

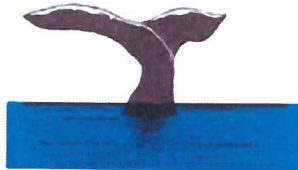
THOMPSON PASS DISTRIBUTION PROJECT

PLAN OF DEVELOPMENT

PREPARED FOR:
**United States Bureau of Land Management
Glennallen Field Office
P.O. Box 147
Glennallen AK 99588**

**Alaska Department of Natural Resources
550 W. 7th Ave
Anchorage AK 99501**

PREPARED BY:



**Travis/Peterson
Environmental Consulting, Inc.**

3305 Arctic Boulevard, Suite 102
Anchorage, AK 99503
(907) 522-4337

and



3305 Arctic Boulevard, Suite 201
Anchorage, AK 99503
(907) 646-5197

Project Number
18-0310

February 1, 2019

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	FEDERAL MANAGEMENT SECTION	3
1.1.1.	<i>Other Land Interests</i>	4
1.2.	STATE OF ALASKA MANAGEMENT SECTION	4
1.2.1.	<i>Other Land Interests</i>	6
2.0	PURPOSE AND NEED.....	6
2.1.	ALTERNATE ROUTES CONSIDERED	6
3.0	PROJECT DESCRIPTION.....	7
3.1.	FEDERAL LAND RIGHT-OF-WAY	7
3.2.	STATE LAND RIGHT-OF-WAY	7
3.3.	PROJECT COMPONENTS.....	7
3.4.	PROJECT CONSTRUCTION	8
3.4.1.	<i>Construction Sequence</i>	8
3.4.2.	<i>Construction Workforce</i>	8
3.4.3.	<i>Environmental and Safety Training</i>	9
3.5.	PROJECT COMPLIANCE	10
3.6.	CONSTRUCTION PLAN & PROGRAM.....	10
3.6.1.	<i>Surveying the Right-of-Way Centerline and Other Project Features</i>	10
3.6.2.	<i>Clearing and Grading Activities for the Right-of-Way and Structure Sites</i>	10
3.6.3.	<i>Excavating and Installing Foundations</i>	11
3.6.4.	<i>Assembling and Erecting Distribution Line Structures</i>	11
3.6.5.	<i>Ground Wires and Buried Electrical Wire</i>	12
3.6.6.	<i>Cleanup and Reclamation of Affected Areas</i>	12
4.0	OPERATION AND MAINTENANCE	12
4.1.	RIGHT-OF-WAY SAFETY	13
4.2.	INSPECTIONS AND MAINTENANCE	13
4.3.	LONG-TERM ACCESS	13
4.4.	SIGNAGE AND MARKERS	13
4.5.	CONTINGENCY PLANNING.....	13
4.6.	EMERGENCY PROCEDURES.....	13
4.7.	TERMINATION AND RECLAMATION	14
5.0	MITIGATION OF ENVIRONMENTAL CONCERNS	14
5.1.	CURRENT ENVIRONMENTAL CONDITIONS	18
5.2.	ENVIRONMENTAL IMPACTS OF PROPOSED PROJECT	19
5.3.	CULTURAL AND HISTORICAL IMPACTS OF PROPOSED PROJECT	19
6.0	REFERENCES	20

FIGURES

Figure 1: Federal Land.....	3
Figure 2: State Land.....	5

TABLES

Table 1: Estimated Personnel and Equipment for Each Construction Section.....	9
Table 2: Resident Fish Species.....	12

APPENDICES

Appendix A: Underground Route Map	
Appendix B: GCI Letter of No Objection	
Alyeska Letter of No Objection	

ACRONYMS AND ABBREVIATIONS

ADL	State of Alaska Division of Land
BLM	Bureau of Land Management
CIC	Construction, Inspection, and Compliance Contractor
COMM	Communications
CVEA	Copper Valley Electric Association
CVTC	Copper Valley Telephone Company
DOT&PF	Alaska Department of Transportation and Public Facilities
GCI	General Communications, Inc.
HDPE	High Density Polyethylene
kV	Kilovolts
MP	Mile Post, usually for the Richardson Highway
OSHA	Occupational Safety and Health Administration
PLMP	TAPS Pipeline Mile Post
POD	Plan of Development
RGV	Remote Gate Valve
ROW	Right-of-Way
SHPO	State Historic Preservation Office
UG	Underground
USFWS	United States Fish and Wildlife Service

1.0 INTRODUCTION

Copper Valley Electric Association (CVEA) is submitting this Plan of Development (POD) to the Bureau of Land Management (BLM) and State of Alaska Department of Natural Resources (DNR) for 30-year right-of-way (ROW) grants. The proposed project will dig a joint use trench that will

1. Construct, operate, and maintain an electric distribution line along the Alyeska Pipeline System ROW to provide services for cathodic protection along the TAPS; and,
2. Install conduit for Copper Valley Telephone Company's (CVTC) cable installation, operation and maintenance of the communication line.

The electric distribution line will also feed Remote Gate Valves (RGV) where aging generators are due to be replaced. Services are anticipated at Alyeska's RGV117, RGV118, RGV119, PLMP766, CV120, and PLMP772. Construction of this distribution line may have additional benefits to private holdings, the Department of Transportation and Public Facilities maintenance station at Thompson Pass and the Worthington Glacier Center.

These new electric and comm cables will begin with a new substation near Richardson Highway Mile Post (MP) 46 (Serendipity Subdivision), extend northeast through Serendipity Subdivision and through 380 feet of BLM managed land to the Richardson Highway ROW, and south from the substation in the Alyeska ROW from PLMP753.7 to PLMP774.2 near the DOT maintenance building. The route will include 20.3 miles of underground trenching or boring with no planned overhead spans. There will be directional bores under the Richardson Highway at two locations, three directional bores under the Tsaina River, one directional bore under Ptarmigan Creek and one under Stuart Creek. Additional bores will be made for steep section blocks of the TAPS pad and other areas where traditional trenching depths will not provide sufficient protection from outwash erosion. Boring entry and exit points will be a minimum 100 feet from the nearest measured creek bank. If drilling mud is required during boring activities, the used mud will be placed in Super Sacks® and disposed of at a permitted landfill.

The project area will be located within the following Sections: Sec. 18 T7S R1E; Secs. 13, 23, 24, 26, 34 & 35 T7S R1W; Secs. 3 thru 6 T8S R1W; Secs. 1 thru 4, 7 thru 9 T8S R2W; Secs. 12, 13, 14, 22, 23 & 27 T9S R3W, all Copper River Meridian.

Once constructed, the system would be operational year-round, 24 hours a day providing electrical power to Alyeska's cathodic protection system and RGVs. Maintenance activities would be coordinated with Alyeska Pipeline Service Company and GCI to avoid service interruptions.

Underground construction will consist of two high-density polyethylene (HDPE) conduits, one with #1/0 concentric cable inside and one for future COMM. The burial depth will be three feet below grade. Junction boxes four feet wide by three feet deep will be placed a minimum of every quarter of a mile along the alignment. A few vaults may be used in areas susceptible to outwash or other surface dangers.

The default alignment will locate underground cable 37 feet from the TAPS pipe. Where the existing GCI cable encroaches in the proposed alignment, the GCI locates will control the electric cable alignment. Effort will be taken to keep the electrical line a minimum three-feet from the GCI locates. Multiple locations will require crossing GCI fiber optic line. Where the GCI locates are within 3 feet of the distribution alignment the Contractor shall excavate using vacuum trucks. Due to the sinuous nature of the fiber optic cable alignments, the separation between the CVEA underground distribution line and Alyeska pipeline will fluctuate.

The duration of construction activities is dependent partially on the timing of project authorization, but in general, construction would take approximately one year to complete. Construction would consist of the following new facilities:

- Serendipity Substation will be built under CVEA 138kV transmission Tower 262, on private property, approximately 1000 feet west of the Richardson Highway, MP 46.1, PLMP 754.0.
- PLMP753.7 to PLMP756.6: 2.9 miles of 24.9kV underground distribution from the Richardson Highway (PLMP753.7) to proposed structure S756-7, PLMP 756.5. This section of line will bore under Stuart Creek. Services include RGV117 (PLMP756).
- PLMP756.5 to PLMP 757.8: 1.3 miles of 24.9kV underground distribution to go under a steep “Block” and avoid avalanche chutes. The Block will be directional bored for 1,325 feet and this bore will likely stray outside the Alyeska permitted area.
- PLMP757.8 to PLMP758.9: 1.1 miles of 24.9kV underground distribution. Alignment leave the TAPS ROW to avoid ponds, to the Old Richardson Highway ROW.
- PLMP758.9 to PLMP761.0: 1.1 miles of 24.9kV underground distribution. This section includes several long directional bores. The bores go under the Richardson Highway, Tsaina River and one or more may go under an area regularly scoured by an avalanche chute.
- Federal/State management authority division is the 1West/2West township line at PLMP 763.3
- PLMP759.3 to PLMP765.2: 5.9 miles of 24.9kV underground distribution with 4.0 miles on Federal land and 1.9 miles on State land. Services include RGV118 (PLMP760.5), RGV119 (PLMP765), and the Tsaina Lodge (PLMP765.2).
- PLMP765.2 to PLMP766.6: 1.4 miles of 14.4kV underground distribution, protecting the viewshed of the Tsaina Lodge. This includes a directional bore under the Richardson Highway and the Tsaina River. Services include PLMP766
- PLMP766.6 to PLMP774.2: 8.2 miles of 14.4kV underground distribution, protecting the Worthington Glacier viewshed. Three direction bores will be required: one at Tsaina River (PLMP768.3), one under a steep “Block” (PLMP770.7), and one at Ptarmigan Creek (PLMP771.7). Services include CV120 (PLMP769.8) and PLMP772. We anticipate service will be requested at the Worthington Glacier Visitor’s Center (PLMP771.7) and the DOT maintenance building.

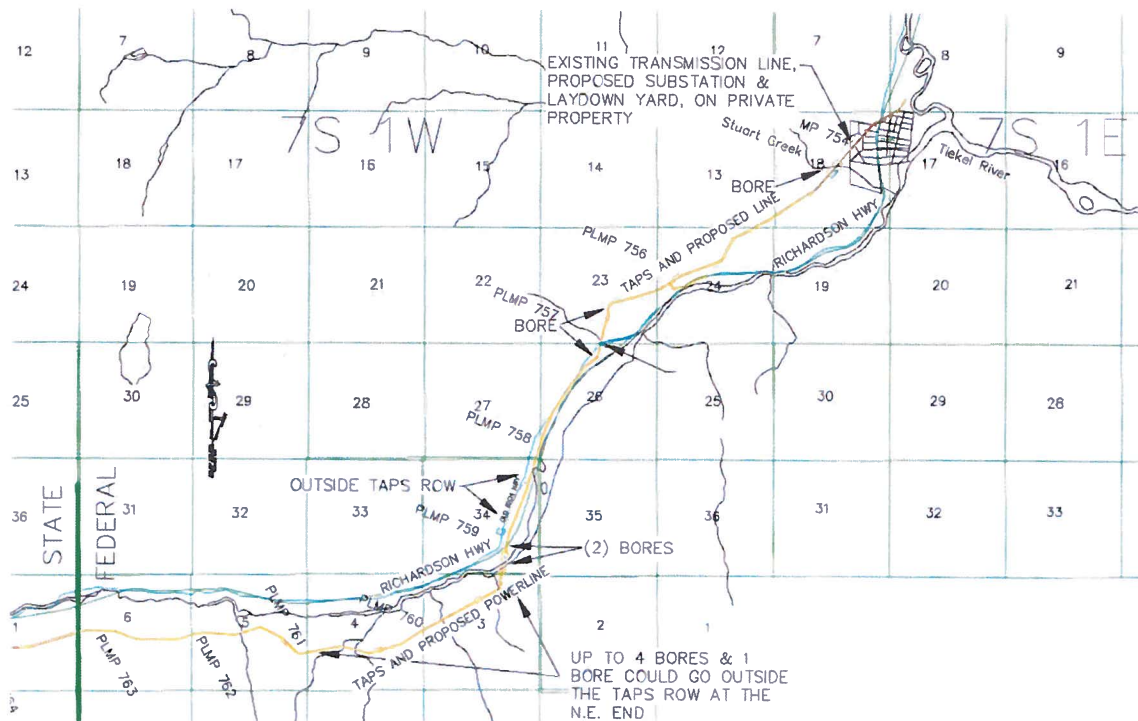
The construction will be in stages with multiple crews working concurrently to install the facilities in one season. This will be largely be thawing and weather permitting. In a typical year, it is likely to proceed from northeast to southwest, as follows:

- New CVEA Substation at structure 262, PLMP 754.0.
- Section 1, PLMP753.7 to RGV117 (PLMP756.0).
- Section 2, PLMP756.0 to RGV118 (PLMP760.4)
- Section 3, PLMP760.4 to RGV119 (PLMP765.2)
- Section 4, PLMP765.2 to CV120 (PLMP769.8)
- Section 5, PLMP769.8 to Cathodic Protection (PLMP772)
- Section 6, PLMP772 to DOT Camp (PLMP774.2)

1.1 FEDERAL MANAGEMENT SECTION

The northeasterly portion of the project in Townships 7 South, Ranges 1 East and 1 West and Township 8 South, Range 1 West are in federal jurisdiction, where the BLM manages all surface natural resources. The township line segregating State and Federal management is at approximately Highway Milepost 37 and PLMP 763.3, between T7S R1W and T7S R2W.

FIGURE 1: ROUTE WITHIN FEDERAL LANDS



The following is planned within the above (Fig. 1) "Federal" section:

- a substation on a maximum 150' x 150', 1/2 acre site by the existing Transmission Line structure #262, on Lot 12, Serendipity subdivision which is **private property**. This same

private property will be used for the staging area for the eastern portion of the project.

- A **maximum** total of 9.20 miles of new line on Federal management area, including
 - Up to eight directional bores, with a bore staging area 30' X 100' at one end of each bore, but no clearing above the bore:
 - Under Stuart Creek, Section 18, T7S R1W;
 - Steep block on the TAPS line, Section 23, T7S R1W;
 - Under the Richardson Highway, Section 34, T7S R1W;
 - Under the Tsaina River in Section 34, T7S R1W; and,
 - CVEA plans to trench in an erosion-prone area in Sections 34, T7S R1W and Section 3&4, T8S R1W; however, CVEA may bore up to four borings in this area if trenching does not provide sufficient cable protection.

Clearing for the Federal segment of the project will be alder and scrub brush on land previously cleared land, with a maximum of 11.06 acres of ground disturbance and 0.5 acres of temporary clearing for the bore staging areas. See section 3.1 for more detail.

The proposed line is within the TAPS permitted area unless the GCI cable location forces the new line out of the TAPS ROW or if a long bore will "cut the corner" and deviate slightly outside the TAPS ROW. CVEA anticipates this will occur at three specific locations on federal land:

1. PLMP 756.7 to 757.1 at a particularly steep section of the TAPS line;
2. PLMP 758.4 to 758.7 near DOT materials sites #711-1-009-5 and #711-010-5 (BLM casefiles A060550 & A660551;
3. PLMP 756.5 to PLMP 757.8 along an area prone to avalanches and scouring

1.1.1. Other Land Interests

The Alyeska Trans-Alaska Pipeline is buried along the project corridor. BLM authorized the Alyeska ROW under several grants including AKF 091811 and AKAA 5847. The GCI ROW is authorized by AKAA 5487. The Solomon Gulch 138 kV Transmission line intersects the TAPS line twice in the Federal area, authorized under FERC and AKAA 12692 and AKAA 59056.

Copper Valley Telephone Coop. was authorized for telephone cable under AKAA 82058, 5' half width along the Richardson Highway in this area.

The RCA easement deed establishes an easement along the old pole line, 25' from centerline, per AA 6190.

1.2. STATE OF ALASKA MANAGEMENT SECTION

The southwesterly portion of the project in Townships 8 South, Ranges 2 & 3 West is State of Alaska land, managed by the Department of Natural Resources. The Worthington Glacier facility on U.S. Survey No. 3577 is operated by the Division of Parks & Outdoor Recreation. There is a 6F restriction on this property, but this project is outside the 6F restricted area.

The map displays the Taina River and its tributaries, including Ptarmigan Creek and Small Creek. Key locations marked include 'BORE' at several points, 'TAPS AND PROPOSED POWERLINE', and 'DOT MAINTENANCE'. The map is overlaid with a grid of section numbers (1-36) and township/range coordinates (8S 3W, 8S 2W). A north arrow is located in the upper left corner. The map is titled 'Taina River' at the top.

- a total of 11.07 miles of proposed line;
- A staging area is planned on private property in this area.
- Up to five directional bores:
 - Under the Richardson Highway and Tsaina River in Sections 2 & 3, T8S R2W;
 - Under the Tsaina River in Sections 7 & 8, T8S R2W;
 - Under a tributary to the Tsaina River in Section 9, T8S R2W;
 - Under a steep TAPS block in Section 13 & 14, T8S R3W; and,
 - Under a tributary of Ptarmigan Creek in U.S. Survey No. 3577 in Section 14 & 23, T8S R3W

The proposed line is within the TAPS permitted area unless the GCI cable location forces the new line out of the TAPS ROW or if a long bore will “cut the corner” and deviate slightly outside the TAPS ROW. CVEA anticipates this will occur at one specific location on state-owned land:

- Electric Power Systems and Travis/Peterson Environmental Consulting, Inc.**

1.2.1. Other Land Interests

The following is a list of land interests along the route:

- ADL 63574, TAPS Pipeline
- ADL 80113, Solomon Gulch Transmission line
- ADL 415791, GCI Fiber Optic
- ILMA 200327, Richardson Highway
- LAS 28370, Valdez Heli Ski Guides
- LAS 30739, University of Alaska
- ADL 230854, Gravel Pit
- ADL 206958, Alyeska 7 APL 2
- ADL 206959, Alyeska 7 APS 1A
- LAS 30779, Alyeska Storage
- Las 27888, Snowcat travel
- ADL 206960, Alyeska 6 APL 5
- ADL 50051, Worthington Wayside & Associated U.S. Dept. of Interior Land and Water Conservation Fund Project Agreement No. 02-00298 with map showing limits of 6F restricted area on the Worthington Site.
- ADL 231627 Gravel Site
- ADL 206961, Alyeska 6 APL 2
- ADL 206963, Alyeska 6 APL 1A
- ILMA Thompson Pass Maintenance site

2.0 PURPOSE AND NEED

Alyeska Pipeline Service Company needs reliable power to service their infrastructure and cathodic corrosion protection. Alyeska determined that extending service from CVEA was more reliable and less maintenance than adding generation systems at the proposed cathodic protection sites and replacing the existing generation systems at RGV117, RGV118, RGV119, and CV120.

2.1. ALTERNATE ROUTES CONSIDERED

Preferred Alternative: The proposed underground route shown in Appendix A will be the easiest to maintain, require the least clearing, and will be the least visible. The route will follow the Alyeska Pipeline. The following alternative options were considered and rejected:

- 1) Overhead electric distribution line located inside the Alaska Department of Transportation & Public Facilities (DOT&PF) right of way. The DOT&PF route would require the most clearing and would require large areas of undeveloped land to be cleared to access the cathodic protection site and RGV sites. Most of the line was not desirable since it disturbed the viewshed. DOT&PF wants new overhead construction to be on the outside 15 feet of their ROW which would cause most of the construction to be more than 100 feet from the centerline of the road. The 100 foot distance would make most locations for the proposed alignment completely inaccessible for maintenance. CVEA eliminated this option.

- 2) Overhead electric distribution line located inside the existing CVEA 138kV distribution easement and crossings to reach multiple RGVs. There are locations in the 138kV easement where the distribution poles could not be accessed and would require helicopter work for installation and maintenance. Also, large areas of virgin land would need to be cleared to access the cathodic protection site and RGV sites.

3.0 PROJECT DESCRIPTION

The project crosses federal and state-owned land. The following sections provide right-of-way project details and are organized by land ownership.

3.1. FEDERAL LAND RIGHT-OF-WAY

CVEA requests BLM authorize a 30-year ROW for 9.13 miles of an underground 24.9/14.4 kilovolt (kV) distribution line (including as much as 1.1 miles of boring). Underground construction on Federal land will require a total ground disturbance area of approximately 10 feet wide by 9.13 miles long over 11.06 acres. In addition to the 11.06 acres of permanent ground disturbance, CVEA requires a Temporary Use Permit for 4.6 acres in the following areas:

- Up to seven bore staging areas at one end of each of the bores, 30' x 100', for a total of 0.5 acres
- No staging areas are proposed on federally managed land. There is one in the east end of the project, on Lot 12, Serendipity Subdivision, also the site for the substation.

3.2. STATE LAND RIGHT-OF-WAY

CVEA requests DNR authorize a 30-year ROW for 11.07 miles of an underground 24.9/14.4 kilovolt (kV) distribution line including up to 0.8 miles of bore. Underground construction on State land will require a total ground disturbance area of approximately 10 feet wide by 11.07 miles long. In addition to the 13.4 acres of permanent ground disturbance, CVEA requires the use of 0.5 acres for the following purposes:

- Up to seven bore staging areas at one end of the bores of 30' x 100', for a total of 0.5 acres.
- Project staging will be done on private land.

3.3. PROJECT COMPONENTS

The 20.2-mile-long 24.9/14.4kV underground distribution cable (in multiple sections) will be installed within four-inch HDPE conduit at a depth of three feet. A separate 1-1/2" conduit will be installed concurrently for communications cable.

Electrical junction boxes will be installed at approximate 1250 foot intervals and will be placed in the ROW above the underground conductor. Communications pedestals will be installed on adjacent ground. In flooding or landslide prone areas, buried vaults will be used.

3.4. PROJECT CONSTRUCTION

This section describes the construction of the project. Topics include an overview of the construction sequence, the construction workforce, environmental safety training, deviations during construction, and project compliance.

3.4.1. Construction Sequence

Construction of the project will be done in different segments. Multiple crews will be employed, working concurrently, with work areas defined by available thawed ground, snow melt, and anticipated early fall snow. In a traditional winter, the weather factors favor construction of this area from east to west. Proposed segments include:

- Serendipity Substation (PLMP753.7) to RGV117 (PLMP756) for 2.3 miles
- RGV117 (PLMP756) to RGV118 (PLMP760.5) for 4.5 miles
- RGV118 (PLMP760.5) to RGV119 (PLMP765) for 4.5 miles
- RGV119 (PLMP765) to CV120 (PLMP769.8) for 4.8 miles
- CV120 (PLMP769.8) to the DOT&PF Camp (PLMP774.2) for 4.4 miles

Each segment would include the following sequence of activities:

- Surveying the distribution centerline, other project features, and work areas;
- Clearing of the ROW and grading of structure sites;
- Excavating and installing foundations for junction boxes, pad-mounted transformers and COMM pedestals;
- Trenching and installing the electrical conduit; and
- Performing cleanup and reclamation of affected areas.

These activities are described in more detail below.

3.4.2. Construction Workforce

An estimated number of workers and types of equipment required to construct the proposed switchyard, tower, and transmission line is shown in Table 1. The project will consist of several phases of construction. Regular field meetings would be held with the construction, inspection, and compliance (CIC) contractor to review the process and its implementation.

Table 1: Estimated Personnel and Equipment for Each Construction Section

Activity	People	Quantity of Equipment	Ground Pressure (PSI)	Equipment Type
Survey	4	2	1.4	ATV four-wheeler
Support Equipment	4 to 8	2	8.7	4 x 4 pickup
		1	14	1-ton mechanic service truck*
		1	24	equipment fuel truck*
		1	14	5-ton truck tractor*
		1	14	40-ton lowboy rig*

Activity	People	Quantity of Equipment	Ground Pressure (PSI)	Equipment Type
Directional Bore Equipment	3 to 6	1	21	4-ton fork lift*
		1	24	4,000-gallon water truck
		2	8.7	4 x 4 pickup
		1	43	flatbed boom truck
		1	6.9	directional boring machine
Trenching Equipment	4 to 8	2	8.7	4 x 4 pickup
		1	35	15-ton flatbed boom truck
		1	4.5	Vermeer RTX-1250 with Rock Wheel
		1	21	rock drill
		1	6.5	excavators
		1	14	auger truck
		2	21	10 cubic yard dump truck
		1	21	1.5 cubic yard front end loader
		2	26	backhoe
		2	8.7	4 x 4 pickup
Yard and Material Hauling Equipment	4 to 8	1	21	4-ton fork lift*
		1	17	6 x 4 truck tractor*
		1	35	15-ton flatbed boom truck*
		1	6.9	wire reel trailers*
Wire installation	4 to 8	1	35	diesel tractors
		1	15	3-drum pulling machines*
		2	6.9	static wire reel trailer
		1	5.2	air compressor

Notes:

*Denotes equipment only used within the staging area or TAPS ROW.

Maximum total personnel required considering all tasks = 58 (actual personnel at any one time would be less due to overlapping responsibilities.) Depending on schedule requirements, multiple crews may be required.

3.4.3. Environmental and Safety Training

Prior to gaining access to the ROW, all construction and maintenance workers would be required to participate in an environmental briefing. At a minimum, the briefing will include the following topics: biological, cultural, and other environmental requirements and protection measures. After completion of construction, CVEA would provide environmental instruction to all maintenance and operation personnel who will be accessing the ROW.

Construction contractor(s) would be responsible for providing safety training, as required. All construction, operation, and maintenance activities would be required to comply with Occupational Safety and Health Administration (OSHA) regulations. The CIC would be notified by the construction contractor(s) of any accidents that occur on public land during construction of the Project.

3.5. PROJECT COMPLIANCE

CVEA would contact the BLM or DNR Authorized Officer(s) or designee(s) prior to commencing construction and/or any ground-disturbing activities. A pre-construction conference would be scheduled with BLM or DNR, other cooperating agencies (as appropriate), and CVEA prior to commencing construction and/or ground-disturbing activities on the ROW. CVEA personnel and contractors' representatives involved with construction and/or any ground-disturbing activities associated with this ROW would attend this conference to review the stipulations of the grant or permit and other documents, as determined by BLM or DNR.

CVEA would not initiate any construction or other ground-disturbing activities on the BLM managed public land portion of the ROW until after issuance of the federal Notice to Proceed (Form 2800-15) issued by the Authorized Officer(s) or designee(s). Activities on State managed land would follow the DNR Early Entry Authorization of DOT & PF permit.

All activities associated with the construction, operation, maintenance, and decommissioning of the ROW would be conducted within authorized project limits. CVEA would construct, operate, and maintain the facilities, improvements, and structures within this ROW in strict conformity with the approved POD and made part of the grant or permit. Any relocation, additional construction, or use that is not in accordance with the approved POD would not be initiated without the prior written approval of the Authorized Officer(s) or designee(s). A copy of the complete ROW grant or permit, including all stipulations and approved POD would be made available on the ROW area during construction. Noncompliance with the above would be grounds for an immediate temporary suspension of activities.

3.6. CONSTRUCTION PLAN & PROGRAM

The activities associated with the construction of the project are described in the sequence in which they would occur. These activities include the following:

- Surveying the transmission centerline, other project features, and work areas;
- Clearing and grading for the ROW and structure sites;
- Excavating and installing foundations;
- Trenching and laying electrical line; and,
- Performing cleanup and reclamation of affected areas.

3.6.1. Surveying the Right-of-Way Centerline and Other Project Features

Ground survey and staking would locate structures, reference points, ROW boundaries (if necessary), and temporary work areas. If deemed necessary, CVEA would implement environmental monitoring activities during this phase. Flagging would be maintained until final cleanup and/or reclamation is completed, after which the contractor would remove them.

3.6.2. Clearing and Grading Activities for the Right-of-Way and Structure Sites

Clearing of vegetation is anticipated for the distribution line within the ROW. The project corridor has been previously disturbed. Some incidental clearing will be required along the buried

cable. CVEA will maintain a ten-foot wide (five-foot on each side of centerline) vegetative clearance during the life of the project.

Backhoes will be used to cut and fill native soil to build the proposed pad for the junction boxes and transformers. Onsite material would be reused to the extent possible. A Storm Water Pollution Prevention Plan (SWPPP) would be developed to prevent erosion and protect nearby wetlands and streams.

Project construction begins with the establishment of a staging area, which is required for storing materials, construction equipment, and vehicles. The staging areas are on private property. will be selected by the construction contractor, chosen from the list in Section 3.1. It is anticipated that a total of 4.2 acres of staging area will be used for the project on two sites, all on private land.

The staging areas would support a construction office and serve as a reporting location for workers. Employees will park their vehicles and equipment here and the contractor will store construction material storage. CVEA is also anticipating the employees positioning their self-contained camping vehicles and trailers at the staging areas.

All vehicle maintenance will be done off site. If fueling is performed on site, proper measures (catch basins, fuel spill kits, etc.) would be implemented and the project will comply with all BLM or DNR hazardous material regulations.

Access to the project will be along the Richardson Highway right of way and connecting existing Alyeska APL roads.

3.6.3. Excavating and Installing Foundations

The contractor will use a backhoe to level the ground to construct the transformer and junction box pads. All junction boxes and pad-mounted transformers will have pre-cast foundations installed on non-frost susceptible fill. Two grounding rods will be driven inside the foundations of all pad-mounted devices.

Spoil material (excavated subsoil) would be used for fill where suitable and the remainder would be spread at the structure site or along graded access roads or in locations previously agreed upon by CVEA and the Authorized Officer(s). In areas of increased volumes of spoils (based on foundation size and depth) the spreading of spoils may be required beyond the general disturbance area to maintain grades and runoff, and to facilitate restoration. The foundation excavation and installation would require access to the site by motorized equipment.

3.6.4. Assembling and Erecting Distribution Line Structures

No overhead highway crossings are planned. Any activity affecting highway traffic will comply with all safety standards. Safety features would include flaggers and signage. The contractor will notify the DOT&PF before initiating any activity that would impair highway travel.

3.6.5. Ground Wires and Buried Electrical Wire

The buried four-inch and 1-1/2-inch HDPE conduit with electrical wire will be installed using a Vermeer RTX-1250 trenching machine. Trenching will be a maximum of four feet deep and two feet wide and will be immediately backfilled upon installation of HDPE conduits. In the drive lane, backfill will be filled with appropriate material and compacted with a vibratory plate compactor. Elsewhere trenching will be backfilled, mounded, and compacted with an excavator. Snow poles will be installed on the junction boxes and transformers. This will aid CVEA to locate them in the winter and avoid hitting them if plowing is required.

No anadromous streams exist within the project. However, the contractor will bore under Stuart Creek, Tsaina River, and Ptarmigan Creek, which support resident fish species. See Table 2 below for identified resident fish species.

Table 2 Resident Fish Species

Stream Number	PLMP#	Waterbody Name	Resident Species Code*
1	754.19	Stuart Creek	DV
2	759.05	Tsaina River	DV
3	765.38	Tsaina River	DV
4	768.16-768.56	Tsaina River	DV
5	774.2	Ptarmigan Creek	DV, RB
6	774.28	Ptarmigan Creek	DV, RB

*DV=dolly varden (*Salvelinus malma*), RB=rainbow trout (*Oncorhynchus mykiss*)

CVEA will obtain fish passage authorization from Alaska Department of Fish & Game (ADF&G) under Alaska Statute 16.05.841 for all six streams within the project area that have resident fish populations.

3.6.6. Cleanup and Reclamation of Affected Areas

Construction sites, material storage yards, and access roads would be kept orderly. Refuse and trash would be removed from the sites and disposed at an approved landfill. In remote areas, trash and refuse would be removed to a construction staging area until proper disposal can be arranged. No open burning of construction trash would occur without appropriate approval. The ROW would be reclaimed, as described in this document. All practical means would be employed to restore the land to its original contour and natural drainage patterns.

4.0 OPERATION AND MAINTENANCE

This section provides information describing ongoing and long-term activities that would occur along the ROW. This information includes a discussion on permitted uses, ROW safety requirements, inspection and maintenance, long-term access, signage, and contingency planning.

4.1. RIGHT-OF-WAY SAFETY

The design, operation, and maintenance of the project will meet or exceed applicable criteria and requirements outlined by OSHA for the safety and protection of Alyeska personnel and the public. The distribution line will be protected with fuses and line relay protection equipment. If a conductor failure occurs, power will be removed automatically from the line.

4.2. INSPECTIONS AND MAINTENANCE

CVEA would conduct annual inspections at the new buried line. The annual maintenance activities are conducted to identify conditions that 1) pose an immediate hazard to the public or employees or that 2) risk immediate loss of supply or damage to the electrical system.

The implementation of routine operation and maintenance activities on power lines would minimize the need for most emergency repairs. However, when emergency maintenance activities are necessary to repair natural hazard, fire, or man-caused damages to a line, CVEA would respond as quickly as possible to restore power.

Repair of the line would have priority under emergency conditions, and reasonable efforts will be made to protect plants, wildlife, and other resources. Restoration and reclamation procedures, following completion of repair work, would be like those prescribed during construction.

4.3. LONG-TERM ACCESS

Long-term site access would be coordinated with Alyeska. Authorized access roads will be used only for maintenance purposes after completion of construction. Where long-term access is required for maintenance of the line, CVEA would maintain the approved access roads in a safe, useable condition, as directed by the Authorized Officer(s). A regular maintenance program may include, but is not limited, to blading, ditching, surfacing, and checking line and transformer integrity and performance.

4.4. SIGNAGE AND MARKERS

Warning signs would be placed on junction and transformer boxes to mark high-voltage danger areas, per industry standards.

4.5. CONTINGENCY PLANNING

A representative CVEA will provide routine and emergency planning for situations such as power outages, equipment upgrades, and fire control to Alyeska personnel.

4.6. EMERGENCY PROCEDURES

Emergency response procedures would be implemented for the following potential or similar events:

- Equipment failure;
- Fires;
- Sudden loss of power;

- Natural disasters; and
- Serious personal injury.

4.7. TERMINATION AND RECLAMATION

Should the ROW and facilities no longer be needed, CVEA will develop a decommissioning and reclamation plan. One year prior to decommissioning of the ROW, the holder shall contact the BLM or DNR Authorized Officer(s) to arrange a joint inspection of the ROW. This inspection will be held to agree to an acceptable decommissioning and rehabilitation plan. The Authorized Officer(s) must approve the plan in writing prior to commencement of any decommissioning activities.

Reclamation and decommissioning procedures would attempt to reclaim the landscape as near to original conditions as possible. The decommissioning and reclamation plan will be reviewed and approved by the BLM or DNR and would include the following information:

- What facilities and access routes are to be removed, reclaimed, and/or rehabilitated;
- How facilities and access routes will be removed and the disturbed areas reclaimed;
- The time of year the facilities and access routes will be removed; and
- Stabilization and reclamation techniques to be used during restoration.

5.0 MITIGATION OF ENVIRONMENTAL CONCERNS

This section provides an overview of potential preliminary project mitigation measures associated with the construction, operation, and maintenance of the project.

There are two types of mitigation measures. These are standard mitigation/best management practices and selectively-committed mitigation measures. Both are described below.

Standard mitigation measures are those that apply to the project. These measures typically address specific environmental policies and regulatory requirements. Where warranted, on a case-by-case basis, mitigation beyond these generic measures will be recommended to reduce potential impacts, often in specific impact locations. These are called selective mitigation measures and they will be developed as part of the environmental studies for the project.

Table 3 provides a preliminary list of example standard mitigation measures identified to reduce impacts on environmental resources. These measures generally have been categorized as they apply to three specific phases of the projects, including (1) engineering and design, (2) construction, and (3) operation and maintenance of facilities. These and other measures will be reviewed, revised, and developed further, as appropriate, to reduce impacts associated with specific resource concerns.

The construction contractor will adhere to these measures. The CIC will be responsible for the oversight of the implementation of these measures to ensure that CVEA and the construction

contractor meet the intent of the mitigation measures (identified below).

Table 3: Standard Mitigation Measures/Best Management Practices

Mitigation Measure	Mitigation Application Phase		
	Engineering, Design, and Location	Construction	Operation and Maintenance
1	All construction vehicle movement outside the right-of-way normally will be restricted to pre-designated access and public roads.	X	X
2	The spatial limits of construction activities would be predetermined, with activity restricted to and confined within those limits. No paint or permanent discoloring agents indicating survey or construction limits would be applied to rocks, vegetation, etc.	X	
3	In construction areas where re-contouring is not required, vegetation will be left in place wherever possible, and original contour would be maintained to avoid excessive root damage and allow for re-sprouting. Vegetation that is not consistent with line safety and operation will be removed.	X	
4	In construction areas where ground disturbance is significant or where re-contouring is required, surface restoration will occur as required by the land management agency. The method of reclamation will normally consist of, but is not limited to, returning disturbed areas back to their natural contour, reseeding, installing cross drains for erosion control, placing water bars in the road, and filling ditches.	X	
5	Prior to construction, the Construction Contractor will instruct all personnel on the protection of cultural, ecological, and other natural resources including: (a) federal and state laws regarding antiquities and plants and wildlife, including collection and removal; (b) the importance of these resources; and (c) the purpose and necessity of protecting them. Additionally, a range safety briefing will be coordinated through Alyeska.	X	
6	In consultation with appropriate land management agencies and state historic preservation officers, specific mitigation measures for cultural resources would be developed and implemented to mitigate any identified adverse impacts. These may include project modifications to avoid adverse impacts, monitoring of construction activities, and data recovery studies.	X	

Mitigation Measure		Mitigation Application Phase		
		Engineering, Design, and Location	Construction	Operation and Maintenance
7	Hazardous material shall not be drained onto the ground or into streams or drainage areas. Totally enclosed containment would be provided for all trash. All construction waste, including trash and litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials would be removed to a disposal facility authorized to accept such materials.		X	X
8	Vehicle refueling and servicing activities would be performed in the right-of-way or in designated construction zones located more than 300 feet from wetlands and streams. Spill preventative and containment measures or practices would be incorporated as needed.		X	X
9	If a design change occurs requiring overhead lines, CVEA designs and constructs all new or rebuilt facilities to raptor-safe design standards, including Suggested Practices for Avian Protection on Power Lines; The State of the Art in 2012 (APLIC 2012);	X		
10	Follow USFWS guidelines for raptor protection during the breeding season. Available for downloading at the web address below. http://www.fs.fed.us/r4/rifc/pahvant/Comment_Letter_US_Fish_&_Wildlife.pdf ; (Migratory Bird Executive Order (E.O. 13186), January 10, 2001)	X	X	X
11	An invasive plant monitoring and mitigation plan will be developed by the permittee to prevent and mitigate the environmental damage potential from non-native and invasive plants prior to ground breaking. Contracts, and subcontractors, will be made aware of the mitigations and incorporate them into the schema. Best Management Practices (BLM AK Invasive Species Policy) would be utilized and incorporated into the construction as well as the maintenance and operations phases of the project for the life of the project.		X	X
12	Destroying trees should be avoided as much as possible.	X	X	X
13	In the event that design changes mandates overhead, static wires will be marked with highly visible devices (i.e., marker balls or other marking devices) where required by governmental agencies with jurisdiction.			X
14	The distribution line will be regularly patrolled and properly maintained in compliance with applicable safety codes.			X

Mitigation Measure		Mitigation Application Phase		
		Engineering, Design, and Location	Construction	Operation and Maintenance
15	<p>CVEA or its contractors will notify the BLM or DNR and Alyeska of any fires and comply with all rules and regulations administered by the BLM and DNR and Alyeska concerning the use, prevention, and suppression of fires on federal lands, including any fire prevention orders that may be in effect at the time of the permitted activity. The holder or its contractors may be held liable for the cost of fire suppression, stabilization, and rehabilitation. The holder or its contractors would:</p> <ul style="list-style-type: none"> • Operate all internal and external combustion engines on federally managed lands per 36 CFR 261.52(j), which requires all such engines to be equipped with a qualified spark arrester that is maintained and not modified. • Carry shovels, water, and fire extinguishers that are rated at a minimum as ABC – 10 pounds on all equipment and vehicles. If a fire spreads beyond the suppression capability of workers with these tools, all would cease fire suppression action and leave the area immediately. • Initiate fire suppression actions in the work area to prevent fire spread to or on federally administered lands. If fire ignitions cannot be prevented or contained immediately, or it may be foreseeable that a fire would exceed the immediate capability of workers, the operation must be modified or discontinued and Range Control/Fire Emergency Services must be contacted immediately. • Prior to any operation involving potential sources of fire ignition from vehicles, equipment, or other means, weather forecasts and potential fire danger would be reviewed. Prevention measures to be taken each workday would be included in the specific job briefing. Consideration would be given to additional mitigation measures or temporary discontinuance of the operation during periods of extreme wind and dryness. • Operate all vehicles on designated roads or park in areas free of vegetation. Vehicles, including the undercarriages, would be thoroughly washed prior to entering the site. • Operate welding, grinding, or cutting activities in areas cleared of vegetation. 		X	X
16	<p>Gravel, top soil, and other fill materials should be procured from certified weed-free sources. If no certified weed-free sources are feasible, source pits should be inspected prior to acquisition to determine the relative risk of introducing non-native invasive species to the project site.</p>		X	X

Mitigation Measure		Mitigation Application Phase		
		Engineering, Design, and Location	Construction	Operation and Maintenance
17	Notices are to be posted 2 weeks in advance of construction to notify public to the timeframe of the construction and limited recreational (hunting, fishing, etc.) access.		X	
18	If human remains are inadvertently discovered, all work shall cease and the remains secured from further disturbance or vandalism until a plan for treatment has been developed. If BLM or DNR determines that the remains are Native American, any actions necessary under the Native American Graves Protection and Repatriation Act would be immediately acted upon. If it is determined that the remains are not Native American, and do not warrant criminal investigation, the BLM shall immediately notify SHPO and consult with the SHPO to identify descendants or other interested parties, if any. BLM or DNR, in consultation with the SHPO and any interested parties, shall develop a plan for the respectful treatment and disposition of the remains.		X	
19	Implementation of a storm water pollution and prevention plan and standard construction best management practices established for construction- and soil disturbance-related activities would minimize impacts to soil resources and protect wetland areas.		X	
20	The contractor will bore under Stuart Creek and Rivers to minimize stream disturbance.	X	X	

5.1. CURRENT ENVIRONMENTAL CONDITIONS

The project is almost entirely contained within the existing TAPS ROW. GCI also utilizes a utilities easement within the TAPS ROW for fiber optic cable. At several places, the project crosses the DOT&PF ROW at the Richardson Highway. Because of this, the entire proposed route is located within a previously disturbed area subject to routine vegetation clearing and maintenance.

TPECI utilized the ADF&G Anadromous Streams Catalog and found no anadromous streams within the boundaries of this project. However, the *Environmental Atlas of the Alyeska Trans Alaska Pipeline System* (Maps 24 and 25) showed six waterbodies within the project area containing resident fish (Table 2). Streams with resident fish populations will be bored under to prevent disruption of the streambed.

GCI issued a Letter of Nonobjection to the CVEA project. Alyeska Pipeline Service Company is working on a LNO, and this project is at the request of and benefit for Alyeska. A Letter of No Objection from GCI is provided in Appendix B.

During the 2002 audit of the Alyeska ROW renewal, no historic sites were found near the project corridor. In 2005, work performed under the Programmatic Agreement between the State Historic Preservation Office and Alyeska did not find any environmentally sensitive areas surrounding the project corridor.

5.2. ENVIRONMENTAL IMPACTS OF PROPOSED PROJECT

The project will improve air quality by replacing the diesel generation with hydroelectric power (via transmission line). This underground project will have negligible visual impact since junction boxes will be in the existing Alyeska ROW. The effect on the surface and groundwater quality will be negligible. There should be no change to the area creeks since the contractor will bore under them. When the project is complete, noise levels will be reduced since the existing diesel generator will be removed. The surface contours will be unchanged in the area that has already been cleared for the Alyeska Pipeline. Both Alyeska and GCI have issued a Letter of Nonobjection (LNO) to the CVEA project. See Appendix D for both LNOs.

TPECI utilized the *Environmental Atlas of the Alyeska Trans Alaska Pipeline System* (Map 24, 25) to identify subsistence harvest areas within the project area. No subsistence harvest areas were identified within the project area. However, a moose subsistence harvest area and plant subsistence harvest area are located just north of PLMP 753.7 adjacent to the Serendipity Subdivision.

Recreational access (e.g. trailheads, parking, roads, trails) will not be impacted by the project. The project area does intersect the Worthington Glacier State Park, which contains 6F restrictions. Access to the State Park will not be impacted by this project. Additionally, the park viewshed will be preserved by the preferred trenching/boring installation methods.

TPECI accessed recent aerial imagery and the United States Fish & Wildlife, National Wetland Inventory map to identify wetlands within the project area. No wetlands were identified within or immediately adjacent to the project boundaries.

5.3. CULTURAL AND HISTORICAL IMPACTS OF PROPOSED PROJECT

The State of Alaska requires all public construction or improvement activities conducted by, or requiring licensing or permitting from, the State of Alaska to comply with the Alaska Historic Preservation Act. This also includes required reporting of historic and archaeological sites on lands covered under contract with or licensed by the State or governmental agency of the State. In addition, federal involvement (financial assistance, permit, license or approval) with the project is the statutory obligation of the lead Federal agency to comply with Section 106 (36 CFR 800) of the National Historic Preservation Act, which requires the Federal agency to take into account the effects that their undertaking may have on historic properties.

The Office of History and Archaeology, Alaska State Historic Preservation Office has initiated the Section 106 review process for this site. A supplemental report documenting the SHPO determination will be provided upon completion of the Section 106 process.

6.0 REFERENCES

- Alyeska Pipeline Service Company. 1993. Environmental Atlas of the Trans-Alaska Pipeline System. Anchorage, Alaska: Alyeska Pipeline Service Company.
- APLIC 2012. Reducing Avian Collisions with Powerlines- The State of the Art in 2012. Avian Power Line Interaction Committee (APLIC), 2012. Edison Electric Institute.
- U.S. Fish and Wildlife Service (USFWS). 2007. National Bald Eagle Management Guidelines. Effective May 2007.
- U.S. Department of the Interior, Bureau of Land Management (BLM). 2009. IM 2009-011, Assessment and Mitigation of Potential Impacts to Paleontological Resources.

APPENDIX A
Underground Route Maps

APPENDIX B

Letter of No Objections



January 8, 2019

John Schenck, Operations Manager
Copper Valley Electric Association
359 Fairbanks Drive
Valdez AK 99686
Re: Letter of Non-objection

Dear John Schenck:


Subject to your agreement to indemnify the company as set forth below, GCI Communication Corp has no objection to the project along TAPS from PipeLine Mile Post (PLMP) 754 near the Tiekell River in Section 18, T7S R1E CRM and extending 20 miles southwesterly to the area by the DOT Maintenance property at Thompson Pass, PLMP 774, in Section 27, T8S R3W.

This letter of non-objection in no way precludes GCI Communication Corp from full use and enjoyment of any rights it may have within any portion of the utility easement and or the right-of-way, including unlimited access for servicing its facilities. Also any additional and extraordinary costs incurred during any future required construction, repair or reconstruction of GCI's facilities to accommodate any or all of the encroachments shall be paid by the property owner.

By signing below, you agree to indemnify and hold GCI Communication Corp harmless, now and forever, for any damage, costs, expense (including reasonable attorney's fees), liabilities and injury to any person or property occurring as a result of the encroachment.

Please indicate your acceptance by signing and returning this letter to me at the address below.

Sincerely,



Acceptance
1/8/19

Date

Steven Cranford
Manager - Outside Plant Long Haul Fiber
GCI Communication Corp
1300 Van Horn
Fairbanks, AK 99701
907-374-4340 Office



P O Box 196660 ANCHORAGE ALASKA 99519-6660 TELEPHONE (907) 787-8700

Date: January 29, 2019
(Alyeska signature)

LETTER OF NON-OBJECTION

John Schenck, Operations Manager
Copper Valley Electric Association, Inc.
P.O. Box 45
Glennallen, AK 99588

TEL: W)(907) 835-7019, C)(907) 255-1103

Email: Schenk@cvea.org

RE: Access to/across these Trans-Alaska Pipeline System ("TAPS") Facilities;
A) Pipeline Workpad, Pipeline Mileposts 753.9 (New Substation at Serendipity Subdivision Addition 1, Lot 12) to 774.1 (Cathodic Protection Module at the ADOTPF Thompson Pass Maintenance Station), and
B) All pertinent Access Roads

NOT INCLUDING GCI FIBER OPTIC CABLE

Dear Mr. Schenck:

By your letters dated October 17 and December 19, 2018 and your email dated October 22nd, all to Alyeska's Donald Richardson on behalf of Copper Valley Electric Association, Inc. ("CVEA") and persons represented by it including any employees, agents and/or contractors ("Applicant"), you have requested non-objection from Alyeska Pipeline Service Company ("Alyeska") to utilize those certain TAPS facilities described in the subject line above ("Subject Property") to gain access to **A)** via underground powerline installation equipment including brushing and line maintenance equipment and light trucks for the purpose of installing, operating and maintaining a buried/bored (HDD) 24.9/14.4 kV distribution power line and to **B)** for equipment and vehicular ingress and egress only. CVEA is cooperating with Copper Valley Telecom to simultaneously collocate a fiber optic cable in the same ditch on Subject Property, and a separate non-objection is being issued for that cable. Both the powerline and cable will serve non-TAPS customers and Alyeska.

This Letter of Non-Objection does not in itself constitute authorization for entry or use of the land underlying Subject Property, and Applicant must secure any authorization(s) that may be required from the pertinent landowner(s). Alyeska neither warrants that the Subject Property is suitable or safe to conduct applicant's activities.

To reflect Applicant's acceptance, please review the conditions stated in this letter and have the appropriate official sign, date below and return it to me. CVEA will ensure that all parties included in the collective Applicant comply with each and all provisions of this agreement. The copy of this letter, fully signed, dated above and returned to you may be used to demonstrate Alyeska's non-objection in obtaining any additional authorization(s) that may be required.

As agent for the Permittees/Lesseees/Grantees of the Trans Alaska Pipeline System rights-of-way, Alyeska provides its non-objection to the described use by Applicant of the Subject Property, insofar as Alyeska may do so under rights granted by the pertinent landowners, including the Bureau of Land Management, State of Alaska and private lot owners, for a period commencing April 1, 2019 or the date signed by Applicant, whichever is later, and terminating either on March 31, 2020, if construction is not yet substantially initiated or, if construction is initiated, at such time as Applicant no longer needs, uses or maintains the line. This non-objection is subject to the following conditions:

1. **APPLICANT WILL CONTACT AND/OR LEAVE A MESSAGE FOR THE ALYESKA CIVIL MAINTENANCE COORDINATOR (CMC), fka RESPONSE BASE SUPERVISOR (CMC), AT THE GLENNALLEN RESPONSE BASE, TELEPHONE (907) 822-8702, at least fourteen (14) days in advance of entering Subject Property with construction equipment** in order to obtain clearance for Applicant's requested access and to make any other necessary arrangements including scheduling a pre-construction meeting on site including review of the new powerline construction lathe. Applicant will submit to the CMC a written work plan describing Applicant's procedures in detail, especially covering **a)** the staking the pipeline centerline at select locations such as at the proposed pipeline crossings, bore pits and junction box locations, **b)** ditching protocol where the proposed route crosses the buried pipeline ditch or encroaches into the pipeline workpad driveline, including at the TAPS valves and powerline-pipeline crossings **c)** precise junction box locations, **d)** horizontal directional drilling (HDD), **e)** traversing the workpad bridge at Stuart Creek, **f)** refueling, and **g)** staging and traffic flow, all for protecting the safety of Alyeska personnel, the integrity of the subject property and the environmental quality within the TAPS right(s)-of-way.

During the term of this non-objection agreement, Applicant agrees to notify the CMC immediately upon completion of the power line installation and periodically thereafter as directed by the CMC (see 2013 CVEA-Alyeska Field Coordination protocol as amended).

2. **Applicant will contact Alyeska Security, Glennallen Response Base, telephone 787-5107 or (907)822-8707 at least ten (10) days in advance of initial access** to **a)** provide all information to identify each of its persons, including employees, contractor personnel or clients and any persons not identified by Applicant when non-objection was first requested, **b)** inform Alyeska about Applicant's bear protection and firearms plans and **c)** arrange for any special protocols for TAPS gate access.

During the term of this non-objection agreement, Applicant agrees to keep Security apprised in advance of changes in its field personnel on Subject Property and also notify Security upon completion of the power line installation.

3. Applicant understands that there may be times when the access will not be possible due to adverse surface conditions, pipeline-related construction activities or security conditions, and Applicant agrees to abide by Alyeska's decision in this regard.
4. At least sixty (60) days in advance of field mobilization to install the powerline, **Applicant will submit for review written plans with drawings to the CMC and to Alyeska System Integrity Engineering at Chuck.Southerland@alyeska-pipeline.com** of the following powerline segments:
 - a) Proposed HDD locations, adjacent to or crossing the pipeline, including plan and profile views showing horizontal and vertical offset and direction of bore; and
 - b) Proposed powerline crossings of the buried pipeline.

Applicant will contact Alyeska's survey contractor ("Survey"), at (907)450-7617 at least thirty (30) days in advance of brushing and powerline installation to arrange directly for a purchase order to a) conduct in advance under Alyeska instructions the pre-construction field locate, including depth of cover, of the pipeline and/or its appurtenances in the vicinity of the installation activity at all HDD and powerline-pipeline crossing locations and other locations as directed by the CMC in accordance with Condition 1, and b) the as-built surveying of the powerline including the incorporation of the redline as-built information into the Alyeska data files.

The HDD plans will include the drillhead monitoring and control plan and the precise horizontal directional drilling (HDD) equipment make and model with instruction manual. At Alyeska Engineering's direction, **Applicant will contact Alyeska's engineering contractor, Shannon & Wilson at (907) 479-0600 (Fairbanks)** at least thirty (30) days in advance of the mobilization of HDD equipment to arrange directly for a purchase order to perform onsite oversight on behalf of Alyeska of the HDD activity on Subject Property.

Applicant will also coordinate with GCI as required and prudent to protect the GCI long-haul fiber optic cable, especially on Subject Property.

Applicant will route the powerline a target minimum of five (5) feet outside of the outside (easterly) edge of the TAPS workpad driveline which is approximately thirty-seven (37) feet offset from the centerline of the buried pipeline. Applicant will post and maintain a warning marker of a minimum eight-foot (8') height at each junction box or other related surface appurtenance and will install marker tape in the ditch per applicable code. Applicant will provide Alyeska as-built drawings of the powerline within six months of substantial completion of the powerline installation. NOTE: Applicant will not trench along Subject Property between Pipeline Mileposts 759.1 (the intersection of TAPS access road 8 APL-2) and 759.35 to avoid the active avalanche and debris flow hazard zone.

Alyeska will consider an HDD plan for traversing this segment of Subject Property between the access road bridge guidebank and westerly side of the hazard zone.

In installing and maintaining the powerline, Applicant will maintain a minimum of twenty-four (24) inches of undisturbed ground between the top of the pipeline and the bottom of the powerline excavation and shall not use mechanical excavation equipment within eight (8) feet of the centerline of the pipeline at a minimum. At Alyeska Engineering's direction, Applicant will increase the extent of the non-mechanical excavation as prudent to protect the pipeline and its appurtenances. Applicant will encase the powerline in a conduit suitable for burial extending for a minimum of ten feet either side of the pipeline centerline and shall install marker tape in the ditch per applicable code. Immediately upon installation of the powerline on Subject Property, Applicant will post and maintain powerline-crossing, warning markers above the powerline at both sides of each crossing, facing both directions along the pipeline, and of sufficient height to be visible year-round.

Applicant will restrict its equipment and vehicles to that speed that is most safe and prudent under the weather and terrain conditions existing at the time of Applicant's use of Subject Property or to the posted speed limit, whichever is slower. Applicant will respect all vehicle block points, will not exit the workpad in vehicles except at established road or trail crossings and will cross all low water crossings with the transmission engaged in four-wheel-drive and at a low speed, creating no waves or splashes, and not disengaging the transmission until all four wheels are on level ground and out of the channel.

Applicant will not back up any vehicle in the direction of the pipeline within ten feet of the pipeline ditch crown. Furthermore, Applicant will take all precautions necessary to prevent injuries to persons and damage to property including, but not limited to, disturbance or destruction of roads, pads, survey monuments, cathodic protection devices, monitoring rods or any other Alyeska facilities and will promptly reimburse Alyeska for any related losses or damages.

At Alyeska's request, Applicant will locate and mark the underground location of the powerline. Applicant will temporarily or permanently relocate the powerline at Applicant's sole expense upon advance notice from Alyeska when reasonably necessary to conduct TAPS maintenance, repair or removal operations. Upon expiration of this letter on non-objection, Applicant will remove the powerline from its location on Subject Property.

Applicant will notify the CMC immediately after Applicant becomes aware of personal injuries or any disturbance or damage to property including, but not limited to, any Alyeska facility. Applicant shall be responsible for all repairs for damages caused by its activities within Subject Property that may be reasonably required by the CMC including, but not limited to any rehabilitation, restoration, revegetation, re- scarification, or seeding.

If at any time Alyeska determines that an Applicant act or omission in connection with the construction, operation, or maintenance of the powerline and/or related facilities poses a hazard to TAPS safety or integrity, Applicant

shall immediately cease the activity until such situation is corrected or resolved to the satisfaction of Alyeska.

5. Applicant will ensure that any and all access control gates which are in use are kept closed and locked and will also provide for public access control and safety whenever the gates are open.

Applicant will not park its vehicles or stage equipment on Subject Property without the specific authorization of the CMC.

Applicant will keep Applicant's vehicles and equipment in sound work order.

6. Applicant will comply with all applicable local, state and federal laws, regulations and ordinances.

Applicant will not conduct any camping, fishing, trapping, hunting or shooting within, from, or across the Subject Property.

Applicant will take all precautions necessary to prevent wild land fires. If a wild land fire is started, Applicant shall immediately report it to the appropriate public agencies and the CMC.

Applicant will take all precautions necessary to prevent spills or leaks of any hazardous substance as defined by Alaska Statute 46.03.826(5) including, but not limited to, crude oil, fuels, lubricants, hydraulic fluids or antifreeze. Such precautions include but are not limited to providing containment under any Applicant piping connections and monitoring constantly during Applicant fueling activities. If such a spill or leak of any amount does occur, Applicant shall immediately report it to the Alyeska CMC and to any appropriate public agencies. Applicant is responsible for the containment and cleanup of any such spill to the satisfaction of the responsible public agencies and Alyeska.

7. Applicant releases and agrees to defend, indemnify, and save Alyeska and its Owner Companies and their officers, employees, servants, and agents harmless from any and all claims, suits, liabilities, damages, and expenses in connection with loss of life, bodily injury or property damage sustained by any person, including contract and lien claims of any nature, and all claims asserted by any entity for injury to public lands or the violation of any state or federal law, which may be claimed to have arisen from or out of any occurrence in, upon, or in direct proximity to Subject Property, or from the occupancy or use by Applicant of Subject Property or any part thereof under the terms of this Letter of Non-objection, and which is claimed to have been occasioned wholly or in part by any act or omission of Applicant. This indemnity specifically includes any liability as described herein that might otherwise be imposed upon Alyeska and/or its Owner Companies by any state or federal law, rule or regulation in connection with oil spill or otherwise, and it further includes indemnification against any claim for cleanup, restoration, and rehabilitation.

In addition, you, on behalf of yourself and collective Applicant, agree to reimburse and indemnify Alyeska for all costs incurred by Alyeska for the repair or remedy

of any damage or injury to persons or property (including Alyeska or Owner Company property) to the extent attributable to the acts or omissions of Applicant or other party acting for the Applicant. Payment will be made by you to Alyeska within 45 days after presentation to you of a supported statement invoicing those costs for which Alyeska asserts the Applicant is responsible.

Should Applicant's powerline be damaged by Alyeska operations during the course of operating and maintaining TAPS, Alyeska/Owners shall reimburse Applicant for the costs of this physical damage only if it arises directly from a willful and intentional act by Alyeska employees or contractors. In such an event, Alyeska/Owner liability is limited in this event to repair or replacement costs to restore the powerline to an acceptable service level, whichever is less. Alyeska/Owners are not responsible to Applicant or third parties for other consequential, direct, or indirect damages such as loss of use or lost profits, and Applicant agrees to defend, indemnify, and save Alyeska/Owners and their officers, employees, servants, and agents harmless from any and all such claims, suits, liabilities, damages, and expenses. It is Applicant's responsibility to repair physical damage to its powerline.

8. At a minimum, Applicant shall carry and maintain with carriers approved to conduct business in the State of Alaska the following insurance covering its activities on Subject Property:
 - a. Comprehensive General Liability Insurance, including Contractual Liability insuring the indemnity obligations set out in this Letter of Non-Objection, with the minimum coverage of a combined single limit of \$1,000,000 (One Million Dollars) per occurrence for bodily and property damage liability.
 - b. Business auto liability insurance covering with minimum coverage of a combined single limit of \$1,000,000 (One Million Dollars) per occurrence for bodily injury, including death, and property damage.
 - c. Pollution Legal Liability Insurance, in the combined single limit of \$500,000 (five hundred thousand) for any fuel deliveries.
 - d. Workers' Compensation Insurance as required by AS 23.30.045.

All non-statutory insurance policies required in this Letter of Non-objection agreement will be primary to any and all other insurance of Alyeska, will name Alyeska as an additional insured, and will contain a waiver of subrogation against Alyeska, the Trans Alaska Pipeline System Lessees and their respective agents, employees, stockholders and affiliated companies. Applicant, including its contractors and/or subcontractors, will not waive the right to select independent counsel as provided under Alaska Statute 21.89.100 or otherwise.

9. Applicant shall not subcontract or assign any of its rights or delegate any of its obligations under this Letter of Non-Objection without Alyeska's prior written approval, which approval shall not be unreasonably withheld. CVEA shall

furnish such information about a proposed subcontractor, assignment, or assignee as Alyeska may reasonably request. No approval of a subcontractor, subcontract, or assignment shall relieve CVEA of any obligation under this Letter of Non-Objection.

Failure to fully comply with the conditions set out in this letter of non-objection may result in revocation by Alyeska, at its sole discretion, of its non-objection and may also result in Alyeska's declining to provide its non-objection to Applicant in the future for access across the TAPS right(s)-of-way.

The undersigned accepts and agrees to all provisions described in this letter of non-objection agreement and represents that s/he has full authority to accept and agree on behalf of Applicant, and to bind Applicant to the terms of this letter of non-objection.


Please call me at (907) 787-8170 if there are any questions.

Very truly yours,

ALYESKA PIPELINE SERVICE COMPANY
Agent for Owners of the
Trans Alaska Pipeline System

ACCEPTED AND AGREED to this
29th day of JANUARY, 2019.

BP PIPELINES (ALASKA) INC.
EXXONMOBIL PIPELINE COMPANY
CONOCOPHILLIPS TRANSPORTATION ALASKA, INC.
UNOCAL PIPELINE COMPANY

By: 
Signature

Name: JOHN SCHENCK

By: 
PETER C. NAGEL
Lands Manager

Title: OPERATIONS MANAGER

cc: Bureau of Land Management, Branch of Pipeline Monitoring
Department of Natural Resources, State Pipeline Coordinator's Section

UNITED STATES DEPARTMENT OF THE INTERIOR
Heritage Conservation and Recreation Service
Land and Water Conservation Fund Project Agreement

State	Alaska	Project Number	02-00298
Project Title			
Copper Basin Waysides			
Project Period	Date of Approval	Project Stage	
	to 12/31/86	Covered by this Agreement	
		Entire	

Project Scope (Description of Project)

Renovation of waysides at Worthington Glacier, Blueberry Lake and Lake Louise to include upgrading and development of campgrounds, picnic areas, boating facilities, trails, and support facilities, and cultural resources survey.

Project Cost	The following are hereby incorporated into this agreement:
Total Cost	1. General Provisions (HCRS Manual)
\$ 778,000.00	2. Project Application and Attachments.
Fund Support not to exceed 50% Fund Amount	3.
\$ 389,000.00	4.
Cost of this Stage	
\$ 778,000.00	
Assistance this Stage	
\$ 389,000.00	
	POSTED
	Date 7/30/81
	By CB

The United States of America, represented by the Director, Heritage Conservation and Recreation Service, United States Department of the Interior, and the State named above (hereinafter referred to as the State), mutually agree to perform this agreement in accordance with the Land and Water Conservation Fund Act of 1965, 78 Stat. 897 (1964), the provisions and conditions of the Heritage Conservation and Recreation Service Manual (Grants-in-Aid Series), and with the terms, promises, conditions, plans, specifications, estimates, procedures, project proposals, maps, and assurances attached hereto or retained by the State and hereby made a part hereof.

The United States hereby promises, in consideration of the promises made by the State herein, to obligate to the State the amount of money referred to above, and to tender to the State that portion of the obligation which is required to pay the United States' share of the costs of the above project stage, based upon the above percentage of assistance. The State hereby promises, in consideration of the promises made by the United States herein, to execute the project described above in accordance with the terms of this agreement.

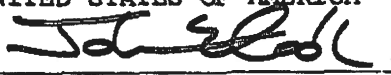
The following special project terms and conditions were added to this agreement before it was signed by the parties hereto:

Any reference to the Heritage Conservation and Recreation Service (HCRS) or the Bureau of Outdoor Recreation (BOR) contained in this Project Agreement, or in any attachments incorporated thereto, shall hereinafter be considered a reference to the National Park Service (NPS).

In witness whereof, the parties hereto have executed this agreement as of the date entered below.

THE UNITED STATES OF AMERICA

By



Regional Director

(Signature)

Heritage Conservation and
Recreation Service
United States Department
of the Interior

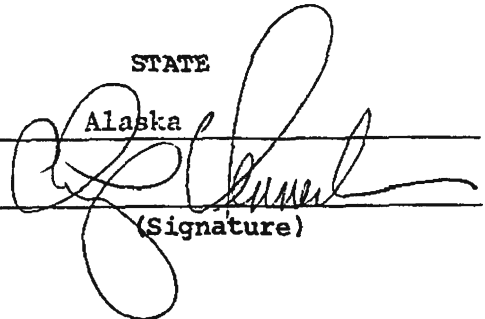
Date

23 JUL 1981

STATE

Alaska

By



(Signature)

Chip Dennerlein

(Name)

State Liaison Officer

(Title)

INT 4770-78
NAT TO INT 2110/00000 11 00/0000

BROOKS RANGE

ALASKA RANGE

U.S.A.
CANADA

FAIRBANKS

CANTWELL

TOK

GLENALLAN

WASILLA

FALMER

ANCHORAGE

VALDEZ

BLUEBERRY LAKE
WAYSIDE

CORDOVA

KENAI

SEWARD

HOMER

PRINCE WILLIAM
SOUND

DILLINGHAM

KODIAK



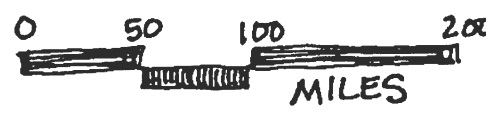
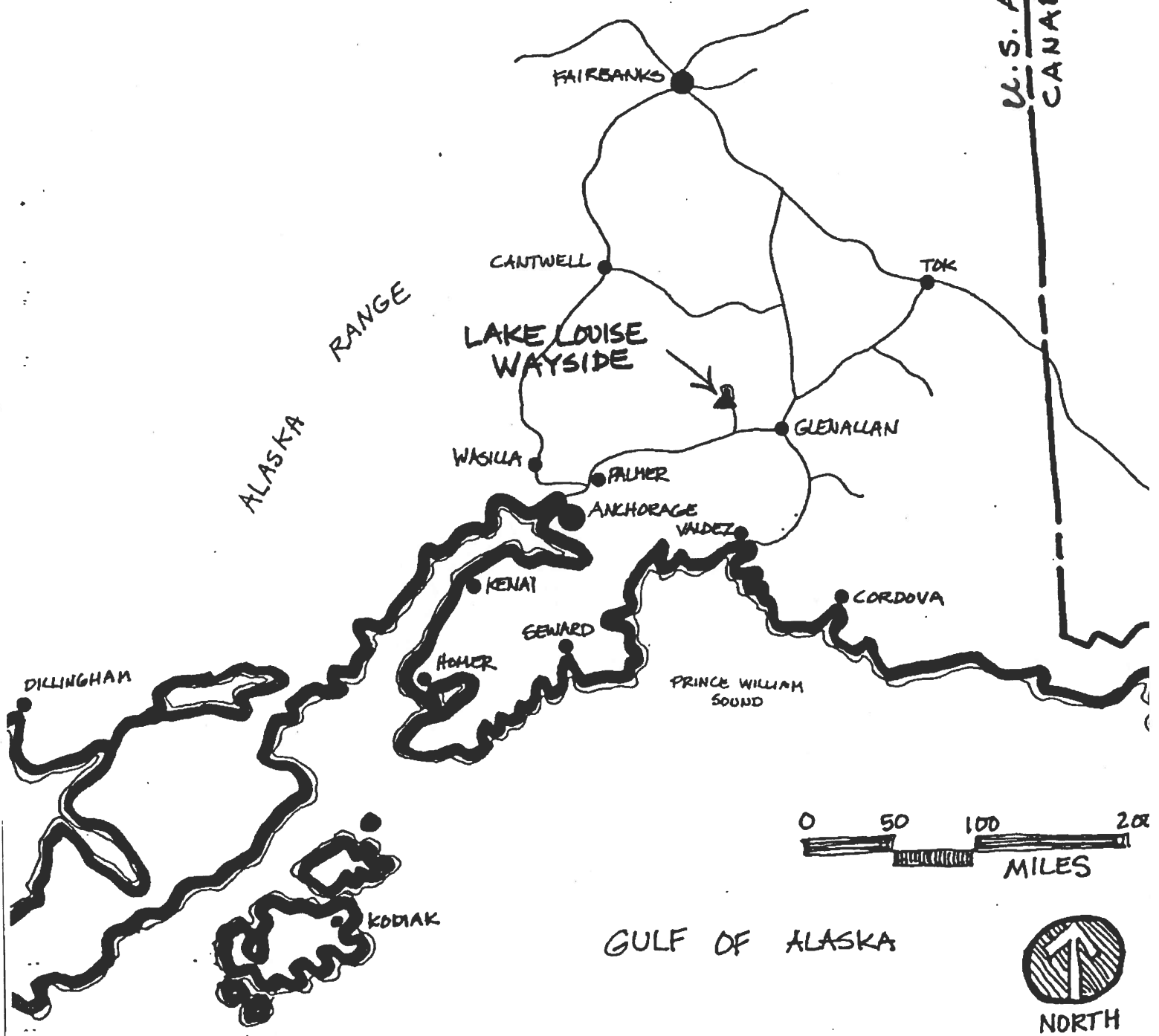
GULF OF ALASKA



BROOKS RANGE

ALASKA RANGE

U.S.A.
CANADA



GULF OF ALASKA



BROOKS RANGE

ALASKA RANGE

U.S.A.
CANADA

FAIRBANKS

CANTWELL

TDK

GLENALLAN

WASILLA

FALMER

ANCHORAGE

VADEZ

WORKTHINGTON
GLACIER
WAYSIDE

KENAI

SEWARD

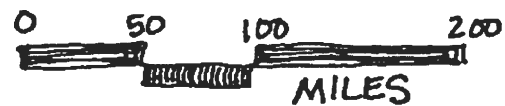
HOOPER

PRINCE WILLIAM
SOUND

CORDOVA

DILLINGHAM

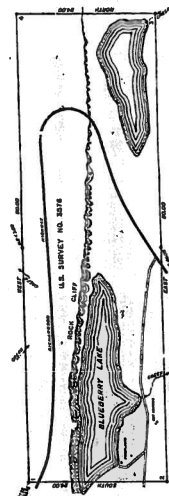
KODIAK



GULF OF ALASKA



All of section 1 and 2 lying north of the Richardson Highway right-of-way, all of Section 1, Township 9 South, Range 3 West, Copper River Meridian lying north of the Richardson Highway right of way, excluding the Trans Alaska Gas System (TAGS) right-of-way which runs through the center of said section, and the portion of the Copper River Corporation for construction of TAGS which lies 400' or either side of center line which runs through the west half of the property and that portion of Section 16, Township 9 South, Range 3 West, Copper River Meridian south of the Richardson Highway right of way containing a total of 379 acres more or less.



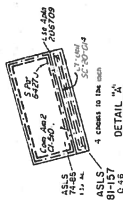
50

3W

COPPER RIVER

Blueberry Lake S.R.S.

STATUS PLAT



US\$ 376 PLAT APPD. 6/8/99
US\$ 288 PLAT APPD. 3/6/99
US\$ 74-98 4E 643QZ PLAT APPD. 11/27/94
ASLS 31-58; Fms 4/5/96
ASLS 85-89; Fms 4/5/96
Subject ID CBAP
Subject ID CBAP

DATE	CHECKED	BY
4-25-01		WNA

11°02'46.367" N
145°39'52.476" W

95
ME
C 2 2

Final
011133 Boundary Map-LACP Project# 02-00998
Copper Basin Mayside - Lake Louise
Alaska Division of Parks & Outdoor Recreation
Robert J. [Signature]
11/1/60
1/26/60

U. S. SURVEY NO. 3483, ALASKA

LAKE LOUISE SMALL TRACT GROUP
EMBRACING LOTS 1 TO 22 INCLUSIVE
SITUATED
ON THE SOUTHEASTERN SHORE OF
LAKE LOUISE

GEOGRAPHIC POSITION AT WITNESS
MEASUREMENT CORNER NO. 1
LATITUDE: 62° 17' 16.130" N.
LONGITUDE: 146° 23' 30.744" W.

AREA: 986.15

DESIGNED BY
THEODORE P. KOSKOWSKI, CHIEF, SURVEY
GROUP & TOWNSHIP PHOTOGRAPHIC MATERIAL
JUNE 1 TO SEPTEMBER 5, 1959

Under Special Instructions
Dated May 13, 1954 and
Approved May 25, 1956

ESTABLISHMENT OF
U. S. LOCATION MONUMENT
NO. 3483

*Note: Review these, after conferring with S.O.,
should not be left in the hands of the
local landowner. Period 10 days at
least a large description of the
boundary as shown 12/13/59*

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Washington, D.C.
June 28, 1962

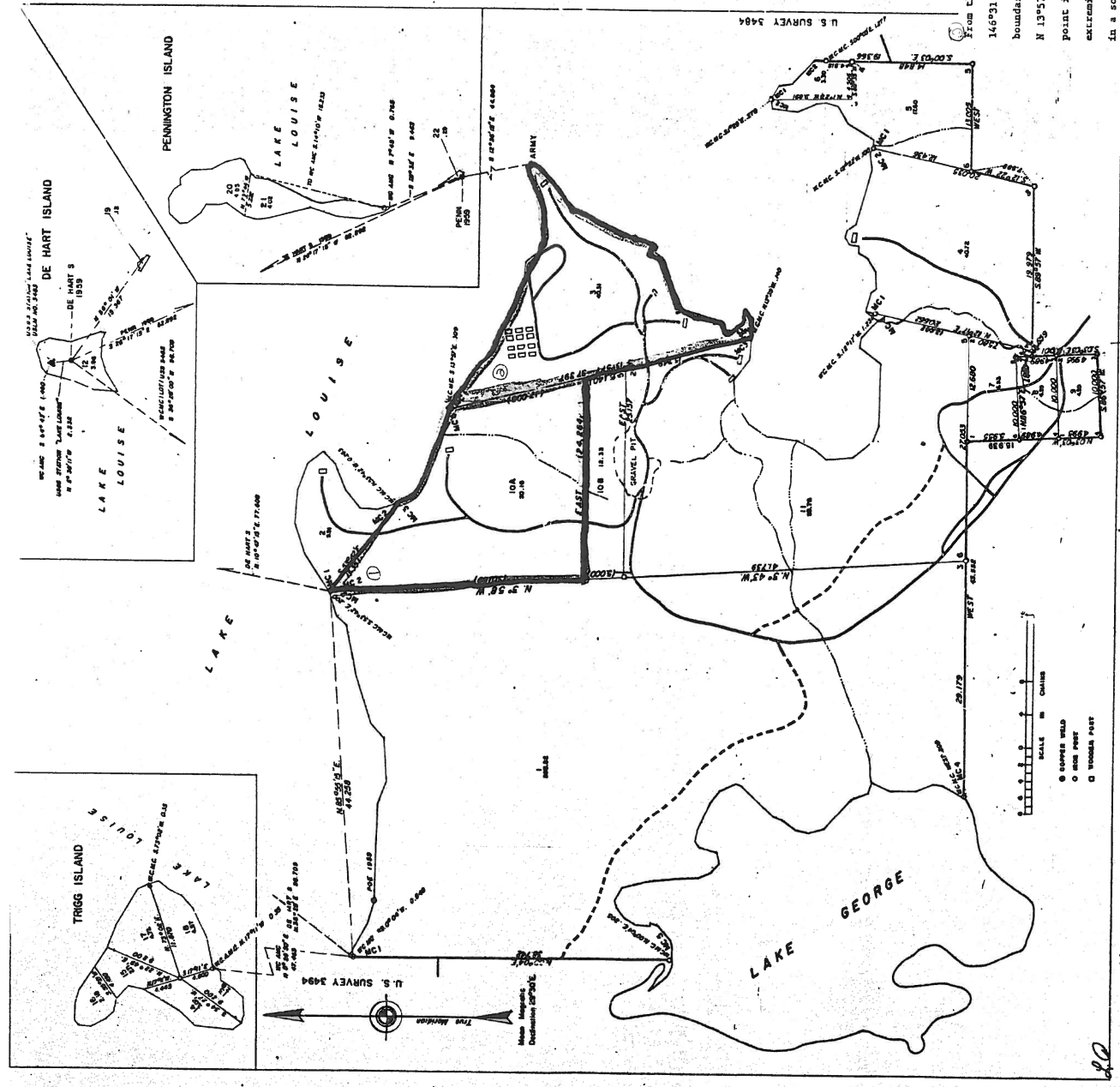
This plat is strictly conformable to the
approved map and survey data having
been correctly exercised in accordance with
the requirements of law and the regulations
of this Bureau, is hereby accepted.

For the Director

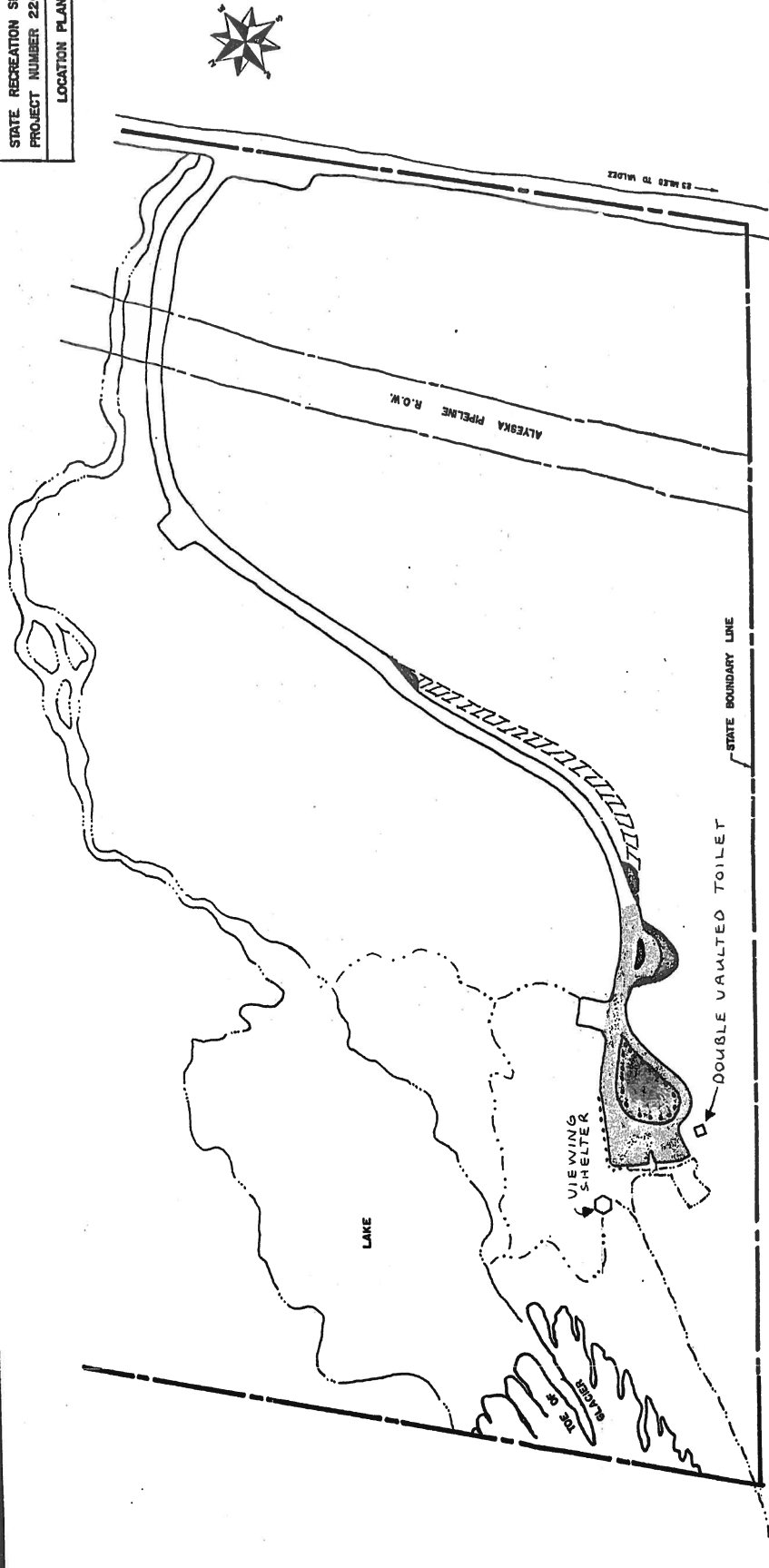
[Signature]
Chief, Division of Engineering

From the point of beginning, starting at Latitude 62°16'15" N, Longitude
146°31'10" W and identified as MC 3 on the attached plat at the southern
boundary of Lot 3 U.S. Survey 3483; thence
N 13°57' W along the subdivision line a distance of 2,468.02 feet to a
point identified as MC 4 on said attached plat and located at the northern
extremity of Lot 3; thence

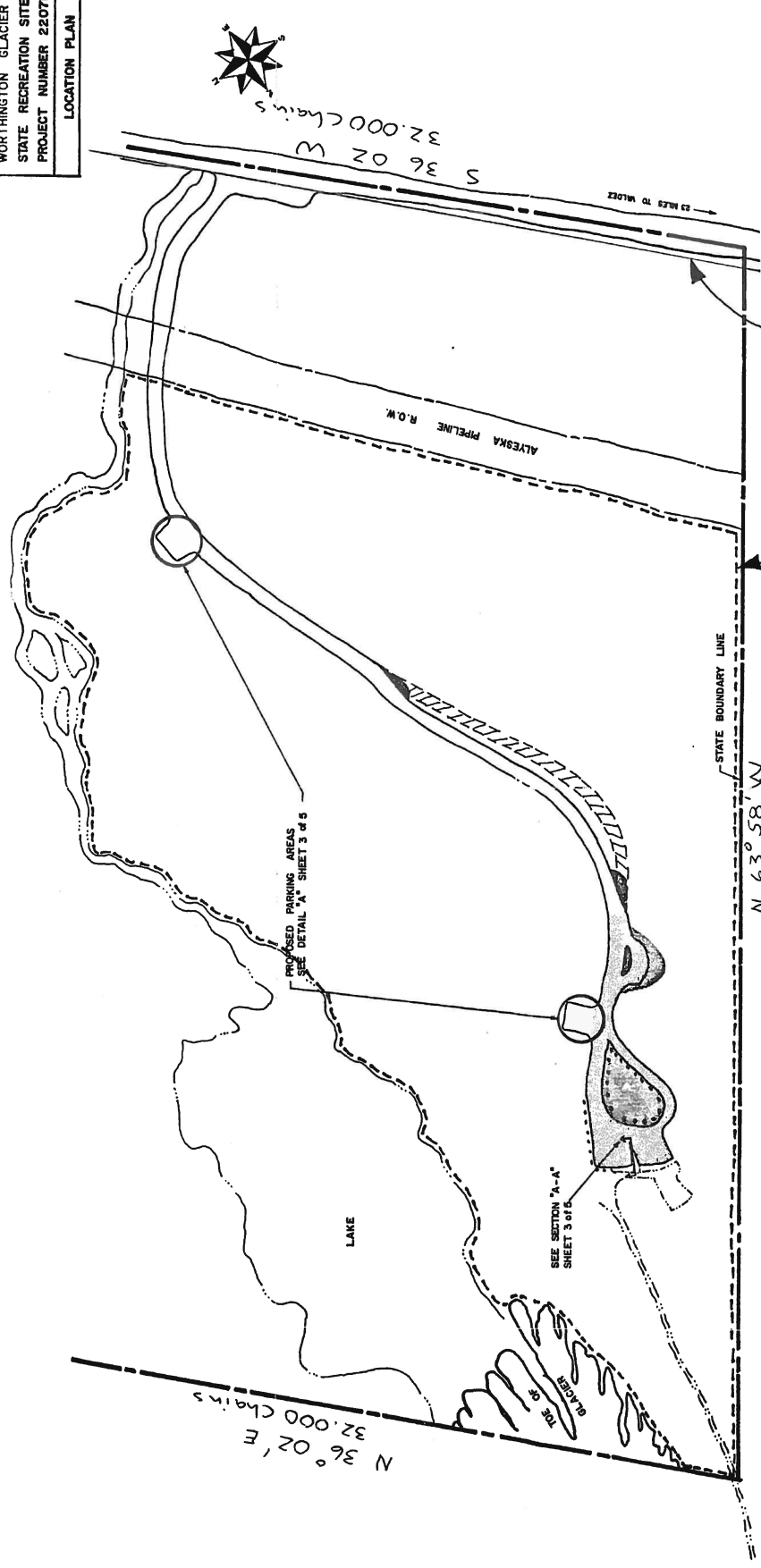
In a southeasterly direction along the mean high water line and following
the meander of the shoreline of Lake Louise to a point identified as Army
Point at the eastern extremity of said lot; thence
southeasterly along mean high water line and following the meander of the
shoreline to the point identified as MC 3, said point being the point of
beginning.



WORTHINGTON GLACIER
 STATE RECREATION SITE
 PROJECT NUMBER 22071-1
 LOCATION PLAN



WORTHINGTON GLACIER
STATE RECREATION SITE
PROJECT NUMBER 2207T-1
LOCATION PLAN



Gas Pipeline Centerline
(R.O.W. 400 feet either side of centerline)

LEGEND

- MOUNTS FROM THE EXTRA EXCAVATION
- LARGE ROCK PLACEMENT LOCATIONS
- EXISTING ROAD
- NEW ROAD & PARKING AREAS
- ZZZZ EXISTING ROAD BEEN BARRICADED
- SLOPE FLATING AREAS

U.S. Survey No. 3577 Alaska

6(f)(3) Boundary Map-LMCF Project# 02-00298

Copper Basin Wayside - Worthington Glacier
Alaska Division of Parks & Outdoor Recreation

[Signature]
Date: 11/21/80

DEPARTMENT OF NATURAL RESOURCES

DESIGN & CONSTRUCTION

SHAW RD
CHS 1/4

SHEET