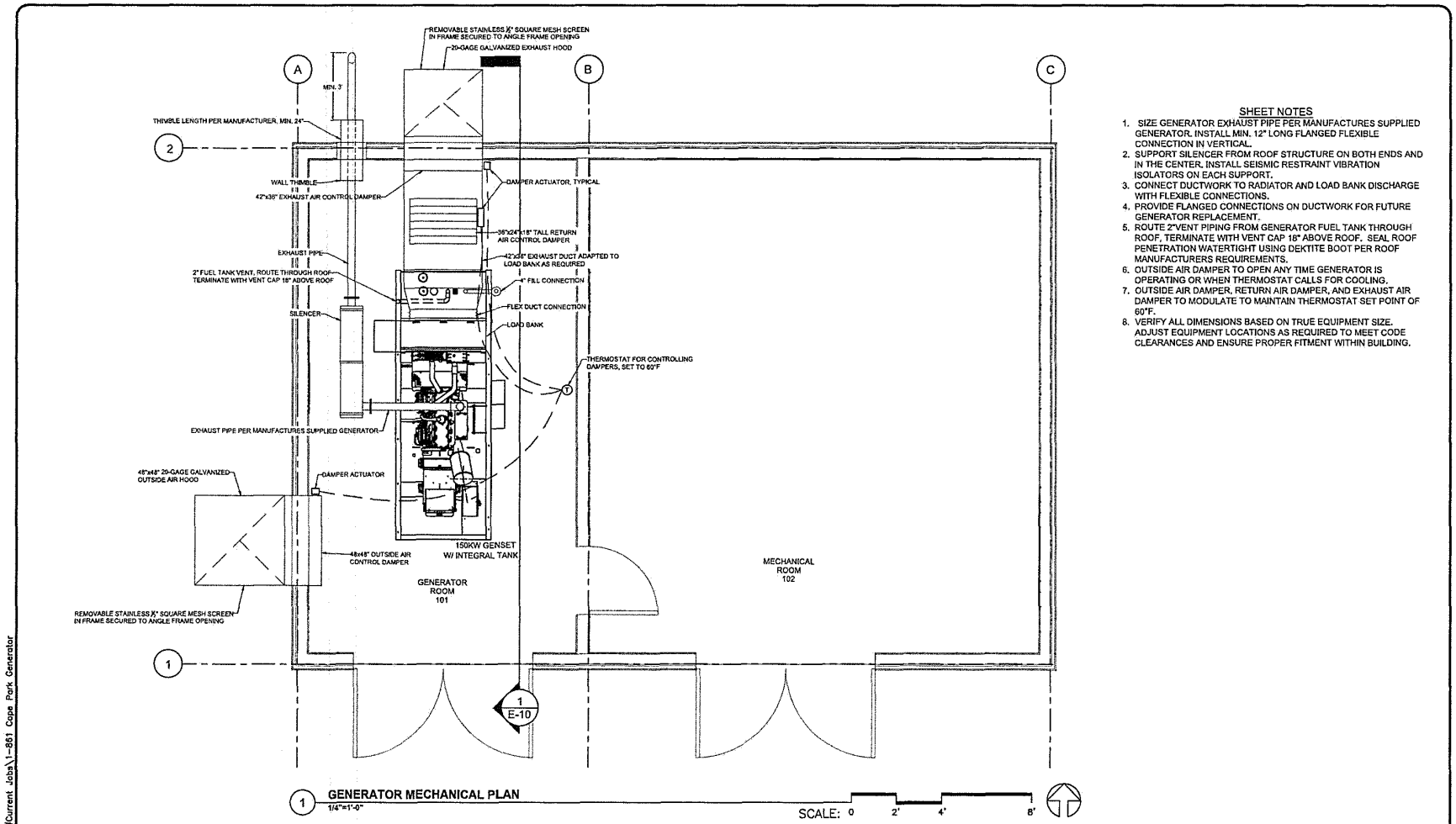
ENGINEERING & PUBLIC WORKS
COPE PARK PUMP STATION REPLACEMENT
BE25-317
ELECTRICAL LIGHTING PLAN
SHEET NUMBER
E-08
Y:\157 prohms\03 cope park pump station upgrades\working drawings



SHEET NOTES

1. SIZE GENERATOR EXHAUST PIPE PER MANUFACTURES SUPPLIED GENERATOR. INSTALL MIN. 12" LONG FLANGED FLEXIBLE CONNECTION IN VERTICAL.
2. SUPPORT SILENCER FROM ROOF STRUCTURE ON BOTH ENDS AND IN THE CENTER. INSTALL SEISMIC RESTRAINT VIBRATION ISOLATORS ON EACH SUPPORT.
3. CONNECT DUCTWORK TO RADIATOR AND LOAD BANK DISCHARGE WITH FLEXIBLE CONNECTIONS.
4. PROVIDE FLANGED CONNECTIONS ON DUCTWORK FOR FUTURE GENERATOR REPLACEMENT.
5. ROUTE 2"VENT PIPING FROM GENERATOR FUEL TANK THROUGH ROOF, TERMINATE WITH VENT CAP 18" ABOVE ROOF. SEAL ROOF PENETRATION WATERTIGHT USING DEKTITE BOOT PER ROOF MANUFACTURERS REQUIREMENTS.
6. OUTSIDE AIR DAMPER TO OPEN ANY TIME GENERATOR IS OPERATING OR WHEN THERMOSTAT CALLS FOR COOLING.
7. OUTSIDE AIR DAMPER, RETURN AIR DAMPER, AND EXHAUST AIR DAMPER TO MODULATE TO MAINTAIN THERMOSTAT SET POINT OF 60°F.
8. VERIFY ALL DIMENSIONS BASED ON TRUE EQUIPMENT SIZE. ADJUST EQUIPMENT LOCATIONS AS REQUIRED TO MEET CODE CLEARANCES AND ENSURE PROPER FITMENT WITHIN BUILDING.

M:\Current Jobs\1-861 Cope Park Generator
June 16, 2025

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

STATE OF ALASKA 49th 6/16/2025 REGISTERED PROFESSIONAL ENGINEER

MODERN MECHANICAL
Mechanical Engineers
11001 Black Bear Rd. (907) 723-9320 phone
Juneau, Alaska 99801 chad@modern-mechanical.com
CERTIFICATE OF AUTHORIZATION

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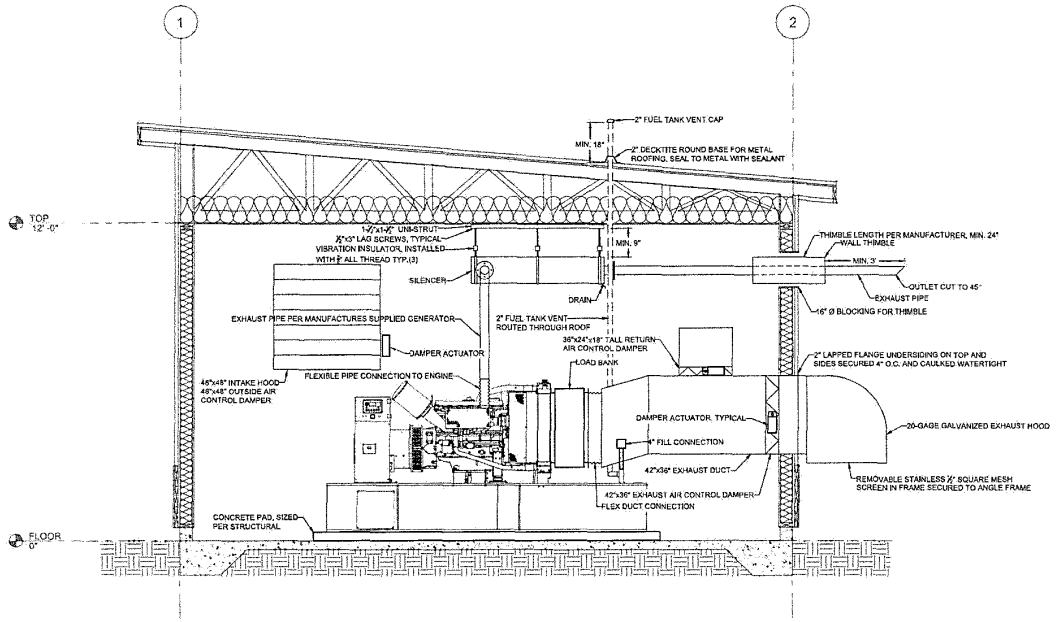
COPE PARK PUMP STATION REPLACEMENT
BE25-317

GENERATOR MECHANICAL PLAN

SHEET NUMBER
E-09



1 **GENERATOR MECHANICAL SECTION**
1/4"=1'-0"

SCALE: 0 2' 4' 8'

M:\Current Jobs\1-861 Cope Park Generator

June 16, 2025

STATE OF ALASKA 49th 5/16/2025 REGISTERED PROFESSIONAL ENGINEER

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COPE PARK PUMP STATION REPLACEMENT
BE25-317

GENERATOR MECHANICAL SECTION

SHEET NUMBER
E-10

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June 16, 2025

POWER SYMBOLS

- MOTOR CONNECTION
- CIRCUIT BREAKER
- LINE REACTORS
- TRANSFORMER
- PANEL GROUND BUS
- EARTH GROUND
- WIRE CONNECTION
- BUSBAR
- TIP OUT FUSE

CONTROL SYMBOLS

- NORMALLY OPEN LIMIT SWITCH
- RELAY COIL
- NORMALLY OPEN RELAY CONTACT
- NORMALLY CLOSED RELAY CONTACT
- FLOAT SWITCH
- POTENTIOMETER
- PUSH TO TEST LIGHT
- HOA SELECTOR SWITCH

WIRING

- INTERNAL WIRING
- FIELD WIRING
- TWISTED SHIELDED PAIR WITH SIGNAL GROUND
- WIRE LABEL

GENERAL

- GROUND CONNECTION
- TERMINAL BLOCK CONNECTION
- COMPONENT TERMINAL CONNECTION
- EXTENSION

STATE OF ALASKA — Blake Rider — No. EE-11417 — Cope Park Upgrades — PROFESSIONAL ENGINEER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION	BY

ALASKA AUTOMATION
CERTIFICATE OF AUTHORIZATION #212397

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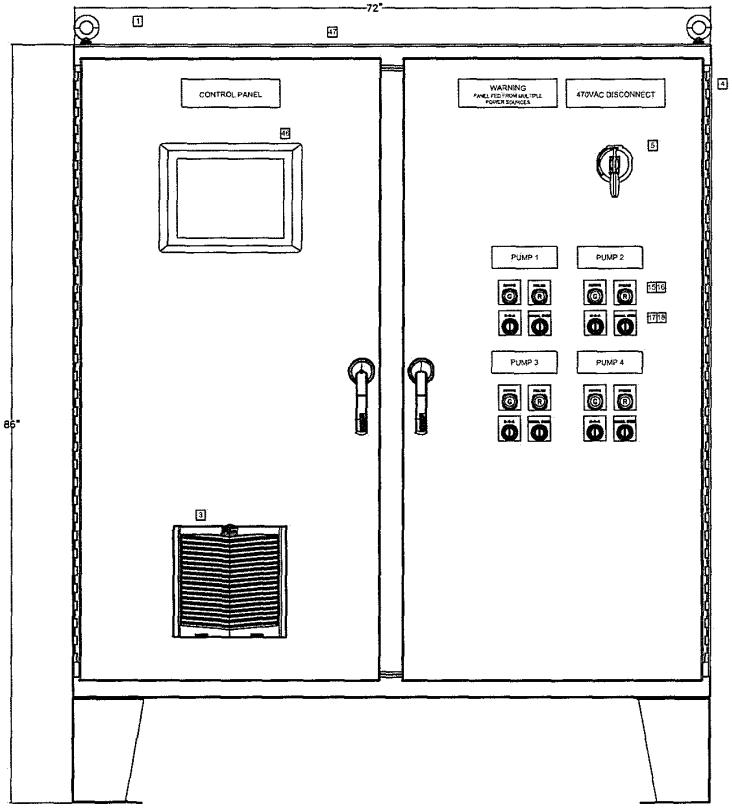
CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

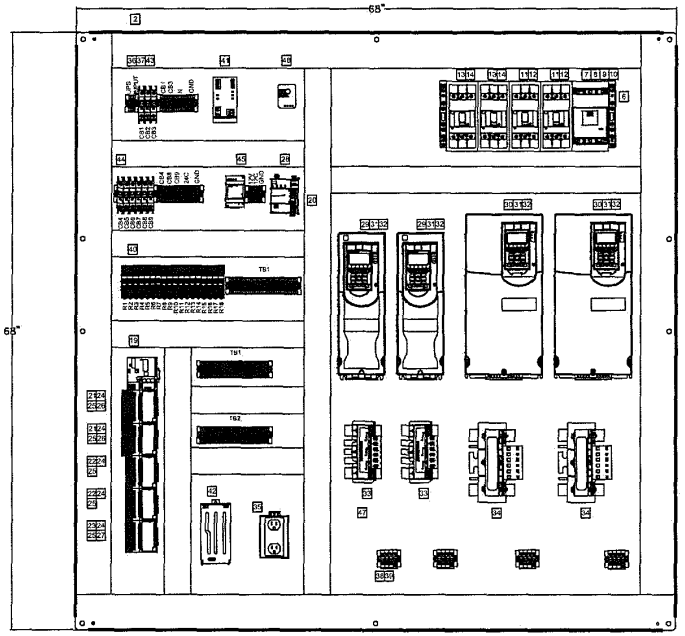
LEGEND

SHEET NUMBER
P-01



1 ENCLOSURE

NOTES:
1. PANEL TO BE UL508A LISTED.
2. BOND ENCLOSURE DOOR PER NEC.
3. QUANTITIES AS SHOWN.
4. PANEL LAYOUT FOR GUIDANCE ONLY.



2 PANEL

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

ALASKA AUTOMATION
CERTIFICATE OF AUTHORIZATION #212397

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CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

PANEL LAYOUT

SHEET NUMBER
P-02

June 16, 2025 C:\Users\admin\Alaska Automation Dropbox\Blake Rider\Alaska Automation\Owners\City and Borough of Juneau\Water\Drawings\J000250 – Cope Park Upgrades

Item	Quantity	Part Number	Description	Manufacturer
1	1	A74H7218LP3PT	Two-Door Floorstand and 3pt Latch Type 4, 74.06x72.06x18.06, Gray, Steel	Hoffman
2	1	A72P72	Panel for Type 3R 4 4X 12 13 Enclosure, fits 62x72, White, Steel	Hoffman
3	1	HF1316523	HF13 Side-Mount Filter Fan, 115V 197CFM, Black.	Hoffman
4	1	HG1300503	HG Filter Fan Exhaust Grille IP54, fits HF13 fans 13-inch, Black, Plastic.	Hoffman
5	1	140G-H-RVM21B	140G/1494V Product Handle Accessories/Operating Mechanisms, 140G Rotary, Rotary Handle, 21 inches, Black	Allen Bradley
6	4	141A-TR3	BusBar, 20 x 10 mm (520 Amps), 800 mm in length, Priced per Piece; must buy in multiples of 3	Allen Bradley
7	1	141A-BCR	Provides isolation between busbar and panel (required for feeder circuit applications per UL 508A)	Allen Bradley
8	1	141A-B2010A	BusBar, 20 x 10 mm (520 Amps), 800 mm in length, Priced per Piece; must buy in multiples of 3	Allen Bradley
9	1	140G-J3F3-D20-MB	140G - Molded Case Circuit Breaker, J frame, 35 kA Interrupt Rating, T/M , 3 Poles, 200 A, Busbar Mount	Allen Bradley
10	1	140G-J-TLA1A3	Frame-J, Terminal Lug, Qty 3, FCCuAl 1x4-300(25-150)	Allen Bradley
11	2	140G-G2C3-D12-MT	140G - Molded Case Circuit Breaker, G frame, 25 kA Interrupt Rating, T/M, 3 Poles, 125 A, Standard Busbar Mount	Allen Bradley
12	2	140G-G-TLA13	Frame-G, Terminal Lug, CuAl 1x10-2/0 AWG(4-70mm2), Qty3	Allen Bradley
13	2	140G-G2C3-C25-MT	140G - Molded Case Circuit Breaker, G frame, 25 kA Interrupt Rating, T/M 3 Poles, 25 A, Standard Busbar Mount	Allen Bradley
14	2	140G-G-TLC13	Frame-G, Terminal Lug, Qty 3, FCCu 1x14-1/0(2.5-50)	Allen Bradley
15	4	800H-QRTH2G	30.5mm Type 4/4X/13 Pilot Light, LED, Green, 12-130V AC/DC, 1 NO-1 NC	Allen Bradley
16	4	800H-QRTH2R	30.5mm Type 4/4X/13 Pilot Light, LED, Red, 12-130V AC/DC, 1 NO-1 NC	Allen Bradley
17	4	800H-JR2B	3 Position Selector Switch , White, Std. Knob Maint., 3 Position	Allen Bradley
18	4	800H-UR29	30.5mm Type 4/4X Potentiometer Unit, 10 Kilohms Resistive Element	Allen Bradley
19	1	5094-AENTR	5094 Ethernet Adapter 8 Modules RJ45	Allen Bradley
20	1	5069-RTB64-SCREW	5069 Compact I/O Power terminal RTB kit for both 4 and 6 pin Screw type	Allen Bradley
21	2	5094-IF8	5094 Analog 8 Input	Allen Bradley
22	2	5094-IB16	5094 Digital 16 Input	Allen Bradley
23	1	5094-OB16	5094 Digital 16 Output	Allen Bradley
24	5	5094-MB	5094 Mounting Base	Allen Bradley
25	5	5094-RTB3	5094 RTB Screw	Allen Bradley
26	1	5094-STB-QTY5	5094 Shield RTB Screw - Pack of 5	Allen Bradley
27	1	5094-ECR-QTY5	5094 End Cap	Allen Bradley
28	1	5069-L306ER	Controller, CompactLogix 5380, 600 KB User Memory, 8 I/Os, 16 EtherNet/IP Devices	Allen Bradley

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June 16, 2025

RECORD OF REVISIONS

No.	DATE	DESCRIPTION	BY

ALASKA AUTOMATION
CERTIFICATE OF AUTHORIZATION #212397

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CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

MATERIAL LIST

SHEET NUMBER
P-03

Item	Quantity	Part Number	Description	Manufacturer
29	2	20G21ND022JA0NNNNN	PowerFlex 755TS AC Drive, with dual Embedded EtherNet/IP, Open Type, 480 VAC, 3 PH, 22 Amps, 15HP ND	Allen Bradley
30	2	20G21ND053JA0NNNNN	PowerFlex 755TS AC Drive, with dual Embedded EtherNet/IP, Open Type, 480 VAC, 3 PH, 53 Amps, 40HP ND	Allen Bradley
31	4	20-750-2262C-2R	PF750-24V I/O Module-2AI,2AO,6DI,2RO	Allen Bradley
32	4	20-HIM-A6	PowerFlex Architecture Class Enhanced HIM, NEMA 1	Allen Bradley
33	2	KDRB2L	KDR, 480V, 15HP, 25A Max, 3 Phase, Open, Input Line Inductor, Low Impedance, UL Listed	TCI
34	2	KDRC1L	KDR, 480V, 55A, 40HP, 3 Phase, Open, Input Line Inductor, Low Impedance, UL Listed	TCI
35	1	5600461	Rail-mounted dual power outlet with two 120 V AC/15 A receptacles for 35 mm DIN rail.	Phoenix Contact
36		3044102	Feed-through terminal block, nom. voltage: 1000 V, nominal current: 32 A.	Phoenix Contact
37		3044128	Ground terminal, number of connections: 2, connection method: Screw.	Phoenix Contact
38		3044199	Feed through terminal, number of connections: 2, connection method: Screw, 16-4AWG.	Phoenix Contact
39		3044212	Ground terminal, number of connections: 2, connection method: Screw, 16-4AWG.	Phoenix Contact
40	18	2905291	Preassembled relay module with Push-in connection. 2 contacts. Input voltage: 24 V DC.	Phoenix Contact
41	1	2907161	TRIO UPS - UPS with integrated power supply, Push-in connection, input: 1-phase, output: 24 V DC / 10 A	Phoenix Contact
42	1	1274117	Battery module (device with battery), VRLA-AGM, 24 V DC, 4 Ah	Phoenix Contact
43	1	FAZ-C10-1-NA-SP	Miniature circuit breaker, current-limiting, 10A	Eaton
44	8	FAZ-C5-1-NA-SP	Miniature circuit breaker, current-limiting, 5A	Eaton
45	1	PSL-12-30	PSL series switching power supply, 12 VDC, 120/240 VAC input, 1-phase	Rhino
46	1	CV-P2102	Cincoze Rugged Panel PC, i3 processor, 15", s128GB SSD, 16GB SO-DIMM, Auto On, Windows 11 Pro.	OnLogic
47	1	LEDD2S35	LED Light Kit, 1.34x1.26x13.82, VDC Motion Screw Mounting, Plastic.	Hoffman
48	1	THERM16F	Thermostat Controller, 115V Fahrehneit.	Hoffman

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June 16, 2025

Blake Rider No. EE-114174

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

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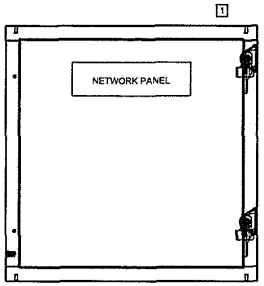
CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

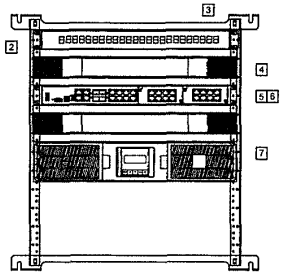
COPE PARK PUMP STATION REPLACEMENT
BE25-317

MATERIAL LIST (CONTINUED)

SHEET NUMBER
P-04



1 ENCLOSURE



2 NETWORK GEAR

Item	Quantity	Part Number	Description	Manufacturer
1	1	PTHS242424G4	ProTek Double-Hinge Solid Type 4 4X 12, 24.09x23.62x24.02, Lt Gray, Steel	Hoffman
2	1	PTRA24T	ProTek Rack Angles Tapped, 21.00 12U, Plated Steel	Hoffman
3	1	FHU-FPP48FLCSMF	FHU 1U 19" Fiber Adapter Panel, 48 Fibers OS2 Single Mode, 24 x LC UPC Duplex (Blue) Adapter, Ceramic Sleeve	Hoffman
4	2	DCHS2	CableTek Horizontal Cable Manager 2U Single Sided, fits 19in, Black, Composite	Hoffman
5	1	CRS328-4C-20S-4S+RM	Smart Switch, 20 SFP cages, 4 SFP+ cages, 4 Combo ports, 800MHz CPU, 512MB RAM, 1U rackmount case, Dual Power Supplies, Dual Boot	MikroTik
6	2	S-3553LC20D	Two SFP (1.25G) module kit, 20Km, single mode	MikroTik
7	1	9PX1000RT	Eaton 9PX 1000VA Double Conversion Online UPS	Eaton

3 MATERIAL LIST

June 16, 2025 C:\Users\admin\Alaska Automation Dropbox\Blake Rider\Alaska Automation\Owners\City and Borough of Juneau\Water\Drawings\J000250 - Cope Park Upgrades

RECORD OF REVISIONS

No.	DATE	DESCRIPTION	BY

ALASKA AUTOMATION
CERTIFICATE OF AUTHORIZATION #212397

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CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

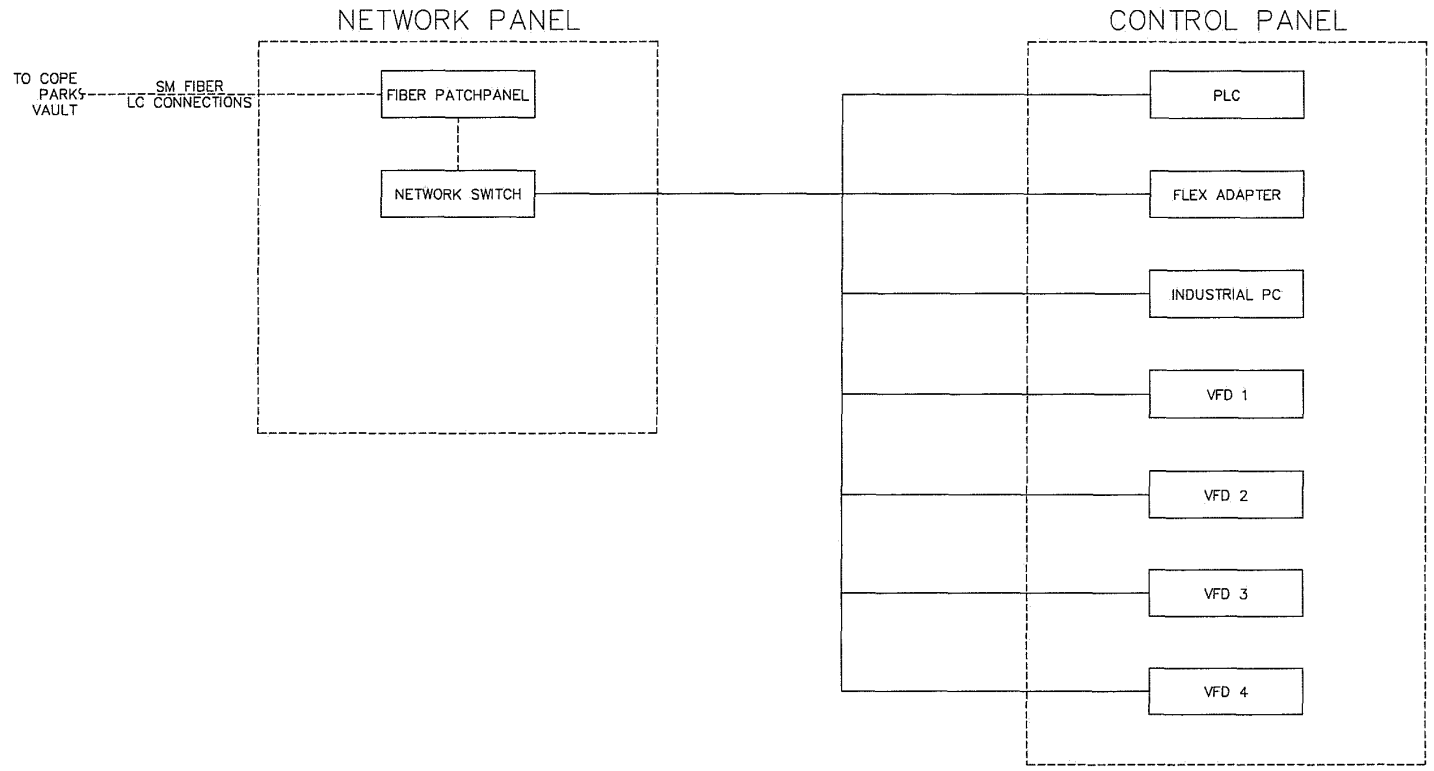
COPE PARK PUMP STATION REPLACEMENT
BE25-317

NETWORK PANEL

SHEET NUMBER
P-05

NOTES
1. TERMINATE ALL CONTROL PANEL NETWORK CONNECTIONS IN NETWORK PANEL.

LEGEND
——— Fiber Optic 50/125, OM3, 10Gbps
___ CAT5E, 1000 Mbs



RECORD OF REVISIONS

No.	DATE	DESCRIPTION	BY

ALASKA AUTOMATION
CERTIFICATE OF AUTHORIZATION #212397

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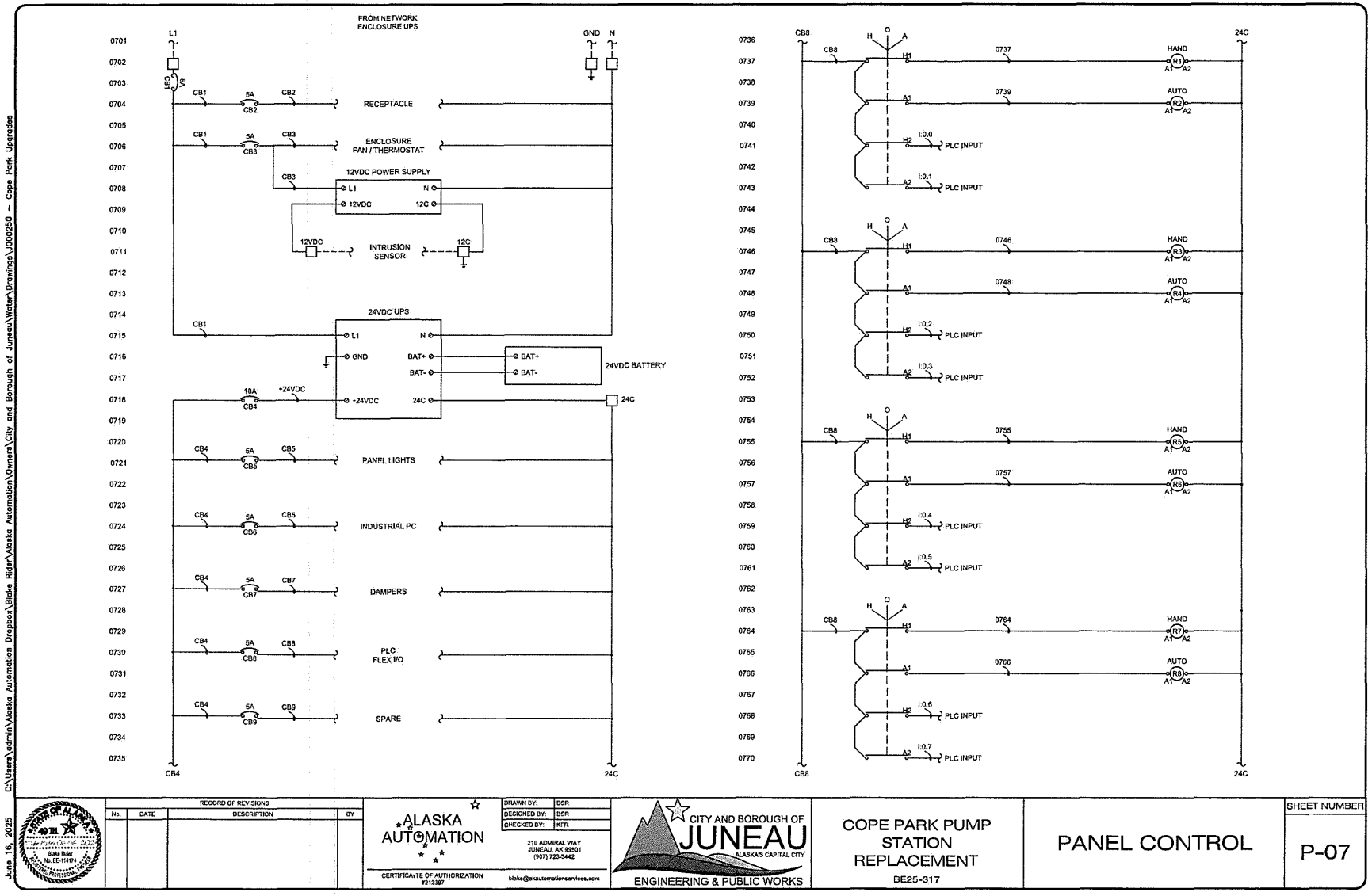
CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

NETWORK DIAGRAM

SHEET NUMBER
P-06

June 16, 2025 C:\Users\cdmin\Alaska Automation Dropbox\Blake Rider\Alaska Automation\Owners\City and Borough of Juneau\Water\Drawings\J000250 – Cope Park Upgrades



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June 16, 2025

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

ALASKA AUTOMATION
CERTIFICATE OF AUTHORIZATION #212397

DRAWN BY: BSR
DESIGNED BY: BSR
CHECKED BY: KTR

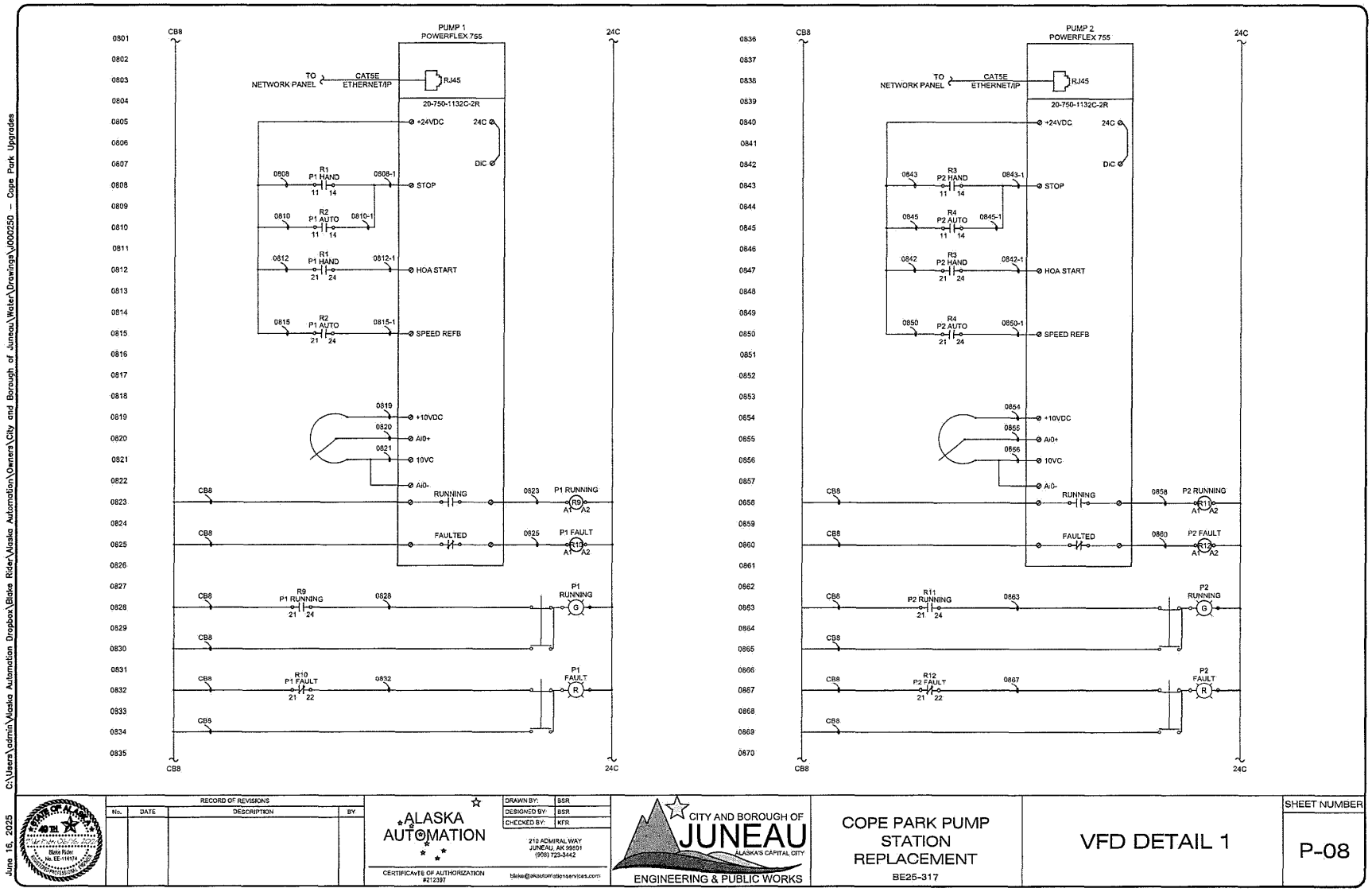
210 ADMIRAL WAY
JUNEAU, AK 99801
(907) 723-3442
blake@akautomationservices.com

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

PANEL CONTROL

SHEET NUMBER
P-07



RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

ALASKA AUTOMATION
CERTIFICATE OF AUTHORIZATION #212397

DRAWN BY:	BSR
DESIGNED BY:	BSR
CHECKED BY:	KFR

210 ADMIRAL WAY
JUNEAU, AK 99801
(908) 723-3442
blake@akautomationservices.com

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

VFD DETAIL 1

SHEET NUMBER
P-08

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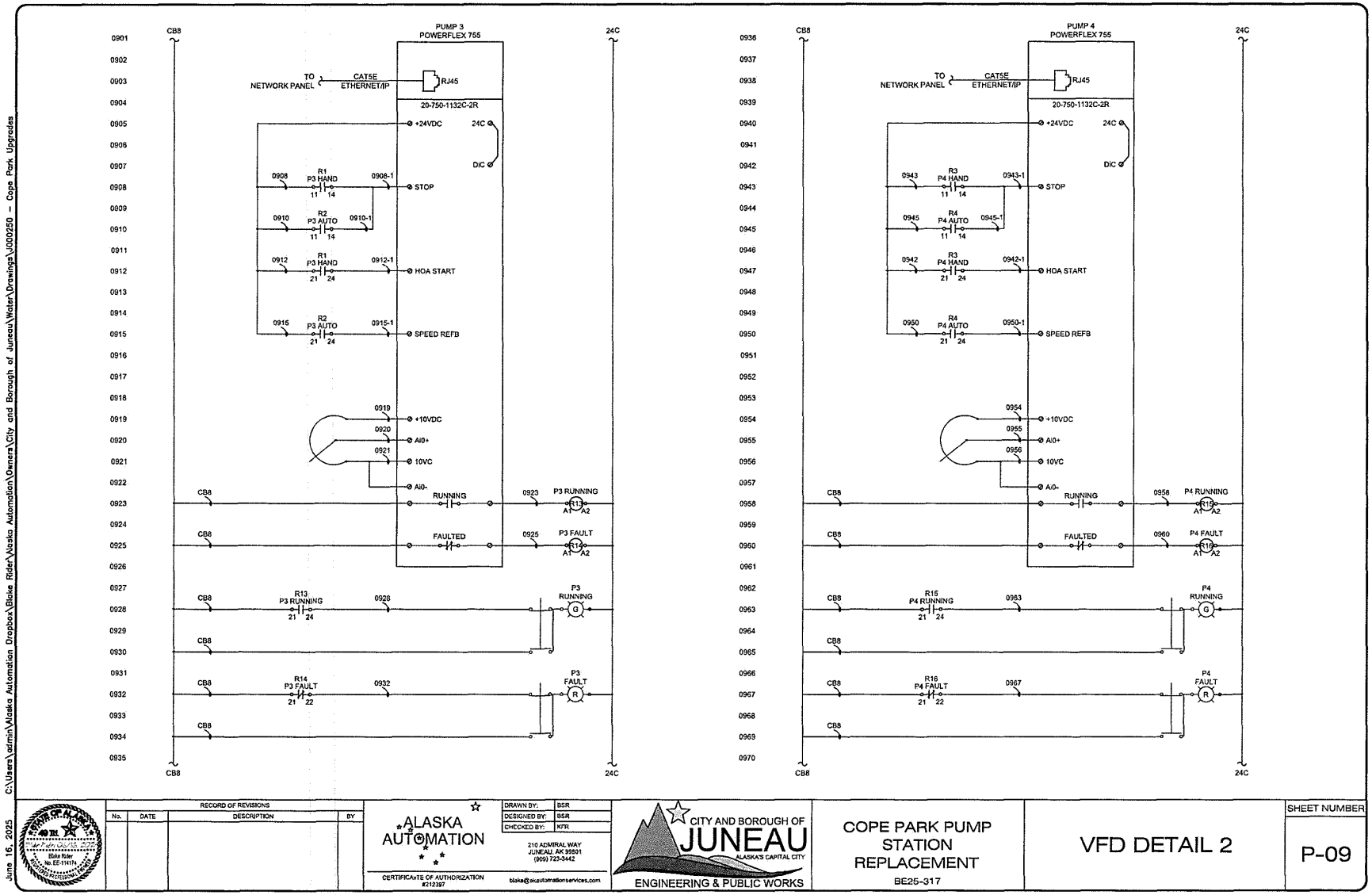

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

ALASKA AUTOMATION
CERTIFICATE OF AUTHORIZATION #212397

DRAWN BY:	BSR
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CHECKED BY:	KTR

210 ADMIRAL WAY
JUNEAU, AK 99801
(909) 723-3442
blake@akautomationservices.com

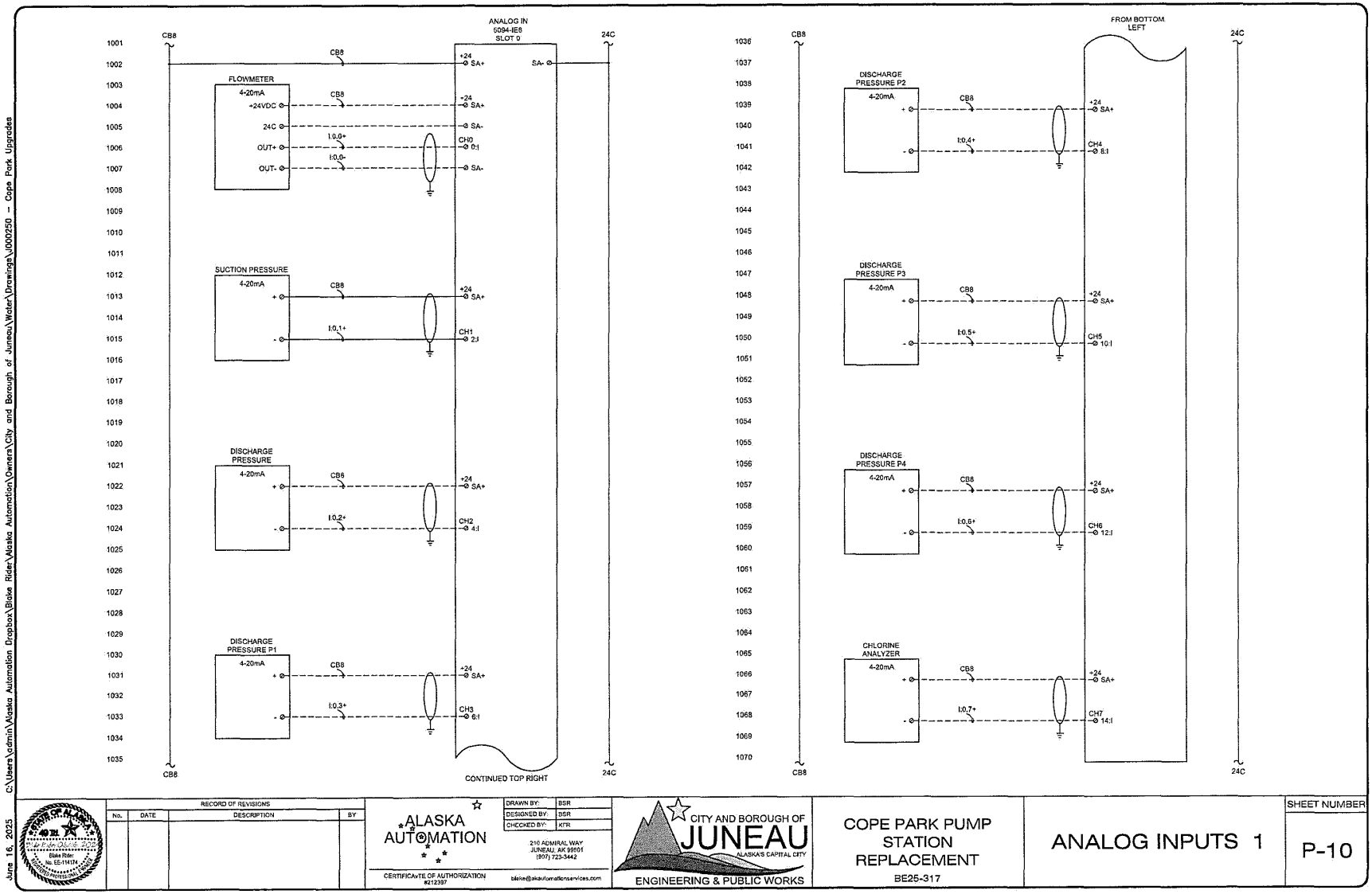
CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

VFD DETAIL 2

SHEET NUMBER
P-09

June 16, 2025 C:\Users\admin\Alaska Automation Dropbox\Blake Rider\Alaska Automation\Owners\City and Borough of Juneau\Water\Drawings\J000250 - Cope Park Upgrades



C:\Users\admin\Alaska Automation Dropbox\Blake Rider\Alaska Automation\Owners\City and Borough of Juneau\Water\Drawings\J000250 - Cope Park Upgrades

June 16, 2025

Blake Rider
No. EE-14174

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

ALASKA AUTOMATION
CERTIFICATE OF AUTHORIZATION #212397

DRAWN BY:	BSR
DESIGNED BY:	BSR
CHECKED BY:	KTR

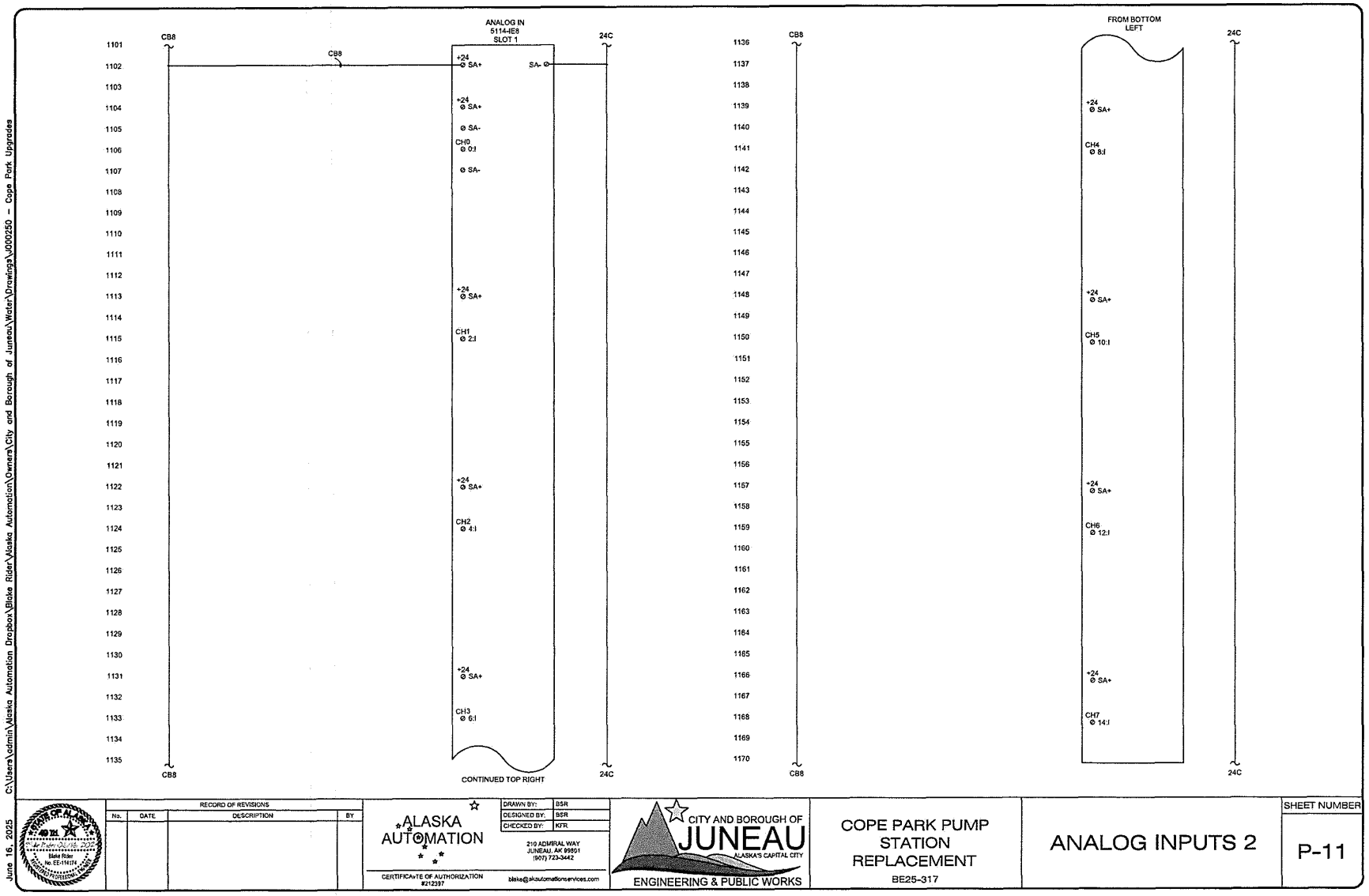
210 ADMIRAL WAY
JUNEAU, AK 99801
(907) 723-3442
blake@akautomationservices.com

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

ANALOG INPUTS 1

SHEET NUMBER
P-10



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June 16, 2025

RECORD OF REVISIONS			
No.	DATE	DESCRIPTION	BY

ALASKA AUTOMATION
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DRAWN BY: BSR
DESIGNED BY: BSR
CHECKED BY: KTR

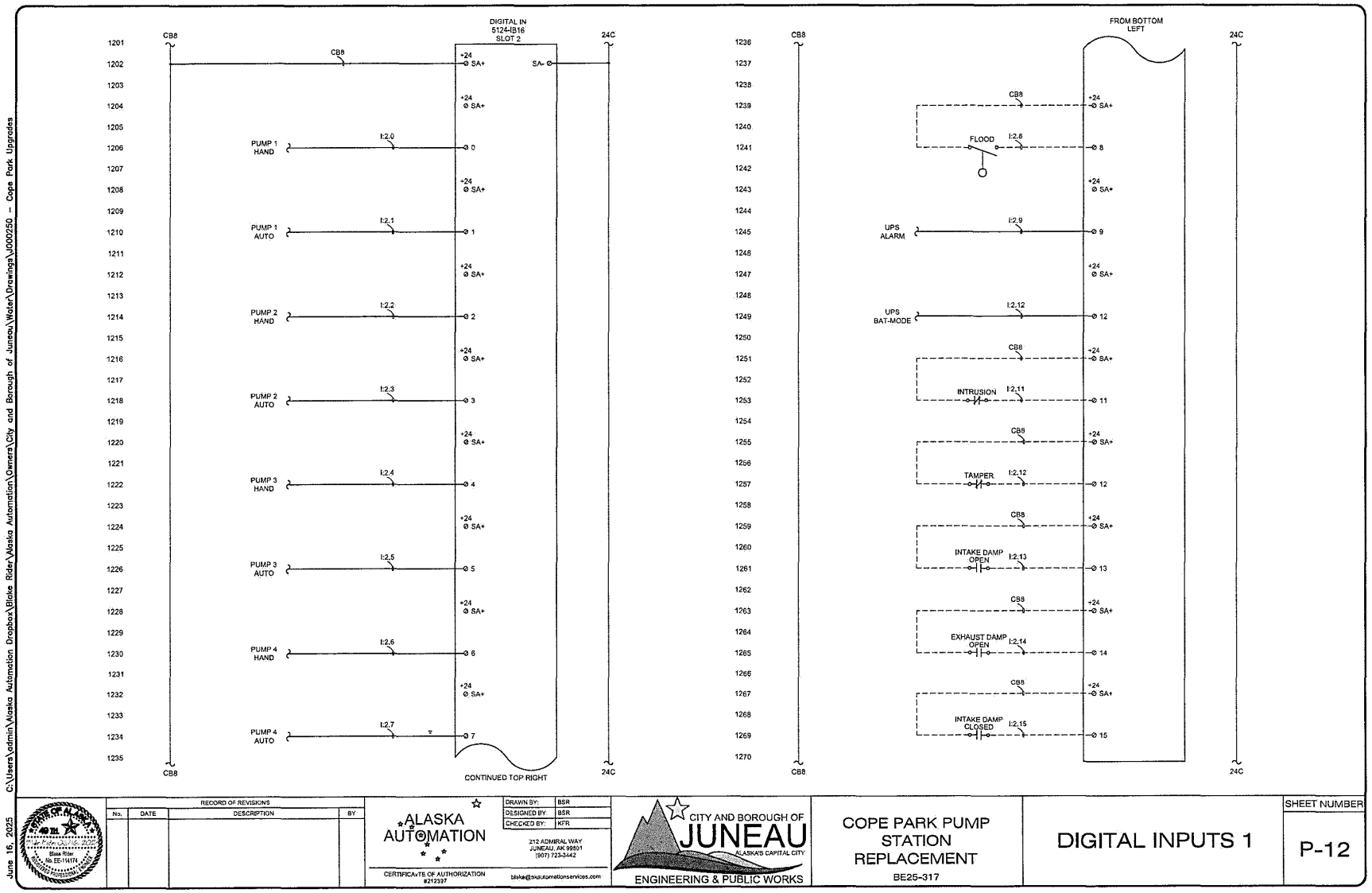
210 ADMIRAL WAY
JUNEAU, AK 99801
(907) 723-3442
blake@akautomationservices.com

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

ANALOG INPUTS 2

SHEET NUMBER
P-11


DIGITAL IN
5124-IB16
SLOT 2
CB8
24C
+24
SA+
SA-
PUMP 1 HAND
PUMP 1 AUTO
PUMP 2 HAND
PUMP 2 AUTO
PUMP 3 HAND
PUMP 3 AUTO
PUMP 4 HAND
PUMP 4 AUTO
I:2.0
I:2.1
I:2.2
I:2.3
I:2.4
I:2.5
I:2.6
I:2.7
CONTINUED TOP RIGHT
FROM BOTTOM LEFT
FLOOD
I:2.8
UPS ALARM
I:2.9
UPS BAT-MODE
I:2.12
INTRUSION
I:2.11
TAMPER
I:2.12
INTAKE DAMP OPEN
I:2.13
EXHAUST DAMP OPEN
I:2.14
INTAKE DAMP CLOSED
I:2.15
RECORD OF REVISIONS
No.
DATE
DESCRIPTION
BY
ALASKA AUTOMATION
CERTIFICATE OF AUTHORIZATION #212337
DRAWN BY: BSR
DESIGNED BY: BSR
CHECKED BY: KFR
212 ADMIRAL WAY
JUNEAU, AK 99801
(907) 723-3442
blake@akautomationservices.com
CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS
COPE PARK PUMP STATION REPLACEMENT
BE25-317
DIGITAL INPUTS 1
SHEET NUMBER
P-12
June 16, 2025
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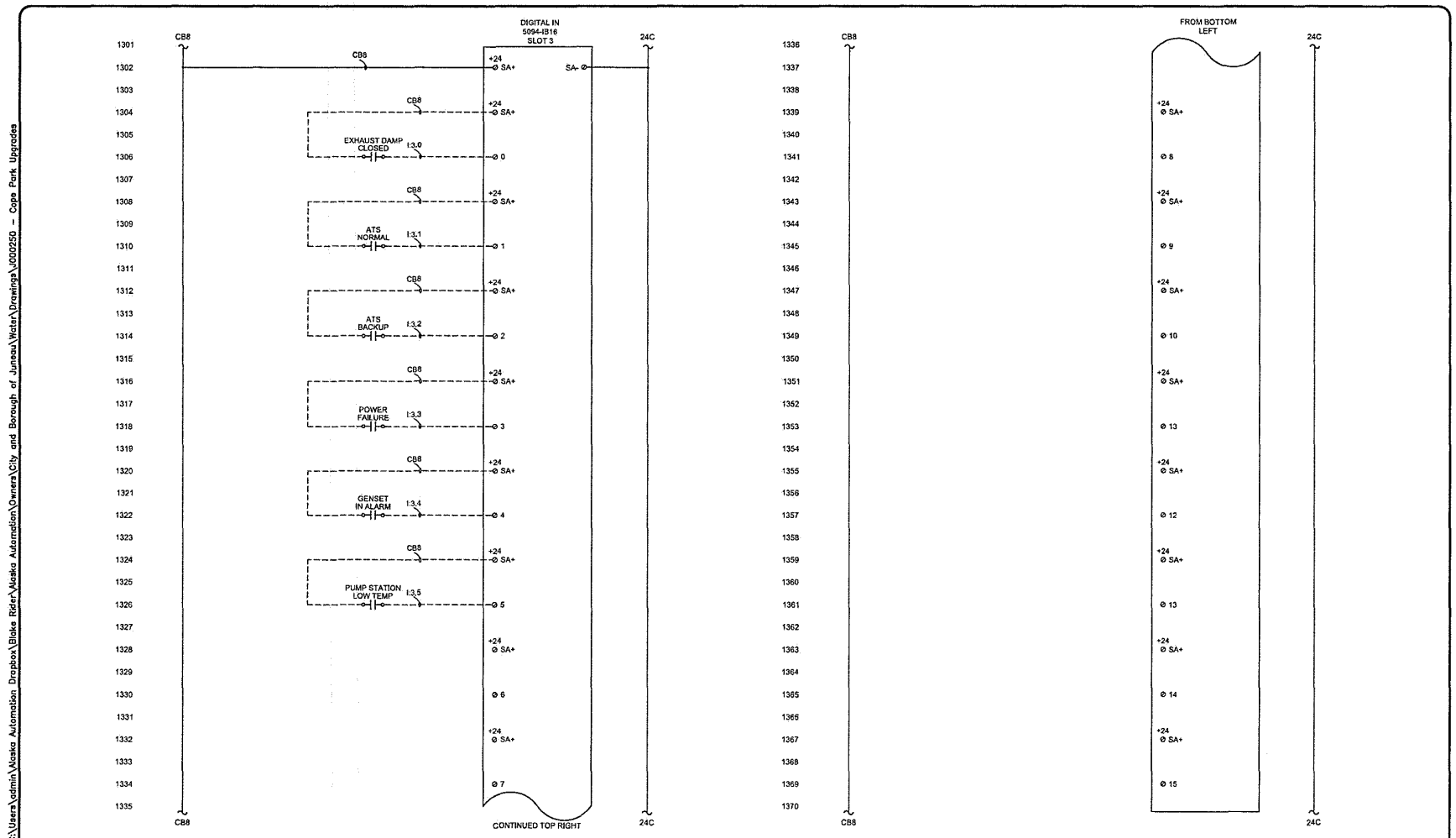

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June 16, 2025

RECORD OF REVISIONS			
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CERTIFICATE OF AUTHORIZATION #212397

DRAWN BY:	BSR
DESIGNED BY:	BSR
CHECKED BY:	KFR

210 ADMIRAL WAY
JUNEAU, AK 99801
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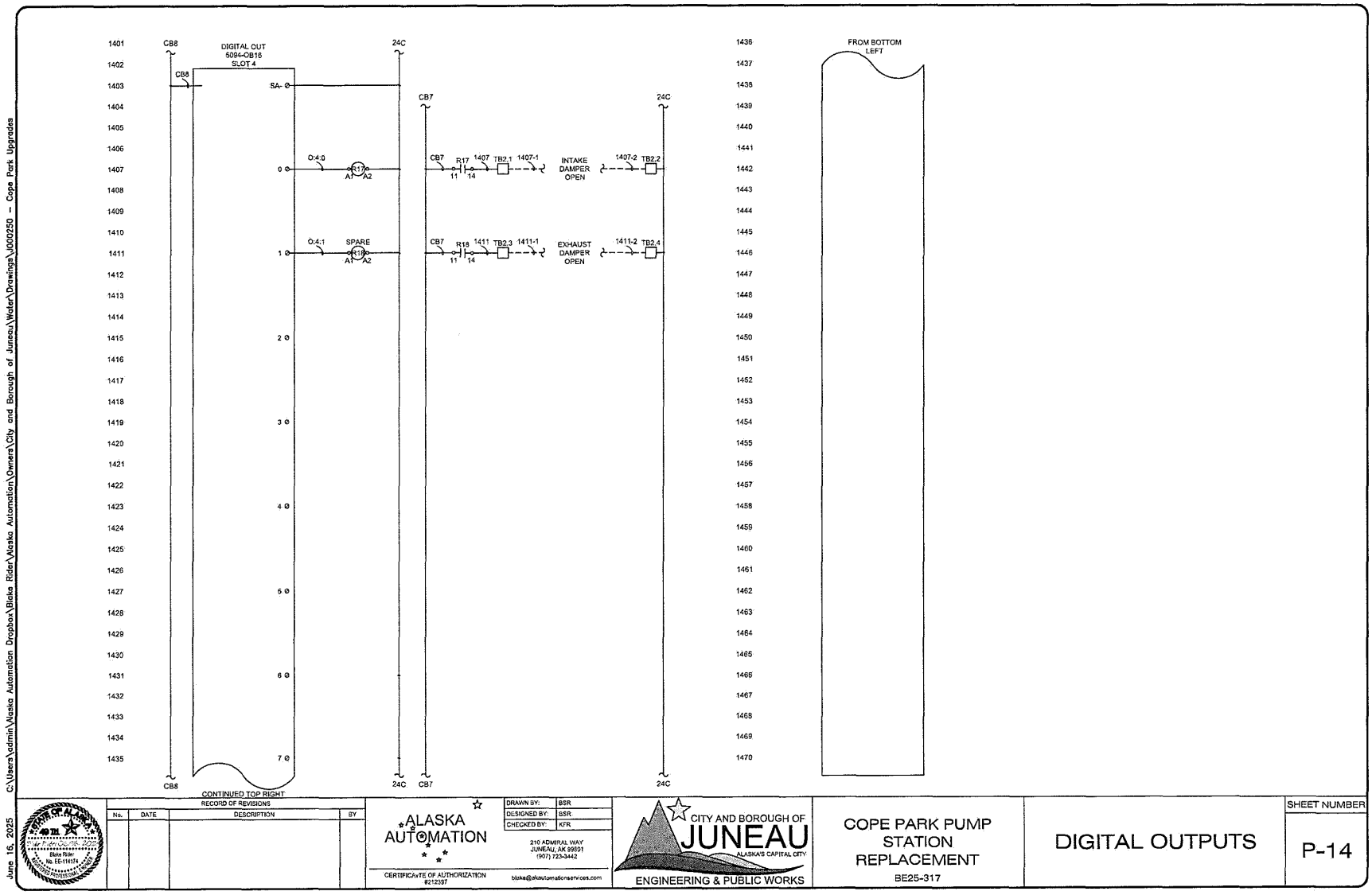
blake@akautomationservices.com

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

DIGITAL INPUTS 2

SHEET NUMBER
P-13



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June 16, 2025

RECORD OF REVISIONS

No.	DATE	DESCRIPTION	BY

ALASKA AUTOMATION
CERTIFICATE OF AUTHORIZATION #212397

DRAWN BY:	BSR
DESIGNED BY:	BSR
CHECKED BY:	KFR

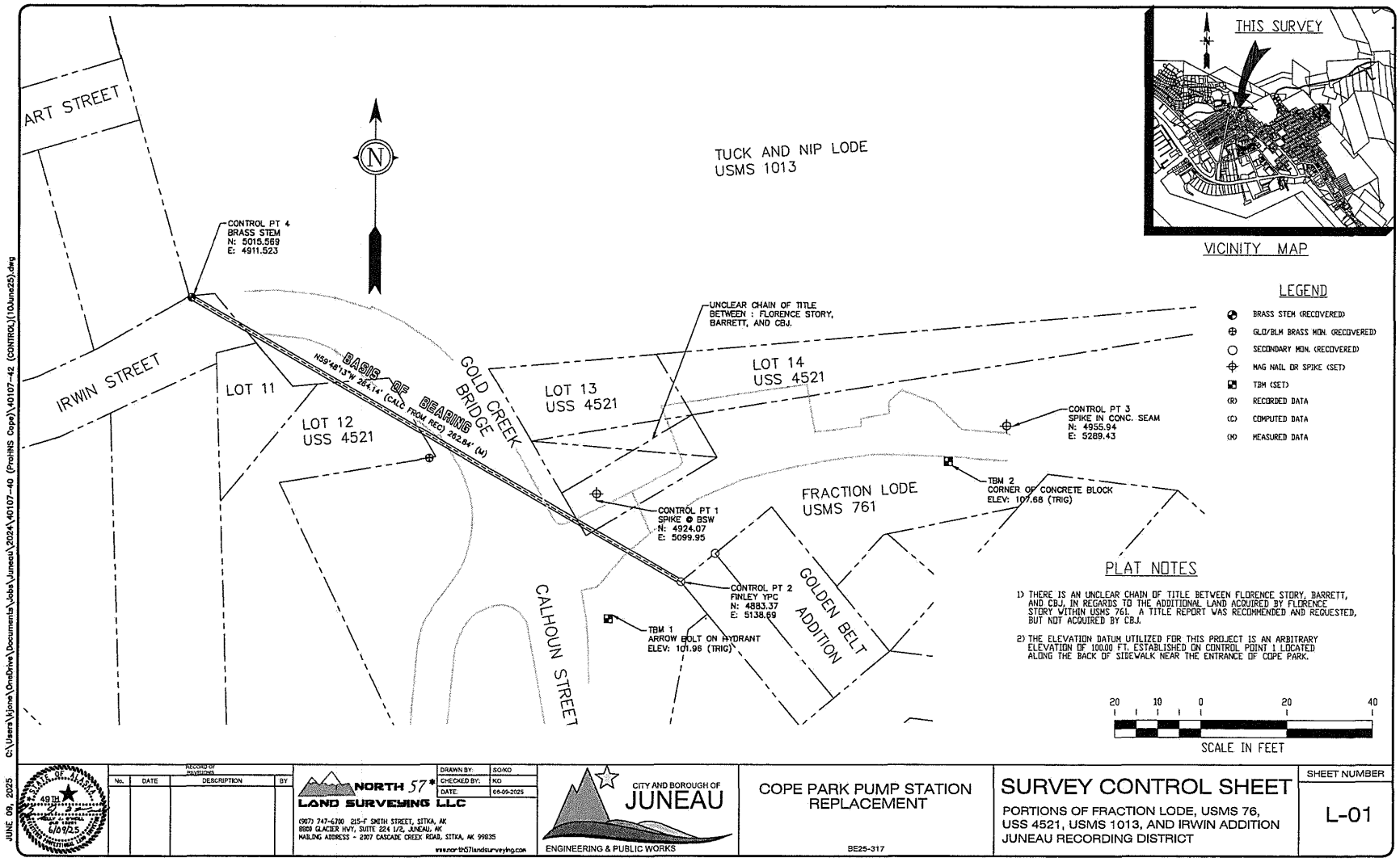
210 ADMIRAL WAY
JUNEAU, AK 99801
(907) 723-3442
blake@akautomationservices.com

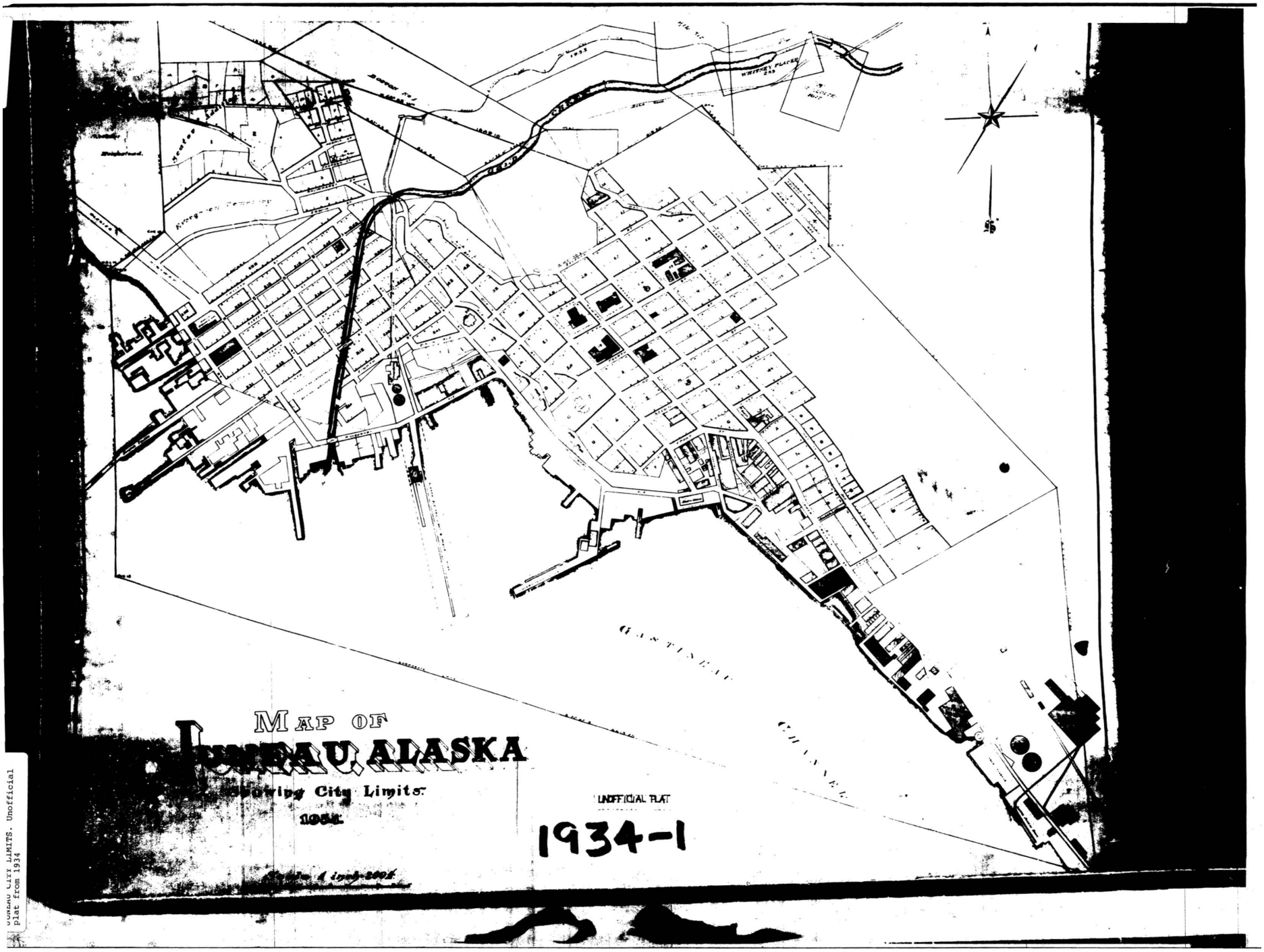
CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING & PUBLIC WORKS

COPE PARK PUMP STATION REPLACEMENT
BE25-317

DIGITAL OUTPUTS

SHEET NUMBER
P-14


ART STREET
IRWIN STREET
TUCK AND NIP LODE
USMS 1013
CONTROL PT 4
BRASS STEM
N: 5015.589
E: 4911.523
BASIS OF BEARING
N59°48'13"W 264.14' (CALC FROM REC) 262.84' (M)
GOLD CREEK
BRIDGE
LOT 11
LOT 12
USS 4521
LOT 13
USS 4521
LOT 14
USS 4521
UNCLEAR CHAIN OF TITLE
BETWEEN : FLORENCE STORY,
BARRETT, AND CBJ.
CONTROL PT 3
SPIKE IN CONC. SEAM
N: 4955.94
E: 5289.43
TBM 2
CORNER OF CONCRETE BLOCK
ELEV: 107.68 (TRIG)
FRACTION LODE
USMS 761
CONTROL PT 1
SPIKE ⊙ BSW
N: 4924.07
E: 5099.95
CONTROL PT 2
FINLEY YPC
N: 4883.37
E: 5138.69
TBM 1
ARROW BOLT ON HYDRANT
ELEV: 101.96 (TRIG)
CALHOUN STREET
GOLDEN BELT
ADDITION
THIS SURVEY
VICINITY MAP
LEGEND
BRASS STEM (RECOVERED)
GLO/BLM BRASS MON. (RECOVERED)
SECONDARY MON. (RECOVERED)
MAG NAIL OR SPIKE (SET)
TBM (SET)
(R) RECORDED DATA
(C) COMPUTED DATA
(M) MEASURED DATA
PLAT NOTES
1) THERE IS AN UNCLEAR CHAIN OF TITLE BETWEEN FLORENCE STORY, BARRETT, AND CBJ, IN REGARDS TO THE ADDITIONAL LAND ACQUIRED BY FLORENCE STORY WITHIN USMS 761. A TITLE REPORT WAS RECOMMENDED AND REQUESTED, BUT NOT ACQUIRED BY CBJ.
2) THE ELEVATION DATUM UTILIZED FOR THIS PROJECT IS AN ARBITRARY ELEVATION OF 100.00 FT. ESTABLISHED ON CONTROL POINT 1 LOCATED ALONG THE BACK OF SIDEWALK NEAR THE ENTRANCE OF COPE PARK.
20 10 0 20 40
SCALE IN FEET
JUNE 09, 2025
C:\Users\kjone\OneDrive\Documents\Jobs\Juneau\2024\40107-40 (ProjNHS Cope)\40107-42 (CONTROL)(10June25).dwg
STATE OF ALASKA
49TH
6/9/25
RECORD OF REVISIONS
No. DATE DESCRIPTION BY
NORTH 57°
LAND SURVEYING LLC
(907) 747-6700 215-F SMITH STREET, SITKA, AK
8888 GLACIER HWY, SUITE 224 1/2, JUNEAU, AK
MAILING ADDRESS - 2007 CASCADE CREEK ROAD, SITKA, AK 99835
www.nor-th57landsurveying.com
DRAWN BY: SO/KO
CHECKED BY: KO
DATE: 06-09-2025
CITY AND BOROUGH OF JUNEAU
ENGINEERING & PUBLIC WORKS
COPE PARK PUMP STATION REPLACEMENT
BE25-317
SURVEY CONTROL SHEET
PORTIONS OF FRACTION LODE, USMS 76, USS 4521, USMS 1013, AND IRWIN ADDITION JUNEAU RECORDING DISTRICT
SHEET NUMBER
L-01



Attachment B – 1934 Unrecorded Plat

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

Design Review Board
Notice of Decision
File No.: DRD-41-90

July 24, 1990,

City and Borough of Juneau Engineering
155 South Seward Street
Juneau, Alaska 99801

Attention: Tim Montgomery

Application For: Design Review Permit

Legal Description: Lot 001, US Mineral Survey 1013

Parcel Number: 1-C03-0-E06-001-0

Date Submitted: July 2, 1990

Hearing Date: July 16, 1990

The Design Review Board at their July 16, 1990, regular public meeting, approved your application for a design review permit to construct an addition to the existing pump house at the entrance to Cope Park as shown on submitted drawings.

Effective Date: August 16, 1990

Expiration Date: This permit shall expire if no Building Permit is issued prior to February 16, 1992.

Project Planner: Gary Gillette,
Planner II

RECEIVED BY CITY CLERK

7-25-90

cc: Debra Purves, Zoning Enforcement Officer

MEMORANDUM

CITY/BOROUGH OF JUNEAU
155 South Seward Street, Juneau, Alaska 99801

DATE: July 13, 1990

TO: Design Review Board

FROM: Gary Gillette, Planner II
Community Development

SUBJECT: Design Review Permit

FILE: DRD-41-90

GENERAL INFORMATION

Applicant:	City and Borough of Juneau Engineering
Property Owner:	City and Borough of Juneau
Requested Action:	Design Review Permit
Purpose:	To construct an addition to the existing pump house located at the entrance to Cope Park.
Legal Description:	Lot 001, US Mineral Survey 1013
Parcel No.:	1-C03-0-E06-001-0
Existing Land Use:	Pump House
Surrounding Land Use:	North - Park South - Calhoun Street East - Residential West - Open Space
Zoning:	D-10, Residential @ 10 Units per acre
Utilities:	Public

BACKGROUND

The applicant proposes to construct an addition to the existing pump house as part of the Last Chance Basin water well project. The building will be a wood framed structure approximately 11' by 14.' Exterior walls will be of painted T1-11 siding to match existing. The roof and fascia will be constructed to match existing height and materials.

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

ANALYSIS

The proposed project meets the general intent of the Design Review Standards.

STAFF RECOMMENDATION - Approval

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

BUILDING PERMIT

Your special attention is called to the following:

This permit is granted on the express conditions that the construction shall, in all respects, conform to the ordinances of the City and Borough of Juneau. It may be revoked at any time upon violation of any provisions of said ordinances.

The granting of this permit does not authorize the violation of any federal, state, or local law regulating construction nor the violation of the terms of any deed or covenant or any zoning or other regulations.

If plan review was required, this permit must be attached to the approved drawings. The permit, plans and record of inspections must be available on site at all times while the construction is in progress.

The yellow posting notice must be prominently displayed to show a permit has been issued and to assist the inspectors in location of the project. This permit becomes null and void if work or construction authorized is not commenced within 180 days or if work or construction is suspended or abandoned for a period of 180 days at any time after work is commenced.

Inspection can be arranged by telephoning 586-1703 or by written notification. Work shall not proceed until the inspector has approved the various stages of construction.

JOB ADDRESS	RECEIPT #	DATE	PROJECT #
COPE PARK	8075	10/29/91	BLD-0681101
USE OF PERMIT			
ADDITION TO EXISTING COPE PARK PUMPHOUSE			

OWNER		
CITY & BOROUGH OF JUNEAU		
ADDRESS		
155 S SEWARD ST		
CITY	ST	ZIP
JUNEAU	AK	99801 0000
APPLICANT		
CITY & BOROUGH OF JUNEAU		
CONTRACTOR		
COOGAN CONSTRUCTION		
ADDRESS		
P O BOX 20209		
CITY	ST	ZIP
JUNEAU	AK	99802 0000
PH	STATE LIC.	
907-780-6000	AA1475	
ARCH/ENGINEER		
JAMES M. MORTCONERT		
ADDRESS		
712 W 12TH STREET		
CITY	ST	ZIP
JUNEAU	AK	99801 0000

TRACT #	LOT #	APN
		1-C03-0-E04-001-0
TRACT NAME	MODULE #	CENSUS TRACT
JUNEAU		

ZONE	SETBACKS FRONT	LEFT	RIGHT	REAR

Plan Review	110300203	91.20
Building	0000000500	180.40
Other Fees		75.60

COMPLETED

COUNTER APPROVAL	PAYMENT FORM	TOTAL FEE
		00000347.20

PROJECT PERMIT

Estimated Construction Valuations

Permit Type	Rate	Sq Feet	Valuation
Building			
MISC	0.00	0	10000.00
		0	10000.00

OTHER Fees

Courtesy Permit Fee	B	75.60	(000000510)
	Total	75.60	

PROJECT CONDITIONS/HOLDS

Approved	Charge to acct. #493-78-5-01-06-390	SDF
Conditional	Zone D-10, Setbacks:Front 20,Rear 20,Left 5,Right 5.	SDF
Conditional	Land Use Permits: DRD-41-91, 3/16/90.	SDF
Conditional	Have approved plans at site.	SDF

Date Received : 10/4/91

BUILDING PERMIT APPLICATION

(FILL IN GRAYED AREAS AS A MINIMUM)

Date Issued : _____

Process No: 681(01)

CITY and BOROUGH of JUNEAU, ALASKA

Permit No.

Project Address / Building Name: COPE PARK PUMP STATION	City / Zip: JUNEAU
Subdivision / USS (If known): COPE PARK	Block / Tract (If known) / Lot (If known)
Assessor's Process Number (If known): 1-C03-0-001	Dwelling Units / Number of Buildings: /
Applicant's Name: CBJ	Contact Person: TIM MONTGOMERY
Mailing Address: 155 S. SEWARD JUNEAU 99801	Home Phone No.: 586-2357 / Work Phone No.: 586-5271
Property Owner: SAME	Contact Person
Mailing Address: "	Home Phone No. / Work Phone No.
Contractor (If known)	Contact Person
Mailing Address	Phone No. / License No.
Architect (If known)	Contact Person
Mailing Address	Phone No. / License No.
Engineer (If known)	Contact Person
Mailing Address	Phone No. / License No.

CLASS OF WORK ☐ New ☒ Addition ☐ Remodel / Repair ☐ Demolition ☐ Woodstove ☐ Water ☐ Grading ☐ Other _____

BUILDING TYPE ☐ Residential ☐ Commercial ☒ Other

REPAIR AND REHABILITATION PROJECT : Is there a separate Property Tax Exemption Application ? ☐ Yes ☒ No

FLOOD PLAIN : Is the land classified as a flood plain area ? ☐ Yes ☒ No

LANDFILL : Has the land been previously filled ? ☒ Yes ☐ No ☐ Do Not Know

DESCRIPTION OF WORK : (If Remodeling / Repair, include contractual cost of materials and labor, even is you plan to do the work yourself.)

ADD 168 S.F. ONTO EXISTING PUMP STATION, INCLUDES ELECTRICAL AND MECHANICAL EQUIPMENT.

NOTE: If the work is on a landfill, in water, wetlands or an intertidal area, a Corps of Engineers or other permits may be required.

New Sq. Ft. : 168
and / or
Remod. $: 10,000

I hereby certify that I have read and examined this application and know the same to be true and correct. All provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not. The granting of a permit does not presume to give authority to violate or cancel the provisions of any other state, federal or local law regulating construction or the performance of construction.

Signature of Owner, Contractor or Authorized Agent : Date :

X T A Montgomery 10/10/91

(OFFICE USE ONLY BELOW THIS LINE)

BUILDINGS

Occupancy Class _____ (B-2, R-3, etc) Type of Construction _____ (V-1 HR, etc)

FCC Code _____ (101, 434, etc) Permit Classification _____ (SF, BU, etc)

Occupancy / Type	Square Feet	@ Rate	= Valuation
Number of Stories :		Number of Bedrooms :	

LAND USE

ZONE D-10

PARKING N/A

FLOOD PLAN: Elevation N/A

SETBACKS : Front 20 Rear 20 Left 5 Right 5

LAND USE PERMITS: ORD-41-90 8-16-90 (Number / Date)

Number / Date

COMMENTS:

ENGINEERING / PUBLIC WORKS

CITY WATER : Service - Size _____ Fire Line - Size _____ Metered ☐ Yes ☐ No Yoke Rec'd ☐ Yes ☐ No

CITY SEWER : _____ Units

DRIVEWAY BOND : _____ Number / Date

ADEC APPROVALS : On-site Water _____ Number / Date

On-site Sewer _____ Number / Date

PLAN REVIEW APPROVALS

	Initials	Date
☐ Architectural	CW	10-24
☐ Structural		
☐ Electrical		
☒ Mech / Plumb	[illegible]	10-24-91
☐ Fire		
☐ Zoning	DJP	10/28/91
☒ Engineering	[illegible]	10/24/91
☐ Disabled Access		
☐ Other		

APPROVED FOR ISSUANCE

C. Wilt
Signature

10-28-91
Date

BUILDING PERMIT FEES

Est. Plan Review $ 91.26

Check No. _____ Receipt No. _____

Building Permit Fee $ 140.40

Actual Plan Review $

Fast Track Fee $

Early Start Fee $ 75.60

Double Fee $

Total Building Permit Fee $

ENGINEERING FEES

Water Assessment $

Water Inspection Fee $

Sewer Assessment $

Sewer Inspection Fee $

Grading/Drainage Permit Fee $

Driveway Permit Fee $

Bond $

Total Engineering Fees $

Permit Issuance Fees Received $ 307.26

Check No. _____ Receipt No. _____

CONDITIONS AND HOLDS ON PERMIT : CHARGE TO ACCT # 493-78-5-01-06-390

have approved plans at site

[PERMAPP5]

(ADDITIONAL CONDITIONS AND HOLDS ON BACK)

PLAN REVIEW SUBMITTAL LOG

Permit No.: 6811.01

APN: 1-C03-0-001

Page No:

DATE	INIT	TYPE	COMMENTS	NOTIFICATION How Date	RESOLUTION How Date
10/10/91	DGF		NEEDS MINOR DESIGN REVIEW	NOTE 10/11/91	

At end of plan review, attach this sheet to the permit in the property file as a part of the permanent record.

City and Borough of Juneau
Engineering Department
Protective Inspection Division

EARLY START AUTHORIZATION

Permit Process Number: 681.01 Application Date: 10/24/91 Authorization Date: 10/24/91

(Applicant: Please fill out this shaded area only)

Project: COPE PARK PUMP STATION

Identify the reason for this request for Early Start Authorization:

EXPOSED WATER LINE IS IN DANGER OF FREEZING. NEED TO COVER ASAP.

Foundation only.

Applicant's Signature: T A Montgomery Date: 10/24/91

I hereby agree to the terms in the last paragraph of this authorization.

Value $14,000.00

Approvals for this Authorization:

	Signature:	Date:	Conditions:
Zoning	DAP	10-24	
Fire	CR for CR	10-24/91	
Engineering	WJS	10.24	
Buildings	CW	10-24	
Other	—		
All Fees Paid	JMS	10/24	

By signature of the building official below, the applicant is authorized to proceed with FOUNDATION CONSTRUCTION ONLY in accordance with municipal ordinance 19.03.120(3)(A).

This authorization does not imply approval of the plans for further phases of the work or for performance of any additional work beyond the work herein or previously authorized. The applicant assumes all risk of disapproval of subsequent phases of plan review or inspection.

C Roust Date 10/24/91

Chris Roust, A.I.A.
Building Official

[ESAUTH.PGM 5/7/91]

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

Design Review Board
Notice of Decision
File No.: DRD-41-90

July 24, 1990,

City and Borough of Juneau Engineering
155 South Seward Street
Juneau, Alaska 99801

Attention: Tim Montgomery

Application For:	Design Review Permit
Legal Description:	Lot 001, US Mineral Survey 1013
Parcel Number:	1-C03-0-E06-001-0
Date Submitted:	July 2, 1990
Hearing Date:	July 16, 1990

The Design Review Board at their July 16, 1990, regular public meeting, approved your application for a design review permit to construct an addition to the existing pump house at the entrance to Cope Park as shown on submitted drawings.

Effective Date:	August 16, 1990
Expiration Date:	This permit shall expire if no Building Permit is issued prior to February 16, 1992.

Please submit any proposed changes prior to construction.

Project Planner: Gary Gillette,
Planner II

RECEIVED BY CITY CLERK

Patty A. Pitts
7-25-90

cc: Debra Purves, Zoning Enforcement Officer

INSPECTION REQUEST

Inspect On: 03/17/92 Time: PM Called in On: 03/17/92 Inspector: SOS STEVE SHOWS

Project Number	Job Address	Cross Street
6811.01	COPE PARK	1-C03-0-S06-001-0

Inspection: BU-22 Conduit/Raceway Systems # of Previous Inspections: None

Dispatch Comment:

Result: A Inspected by: SS Date: 3.17.92

Comment: Service Approved

* *

PROJECT CONDITION/HOLDS

Source: SUP Status: Conditional
Description: Zone D-10, Setbacks:Front 20,Rear 20,Left 5,Right 5.

Source: SUP Status: Conditional
Description: Land Use Permits: DRD-41-91, 8/16/90.

Source: SUP Status: Conditional
Description: Have approved plans at site.

* *

PROJECT INSPECTION STATUS for Project # 6811.01

BU-01 Excav. Setback & Footing	Approved SLB	BU-20 Temporary Power		Corr Req SOS	
BU-02 Forms & Rebar	Approved SLB	A	BU-22 Conduit/Raceway Systems	Not Insp SOS	A
BU-04 Framing	Not Insp DMK	A	P - 1 Activity Final	Not Insp	

EM

INSPECTION REQUEST

Inspect On: 01/17/92 Time: 10:00 Called in On: 01/17/92 Inspector: SOS STEVE SHOWS

Project Number	Job Address	Cross Street
6811.01	COPE PARK	1-C03-0-E06-001-0

Inspection: BU-20 Temporary Power # of Previous Inspections: None

Dispatch Comment:

Result: C Inspected by: SS Date: 1-17-92

Comment: Provide 30 amp receptacle on end of trailer
Mobile Home
over current device

* *

PROJECT CONDITION/HOLDS

Source: SUP Status: Conditional
Description: Zone D-10, Setbacks:Front 20,Rear 20,Left 5,Right 5.

Source: SUP Status: Conditional
Description: Land Use Permits: DRD-41-91, 8/16/90.

Source: SUP Status: Conditional
Description: Have approved plans at site.

* *

PROJECT INSPECTION STATUS for Project # 6811.01

BU-01 Excav. Setback & Footing	Approved SLB	BU-20 Temporary Power	Not Insp SOS
BU-02 Forms & Rebar	Approved SLB	F - 1 Activity Final	Not Insp
BU-04 Framing	Not Insp DMK		

INSPECTION REQUEST

Inspect On: 12/10/91 Time: 9:00 Called in On: 12/10/91 Inspector: DMK DAVE KERR

Project Number	Job Address	Cross Street
6811.01	COPE PARK	1-C03-0-E06-001-0

Inspection: BU-04 Framing # of Previous Inspections: None

Dispatch Comment:

Result: BU-04-A Inspected by: DaveKerr Date: 12-10-91

Comment: Framing Ok.

* *

PROJECT CONDITION/HOLDS

Source: SUP Status: Conditional
Description: Zone D-10, Setbacks:Front 20,Rear 20,Left 5,Right 5.

Source: SUP Status: Conditional
Description: Land Use Permits: DRD-41-91, 8/16/90.

Source: SUP Status: Conditional
Description: Have approved plans at site.

* *

PROJECT INSPECTION STATUS for Project # 6811.01

BU-01 Excav. Setback & Footing	Approved SLB	BU-04 Framing	Not Insp DMK
BU-02 Forms & Rebar	Approved SLB	F - 1 Activity Final	Not Insp

INSPECTION REQUEST

Inspect On: 11/06/91 Time: 11:30 Called in On: 11/06/91 Inspector: SLB SARA BOESSER

Project Number	Job Address	Cross Street
6811.01	COPE PARK	1-C03-0-E06-001-0

Inspection: BU-01 Excav. Setback & Footing # of Previous Inspections: 1

Dispatch Comment:

Result: BU-1-A Inspected by: SB Date: 11-6-91

Comment: Slab rebar meets plans at site.

* *

PREVIOUS INSPECTION RESULTS

Inspector: SLB Date: 10/24/91 Time: 8:24 am Result: Approved
Comments: OK to pour footers--verify balance of verticles at stemwall inspection. Protect pour fr cold,& heat per handout attached

* *

PROJECT CONDITION/HOLDS

Source: SUP Status: Conditional
Description: Zone D-10, Setbacks:Front 20,Rear 20,Left 5,Right 5.

Source: SUP Status: Conditional
Description: Land Use Permits: DRD-41-91, 8/16/90.

Source: SUP Status: Conditional
Description: Have approved plans at site.

* *

PROJECT INSPECTION STATUS for Project # 6811.01

BU-01 Excav. Setback & Footing	Approved SLB	F - 1 Activity Final	Not Insp
BU-02 Forms & Rebar	Approved SLB		

EJM

INSPECTION REQUEST

Inspect On: 10/28/91 Time: 8:00 Called in On: 10/28/91 Inspector: SLB SARA BOESSER

Project Number	Job Address	Cross Street
6811.01	COPE PARK	1-C03-0-E06-001-0

Inspection: BU-01 Excav. Setback & Footing # of Previous Inspections: 1

Dispatch Comment:

Result: BU-2A Inspected by: SB Date: 10-28-91

Comment: ~~BU-2~~ Hold rebar away from forms min 1½" — then OK to pour. Heat pour per cold weather bulletin

PREVIOUS INSPECTION RESULTS

Inspector: SLB Date: 10/24/91 Time: 8:24 am Result: Approved
Comments: OK to pour footers--verify balance of verticles at stemwall inspection. Protect pour fr cold,& heat per handout attached

PROJECT INSPECTION STATUS for Project # 6811.01

BU-01 Excav. Setback & Footing Approved SLB F - 1 Activity Final Not Insp

INSPECTION REQUEST

Inspect On: 10/24/91 Time: ~~11:30~~ 1:15 Called in On: 10/24/91 Inspector: SLB SARA BOESSER

Project Number	Job Address	Cross Street
6811.01	COPE PARK	1-C03-0-E06-001-0

Inspection: BU-01 Excav. Setback & Footing # of Previous Inspections: None

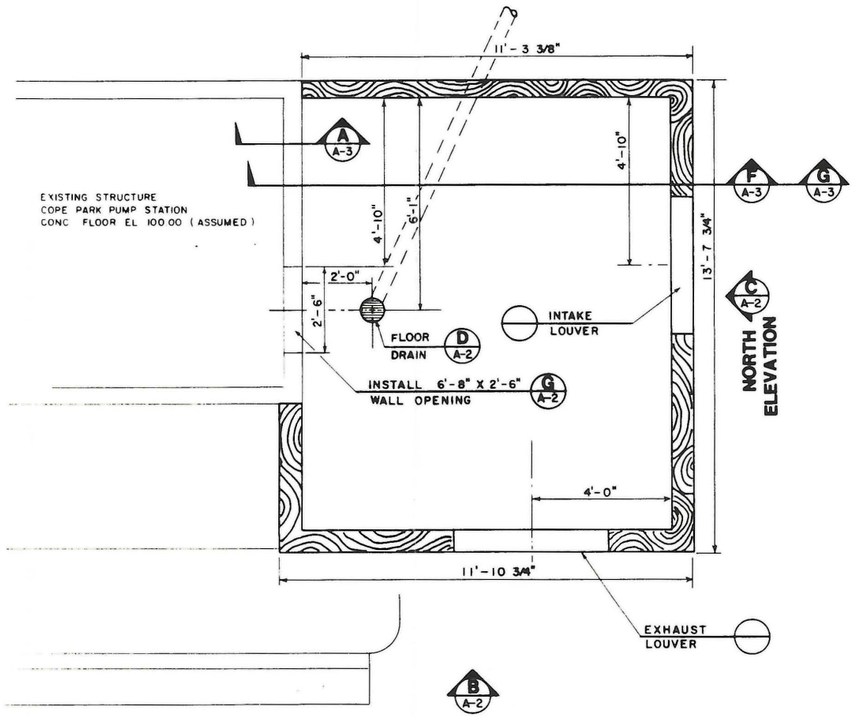
Dispatch Comment:

Result: BU1-A Inspected by: SS Date: 10-24-91

Comment: ~~No permit yet~~, OK to pour footers—
verify balance of vertical rebar at stemwall
Inspect. Protect from cold + heat
per handout attached.

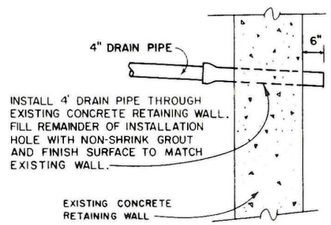
* * * *

Attachment D – BLD-0681101



B A-2

EAST ELEVATION



WALL PENETRATION C

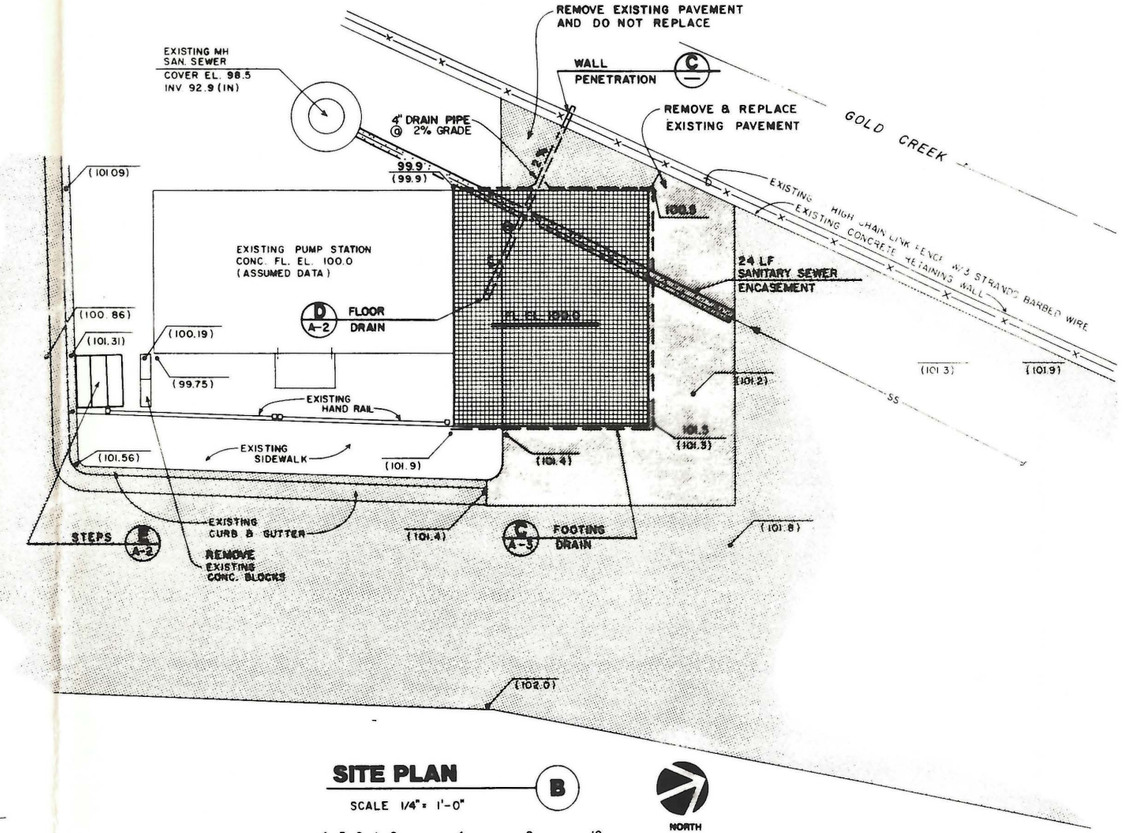
NTS

FLOOR PLAN A

SCALE 1/2" = 1'-0"

2 1 0 2 4 6

GRAPHIC SCALE



SITE PLAN B

SCALE 1/4" = 1'-0"

4 3 2 1 0 4 8 12

GRAPHIC SCALE

NORTH

LEGEND

- 100.5 / (101.2) — PROPOSED FINISH ELEVATION / EXISTING SPOT ELEVATION
- REFERENCE SPOT
- NEW BUILDING ADDITION
- REMOVE AND REPLACE PAVEMENT
- EXISTING PAVEMENT
- NEW 2" x 6" STUD WALL

RECEIVED
ON
OCT 8 1991
ENGINEERING/BUILDING
CITY AND BOROUGH OF JUNEAU

STATUS	DATE PRINTED

No.	DATE	REVISIONS	BY

STATE OF ALASKA — 6911 — James L. Dorn OE 8323 — REGISTERED PROFESSIONAL ENGINEER

CITY AND BOROUGH OF JUNEAU
DEPARTMENT OF ENGINEERING

JUNEAU AREAWIDE WATER SYSTEM

DRAWN — DESIGNED SS — CHECKED JLD

JUNEAU

JAMES M. MONTGOMERY CONSULTING ENGINEERS, INC.
712 WEST 12th STREET
JUNEAU, ALASKA 99801
586-4447
JMM

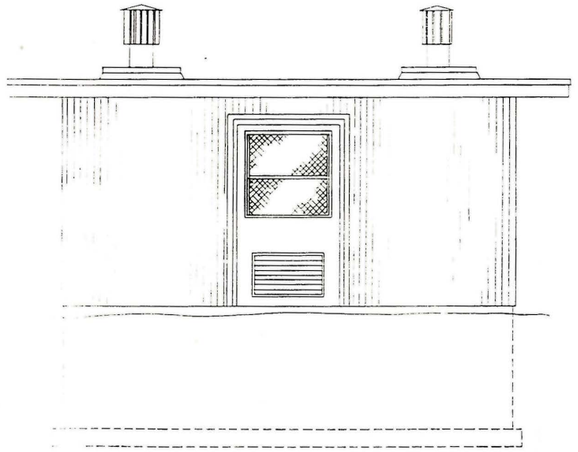
LAST CHANCE BASIN
HIGH ELEVATION WATER SYSTEM
COPE PARK PUMP STATION ADDITION
SITE PLAN & FLOOR PLAN

DATE JUNE 1990 — JOB No. 1751.0100 — SCALE AS SHOWN

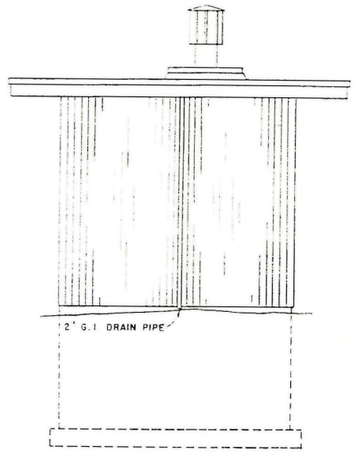
DRAWING No. **A-1**

SHEET No. 12 OF 56

CBJ FILE No. **926**



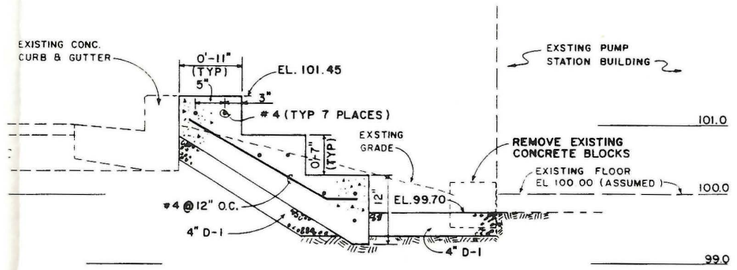
EAST OR FRONT SIDE



NORTH SIDE

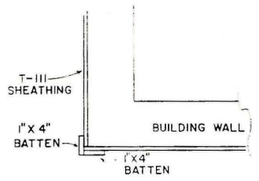
EXISTING ELEVATIONS (A)

SCALE = 3/8" = 1'-0"

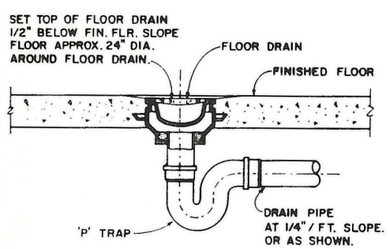


STEPS (E)

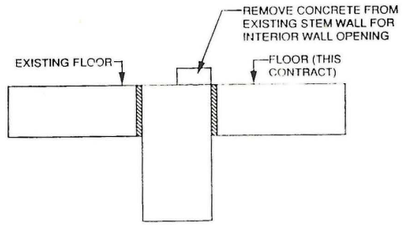
SCALE 1"=1'-0"



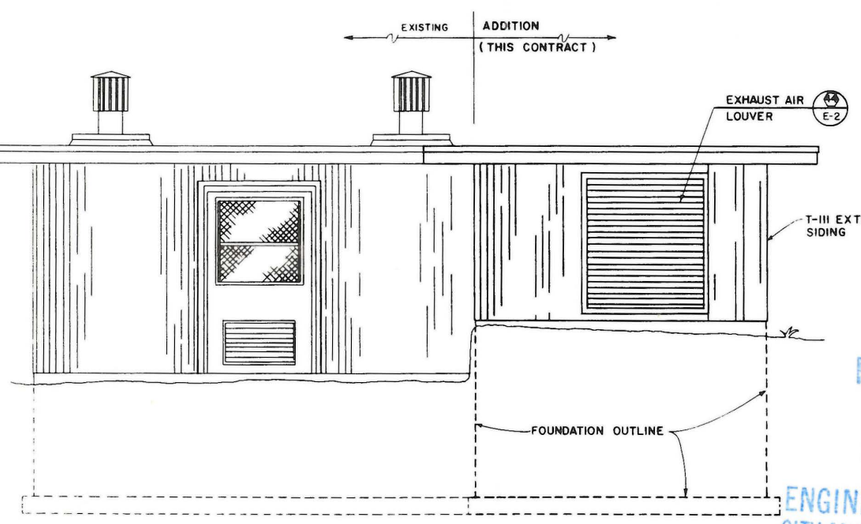
CORNER (F)



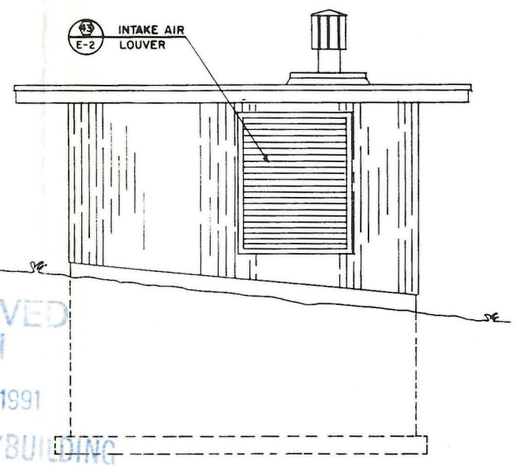
FLOOR DRAIN (D)



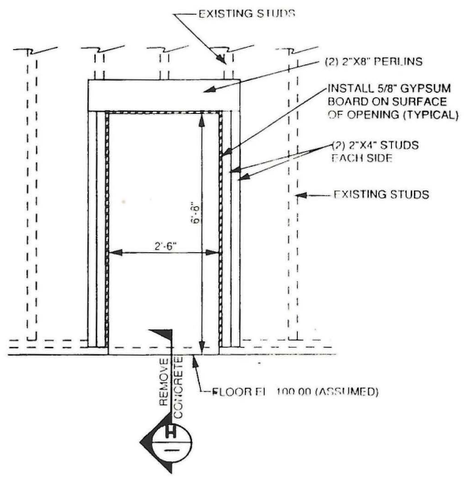
REMOVE CONCRETE (H)



EAST ELEVATION (B)



NORTH ELEVATION (C)



INTERIOR WALL OPENING (G)

RECEIVED ON OCT 8 1991 ENGINEERING/BUILDING CITY AND BOROUGH OF JUNEAU

STATUS	DATE PRINTED			
No.	DATE	REVISIONS	BY	

STATE OF ALASKA — 14211 — James L. Dorn — OE 5929 — REGISTERED PROFESSIONAL ENGINEER

CITY AND BOROUGH OF JUNEAU
DEPARTMENT OF ENGINEERING
JUNEAU AREAWIDE WATER SYSTEM

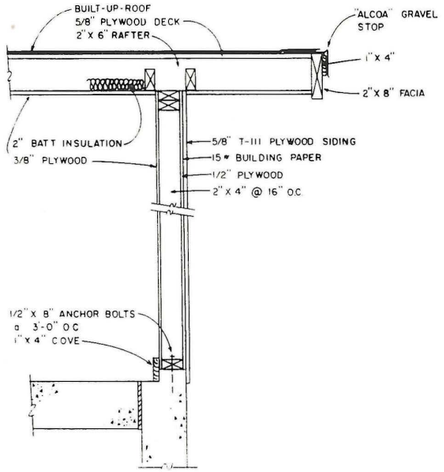
DRAWN | DESIGNED SS | CHECKED JDL

JAMES M. MONTGOMERY CONSULTING ENGINEERS, INC.
712 WEST 12th STREET
JUNEAU, ALASKA 99801
586-4447

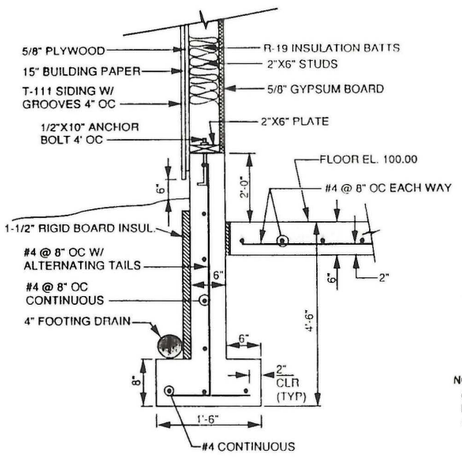
LAST CHANCE BASIN
HIGH ELEVATION WATER SYSTEM
COPE PARK PUMP STATION ADDITION
ELEVATIONS & DETAILS

DATE JULY 1990 | JOB No. 1751.0100 | SCALE NONE

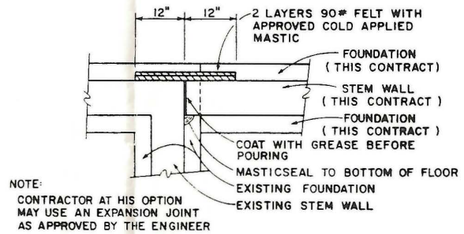
DRAWING No. A-2
SHEET No. 13 OF 56
CBJ FILE No. 926



EXISTING WALL SECTION (A)

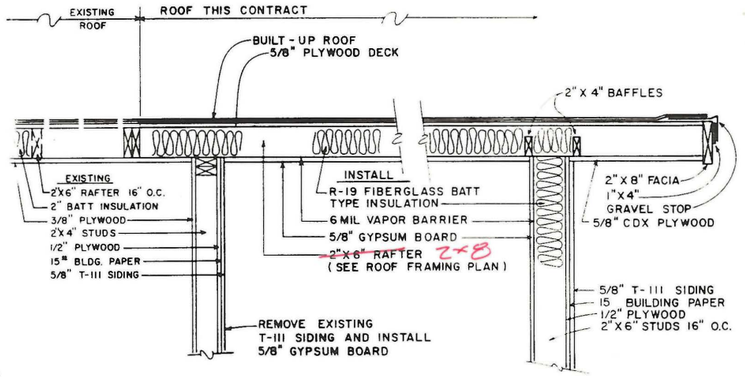


FOUNDATION DETAIL (C)

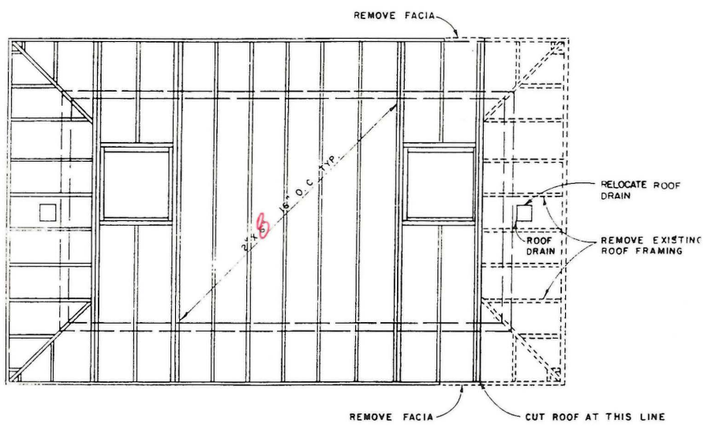


NOTE:
CONTRACTOR AT HIS OPTION MAY USE AN EXPANSION JOINT AS APPROVED BY THE ENGINEER

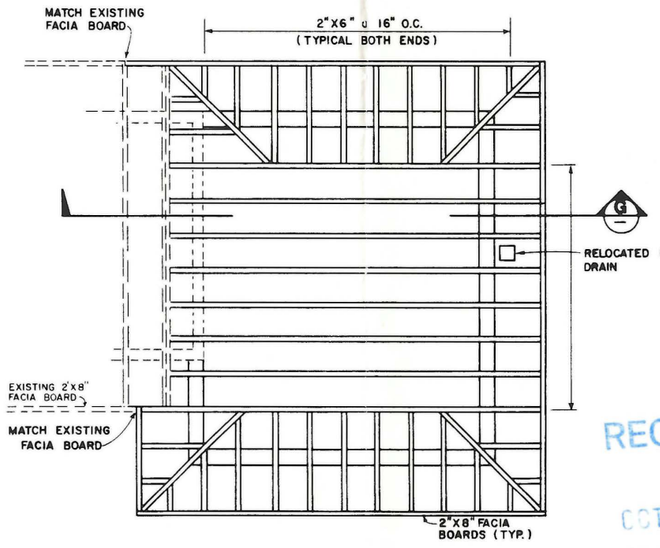
SECTION (E)



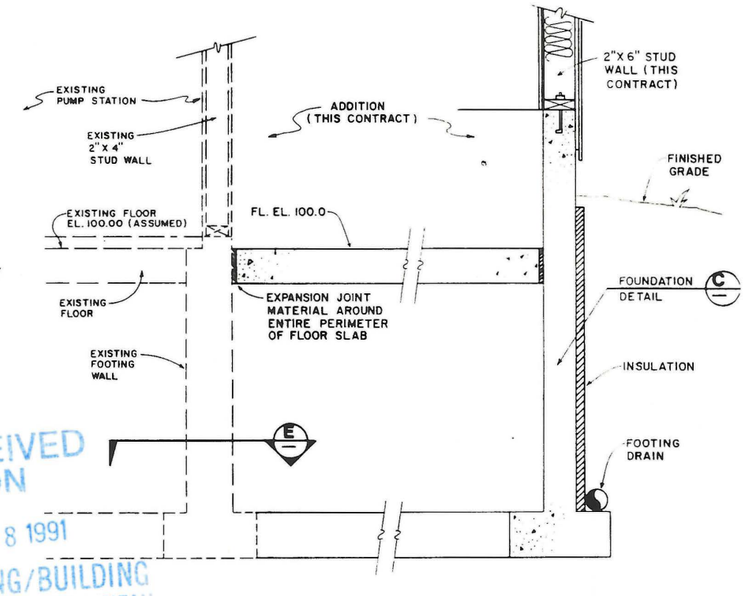
ROOF CONNECTION (G)



EXISTING ROOF FRAMING PLAN (B)



ROOF FRAMING PLAN (D)



FOUNDATION SECTION (F)

RECEIVED ON OCT 8 1991 ENGINEERING/BUILDING CITY AND BOROUGH OF JUNEAU

STATUS	DATE PRINTED
No. DATE REVISIONS BY	

STATE OF ALASKA — 49TH — James L. Dore — OF ALASKA

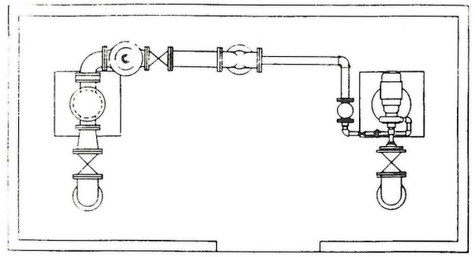
CITY AND BOROUGH OF JUNEAU
DEPARTMENT OF ENGINEERING
JUNEAU AREAWIDE WATER SYSTEM
DRAWN | DESIGNED SS | CHECKED JLD

JUNEAU

JAMES M. MONTGOMERY CONSULTING ENGINEERS, INC.
712 WEST 12th STREET
JUNEAU, ALASKA 99801
586-4447
JMMC

LAST CHANCE BASIN
HIGH ELEVATION WATER SYSTEM
COPE PARK PUMP STATION ADDITION
DETAILS
DATE JULY 1990 | JOB No. 1751 0100 | SCALE NONE

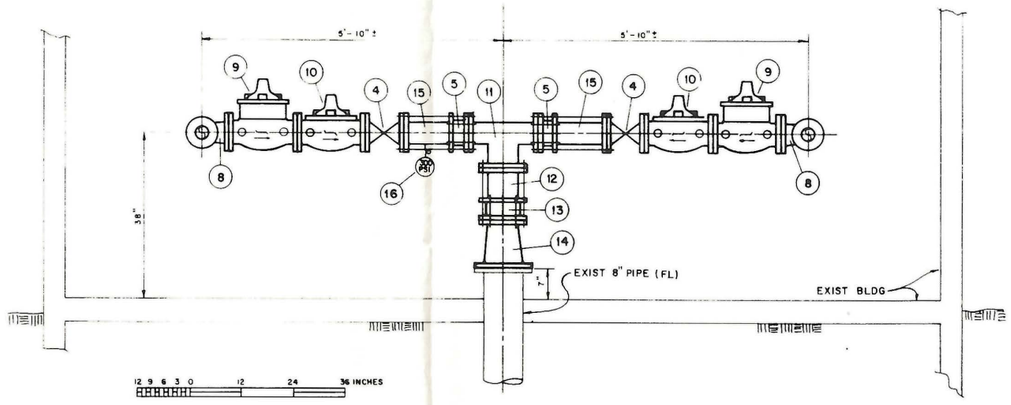
DRAWING No. A-3
SHEET No. 14 OF 56
CBJ FILE No. 926



NOTE CONTRACTOR SHALL REMOVE ALL PIPING FROM EXIST BLDG AND DELIVER SAME TO CBJ UTILITIES DEPT., 5433 SHAUNE DR, JUNEAU

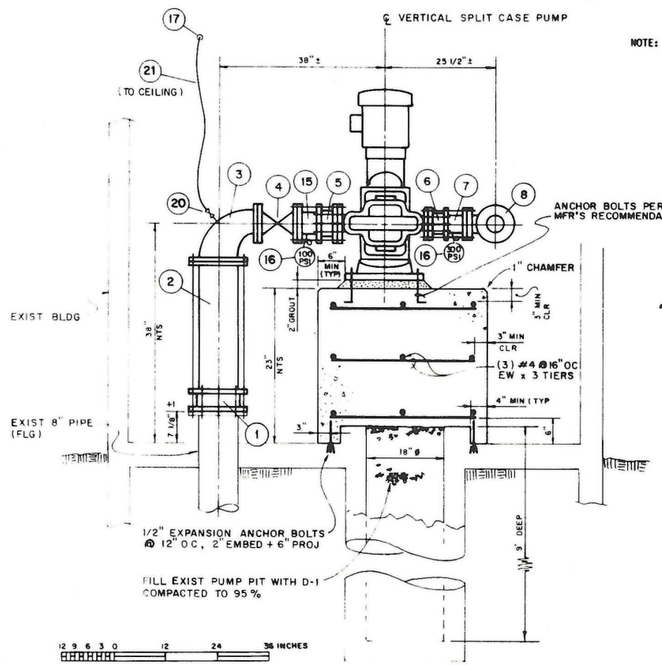
DEMOLITION PLAN D

1 0 1 2 3 4 5 6 7 FEET

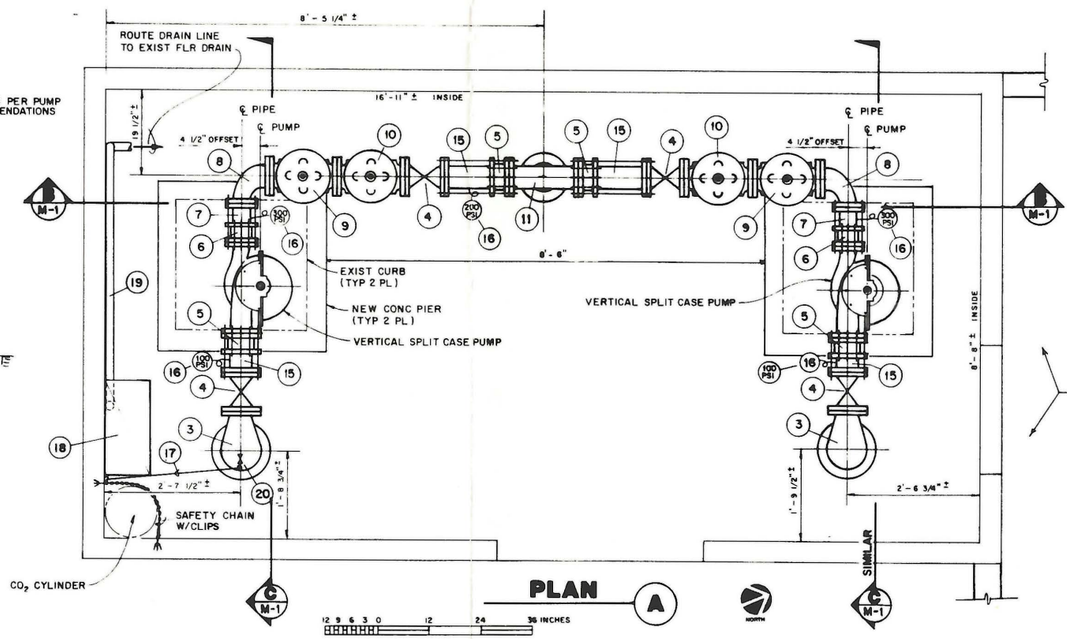


SECTION B

NOTE: CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS MARKED "±" PRIOR TO FABRICATION/CONSTRUCTION.



SECTION C

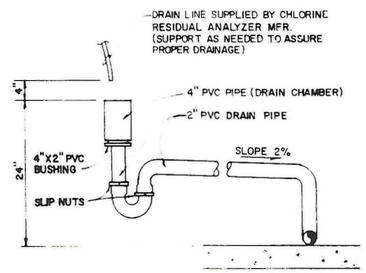


PLAN A

PIPING MATERIAL LIST

ITEM NO.	QTY	SIZE	DESCRIPTION
1	2	8"	FLANGE COUPLING ADAPTER
2	2	8"	SPOOL PIECE, FL x PE *
3	2	8"x4"	90° REDUCING ELBOW, FLG
4	4	4"	GATE VALVE, FLG
5	4	4"	FLANGE COUPLING ADAPTER
6	2	3"	FLANGE COUPLING ADAPTER
7	2	3"	SPOOL PIECE, FL x PE *
8	2	4"x3"	90° REDUCING ELBOW, FLG
9	2	4"	PUMP CONTROL VALVE, FLG
10	2	4"	PRESSURE REDUCING / CHECK VALVE, FLG
11	1	4"x4"x6"	TEE, FLG
12	1	6"	SPOOL PIECE, FL x PE *
13	1	6"	FLANGE COUPLING ADAPTER
14	1	8"x6"	REDUCER, FLG
15	4	4"	SPOOL PIECE, FL x PE *
16	5	-	PRESSURE GAGE ASSEMBLY (B C-7)
17	1	1/2"	PVC PIPE *
18	1	-	CHLORINE RESIDUAL ANALYZER
19	1	2"	PVC DRAIN LINE * (F M-1)
20	1	1/2"	GATE VALVE
21	1	1/2"	RUBBER HOSE *

* = LENGTH BY CONTRACTOR



CHLORINE RESIDUAL ANALYZER DRAIN F

RECEIVED ON OCT 8 1991 ENGINEERING/BUILDING CITY AND BOROUGH OF JUNEAU

STATUS	DATE PRINTED			
No.	DATE	REVISIONS	BY	

CITY AND BOROUGH OF JUNEAU
DEPARTMENT OF ENGINEERING
JUNEAU AREAWIDE WATER SYSTEM

DRAWN | DESIGNED J. DORN | CHECKED J.D

JAMES M. MONTGOMERY CONSULTING ENGINEERS, INC.
712 WEST 12th STREET
JUNEAU, ALASKA 99801
586-4447

LAST CHANCE BASIN
HIGH ELEVATION WATER SYSTEM
COPE PARK PUMP STATION MODIFCATIONS

DATE MARCH, 1990 | JOB No. 1751.0100 | SCALE GRAPHIC

DRAWING M-1
SHEET No. 15 OF 56
CBJ FILE No. 926

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

PLANNING COMMISSION
NOTICE OF RECOMMENDATION
Date: October 27, 2015
File No.: CSP2015 0014

City and Borough of Juneau
CBJ Assembly Members
155 S Seward Street
Juneau, AK 99801

Application For:	Planning Commission Recommendation to the City and Borough Assembly regarding Cope Park Improvements Phase II.
Legal Description or ROW name:	USMS 761, 926 and USS 2348 [COPE PARK]
Property Address:	1001 Calhoun Avenue
Parcel Code No.:	1-C04-0-CR1-007-0
Hearing Date:	October 27, 2015

The Planning Commission, at a regular public meeting, adopted the analysis and findings listed in the attached memorandum dated October 14, 2015, and recommended that the City Manager direct CBJ staff to design and build the project.

Attachments: October 14, 2015 memorandum from Allison Eddins, Community Development, to the CBJ Planning Commission regarding CSP2015 0014.

This Notice of Recommendation constitutes a recommendation of the CBJ Planning Commission to the City and Borough Assembly. Decisions to recommend an action are not appealable, even if the recommendation is procedurally required as a prerequisite to some other decision, according to the provisions of CBJ §01.50.020(b).

Project Planner: A. Eddins
Allison Eddins, Planner
Community Development Department

Dennis Watson, Vice Chair
Planning Commission

Jamie J. Sin 10/28/15
Filed With City Clerk Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this development project. ADA regulations have access requirements above and beyond CBJ - adopted regulations. The CBJ and project designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.

Community Development

City & Borough of Juneau • Community Development
155 S. Seward Street • Juneau, AK 99801
(907) 586-0715 Phone • (907) 586-4529 Fax

DATE: October 14, 2015

TO: Planning Commission

FROM: Allison Eddins, Planner
Community Development Department

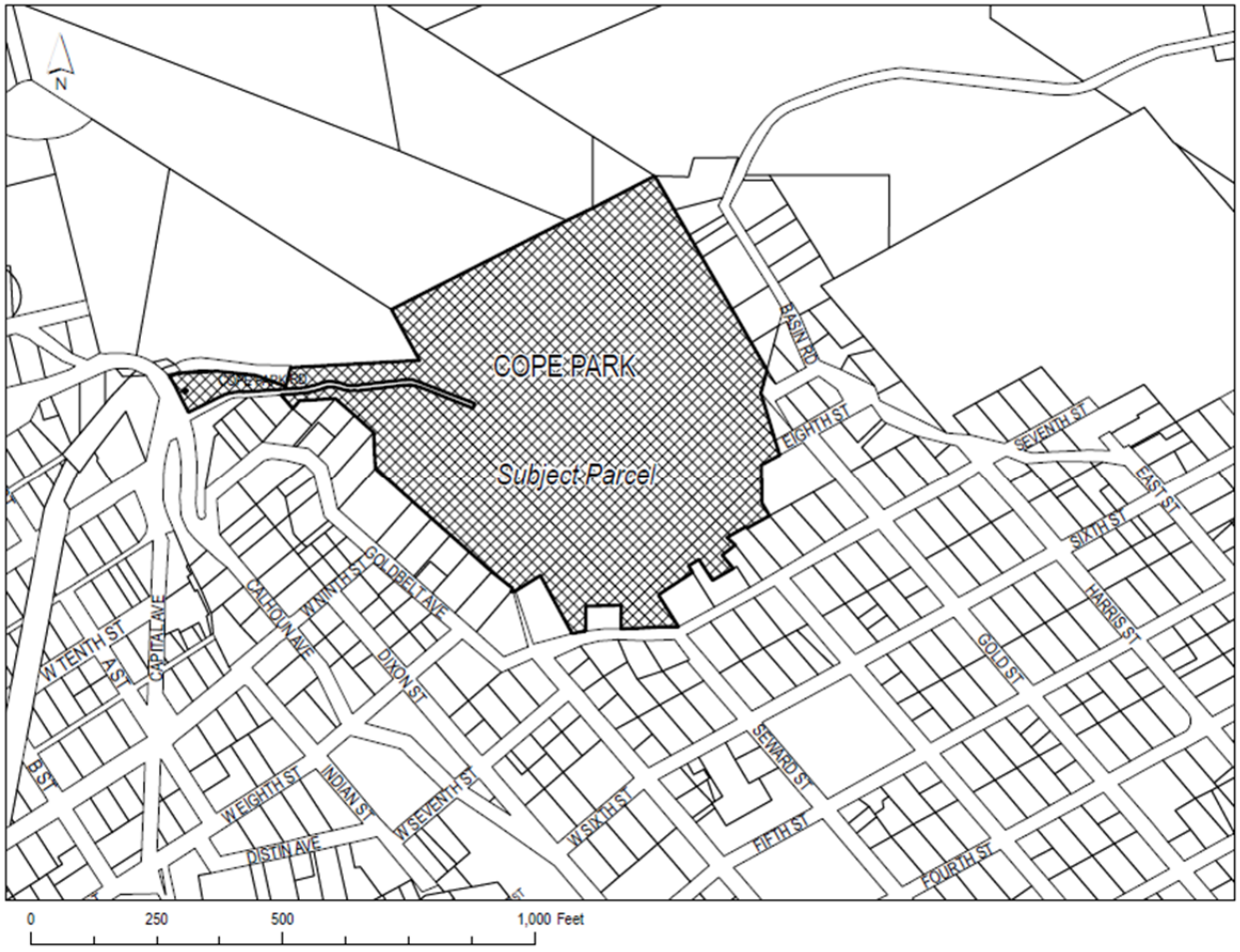
FILE NO.: CSP2015 0014

PROPOSAL: Cope Park Improvements Phase II

GENERAL INFORMATION

Applicant:	City and Borough of Juneau
Property Owner:	City and Borough of Juneau
Property Address:	1001 Calhoun Ave
Legal Description:	USMS 761, 926 and USS 2348 [Cope Park]
Parcel Code No.:	1-C04-0-CR1-007-0
Site Size:	9.51 acres
Comprehensive Plan Future Land Use Designation:	CBJ Recreational Service Park (RS)
Zoning:	D10; Multi-family
Utilities:	City water and sewer
Access:	Calhoun Avenue
Existing Land Use:	CBJ Park Land
Surrounding Land Use:	North - Rural Reserve; Vacant Land South - D18; Multi Family East - D18; Multi Family West - D10; Multi Family

VICINITY MAP



ATTACHMENTS

Attachment A: Development Permit Application and CSP Application
Attachment B: Project Narrative
Attachment C: Cope Park Master Plan
Attachment D: Phase II Improvements

PROPOSAL

The City is proposing to begin implementation of Phase II of the Cope Park Master Plan Improvement Project. The improvements will include replacing the main water and sewer lines that run under the main entrance road, repaving the main entrance road, relocating and reconfiguring the parking lot, relocating the tennis courts, and relocating and improving the existing playground.

BACKGROUND

The City and Borough of Juneau Parks and Recreation Department began work on implementing the Cope Park Master Plan in 2003. Phase I included improved drainage around the baseball field, installation of a fence around the ball field and the relocation and reconstruction of the restroom facilities.

The latest update of the Cope Park Master Plan was started in 2011. Part of this work included a survey in which Parks and Rec received over 300 responses. Most of the respondents listed safety, improved tennis courts, better lighting, dog amenities and swings as most important for Cope Park. The Parks and Recreation Advisory Committee approved the updates in July 2013. (See Attachment C)

ANALYSIS

Phase II of the Cope Park Master Plan implementation proposes significant changes to the park's design and amenities. The largest portion of the Phase II improvements will be the replacement of the main water and sewer lines. The utilities run under the main entrance driveway and through the existing parking lot. Phase II also calls for the existing parking lot to be relocated and reconfigured. The new location and design would place the parking area further into the park and provide a turn-around that would help improve traffic circulation within the park. (See Attachment C) The relocation of the parking lot frees up a portion of land that runs along Gold Creek. This would allow for the installation of a fire pit and picnic tables. In the future, a picnic shelter is also planned for this area.

Another important aspect of Phase II implementation is the relocation of the tennis courts further into the park. The proposed relocation will require the demolition of the existing playground equipment. Relocating the tennis courts will open up space for the parking lot relocation and will help to improve safety with increased lines of sight into the park.

Other features of the Phase II Improvement Plan include installing light fixtures in the parking lot, replacing the light fixtures at the restroom facilities, creating bocce courts near the baseball field/dog park, and adding swings and new playground equipment behind the ball field/dog park. Power will be extended to the new tennis court location for the future installation of light fixtures around the courts.

As with any city project, the timing of the Phase II improvements will depend heavily on finances. There will be a base bid and two alternate bids. The base bid will include the replacement of the water and sewer lines, repaving the entrance road, patching the parking lot, replacing and relocating the tennis courts, adding swings and new playground equipment and adding new light fixtures in the center of the park. Alternate bid 1 will include all of the features of the base bid as well as the proposed parking lot

relocation and reconfiguration with curb and gutter, the picnic features along Gold Creek, and the addition of light fixtures to the new parking lot. Alternate bid 2 will include all of the features of the base bid but instead of just patching the existing parking lot this alternative will repave the parking lot and add new light fixtures to the south side of the lot. (See Attachment B)

The total construction cost is estimated to be $1.3 million which will come from the 1% sales tax. CBJ has already set aside $550,000 for the utility work in the FY2016 Capital Improvements Projects. The project is scheduled to begin in the summer of 2016.

CONFORMITY WITH ADOPTED PLANS

This project was reviewed for conformance with the 2013 Comprehensive Plan and the Parks and Recreation Comprehensive Plan.

2013 Comprehensive Plan

POLICY 9.1 TO PROVIDE QUALITY DISPERSED OUTDOOR RECREATIONAL OPPORTUNITIES AND TO ACQUIRE AND DEVELOP SUFFICIENT LOCAL PARKS AND RECREATIONAL FACILITIES IN LOCATIONS CONVENIENT TO ALL AREAS OF THE CBJ. PLACES GIVEN PRIORITY FOR NEW FACILITIES INCLUDE RAPIDLY DEVELOPING AREAS AND CURRENTLY DEVELOPED AREAS THAT LACK ADEQUATE PARKS AND RECREATIONAL FACILITIES.

9.1 – IA17 Plan park renovation projects to address changing recreational needs.

2007 Parks and Recreation Comprehensive Plan Update

Chapter 8 of the Parks and Recreation Comprehensive Plan laid out specific recommendations for Subarea 6: Downtown Juneau, Thane, and Last Chance Basin.

1. Implement the Cope Park Master Plan
2. Construct new restrooms and play areas in Cope Park that are consistent with the Master Plan approved in 2004.

The Parks and Recreation Comprehensive Plan was updated in 2007 and the Cope Park Master Plan was updated in 2013. The updated version can be found in Attachment C.

2013 Updated Cope Park Master Plan

In 2011, the CBJ Parks and Recreation Department conducted a survey asking residents near Cope Park what improvements they would like to see. Over 300 residents participated and the top five suggestions were: improve sight lines throughout the park, improve the existing tennis courts, install more efficient lighting throughout the park, create a fenced in area for dogs, and install more swings. When the Cope Park Master Plan was updated in 2013 all of the

suggestions were incorporated and are beginning to be implemented. This project will improve the sight lines into the park and will improve the park's tennis court facilities.

HABITAT

According to the Alaska Department of Fish and Game, the nearest anadromous stream is 0.4 miles from the Cope Park entrance at the mouth of Gold Creek, where the creek meets Gastineau Channel. This exceeds the Title 49 requirement of a 50 foot setback. The nearest active eagle's nest is 0.3 miles away from the boundaries of Cope Park. This exceeds the Title 49 requirement of a 330 foot setback.

FINDINGS

Staff finds the proposed Cope Park Phase II improvements to be consistent with adopted plans.

RECOMMENDATION

Staff recommends that the Planning Commission adopt the findings in this staff report and recommend to the Assembly that CSP2015 0014 is consistent with adopted local plans and policies, as required by CBJ 49.15.540.

DEVELOPMENT PERMIT APPLICATION

Project Number	CITY and BOROUGH of JUNEAU	Date Received: 09/02/15
Project Name (City Staff to Assign Name)		

PROJECT / APPLICANT INFORMATION

Project Description
Cope Park Improvements Ph II continues to reconstruct Cope Park to follow the Cope Park Master Plan approved in 2013. This phase of work includes building new tennis courts (relocated), new playground elements (swings and a spinner/climber), bocce court, new parking lot layout, new lighting, replacing the main water line and sewer line from Calhoun through the park, and re paving the entrance road.

PROPERTY LOCATION

Street Address	City/Zip
1001 Calhoun Ave	Juneau, AK 99801

Legal Description(s) of Parcel(s) (Subdivision, Survey, Block, Tract, Lot): USMS 761, 926 & USS 2348 [COPE PARK

Assessor's Parcel Number(s): 1C040CR10070

LANDOWNER/ LESSEE

Property Owner's Name	Contact Person:	Work Phone:
CBJ	Skye Stekoll	586-0887
Mailing Address	**Home Phone:**	**Fax Number:**
155 S. Seward St Juneau, AK 99801		
E-mail Address	**Other Contact Phone Number(s):**	
Skye.Stekoll@juneau.org		

LANDOWNER/ LESSEE CONSENT ****Required for Planning Permits, not needed on Building/ Engineering Permits****

I am (we are) the owner(s)or lessee(s) of the property subject to this application and I (we) consent as follows:

A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission.
B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.

X _____ Landowner/Lessee Signature — Date: 8/27/15

X _____ Landowner/Lessee Signature — Date

NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.

APPLICANT If the same as OWNER, write "SAME" and sign and date at X below

Applicant's Name	Contact Person:	Work Phone:
SAME		
Mailing Address	**Home Phone:**	**Fax Number:**
E-mail Address	**Other Contact Phone Number(s):**	

X _____ Applicant's Signature — Date of Application: 8/27/15

---OFFICE USE ONLY BELOW THIS LINE---

STAFF APPROVALS

✔	Permit Type	***SIGN	Date Received	Application Number(s)
	Building/Grading Permit	■		
✓	City/State Project Review and City Land Action	■	09/02/15	CSP20150014
	Inquiry Case (Fee In Lieu, Letter of ZC, Use Not Listed)	■		
	Mining Case (Small, Large, Rural, Extraction, Exploration)			
	Sign Approval (If more than one, fill in all applicable permit #'s)	■		
	Subdivision (Minor, Major, PUD, St. Vacation, St. Name Change)			
	Use Approval (Allowable, Conditional, Cottage Housing, Mobile Home Parks, Accessory Apartment)			
	Variance Case (De Minimis and all other Variance case types)	■		
	Wetlands Permits			
	Zone Change Application			
	Other (Describe)			

***Public Notice Sign Form filled out and in the file.

Comments:

Permit Intake Initials: JKL

NOTE: DEVELOPMENT PERMIT APPLICATION FORMS MUST ACCOMPANY ALL OTHER COMMUNITY DEVELOPMENT DEPARTMENT APPLICATIONS

Attachment

CITY/STATE PROJECT AND LAND ACTION REVIEW APPLICATION

Project Number	Project Name (15 characters)	Case Number	Date Received
		CSP2015 0014	09/02/15

TO BE COMPLETED BY THE APPLICANT

TYPE OF PROJECT REVIEW:

☑ City Project Review ☐ City Land Acquisition /Disposal ☐ State Project Review

DESCRIPTION OF PROJECT

Cope Park Improvements Ph II continues to reconstruct Cope Park to follow the Cope Park Master Plan approved in 2013. This phase of work includes building new tennis courts (relocated), new playground elements (swings and a spinner/climber), bocce court, new parking lot layout, new lighting, replacing the main water line and sewer line from Calhoun through the park, and re-paving the entrance road.

Please attach a cover letter to fully explain the project if there is not adequate space on this form.

CURRENT USE OF LAND OR BUILDING(S):

Park Area: Playground, retrooms, parking, tennis courts, site amenities, ballfield

PROPOSED USE OF LAND OR BUILDING(S):

Playground features (swings, climber), restrooms, parking, tennis courts, site amenities (benches, tables, bench swings), ballfield, lighting, and bocce.

PROJECT NUMBERS ASSOCIATED WITH PROPOSAL:

Is this project associated with any other Land Use Permits? ☑ No ☐ Yes **Case No.:** _____

Capital Improvement Program # (CIP) P41-059

Local Improvement District # (LID) _____

State Project # _____

ESTIMATED PROJECT COST:

$ 1,111,665 base bid

For more information regarding the permitting process and the submittals required for a complete application, please see the reverse side.

If you need any assistance filling out this form, please contact the Permit Center at 586-0770.

CITY/STATE PROJECT FEES

	Fees	Check No.	Receipt	Date
Application Fees	$ Ø			
Total Fee	$ Ø			

NOTE: MUST BE ACCOMPANIED BY* DEVELOPMENT PERMIT APPLICATION *FORM

&

EVEN IF THE PROPOSED PROJECT IS ASSOCIATE WITH OTHER LAND USE PERMITS, THIS APPLICATION MUST BE FILLED OUT

Cope Park Phase II Improvements:

The Cope Park Phase II Improvements project takes the next step towards the Cope Park Master Plan.

Background:

The last edition of the Cope Park Master Plan was completed in 2003, as an effort to locate new restrooms. The goal was to locate them in a way that didn't require the restrooms to be relocated when future work was done.

Attachment

The recent Cope Park Master Plan was started in 2011. A survey was put out by Parks & Rec and they received over 300 responses. The main issues with the park were:

- Safety: Site lines need to be improved throughout
- Improved Tennis Courts: The courts are cracking again and need to be replaced. CBJ had resurfaced them a few times in the past but they need to be taken out to the foundation
- Better Lighting: Too many dark spaces and current lighting on the restrooms has too much glare.
- Dog Amenities: This park is heavily used by dog owners. A fenced in area for dogs to be off leash was a goal for both dog and non dog owners.
- Swings: Most desired play component of the park

The Cope Park Master Plan went through PRAC, JPD, CDD, public meetings, and was approved in July 2013. Phase I of the project improved drainage in the ballfield and park area, added a fence to the ballfied, and demolished the old restroom and shelter.

Phase II:

Phase II of Cope Park takes on the next phase of the master plan, as funding allows. A big portion of this project is the main water line and sewer line replacement. The water main runs from the park entrance, along the drive, through the existing parking lot and into the center of the park. The work will require the entrance drive to be repaved. Funding from the Water and Wastewater has been added to the project to cover the costs.

Another important aspect of the project is to relocate the tennis courts. They will be moved up where the old pool foundations are, which will require the demolition of the existing playground structure. The tennis courts will have a black chainlink fence surrounding it. Relocating the tennis courts will allow the parking lot to push further into the park, improving sitelines into the park both for pedestrians and from vehicles.

By reconfiguring the parking, we create a much more efficient layout and turnaround area (large enough to accommodate trolley use). The new parking lot layout also allows for the park area along the creek to

turn into park amenities. The area includes a fire pit and picnic areas. Eventually, in future phases, a picnic shelter is planned for this area.

The center of the park has been re-configured from the master plan to accommodate the chosen play equipment. A 3 bay swingset and a spinning climber were selected for the park. A small bocce area will also be installed.

Lighting will be added to the parking lot through the center of the park. Power will be brought to the tennis courts in the event there is a desire/ funding to add lighting in that area of the park as well. The light fixtures are the same as the pedestrian path lights on the UAS campus (to give a sense of style). The light fixtures on the restroom building will be replaced with more appropriate fixtures.

Attachment

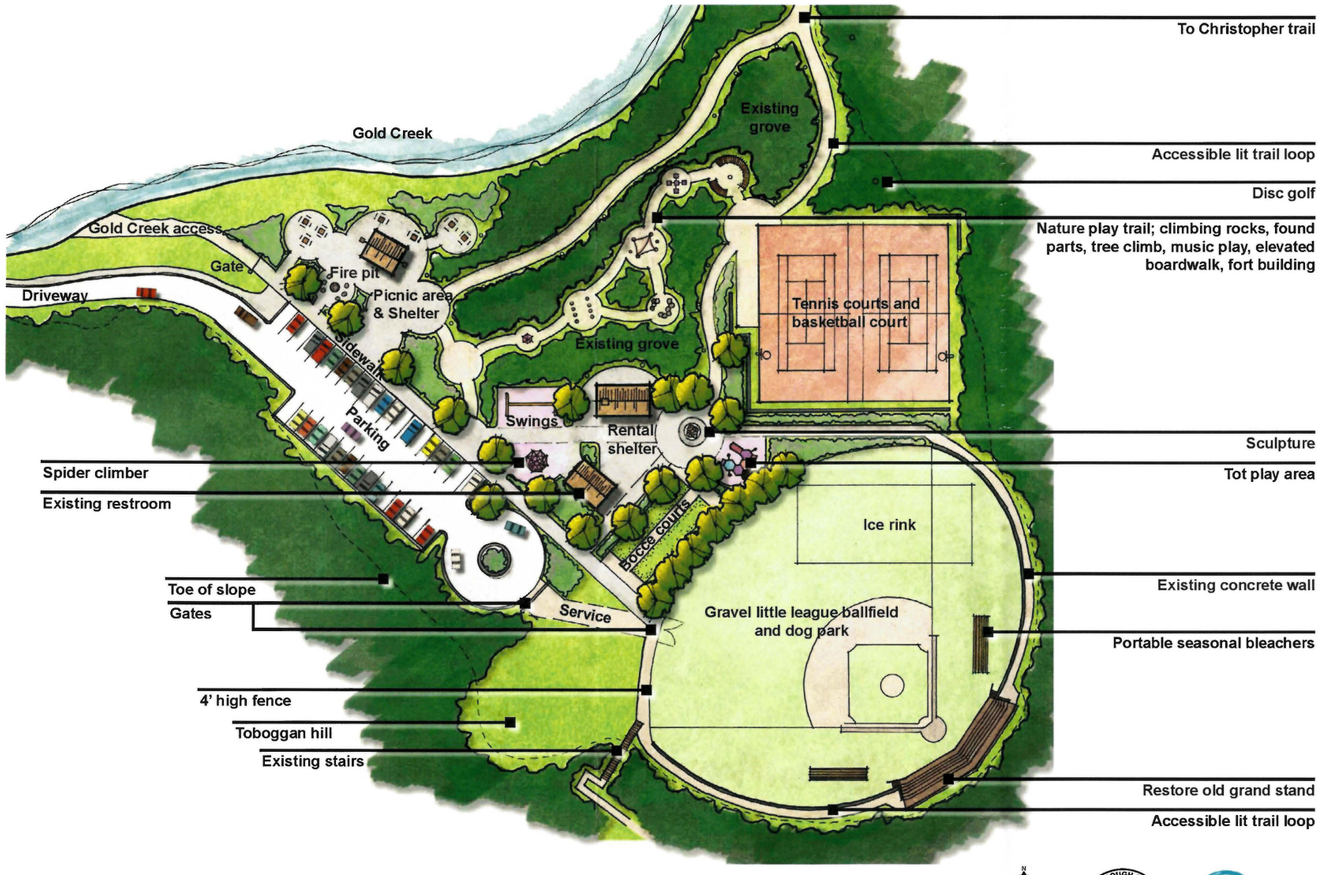
There is a base bid and two alternates, so how far we get in this phase depends on the bid prices.

Base Bid: The base bid includes utility work, paving the entrance road, patching the parking lot, removing existing tennis court fencing and surfacing (part of the surfacing may be kept if it can be cut cleanly), relocate new tennis courts, add swings and new play equipment, and lighting in the center of the park.

Add Alt 1: Add Alt 1 adds the new parking lot configuration, conc curb and gutter around it, the picnic area by the creek (demolish the existing parking lot and replace with gravel surfacing), and add lighting along the parking lot.

Add Alt 2: Add Alt 2 paves the new parking lot with asphalt and adds lighting along the S side of the parking lot.

The construction estimate for the project is approximately $1.3 million. Funding comes from Temporary 1% Sales Tax and Sales Tax.

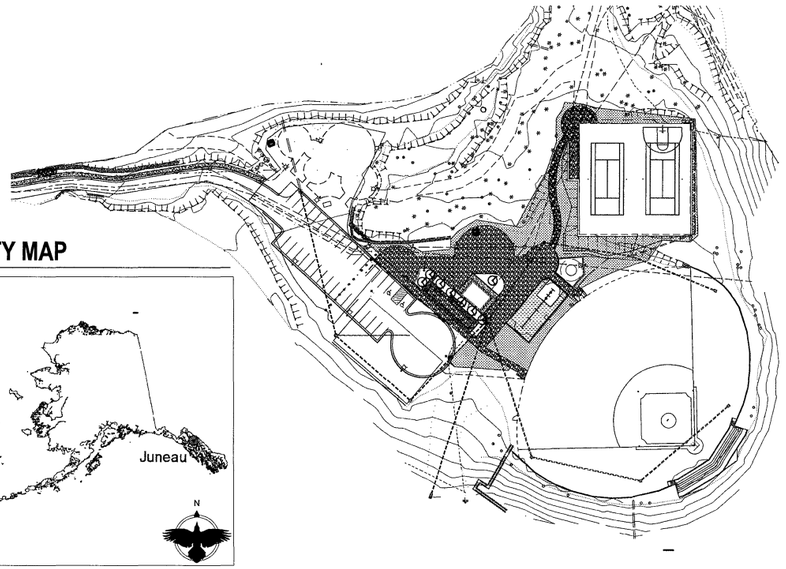


Cope Park Master Plan
September 2013

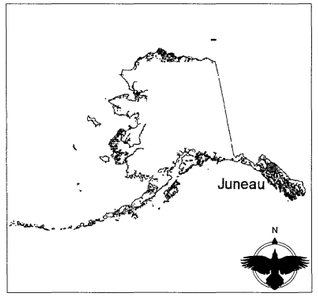
Cope Park Phase 2 Improvements

City and Borough of Juneau

100% SUBMITTAL
August 17, 2015



VICINITY MAP



SHEET INDEX

GENERAL

G001	COVER SHEET, VICINITY MAP, AND SHEET INDEX
G002	ABBREVIATIONS, REFERENCES, AND GENERAL NOTES

CIVIL

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C201	Existing Conditions and Demolition Plan
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C302	Plan View
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C502	Typical Sections
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LANDSCAPE

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L101	SOILS AND LAYOUT - BASE BID
L102	SOILS AND LAYOUT - BASE BID
L103	SOILS AND LAYOUT - BASE BID
L104	PLANTING PLAN - BASE BID
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L106	ADDITIVE ALTERNATE No. 1
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E101	PARTIAL DEMOLITION PLAN
E102	PARTIAL DEMOLITION PLAN
E200	PARTIAL ELECTRICAL PLAN
E200A	PARTIAL ALTERNATE ELECTRICAL PLAN
E201	PARTIAL ELECTRICAL PLAN
E201A	PARTIAL ALTERNATE ELECTRICAL PLAN
E301	DIAGRAMS AND DETAILS
E302	FOUNDATION DETAILS
E303	HANDHOLD DETAILS
E401	SCHEDULES

PROJECT TEAM

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Skye.Stekoll@juneau.org

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cmertl@corvus-design.com

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mpusich@rmjuneau.com

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barry@begenyiengineering.com

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2506-B Fairbanks St. 99503
Juneau - 907.988.9000
119 Seward St. 99801

CLIENT INFORMATION:

City and Borough of Juneau
Parks and Recreation
155 South Seward Street
Juneau, Alaska 99801

PROJECT LOCATION:

Cope Park Road
Juneau, Alaska 99801

ISSUED:

2015-08-17 - 100% SUBMIT

PROJECT NUMBER:

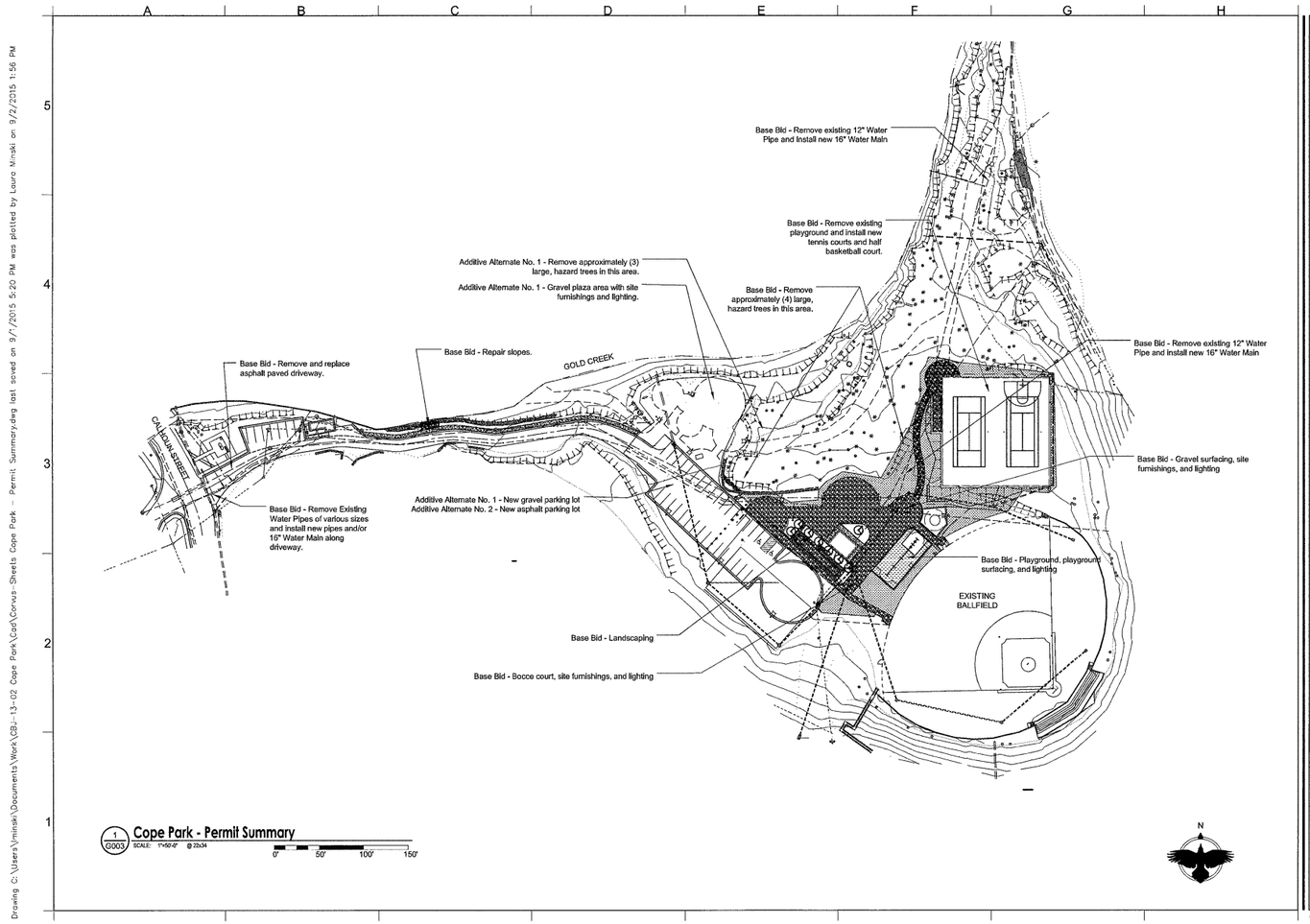
CBJ-13-02

CLIENT PROJECT NUMBER:

Bid No. E15-237

Cover

G001



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SEAL:

City and Borough of Juneau
Bid No. E15-237
Cope Park
Phase Two Improvements - 100%
Juneau, Alaska

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DATE: August 17, 2015
JOB NUMBER: CBJ-13-02
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CHECKED BY: CM

Permit Summary

SHEET #:
G003

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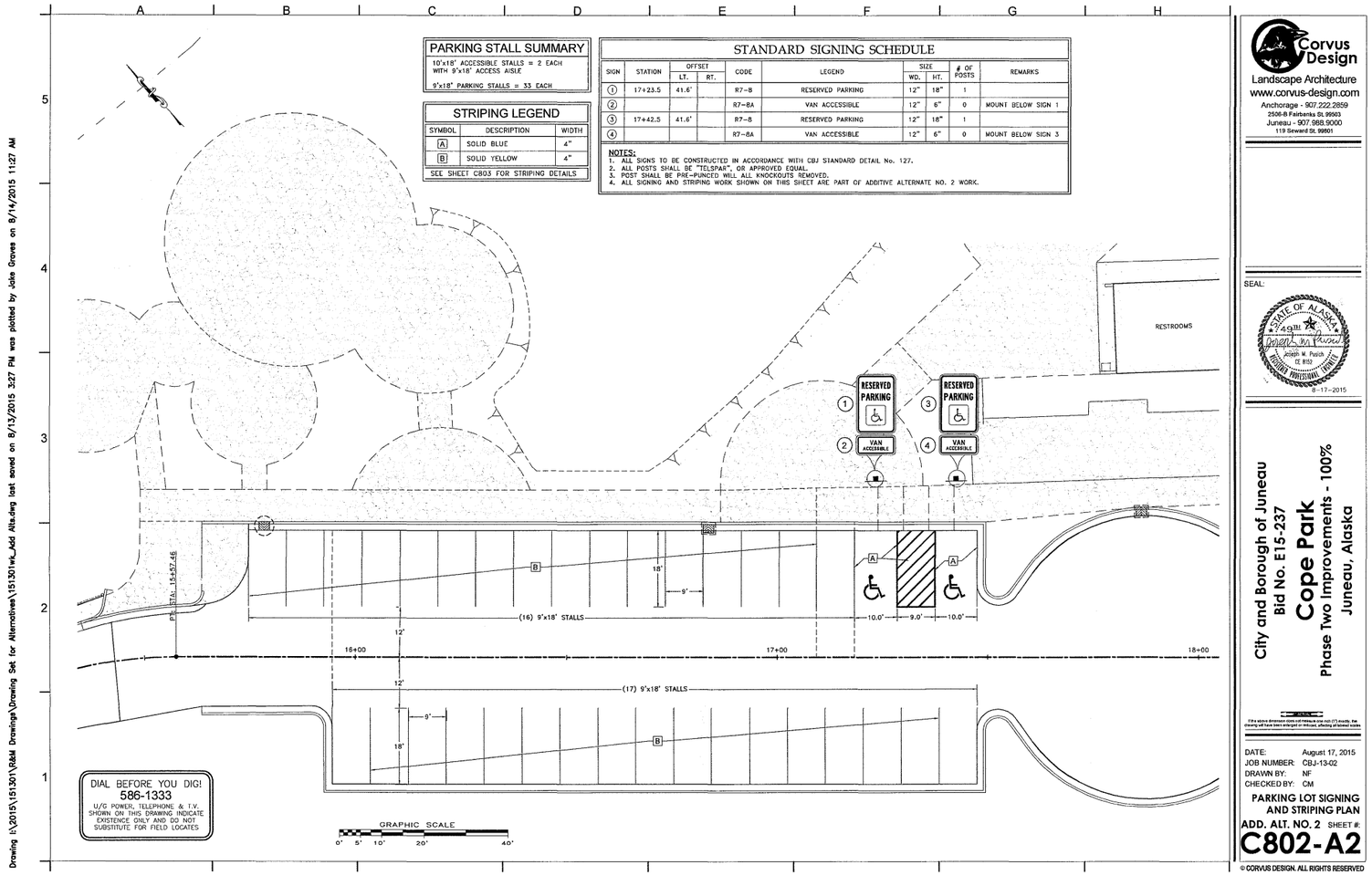

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Juneau - 907.586.9000
119 Seward St. 99801

SEAL:
STATE OF ALASKA
Joseph M. Pusich
CE #153
REGISTERED PROFESSIONAL ENGINEER
8-17-2015

City and Borough of Juneau
Bid No. E15-237
Cope Park
Phase Two Improvements - 100%
Juneau, Alaska

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PARKING LOT SIGNING AND STRIPING PLAN
ADD. ALT. NO. 2 SHEET #:
C802-A2

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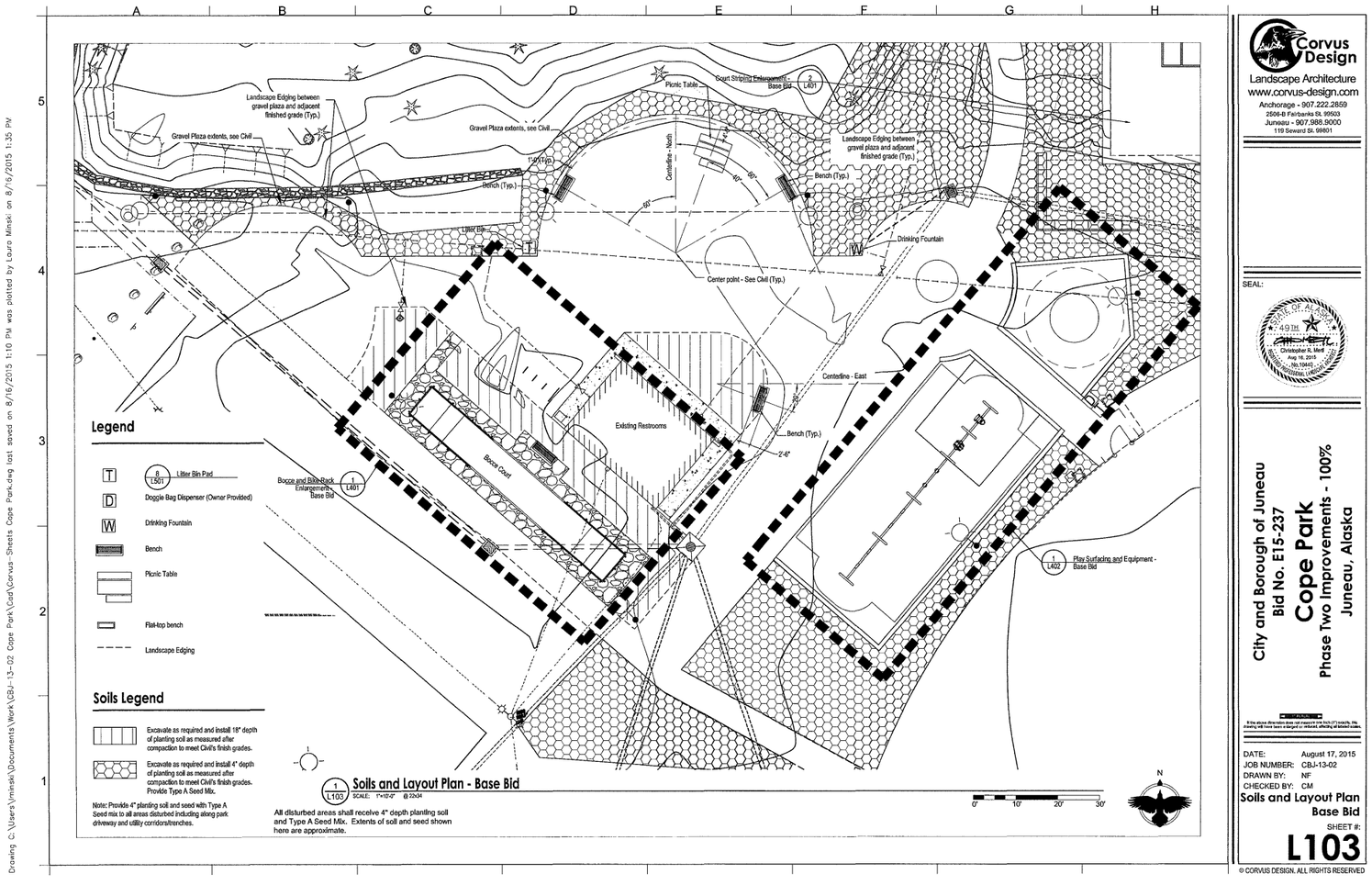

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119 Seward St. 99801

SEAL:

STATE OF ALASKA
49TH
Christopher N. Mertl
Aug 16, 2015
No.10440
REGISTERED LANDSCAPE ARCHITECT

City and Borough of Juneau
Bid No. E15-237
Cope Park
Phase Two Improvements - 100%
Juneau, Alaska

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Soils and Layout Plan Base Bid

SHEET #:
L103

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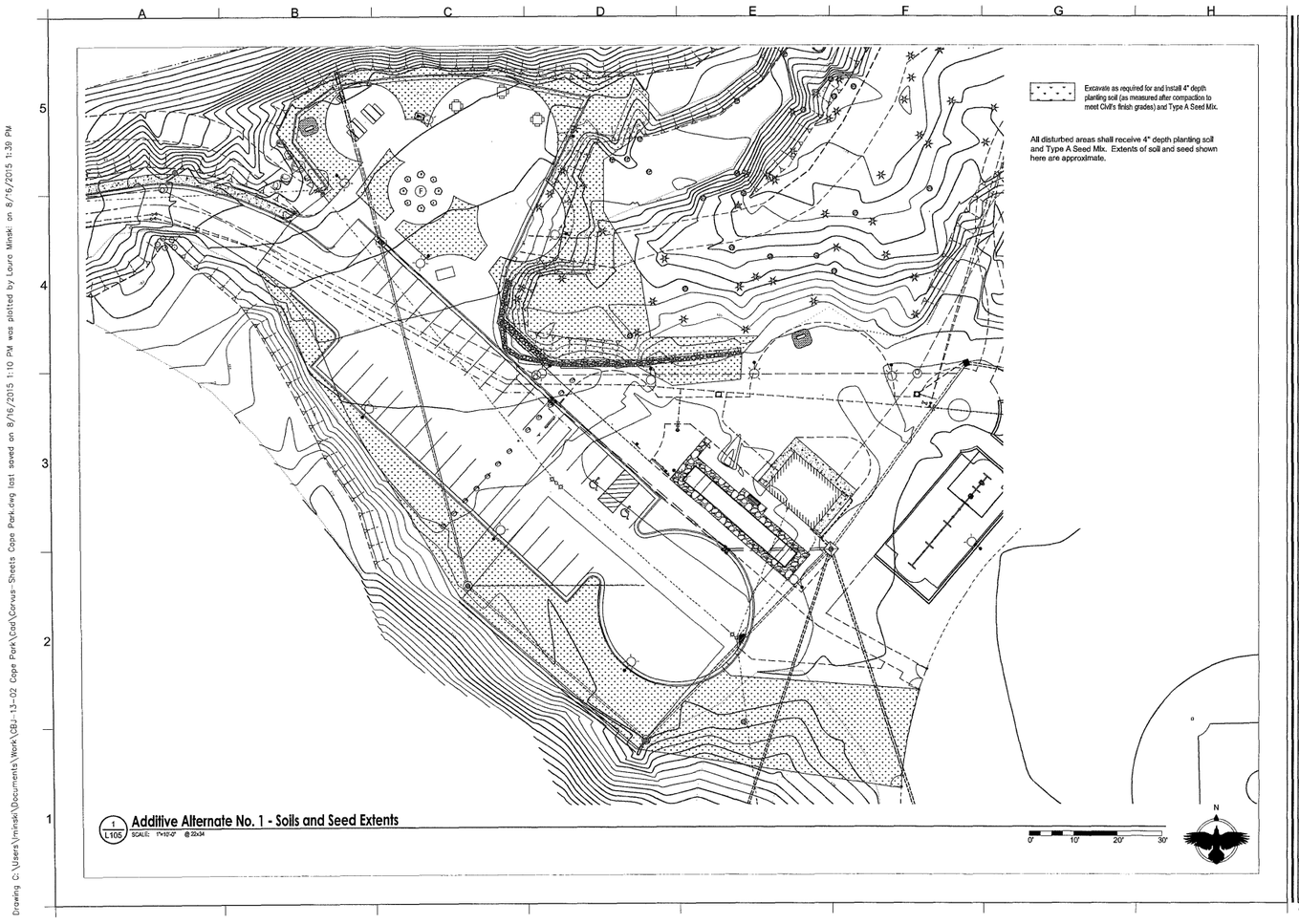

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SEAL:

City and Borough of Juneau
Bid No. E15-237
Cope Park
Phase Two Improvements - 100%
Juneau, Alaska

DATE: August 17, 2015
JOB NUMBER: CBJ-13-02
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Additive Alternate No. 1

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L105

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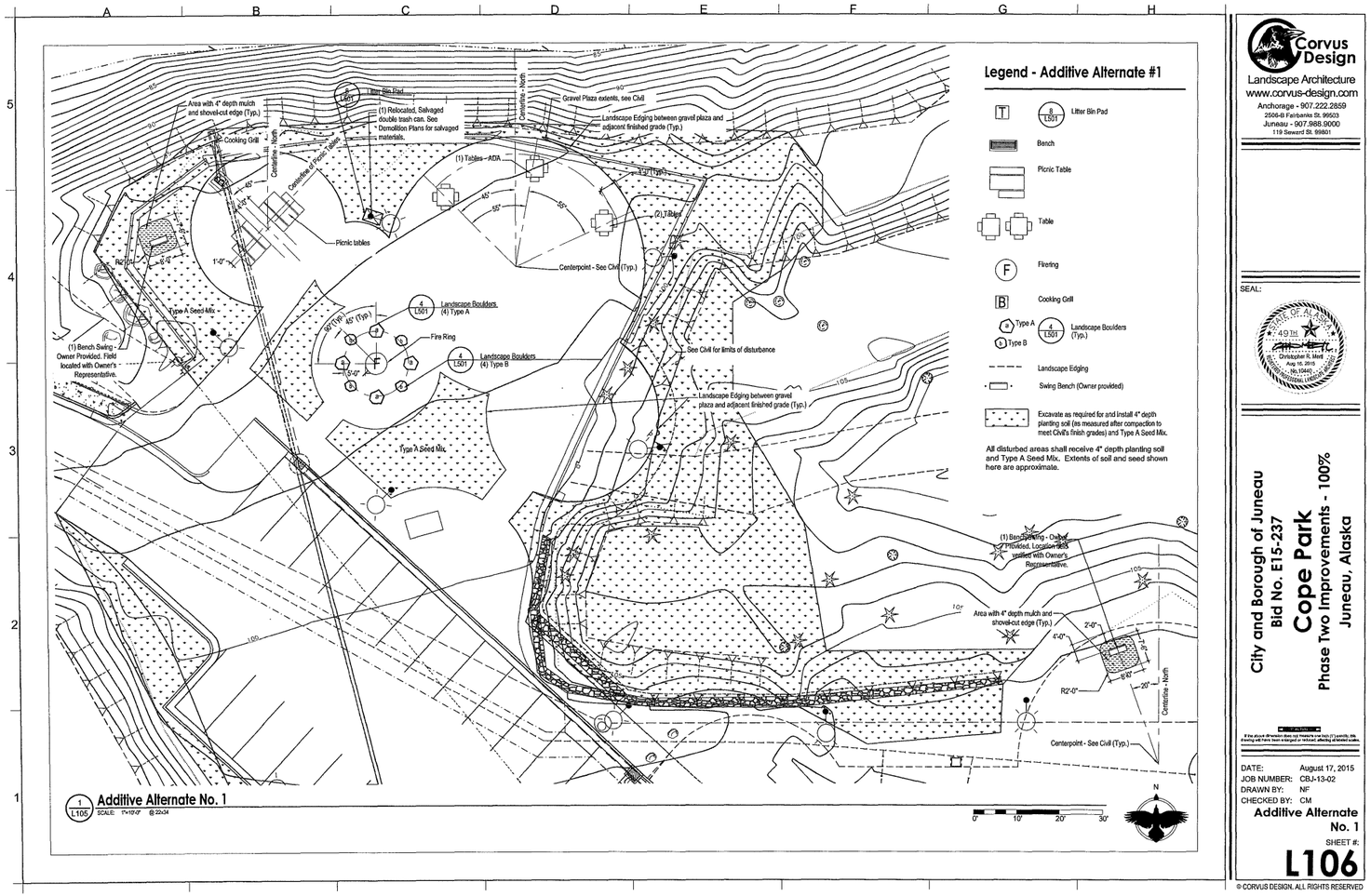

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Juneau - 907.988.9000
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SEAL:

Christopher R. Mertl
Aug. 16, 2015
No. 10440
PROFESSIONAL LANDSCAPE ARCHITECT

City and Borough of Juneau
Bid No. E15-237
Cope Park
Phase Two Improvements - 100%
Juneau, Alaska

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Additive Alternate No. 1

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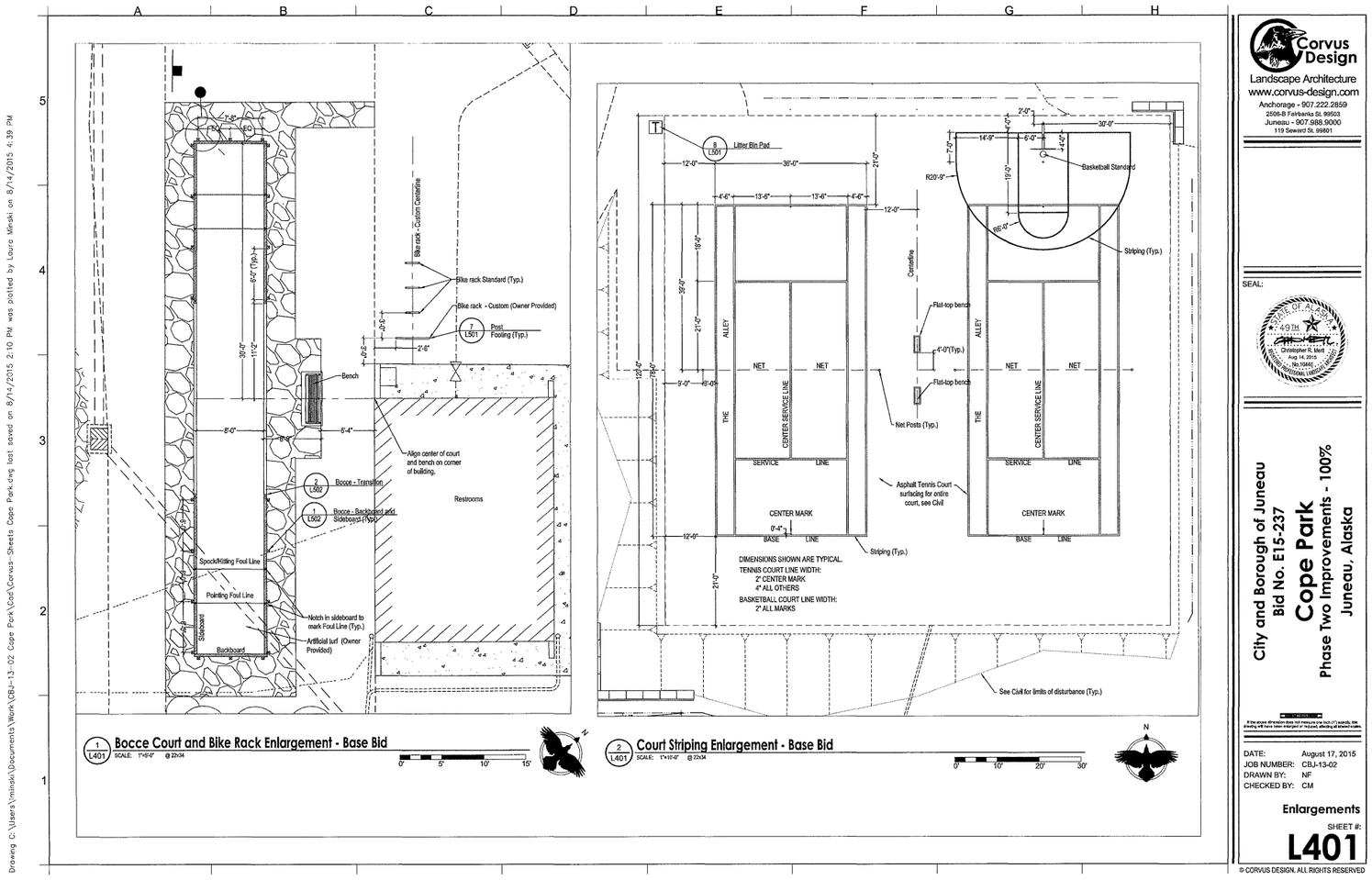

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Anchorage - 907.222.2859
2506-B Fairbanks St. 99503
Juneau - 907.988.9000
119 Seward St. 99801

SEAL:

City and Borough of Juneau
Bid No. E15-237
Cope Park
Phase Two Improvements - 100%
Juneau, Alaska

DATE: August 17, 2015
JOB NUMBER: CBJ-13-02
DRAWN BY: NF
CHECKED BY: CM

Enlargements

SHEET #:
L401

© CORVUS DESIGN. ALL RIGHTS RESERVED

Drawing C:\Users\minski\Documents\Work\CBJ-13-02 Cope Park\Cad\Corvus-Sheets Cope Park.dwg last saved on 8/14/2015 2:10 PM was plotted by Laura Minski on 8/14/2015 4:39 PM

City & Borough of Juneau
Alaska's Capital City

Application Date: **June 25, 2025**

BUILDING PERMIT APPLICATION

NOTE: THIS IS NOT A BUILDING PERMIT

* NOTE: "Building Permit" is a generic term which includes Building Safety Inspections, Grading Permits, and permits for Electrical, Plumbing and Mechanical work.

Case No: **BLD20250463**

Case Description: Replacement of pump station

Site Address: **1001 CALHOUN AVE**

Parcel No: 1C040CR10070

Legal Description: USMS 761, 926 & USS 2348 [COPE PARK]

Check No. of Existing Dwelling Units:

No. of New Dwelling Units: 0

No. of Removed Dwelling Units: 0

Applicant :
CITY AND BOROUGH OF JUNEAU
C/O TAXABLE IN LIEU OF BOND PARCELS
155 S SEWARD ST
JUNEAU AK 99801

Owner:
CITY AND BOROUGH OF JUNEAU
LANDS AND RESOURCES
155 S SEWARD ST
JUNEAU AK 99801

PH: _____ FAX _____

Contractor: TO BE BID

Valuation for Permit Fee Calculations:

S.F.	Type	Rate	Amount
			1,700,000.00
	Total Valuation:		$1,700,000.00

Associated Cases:

None.

Parcel Tags:

Cope Park Bleacher 1969

Notes and Conditions:

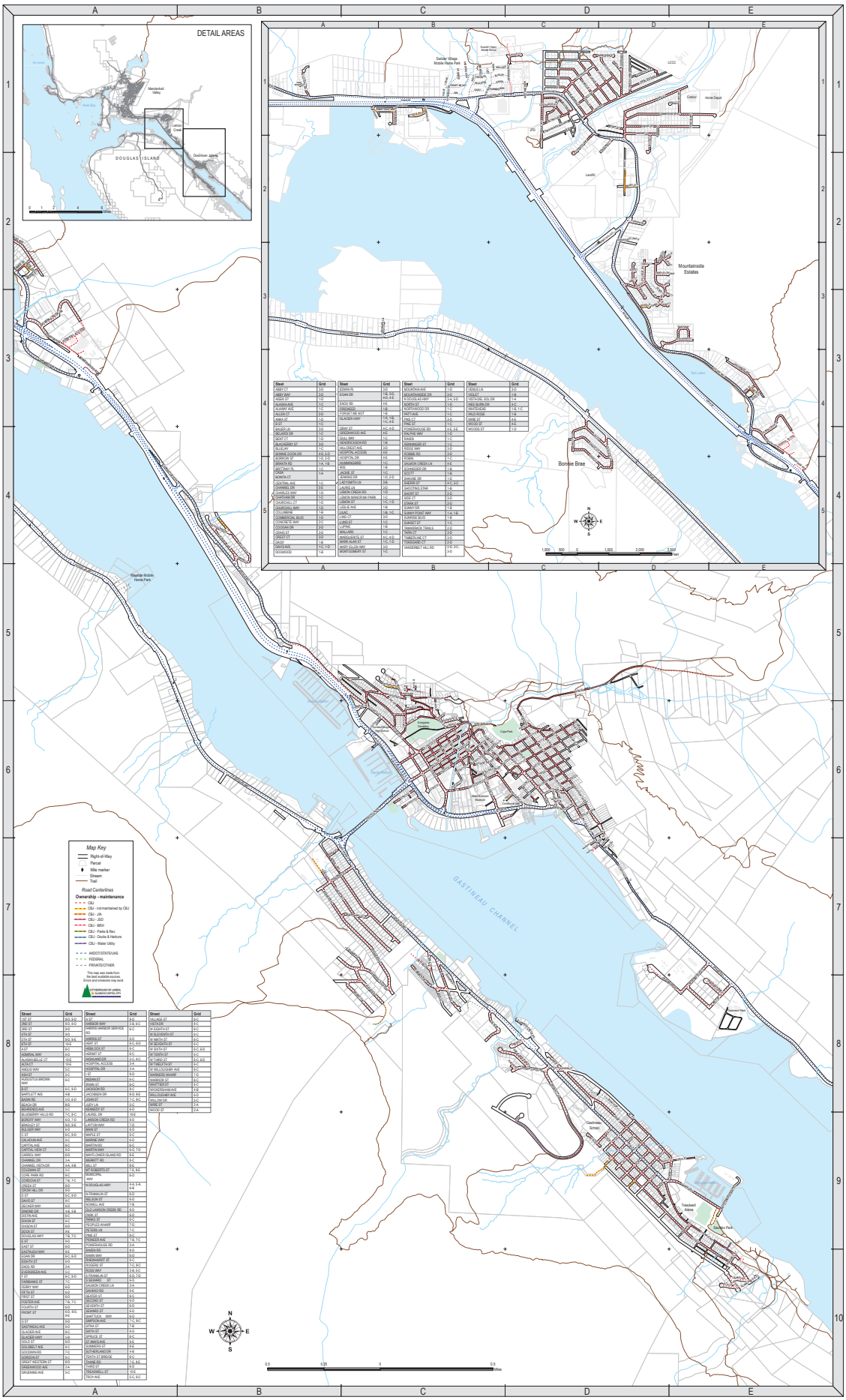
Applicant's Signature
(Owner, Contractor or Authorized Agent)

Date

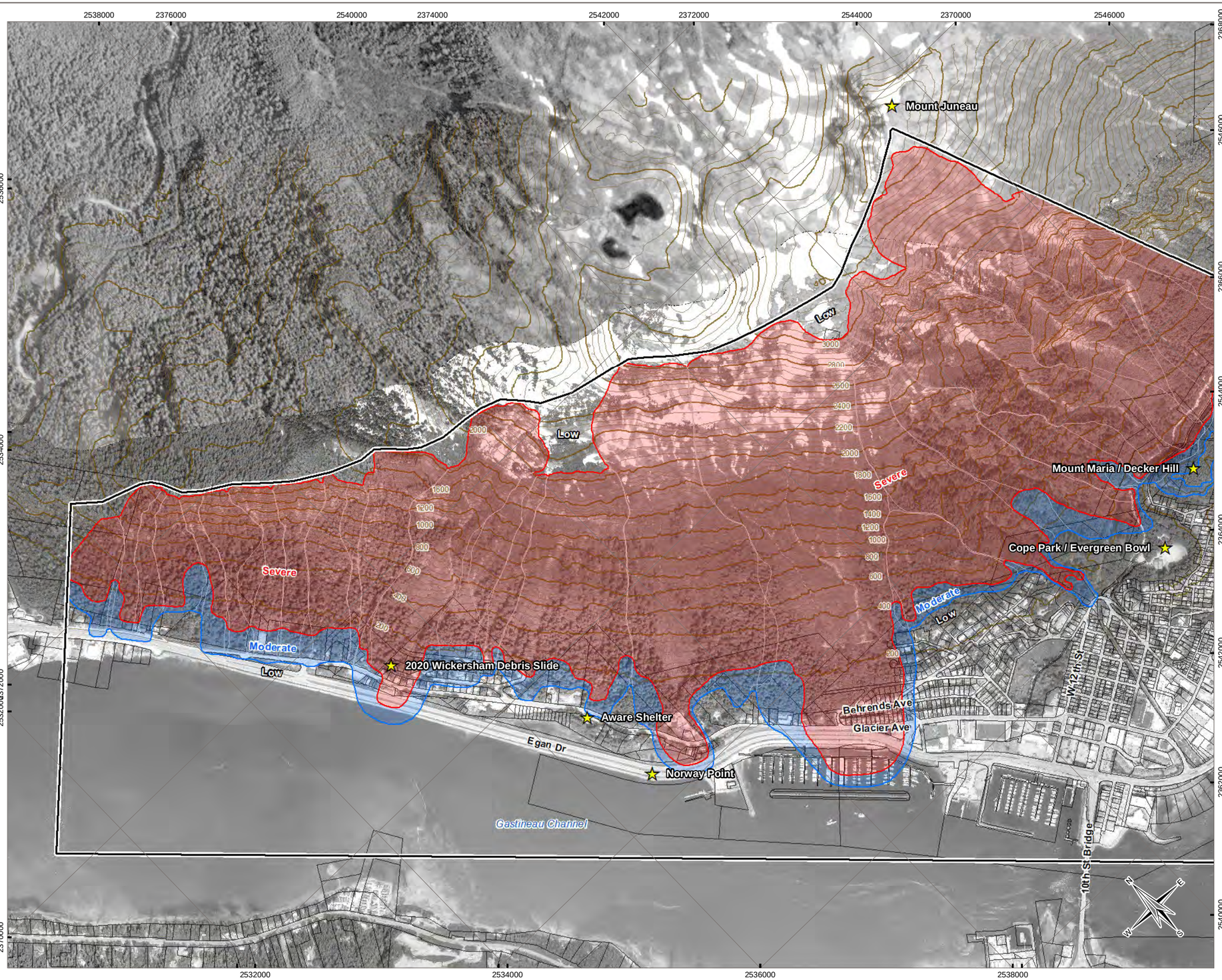
Staff Acceptance

I hereby certify that I have read and examined this application and know the same to be true and correct. I further certify that all provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not. I understand that the granting of a permit does not presume to give authority to violate or cancel the provisions of any other federal, state or local law regulating construction or the performance of construction.

JUNEAU PERMIT CENTER - 230 S. Franklin Street - 4th Floor, Marine View Center - Mail: 155 S. Seward Street, Juneau, AK 99801
Phone: 586-0770 - FAX: 586-3365 - Inspection Requests: 586-1703 - Email: permits@ci.juneau.ak.us
Web Page: HTTP://WWW.JUNEAU.ORG/PERMITS



Attachment G – Road Ownership Map



C:\Users\chris\Dropbox (DAC)\Tetra Tech_Juneau_19-0017-JUN\Maps_GIS Data\City of Juneau_FIG2.3_Av Designation_Overview_20220420.mxd modified 2022-04-27 by chris

LEGEND

- Location of Interest
- Study Area
- Avalanche Path (estimated 300-year boundary)

Base Data

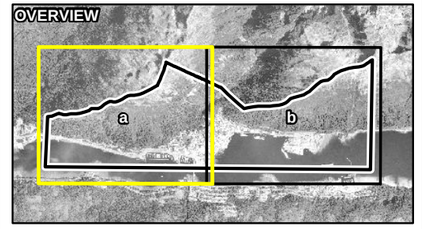
- Index Contour (200 ft)
- Intermediate Contour (50 ft)
- Land Parcel

AVALANCHE HAZARD DESIGNATION

Low
Return period greater than 300 years
OR
Impact pressures less than 20 lbs/ft^2 (1 kPa) with a return period greater than 30 years.

Moderate
Return period between 30 and 300 years;
AND
Impact pressure less than 600 lbs/ft^2 (30 kPa).

Severe
Return period less than 30 years;
AND/OR
Impact pressure greater than or equal to 600 lbs/ft^2 (30 kPa).



NOTES
Low hazard designation not shown. Low hazard designation includes all areas not designated as "Moderate" or "Severe".
Base data source:
Land parcels provided by CBJ.
Contours generated from 2013 LiDAR provided by CBJ.
Background contours generated from 2012 LiDAR provided by CBJ.
Primary imagery provided by CBJ, 2013.
Background imagery provided by ESRI; Maxar (2020).

STATUS
ISSUED FOR USE

JUNEAU LANDSLIDE AND AVALANCHE ASSESSMENT

Avalanche Hazard Designation Mapping Overview

PROJECTION State Plane Alaska Zone 1 5001	**DATUM** NAD83				**CLIENT** CITY AND BOROUGH OF JUNEAU
Scale: 1:12,500 800 400 0 800 Feet					DYNAMIC
FILE NO. 19-0017-JUN-002					
OFFICE DAC-Rev	**DWN** CA	**CKD** AJ	**APVD** AJ	**REV** 2	**Figure 2.3a**
DATE April 27, 2022	**PROJECT NO.** 19-0017-JUN				

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

(907) 586-0715
CDD_Admin@juneau.org
www.juneau.org/community-development
155 S. Seward Street • Juneau, AK 99801

COMMUNITY DEVELOPMENT DEPARTMENT - REQUEST FOR AGENCY COMMENT

DEPARTMENT: Parks and Recreation

STAFF PERSON/TITLE: Marc Wheeler, Director

DATE: January 7, 2025

APPLICANT: City and Borough of Juneau

TYPE OF APPLICATION: City/State Project

PROJECT DESCRIPTION:

CBJ is applying to replace the water utility's pump station at Cope Park, upgrade underground pipe and valve, and add new curb, gutter, and pavement.

LEGAL DESCRIPTION: USMS 761, 926 & USS 2348 [Cope Park]

PARCEL NUMBER(S): 1C040CR10070

PHYSICAL ADDRESS: Cope Park, 1001 Calhoun Avenue, Juneau AK 99801

SPECIFIC QUESTIONS FROM PLANNER:

N/A

AGENCY COMMENTS:

We appreciate the opportunity to review the project and to visit the site with the Project Manager as it is sited on Parks and Recreation lands. We are grateful for the opportunity to suggest a paint color for the building. We have no further comments.

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

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CDD_Admin@juneau.org
www.juneau.org/community-development
155 S. Seward Street • Juneau, AK 99801

COMMUNITY DEVELOPMENT DEPARTMENT - REQUEST FOR AGENCY COMMENT

DEPARTMENT: CDD Building Division

STAFF PERSON/TITLE: Jeff Hedges, Building Code Official

DATE: 11/04/2025

APPLICANT: City and Borough of Juneau

TYPE OF APPLICATION: City/State Project

PROJECT DESCRIPTION:

CBJ is applying to replace the water utility's pump station at Cope Park, upgrade underground pipe and valve, and add new curb, gutter, and pavement.

LEGAL DESCRIPTION: USMS 761, 926 & USS 2348 [Cope Park]

PARCEL NUMBER(S): 1C040CR10070

PHYSICAL ADDRESS: Cope Park, 1001 Calhoun Avenue, Juneau AK 99801

SPECIFIC QUESTIONS FROM PLANNER:

N/A

AGENCY COMMENTS:

The Building Division has no comments or concerns at this time.

Attachment J – Public Notice Sign

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

PLANNING COMMISSION STAFF REPORT
CONDITIONAL USE PERMIT USE2025 0011
HEARING DATE: JAN 27, 2026

(907) 586-0715
CDD_Admin@juneau.gov
www.juneau.org/community-development
155 Heritage Way • Juneau, AK 99801

DATE: January 20, 2026

TO: Erik Pedersen, Chair, Planning Commission

BY: Brandon Robinson, Planner II

THROUGH: Jill Lawhorne, Director, AICP

PROPOSAL: A proposal for a conditional use permit for a vehicle-repair garage in a General Commercial (GC) zone.

STAFF RECOMMENDATION: Approval With Conditions

KEY CONSIDERATIONS FOR REVIEW:

- The site is located in a GC zone, and the proposed use is permissible.
- Proposed access to the lot requires approval by the Alaska Department of Transportation & Public Facilities.

GENERAL INFORMATION	
Property Owner	Ikes Property LLC
Applicant	David Moe
Property Address	North Douglas Hwy
Legal Description	CHANNEL VIEW LT 2
Parcel Number	6D0601150012
Zoning	GC (General Commercial)
Land Use Designation	C (Commercial)
Lot Size	124,112
Water/Sewer	Water: Yes; Sewer: Yes
Access	North Douglas Highway
Existing Land Use	Vacant
Associated Applications	None

ALTERNATIVE ACTIONS:

1. **Amend:** require additional conditions, or delete or modify the recommended conditions.
2. **Deny:** deny the permit and adopt new findings for items 1-6 below that support the denial.
3. **Continue:** to a future meeting date if determined that additional information or analysis is needed to make a decision, or if additional testimony is warranted.

ASSEMBLY ACTION REQUIRED:

Assembly action is not required for this permit.

STANDARD OF REVIEW:

- Quasi-judicial decision
- Requires five (5) affirmative votes for approval
- Code Provisions:
  - 49.15.330
  - 49.25.300
  - 49.40
  - 49.45
  - 49.50
  - 49.80

The Commission shall hear and decide the case per *49.15.330(a) Conditional Use Permit.* *A conditional use is a use that may or may not be appropriate in a particular zoning district according to the character, intensity, or size of that or surrounding uses. The conditional use permit procedures is intended to afford the commission the flexibility necessary to make determinations appropriate to individual sites. The commission may attach to the permit those conditions listed in subsection (g) of this section as well as any further conditions necessary to mitigate external adverse impacts. If the commission determines that these impacts cannot be satisfactorily overcome, the permit shall be denied.*

SITE FEATURES AND ZONING

SURROUNDING ZONING AND LAND USES	
North (GC)	Commercial
South (D-15)	Vacant
East (D-3)	Vacant
West (D-15)	Vacant

SITE FEATURES	
Anadromous	None
Flood Zone	02110C1562E
Hazard	None Mapped
Hillside	None
Wetlands	None
Parking District	No
Historic District	No
Overlay Districts	Mining & Exploration Surface Activities Exclusion District; Urban Mining District; Recreational Vehicle Park Area; Convenience Store Use Area

BACKGROUND INFORMATION

Project Description – The applicant requests a conditional-use permit to construct a vehicle-repair garage in a General Commercial zone (**Attachment A**). Motor vehicle repair and maintenance, including body work, is a permissible use (CBJ 49.25.300, Use 9.100) via the conditional-use process in the General Commercial (GC) zoning district.

Background – The lot was rezoned and subdivided from the larger, adjacent Channel View property that borders it to the south and southwest primarily to facilitate the operation of a previously existing vehicle sales and service location (Hatch Jeep) on the adjacent property to the northwest. The adjacent use has been discontinued, and the applicant is seeking to develop the vacant site for another automobile-related use, as has historically existed in this area.

The plat was recorded with notes related to access, wetlands, and vegetation (**Attachment B**). While the proposed access will need to be approved by ADOT&PF, the applicant has submitted documentation from the U.S. Army Corps of Engineers that there would be no permit needed from them related to wetlands (**Attachment A**), and the plat note related to vegetation is no longer applicable as it was related to the Juneau Coastal Management Program, which was repealed in its entirety.

The table below summarizes relevant history for the parcel and proposed development.

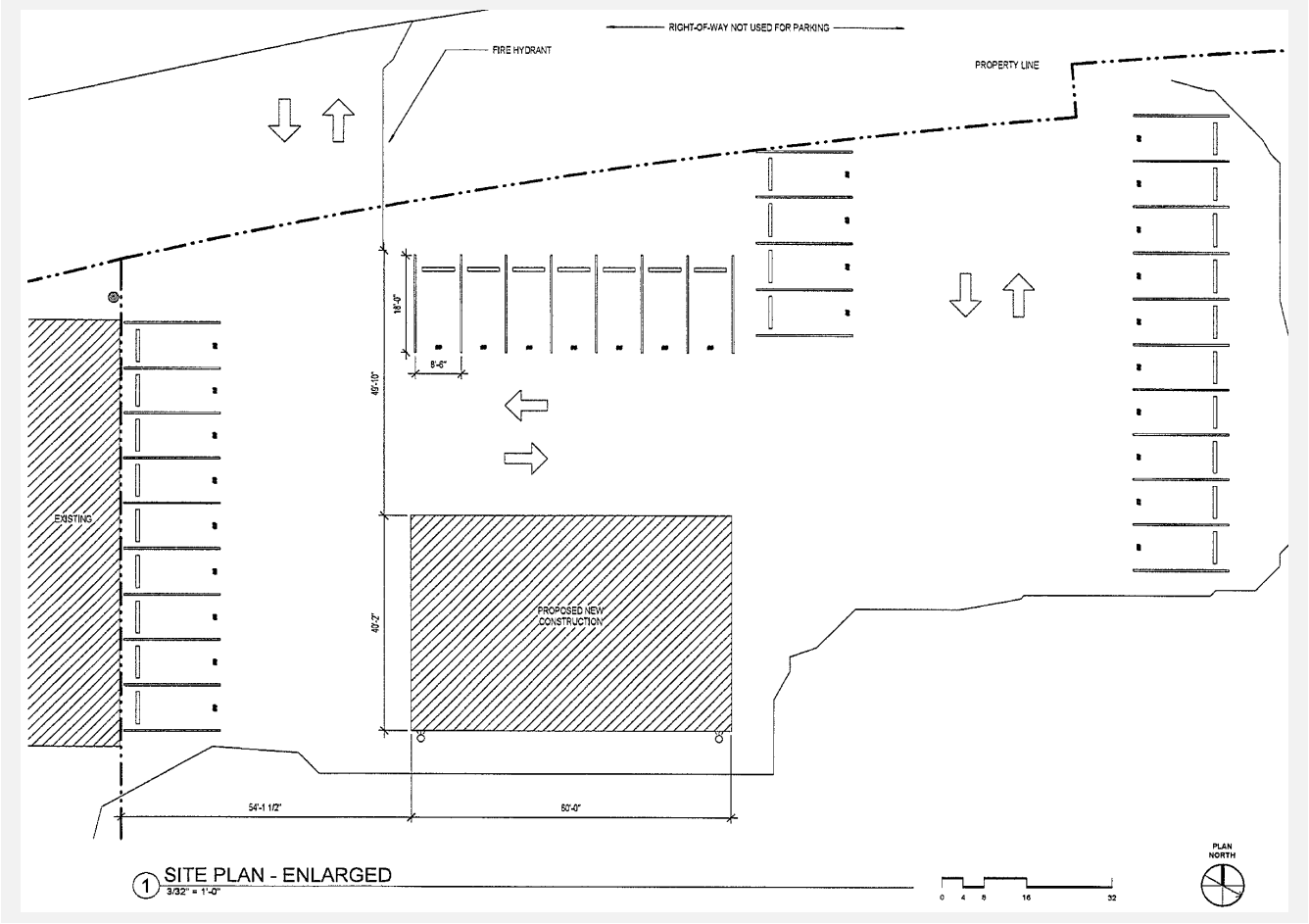
Date	Item	Summary
1987	Zoning Map	Zoning map from the 1987 zoning code, which incorporates the updated zoning boundaries for the property (GC from RR(T)D-3). (**Attachment C**)

1996	Final Plat Staff Report (FP11-96)	The staff report noted that the subdivision would be primarily to facilitate future commercial use, and that future use would depend on changing the zoning from RR(T)D-3 to some variety of commercial zoning. Lots met the subdivision requirements of the time. Staff found that the existing commercial operation on the adjacent property (Hatch Jeep) had a driveway that appeared to be adequate for service to both properties; however, that driveway was not permitted. Staff did not find the subdivision to be out of character with the area. (**Attachment D**)
1996	Notice of Decision (FP11-96)	The case was heard on 8/27/96, and approved, subject to conditions. (**Attachment E**)
1998	Plat No. 98-04	The Final Plat was recorded on 3/2/1998, and included notes related to access, wetlands, and vegetation. (**Attachment B**)
1999	Ordinance 99-01am	Ordinance 99-01am changed the zoning of the property from RR(T)D-3 to General Commercial, subject to either of two conditions: Condition Option 1: A driveway permit shall be obtained from DOT for accessing existing commercial use; the property's use shall be restricted to vehicle sales and repairs; or, Condition Option 2: The use of lot 2 for the existing commercial use shall be discontinued, and the existing access be blocked; the use of the property shall be restricted to vehicle sales and repair. (**Attachment F**)
2006	Zoning Map	The 2006 zoning map shows the area as it was rezoned to GC by Ordinance 99-01am. (**Attachment G**)

ZONING REQUIREMENTS

Standard		**Requirement**	**Existing**	**Code Reference**
Lot	Size, Sq. Ft.	2,000	124,112	49.25.400
	Width, Ft.	20	~403.51	49.25.400
Setbacks, Feet	Front	10	Vacant	49.25.400
	Rear	10	Vacant	49.25.400
	Side	10	Vacant	49.25.400
	Street Side	10	Vacant	49.25.400
Lot Coverage Maximum		No Maximum	Vacant	49.25.400
Vegetative Cover Minimum		10%	~80%	49.50.300
Height	Permissible	55	Vacant	49.25.400
	Accessory	45	Vacant	49.25.400
Maximum Dwelling Units (X/Acre)		50 Units/Acre	Vacant	49.25.500
Use		General Commercial	Vacant	49.25.300

SITE PLAN



ANALYSIS

Project Site – The site is located off of North Douglas Highway just over one mile northwest of the Juneau-Douglas bridge. The site is vacant and has historically been used for vehicle and equipment parking for an adjacent, previously existing vehicle sales and service business. Platted access is along the southeastern lot line but is not proposed to be developed. The development is proposing direct access to North Douglas Highway.

Condition: Prior to issuance of a building permit, the applicant must provide a valid access permit from the Alaska Department of Transportation & Public Facilities.

Condition: Prior to the commencement of the proposed use, access to the development shall be restricted by design to prevent unauthorized use of the facility.

Project Design – The applicant is proposing to construct a two-bay, vehicle-repair garage for Ike's Fuel trucks. The proposed structure would be approximately 2,410.2 square feet, and would include a reception lobby, restroom, and employee lounge. The site is proposed to be directly accessed by North Douglas Highway. Required fire access and signage will be reviewed through the building-permit process.

Condition: Prior to issuance of a building permit, the developer must have site plan approval by the Capital City Fire & Rescue Fire Marshal demonstrating adequate facilities for emergency vehicle access.

Condition: Prior to the issuance of a temporary certificate of occupancy, signage must be approved by the department.

Traffic – According to CBJ 49.40.300(a)(2), a traffic impact analysis is not required. The proposed development is anticipated to generate less than 250 average daily trips (ADTs). The trip generation numbers below were estimated using the ITE Trip Generation Manual, 9th Edition for an average weekday.

Use	Total Sq. Ft.	Trips Generated	Total Trips
Automobile Care Center	2,410.2	2.25 / 1,000 Square Feet	5.42
		Total ADTs:	**5.42**

Condition: None

Vehicle Parking & Circulation – The proposal includes the design for 30 parking spaces, and would comply with CBJ 49.40.210, exceeding the requirement of five parking spaces per bay. Two accessible spaces are required for this proposal because of the number of spaces provided across the planned parking lot. One accessible space is required to be "van-accessible," with appropriate dimensions and signage. Parking which has historically occurred in the right-of-way will not be permitted.

Use	Unit/Total Sq. Ft.	Spaces Required	Total Spaces
Repair/Service Station	5 spaces per bay	10	30
		Total Parking Requirement:	**10**
		Off-Street Loading Spaces Required:	**0**
		ADA Accessible Spaces Required:	**2**

Condition: Prior to issuance of a building permit, the applicant must submit a revised site plan showing parking spaces, accessible vehicle spaces, and circulation aisles that comply with the requirements of CBJ 49.40.

Condition: Prior to temporary certificate of occupancy, required signage shall be posted for the accessible parking spaces.

Noise – Noise is anticipated to be consistent with that expected in a General Commercial zone.

Condition: None

Lighting – The applicant has submitted a lighting plan related to the proposed structure; however, the submitted plan does not describe lighting for the parking area. Parking areas must be suitably lighted according to CBJ 49.40.235(d).

Condition: Prior to issuance of a building permit, a site plan showing the location of outdoor lighting fixtures and cut sheets for all lighting fixtures, shall be provided for review and approval per CBJ 49.40.235(d) and 04 CBJAC 050.020(b), as applicable.

Vegetative Cover & Landscaping – According to CBJ 49.50.300, lots zoned General Commercial are required to provide a minimum of 10% vegetative cover. The submittal includes proposed and retained vegetative cover exceeding the minimum required.

Condition: None

Habitat – No known habitat regulated by Title 49 will be affected by this proposal.

Condition: None

Drainage and Snow Storage – No changes have been proposed related to drainage on the site. The site has ample space for snow storage. Any proposed grading or changes to drainage will be reviewed through the building permit review process.

Condition: None

Historic District – The lot is not within the Juneau Downtown Historic District.

Condition: None

Hazard Zones – The lot is not in a mapped hazard area.

Condition: None

Public Health, Safety, and Welfare – There is no evidence to suggest that the proposed development, with the appropriate conditions, will materially endanger the public health, safety, or welfare.

Condition: At the time of building permit application, fire suppression system plans must be submitted. Suppression system design cannot be deferred.

Condition: Prior to issuance of a temporary certificate of occupancy, an oil spill containment device shall be installed on site.

Property Value or Neighborhood Harmony – No information has been submitted that suggests the proposed project will substantially decrease property values or be out of harmony with the neighboring properties. A similar use has historically been located in the area.

Condition: None

AGENCY REVIEW

CDD conducted an agency-review comment period between 10/28/25 and 12/16/25 and received the following responses:

Agency	Summary
CDD Building Division	Alaska licensed design professionals required (**Attachment A**). No additional comments received.
General Engineering	No comments received.
Capital City Fire and Rescue	Suppression system plans must be submitted with the building permit application. Suppression system design cannot be deferred (**Attachment A**). No additional concerns during agency review (**Attachment H**).
Alaska DOT&PF	DOT&PF Southcoast Region has no objection to the development as presented. No encroachments, storage, or non-transportation uses of the State right-of-way of North Douglas Highway will be allowed (**Attachment I**).

PUBLIC COMMENTS

CDD conducted a public-comment period between 12/19/2025 and 1/5/2026. Public notice was mailed to property owners within 500 feet of the proposed development (**Attachment J**). A public-notice sign was also posted on-site two weeks prior to the scheduled hearing (**Attachment K**). There were no public comments received as of the drafting of this report.

CONFORMITY WITH ADOPTED PLANS

The proposed development is in general conformity with the 2013 Comprehensive Plan and the 2015 Juneau Economic Development Plan.

PLAN	Chapter	Page No.	Item	Summary
2013 Comprehensive Plan	5	44	Policy 5.1	*"To Develop and Sustain a Diverse Economy, Providing Opportunities for Employment for all Residents."* The proposed project will provide for more types of employment and local business expansion.
	5	57	Overarching directive for commercial and industrial development	*"Commercial and industrial activity requires sufficient and suitable land…"* Permitting the proposed use will allow for local business expansion on suitable land in a General Commercial zone.

PLAN	Chapter	Page No.	Item	Summary
2015 Economic Development Plan	3	35	Community Survey Results	*More year-round jobs, cited as a "very important" objective.* Providing for more year-round jobs was the top concern from residents related to the survey question, with approximately 74% of respondents noting that this was a very important objective.
	3	37	Community Survey Results	*Supporting existing business retention and expansion cited as a "very important" objective.* Permitting the development would support the retention and expansion of a local Juneau business. This objective was noted as "very important" to approximately 73% of survey respondents.

FINDINGS

Conditional Use Permit Criteria – Per CBJ 49.15.330 (e) & (f), Review of Director's & Commission's Determinations, the Director makes the following findings on the proposed development:

1. ***Is the application for the requested Conditional Use Permit complete?***

   Analysis: No further analysis needed.

   Finding: Yes. The application for the requested Conditional Use Permit is complete.

2. ***Is the proposed use appropriate according to the Table of Permissible Uses?***

   Analysis: The proposed use is permissible with a conditional use permit process in the General Commercial zone.

   Finding: Yes. The proposed use is appropriate according to the Table of Permissible Uses.

3. ***Will the proposed development comply with the other requirements of this chapter?***

   Analysis: No further analysis needed.

   Finding: Yes. With the recommended conditions, the proposed development will comply with Title 49, including parking, lighting, signage, public and private improvements, vegetative cover, and noise.

4. ***Will the proposed development materially endanger the public health, safety, or welfare?***

   Analysis: No further analysis needed.

   Finding: No. There is no evidence to suggest that with appropriate conditions, the requested use, in a GC zoning district, will materially endanger the public health or safety.

5. Will the proposed development substantially decrease the value of or be out of harmony with property in the neighboring area?

Analysis: No further analysis needed.

Finding: No. There is no evidence to suggest that with appropriate conditions, the requested use, in a GC zoning district, will substantially decrease the value of or be out of harmony with the property in the neighboring area.

6. Will the proposed development be in general conformity with the Land Use Plan, Thoroughfare Plan, or other officially adopted plans?

Analysis: No further analysis needed.

Finding: Yes. The proposed use, with the recommended conditions, will be in general conformity with the 2013 Comprehensive Plan and the 2015 Juneau Economic Development Plan.

RECOMMENDATION

Staff recommends the Planning Commission adopt the Director's analysis and findings and APPROVE the requested Conditional Use Permit. The permit would allow the development of a vehicle-repair garage in a GC zone.

The approval is subject to the following conditions:

1. **Condition:** Prior to issuance of a building permit, the applicant must provide a valid access permit from the Alaska Department of Transportation & Public Facilities.
2. **Condition:** Prior to the commencement of the proposed use, access to the development shall be restricted by design to prevent unauthorized use of the facility.
3. **Condition:** Prior to issuance of a building permit, the developer must have site plan approval by the Capital City Fire & Rescue Fire Marshal demonstrating adequate facilities for emergency vehicle access.
4. **Condition:** Prior to the issuance of a temporary certificate of occupancy, signage must be approved by the department.
5. **Condition:** Prior to issuance of a building permit, the applicant must submit a revised site plan showing parking spaces, accessible vehicle spaces, and circulation aisles that comply with the requirements of CBJ 49.40.
6. **Condition:** Prior to temporary certificate of occupancy, required signage shall be posted for the accessible parking spaces.
7. **Condition:** Prior to issuance of a building permit, a site plan showing the location of outdoor lighting fixtures and cut sheets for all lighting fixtures, shall be provided for review and approval per CBJ 49.40.235(d) and 04 CBJAC 050.020(b), as applicable.
8. **Condition:** At the time of building permit application, fire suppression system plans must be submitted. Suppression system design cannot be deferred.
9. **Condition:** Prior to issuance of a temporary certificate of occupancy, an oil spill containment device shall be installed on site.

STAFF REPORT ATTACHMENTS

Item	Description
Attachment A	2025_Application Packet
Attachment B	1998_PLAT
Attachment C	1987_Zoning Maps
Attachment D	1996_FP11-96_Pre-Subdivision_Staff Report
Attachment E	1996_FP11-96_NOD
Attachment F	1999_Ordinance_99-01am
Attachment G	2006_Zoning Map
Attachment H	2025_Agency-Comment_Fire-Marshal
Attachment I	2025_Agency-Comment_ADOT
Attachment J	2025_Abutters-Notice
Attachment K	2026_Public-Notice Sign

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

DEVELOPMENT PERMIT APPLICATION

NOTE: Development Permit Application forms must accompany all other Community Development Department land use applications.

To be completed by Applicant

PROPERTY LOCATION

Physical Address
0 N Douglas Hwy

Legal Description(s) (Subdivision, Survey, Block, Tract, Lot)
Channel View Lot 2

Parcel Number(s)
6D0601150012

☐ This property located in the downtown historic district
☐ This property located in a mapped hazard area, if so, which _____

LANDOWNER/ LESSEE

Property Owner	Contact Person
Ike's Property, LLC.	
Mailing Address: 409 5th St. Douglas AK 99824	Phone Number(s)
E-mail Address	

LANDOWNER/ LESSEE CONSENT Required for Planning Permits, not needed on Building/ Engineering Permits

I am (we are) the owner(s)or lessee(s) of the property subject to this application and I (we) consent as follows:

A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission.
B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.

X Richard C. Ike — Landowner/Lessee Signature — Date 9/16/25

X _____ — Landowner/Lessee Signature — Date _____

NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.

APPLICANT If the same as OWNER, write "SAME"

Applicant: David Moe	Contact Person
Mailing Address: 126 Seward St, Juneau, AK 99801	Phone Number(s): 503-467-6250
E-mail Address: david@northwindarch.com	

X _____ — Applicant's Signature — Date of Application: 9/16/2025

----------DEPARTMENT USE ONLY BELOW THIS LINE----------

This form and all documents associated with it are public record once submitted.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

Intake Initials	
Case Number: USE25 - 11	Date Received: 10/1/25

I:\FORMS\PLANFORM\DPA.docx

Updated 2017 – Page 1 of 1

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

ALLOWABLE/CONDITIONAL USE PERMIT APPLICATION

See reverse side for more information regarding the permitting process and the materials required for a complete application.

NOTE: Must be accompanied by a DEVELOPMENT PERMIT APPLICATION form.

To be completed by Applicant

PROJECT SUMMARY

New construction motor vehicle repair garage with a reception space.

TYPE OF ALLOWABLE OR CONDITIONAL USE PERMIT REQUESTED

- ○ Accessory Apartment – Accessory Apartment Application (AAP)
- ◉ Use Listed in 49.25.300 – Table of Permissible Uses (USE)
  - Table of Permissible Uses Category: BOAT OR MOTOR VEHICLE, SALES AND SERVICE OPERATIONS

IS THIS A MODIFICATION or EXTENSION OF AN EXISTING APPROVAL? ○ YES – Case # _____ ◉ NO

UTILITIES PROPOSED WATER: ☑ Public ☐ On Site SEWER: ☑ Public ☐ On Site

SITE AND BUILDING SPECIFICS

Total Area of Lot 124,112 square feet Total Area of Existing Structure(s) N/A square feet

Total Area of Proposed Structure(s) 2,428 square feet

EXTERNAL LIGHTING

Existing to remain	◉ No	○ Yes – Provide fixture information, cutoff sheets, and location of lighting fixtures
Proposed	○ No	◉ Yes – Provide fixture information, cutoff sheets, and location of lighting fixtures

ALL REQUIRED DOCUMENTS ATTACHED

☑ **Narrative including:**

- ☑ Current use of land or building(s)
- ☑ Description of project, project site, circulation, traffic etc.
- ☑ Proposed use of land or building(s)
- ☑ How the proposed use complies with the Comprehensive Plan

☑ **Plans including:**

- ☑ Site plan
- ☑ Floor plan(s)
- ☑ Elevation view of existing and proposed buildings
- ☑ Proposed vegetative cover
- ☑ Existing and proposed parking areas and proposed traffic circulation
- ☑ Existing physical features of the site (e.g.: drainage, habitat, and hazard areas)

If this is a modification or extension include:

- ☐ Notice of Decision and case number
- ☐ Justification for the modification or extension
- ☐ Application submitted at least 30 days before expiration date

----------DEPARTMENT USE ONLY BELOW THIS LINE----------

ALLOWABLE/CONDITIONAL USE FEES

	Fees	Check No.	Receipt	Date
Application Fees	$1,000.00	Class IV		
Admin. of Guarantee	$			
Adjustment	$			
Pub. Not. Sign Fee	$50			
Pub. Not. Sign Deposit	$100			
Total Fee	$1150.00			

This form and all documents associated with it are public record once submitted.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

Case Number	Date Received
USE25-11	10/1/25

Allowable/Conditional Use Permit Application Instructions

Allowable Use permits are outlined in CBJ 49.15.320, Conditional Use permits are outline in CBJ 49.15.330

Pre-Application Conference: A pre-application conference is required prior to submitting an application. There is no fee for a pre-application conference. The applicant will meet with City & Borough of Juneau and Agency staff to discuss the proposed development, the permit procedure, and to determine the application fees. To schedule a pre-application conference, please contact the Permit Center at 586-0770 or via e-mail at permits@juneau.org.

Application: An application for an Allowable/Conditional Use Permit will not be accepted by the Community Development Department until it is determined to be complete. The items needed for a complete application are:

1. **Forms:** Completed Allowable/Conditional Use Permit Application and Development Permit Application forms.
2. **Fees:** Fees generally range from $350 to $1,600. Any development, work, or use done without a permit issued will be subject to double fees. All fees are subject to change.
3. **Project Narrative:** A detailed narrative describing the project.
4. **Plans:** All plans are to be drawn to scale and clearly show the items listed below:
    - A. Site plan, floor plan and elevation views of existing and proposed structures
    - B. Existing and proposed parking areas, including dimensions of the spaces, aisle width and driveway entrances
    - C. Proposed traffic circulation within the site including access/egress points and traffic control devices
    - D. Existing and proposed lighting (including cut sheets for each type of lighting)
    - E. Existing and proposed vegetation with location, area, height and type of plantings
    - F. Existing physical features of the site (i.e. drainage, eagle trees, hazard areas, salmon streams, wetlands, etc.)

Document Format: All materials submitted as part of an application shall be submitted in either of the following formats:

1. Electronic copies in the following formats: .doc, .txt, .xls, .bmp, .pdf, .jpg, .gif, .xlm, .rtf (other formats may be preapproved by the Community Development Department).
2. Paper copies 11" X 17" or smaller (larger paper size may be preapproved by the Community Development Department).

Application Review & Hearing Procedure: Once the application is determined to be complete, the Community Development Department will initiate the review and scheduling of the application. This process includes:

Review: As part of the review process the Community Development Department will evaluate the application for consistency with all applicable City & Borough of Juneau codes and adopted plans. Depending on unique characteristics of the permit request the application may be required to be reviewed by other municipal boards and committees. During this review period, the Community Development Department also sends all applications out for a 15-day agency review period. Review comments may require the applicant to provide additional information, clarification, or submit modifications/alterations for the proposed project.

Hearing: All Allowable/Conditional Use Permit Applications must be reviewed by the Planning Commission for vote. Once an application has been deemed complete and has been reviewed by all applicable parties the Community Development Department will schedule the requested permit for the next appropriate meeting.

Public Notice Responsibilities: Allowable/Conditional Use requests must be given proper public notice as outlined in CBJ 49.15.230:

The Community Development Department will give notice of the pending Planning Commission meeting and its agenda in the local newspaper a minimum of 10-days prior to the meeting. Furthermore, CDD will mail notices to all property owners within 500-feet of the project site.

The Applicant will post a sign on the site at least 14 days prior to the meeting. The sign shall be visible from a public right-of-way or where determined appropriate by CDD. Signs may be produced by the Community Development Department for a preparation fee of $50, and a $100 deposit that will be refunded in full if the sign is returned within seven days of the scheduled hearing date. If the sign is returned between eight and 14 days of the scheduled hearing $50 may be refunded. The Applicant may make and erect their own sign. Please contact the Community Development Department for more information.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

(907) 586-0715
CDD_Admin@juneau.gov
www.juneau.org/community-development
155 Heritage Way • Juneau, AK 99801

Ike's Fuel Repair Facility, with possible lot consolidation

Case Number:	PAC2024 0019
Applicant:	NorthWind Architects
Property Owner:	Ike's Property LLC
Property Address:	Not assigned
Parcel Code Number:	6D0601150012
Site Size:	124,112 square feet, 2.8492 acres
Zoning:	General Commercial
Existing Land Use:	Vehicle sales and maintenance

Conference Date:	June 15, 2024
Report Issued:	April 18, 2025

DISCLAIMER: Pre-application conferences are conducted for the purpose of providing applicants with a preliminary review of a project and timeline. Pre-application conferences are not based on a complete application and are not a guarantee of final project approval.

List of Attendees

Note: Copies of the Pre-Application Conference Report will be emailed, instead of mailed, to participants who have provided their email address below.

Name	Title	Email address
James Bibb	Applicant	james@northwindarch.com
David Moe	Applicant (not present)	david@northwindarch.com
Irene Gallion	Planning	Irene.Gallion@juneau.gov
Jeff Hedges	Building	jeffrey.hedges@juneau.gov

Conference Summary

Questions/issues/agreements identified at the conference that weren't identified in the attached reports. The following is a list of issues, comments and proposed actions, and requested technical submittal items that were discussed at the pre-application conference.

Project Overview

Summary: The proposed project will require a Conditional Use Permit (CUP). Because the neighboring lot supports the proposed use, it will be included in the CUP.

Parcel #	Address	Lot size, square feet	Lot size, acres
6D0601150012	Not assigned	124,112	2.8492
6D0701000020	4755 N Douglas Highway	45,390	1.0420
	Total Project Size	169,502	3.8912

Consolidation may be a condition of the CUP due to access or other factors. Consolidation is considered a subdivision, so requires a PAC. Subdivision process and forms are attached in the event that the Applicant consolidates, so that another PAC is not required. Other types of subdivision would require a new pre-application conference particular to that proposed development.

The application for a CUP packet should include:

- A Development Permit Application (attached)
- An Allowable/Conditional Use Permit Application (attached)
- A narrative including:
  - Current use of land or buildings.
  - Site circulation, traffic and parking. This is particularly important if access is shared between two lots.
  - Proposed use of land or buildings.
- Site plan, including:
  - Physical features such as drainage and wetlands.
  - A scale bar – NorthWind tends to provide a scale statement, but it is unclear when the site plan is printed on different sized paper.
  - The dimensions of the new structure.
  - Distance of the structure from the lot lines.
  - Proposed parking, including dimensions (a separate parking plan can be submitted).
  - Lighting location (a separate lighting plan can be submitted).
  - Permitted access.
  - Vegetation plan. The plat has a Note #3 requiring compliance with the Juneau Coastal Management Plan (JCMP). CBJ no longer has a JCMP.
  - The plan should show all uses (including parking) on the lots proposed for use. The right-of-way cannot continue to be used for parking.
- Draft structure plans, including:
  - Elevation of new and existing buildings
  - Square footage of the maintenance facility, reception area, restrooms, employee accommodations, and other features.
- Alaska Department of Transportation and Public Facilities driveway permit, OR correspondence with ADOT&PF indicating a driveway is approvable.

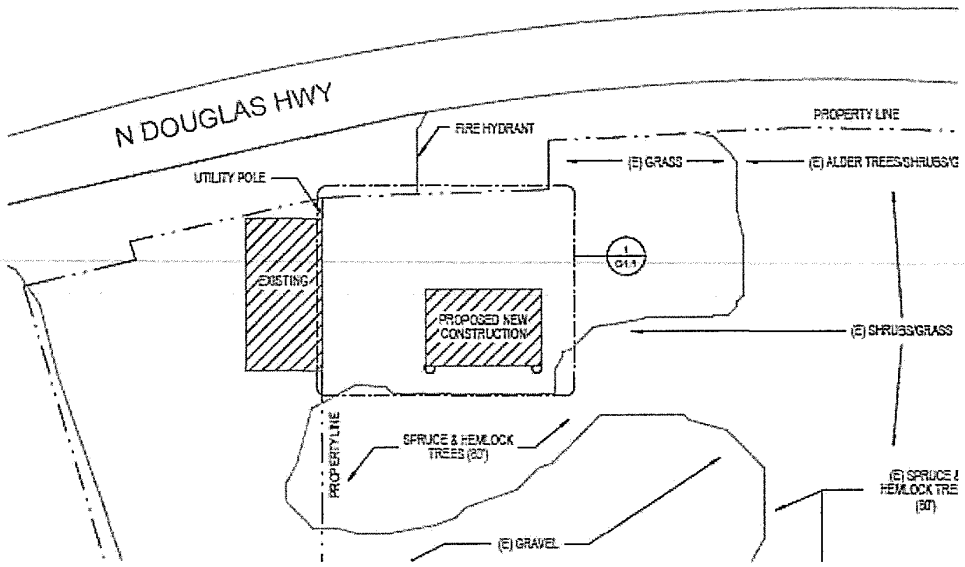
- Nonconforming Certification Application.

CUP Process:

- Submit the application and back-up materials (listed on ten back of the application).
    - Electronic submissions accepted at Permits@juneau.gov . Note that the permit center will call you for payment when the application is processed. Applications are submitted in the order in which they are received, and it may be a few days before you get a call.
- The project will be assigned to a planner. They will review submitted materials, and coordinate where necessary. When the planner assesses the file is complete, they will schedule a hearing before the Planning Commission.
    - A notice will be sent to property owners within 500 feet of the project.
    - There will be two newspaper ads for the case.
    - The Applicant is required to post a Public Notice sign, which will be provided by CDD. The sign must be posted two weeks before the hearing.
    - Staff will prepare a report analyzing the project, and make a recommendation to the Commission. The report will be publicly available the week before the hearing.
- At the Planning Commission meeting, the project can be:
    - On the Consent Agenda, where it will be passed without discussion.
    - On the Regular Agenda:
        - The Director will briefly describe the project.
        - The Applicant has 15 minutes to describe the project.
        - The public has the opportunity to comment. There is usually a time limit of two to three minutes.
        - The Applicant has time to respond to issues raised.
        - Public comment is closed and there is no additional opportunity to participate.
- The Planning Commission will:
    - Approve the project
    - Approve the project with conditions (the most common outcome)
    - Deny the project
    - Continue the project – if more information is required or if the Commission runs out of time.
- The decision can be appealed for 20 days after the Notice of Decision is filed with the City Clerk. If the decision is appealed, the Applicant can continue with their project at their own risk.

Videos of the Planning Commission activities are posted on Assembly's Minutes and Agendas site.
https://juneau-ak.municodemeetings.com/

The applicant is proposing a two-bay repair facility with reception, restrooms, and an employee lounge.



The neighboring lot is owned by the Applicant, and currently accommodates the fire-damaged structure that used to be the Jeep dealer. The Applicant is a fuel delivery service.

The lots are zoned General Commercial (GC).

There will be one new oil tank to serve the heating system in the new building. No fuel storage, other than the truck tanks, will take place on the property.

The Alaska Department of Transportation and Public Facilities (ADOt&PF) right-of-way is currently used to park vehicles. **This use is not permitted by ADOT&PF, and will not be permitted.** The CUP application materials will need to show all parking on the lots, and how use of the right-of-way will be dissuaded.

The driveway is not permitted, but it is paved and wide enough, and ADOT&PF feels it can be permitted.

Planning Division

1. **Zoning** – The site was rezoned in 1999 from RR to General Commercial. The rezone was conditioned that the current access to commercial use be permitted by Alaska Department of Transportation and Public Facilities (ADOT&PF) OR, if not permitted, the access be physically blocked.
    - The access is not permitted. The zoning in CBJ's database is General Commercial.
    - The rezone was also conditioned that the lot use be restricted to vehicle sales and repair. Current interpretation is that conditions on rezones are not allowed. If other General Commercial uses are considered for the lot, please contact the Community Development Department so that we can request a legal interpretation.
1. **Table of Permissible Uses** - Vehicle repair and maintenance is a conditional use in GC (TPU 9.100). Reception, restrooms and employee accommodations are accessory to the primary use.

Equipment parking and storge requires a CUP under TPU 10.300 if more than a minor and incidental use. CDD recommends that the applicant pursue equipment storage for future flexibility.

2. **Subdivision** – Subdivision and/or consolidation are not proposed at this time.

   If consolidation is considered in the future, this pre-application conference can be used to address the requirement for a pre-application conference. See the attached summary of subdivision process, applications and fees.

   If further subdivision is considered in the future, please contact the Community Development Department. Subdivision on North Douglas Highway, a minor arterial, is restricted.

3. **Setbacks** – All setbacks are 10 feet.

   The lot abuts D15 zoning. Developers are required to use the more restrictive setback. GC setbacks are more restrictive.

4. **Height** – The GC height restriction for permissible uses is 55 feet, and 45 feet for accessory uses. The applicant has not yet provided building design.

5. **Access –** Via North Douglas Highway, which is a Minor Arterial. Platted access to the lot is along the southeast lot line, shared with Channel View Lot 1. ADOT&PF has no record of permitted access, but they feel the driveway is adequate to permit. They will not permit the parking use in the right-of-way.

6. **Parking & Circulation**– Reception, restrooms and employee accommodations are incidental to the vehicle repair and do not require parking in excess of that required for the repair facility.

   Two bays would require 10 parking spaces [CBJ 49.40.210(a)]. One additional parking space is required for every 1,000 square feet of storage.

   Regular parking spaces measure 8 feet wide by 17 feet long for pull-in parking.

   One space must be ADA van accessible [CBJ 49.40.210(b)], with a 8-foot wide aisle width and a 8-foot wide parking space, with a length of 17 feet [CBJ 49.40.225(b)].

   A loading space will be required if the facility exceeds 5,000 square feet [CBJ 49.40.210(c)]. The space must be 30 feet long, 12 feet wide, and have a clearance height of 14.5 feet [CBJ 49.40.225(c)].

   Applicant materials did not explicitly show parking spaces, but the current lot development provides enough space to meet parking requirements.

7. **Lot Coverage –** There is no maximum lot coverage (structures with roofs) in GC zoning.

8. **Vegetative Coverage** – 10 percent vegetative cover is required.

1. **Lighting** – Exterior lighting may not shed light or glare above the roofline of the building or beyond the property line of the site. Industrial and exterior lighting shall not be used in a manner that produces glare on public highways or neighboring property.

   For a CUP, the applicant shall submit a lighting plan illustrating the location and type of exterior lighting proposed for the development. Exterior lighting shall be designed and located to minimize offsite glare. All exterior lighting fixtures shall be of a "full cutoff" design.

9. **Noise** – Anticipated noise will not exceed that expected at an auto repair facility.

10. **Flood** – The development is not in a Special Flood Hazard Area (Pannel 02110C 1562E).

11. **Hazard/Mass Wasting/Avalanche/Hillside Endorsement** – Development may require a Hillside Endorsement if slopes of 18% are either cut into or developed. A Hillside Endorsement should include

engineered site plans, a vegetation plan, and a GeoTech memo appropriate to the scale of the development, and any scheduling restraints (such as weather windows).

12. **Wetlands** – The plat refers to the presence of wetlands. Wetlands fill requires a permit from the United States Army Corps of Engineers, (907) 753-2689.

13. **Habitat** –Check with the U.S. Fish and Wildlife on the presence of eagle nests in the area. The presence of eagle nests may impact construction scheduling.

    No anadromous waterbodies are on the subject parcel, or within 50 feet.

14. **Plat Restrictions** –

    Access to Lot 2 is by common driveway between Lot 1 and Lot 2 unless otherwise approved by the City and Borough of Juneau and the Alaska Department of Transportation and Public Facilities. Development may require construction of an a new driveway and minimum parking area. *If ADOT&PF has or will issue a driveway permit for the current configuration, CBJ would not require further access improvements for the proposed development.*

    The owner shall obtain permits from the Corps of Engineers and other agencies before further development of the property, or otherwise affecting wetlands.

    Existing vegetation shall be retained along the highway, or berms and planting strips shall be placed along the highway where feasible and prudent, in accordance with the Juneau Coastal Management Program. Proposals to modify vegetation must be reviews and approved by CBJ. *CBJ no longer has a JCMP. A vegetative cover plan is required, but it does not have to comply with JCMP. It must show 10% vegetative cover.*

15. **Traffic** – A traffic impact analysis (TIA) is not required by CBJ.

    A TIA may be required by CBJ if Average Annual Daily Traffic exceeds 250. To meet that threshold as a General Light Industrial operation, the structure would have to be about 35,000 square feet. The proposed structure appears to be under 5,000 square feet.

Use	Metric
Automobile Care Center	2.25 per 1,000 square feet
General Light Industrial	6.97 per 1,000 square feet

From the Institute of Traffic Engineers' Trip Generation Manual, 9th Edition.

The project directly accesses ADOT&PF infrastructure (North Douglas Highway). Please contact ADOT&PF to discuss your project:

Michael K. Schuler
Property Management Officer
State of Alaska Dept. of Transportation
Southcoast Region
(907) 465-4499 Desk
(907) 419-4510 Mobile

16. **Nonconforming situations** – The existing structure has nonconforming front and side yard setbacks. A nonconforming certification is required for this application.

Building Division

17. **Building** – Alaska licensed design professionals required.
18. **Outstanding Permits** – No outstanding permits.

General Engineering/Public Works

19. **Engineering** – No comments at the time of this report.
20. **Drainage** – No comments at the time of this report.
21. **Utilities** – No comments at the time of this report.

Fire Marshal

22. **Fire Items/Access** – No comments at the time of this report.
23. Suppression system plans must be submitted with the building permit application. Suppression system design cannot be deferred.

Other Applicable Agency Review

24. Alaska Department of Transportation and Public Facilities
    Michael K. Schuler
    Property Management Officer
    State of Alaska Dept. of Transportation
    Southcoast Region
    (907) 465-4499 Desk
    (907) 419-4510 Mobile

List of required applications

Based upon the information submitted for pre-application review, the following list of applications must be submitted in order for the project to receive a thorough and speedy review.

For the CUP process:

1. Development Permit Application
2. Allowable/Conditional Use Permit Application
3. Nonconforming Certification Application

After the CUP is approved:

1. Building Permit

Additional Submittal Requirements

Submittal of additional information, given the specifics of the development proposal and site, are listed below. These items will be required in order for the application to be determined Counter Complete.

Conditional Use Permit

1. A copy of this pre-application conference report.

2. A site plan showing:
    a. Physical features such as drainage and wetlands
    b. A scale bar – NorthWind tends to provide a scale statement, but it is unclear when the site plan is printed on different sized paper.
    c. The dimensions of the new structure.
    d. Distance of the structure from the lot lines.
    e. Proposed parking, including dimensions (a separate parking plan can be submitted).
    f. Lighting location (a separate lighting plan can be submitted).
    g. Permitted access.
    h. Vegetation plan. The plat has a Note #3 requiring compliance with the Juneau Coastal Management Plan (JCMP). CBJ no longer has a JCMP.
    i. The plan should show all uses (including parking) on the lots proposed for use. The right-of-way cannot continue to be used for parking.
3. Draft structure plans showing the square footage of the maintenance facility, reception area, restrooms, employee accommodations, and other features.
4. Alaska Department of Transportation and Public Facilities driveway permit, OR correspondence with ADOT&PF indicating a driveway is approvable.

Building Permit

1. Suppression system plans must be submitted with the building permit application. Suppression system design cannot be deferred.

Exceptions to Submittal Requirements

Submittal requirements that staff has determined **not** to be applicable or **not** required, given the specifics of the development proposal, are listed below. These items will **not** be required in order for the application to be reviewed.

1. While a vegetation plan must be submitted, it does not need to comply with the JCMP. It must show a minimum of 10% vegetative coverage.

Fee Estimates

The preliminary plan review fees listed below can be found in the CBJ code section 49.85.

Based upon the project plan submitted for pre-application review, staff has attempted to provide an accurate estimate for the permits and permit fees which will be triggered by your proposal.

1. CUP: For a commercial use using less than six acres of land: Class IV use, $1,000.
2. Public Notice Sign: $150, with $100 refundable if the sign is returned by the Monday following the Planning Commission meeting.

For informational handouts with submittal requirements for development applications, please visit our website at www.juneau.org/community-development.

Submit your Completed Application

You may submit your application(s) online via email to permits@juneau.gov
OR in person with payment made to:

City & Borough of Juneau, Permit Center
230 South Franklin Street
Fourth Floor Marine View Center
Juneau, AK 99801

Phone: (907) 586-0715
Web: www.juneau.org/community-development

Attachments:

49.15.330 – if a Conditional Use Permit
Plat
Ordinance
Development Permit Application
Allowable/Conditional Use Permit Application
Lot Consolidation – Additional Information

PAC2025-0019: Ike's Fuel Repair Facility, with possible lot consolidation

Lot Consolidation – Additional Information

Case Number:	PAC2024 0019
Applicant:	NorthWind Architects
Property Owner:	Ike's Property LLC
Property Address:	Not assigned
Parcel Code Number:	6D0601150012
Site Size:	124,112 square feet, 2.8492 acres
Zoning:	General Commercial
Existing Land Use:	Vehicle sales and maintenance

Project Overview

Parcel #	Address	Lot size, square feet	Lot size, acres
6D0601150012	Not assigned	124,112	2.8492
6D0701000020	4755 N Douglas Highway	45,390	1.0420
	Total Project Size	169,502	3.8912

Consolidation may be a condition of the CUP due to access or other factors. Consolidation is considered a subdivision, so requires a PAC. Subdivision process and forms are attached in the event that the Applicant consolidates, so that another PAC is not required. Other types of subdivision would require a new pre-application conference particular to that proposed development.

LOT CONSOLIDATION PROCESS

Lot consolidations use the Minor Subdivision Process

- Work with your surveyor to develop a preliminary plat, and fill out the preliminary plat checklist.
- Submit the application and back-up materials.
    - Electronic submissions accepted at Permits@juneau.gov . Note that the permit center will call you for payment when the application is processed. Applications are submitted in the order in which they are received, and it may be a few days before you get a call.
- The project will be assigned to a Planner. They will review submitted materials, and coordinate with you if additional or modified materials are needed.
    - The Planner will ask General Engineering, Cartography, and Capital City Fire and Rescue for their review.
    - The Planner will provide you with a memo outlining any changes that need to be made. You work with your surveyor on the changes, and submit them when done.
- A notification will be sent to abutting land owners, advising them of the proposed subdivision.
- The Planner will provide you with an Estimate of Taxes Owed.

- The Planner will prepare a staff report for the Director, providing an analysis of the subdivision and including any neighbor comments.
- When the Director approves the subdivision, the Planner will send you a Notice of Decision (NOD). The NOD will include any minor corrections that need to be made. The NOD is the indication that you can print the subdivision on mylar (fancy, expensive paper).
- Sign the mylars. The signature needs to be notarized.
- Taxes must be paid before the mylar is recorded. This is a state law. Advise the Planner when taxes have been paid, and they will request a Certificate of Taxes Paid, which will be recorded with the subdivision.
- Submit the mylars to Community Development. The Planner will:
    - Get the Director's signature.
    - Get the City Clerk's signature.
    - Package the mylars and send them to the Alaska Department of Natural Resources for recording.

List of required applications

Based upon the information submitted for pre-application review, the following list of applications must be submitted in order for the project to receive a thorough and speedy review.

1. Development Permit Application
2. Subdivision Application
3. Subdivision Checklist for Preliminary Plat

Additional Submittal Requirements

Submittal of additional information, given the specifics of the development proposal and site, are listed below. These items will be required in order for the application to be determined Counter Complete.

1. A copy of this pre-application conference report.

Exceptions to Submittal Requirements

Submittal requirements that staff has determined **not** to be applicable or **not** required, given the specifics of the development proposal, are listed below. These items will **not** be required in order for the application to be reviewed.

1. Topography is not required for the plat.
2. On-line forms include "Minor Lot Consolidation Application." The title is a misnomer. This is a document that will be filled out by CBJ GIS personnel, and is not required as part of the application package.

Fee Estimates

The preliminary plan review fees listed below can be found in the CBJ code section 49.85.

Based upon the project plan submitted for pre-application review, staff has attempted to provide an accurate estimate for the permits and permit fees which will be triggered by your proposal.

1. Lot Consolidation: $160 - $110 plus $25 for each lot changed.

Submit your Completed Application

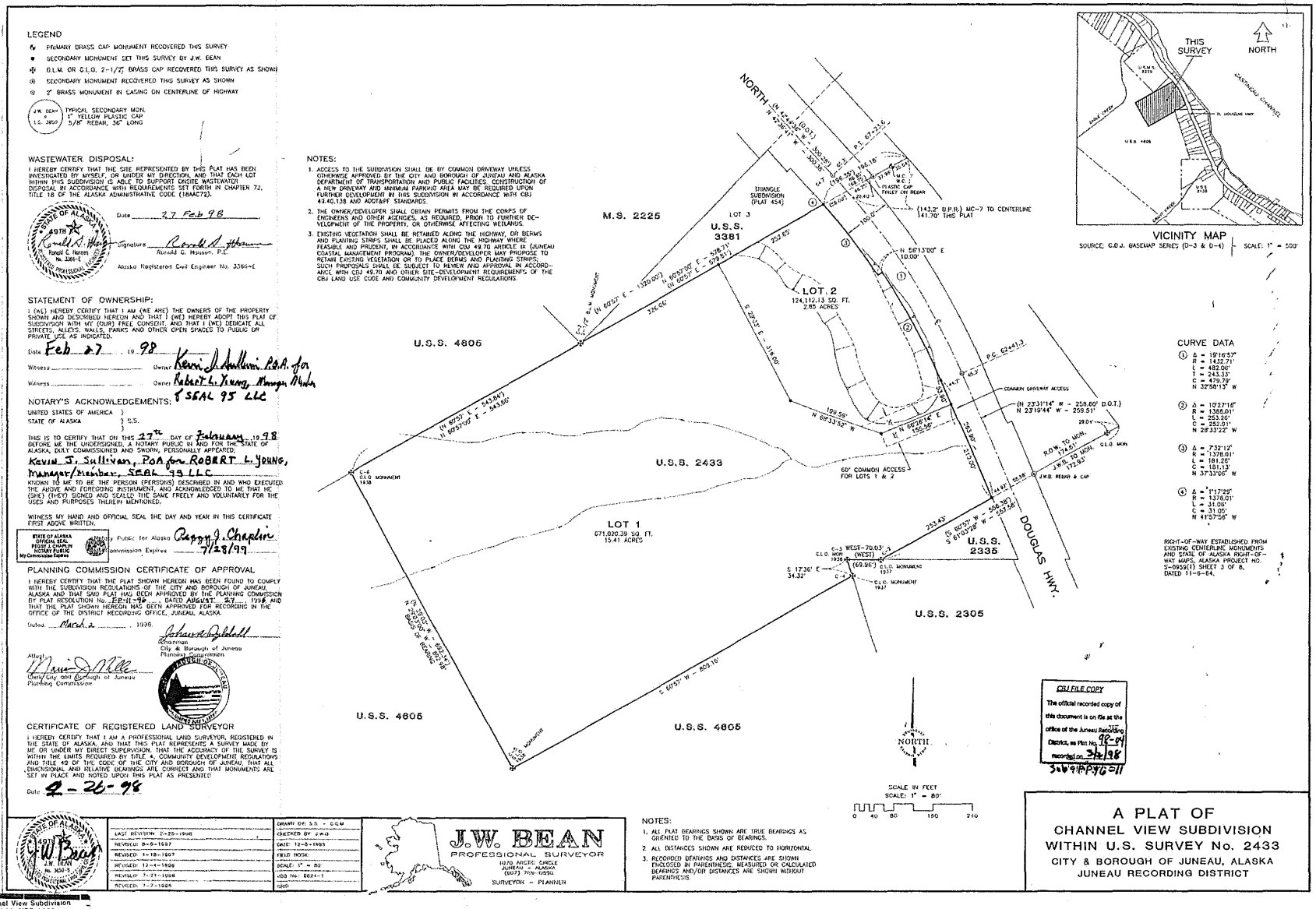
You may submit your application(s) online via email to permits@juneau.gov
OR in person with payment made to:

City & Borough of Juneau, Permit Center
230 South Franklin Street
Fourth Floor Marine View Center
Juneau, AK 99801

Phone: (907) 586-0715
Web: www.juneau.org/community-development

Attachments:

Development Permit Application
Subdivision Application
Subdivision Checklist for Preliminary Plat



Channel View Subdivision within USS 2433

NorthWind
Architects, LLC

RE: Conditional Use Permit (CUP) Application – Ike's Fuel
Narrative for Conditional Use Permit – New Construction
March 17, 2025

Site Location:
Parcel Number: 6D0601150012
Address: 0 N Douglas Hwy

Background:
Ike's Fuel is a family owned, heating oil supplier in the Juneau area operating since 1966. The property, with an area of 124,112 square feet is currently zoned General Commercial (GC). The vacant lot is largely vegetation with an area of graveled parking and vehicle space. Ike's Property, LLC also owns the adjacent property at 4755 N Douglas Hwy which currently has a Conditional Use Permit which was previously used to repair and maintain automobiles.

Project Overview:
The proposed project is of a motor vehicle repair and service operations building for Ike's Fuel trucks, consisting of two overhead coiling doors for the two-vehicle bay, a reception lobby, restroom, and employee lounge.

Zoning:
The proposed building of a motor vehicle repair and service operations at parcel 6D0601150012 is an allowable use in the General Commercial (GC) zoning district with approved Conditional Use Permit. The proposed building location complies with the required setbacks (10' front, rear, side, and street.). Parking also complies for a repair/service station requirements of 5 spaces per bay.

Comprehensive Plan Compliance:
The proposed complies with the Comprehensive Plan by promoting economic development for business, maintaining environmental protection by leaving the existing habitat untouched, and by better defining the land use for a motor vehicle service operation use that is currently zoned for at the adjacent property.

Sean M Boily AIA
Principal Architect

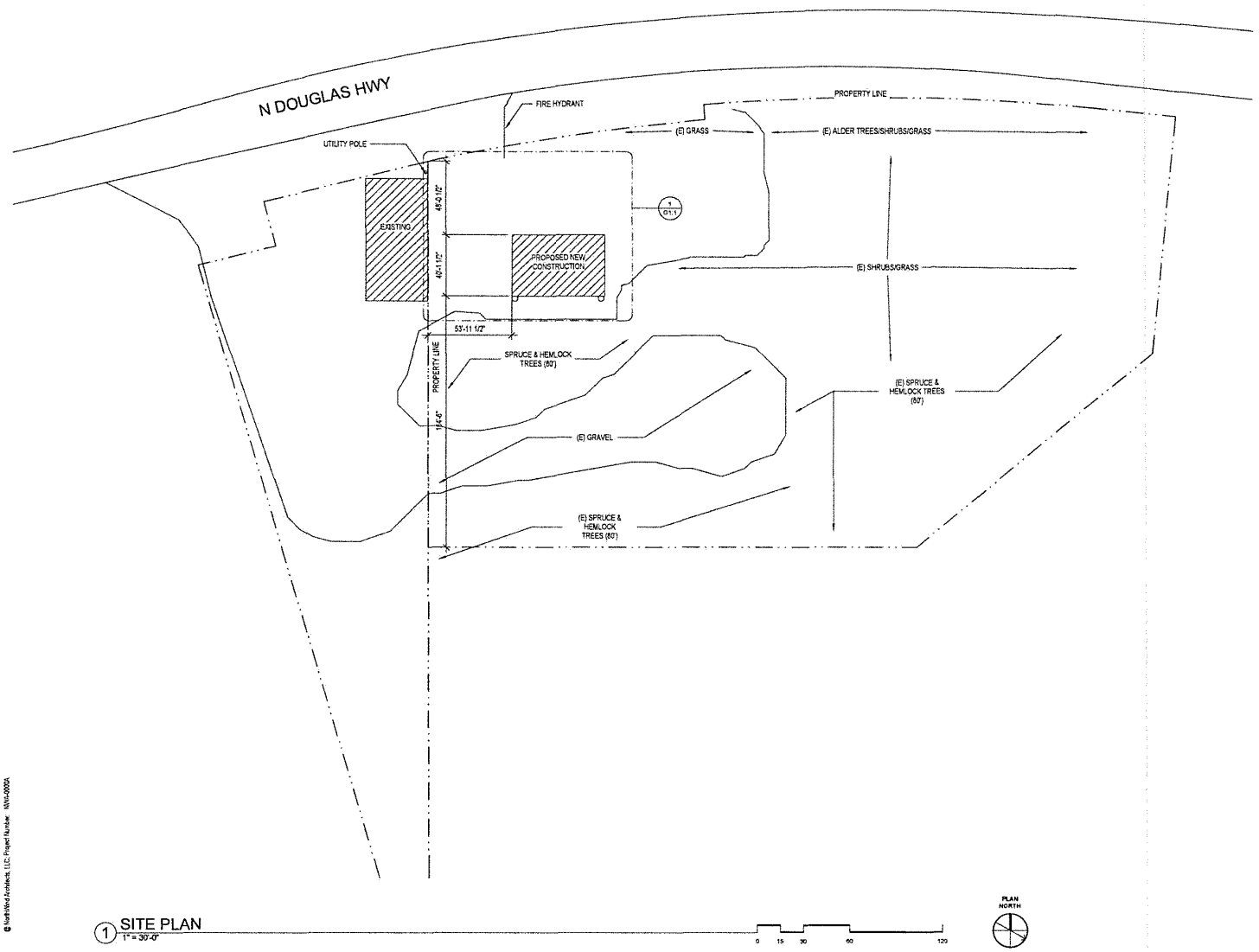
James Bibb AIA
Principal Architect

David Hurley AIA
Principal Architect

126 Seward Street
Juneau, AK 99801

p.907.586.6150
f.907.586.6181

Submittal Review Action: NET No Exception Taken | AAN Approved As Noted | RAR Revise & Resubmit | REJ Rejected



1 SITE PLAN
1" = 30'-0"

© NorthWind Architects, LLC. Project Number: NWA-0009.

NOT FOR CONSTRUCTION

02/15/2020

NorthWind Architects, LLC
125 Seward St
Juneau, AK 99801
Ph #907.586.6150
www.northwindarch.com

IF THE ABOVE DIMENSION DOES NOT MEASURE ONE INCH (1") EXACTLY, THIS DRAWING WILL HAVE BEEN ENLARGED OR REDUCED, AFFECTING ALL LABEL SCALES.

Ike's Fuel

CLIENT AND ADDRESS
PARCEL 60068-115-0012

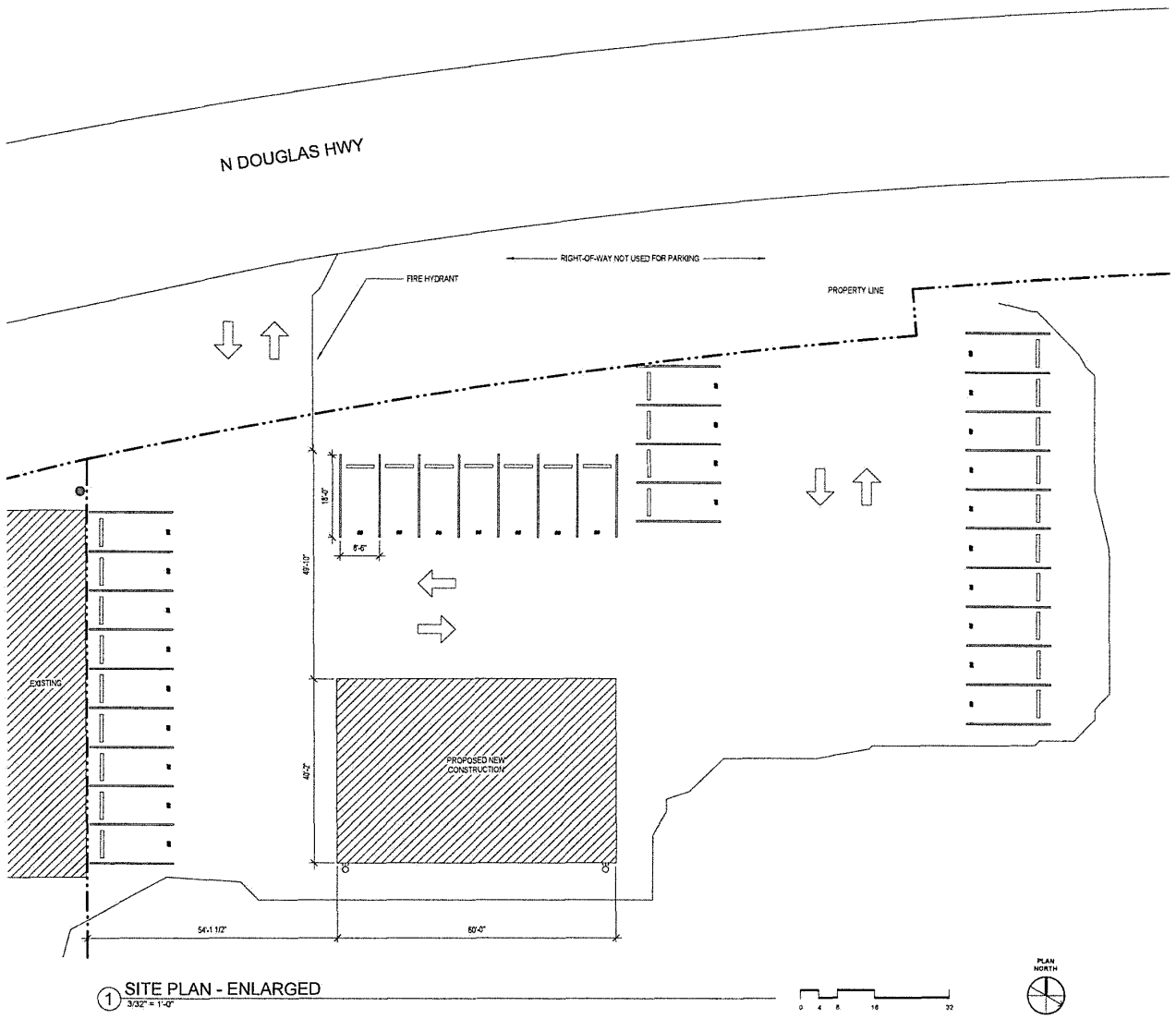
SHEET TITLE
SITE PLAN

CHECKED
DRAWN N/A

mark date description

SHEET # **G1.0**

ISSUE DATE 9.05.2025



1 SITE PLAN - ENLARGED
3/32" = 1'-0"

© NorthWind Architects, LLC, Project Number NWA-00003

NOT FOR CONSTRUCTION

02/15/2020

NorthWind Architects, LLC
126 Seward St
Juneau, AK 99801
Ph #907.586.6150
www.northwindarch.com

IF THE ABOVE DIMENSION DOES NOT MEASURE ONE INCH (1") EXACTLY, THIS DRAWING WILL HAVE BEEN ENLARGED OR REDUCED, AFFECTING ALL LABEL SCALES.

Ike's Fuel

CLIENT AND ADDRESS
PARCEL 63060-115-0012

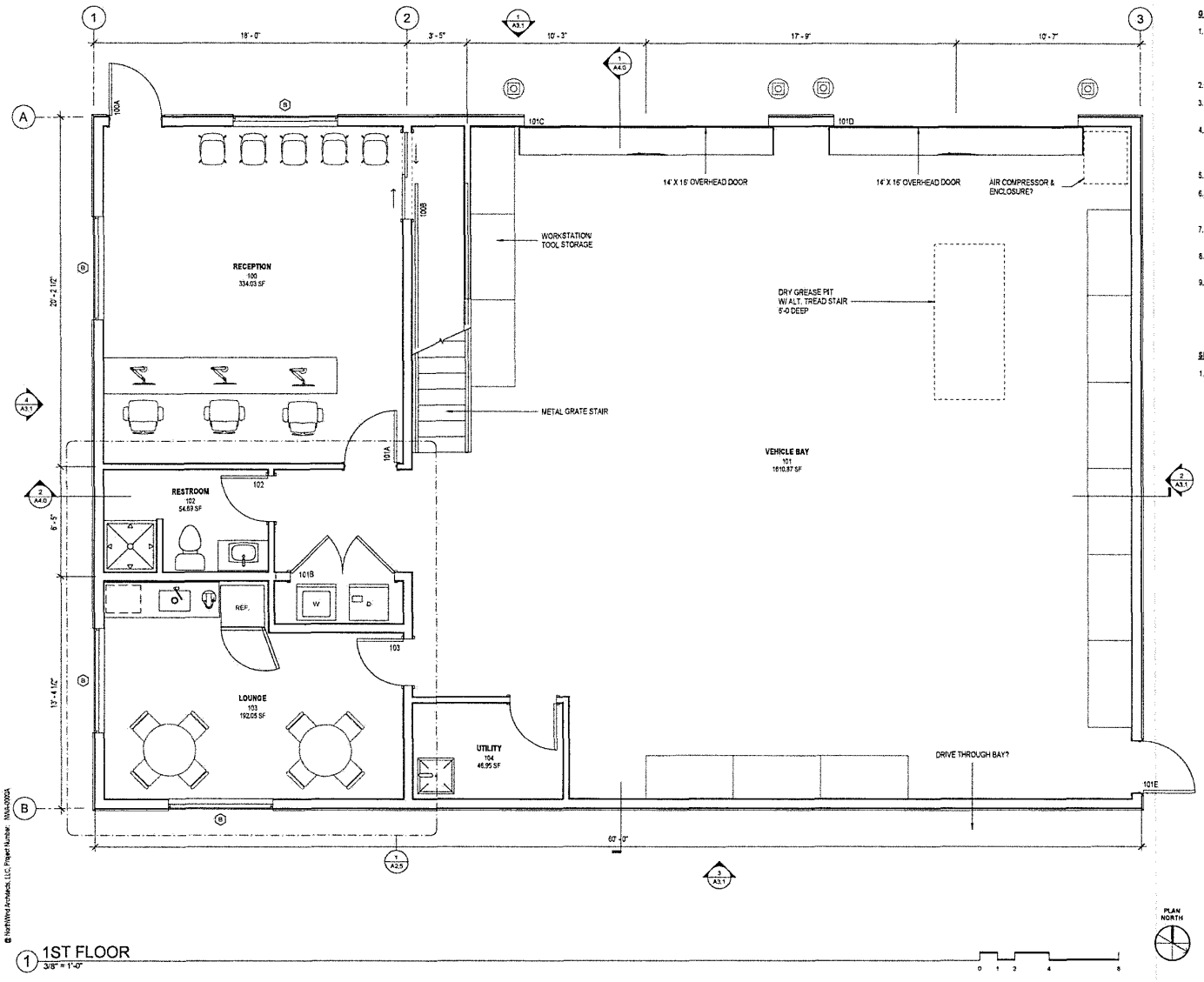
SHEET TITLE:
SITE PLAN - ENLARGED

CHECKED
DRAWN N/A

issue	date	description

SHEET # **G1.1**

ISSUE DATE 9.05.2025



1 1ST FLOOR
3/8" = 1'-0"

PLAN NORTH

0 1 2 4 8

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ACTUAL BUILDING CONDITIONS AND DIMENSIONS. WHERE DISCREPANCIES OR CONFLICTS ARE FOUND, NOTIFY ARCHITECT PRIOR TO COMMENCING WORK.
2. DO NOT SCALE OFF OF DRAWINGS.
3. DIMENSIONS ARE TO GRIDLINE, FACE OR CENTER OF FRAMING UNO.
4. STRUCTURAL ELEMENTS SHOWN IN ARCHITECTURAL DRAWINGS FOR REFERENCE ONLY. SEE STRUCTURAL DRAWINGS FOR ALL STRUCTURAL INFORMATION.
5. ALL PARTITIONS ARE TYPE P1-4, UNO.
6. WHERE DOOR OPENINGS ARE NOT DIMENSIONED, LOCATE DOOR OPENINGS TO ENSURE 3" MIN JAMB FRAMING.
7. DIMENSIONS LOCATING OPENINGS ARE TO CENTERLINE OF OPENING, UNO.
8. SEE ENLARGED PLANS FOR INFORMATION NOT SHOWN HERE.
9. THE MAJORITY OF ALL FFE ITEMS ARE OFCI AND ARE NOT IN CONTRACT, HOWEVER LIMITED ITEMS ARE SHOWN IN DRAWINGS FOR COORDINATION PURPOSES. SEE FFE SHEETS FOR GENERAL FFE INFORMATION AND FFE SHEETS AND PROJECT MANUAL FOR CFCI FFE INFORMATION.

SHEET NOTES:

1. #SPEC DESCRIPTION

NOT FOR CONSTRUCTION

02/15/2020

NorthWind Architects, LLC
126 Seward St
Juneau, AK 99801
Ph #907.586.5150
www.northwindarch.com

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Ike's Fuel

CLIENT AND ADDRESS
PARCEL 6066-115-0012

SHEET TITLE
FLOOR PLAN

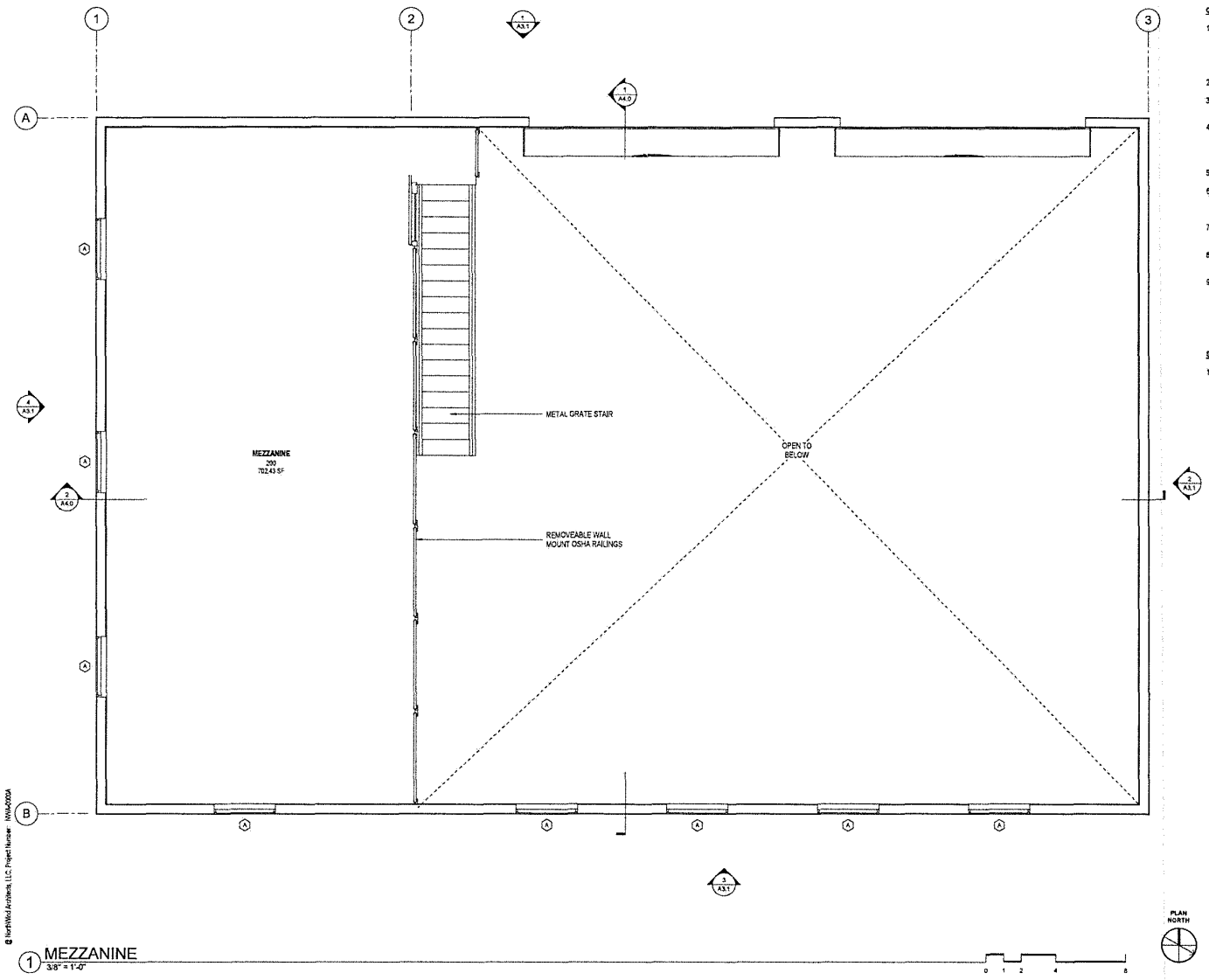
CHECKED	Approver
DRAWN	Author

issue	date	description

SHEET # **A2.1**

ISSUE DATE 9.05.2025

© NorthWind Architects, LLC, Project Number: WA-20025



1 MEZZANINE
3/8" = 1'-0"

0 1 2 4 8

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ACTUAL BUILDING CONDITIONS AND DIMENSIONS. WHERE DISCREPANCIES OR CONFLICTS ARE FOUND, NOTIFY ARCHITECT PRIOR TO COMMENCING WORK.
2. DO NOT SCALE OFF OF DRAWINGS.
3. DIMENSIONS ARE TO GRIDLINE, FACE OR CENTER OF FRAMING UNO.
4. STRUCTURAL ELEMENTS SHOWN IN ARCHITECTURAL DRAWINGS FOR REFERENCE ONLY. SEE STRUCTURAL DRAWINGS FOR ALL STRUCTURAL INFORMATION.
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7. DIMENSIONS LOCATING OPENINGS ARE TO CENTERLINE OF OPENING, UNO.
8. SEE ENLARGED PLANS FOR INFORMATION NOT SHOWN HERE.
9. THE MAJORITY OF ALL FFE ITEMS ARE OFCI AND ARE NOT IN CONTRACT, HOWEVER LIMITED ITEMS ARE SHOWN IN DRAWINGS FOR COORDINATION PURPOSES. SEE FFE SHEETS FOR GENERAL FFE INFORMATION AND FFE SHEETS AND PROJECT MANUAL FOR CFCI FFE INFORMATION.

SHEET NOTES:

1. #SPEC DESCRIPTION

NOT FOR CONSTRUCTION

02/15/2020

NorthWind Architects, LLC
126 Seward St
Juneau, AK 99801
Ph #907.586.6150
www.northwindarch.com

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Ike's Fuel

CLIENT AND ADDRESS
PARCEL #2060-115-2012

SHEET TITLE
FLOOR PLAN

CHECKED	Approver
DRAWN	Author

issue	date	description

SHEET # **A2.2**

ISSUE DATE 9.05.2025

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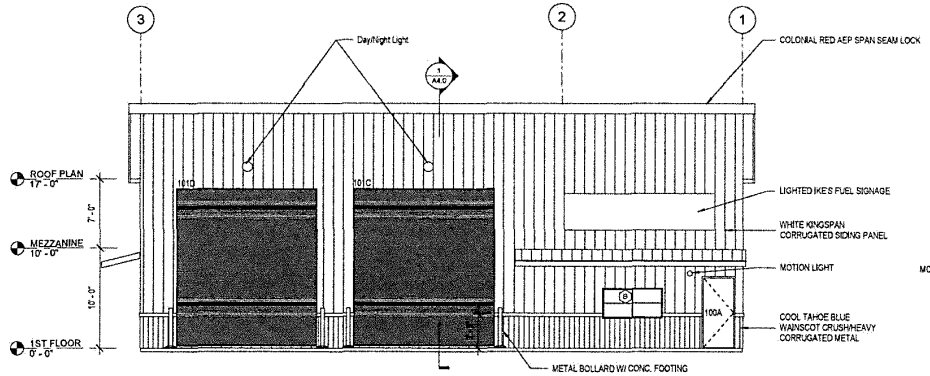
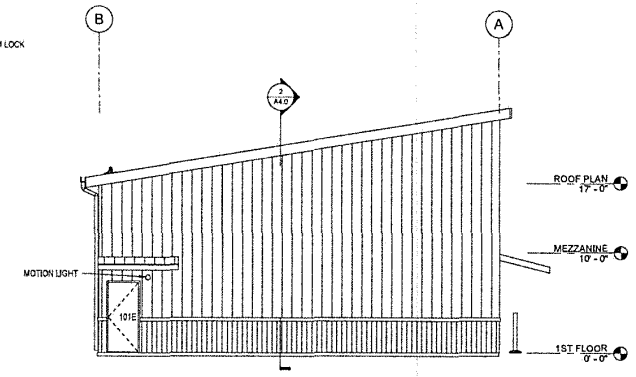
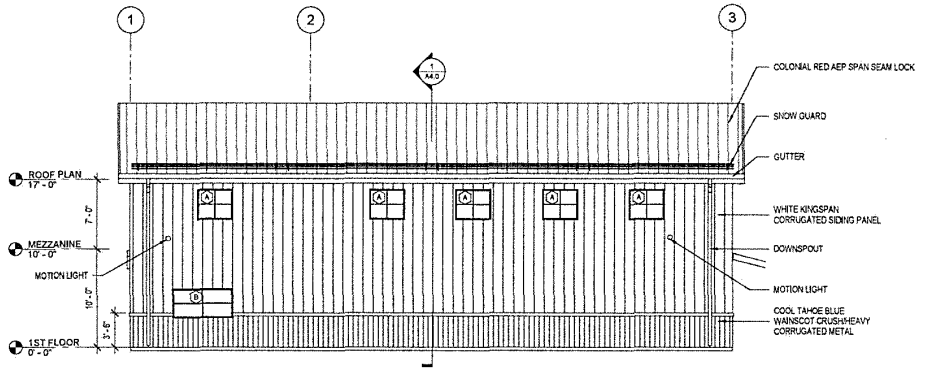


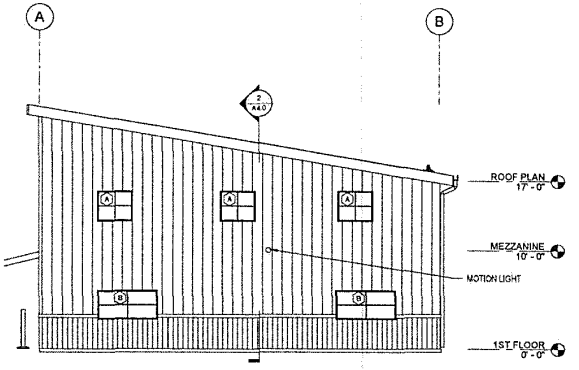
1 PHASE 2 - NORTH
3/16" = 1'-0"



2 PHASE 2 - EAST
3/16" = 1'-0"



3 PHASE 2 - SOUTH
3/16" = 1'-0"



4 PHASE 2 - WEST
3/16" = 1'-0"

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NOT FOR CONSTRUCTION

02/15/2020

NorthWind Architects, LLC

126 Seward St
Juneau, AK 99801
Ph #907.586.6150
www.northwindarch.com

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Ike's Fuel

CLIENT AND ADDRESS
PARCEL 6D001-115-0012

SHEET TITLE
BUILDING ELEVATIONS

CHECKED	Approver
DRAWN	Author

issue	date	description

SHEET # **A3.1**

ISSUE DATE 9.05.2025

Outlook

Fw: Wetlands Designation Douglas Alaska Property

From Thomas LeBlanc <thomas.l@carverllc.com>
Date Tue 9/16/2025 12:28 PM
To David Moe <david@northwindarch.com>

See below

Thank you,
Thomas LeBlanc; Project Manager/Estimator
Carver Construction LLC
P.O. Box 240475 Douglas, AK. 99824
C: 907-500-8727
P: 907-364-3215
F: 907-364-3216
E: thomas.l@carverllc.com
www.carverllc.com
Powered by Red Team!

From: Vigil, Randal P CIV USARMY CEPOA (USA) <Randal.P.Vigil@usace.army.mil>
Sent: Wednesday, June 11, 2025 1:55 PM
To: Thomas LeBlanc <thomas.l@carverllc.com>
Subject: RE: Wetlands Designation Douglas Alaska Property

Good afternoon,

Based on the information you provided and that available to me, a permit from the U.S. Army Corps of Engineers would not be needed the plan you sent to me.

Thank you,

Randal P. Vigil
Chief, Southeast Section
Regulatory Division, Alaska District

U.S. ARMY US Army Corps of Engineers®

907-201-5022

From: Thomas LeBlanc <thomas.l@carverllc.com>
Sent: Wednesday, June 11, 2025 8:31 AM

To: Vigil, Randal P CIV USARMY CEPOA (USA) <Randal.P.Vigil@usace.army.mil>
Subject: [Non-DoD Source] Wetlands Designation Douglas Alaska Property

Randal,
I got your information from Sean O'Neill with North 57 Surveying. He said you would be able to help me with a wetlands designation running through a lot one of my clients is looking to develop.

It is the old Mike Hatch place out North Douglas Highway. I am working with James Bibb at Northwind Architects. He has drafted a plan of what we are looking to do. I have attached it for your review. During our Conditional Use Permit application process, the city issued a plot that has a wetlands designation called out running straight through the middle of the lot. This wetland area does not exist as it has been a compacted gravel lot for longer than I have been alive. Mike used it to stage the vehicles he was selling.

Let me know if this is something you can help me with, what kind of fee I am looking at for your services, any additional information you are going to need, and a timeline for how long it is going to take to remove this from the plot so the CBJ will approve my CUP.

I look forward to hearing from you.

Thank you,
Thomas LeBlanc; Project Manager
Carver Construction LLC
P.O. Box 240475 Douglas, AK. 99824
C: 907-500-8727
P: 907-364-3215
F: 907-364-3216
E: thomas.l@carverllc.com
www.carverllc.com
Powered by Red Team!

Bri Rose

From:	David Moe <david@northwindarch.com>
Sent:	Tuesday, September 16, 2025 11:37 AM
To:	Permits; Permits
Cc:	James Bibb
Subject:	Conditional Use Permit Application - Ike's Fuel Repair Facility
Attachments:	ADOT Email.pdf; Ikes Fuel - Narrative - CUP.pdf; NWA-2428 Ikes Fuel_250905_CUP.pdf; PAC25-19 FINAL_signed.pdf

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Hello,

I've attached a copy of our signed Development Permit Application, along with required documents.
We will not be pursuing a lot consolidation.
Please let me know if there's anything else required for this application to move forward.

Thank you,

NorthWind Architects, LLC

David Moe, Assoc. AIA

P: 503.467.6250

1998---004 00075

LEGEND

- PRIMARY BRASS CAP MONUMENT RECOVERED THIS SURVEY
- SECONDARY MONUMENT SET THIS SURVEY BY J.W. BEAN
- B.L.M. OR G.L.O. 2-1/2" BRASS CAP RECOVERED THIS SURVEY AS SHOWN
- SECONDARY MONUMENT RECOVERED THIS SURVEY AS SHOWN
- 2" BRASS MONUMENT IN CASING ON CENTERLINE OF HIGHWAY

J.W. BEAN L.S. 3650 — TYPICAL SECONDARY MON. 1" YELLOW PLASTIC CAP 5/8" REBAR, 36" LONG

WASTEWATER DISPOSAL:

I HEREBY CERTIFY THAT THE SITE REPRESENTED BY THIS PLAT HAS BEEN INVESTIGATED BY MYSELF, OR UNDER MY DIRECTION, AND THAT EACH LOT WITHIN THIS SUBDIVISION IS ABLE TO SUPPORT ONSITE WASTEWATER DISPOSAL IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN CHAPTER 72, TITLE 18 OF THE ALASKA ADMINISTRATIVE CODE (18AAC72).

STATE OF ALASKA 49TH — Ronald G. Hansen No. 3366-E — REGISTERED PROFESSIONAL ENGINEER

Date 27 Feb 98

Signature Ronald G. Hansen

Ronald G. Hansen, P.E.

Alaska Registered Civil Engineer No. 3366-E

STATEMENT OF OWNERSHIP:

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT I (WE) HEREBY ADOPT THIS PLAT OF SUBDIVISION WITH MY (OUR) FREE CONSENT, AND THAT I (WE) DEDICATE ALL STREETS, ALLEYS, WALLS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS INDICATED.

Date Feb 27, 19 98

Witness _____ Owner Kevin J. Sullivan POA for

Witness _____ Owner Robert L. Young, Manager, Member

SEAL 95 LLC

NOTARY'S ACKNOWLEDGEMENTS:

UNITED STATES OF AMERICA)
STATE OF ALASKA) S.S.
)

THIS IS TO CERTIFY THAT ON THIS 27th DAY OF February, 19 98 BEFORE ME THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA, DULY COMMISSIONED AND SWORN, PERSONALLY APPEARED;

Kevin J. Sullivan, PoA for ROBERT L. YOUNG, Manager/Member, SEAL 95 LLC

KNOWN TO ME TO BE THE PERSON (PERSONS) DESCRIBED IN AND WHO EXECUTED THE ABOVE AND FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE (SHE) (THEY) SIGNED AND SEALED THE SAME FREELY AND VOLUNTARILY FOR THE USES AND PURPOSES THEREIN MENTIONED.

WITNESS MY HAND AND OFFICIAL SEAL THE DAY AND YEAR IN THIS CERTIFICATE FIRST ABOVE WRITTEN.

STATE OF ALASKA OFFICIAL SEAL PEGGY J. CHAPLIN NOTARY PUBLIC My Commission Expires

Notary Public for Alaska Peggy J. Chaplin

My Commission Expires 7/28/99

PLANNING COMMISSION CERTIFICATE OF APPROVAL

I HEREBY CERTIFY THAT THE PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS OF THE CITY AND BOROUGH OF JUNEAU, ALASKA AND THAT SAID PLAT HAS BEEN APPROVED BY THE PLANNING COMMISSION BY PLAT RESOLUTION No. FP-11-96, DATED AUGUST 27, 1996, AND THAT THE PLAT SHOWN HEREON HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE DISTRICT RECORDING OFFICE, JUNEAU, ALASKA.

Dated: March 2, 1998.

Johan A. Dybdahl
Chairman
City & Borough of Juneau
Planning Commission

Attest: Maria D. Miller
Clerk City and Borough of Juneau
Planning Commission

CITY & BOROUGH OF JUNEAU INCORPORATED JULY 1, 1970

CERTIFICATE OF REGISTERED LAND SURVEYOR

I HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR, REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 4, COMMUNITY DEVELOPMENT REGULATIONS AND TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONAL AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

Date 2-26-98

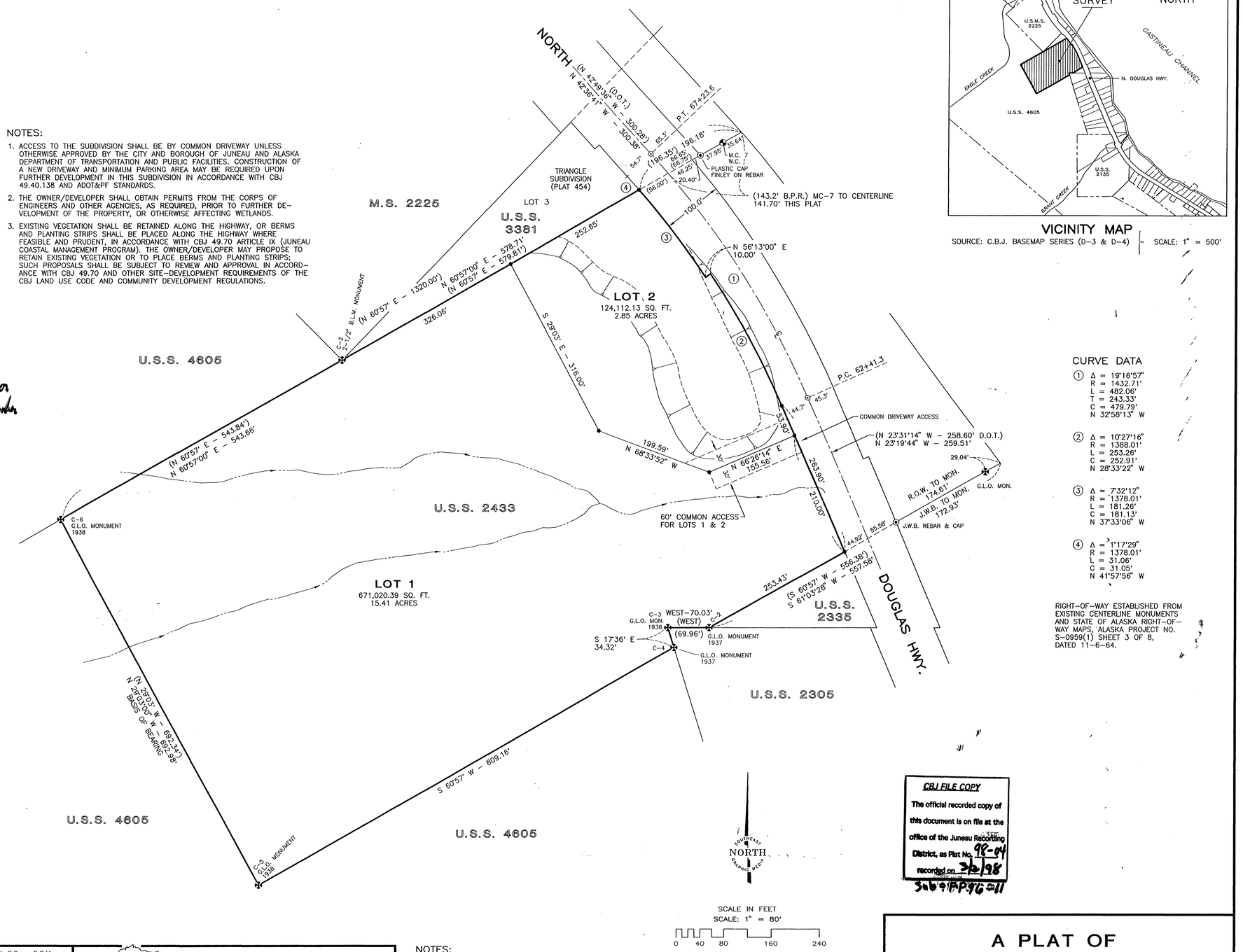
STATE OF ALASKA 49TH — J.W. BEAN No. 3650-S — REGISTERED PROFESSIONAL LAND SURVEYOR

LAST REVISION: 2-25-1998	DRAWN BY: S.S. - S.G.M.
REVISED: 8-6-1997	CHECKED BY: J.W.B.
REVISED: 1-18-1997	DATE: 12-5-1995
REVISED: 12-4-1996	FIELD BOOK:
REVISED: 7-21-1996	SCALE: 1" = 80'
REVISED: 7-7-1996	JOB No.: 9824-1
	GRID

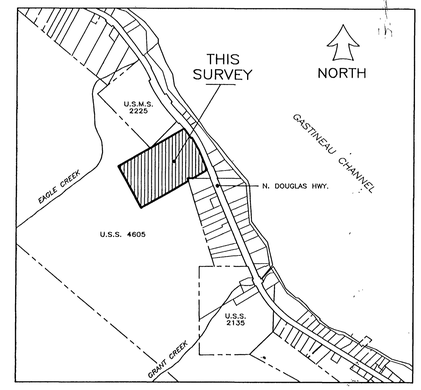
J.W. BEAN
PROFESSIONAL SURVEYOR
1070 ARCTIC CIRCLE
JUNEAU - ALASKA
(907) 789-0590
SURVEYOR - PLANNER

NOTES:

1. ACCESS TO THE SUBDIVISION SHALL BE BY COMMON DRIVEWAY UNLESS OTHERWISE APPROVED BY THE CITY AND BOROUGH OF JUNEAU AND ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES. CONSTRUCTION OF A NEW DRIVEWAY AND MINIMUM PARKING AREA MAY BE REQUIRED UPON FURTHER DEVELOPMENT IN THIS SUBDIVISION IN ACCORDANCE WITH CBJ 49.40.138 AND ADOT&PF STANDARDS.
2. THE OWNER/DEVELOPER SHALL OBTAIN PERMITS FROM THE CORPS OF ENGINEERS AND OTHER AGENCIES, AS REQUIRED, PRIOR TO FURTHER DEVELOPMENT OF THE PROPERTY, OR OTHERWISE AFFECTING WETLANDS.
3. EXISTING VEGETATION SHALL BE RETAINED ALONG THE HIGHWAY, OR BERMS AND PLANTING STRIPS SHALL BE PLACED ALONG THE HIGHWAY WHERE FEASIBLE AND PRUDENT, IN ACCORDANCE WITH CBJ 49.70 ARTICLE IX (JUNEAU COASTAL MANAGEMENT PROGRAM). THE OWNER/DEVELOPER MAY PROPOSE TO RETAIN EXISTING VEGETATION OR TO PLACE BERMS AND PLANTING STRIPS; SUCH PROPOSALS SHALL BE SUBJECT TO REVIEW AND APPROVAL IN ACCORDANCE WITH CBJ 49.70 AND OTHER SITE-DEVELOPMENT REQUIREMENTS OF THE CBJ LAND USE CODE AND COMMUNITY DEVELOPMENT REGULATIONS.



SCALE IN FEET
SCALE: 1" = 80'
0 40 80 160 240



VICINITY MAP

SOURCE: C.B.J. BASEMAP SERIES (D-3 & D-4) — SCALE: 1" = 500'

CURVE DATA

① Δ = 19°16'57" R = 1432.71' L = 482.06' T = 243.33' C = 479.79' N 32°58'13" W

② Δ = 10°27'16" R = 1388.01' L = 253.26' C = 252.91' N 28°33'22" W

③ Δ = 7°32'12" R = 1378.01' L = 181.26' C = 181.13' N 37°33'06" W

④ Δ = 1°17'29" R = 1378.01' L = 31.06' C = 31.05' N 41°57'56" W

RIGHT-OF-WAY ESTABLISHED FROM EXISTING CENTERLINE MONUMENTS AND STATE OF ALASKA RIGHT-OF-WAY MAPS, ALASKA PROJECT NO. S-0959(1) SHEET 3 OF 8, DATED 11-6-64.

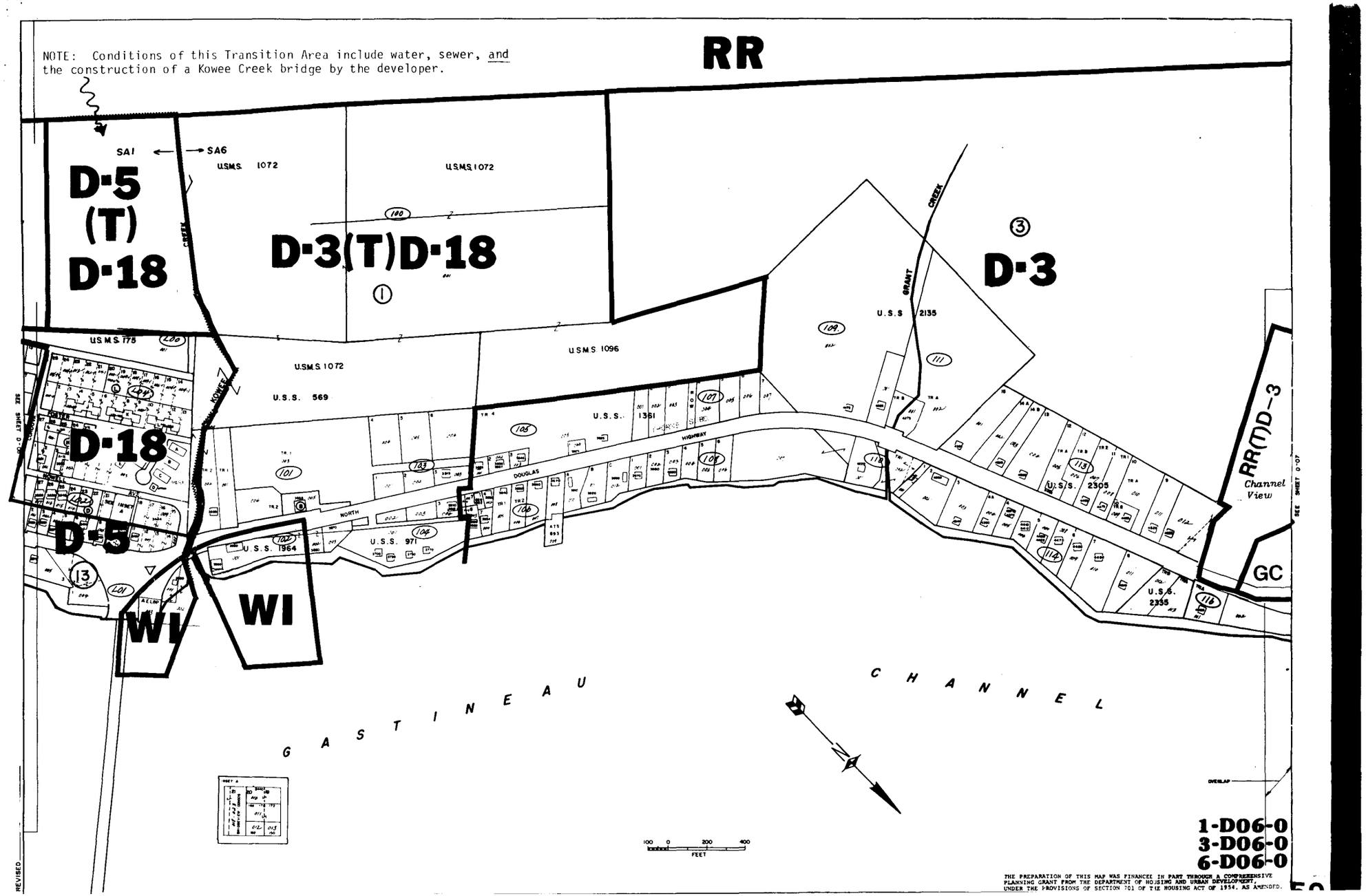
CBJ FILE COPY
The official recorded copy of this document is on file at the office of the Juneau Recording District, as Plat No. 98-04 recorded on 3/2/98
Sub 9FP-96-11

NOTES:

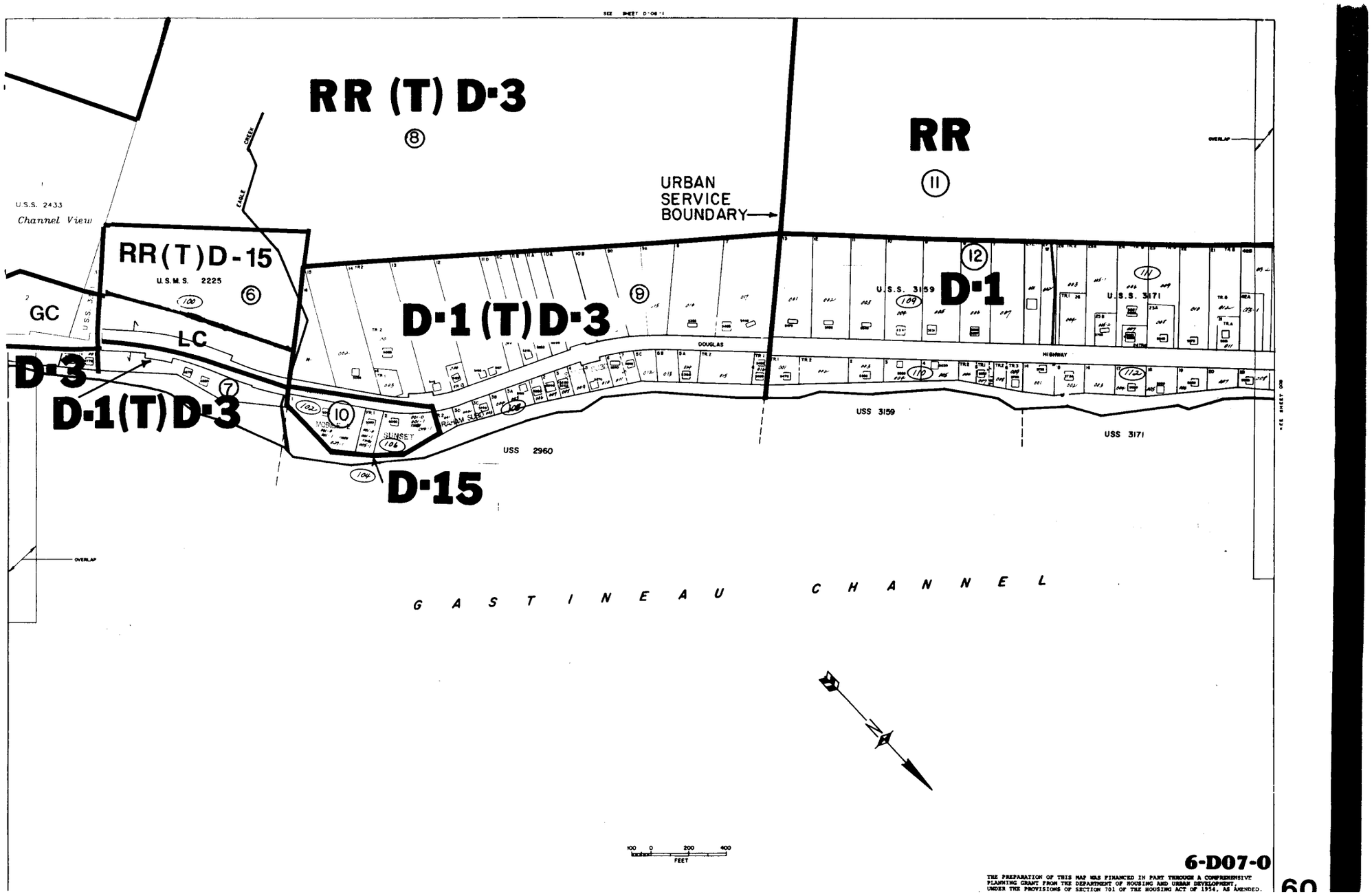
1. ALL PLAT BEARINGS SHOWN ARE TRUE BEARINGS AS ORIENTED TO THE BASIS OF BEARINGS.
2. ALL DISTANCES SHOWN ARE REDUCED TO HORIZONTAL.
3. RECORDED BEARINGS AND DISTANCES ARE SHOWN ENCLOSED IN PARENTHESIS. MEASURED OR CALCULATED BEARINGS AND/OR DISTANCES ARE SHOWN WITHOUT PARENTHESIS.

A PLAT OF
CHANNEL VIEW SUBDIVISION
WITHIN U.S. SURVEY No. 2433
CITY & BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

Channel View Subdivision within USS 2433



Attachment C – 1987_Zoning Maps



Attachment C – 1987_Zoning Maps

PROJECT DESCRIPTION AND BACKGROUND

The applicant requests plat approval for the subdivision of an approximately 18.5-acre tract of land, primarily to facilitate future expansion of an adjoining commercial establishment and related financing. Such expansion would depend on anticipated change to the comprehensive plan, now under review by the CBJ Assembly, and change of the zoning of the area from Rural Reserve to Commercial. The proposed Comprehensive Plan and zone change would affect the portion of the property fronting on the highway. The remainder of the tract would most likely be developed for residential use.

The proposed subdivision would create two tracts of land, both of which would front on North Douglas Highway. North Douglas Highway, at this location, is classified as a minor arterial roadway by the Alaska Department of Transportation and Public Facilities.

CBJ 49.15.420 provides in part that "no minor subdivision may be filed or approved if it is a part of or made in connection with a present or projected subdivision development as determined by the director."

ANALYSIS

Project Site - The property is heavily vegetated, with an overall slope of approximately eight percent. This moderate slope is interrupted by some relatively small areas of steeper slopes and a more level area as well, for example in the northeast part of the site. The site is traversed by at least two streams, which converge in the central part of the tract. The U.S. Army Corps of Engineers 1984 wetland mapping of this area indicates a wetland area at the southwesterly portion of the site. The property exhibits evidence of wetlands in other parts as well. The site is served by the public water system but not the public sewer system.

Project Design - As described above, the proposed subdivision would result in two parcels. Both parcels would exceed minimum lot dimensional standards for this zoning district. Proposed Lot 1 would be approximately 15.4 acres; proposed Lot 2 approximately 2.9 acres.

The proposed subdivision shows a common access point at North Douglas Highway at the common boundary between proposed Lots 1 and 2.

The applicant has submitted sketch plats showing conceptual subdivisions of the 15.4-acre area. These sketch plats suggest the feasibility of future subdivision of the area under both the current RR zoning and under the transition to D-3 zoning of the current zoning map. Further subdivision should provide internal road access rather than adding lots and individual driveways directly fronting on the highway, provided a safe intersection is feasible.

For the proposed subdivision, the applicant has indicated they would adjust the proposed common boundary of the two lots, where this boundary intersects the right-of-way, at least 30 feet to the north. This adjustment would leave the common access point (and possible future intersection) in the indicated location but entirely within Lot 1, and also leave sufficient lot frontage to conform to current (RR) zoning standards. A northward adjustment of the common boundary of, say, 60 feet, may allow additional setback buffer from the existing natural drainage system (stream) and thereby facilitate future subdivision. An alternative configuration leaving 320 feet of frontage on Lot 1 could accommodate two dedicated rights-of-way and two lot-depths (the depth of two rows of lots) under D-3 zoning. It appears such adjustments would be desirable, provided sight distance is adequate in each case.

Access and Traffic - The applicant has submitted determination by the developer's surveyor that the sight distance at the proposed common boundary and driveway access meets Alaska Department of Transportation and Public Facilities driveway standards. More extensive information such as engineering and traffic studies would be needed to determine the feasibility of construction of a public roadway intersection at this or another location. Further proposed subdivision of the subject land would itself require consideration of traffic generation, road capacity, level of service, and related issues. Without such information, the development potential of the area is uncertain. The applicant, however, believes that the indicated common access location may be the most likely location for an intersection within the subdivision area.

The applicant has consulted with ADOT&PF regarding the proposed development. The above-mentioned types of engineering and traffic information would be needed in order for ADOT&PF to approve a location for a public road intersection. Less information is needed to obtain a driveway permit from that agency. As noted above, the applicant believes they meet the driveway standards; the applicant should obtain at a minimum a permit for the driveway(s) required for this subdivision.

Within the subdivision, the topography appears reasonable for the conceptual street layout. As submitted, though, the sketch plats indicate road alignments that conflict with natural drainage ways. More detailed planning that would be required for further subdivision development should include different road alignments to reduce impacts on the site drainage, and thereby reduce the chance of erosion and flooding.

The sketch plat shows the connection of the road system to adjoining properties. Temporary turnarounds are not shown as may be required for subdivision prior to connection to through streets. The sketch plats show one street intersection serving the upper part of the site. The CBJ code provides that "streets designed to have one end permanently closed shall be no more than six hundred feet long . . . provided that the director may authorize longer or shorter cul-de-sac streets if design considerations and site, lot layout, and surrounding street conditions warrant."

(49.35.230) Thus by limiting the subdivision to a single access point the developer may also be limiting the extent of possible further subdivision development.

Under the current (1988) Comprehensive Plan, an access to the North Douglas Bench Road is shown intersecting North Douglas Highway through this property at the southeasterly corner of this property. The Bench Road is not part of the draft revised Comprehensive Plan, and construction of a bench road seems unlikely, at least in part because of environmental impacts of such a road and development surrounding it. Nevertheless, the proposed subdivision would not preclude a connecting roadway as shown on previous CBJ maps and in the bench road study.

Parking and Circulation - For subdivision of land fronting on minor arterial roadways, the CBJ code (49.40.130) provides in part that all of the lots must share a common access point and no additional lots may be added, and that the owner or the developer, as appropriate, must construct a parking area of sufficient size to provide a minimum parking and maneuvering area to prevent back-out-parking, as well as "assurance in the form of an easement, plat note, or other form acceptable to the city and borough, that the required access will be maintained by the property owners."

The proposed plat shows the common driveway location, and the indicated location appears to be a feasible location for construction of a driveway and minimal parking for minimal permissible development in accordance with access standards.

In the subject case, future development of the subject property depends in part on possible zone changes to the area, either for expansion of commercial uses or to allow higher-density residential development. The applicant indicates the owners have no plans for development of land other than expansion of the adjoining commercial use. At the location of the adjoining commercial operation, access to the property is available by an existing driveway. This existing driveway location appears to be adequate to meet minimal access, parking, and maneuvering area requirements for the two tracts of land now proposed.

Therefore, we believe the proposed subdivision complies with the provisions of CBJ 49.40.130 pertaining to land fronting on minor arterial streets. We believe the parking and maneuvering area at the proposed common lot boundary may be constructed at such time as residential or other development on the parcels warrants a separate driveway.

Utilities - The applicant will provide, at a minimum, one additional water service so that both lots have adequate service. Sizing of the service may be determined by future development potential.

The applicant indicates that conditions in the subdivision are unsuitable for conventional on-site wastewater treatment and disposal systems; however, the applicant indicates that an alternative

waste water disposal system design has been approved by the Alaska Department of Environmental Conservation for use on the lots in this subdivision. Acceptable waste water disposal plans for the subdivision must be verified prior to plat recording. Further subdivision or other development would require additional consideration of utility requirements.

Public Health or Safety - We do not believe that some limited development of the property under current zoning would adversely affect safety to a significant degree. More intensive residential (or commercial) development would require further study of possible traffic impacts.

Approval of on-lot waste water disposal from the Alaska Department of Environmental Conservation, or acceptable certification from a qualified engineer as to the suitability of the subdivision for waste water disposal, should provide reasonable assurance that public health would be protected from adverse effects of inadequate waste water disposal. The applicant may need to provide additional engineering and/or soils information to the CBJ to provide this assurance.

Property Value or Neighborhood Harmony - We do not believe the proposed subdivision would be out of character with the neighborhood, nor have significant effect on property values in the neighborhood.

Conformity With Adopted Plans - We believe the proposed subdivision would be in conformity with adopted CBJ plans. Further development may require consideration of other plans such as trails and areas of historical interest.

JCMP REVIEW

We believe that subject to recommended conditions the proposed subdivision would be consistent with the Juneau Coastal Management Program. Access to the subdivision and limited reasonable development would be feasible while protecting coastal habitat.

The JCMP provides, in part, that "rivers, streams, and lakes shall be managed so as to protect natural vegetation , water quality, important fish or wildlife habitat, and natural waterflow." Also, "wetlands and tideflats shall be managed so as to assure adequate waterflow, nutrients, and oxygen levels, to avoid the adverse effects on natural drainage patterns, the destruction of important habitat, and the discharge of toxic substances." The JCMP also provides that "berms and planting strips shall be placed along highways and major arterials wherever feasible and prudent." (49.70.950)

The subject property lies between Grant Creek and Eagle Creek on Douglas Island. As noted above, this property is traversed by unnamed streams. These streams appear to flow directly to

Gastineau Channel, and are not listed as anadromous streams in CBJ code. The larger streams on the subject property would not be affected by this proposed subdivision, but are likely to be affected to some degree by future subdivision or other development, and should be protected and preserved.

The owner/developer should consult the Corps of Engineers prior to specific development within the subdivision to obtain delineation of wetland areas and advise of permitting requirements. Further subdivision of the area would require further review by the CBJ and other agencies, and specific stream and other impacts may be considered and mitigation measures addressed.

SUBDIVISION REVIEW COMMITTEE COMMENTS

The Subdivision Review Committee considered this proposed subdivision and the related sketch plats. The Committee also reviewed an earlier version of the subdivision proposal, which would have created two approximately two-acre lots fronting on the highway, and an approximately 14.5-acre remainder. In that configuration, frontage of, and access to, the larger remainder would have been limited to a 60-foot-wide "panhandle" at the southeasterly corner of the tract. Staff believes the Subdivision Review Committee favors the present two-lot configuration over that earlier design, at least in part because it allows more flexibility for future development, and apparently provides better sight distance for the proposed common access.

FINDINGS

CBJ 49.15.330 (e)(1), Review of Director's Determinations, states that the Planning Commission shall review the director's report to consider:

1. Whether the proposed use is appropriate according to the Table of Permissible Uses;

2. Whether the application is complete; and,

3. Whether the development as proposed will comply with the other requirements of this chapter.

The commission shall adopt the director's determination on the three items above unless it finds, by a preponderance of the evidence, that the director's determination was in error, and states its reasoning for each finding with particularity.

CBJ 49.15.330 (f), Commission Determinations, states that even if the commission adopts the director's determination, it may nonetheless deny or condition the permit if it concludes, based

upon its own independent review of the information submitted at the public hearing, that the development will more probably than not:

1. Materially endanger the public health or safety;

2. Substantially decrease the value of or be out of harmony with property in the neighboring area; or,

3. Not be general conformity with the comprehensive plan, thoroughfare plan, or other officially adopted plans.

In accordance with CBJ 49.15.300 (e)(1)(A through C), Review of Director's Determinations, the director makes the following findings on the proposed development:

1. Is the proposed use appropriate according to the Table of Permissible Uses?

Yes. Subdivisions are appropriate according to the Table of Permissible Uses. Subdivisions are listed at CBJ 49.25.300 section 25.000 for all zoning districts.

2. Is the application for the requested plat approval complete?

Yes. The application contains sufficient information necessary for staff review and recommendation. Additional information is required regarding on-lot wastewater disposal prior to filing of the subdivision plat.

3. Will the proposed development comply with the other requirements of this chapter?

Yes. Subject to recommended conditions, we believe the proposed development would comply with the other requirements of this chapter.

Under CBJ 49.15.330 (d)(5)(A through C), Director's Review Procedure, the director makes the following additional findings:

4. Will the proposed development materially endanger the public health or safety?

No. Based on the preceding staff analysis, and subject to recommended conditions, we do not find that the proposed development would materially endanger the public health or safety.

5. Will the proposed development substantially decrease the value of or be out of harmony with property in the neighboring area?

No. Based on the preceding staff analysis, no evidence is found to indicate that the proposed development will substantially decrease the value of or be out of harmony with property in the neighboring area.

6. ***Will the proposed development not be in general conformity with the land use plan, thoroughfare plan, or other officially adopted plans?***

   No. Based on the preceding staff analysis, we find that the proposed development is in general conformity with the land use plan, thoroughfare plan, or other officially adopted plans. Further development in the subdivision must be in conformance with applicable zoning.

Under CBJ §49.70.900 (b)(3), General Provisions, the director makes the following Juneau Coastal Management Program consistency determination:

7. ***Will the proposed development comply with the Juneau Coastal Management Program?***

   Yes. Based on the preceding staff analysis and the recommended conditions, we find that the proposed development would comply with the Juneau Coastal Management Program. Further development in the subdivision may require separate JCMP consistency determination.

RECOMMENDATION

We recommend that the Planning Commission adopt the director's findings and staff analysis, and grant the requested plat approval for a two-lot subdivision as it is related to projected further subdivision of a Fraction of U.S. Survey 2433, located at approximately mile 2.1 North Douglas Highway. The approval is subject to the following conditions which must be met prior to plat recording unless otherwise noted:

1. The applicant shall obtain subdivision approval from the Alaska Department of Environmental Conservation or shall provide sufficient information to the CBJ Engineering and Community Development Departments to assure the subdivision is suitable for on-site waste water disposal.

2. The plat shall be revised to show sufficient frontage for proposed Lot 1 to accommodate, at a minimum, future right-of-way dedication and standard lot frontage on North Douglas Highway under RR zoning.

3. Prior to plat recording, the applicant shall obtain ADOTP&F approval for the proposed subdivision (i.e. driveway access, at a minimum).

4. The applicant shall add a plat note to the effect that "access to the subdivision shall be by common driveway unless otherwise approved by the City and Borough of Juneau and Alaska Department of Transportation and Public Facilities. Construction of a new driveway and minimum parking area may be required upon further development in this subdivision in accordance with CBJ 49.40.130 and ADOT&PF standards."

5. The owner/developer shall obtain permits from the Corps of Engineers and other agencies, as required, prior to further development of the property, or otherwise affecting wetlands.

6. The applicant shall add a plat note that existing vegetation shall be retained along the highway, or berms and planting strips shall be placed along the highway where feasible and prudent.

7. The applicant shall install a water service to the additional lot in accordance with CBJ Engineering standards, or shall provide financial guarantee for the required installation prior to plat recording.

8. The applicant shall complete standard plat preparation requirements, including payment of all taxes and special assessments assessed against the property prior to plat recording.

Post-It™ brand fax transmittal memo 7671 | # of pages ▸ 4

To	From
J.W. Bean	Tom Korosli
Co.	Co. CBJ
Dept.	Phone # 6-5230
790-2326	Fax # 6-3365

file only if not a duplicate

155 SOUTH SEWARD STREET
JUNEAU, ALASKA 99801

PLANNING COMMISSION
NOTICE OF DECISION
Date: August 28,1996

File No.: FP-11-96

Mike Hatch
4755 North Douglas Highway
Juneau, Alaska 99801

Application For: A plat approval (combined preliminary and final plat approval) of a subdivision of a Fraction of U.S. Survey 2433, an approximately 18.5-acre tract of land at approximately 4655 (Mile 2.1) North Douglas Highway, to create two tracts of land that may be part of a future subdivision.

Legal Description: Fraction of U.S. Survey 2433

Parcel Code No.: 6-D06-0-115-001-1

Hearing Date: August 27, 1996

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated August 22, 1996, and granted plat approval for a proposed two-lot subdivision as described, subject to the following conditions, which must be met prior to plat recording unless otherwise noted:

1. The applicant shall obtain subdivision approval from the Alaska Department of Environmental Conservation or shall provide sufficient information to the CBJ Engineering and Community Development Departments to assure the subdivision is suitable for on-site waste water disposal.

2. The plat shall be revised to show sufficient frontage for proposed Lot 1 to accommodate, at a minimum, future right-of-way dedication and standard lot frontage on North Douglas Highway under RR zoning.

Expiration Date: March 2, 1998, if no plat has been issued in accordance with the plans from which the development permit was authorized.

Project Planner: Tom Korosei
Tom Korosei, Planner

RECEIVED BY CITY CLERK
08/29/96

cc: Kevin Sullivan, Bachelor, Bruce, Brand & Douglas
John W. Bean, L.S.
Linda Keikkala, ADOT&PF
Terry Brenner, CBJ Engineering
Plan Review
Building File

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this development project. ADA regulations have access requirements above and beyond CBJ-adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA-trained architect or other ADA trained personnel with questions about the ADA: Department of Justice - 202-272-5434, or fax 202-272-5447, NW Disability Business Technical Center - 1-800-949-4232, or fax 360-438-3208.

MEMORANDUM

Received
CITY/BOROUGH OF JUNEAU
155 South Seward Street, Juneau, Alaska 99801
AUG 27 1996
CBJ
Permit Center

TO: Tom Korosei
Planner

DATE: August 22, 1996

FROM: Terry Brenner, P.E.
Land Surveyor

FILE: Channel View Sub., USS 2433

RE: FINAL PLAT REVIEW

Please note the following plat review comments:

1. All lot corners on Lot 2 must be monumented.

2. The Surveyor needs to submit area and closure computations for each lot.

3. Attach a note to the plat to identify the source of the state highway right-of-way location.

4. Remove the planimetric features from the final plat *except* the stream locations and the excavation limits on lot 2. These are significant topographic features which need to be included on the plat.

5. Correct the minor spelling error on the monument description across the highway from the north corner of the subdivision (i.e.-Finley instead of Findley).

6. A report, prepared by an Alaska licensed civil engineer, must be submitted to assure feasibility of on-site waste-water disposal for each lot. The Alaska Dept. of Environmental Conservation no longer reviews subdivisions for on-site wastewater disposal, therefore, we need to require that such a report be on file. The plat would need to have a note having the following wording: "It has been determined that each lot within this subdivision is capable of supporting on-lot wastewater disposal. The engineer's report, prepared by _____ and dated _____is on file. This does not preclude the need for a builder to obtain an individual site wastewater disposal certificate from the Alaska Dept. of Environmental Conservation prior to construction".

7. A water service will need to be installed to lot 2. The developer should be aware that the existing service for lot 1 is not in a convenient location for the proposed access to the "shadow plat" subdivision.

The "shadow plat" submitted for lot 1, assures that a reasonable development could occur on that lot. However, I would recommend that the future 60 foot right-of-way be confined to lot 1, as there could be complications in obtaining the necessary right-of-way from a separate lot. Also, any future development on lot 1 will need to retain the existing streams in their existing locations, as near as practical. Combining these streams with a public storm drain system will not be allowed.

cc: J.W. Bean, L.S.

CHANVIEW.ATB

City & Borough of Juneau
Alaska's Capital City

P. 01

TRANSACTION REPORT

FEB-10-97 MON 5:55 PM

FOR:

DATE	START	RECEIVER	TX TIME	PAGES	TYPE	NOTE
FEB-10	5:49 PM	7902326	5′ 38″	4	SEND	OK

Presented by: The Manager
Introduced: 01/04/99
Drafted by: J.R. Corso

ORDINANCE OF THE CITY AND BOROUGH OF JUNEAU, ALASKA

Serial No. 99-01am

An Ordinance Amending the Official Zoning Map of the City and Borough to Change the Zoning of Lot 2, Channel View Subdivision.

BE IT ENACTED BY THE ASSEMBLY OF THE CITY AND BOROUGH OF JUNEAU, ALASKA:

Section 1. Classification. This ordinance is of a general and permanent nature and shall become a part of the city and borough code.

Section 2. Amendment of Official Zoning Map. The Official Zoning Map of the city and borough adopted pursuant to CBJ 49.25.110 is amended to change the zoning of Lot 2, Channel View Subdivision from RR(T)D3 (Rural Reserve Transitional to D-3 Residential) to GC (General Commercial). The area of changed zoning is shown on the attached Exhibit "A."

Section 3. Conditions. The zone change shall be subject to either of the following sets of conditions, one of which the developer must select and satisfy prior to issuance of any building or development permit for the property:

(a) Option 1.

(1) A driveway permit shall be obtained from the Alaska Department of Transportation and Public Facilities for access to the existing commercial use; all improvements required by the permit shall be completed, and any proposed access solution shall be compatible with existing access restrictions.

(2) The use of the property shall be restricted to motor vehicle sales and repair.

(3) Compliance with all conditions will be determined by the Director of the Community Development Department.

(b) Option 2.

(1) The use of Lot 2, Channel View Subdivision, for a portion of the existing commercial use, and the resulting access to North Douglas Highway, shall be discontinued.

(2) That the existing physical access from Lot 2, Channel View Subdivision to North Douglas Highway be blocked.

(3) The use of the property shall be restricted to motor vehicle sales and repair.

(4) Compliance with all conditions will be determined by the Director of the Community Development Department.

Section 4. Effective Date. This ordinance shall be effective thirty days after its adoption.

Adopted this 1st day of February, 1999.

Dennis Egan, Mayor

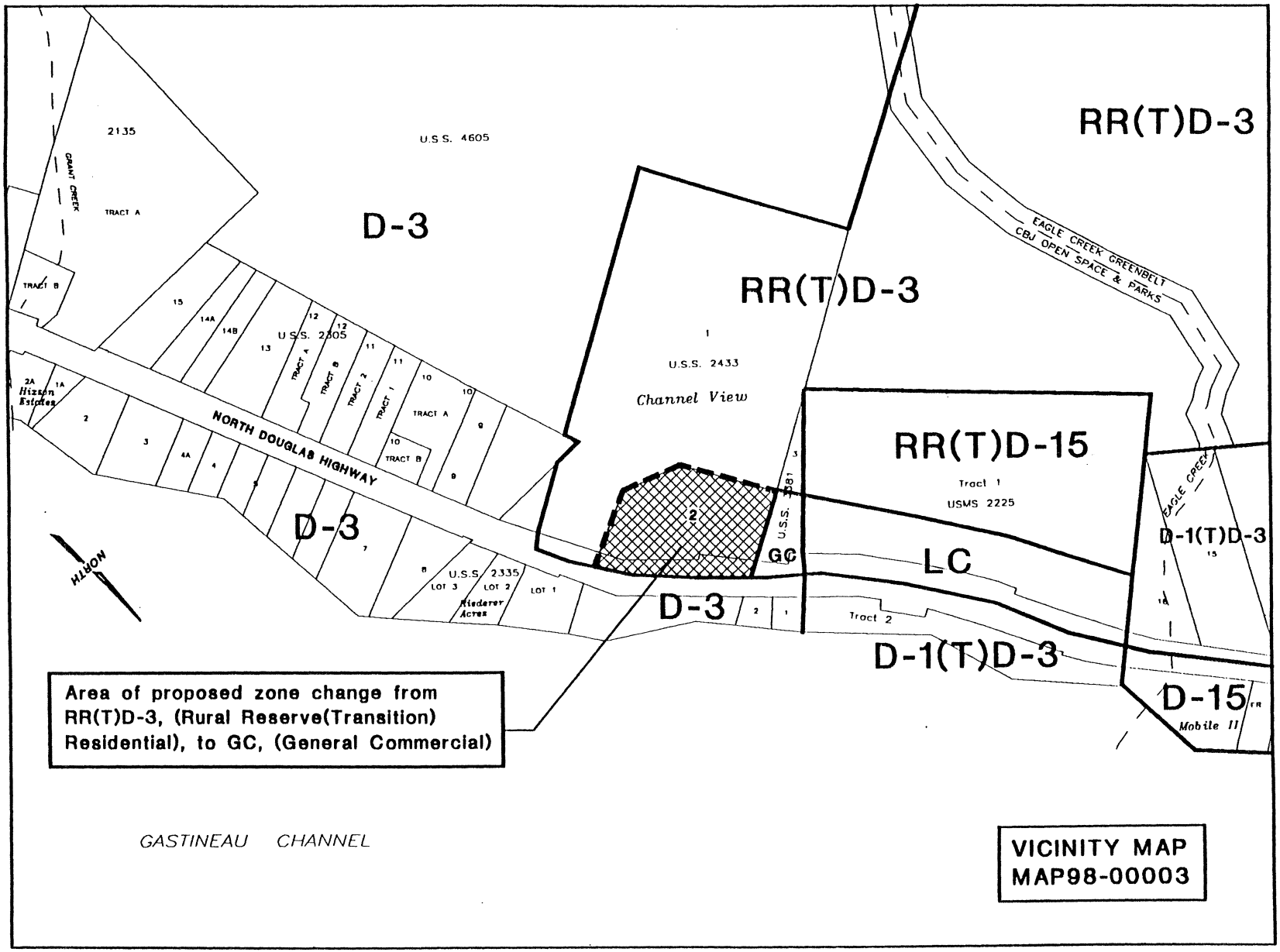
Attest:

Marian J. Miller, Clerk

Exhibit "A"

To

Ordinance No. 99-01am


RR(T)D-3
2135
TRACT A
U.S.S. 4605
D-3
GRANT CREEK
TRACT B
EAGLE CREEK GREENBELT
CBJ OPEN SPACE & PARKS
RR(T)D-3
U.S.S. 2305
U.S.S. 2433
Channel View
NORTH DOUGLAS HIGHWAY
Hixson Estates
RR(T)D-15
Tract 1
USMS 2225
EAGLE CREEK
D-1(T)D-3
D-3
GC
LC
U.S.S. 2335
LOT 3
LOT 2
LOT 1
Riederer Acres
Tract 2
D-1(T)D-3
D-15
Mobile II
NORTH
Area of proposed zone change from RR(T)D-3, (Rural Reserve(Transition) Residential), to GC, (General Commercial)
GASTINEAU CHANNEL
VICINITY MAP
MAP98-00003

Continued on Page 100

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CBJ/GIS 2006

A B C. 1 2. 3

NOTE: See Ordinance No. 89-07 for special conditions to zone change.Y

NOTE: See Oordinance No. 99-01amY for special conditions to zone change.Y

D1(T)D3 RR(T)D3 D1(T)D3 D15 D1(T) D3 RR(T)D3 RR(T) D15 D3 RR(T)D3 CHANNEL VIEW

6D061 6D070 6D060

SCOTT EAGLE CREEK N DOUGLAS HWY

USS 4605Y USS 4605 USS 2560Y USS 2560 USS 2225Y USS 2825Y

CHANNEL VIEW TERRACE MH PARK MOUNTAIN VIEW

ATS 713Y ATS 43 LT 3 ATS 43 LT 2 ATS 43 Y LT 1Y

N.

400. 0. 400. 800. Feet.

Continued on Page 103

Continued on Page 104

Assessor Tax Number Code

6D090 (Parcel Code Prefix Y) 102 (Block Y Number Y) 0030 (Lot Number Y)

Attachment G - 2006_Zoning Map

Outlook

RE: [USE20250011] Conditional Use Permit Proposal Requesting Agency Comment

From Theresa Ross <Theresa.Ross@juneau.gov>
Date Mon 12/15/2025 12:04 PM
To Brandon Robinson <Brandon.Robinson@juneau.gov>

No concerns from fire at this time.

THERESA ROSS
Fire Marshal
Capital City Fire Rescue
820 Glacier Avenue, Juneau AK 99801
907-586-5322 ext. 4323

From: Brandon Robinson <Brandon.Robinson@juneau.gov>
Sent: Monday, December 15, 2025 11:57 AM
To: Brandon Robinson <Brandon.Robinson@juneau.gov>
Subject: Fw: [USE20250011] Conditional Use Permit Proposal Requesting Agency Comment

Good Morning All,

I am just following up with this request for agency comment. I did not hear back about this application, so I am reaching out to confirm whether any of you have commentary or would like to provide a statement that you have no concerns for the project.

Best regards,
Brandon

Brandon Robinson | Planner II
Community Development Department | City & Borough of Juneau, Alaska
Physical Location: 230 S. Franklin Street, 4th Floor, Marine View Building
Office: (907) 586-0753; Extension 4139

From: Brandon Robinson <Brandon.Robinson@juneau.gov>
Sent: Tuesday, October 28, 2025 12:49 PM
To: Brandon Robinson <Brandon.Robinson@juneau.gov>
Subject: [USE20250011] Conditional Use Permit Proposal Requesting Agency Comment

Good Afternoon All,

Our applicant, NorthWind Architects, has moved to submit an application for a proposed conditional use on Douglas. Please find the application attached for your review and comment. I have also attached a partially filled PDF for your ease in providing comments, should you have any.

If you have any questions or concerns, please reach out to me directly.

Best regards,
Brandon

Brandon Robinson | Planner II
Community Development Department | City & Borough of Juneau, Alaska
Physical Location: 230 S. Franklin Street, 4th Floor, Marine View Building
Office: (907) 586-0753; Extension 4139

Outlook

RE: [USE20250011] Conditional Use Permit Proposal Requesting Agency Comment

From Schuler, Michael K (DOT) <michael.schuler@alaska.gov>
Date Tue 12/16/2025 10:24 AM
To Brandon Robinson <Brandon.Robinson@juneau.gov>

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Hi Brandon,
I apologize for losing track of this...

DOT&PF Southcoast Region has no objection to the development as presented. No encroachments, storage, or non-transportation uses of the state right of way of North Douglas Highway will be allowed.

Michael K. Schuler
Property Management Officer
Southcoast Region, Right of Way Section
Alaska Department of Transportation & Public Facilities
Office: 907-465-4499 • Michael.Schuler@alaska.gov
Keep Alaska Moving

From: Brandon Robinson <Brandon.Robinson@juneau.gov>
Sent: Monday, December 15, 2025 11:57 AM
To: Brandon Robinson <Brandon.Robinson@juneau.gov>
Subject: Fw: [USE20250011] Conditional Use Permit Proposal Requesting Agency Comment

CAUTION: This email originated from outside the State of Alaska mail system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

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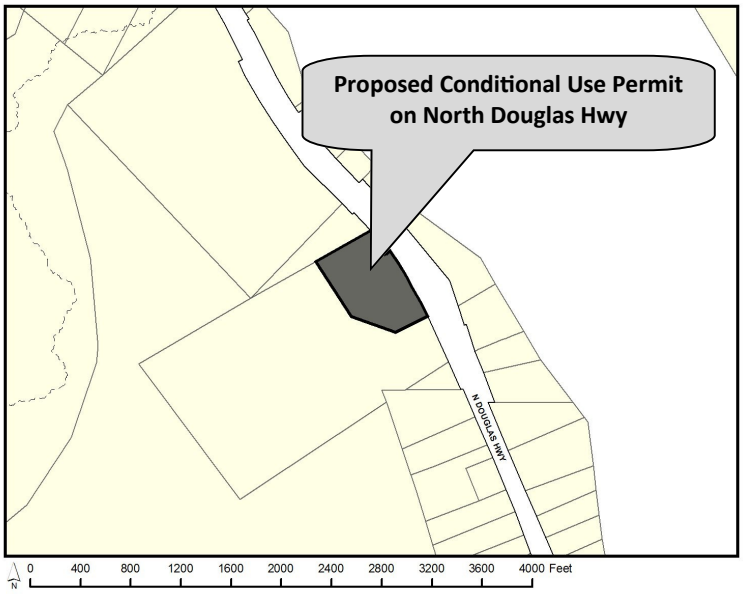
Brandon

Brandon Robinson | Planner II
Community Development Department | City & Borough of Juneau, Alaska
Physical Location: 230 S. Franklin Street, 4th Floor, Marine View Building
Office: (907) 586-0753; Extension 4139

Invitation to Comment

On a proposal to be heard by the CBJ Planning Commission

Your Community, Your Voice



CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT
155 Heritage Way Juneau, Alaska 99801

TO

A Conditional Use Permit has been submitted for consideration and public hearing by the Planning Commission for **a Vehicle Repair Garage** on **North Douglas Highway** in a **GC zone**.

PROJECT INFORMATION:
Project Information can be found at:
https://juneau.org/community-development/short-term-projects

PLANNING COMMISSION DOCUMENTS:
Staff Report expected to be posted **Tuesday, January 20, 2026** at
https://juneau.org/community-development/planning-commission
Find hearing results, meeting minutes, and more here, as well.

Now through Jan. 5	Jan. 6 — noon, Jan. 23	HEARING DATE & TIME: 6:00 pm, January 27, 2026	Jan. 28
Comments received during this period will be sent to the Planner, **Brandon Robinson,** to be included as an attachment in the staff report.	Comments received during this period will be sent to Commissioners to read in preparation for the hearing.	This meeting will be held in person and by remote participation. For remote participation: join the Webinar by visiting https://juneau.zoom.us/j/86847221296 and use the Webinar ID: 868 4722 1296 OR join by telephone, calling: 1-253-215-8782 and enter the Webinar ID (above). You may also participate in person in City Hall Assembly Chambers, 155 Heritage Way Juneau, Alaska.	The results of the hearing will be posted online.

FOR DETAILS OR QUESTIONS,

Phone: **(907)586-0753 ext. 4139**
Email: **pc_comments@juneau.gov or Brandon.Robinson@juneau.gov**
Mail: **Community Development, 155 Heritage Way, Juneau AK 99801**

Case No.: USE2025 0011
Parcel No.: 6D0601150012
CBJ Parcel Viewer: http://epv.juneau.org

Printed December 19, 2025

NOTICE
586-0715
PERMIT FOR
VEHICLE REPAIR GARAGE
HEARING DATE: 1/27/2026

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

PLANNING COMMISSION STAFF REPORT
PROPERTY DISPOSAL PAD2025 0001
HEARING DATE: JANUARY 27, 2026

(907) 586-0715
CDD_Admin@juneau.gov
www.juneau.org/community-development
155 Heritage Way • Juneau, AK 99801

DATE: January 20, 2026

TO: Erik Pedersen, Chair, Planning Commission

BY: Justin Smith, Planner I

THROUGH: Jill Lawhorne, Director, AICP

PROPOSAL: Applicant requests a Property Disposal Review for the purchase of approximately one (1) acre of City & Borough of Juneau-owned land.

STAFF RECOMMENDATION: Approval.

KEY CONSIDERATIONS FOR REVIEW:

- The proposed land disposal is in general conformity with the 2013 Comprehensive Plan and the 2016 CBJ Land Management Plan.
- The 2016 Land Management Plan earmarks this property as Retain/Dispose.
- The land requested for disposal is undeveloped.
- The proposed land disposal application has a motion of support from the Assembly Lands Housing & Economic Development (LHED) Committee to go to the full Assembly for review.

GENERAL INFORMATION	
Property Owner	City and Borough of Juneau Lands and Resources
Applicant	Mark Sams
Property Address	Mendenhall Peninsula Rd
Legal Description	ASLS 78-171 LT 3A FR
Parcel Number	4B1901070010
Zoning	RR
Land Use Designation	Urban Low Density Residential (ULDR)
Lot Size	11,308,176 square feet
Water/Sewer	CBJ Water / On-site sewer
Access	Mendenhall Peninsula Rd
Existing Land Use	Undeveloped
Associated Applications	None

ALTERNATIVE ACTIONS:

1. **Amend:** amend the recommendation to include conditions and recommend approval to the Assembly.
2. **Deny:** recommend denial of the proposed project. Planning Commission must make its own findings.
3. **Continue:** continue the hearing to a later date if determined that additional information or analysis is needed to make a decision, or if additional testimony is warranted.

ASSEMBLY ACTION REQUIRED:
Yes. A Notice of Recommendation will be forwarded to the Assembly for further action.

STANDARD OF REVIEW:

- Quasi-legislative decision
- Requires five (5) affirmative votes for approval
- Code Provisions:
  - CBJ 49.05.100
  - CBJ 49.10.170(c)
  - CBJ 53.09.200(b)
  - CBJ 53.09.260

The Commission shall hear and decide the case per CBJ 53.09.260 - Negotiated sales, leases, and exchanges:

(a) Application, initial review, assembly authority to negotiate. Upon application, approval by the manager, and payment of a $500.00 fee, a person or business entity may submit a written proposal to lease, purchase, exchange, or otherwise acquire City and Borough land for a specified purpose. The proposal shall be reviewed by the assembly for a determination of whether the proposal should be further considered and, if so, whether by direct negotiation with the original proposer or by competition after an invitation for further proposals. Upon direction of the assembly by motion, the manager may commence negotiations for the lease, sale, exchange, or other disposal of City and Borough land.

(b) Review and approval process. Upon satisfactory progress in the negotiation or competition undertaken pursuant to subsection (a) of this section, after review by the planning commission for disposals other than leases, after review by the assembly lands committee, and authorization by the assembly by ordinance, the manager may conclude arrangements for the lease, sale, exchange, or other disposal of City and Borough land. The final terms of a disposal pursuant to this section are subject to approval by the assembly unless the minimum essential terms and the authority of the manager to execute the disposal are set forth in the ordinance enacted pursuant to this subsection. The disposal may not be executed until the effective date of the ordinance.

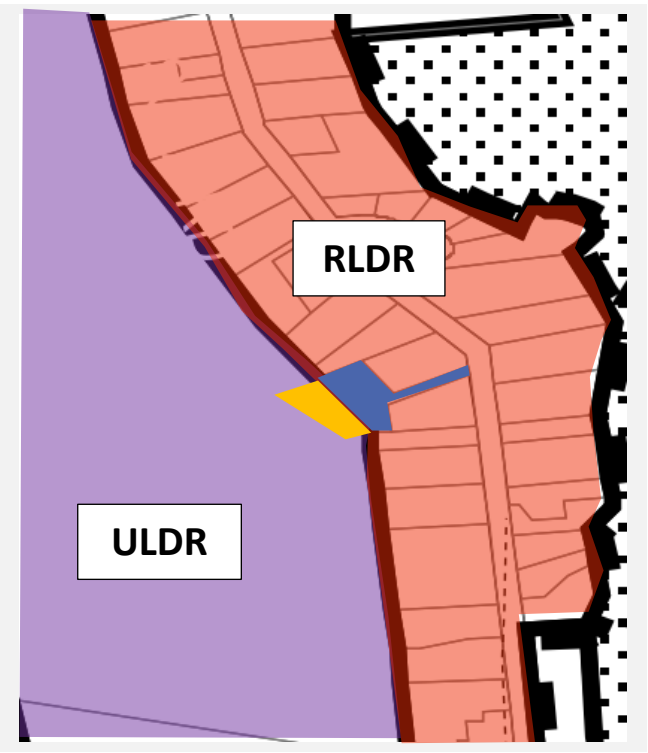
CBJ 49.10.170(c) Planning Commission Duties: *The commission shall review and make recommendations to the assembly on land acquisitions and disposals as prescribed by Title 53, or capital improvement project by any City and Borough agency. The report and recommendation of the commission shall be based upon the provisions of this title, the comprehensive plan, and the capital improvements program.*

CURRENT ZONING MAP

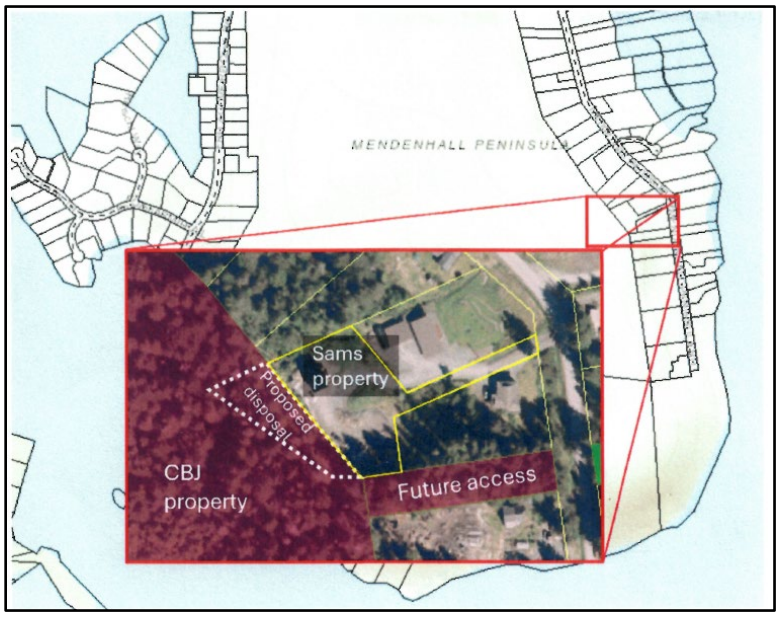
LAND USE DESIGNATION MAP

Blue = Mark Sams Lot

Orange = CBJ Proposed Disposal



DISPOSAL MAP FROM APPLICATION



SURROUNDING LAND USES AND ZONING

Direction	Zoning District	Land Use
North	D1	Residential
South	D1	Residential
East	D1	Residential
West	RR	Undeveloped

BACKGROUND INFORMATION

Project Description – The applicant submitted an application (**Attachment A**) requesting to purchase approximately one (1) acre of CBJ-owned land adjacent to his property at 1110 Mendenhall Peninsula Road. The CBJ-owned lot is currently managed by the CBJ Lands and Resources Department, and the applicant would use the acquired property to construct a 24-foot by 40-foot addition to his existing home with an attached deck. The application states that building on the other side of the existing structure is not feasible due to the septic system location.

If the disposal is ultimately approved by the CBJ Assembly, the applicant would be required to submit a Minor Subdivision application per CBJ 49.15.401(a)(4): *"Lot line adjustments. The Minor Subdivision process shall be used to review adjustments to any number of lot boundary lines if the subdivision does not result in an increase in the number of lots."* Minor Subdivisions are approved by the Director.

Background – CBJ Lot

The CBJ-owned parcel was originally platted in 1962, and the plat was amended in 1982. The table below summarizes relevant history for the subject parcel and proposed development.

Year	Item	Summary
1962	Plat (**Attachment B**)	CBJ-owned parcel 4B1901070010 was originally platted in 1962.
1982	Plat (**Attachment C**)	The plat for CBJ-owned parcel 4B1901070010 was amended in 1982.
2025	Memorandum (**included in Attachment A**)	A 2025 Memorandum from Mr. Bleidorn, CBJ Lands and Resources Manager, to Mr. Bryson, Chair of the Assembly Lands Housing & Economic Development (LHED) Committee. CBJ Lands and Resources staff request that the LHED Committee forward this application to the Assembly with a motion of support.
2025	Assembly LHED Minutes (**included in Attachment A**)	The minutes for the September 29, 2025, Assembly LHED Committee meeting. Mr. Bleidorn discussed the Sams request to purchase city property. Mr. Steininger of the committee moved to forward the application to the full Assembly with a motion of support. Motion passed unanimously.

Previous Discussions and Meetings – In July 2025, Mr. Mark Sams submitted an application to purchase roughly an acre of CBJ-owned land adjacent to his property to the CBJ Lands and Resources Office.

In September 2025, Mr. Dan Bleidorn, Lands Manager, drafted a Memorandum to the Assembly Lands Housing & Economic Development Committee (LHED) for review. On September 29, 2025, the Assembly LHED Committee reviewed the proposed land disposal and unanimously passed a motion of support to forward the application to the full Assembly for review.

On October 16, 2025, Mr. Sams submitted a Property Acquisition/Disposal Application to the CBJ Community Development Department.

CBJ 53.09.200(b) - Purpose and intent. The purpose and Intent of Title 53.09.200(b) is:

1. *Inclusion in Land Management Plan. Except for property acquired by tax foreclosure or Reconveyance agreement, real property should not be conveyed prior to inclusion in a land management plan.*

The Land Management Plan designates this city property disposal as retain/dispose.

ZONING ANALYSIS

CBJ 49.05.100 - Purpose and intent. The purpose and Intent of Title 49 Land Use Code is:

(1) To achieve the goals and objectives, and implement the policies, of the Juneau comprehensive plan, and coastal management program;

(2) To ensure that future growth and development in the City and Borough is in accord with the values of its residents;

(3) To identify and secure, for present and future residents, the beneficial impacts of growth while minimizing the negative impacts;

(4) To ensure that future growth is of the appropriate type, design and location, and is served by a proper range of public services and facilities such as water, sewage, and electrical distribution systems, transportation, schools, parks and other public requirements, and in general to promote public health, safety and general welfare;

(5) To provide adequate open space for light and air; and

(6) To recognize the economic value of land and encourage its proper and beneficial use.

Comprehensive Plan Classification – The CBJ-owned lot is designated Urban Low Density Residential (ULDR). The ULDR land use designation describes urban or suburban residential lands with detached single-family units, duplex, cottage or bungalow housing, zero-lot-line dwelling units and manufactured homes on permanent foundations at densities of one (1) to six (6) units per acre. Any commercial development should be of a scale consistent.

Table of Permissible Uses – The proposed purpose of this disposal is to provide more space to create an addition to the existing home on one single-family residential lot. This use is appropriate for the RR and D1 zoning districts.

Table of Dimensional Standards – The proposed area for disposal encompasses approximately one (1) acre of land in the RR zoning district. The lot coverage, lot width, lot size, and setback requirements for RR and D1 are the same. Height requirements differ with RR having a maximum height of 45 feet and D1 having a maximum height of 35 feet.

Roadway Classification Maps – Mendenhall Peninsula Road is identified as an AKDOT managed right-of-way. If the City-owned lot is subdivided *without* consolidating with an adjacent lot, any new lots may require the right-of-way to be improved to city standards if found substandard.

Hazard Areas – No hazards are identified on adopted hazard maps.

COMMUNITY SERVICES

Service	Summary
Urban Service Boundary	Within
Water/Sewer	CBJ Water / On-site sewer
Fire Service Area	Within
Schools	No CBJ school is directly impacted by this project.
Recreation	No CBJ Parks & Recreation managed land is directly impacted by this project.

ENVIRONMENTAL, CONSERVATION, HISTORIC, AND ARCHEOLOGICAL RESOURCES

The table below summarizes Conservation, Historic, and Archeological Resources which may be affected by the disposal.

Resource	Summary
Conservation Areas	No
Historic	Unknown
Archeological	Unknown
Wetlands	Wetlands may be present in the proposed disposal area. Wetlands are not regulated under Title 49. An Army Corps of Engineers permit may be required.
Anadromous	There are no anadromous streams on or within 50 feet of the land disposal area.
Comprehensive Plan View sheds	No

CONFORMITY WITH ADOPTED PLANS

2013 COMPREHENSIVE PLAN VISION: *The City and Borough of Juneau is a vibrant State Capital that values the diversity and quality of its natural and built environments, creates a safe and satisfying quality of life for its diverse population, provides quality education and employment for its workers, encourages resident participation in community decisions and provides an environment to foster state-wide leadership.*

2013 COMPREHENSIVE PLAN – The proposed disposal is in compliance with this plan.			
Chapter	**Page No.**	**Item**	**Summary**
7	97	7.17 – DG2	*Review any proposed land disposals of CBJ-owned lands in light of their hazard classification; retain ownership of CBJ lands with moderate- to high- potential for avalanche or mass-wasting (landslide).* **The proposed disposal complies with this development guideline.**
11	156	Map F	*The area is designated as Urban Low Density Residential (ULDR). The ULDR land use designation describes urban or suburban residential lands with detached single-family units, duplex, cottage or bungalow housing, zero-lot-line dwelling units and manufactured homes on permanent foundations at densities of one (1) to six (6) units per acre. Any commercial development should be of a scale consistent.* **The proposed development intended after the disposal complies with this land use designation.**
17	226	17.2 – SOP1	*Evaluate the use and development potential of all CBJ-owned lands and incorporate appropriate plans for those lands into the CBJ Land Management Plan and Land Disposal Program, which is to be consistent with the Comprehensive Plan. The Land Management Plan serves as the major means of implementing policies and guiding management, development and disposition of selected CBJ-owned lands.* **The proposed disposal complies with this standard operating procedure.**

2016 LAND USE PLAN – The proposed disposal is in compliance with this plan.			
Chapter	**Page No.**	**Item**	**Summary**
Goals & Objectives	7	Goal 1	*Continue the land disposal program which systematically places CBJ land into private ownership.* **The proposed disposal complies with this goal.**
CBJ's Land Holdings	50	LND-0520	*The parcel is designated as Retain/Dispose.* *"Retain/Dispose" designations are appropriate for disposal, but there are sections (such as stream corridors, high value wetlands, etc.) that may be retained for a public purpose. This designation is particularly common for larger parcels.* **The proposed disposal complies with this parcel designation.**

AGENCY REVIEW

CDD conducted an agency review comment period between November 17, 2025, to January 23, 2026. Comments submitted by January 5, 2026, at 11:59pm are included in this staff report and can be found in **Attachment D**.

Agency	**Summary**
CBJ Engineering – Public Works	No comments provided.
Capital City Fire & Rescue	No comments provided.
School District	No comments provided.
CBJ Parks & Recreation	No comments as the purchase does not impact CBJ parklands.
CBJ CDD – Building Division	No comments or concerns with land disposal.

PUBLIC COMMENTS

Public notice was mailed to property owners within 500 feet of the proposed disposal. CDD conducted a public comment period from December 19, 2025, through January 23, 2026. Public comments received by January 5, 2026, at 11:59pm are included in this staff report. Comments received between January 6, 2026, and January 23, 2026, at noon are forwarded to the Commissioners for review in advance of the hearing. A public notice sign was also posted on-site two weeks prior to the scheduled hearing. Public comments are recorded in Attachment E.

Name	**Summary**
Helen Clough	How much will the land be sold for if the disposal is approved? How is/was the price set?
Donna Meiners	My property address is 1120 Mendenhall Peninsula Road, which, along with Mark Sams' property connect 3 properties that share driveway access from Mendenhall Peninsula Road.

Name	Summary
	1. I was not aware of this project until I received the CBJ postcard "Invitation to Comment" on 12/23/25. This project was proposed last September and I am shocked to find it is about to be finalized without any consideration for my connecting property. 2. I oppose this request by Mark Sams to purchase 1 acre of as yet un-platted CBJ land above our properties so that he can add on to his current dwelling. His current "care taker" home and boat condo have a footprint that is 960 sq. ft. His lot is 40,560 sq. ft. so it is hard to fathom his argument for insufficient land as justification for this purchase request. 3. I know the City has land use and affordable housing plans and if this land is opened to purchase, one and all should be able to participate. 4. The initial requirement for selling this land should be to develop the road access from this land down to Mendenhall Peninsula Road. How can any of this land be sold without this? 5. I also protest this sale because the Sams' current lot has had no drainage plan or system in place. My property is below Sams' and is affected. 6. An assessment of drainage should be done for every lot proposed at this elevation.

FINDINGS

In accordance with CBJ 49.15.580 staff finds the proposed disposal complies with Title 49 Land Use Code and is in general conformity with adopted plans, specifically the 2016 Land Use Plan.

RECOMMENDATION

Staff recommends the Planning Commission adopt the Director's analysis and findings and forward a recommendation of APPROVAL to the CBJ Assembly for the land disposal.

STAFF REPORT ATTACHMENTS

Item	Description
Attachment A	Application Packet
Attachment B	1962 Plat
Attachment C	1982 Plat
Attachment D	Agency Comments
Attachment E	Public Comments

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

DEVELOPMENT PERMIT APPLICATION

NOTE: Development Permit Application forms must accompany all other Community Development Department land use applications. This form and all documents associated with it are public record once submitted.

To be completed by Applicant

PROPERTY LOCATION

Physical Address: TBD Mendenhall Peninsula Road, Juneau, AK 99801

Legal Description(s) (Subdivision, Survey, Block, Tract, Lot): Lot 25D, USS 2902 (Sams) / Lot 3A, ASLS 78-171 (CBJ)

Parcel Number(s): 4B1901010091 (Sams) / 4B1901070010 (CBJ)

☐ This property is located in the downtown historic district
☐ This property is located in a mapped hazard area, if so, which _____

LANDOWNER

Property Owner: City and Borough of Juneau Lands and Resources Division
Contact Person: Dan Bleidorn
Mailing Address: 155 Heritage Way Juneau, AK 99801
Phone Number(s): 907-586-5252
E-mail Address: dan.bleidorn@juneau.gov

LANDOWNER CONSENT

Required for Planning Permits, not needed on Building/ Engineering Permits.
Consent is required of all landowners. If submitted with the application, alternative written approval may be sufficient. Written approval must include the property location, landowner's printed name, signature, and the applicant's name.

I am (we are) the owner(s) of the property subject to this application and I (we) consent as follows:
A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission.
B. I (we) grant permission for the City and Borough of Juneau officials/employees to inspect my property as needed for purposes of this application.

Dan Bleidorn — Division of Lands & Resources
Landowner (Printed Name) — **Title (e.g.: Landowner)**

x Dan Bleidorn — Digitally signed by Dan Bleidorn — 10/13/25
Landowner (Signature) — **Date**

Mark Sams — Landowner
Landowner (Printed Name) — **Title (e.g.: Landowner)**

x Mark Sams — Digitally signed by Mark Sams DN: C=US, E=msams@pndengineers.com, CN="Mark Sams " Date: 2025.10.16 09:49:56-08'00' — 10/16/25
Landowner (Signature) — **Date**

NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours. We will make every effort to contact you in advance, but may need to access the property in your absence and in accordance with the consent above. Also, members of the Planning Commission may visit the property before a scheduled public hearing date.

APPLICANT

If same as LANDOWNER, write "SAME"

Applicant (Printed Name): Mark Sams
Contact Person: Mark Sams
Mailing Address: 1110 Mendenhall Peninsula Road Juneau, AK 99801
Phone Number(s): 907-723-6722
E-mail Address: msams@pndengineers.com

x Mark Sams — Digitally signed by Mark Sams DN: C=US, E=msams@pndengineers.com, CN="Mark Sams " Date: 2025.10.07 11:28:27-08'00' — 10/7/25
Applicant's Signature — **Date of Application**

---DEPARTMENT USE ONLY BELOW THIS LINE---

Intake Initials: AM

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

Case Number	Date Received
PAD25-01	10/16/25

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

PROPERTY ACQUISTION AND DISPOSAL REVIEW APPLICATION

See reverse side for more information regarding the permitting process and the materials required for a complete application.
NOTE: Must be accompanied by a DEVELOPMENT PERMIT APPLICATION form.

To be completed by Applicant

PROJECT SUMMARY:
Applicant submitted an application to purchase up to one acre of CBJ-owned land adjacent to his property at 1110 Mendenhall Peninsula Road. The applicant states that the requested property will be used to construct an addition to his existing home.

TYPE OF PROJECT REVIEW: ☑ Property Acquisition Review ☑ Property Disposal Review

PROJECT NUMBERS ASSOCIATED WITH PROPOSAL:

Is this project associated with any other Land Use Permits? ☐ YES Case No.: _____ ☑ NO

Capital Improvement Program # (CIP) _____

ESTIMATED PROJECT COST: $_____

ALL REQUIRED MATERIALS ATTACHED

- ☑ **Complete application**
- ☑ **Pre-Application notes** (if applicable)
- ☑ **Narrative including:**
  - ☐ Current use of land or building(s)
  - ☐ Proposed use of land or building(s)
  - ☐ How the proposed project complies with the Comprehensive Plan
  - ☐ How the proposed project complies with the Land Use Code (Title 49)
- **Site Plan** (details on page 2)

NOTE: This application is <u>required</u> even if the proposed project is associated with other Land Use permits.

----------DEPARTMENT USE ONLY BELOW THIS LINE----------

PROPERTY ACQUISITION & DISPOSAL FEES	Fees	Check No.	Receipt	Date
Application Fees	$ Ø	($500 paid to DNR)		

This form and all documents associated with it are public record once submitted.

<u>INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED</u>

For assistance filling out this form, contact the Permit Center at 586-0770.

Case Number	Date Received
PAD25-01	10/16/2025

Property Acquisition & Disposal Review Information

Property Acquisition & Disposal project review is outlined in CBJ 53.04 and 53.09

Each application for a Property Acquisition & Disposal project is reviewed by the Planning Commission at a public hearing. The permit procedure is intended to provide the Commission the flexibility necessary to make recommendations tailored to individual applications.

Application: An application for a Property Acquisition & Disposal project review will not be accepted by the Community Development Department until it is determined to be complete. The items needed for a complete application are:

1. **Forms:** Completed Property Acquisition & Disposal Project Application, and Development Permit Application forms.
2. **Fees:** No fee required for projects that cost less than $2.5 million. For projects costing more than this amount, the fee is $1,600.00. All fees are subject to change.
3. **Project Narrative:** A detailed narrative describing the project.
4. **Plans:** All plans are to be drawn to scale and clearly show the items listed below:
    a. Plat, site plan, floor plan and elevation views of existing and proposed structures and land;
    b. Existing and proposed parking areas, including dimensions of the spaces, aisle width and driveway entrances;
    c. Proposed traffic circulation within the site including access/egress points and traffic control devices;
    d. Existing and proposed lighting (including cut sheets for each type of lighting);
    e. Existing and proposed vegetation with location, area, height and type of plantings; and,
    f. Existing physical features of the site (i.e. drainage, eagle trees, hazard areas, salmon streams, wetlands, etc.)

Document Format: All materials submitted as part of an application shall be submitted in either of the following formats:

1. Electronic copies in the following formats: .doc, .txt, .xls, .bmp, .pdf, .jpg, .gif, .xlm, .rtf (other formats may be preapproved by the Community Development Department).
2. Paper copies 11" X 17" or smaller (larger paper size may be preapproved by the Community Development Department).

Application Review & Hearing Procedure: Once the application is determined to be complete, the Community Development Department will initiate the review and scheduling of the application. This process includes:

Review: As part of the review process the Community Development Department will evaluate the application for consistency with applicable City & Borough of Juneau codes and adopted plans. Depending on unique characteristics of the permit request the application may be required to be reviewed by other municipal boards and committees. Review comments may require the applicant to provide additional information, clarification, or submit modifications/alterations for the proposed project.

Hearing: Property Acquisition & Disposal project Applications must be reviewed by the Planning Commission. Once an application has been deemed complete and has been reviewed by all applicable parties the Community Development Department will schedule the requested permit for the next appropriate meeting. The Planning Commission will make a recommendation based on staff's analysis and forward it to the Assembly for final approval/denial.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

July 15, 2025

Click or tap here to enter text.

Dan Bleidorn
Lands and Resources Manager
CBJ Division of Lands and Resources
155 Heritage Way, Suite 218
Juneau, Alaska 99801

SUBJECT: OVER THE COUNTER LAND SALE AT 1110 MENDENHALL PENINSULAR ROAD

Dear Mr. Bleidorn:

I recently submitted an application to CBJ Division of Lands and Resources requesting an opportunity to purchasing a section of CBJ land adjacent to my existing property located at 1110 Mendenhall Peninsular Road. I appreciate your time in reviewing the application and working with me to work through the purchasing process for this raw land.

Background:

My wife and I purchased our existing parcel (Lot 25D) consisting of just under an acre (40,560 sqft) in spring of 2021 at 1110 Mendenhall Peninsular Rd. We have since built a boat condo style structure to allow our family to move on to the lot and out of a rental unit while we continue to plan and saving to construct a larger home. Our current structure consists of a 40-foot x 24-foot two story light timber construction. The first floor consists of a 16' tall boat storage bay on the first floor and the second floor is a two-bedroom caretaker's unit, 960 sqft total foot print with a net of 875 sqft livable space inside of walls. Our current lot is a pan handle shaped lot with a shared access with the two downhill neighbors (closer to the road). Both down hill neighbors have an easement on my driveway and I have an easement on one of my neighbor's lots to access the lower section of the driveway. See Figure 1 for my existing plat map with my lot highlighted in Red and the access easement in Blue. Figure 2 shows a proposed building addition in relation to our existing lot lines.

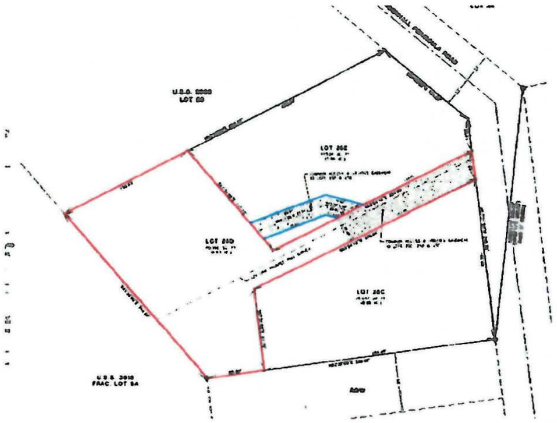


Figure 1: Plat Map

Parcel Proposal:

My wife and I are proposing to purchase a one-acre parcel of CBJ property adjacent to Lot 25D outlined in Figure 2. This parcel would be partitioned from the USS 3816 FRAC (ASLS 78-171 LT 3A FR) currently owned by CBJ. This 259.6 acre lot spans between the existing private lots on Mendenhall Peninsular Rd. and Fritz Cove Rd and is zoned Rural Reserve which has a similar minimum lot size to my current parcel zoned D-1. Due to the minimum lot size in the RR and D-1, I have proposed to purchase a 1-acre lot which would approximately match our current lot size and would allow for future development, i.e. second dwelling unit since the combined lot size would exceed the minimum 72,000 sqft for two dwelling units.

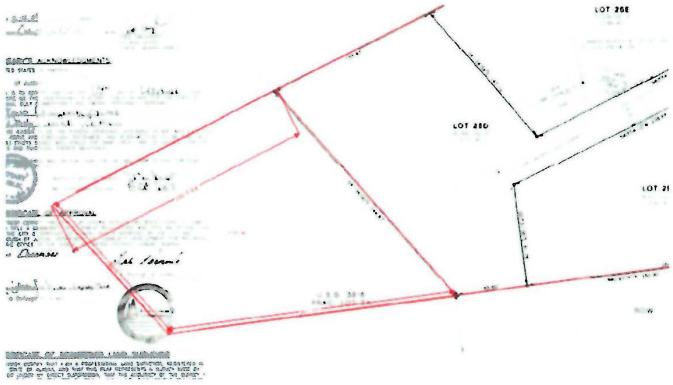


Figure 2: Proposed Propery Acquisition Boundry

Our current goal for purchasing this adjacent land parcel is to allow us to construct an addition to our existing structure, turning our current residence from a (2) bedroom dwelling to a (4) bedroom dwelling. Since the structure has been constructed at the edge of our existing 25' property line set back, we would need to purchase CBJ property to facilitate this addition. We cannot expand further downhill toward Mendenhall Peninsular Road due to the septic system location.

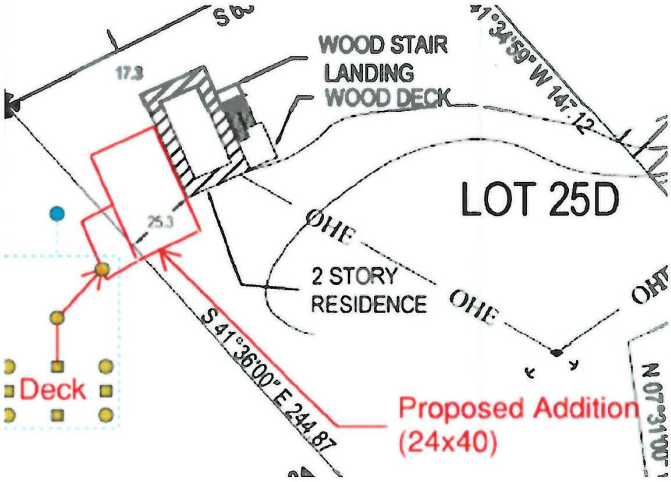


Figure 3: Proposed Addition in Relation to the Property Line

Our Family has currently outgrown our living space in the existing structure and developing an addition will allow us the most efficient process to expand our current living space. Our plan is to develop an addition that matches our current foot print to double the size of our living space shown in Figure 3. This option will allow us to expand without costly kitchen, bathroom, or septic renovations.

Another option is to purchase just enough CBJ property to allow for our addition, but this does not appear to be the best approach for CBJ if the adjacent property is planned for future development. That development would likely be in one-acre units due to the current zoning. Only partially extending our existing property boundaries may force a non-uniform shape to future subdivision lots if CBJ decided to develop the adjacent property. Also, if we can expand our lot uphill, it would allow additional flexibility to construct a future driveway entrance if CBJ ever developed the existing right of way on the south end of our existing property.

Our proposed land acquisition is shown in Figure No. 2&4 and constitutes one acre of land by projecting my existing property lines uphill. The red linework in Figure 2 outlines my proposed property line extension and estimated area. Figure No.4 provides a satellite image with the proposed property boundary, indicating the current condition of the requested property. A red arrow is pointing to our currently constructed residence.

Figure 3: Satellite Site Image

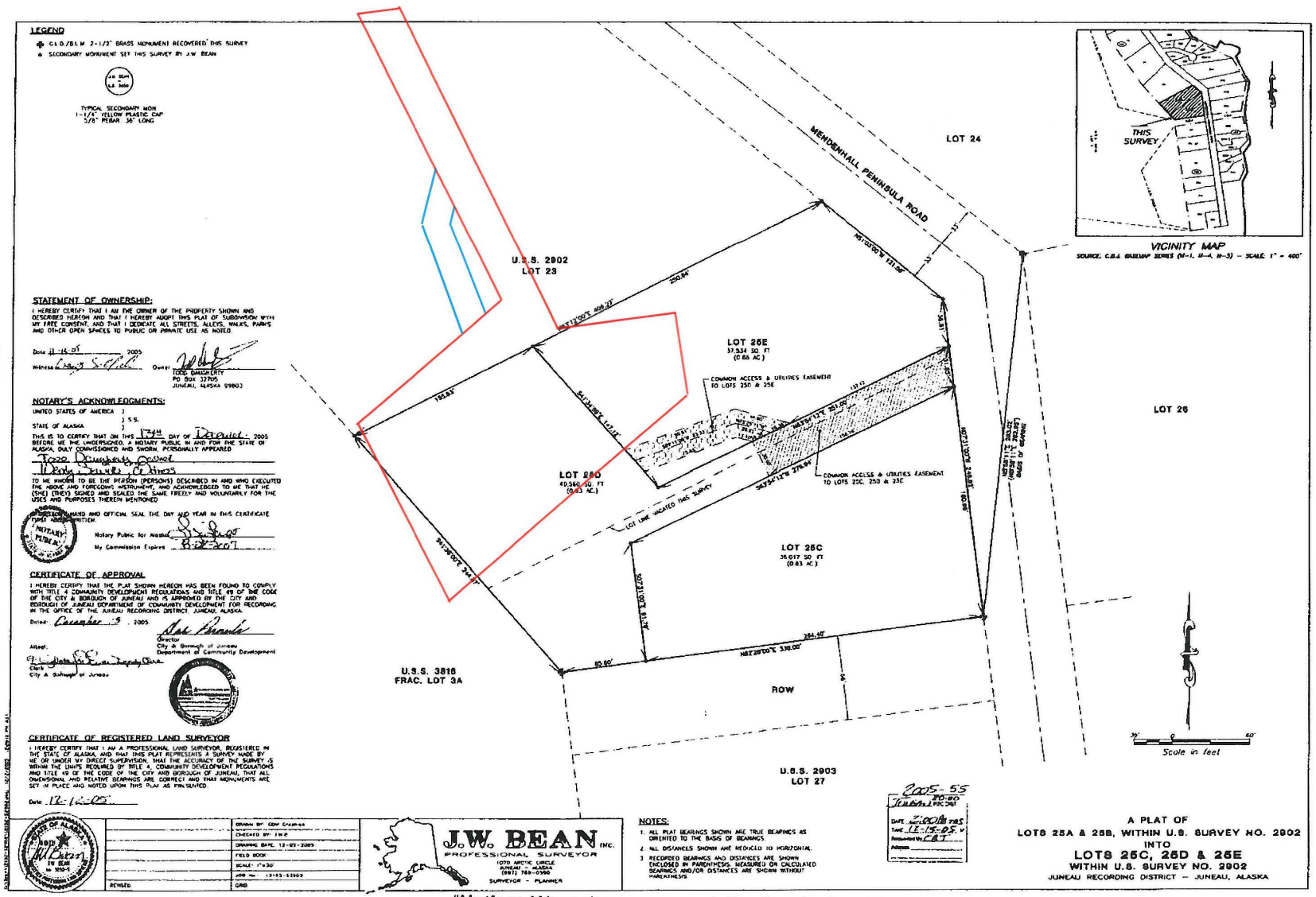
Conclusion:

We appreciate your time reviewing this land sale request and are happy to address any concerns or questions you may have with this proposal. We look forward to working with you on addressing any concerns and are available most times to discuss if needed. I have attached full size exhibits to this letter for reference.

Sincerely,

Mark Sams P.E., S.E.

Figure 1



"**Notice:** We make no representation that this is neither a plat nor a survey. It is furnished merely as a convenience to aid you in locating the land indicated hereon with reference to streets and other land. No liability is assumed by reason of any reliance hereon."

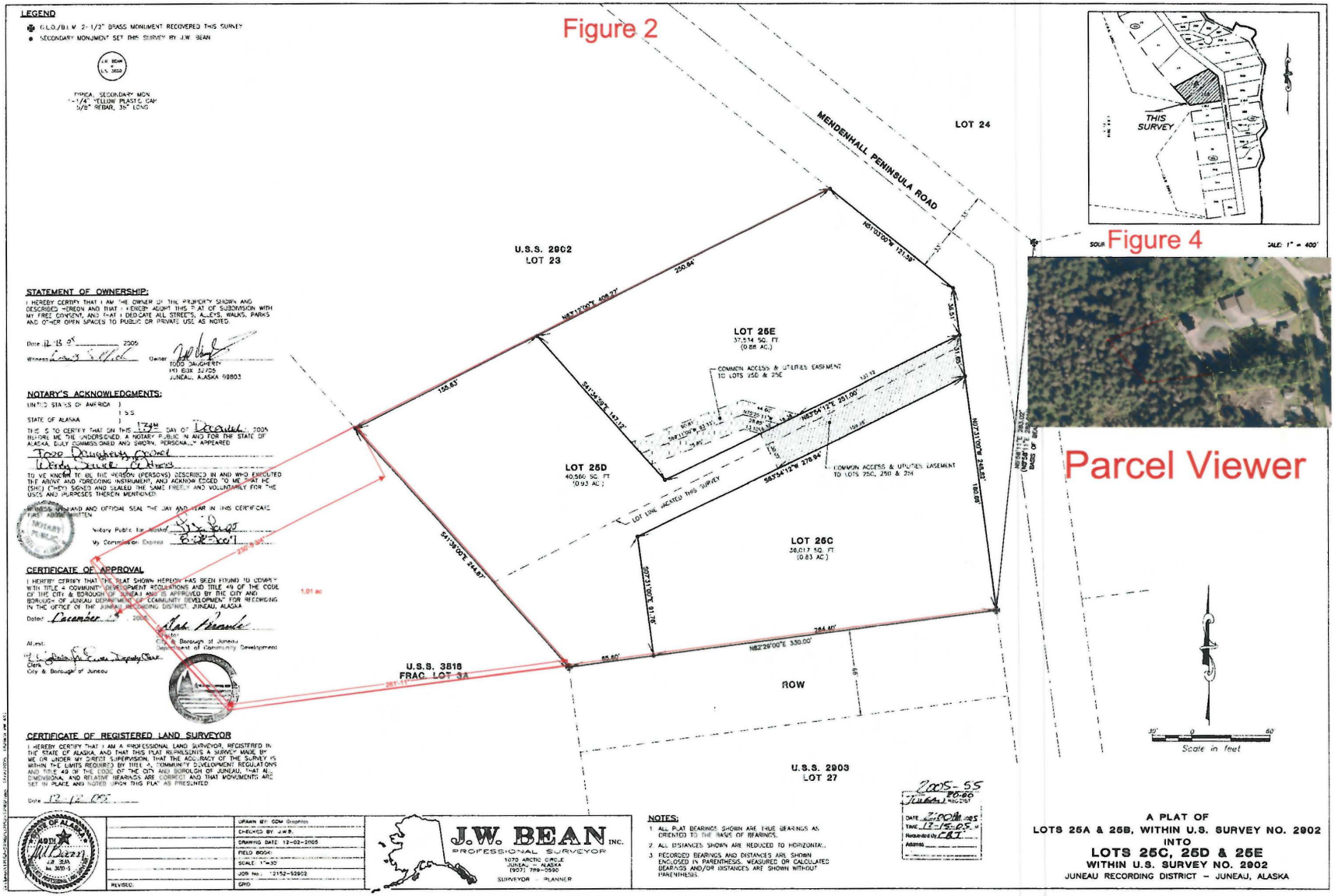
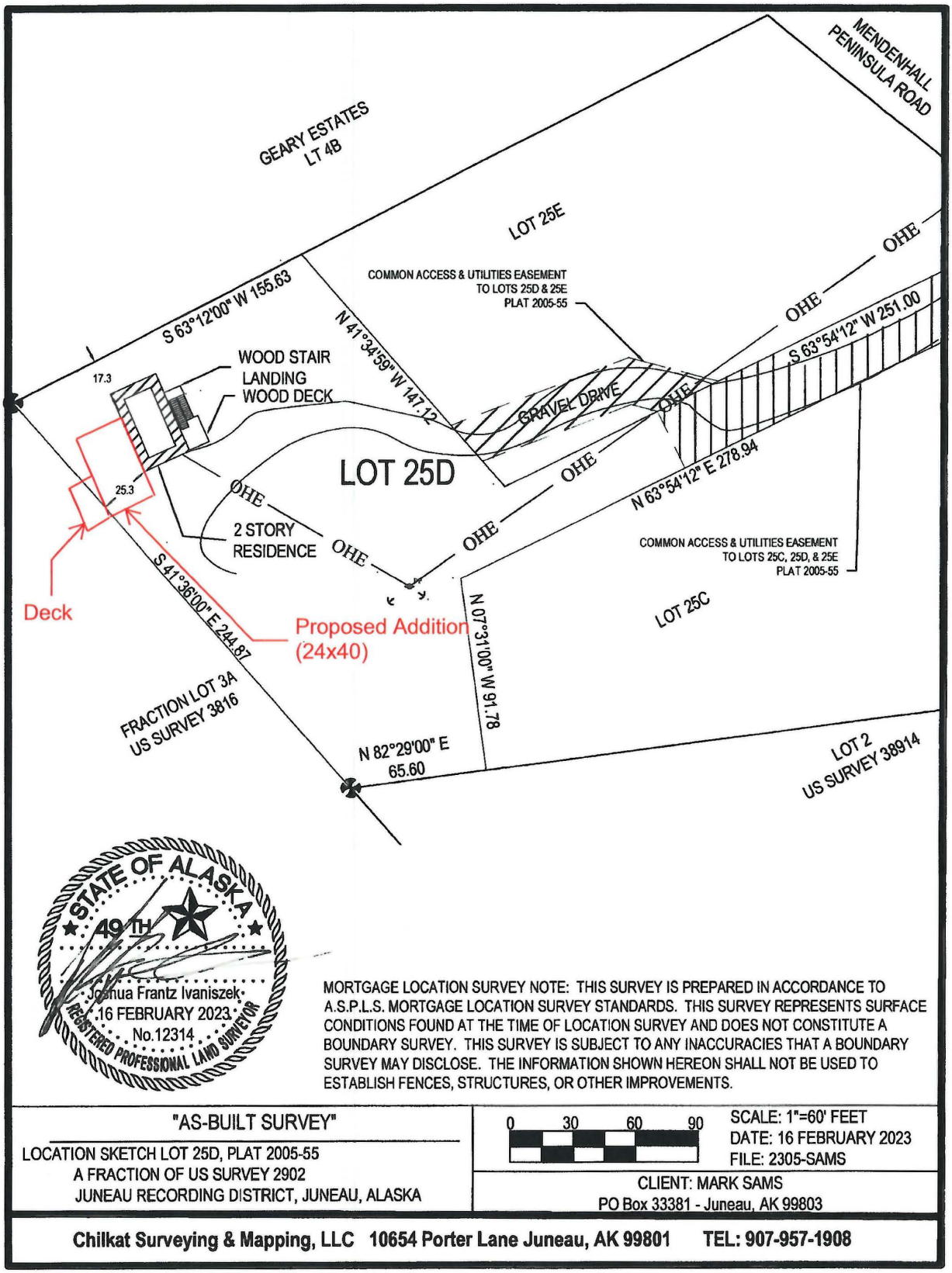


Figure 2
LEGEND
G.L.O./B.L.M. 2-1/2" BRASS MONUMENT RECOVERED THIS SURVEY
SECONDARY MONUMENT SET THIS SURVEY BY J.W. BEAN
TYPICAL SECONDARY MON.
1-1/4" YELLOW PLASTIC CAP
5/8" REBAR, 36" LONG
MENDENHALL PENINSULA ROAD
LOT 24
U.S.S. 2902
LOT 23
LOT 25E
37,514 SQ. FT.
(0.86 AC.)
COMMON ACCESS & UTILITIES EASEMENT
TO LOTS 25D & 25E
LOT 25D
40,560 SQ. FT.
(0.93 AC.)
LOT 25C
36,017 SQ. FT.
(0.83 AC.)
COMMON ACCESS & UTILITIES EASEMENT
TO LOTS 25C, 25D & 25E
LOT LINE CREATED THIS SURVEY
U.S.S. 3816
FRAC. LOT 3A
ROW
U.S.S. 2903
LOT 27
N67°03'00"W 131.38'
250.84'
N67°03'00"W 409.27'
155.63'
S41°34'58"E 143.13'
N82°54'12"E 251.00'
S67°54'12"W 278.94'
N67°11'00"W 244.65'
180.00'
S41°39'00"E 244.87'
S67°21'00"E 81.76'
N82°29'00"E 330.00'
284.40'
65.60'
69'
261.11'
1.01 ac
Figure 4
THIS SURVEY
Parcel Viewer
Scale in feet
STATEMENT OF OWNERSHIP:
I HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT I HEREBY ADOPT THIS PLAT OF SUBDIVISION WITH MY FREE CONSENT, AND THAT I DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED.
Date 12-15-05 2005
Witness
Owner
TODD DAUGHERTY
PO BOX 32705
JUNEAU, ALASKA 99803
NOTARY'S ACKNOWLEDGMENTS:
UNITED STATES OF AMERICA)
) SS
STATE OF ALASKA)
THIS IS TO CERTIFY THAT ON THIS 12TH DAY OF December, 2005
BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA, DULY COMMISSIONED AND SWORN, PERSONALLY APPEARED
Todd Daugherty
Wendy Sevier
TO ME KNOWN TO BE THE PERSON (PERSONS) DESCRIBED IN AND WHO EXECUTED THE ABOVE AND FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE (SHE) (THEY) SIGNED AND SEALED THE SAME FREELY AND VOLUNTARILY FOR THE USES AND PURPOSES THEREIN MENTIONED.
WITNESS MY HAND AND OFFICIAL SEAL THE DAY AND YEAR IN THIS CERTIFICATE FIRST ABOVE WRITTEN.
Notary Public for Alaska
My Commission Expires 5-22-2007
CERTIFICATE OF APPROVAL
I HEREBY CERTIFY THAT THE PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH TITLE 4 COMMUNITY DEVELOPMENT REGULATIONS AND TITLE 49 OF THE CODE OF THE CITY & BOROUGH OF JUNEAU AND IS APPROVED BY THE CITY AND BOROUGH OF JUNEAU DEPARTMENT OF COMMUNITY DEVELOPMENT FOR RECORDING IN THE OFFICE OF THE JUNEAU RECORDING DISTRICT, JUNEAU, ALASKA
Dated December 15 2005
Attest:
City & Borough of Juneau
Department of Community Development
City & Borough of Juneau
CERTIFICATE OF REGISTERED LAND SURVEYOR
I HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR, REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 4, COMMUNITY DEVELOPMENT REGULATIONS AND TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONAL AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED
Date 12-12-05
DRAWN BY: CDM Graphics
CHECKED BY: J.W.B.
DRAWING DATE: 12-02-2005
FIELD BOOK:
SCALE: 1"=30'
JOB No.: 12152-52902
GRID
REVISED:
J.W. BEAN INC.
PROFESSIONAL SURVEYOR
1070 ARCTIC CIRCLE
JUNEAU, ALASKA
(907) 789-5590
SURVEYOR - PLANNER
NOTES:
1. ALL PLAT BEARINGS SHOWN ARE TRUE BEARINGS AS ORIENTED TO THE BASIS OF BEARINGS.
2. ALL DISTANCES SHOWN ARE REDUCED TO HORIZONTAL.
3. RECORDED BEARINGS AND DISTANCES ARE SHOWN ENCLOSED IN PARENTHESIS. MEASURED OR CALCULATED BEARINGS AND/OR DISTANCES ARE SHOWN WITHOUT PARENTHESIS.
2005-55
$50.00
JUNEAU RECORDER
DATE 12-15-05
TIME 2:00 PM
Requested by CBJ
Address
A PLAT OF
LOTS 25A & 25B, WITHIN U.S. SURVEY NO. 2902
INTO
LOTS 25C, 25D & 25E
WITHIN U.S. SURVEY NO. 2902
JUNEAU RECORDING DISTRICT - JUNEAU, ALASKA

Figure 3



MORTGAGE LOCATION SURVEY NOTE: THIS SURVEY IS PREPARED IN ACCORDANCE TO A.S.P.L.S. MORTGAGE LOCATION SURVEY STANDARDS. THIS SURVEY REPRESENTS SURFACE CONDITIONS FOUND AT THE TIME OF LOCATION SURVEY AND DOES NOT CONSTITUTE A BOUNDARY SURVEY. THIS SURVEY IS SUBJECT TO ANY INACCURACIES THAT A BOUNDARY SURVEY MAY DISCLOSE. THE INFORMATION SHOWN HEREON SHALL NOT BE USED TO ESTABLISH FENCES, STRUCTURES, OR OTHER IMPROVEMENTS.

"AS-BUILT SURVEY"

LOCATION SKETCH LOT 25D, PLAT 2005-55
A FRACTION OF US SURVEY 2902
JUNEAU RECORDING DISTRICT, JUNEAU, ALASKA

0 30 60 90

SCALE: 1"=60' FEET
DATE: 16 FEBRUARY 2023
FILE: 2305-SAMS

CLIENT: MARK SAMS
PO Box 33381 - Juneau, AK 99803

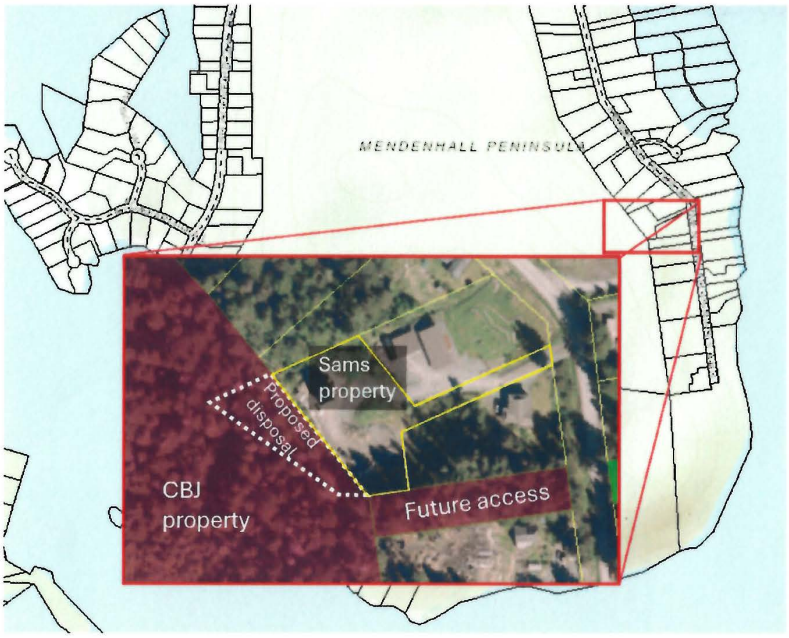
Chilkat Surveying & Mapping, LLC 10654 Porter Lane Juneau, AK 99801 TEL: 907-957-1908

MEMORANDUM

CITY/BOROUGH OF JUNEAU
Lands and Resources Office
155 Heritage Way, Juneau, Alaska 99801
Dan.Bleidorn@juneau.org
(907) 586-5252

TO: Wade Bryson, Chair of the Assembly LHED Committee
FROM: Dan Bleidorn, Lands and Resources Manager *Daniel Bleidorn*
SUBJECT: Sams Request to Purchase City Property
DATE: September 25, 2025

In July 2025, Mark Sams submitted an application to purchase roughly an acre of CBJ-owned land adjacent to his property located at 1110 Mendenhall Peninsula Road. The application states that the requested property will be used to construct an addition to his existing home as well as additional future development. The application continues by stating that building on the other side of his structure is not feasible due to the septic system location.



City Code 53.09.260 states that the Assembly must determine "whether the proposal should be further considered and, if so, whether by direct negotiation with the original proposer or by competition after an invitation for further proposals. Upon direction of the Assembly by motion, the Manager may commence negotiations for the lease, sale, exchange, or other disposal of City and Borough land."

Given the nature and location of this request, it is not appropriate to solicit competition for this disposal. The applicant will be responsible for all costs associated with the minor subdivision and acquisition of this property including the fair market value of the land and recording fees. Proceeds from this proposed request will be deposited into the Land Fund.

The remaining CBJ property is unlikely to be developed in the near future due to the zoning, topography and distance from municipal sewer. The adjacent CBJ property with road

frontage on Mendenhall Peninsula Road is retained by the CBJ as a future access point to the large parcel adjacent to the applicant's lot.

The CBJ Engineering Department provided a preliminary review of this access point showing that a right-of-way through the CBJ property is possible, but the topography would likely require easements through adjacent properties to provide a full CBJ street. If the Committee and Assembly provide direction to negotiate this disposal, CBJ staff will negotiate terms that do not negatively impact this property as a future ROW access point to the large tracts on the Mendenhall Peninsula.

Staff request that the Lands Housing & Economic Development Committee forward this application to the Assembly with a motion of support for working with the original proposer for the negotiated sale of City property.

Attachments:

1 Mark Sams Land Purchase Application Letter
2 Potential Road Access

ASSEMBLY LANDS HOUSING AND ECONOMIC DEVELOPMENT MINUTES

September 29, 2025 at 5:00 PM
Assembly Chambers/Zoom Webinar

https://juneau.zoom.us/j/94215342992 or 1-253-215-8782 Webinar ID: 942 1534 2992

A. CALL TO ORDER

B. LAND ACKNOWLEDGEMENT

We would like to acknowledge that the City and Borough of Juneau is on Tlingit land and wish to honor the indigenous people of this land. For more than ten thousand years, Alaska Native people have been and continue to be integral to the well-being of our community. We are grateful to be in this place, a part of this community, and to honor the culture, traditions, and resilience of the Tlingit people. Gunalchéesh!

C. ROLL CALL

Members Present: Chair Wade Bryson, Paul Kelly, Ella Adkison, Neil Steininger
Liaisons Present: Paulette Schirmer, PRAC liaison; Lacey Derr, Planning Commission liaison; Jim Becker, Docks & Harbors Board liaison
Liaisons Absent: none
Staff Present: Dan Bleidorn, Lands Manager; John King, Deputy Lands Manager; Roxie Duckworth, Lands and Resources Specialist; Rob Dumouchel, Special Projects Planning Manager

D. APPROVAL OF AGENDA – approved as presented

E. APPROVAL OF MINUTES

1. September 8, 2025 Draft LHED Minutes – approved as presented

F. AGENDA TOPICS

1. Title 49 Rewrite, Phase 1 Wave 2: Reasonable Accommodation, Zoning Maps, and Subdivision on Arterials

Mr. Dumouchel discussed this topic. Ms. Adkison asked about reasonable accommodation and was wondering, since this is for an existing property owner, is there a way for someone who is disabled to reach out to CDD to see if there could be a reasonable accommodation for a property before they purchase it or only once they own it? Mr. Dumouchel replied that he would interpret that this could apply in both cases. The more typical case is if it's already there and you don't want to set people up for failure by getting them into situations where they build a non-conforming unit. Some of the instances you're getting into may end up with a variance where there's a fiscal hardship on the property that forces them into that with a new build. It could be used either way, but it's a case-by-case situation for that individual's barrier to housing.

Ms. Adkison asked if we know why the original code was in place, with the 36,000 square feet. Mr. Dumouchel replied that he thinks some of it may have been concerns about access to the roadway, but this was written 40 years ago, when people's idea of personal space was different and driven by that. You'll see this in older codes, way more space and more micromanagement of these situations. As a town grows and develops, these don't make sense anymore, and so that's what we're attempting to address here.

Mr. Kelly asked about zoning maps and how the director can make changes to the digital map to reflect changes in geography, because that seems potentially be a very consequential decision being made, not in a public process. Is there any sort of public process for the director or a notice at least that needs to be sent out from the director such as "I am making this correction because I have noticed this change," or how does that work? Mr. Dumouchel replied that there is not that process in there, and this is intended for relatively minor changes, not for instances such as you moved 2 acres over and you picked up a huge amount of land, that's a very different situation. This is more if you had a little bit of isostatic rebound and got a couple extra feet on the waterfront that's still the same zone as the property that's attached to it. That's more where we're trying to go. If it were a really significant change, you're back to more of a rezone situation or even some other kind of land subdivision-type movement that requires full public process.

Chair Bryson asked what other cities have done to clean up their codes, are you using other models, can you elaborate a bit more Mr. Dumouchel replied that he's been through this before in other communities, he's worked for the City of Eureka in Northern California, they are also about 30,000 people remote for California, four and a half hours to the next biggest city with mountains, trees, and water. They had a similar deal, a 40-year-old code that wasn't fitting very well. A lot of it was looking at it, cleaning it up, making it streamlined and easier to read. Part of what I'm doing in Phase 1.5 is reorganizing the title. Right now there's 17 top-level articles, and then it goes into all these other pieces, I'm trying to bring that down to about 5 or 6 articles, such as general administration, general provisions, zone districts, and uses, make it easier for a person to grab the pages they need and use. The other big piece is finding these barriers that have been put up over time and deciding if we actually care about those. We've got all these rules, which ones we actually care about, which ones we need to protect, and which ones can we let go that are just creating busy work or making it harder for people to get into housing. Trends also change, what the assembly wants, what the public wants, and what the zone allows. If it's not matching, we have to figure out how to get that back in line. Every city's going to be different with political and building norms and culture, what they want and what they allow. The big pieces are streamlining, plain English, and remove barriers to things that you actually want. Phase one was really big on those items, it was about making sure people could build that ADU, or build multifamily, or a small change they could adjust that in an easier process than what we had before.

No motion for this topic, already moving to the full Assembly.

2. Holm Driveway and Utility Easement Application

Mr. Bleidorn discussed this topic. No additional discussion from the committee members.

Ms. Adkison moved that the Lands, Housing and Economic Development Committee forward this application for an easement to the full assembly with a motion of support. Motion passed unanimously.

3. Sams Request to Purchase City Property

Mr. Bleidorn discussed this topic. No additional discussion from the committee members.

Mr. Steininger moved that the Lands, Housing and Economic Development Committee forward this application to the full assembly with a motion of support for working with the original proposer for the negotiated sale of City property. Motion passed unanimously.

G. STAFF REPORTS – none

H. COMMITTEE MEMBER / LIAISON COMMENTS AND QUESTIONS

- Docks and Harbors Board Update – Mr. Becker provided an update from the last D&H meeting that they are designing a new dock at the current university dock, and it'll come off the stick dock and take a right angle and go down. We are building a new dock where we can take larger vehicles with loads to take care of bigger things that are going to come out of that area. Similar to the one that's in Auke Bay; you can drive down dock. We spend a lot of time discussing the different features, especially since it's going to have a right angle at the top to bring bigger trucks down. The proposed price at this point from the developers is going to be about $13 million.

- Parks and Recreation Advisory Committee (PRAC) Update – no update
- Planning Commission Update – no update

I. NEXT MEETING DATE – November 3, 2025

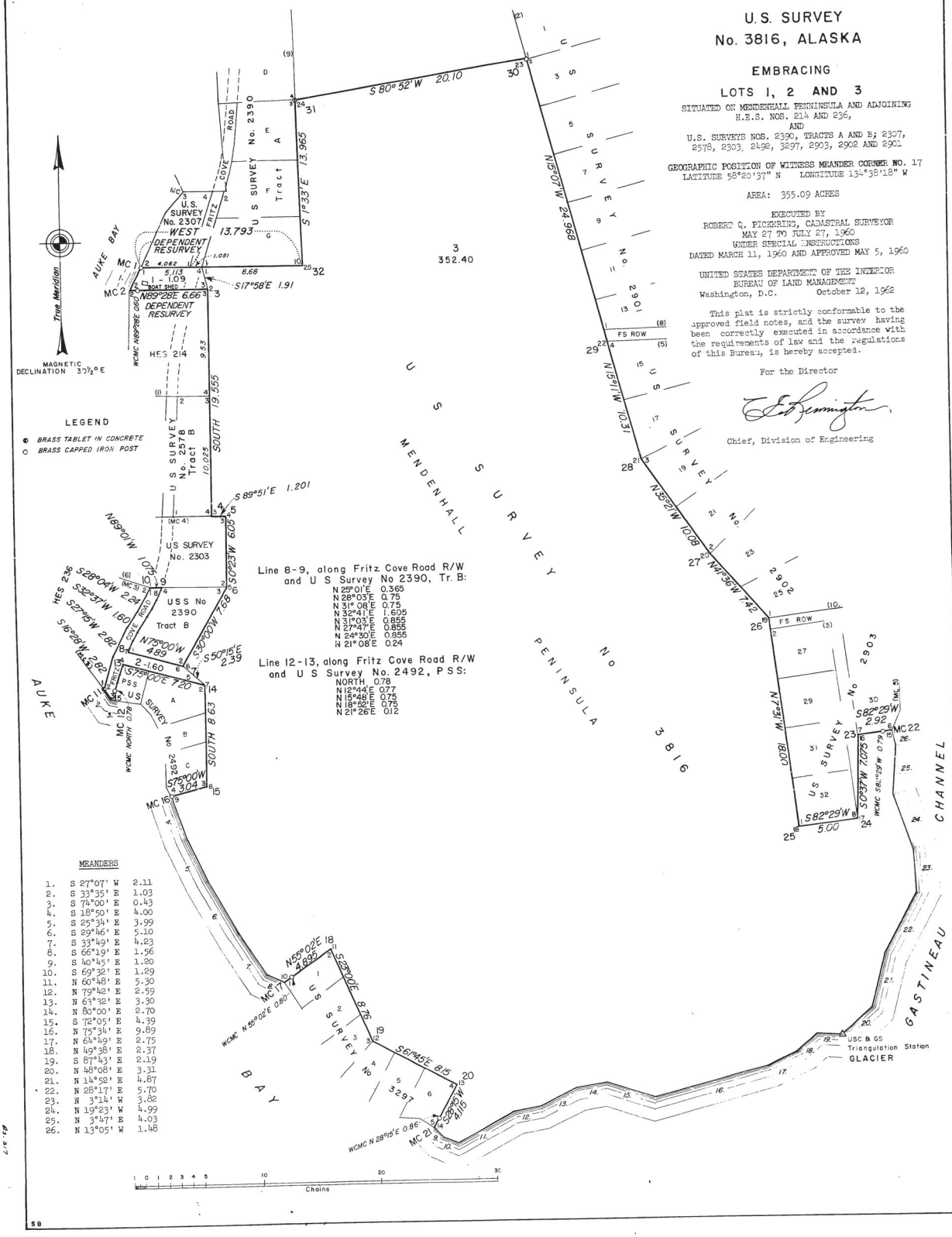
J. SUPPLEMENTAL MATERIALS – none

K. ADJOURNMENT – 5:25pm

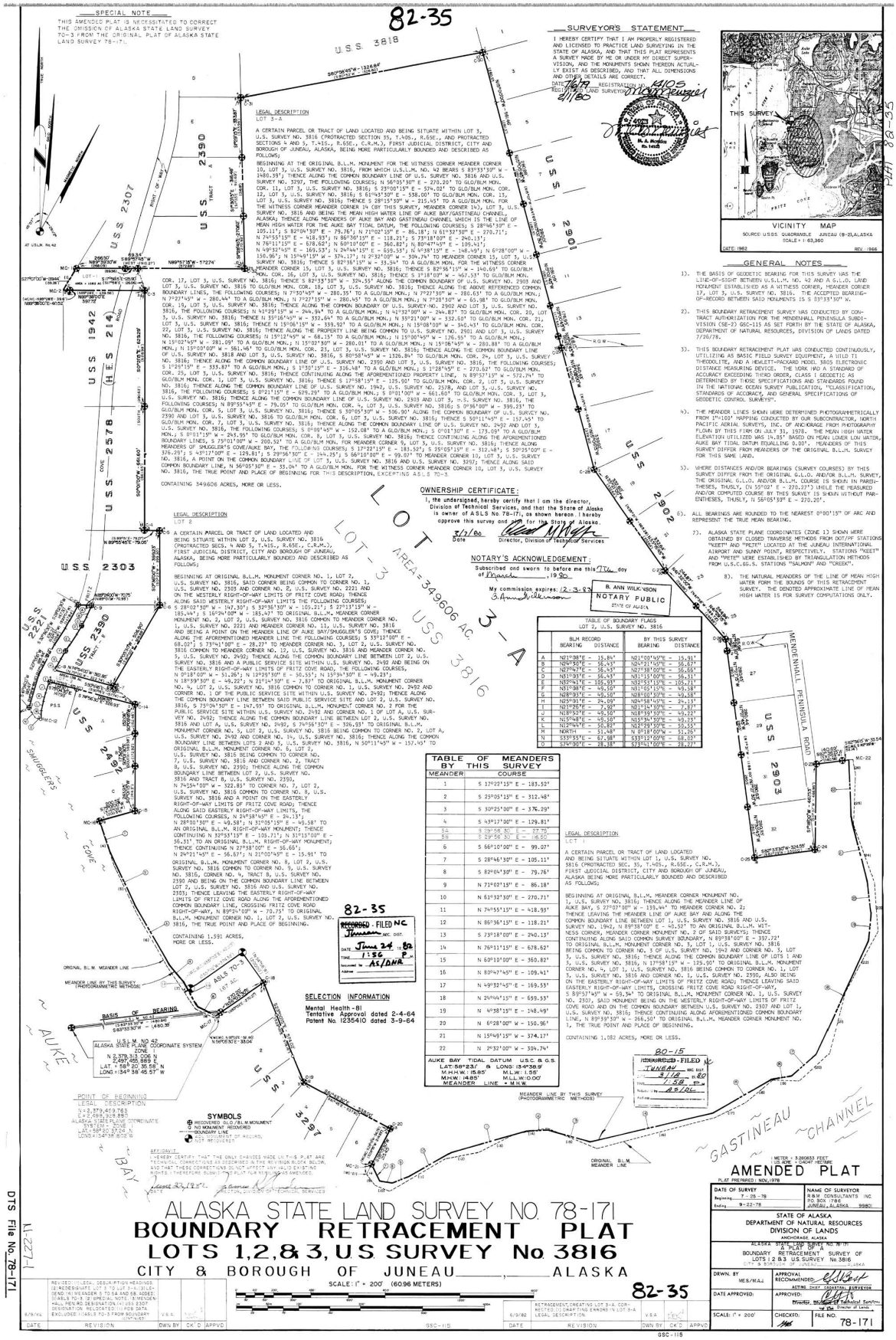
Softree Plan
P:\alan\Mendenhall Peninsular\MP road access for Dan 2025-09-18
Scale 1:1200
P. 1
25/09/18
0+00.0
1+00.0
2+00.0
3+00.0
BC 3+55.6
4+00.0
4+66.8
5+00.0
6+00.0
7+00.0
8+00.0

Clip of www.lasio.com

ORIGINAL



Attachment B – 1962 Plat


82-35
SPECIAL NOTE
THIS AMENDED PLAT IS NECESSITATED TO CORRECT THE OMISSION OF ALASKA STATE LAND SURVEY TO-3 FROM THE ORIGINAL PLAT OF ALASKA STATE LAND SURVEY 78-171.
SURVEYORS STATEMENT
I HEREBY CERTIFY THAT I AM PROPERLY REGISTERED AND LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF ALASKA, AND THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, AND THE MONUMENTS SHOWN THEREON ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONS AND OTHER DETAILS ARE CORRECT.
DATE 7-27-78
REGISTRATION NO. 4105
REGISTERED LAND SURVEYOR
R. A. Robbins
AL 4105
LEGAL DESCRIPTION
LOT 3-A
A CERTAIN PARCEL OR TRACT OF LAND LOCATED AND BEING SITUATE WITHIN LOT 3, U.S. SURVEY NO. 3816 (PROTRACTED SECTION 35, T.40S., R.65E., AND PROTRACTED SECTIONS 4 AND 9, T.41S., R.65E., C.R.M.), FIRST JUDICIAL DISTRICT, CITY AND BOROUGH OF JUNEAU, ALASKA, BEING MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS;
BEGINNING AT THE ORIGINAL B.L.M. MONUMENT FOR THE WITNESS CORNER MEANDER CORNER 10, LOT 3, U.S. SURVEY NO. 3816, FROM WHICH U.S.L.M. NO. 42 BEARS S 83°33'39" W - 1480.39'; THENCE ALONG THE COMMON BOUNDARY LINE OF U.S. SURVEY NO. 3816 AND U.S. SURVEY NO. 3297, THE FOLLOWING COURSES; N 56°05'30" E - 270.20' TO G.L.O./B.L.M. MON. COR. 11, LOT 3, U.S. SURVEY NO. 3816; S 23°00'15" E - 574.02' TO G.L.O./B.L.M. MON. COR. 12, LOT 3, U.S. SURVEY NO. 3816; S 61°47'30" E - 558.00' TO G.L.O./B.L.M. MON. COR. 13, LOT 3, U.S. SURVEY NO. 3816; THENCE S 28°15'30" W - 215.45' TO A G.L.O./B.L.M. MON. FOR THE WITNESS CORNER MEANDER CORNER 14 (BY THIS SURVEY, MEANDER CORNER 14), LOT 3, U.S. SURVEY NO. 3816 AND BEING THE MEAN HIGH WATER LINE OF AUKE BAY/GASTINEAU CHANNEL, ALASKA; THENCE ALONG MEANDERS OF AUKE BAY AND GASTINEAU CHANNEL WHICH IS THE LINE OF MEAN HIGH WATER FOR THE AUKE BAY TIDAL DATUM, THE FOLLOWING COURSES; S 28°46'15" E - 105.11'; S 82°09'30" E - 79.76'; N 71°02'35" E - 86.18'; N 61°32'30" E - 270.71'; N 74°55'15" E - 418.93'; N 86°36'15" E - 118.21'; S 73°18'00" E - 240.13'; N 76°11'15" E - 678.62'; N 60°10'00" E - 360.82'; N 80°47'45" E - 109.41'; N 49°32'45" E - 169.53'; N 24°44'15" E - 659.53'; N 49°38'15" E - 148.49'; N 15°49'15" W - 374.17'; N 2°32'00" W - 304.74' TO MEANDER CORNER 15, LOT 3, U.S. SURVEY NO. 3816; THENCE S 82°36'15" W - 33.54' TO A G.L.O./B.L.M. MON. FOR THE WITNESS CORNER MEANDER CORNER 16, LOT 3, U.S. SURVEY NO. 3816; THENCE S 82°36'15" W - 140.60' TO G.L.O./B.L.M. MON. COR. 16, LOT 3, U.S. SURVEY NO. 3816; THENCE S 1°18'00" W - 467.55' TO G.L.O./B.L.M. MON. COR. 17, LOT 3, U.S. SURVEY NO. 3816; THENCE S 82°33'30" W - 324.55' ALONG THE COMMON BOUNDARY OF U.S. SURVEY NO. 2902 AND LOT 3, U.S. SURVEY NO. 3816 TO G.L.O./B.L.M. MON. COR. 18, LOT 3, U.S. SURVEY NO. 3816; THENCE ALONG THE ABOVE REFERENCED COMMON BOUNDARY LINES, THE FOLLOWING COURSES; N 7°30'45" W - 280.55' TO A G.L.O./B.L.M. MON.; N 7°27'30" W - 280.63' TO A G.L.O./B.L.M. MON.; N 7°27'45" W - 280.44'15"E TO A G.L.O./B.L.M. MON.; N 7°28'30" W - 65.98' TO G.L.O./B.L.M. MON. COR. 19, LOT 3, U.S. SURVEY NO. 3816; THENCE ALONG THE COMMON BOUNDARY OF U.S. SURVEY NO. 2902 AND LOT 3, U.S. SURVEY NO. 3816, THE FOLLOWING COURSES; N 11°29'15" W - 294.94' TO A G.L.O./B.L.M. MON.; N 11°32'00" W - 294.87' TO G.L.O./B.L.M. MON. COR. 20, LOT 3, U.S. SURVEY NO. 3816; THENCE N 35°16'45" W - 332.64' TO A G.L.O./B.L.M. MON.; N 35°21'00" W - 332.60' TO G.L.O./B.L.M. MON. COR. 21, LOT 3, U.S. SURVEY NO. 3816; THENCE N 15°08'15" W - 339.92' TO A G.L.O./B.L.M. MON.; N 15°08'00" W - 340.45' TO G.L.O./B.L.M. MON. COR. 22, LOT 3, U.S. SURVEY NO. 3816; THENCE ALONG THE PROPERTY LINE BEING COMMON TO U.S. SURVEY NO. 2901 AND LOT 3, U.S. SURVEY NO. 3816, THE FOLLOWING COURSES; N 15°12'45" W - 68.15' TO A G.L.O./B.L.M. MON.; N 15°00'45" W - 176.95' TO A G.L.O./B.L.M. MON.; N 15°02'45" W - 281.09' TO A G.L.O./B.L.M. MON.; N 15°08'45" W - 280.88' TO A G.L.O./B.L.M. MON.; N 15°08'00" W - 561.46' TO G.L.O./B.L.M. MON. COR. 23, LOT 3, U.S. SURVEY NO. 3816; THENCE ALONG THE COMMON BOUNDARY LINE OF U.S. SURVEY NO. 3818 AND LOT 3, U.S. SURVEY NO. 3816, S 80°38'45" W - 1326.84' TO G.L.O./B.L.M. MON. COR. 24, LOT 3, U.S. SURVEY NO. 3816; THENCE ALONG THE COMMON BOUNDARY LINE OF U.S. SURVEY NO. 2390 AND LOT 3, U.S. SURVEY NO. 3816, THE FOLLOWING COURSES; S 1°29'15" E - 333.87' TO A G.L.O./B.L.M. MON.; S 1°35'15" E - 316.48' TO A G.L.O./B.L.M. MON.; S 1°28'45" E - 270.62' TO G.L.O./B.L.M. MON. COR. 25, LOT 3, U.S. SURVEY NO. 3816; THENCE CONTINUING ALONG THE AFOREMENTIONED PROPERTY LINE, N 89°57'15" W - 572.74' TO G.L.O./B.L.M. MON. COR. 1, LOT 3, U.S. SURVEY NO. 3816; THENCE S 17°58'15" E - 125.00' TO G.L.O./B.L.M. MON. COR. 2, LOT 3, U.S. SURVEY NO. 3816; THENCE ALONG THE COMMON BOUNDARY LINE OF U.S. SURVEY NO. 1942, U.S. SURVEY NO. 2378, AND LOT 3, U.S. SURVEY NO. 3816, THE FOLLOWING COURSES; S 0°21'15" E - 629.25' TO A G.L.O./B.L.M. MON.; S 0°01'00" W - 661.60' TO G.L.O./B.L.M. MON. COR. 3, LOT 3, U.S. SURVEY NO. 3816; THENCE ALONG THE COMMON BOUNDARY LINE OF U.S. SURVEY NO. 2303 AND LOT 3, U.S. SURVEY NO. 3816, THE FOLLOWING COURSES; N 89°53'45" E - 79.05' TO G.L.O./B.L.M. MON. COR. 4, LOT 3, U.S. SURVEY NO. 3816; S 0°36'00" W - 396.23' TO G.L.O./B.L.M. MON. COR. 5, LOT 3, U.S. SURVEY NO. 3816; THENCE S 50°05'30" W - 506.90' ALONG THE COMMON BOUNDARY OF U.S. SURVEY NO. 2390 AND LOT 3, U.S. SURVEY NO. 3816 TO G.L.O./B.L.M. MON. COR. 6, LOT 3, U.S. SURVEY NO. 3816; THENCE S 50°15'45" E - 157.45' TO G.L.O./B.L.M. MON. COR. 7, LOT 3, U.S. SURVEY NO. 3816; THENCE ALONG THE COMMON BOUNDARY LINE OF U.S. SURVEY NO. 2492 AND LOT 3, U.S. SURVEY NO. 3816, THE FOLLOWING COURSES; S 0°01'45" W - 152.08' TO A G.L.O./B.L.M. MON.; S 0°01'15" W - 243.95' TO G.L.O./B.L.M. MON. COR. 8, LOT 3, U.S. SURVEY NO. 3816; THENCE CONTINUING ALONG THE AFOREMENTIONED BOUNDARY LINES, S 75°01'00" W - 200.50' TO A G.L.O./B.L.M. MON. FOR MEANDER CORNER 9, LOT 3, U.S. SURVEY NO. 3816; THENCE ALONG MEANDERS OF SMUGGLER'S COVE/AUKE BAY, THE FOLLOWING COURSES; S 17°22'15" E - 183.52'; S 25°05'15" E - 312.48'; S 30°25'00" E - 376.25'; S 43°17'00" E - 129.81'; S 29°56'30" E - 144.25'; S 66°10'00" E - 99.07' TO MEANDER CORNER 10, LOT 3, U.S. SURVEY NO. 3816, A POINT ON THE COMMON BOUNDARY LINE OF LOT 3, U.S. SURVEY NO. 3816 AND U.S. SURVEY NO. 3297; THENCE ALONG SAID COMMON BOUNDARY LINE, N 56°05'30" E - 33.04' TO A G.L.O./B.L.M. MON. FOR THE WITNESS CORNER MEANDER CORNER 10, LOT 3, U.S. SURVEY NO. 3816, THE TRUE POINT AND PLACE OF BEGINNING FOR THIS DESCRIPTION, EXCEPTING A.B.L.S. 70-3.
CONTAINING 349606 ACRES, MORE OR LESS.
LOT - 3 AREA = 349606 AC. 3 - A
U.S.S. 3816
OWNERSHIP CERTIFICATE:
I, the undersigned, hereby certify that I am the director, Division of Technical Services, and that the State of Alaska is owner of A.S.L.S No 78-171, as shown hereon. I hereby approve this survey and map for the State of Alaska.
3/1/80 Date
Director, Division of Technical Services
NOTARY'S ACKNOWLEDGEMENT:
Subscribed and sworn to before me this 7th day of March, 1980
My commission expires: 12-3-83
B. ANN WILKINSON NOTARY PUBLIC STATE OF ALASKA
VICINITY MAP
SOURCE: U.S.G.S. QUADRANGLE JUNEAU (B-2), ALASKA
SCALE = 1:63,360
DATE: 1962 REV.: 1966
GENERAL NOTES
1). THE BASIS OF GEODETIC BEARING FOR THIS SURVEY WAS THE LINE-OF-SIGHT BETWEEN U.S.L.M. NO. 42 AND A G.L.O. LAND MONUMENT ESTABLISHED AS A WITNESS CORNER, MEANDER CORNER 17, LOT 3, U.S. SURVEY NO. 3816. THE ACCEPTED BEARING-OF-RECORD BETWEEN SAID MONUMENTS IS S 83°33'39" W.
2). THIS BOUNDARY RETRACEMENT SURVEY WAS CONDUCTED BY CONTRACT AUTHORIZATION FOR THE MENDENHALL PENINSULA SUBDIVISION (SE-2) SDC-115 AS SET FORTH BY THE STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES, DIVISION OF LANDS DATED 7/26/78.
3). THIS BOUNDARY RETRACEMENT PLAT WAS CONDUCTED CONTINUOUSLY, UTILIZING AS BASIC FIELD SURVEY EQUIPMENT, A WILD T1 THEODOLITE, AND A HEWLETT-PACKARD MODEL 3805 ELECTRONIC DISTANCE MEASURING DEVICE. THE YORK (NO.4 STANDARD OF ACCURACY EXCEEDING THIRD ORDER, CLASS I GEODETIC AS DETERMINED BY THOSE SPECIFICATIONS AND STANDARDS FOUND IN THE NATIONAL OCEANIC SURVEY PUBLICATION, "CLASSIFICATION, STANDARDS OF ACCURACY, AND GENERAL SPECIFICATIONS OF GEODETIC CONTROL SURVEYS".
4). THE MEANDER LINES SHOWN WERE DETERMINED PHOTOGRAMMETRICALLY FROM 1"=100' MAPPING CONDUCTED BY OUR SUBCONTRACTOR, NORTH PACIFIC AERIAL SURVEYS, INC. OF ANCHORAGE FROM PHOTOGRAPHY FLOWN BY THEM DURING JULY 31, 1978. THE MEAN HIGH WATER ELEVATION UTILIZED WAS 14.85' BASED ON MEAN LOWER LOW WATER, AUKE BAY TIDAL DATUM EQUALLING 0.00'. MEANDERS OF THIS SURVEY DIFFER FROM MEANDERS OF THE ORIGINAL B.L.M. SURVEY FOR THIS SAME LAND.
5). WHERE DISTANCES AND/OR BEARINGS (SURVEY COURSES) BY THIS SURVEY DIFFER FROM THE ORIGINAL G.L.O. AND/OR B.L.M. SURVEY, THE ORIGINAL G.L.O. AND/OR B.L.M. COURSE IS SHOWN IN PARENTHESES, THUSLY, (N 55°02' E - 270.27') WHILE THE MEASURED AND/OR COMPUTED COURSE BY THIS SURVEY IS SHOWN WITHOUT PARENTHESES, THUSLY, N 56°05'30" E - 270.20'.
6). ALL BEARINGS ARE ROUNDED TO THE NEAREST 0°00'15" OF ARC AND REPRESENT THE TRUE MEAN BEARING.
7). ALASKA STATE PLANE COORDINATES (ZONE 1) SHOWN WERE OBTAINED BY CLOSED TRAVERSE METHODS FROM DOT/PF STATIONS "KEET" AND "PETE" LOCATED AT THE JUNEAU INTERNATIONAL AIRPORT AND SUNNY POINT, RESPECTIVELY. STATIONS "KEET" AND "PETE" WERE ESTABLISHED BY TRIANGULATION METHODS FROM U.S.C.&G.S. STATIONS "SALMON" AND "CREEK".
8). THE NATURAL MEANDERS OF THE LINE OF MEAN HIGH WATER FORM THE BOUNDS OF THIS RETRACEMENT SURVEY. THE DENOTED APPROXIMATE LINE OF MEAN HIGH WATER IS FOR SURVEY COMPUTATIONS ONLY.
TABLE OF BOUNDARY FLAGS LOT 2, U.S. SURVEY NO. 3816

	BLM RECORD BEARING	BLM RECORD DISTANCE	BY THIS SURVEY BEARING	BY THIS SURVEY DISTANCE
A	N21°28'E	15.84'	N21°00'45"E	15.91'
B	N24°45'E	56.43'	N24°21'45"E	56.67'
C	N27°47'E	56.43'	N27°58'00"E	56.66'
D	N31°28'E	56.43'	N31°15'00"E	56.31'
E	N32°41'E	105.93'	N32°51'15"E	105.71'
F	N31°28'E	49.58'	N31°05'15"E	49.58'
G	N28°01'E	49.58'	N28°00'30"E	49.58'
H	N25°01'E	24.09'	N24°58'45"E	24.13'
J	N18°52'E	7.89'	N21°04'15"E	7.81'
U	N18°52'E	49.58'	N18°59'30"E	49.22'
K	N15°58'E	49.58'	N15°55'30"E	49.23'
L	N12°41'E	50.82'	N12°29'30"E	50.55'
M	NORTH	51.48'	N 0°18'00"W	51.05'
N	S33°55'E	67.98'	S33°12'00"E	68.03'
O	S74°00'E	28.38'	S73°41'00"E	28.27'

TABLE OF MEANDERS BY THIS SURVEY

MEANDER	COURSE
1	S 17°22'15" E - 183.52'
2	S 25°05'15" E - 312.48'
3	S 30°25'00" E - 376.29'
4	S 43°17'00" E - 129.81'
5A	S 09°58'30" E - 77.75'
5B	S 29°56'30" E - 66.50'
6	S 66°10'00" E - 99.07'
7	S 28°46'30" E - 105.11'
8	S 82°09'30" E - 79.76'
9	N 71°02'35" E - 86.18'
10	N 61°32'30" E - 270.71'
11	N 74°55'15" E - 418.93'
12	N 86°36'15" E - 118.21'
13	S 73°18'00" E - 240.13'
14	N 76°11'15" E - 678.62'
15	N 60°10'00" E - 360.82'
16	N 80°47'45" E - 109.41'
17	N 49°32'45" E - 169.53'
18	N 24°44'15" E - 659.53'
19	N 49°38'15" E - 148.49'
20	N 60°28'00" W - 150.96'
21	N 15°49'15" W - 374.17'
22	N 2°32'00" W - 304.74'

AUKE BAY TIDAL DATUM U.S.C. & G.S. LAT: 58°23.1' & LONG: 134°38.9' M.H.H.W.: 15.85' M.L.W.: 1.55' M.H.W.: 14.85' M.L.L.W.: 0.00' MEANDER LINE = M.H.W.
LEGAL DESCRIPTION LOT 1
A CERTAIN PARCEL OR TRACT OF LAND LOCATED AND BEING SITUATE WITHIN LOT 1, U.S. SURVEY NO. 3816 (PROTRACTED SEC. 35, T.40S., R.65E., C.R.M.), FIRST JUDICIAL DISTRICT, CITY AND BOROUGH OF JUNEAU, ALASKA BEING MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS;
BEGINNING AT ORIGINAL B.L.M. MEANDER CORNER MONUMENT NO. 1, U.S. SURVEY NO. 3816; THENCE ALONG THE MEANDER LINE OF AUKE BAY, S 27°02'00" W - 139.44' TO MEANDER CORNER NO. 2; THENCE LEAVING THE MEANDER LINE OF AUKE BAY AND ALONG THE COMMON BOUNDARY LINE BETWEEN LOT 1, U.S. SURVEY NO. 3816 AND U.S. SURVEY NO. 1942, N 89°38'00" E - 40.50' TO AN ORIGINAL B.L.M. WITNESS CORNER, MEANDER CORNER MONUMENT NO. 2 OF SAID SURVEY; THENCE CONTINUING ALONG SAID COMMON SURVEY BOUNDARY, N 89°38'00" E - 397.72' TO ORIGINAL B.L.M. MONUMENT CORNER NO. 3, LOT 1, U.S. SURVEY NO. 3816 BEING COMMON TO CORNER NO. 3 OF U.S. SURVEY NO. 1942 AND CORNER NO. 3, LOT 3, U.S. SURVEY NO. 3816; THENCE ALONG THE COMMON BOUNDARY LINE OF LOTS 1 AND 3, U.S. SURVEY NO. 3816, N 17°58'15" W - 125.00' TO ORIGINAL B.L.M. MONUMENT CORNER NO. 4, LOT 1, U.S. SURVEY NO. 3816 BEING COMMON TO CORNER NO. 1, LOT 3, U.S. SURVEY NO. 3816 AND CORNER NO. 1, U.S. SURVEY NO. 2590, ALSO BEING ON THE EASTERLY RIGHT-OF-WAY LINE OF FRITZ COVE ROAD; THENCE LEAVING SAID EASTERLY RIGHT-OF-WAY LIMITS, CROSSING FRITZ COVE ROAD RIGHT-OF-WAY, S 89°57'45" W - 59.54' TO ORIGINAL B.L.M. MONUMENT CORNER NO. 1, U.S. SURVEY NO. 2307, SAID MONUMENT BEING ON THE WESTERLY RIGHT-OF-WAY LIMITS OF FRITZ COVE ROAD AND ON THE COMMON BOUNDARY BETWEEN U.S. SURVEY NO. 2307 AND LOT 1, U.S. SURVEY NO. 3816; THENCE CONTINUING ALONG AFOREMENTIONED COMMON BOUNDARY LINE, N 89°33'30" W - 266.30' TO ORIGINAL B.L.M. MEANDER CORNER MONUMENT NO. 1, THE TRUE POINT AND PLACE OF BEGINNING.
CONTAINING 1.082 ACRES, MORE OR LESS.
80-15
RECORDED - FILED JUNEAU REC. DIST. DATE June 12, 1980 TIME 1:58 P.M. Recorded in Book 80/12L
82-35
RECORDED - FILED NC REC. DIST. DATE June 24, 1982 TIME 1:56 P.M. Recorded in Book AS/DNR Address
SELECTION INFORMATION
Mental Health - BI
Tentative Approval dated 2-4-64
Patent No. 1235410 dated 3-9-64
U.S.L.M. NO 42 ALASKA STATE PLANE COORDINATE SYSTEM ZONE 1 N 2,379,343.506 N E 2,069,405.889 E LAT.= 58° 20' 35.58" N LONG.= 134° 38' 46.57" W
POINT OF BEGINNING LEGAL DESCRIPTION N = 2,379,469.763 E = 2,069,328.883 ALASKA STATE PLANE COORDINATE SYSTEM - ZONE 1 LAT.= 58° 20' 37.04" N LONG.= 134° 38' 50.6" W
SYMBOLS
RECOVERED G.L.O./B.L.M. MONUMENT
NO MONUMENT RECOVERED
BOUNDARY LINE
RECOVERED POINT OF RECORD, NOT RECOVERED
BASIS OF BEARING
MEANDER LINE BY THIS SURVEY (PHOTOGRAMMETRIC METHODS)
ORIGINAL B.L.M. MEANDER LINE
ORIGINAL B.L.M. MEANDER LINE
METER = 3.280833 FEET
U.S. SURVEY FOOT
AMENDED PLAT
PLAT PREPARED NOV., 1978
DATE OF SURVEY Beginning 7-25-78 Ending 9-22-78
NAME OF SURVEYOR R&M CONSULTANTS INC PO BOX 7-746 JUNEAU, ALASKA 99802
STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES DIVISION OF LANDS ANCHORAGE, ALASKA
ALASKA STATE LAND SURVEY NO. 78-171
A PLAT OF A BOUNDARY RETRACEMENT SURVEY OF LOTS 1 2 & 3 U.S. SURVEY No. 3816 CITY & BOROUGH OF JUNEAU, ALASKA
DRWN. BY MES/MAJ
APPROVAL RECOMMENDED
ACTING CHIEF, COASTAL SURVEYOR
DATE APPROVED:
APPROVED: Director, Division of Technical Services or his Director of Lands
SCALE: 1" = 200'
CHECKED:
FILE NO. 78-171
ALASKA STATE LAND SURVEY NO. 78-171
BOUNDARY RETRACEMENT PLAT
LOTS 1,2,& 3, U.S. SURVEY No 3816
CITY & BOROUGH OF JUNEAU, ALASKA
SCALE: 1" = 200' (60.96 METERS)
82-35
REVISED TO LEGAL DESCRIPTION HEADINGS, (2) ACCESSORIZE LOT 2 TO LOT 3-A, (3) DELEND (4) MEANDER 5 TO 5A AND 5B, ADDED, (5) ALS 70-3, (6) SPECIAL NOTE, (7) MENDENHALL PENINSULA SUBDIVISION (SE-2) SDC-115 DESIGNATION, RELOCATED (1) FOR DATA, EXCLUDED (1) ALS 70-3 FROM BOUNDARY CONTROL 8/9/96 V.S.A. DATE REVISION DWN. BY CK'D APPV'D GSC-115
RETRACEMENT CREATING LOT 3-A, CORRECTED (1) DRAFTING ERRORS IN LOT 3-A LEGAL DESCRIPTION 6/9/82 V.S.A. DATE REVISION DWN. BY CK'D APPV'D GSC-115
DTS File No. 78-171
I-1227

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
COMMUNITY DEVELOPMENT

(907) 586-0715
CDD_Admin@juneau.org
www.juneau.org/community-development
155 S. Seward Street • Juneau, AK 99801

COMMUNITY DEVELOPMENT DEPARTMENT - REQUEST FOR AGENCY COMMENT

DEPARTMENT: Building Division - CDD

STAFF PERSON/TITLE: Jeff Hedges - Building Official

DATE: 11/17/2025

APPLICANT: Mark Sams

TYPE OF APPLICATION: Property Acquisition and Disposal Review Application

PROJECT DESCRIPTION:

Applicant submitted an application to purchase up to one acre of CBJ-owned land adjacent to his property at 1110 Mendenhall Peninsula Road. The applicant states that the requested property will be used to construct an addition to his existing home.

LEGAL DESCRIPTION: Lot 25D, USS 2902 (Sams) / Lot 3A, ASLS 78-171 (CBJ)

PARCEL NUMBER(S): 4B1901010091 (Sams) / 4B1901070010 (CBJ)

PHYSICAL ADDRESS: TBD Mendenhall Peninsula Rd

SPECIFIC QUESTIONS FROM PLANNER:

N/A

AGENCY COMMENTS:

Building Division has no comments or concerns about this land disposal at this time.

From: Helen Clough <hcloughak@gmail.com>
Sent: Monday, December 22, 2025 2:22 PM
To: Justin Smith
Subject: Mendenhall Peninsula Road property disposal

Follow Up Flag: Follow up
Flag Status: Completed

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Justin

Looked up the info on line. How much will the land be sold for if the disposal is approved? How is/was the price set?

Helen Clough
1765 Mendenhall Peninsula Road
907 321 4004

From: Donna Meiners <donnajmeiners@gmail.com>
Sent: Sunday, January 4, 2026 9:10 PM
To: Justin Smith; PC_Comments
Subject: Comments re:case no.:PAD2025 0001 Parcel No.: 4B1901070010

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

I would like to register my comments on the "Proposed Property Disposal Review on Mendenhall Peninsula Road". My property address is 1120 Mendenhall Peninsula Road, which, along with Mark Sams' property connect 3 properties that share driveway access from Mendenhall Peninsula Road.

1. I was not aware of this project until I received the CBJ postcard "Invitation to Comment" on 12/23/25. This project was proposed last September and I am shocked to find it is about to be finalized without any consideration for my connecting property.
2. I oppose this request by Mark Sams to purchase 1 acre of as yet un-platted CBJ land above our properties so that he can add on to his current dwelling. His current "care taker" home and boat condo have a footprint that is 960 sq. ft. His lot is 40,560 sq. ft. so it is hard to fathom his argument for insufficient land as justification for this purchase request.
3. I know the City has land use and affordable housing plans and if this land is opened to purchase, one and all should be able to participate.
4. The initial requirement for selling this land should be to develop the road access from this land down to Mendenhall Peninsula Road. How can any of this land be sold without this?
5. I also protest this sale because the Sams' current lot has had no drainage plan or system in place. My property is below Sams' and is affected.

An assessment of drainage should be done for every lot proposed at this elevation.
I would very much like to present my concerns in person and protest the lack of transparency and participation of all stakeholders in this land transaction.
Please stop this sale.
Thank you,
Donna Meiners
donnajmeiners@gmail.com
(907) 575-3393

Sent from my iPhone

Additional Materials

Regular Planning Commission Meeting

Assembly Chambers
6:00pm
Meeting Date: January 27, 2026

---

1. **PAD2025 0001:**
   a. Public comment: Dennis Wink, received 1/13/26.
   b. Public comment: Terri Fagerstrom, received 1/6/26.
   c. Public comment: Donna Meiners, received 1/4/26.
   d. Public comment: Herman M. Meiners Jr., received 1/12/26.
   e. Public comment: Kristen Munk, received 1/23/26.
   f. Public comment: Rosemary, Matt & Paul Sargent, received 1/21/26.

2. **USE2025 0012: Post Public Notice Director determined a Conditional Use Permit was not required for this type of use.**
   a. Public comment: Peggy Barnhill, received 1/20/26.
   b. Public comment: Michael Neussl, received 12/26/25.
   c. Public comment: Rob Morgenthaler, received 1/5/26.
   d. Public comment: Scott Carson, received 12/20/25.
   e. Public comment: Beth McKibben, received 1/5/26.

From: dennis wink <da.wink@live.com>
Sent: Tuesday, January 13, 2026 6:45 AM
To: Justin Smith
Subject: Case No.: PAD2025 0001

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Good Morning Justin:
I spoke with you last week about the above case.
My home is 1101 Mendenhall Peninsula Rd, but I am a snowbird in AZ. That is why I didn't receive your "Invitation to Comment" until last week.
I am on City water, but I also have a water well (since 1980).
I object to the Sam's purchase of more land uphill from me for reasons of…drainage, well contamination and because I am not next to that CBJ land, I cannot purchase any of it.

Regards
Dennis Wink
Sent from my iPhone

From: Darin Fagerstrom
To: PC_Comments
Cc: Justin Smith
Subject: PAD2025 0001 Purchase of Approximately one (1) Acre of CBJ owned land
Date: Tuesday, January 6, 2026 12:06:50 PM

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

I'm writing to comment on the proposal for an increase in property size to the lot directly above our existing lot and express my concerns with this proposal. 30 plus years ago, in 1992, we purchased property at 1105 Mendenhall Peninsula Road; we purchased a secluded, heavily forested, Rural Reserve (RR) designated lot with two small dwellings on it with the understanding that this designation would limit the number of units allowed to be built near our property. In the past 10 years, we've witnessed CBJ repeatedly allow "exceptions" to this designation on Mendenhall Peninsula Road peninsula area without any notification, input, or seemingly consideration to the adjacent property owners. There have been 3 additional homes already built on and next to the property in question by this proposal. Now there is this request to allow an additional expansion with of a "caretaker" structure already on the property, with, if I am reading this correctly, allowance to build other additional dwellings in the future. The lot next to us was undersized for building, according to the RR designation, but CBJ allowed one of the larger homes in our "neighborhood" to be built there, with reduced setbacks no less; this resulted in a new large, multi-story home built parallel to our existing house, with even less of a setback than we ever anticipated possible. The lot was also clearcut. This development decreased our CBJ assessed property value that year (something we had no control over and received no compensation for) and a completely destroyed all privacy or seclusion on our property. A decision made to benefit one property owner without any consideration to the negative impact to the surrounding properties. We used to step out our front door and see forest; we now can see 6-7 houses. We now live in a neighborhood, totally disregarding the RR designation which evidently CBJ has already changed from RR to D-1 on some lots on the Peninsula. A proposal to make this area even more housing dense by allowing additional building is a huge concern. Especially when it seems CBJ had a history of making decisions based on benefit to individual properties without looking at the overall effects to the Peninsula as a whole.

In addition to the permanent alterations already allowed by CBJ to our property designation, this area is not on city sewer. With the increase of dwellings already allowed in this small area (really affecting 3-4 existing lots) on Mendenhall Peninsula Road, there has been an increase of ground water. On our lot, which is directly below the property in question and abuts a Wildlife refuse; we have already seen evidence of more runoff and more saturated ground in the last several years than we ever experienced in the prior years. Has CBJ conducted any ground water saturation impact studies before approving expansion of and allowing for more drain fields to be built? The drainage ditches along the road are often filled to capacity and ill maintained as it is. This is also a concern to us.

For these reasons, I do not think that allowing for an additional acre of land to be added to a personal property is a well thought out plan.

Thank you for your consideration

Terri Fagerstrom
1105 Mendenhall Peninsula Road
Juneau, AK

From: Donna Meiners
To: Justin Smith; PC_Comments
Subject: Comments re:case no.:PAD2025 0001 Parcel No.: 4B1901070010
Date: Sunday, January 4, 2026 9:10:20 PM

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

I would like to register my comments on the "Proposed Property Disposal Review on Mendenhall Peninsula Road". My property address is 1120 Mendenhall Peninsula Road, which, along with Mark Sams' property connect 3 properties that share driveway access from Mendenhall Peninsula Road.

1. I was not aware of this project until I received the CBJ postcard "Invitation to Comment" on 12/23/25. This project was proposed last September and I am shocked to find it is about to be finalized without any consideration for my connecting property.
2. I oppose this request by Mark Sams to purchase 1 acre of as yet un-platted CBJ land above our properties so that he can add on to his current dwelling. His current "care taker" home and boat condo have a footprint that is 960 sq. ft. His lot is 40,560 sq. ft. so it is hard to fathom his argument for insufficient land as justification for this purchase request.
3. I know the City has land use and affordable housing plans and if this land is opened to purchase, one and all should be able to participate.
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An assessment of drainage should be done for every lot proposed at this elevation.
I would very much like to present my concerns in person and protest the lack of transparency and participation of all stakeholders in this land transaction.
Please stop this sale.
Thank you,
Donna Meiners
donnajmeiners@gmail.com
(907) 575-3393

Sent from my iPhone

From: Justin Smith
To: mac meiners
Cc: PC_Comments
Subject: RE: Property disposal Lot 25D Mendenhall Peninsula Road
Date: Monday, January 12, 2026 11:56:33 AM

Hello,

Thank you for submitting your comments regarding the Proposed Property Disposal Review on Mendenhall Peninsula Road. I have received your email, and your comments will be provided to the Planning Commission for their consideration.

You are also welcome to provide testimony when the case is heard by the Planning Commission on January 27, 2026, at 6:00 p.m. The meeting will be held in a hybrid format, allowing for both in-person and virtual participation.

Please let me know if you have any questions about the meeting process or how to participate.

Thank you for taking the time to share your concerns.

Justin Smith | Planner I
Community Development Department │ City & Borough of Juneau, AK
Location: 230 S. Franklin Street, 4th Floor Marine View Building
Office: 907.586.0753 ext. 4129

Fostering excellence in development for this generation and the next.

-----Original Message-----
From: mac meiners <macmeiners@gmail.com>
Sent: Monday, January 12, 2026 10:49 AM
To: Justin Smith <justin.smith@juneau.gov>
Subject: Property disposal Lot 25D Mendenhall Peninsula Road

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Justin Smith
These comments hopefully gets passed on to the Planning Commission. I purchased my Lot 25E in the spring of 2018 and permitted and began construction of my current house. I worked constitution for many years in the Juneau area, the interior above the Yukon River and the North Slope I spent Eight Years above the Yukon and Prudoe Bay which include many projects that were preformed in the winter which I worked year around.I invested in Land in Juneau in the mid 1970's and was involved in land in the airport area which we filled and later sold and have over the years have had several house that my family has lived in.When I purchased Lot 25E which has a Driveway Platted that accesses Lot 25D The Owner felt he would not use his land and put in a crude path thru my property which I lost thru adverse posession this happened many years before I bought my lot the previous 0wner did not get any permits for the work he did to build a pad and cut the trees and did not get the proper drainage achieved and he created flooding that spilled over the the next lot and also my lot and still to this day there is drainage problems I spent a considerable amount of time and money to make sure that my lot had the right material and drained properly and there are still issues that the upper lot 25D still has not been corrected to achieve proper drainage.
The access that was created from the the upper lot by not using the plotted drive way has used up a swath of my lot ,I have lost 90' by 30' of easement that I can no longer use. Lot 25D has considerable amount of land that is useable but the owner does not want to use his available land for some reason I cannot figure out.When I first looked at the lots I asked the previous owner if he would sell but said he wanted build a house he had filled the lot and plotted a large house on the lot on Southside and had contacted Peak Construction to design and build his dream home.I have walked the property and saw a view lot that was amazing ready to go so I had Peak build my house and they thought it was great to be able to build two house close together.The owner backed out of his house build for

reasons I am not sure,could of been when applying for permits he was denied

Having knowledge of the lot above me I was uncertain why Mr.Samms did not build his home where he had a great veiw and plenty of land to use In stead he built a care takers residence for his boat to be housed. Its all how you word things that can get by the rules. This is not commercial property where a large garage shop with living quarters is permitable.I am sorry that he made that costly error but he is a licensed professional and should of had better planning for the future.Lets talk about his sewer placement which was put right close by to the edge of my property line and in line with my front door, the drainage is bad and after last summer I thought I smelled sewer gas and notice gray water. If he is allowed to gain access to more property directly above me it only increases the drainage upon my property and likely in the future more drainage from his sewer outfall.

I feel that by allowing Lot 25D access to more property when he has enough Land to build another house on his land which he has plenty of room to use but if this happens I would like him to put his Driveway in so that I am not burdened by the construction activity like heavy truck traffic on my property that will help weaken my in place easement and will not get repaired.There should be a drainage study and a strict policy in place so the down hill lots are not effected in any way.

I also feel that it is unfair to me and everyone who has lot on the down hill side of the 240 acress.We cannot have access to any of the land above me unless It borders the 240 acres.I would like several thing to happen but probably will not.Move the sewer where it does not drain directly above my house.Put in the driveway that is plotted and drain it properly and use his property that is his to the fullest so it can be utilized.Drain his property lines so that border lot 25D. The Mendenhall Peninsula Has both a Drainage problem and low water pressure So the higher up you go the less pressure there is.That must be taken in consideration .

In closing I would ask that he be denied his request

Thank you

Herman M. Meiners Jr.
1120 Mendenhall Peninsula Road
1/12 /2026
907-321-5807
macmeiners@gmail.com

CBJ-Planning Commission
155 Heritage St.
Juneau, AK 99801

January 22, 2026

Re: PAD2025-0001

Dear Planning Commission,

I have concerns regarding the CBJs interest in disposing of the identified 1a of land for the purpose of expanding an existing home's footprint with a "24'x40' addition to his existing home with an attached deck" ("Addition"), which is the equivalent of a '2BR 2BA' home presumably with a carport under the deck. I list several of these concerns below.

A full acre seems hardly required to build an "Addition". Would not a variance for the existing property work better?

What limitations would the CBJ impose on the Applicant on future expansions or subdivisions of this one acre beyond the stated "Addition"?

The property in question is one of 3 large homes that utilize one driveway, at an 'active and constricted' bend in the road (Pictures 1 and 2). The "Addition" and future additions to the "Addition" might add to the traffic burden at this bend.

The area in question is already higher density than other areas on Mendenhall Peninsula Rd (MPR), and where previous inquiry of CBJ staff suggested 'reluctance' on expanding density in this area. What has changed?

MPR is a dead end street and toward the end most times cannot conform to two-way traffic (Picture 3). Increasing house and housing density (resulting from future additions/subdivision of this one acre) implies a future increase in a traffic-sensitive area.

"I too wouldn't mind buying an acre of CBJ land uphill from my MPR property…" Would your precedent for this area by way of now APPROVING PAD2025-0001 set off a local land grab for which the CBJ intends to provide and increase improvement in infrastructure and access?

Sincerely,
Kristen Munk
1020 Mendenhall Peninsula Road (first uphill driveway past the Applicant's driveway)

PS. Were neighbors notified by mail of this petition? I wasn't. And, due to our December/January 'disastrous' weather I was snowbound and did not even see the applicant's street-notification-board/display on my street until recently in this Commission's cycle. Therefore, my time to review this application is limited.

Picture 1. January 20, 2026, the applicant's driveway to the right—first view southbound. Southbound drivers swing wide into the northbound lane around this bend (as again recently happened, requiring me to brake hard to avoid collision.)

Picture 2. Applicant's driveway –second view. Numerous pedestrians, and ATVS and busses, frequent this roadbend in addition to general traffic.

Picture 3. From the first driveway past the Applicant's driveway, a northbound State plow during "one-way road" time.

From: rosemary matt
To: PC_Comments; Justin Smith
Subject: Case No.: PAD2025 0001, Parcel No.: 4B1901070010
Date: Wednesday, January 21, 2026 3:12:09 PM

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

TO: Justin Smith and CBJ planning committee members

FROM: Rosemary Matt and Paul Sargent, Jr.

Thank you for the opportunity to comment. Paul and I are owners of 1100 Mendenhall Peninsula, Juneau, AK. We live below the property owned by Mr. Sams.

We are commenting on the request of Mark Sams to acquire property from the CBJ.

Paul and I have spoken with Justin Smith and Dan Bleidorn with the CBJ. We received a lot of information and as such, have a basic understanding of the property acquisition process. We have no issue with the sale of the property to Mr. Sams.

Our area of concern is development of the property and changes to existing drainage. We live below the property that Mr. Sams and his family currently occupy. It became obvious this past couple of weeks that there is a small drainage problem currently. With the melting of the recent 6 feet of snow, there was some erosion of the driveway beside our house and when the temperatures dropped below freezing, the runoff turned into thick ice on our side of the driveway. It was a bit treacherous to cross on foot.

If Mr. Sams develops his lot, and the topography is changed, the drainage will most likely change also. It could improve or it could get worse. In talking with Mr. Sams, he indicated that it is not his intent to flood out the properties below him. And we believe him. However, water seeks a path of least resistance and we are presently the recipients of some of the melting snow and surface drainage. We do not want to see an increase in drainage onto our property. Not only is there surface water to consider, but there might also be some subsurface water sources as well as the drain field for Mr. Sams's current septic system.

It is imperative that a drainage plan and drainage study be performed before development in order to determine the full impact of development of the property. There should also be a mitigation plan to resolve any drainage issues that become apparent in the drainage plan/drainage study. We do not want our building foundation to be compromised.

This is the extent of our concerns - drainage.

From: Peggy Barnhill
To: PC_Comments; Brandon Robinson
Subject: USE2025 0012: An Assisted-Living Facility
Date: Tuesday, January 20, 2026 11:58:40 AM

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

I would like to speak to the proposed facility for Family Promise on Glacierwood Drive. I live at 3040 Glacierwood Drive, down the street from the house.

My church has assisted with Family Promise, and I had the opportunity to share a meal with a family at the church. Later, when I was working for the school district as a paraeducator during COVID, one of my duties was to deliver class materials to kids in their homes. I was able to deliver materials to this same family, who now had a home, thanks in a large part to Family Promise. I am a fan of the program!

My only concern about this proposal is parking. The house is located on a blind curve which makes street parking obstructive and potentially dangerous, especially in the winter when the road narrows due to snow. I hope the planning will involve enough on-site parking to accommodate staff, residents, and volunteers dropping off a meal or whatnot.

Thank you for your consideration,
Peggy Barnhill

From: M Neussl
To: PC_Comments; Brandon Robinson
Subject: Case No. USE2025 0012 Comments
Date: Friday, December 26, 2025 3:53:30 PM

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Hello: I am a resident of Glacierwood Drive and have concerns regarding the proposed Conditional Use Permit for an assisted living facility at 2960 Glacierwood Drive, a residential single family home. This location is on a bend of Glacierwood Drive and has limited parking space available. There are already cars and trucks that park along Glacierwood Drive on this bend and it negatively impacts snow plowing, garbage pickup, and hinders the ability for two vehicles to pass side by side on a bend with limited visibility around the corner. Using this facility as an assisted living facility with employees and residents seems like it will compound the parking problems and traffic congestion. Additionally, I frequently walk along this road, which has no sidewalks, pushing a stroller or walking a dog. Many others in the neighborhood do the same. There have been instances of cars coming around this corner while other vehicles are parked alongside the road making for close calls and uncomfortably close passages.

I would recommend not approving this conditional use permit as it is inconsistent with the current zoning of this location.

Thank You,
Michael Neussl
3021 Glacierwood Dr.

Outlook

Comments on Case No.: USE2025 0012

From Rob Morgen <morgenhaulerboats@yahoo.com>
Date Mon 1/5/2026 3:47 PM
To Brandon Robinson <Brandon.Robinson@juneau.gov>

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Brandon,
As owner of a homeowner at 2980 Glacierwood Drive, I am compelled to make comments on the application for a conditional use permit for 2960 Glacierwood. As a long-term resident of Juneau, I am aware of the need for transitional housing for families but have many concerns with permitting a short term stay Assisted Living in this location.
1. I purchased my home on Glacierwood Drive specifically because I was attracted to the neighborhood's single-family home zoning and community atmosphere. Family Promise plan for 90-day family stays will change the long-term residential atmosphere of the neighborhood. Community building and knowing your neighbors will be lost with multiple families moving in and out.
2. Having up to 4 different families with up to10 residents on site will bring a great increase in neighborhood traffic flow from visitors, staff and visiting services. The proposed 4 parking spots although meets code is very inadequate and not realistic for the proposed use.
3. The home location is on a narrow curve that creates a safety issue. With the increase in traffic and potential road parking hazardous for residents and vehicle operators.
4. When the City installed sewer and water service in the neighborhood 20 years ago the road was just patched. There was a plan to add a sidewalk and resurface the road, but this has never happened. Currently all pedestrian activities have to occur in the road. Juneau Promise focuses on serving families with children. They will have no place to play, ride a bike or do other activities requiring a paved surface except in the road. This is a safety issue for all neighborhood residents but introducing multiple families adds to the hazard.

Thank you for your consideration,
Rob Morgenthaler
907 209 7873

Outlook

Clarifying Questions Regarding Proposed Assisted-Living Conditional Use Permit – USE2025-0012

From Scott Carson <scott.carson54@gmail.com>
Date Sat 12/20/2025 5:24 PM
To Brandon Robinson <brandon.robinson@juneau.gov>

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Dear Mr. Robinson,

I am a nearby homeowner in the neighborhood surrounding the proposed assisted-living conditional use permit at **2960 Glacierwood Drive**. My residence is located approximately one street away from the subject property, along what appears to be part of the surrounding residential access network for the site.

Before submitting any formal comments to the Planning Commission, I would like to better understand the scope, scale, and operational details of what is being proposed. Given that the existing structure is a single-family/duplex residence within a D-5 zone, I want to ensure that any future input I provide is informed, specific, and constructive.

I would appreciate clarification on the following items, or guidance on where this information will be addressed in the forthcoming staff report:

1. **Maximum number of residents** proposed and to be approved under the conditional use permit, and whether increases would require additional public review.
2. **Staffing levels**, including:
    - Maximum number of staff per shift (day, evening, and overnight)
    - Whether overnight staffing is proposed.
3. **Parking provisions**, including:
    - Total number of on-site parking spaces proposed
    - Allocation of parking for staff, visitors, and ADA use
    - Whether the proposal anticipates reliance on on-street parking.
4. **Delivery, service, and waste operations**, including:
    - Location of dumpsters and service areas

- Frequency and timing of deliveries and refuse collection.

5. **Hours of operation** for services such as deliveries, maintenance activities, and any outdoor programming.
6. **Exterior lighting**, including:
    - Whether a lighting plan is proposed
    - Measures to ensure light is shielded and does not spill onto surrounding residential properties.
7. **Emergency access and circulation**, including:
    - Identified routes for ambulance and fire access
    - Whether emergency vehicles would stage or park on residential streets
    - How emergency access will be maintained during winter conditions.
8. Any **proposed permit conditions** intended to limit intensity of use (such as resident caps, staffing levels, or parking requirements) and prevent future expansion without additional review.

My intent at this stage is simply to understand what is being proposed and potentially approved, so that I can provide thoughtful and relevant input during the public comment process if appropriate.

Thank you for your time and assistance. I appreciate the work that goes into reviewing these applications and look forward to reviewing the staff report when it becomes available.

Sincerely,

Scott Carson

9162 Skywood Lane

Public Commentary: USE2025 0012

Public Commentary from Beth McKibben (Telephone Call on 1/5/26):

Ms. McKibben requested that there be a resident staff worker in the event that neighbors needed a point of contact for the proposed use.