



STERLING TO QUARTZ CREEK 69-KVA LINE REMOVAL PROJECT

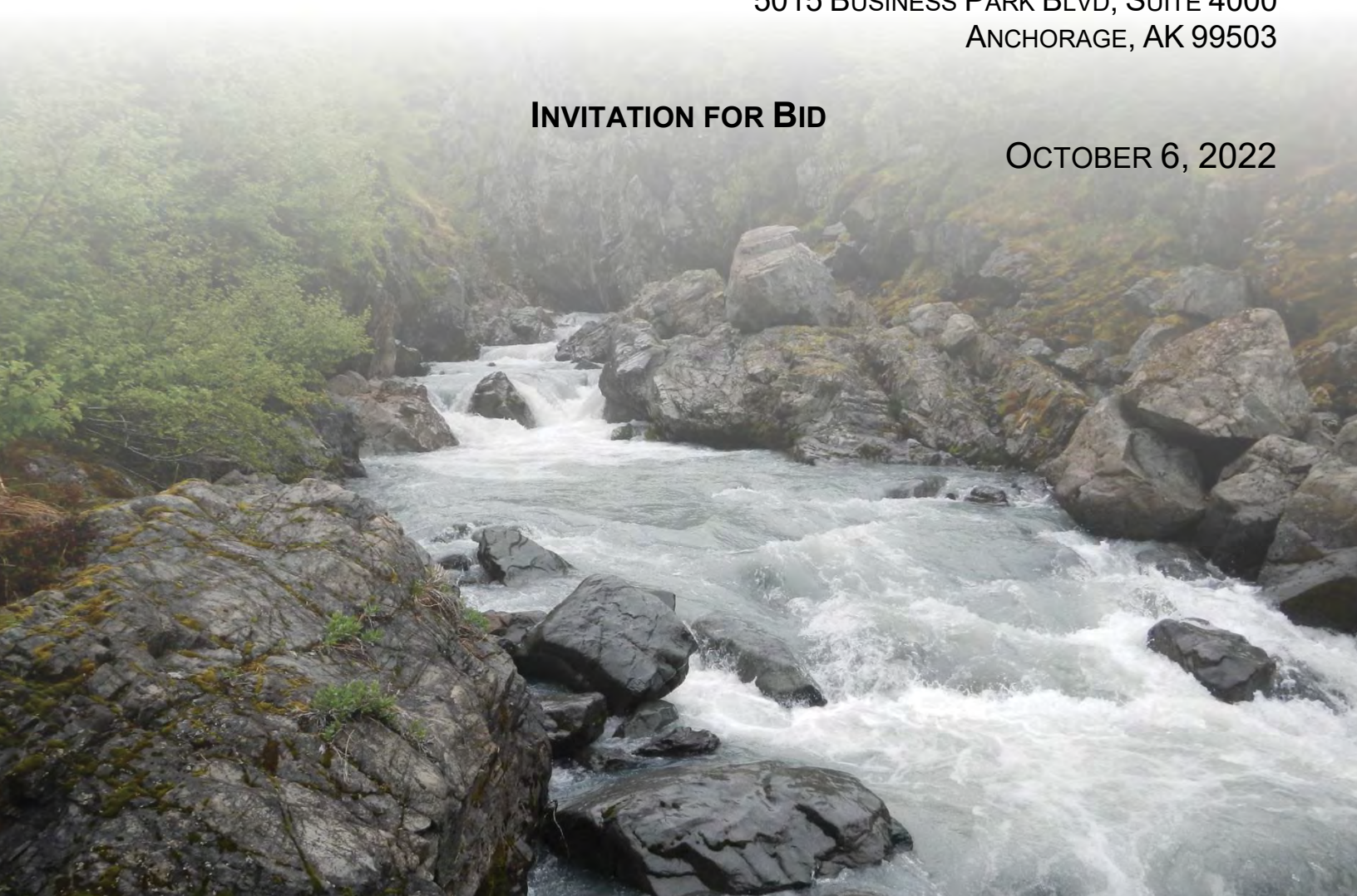
CONSTRUCTION SPECIFICATIONS DIVISIONS 01 THROUGH 31

PREPARED FOR:
ALASKA ENERGY AUTHORITY
813 W NORTHERN LIGHTS BLVD
ANCHORAGE, AK 99503

PREPARED BY:
 **DOWL ALASKA**
5015 BUSINESS PARK BLVD, SUITE 4000
ANCHORAGE, AK 99503

INVITATION FOR BID

OCTOBER 6, 2022



SECTION 01 11 13
SUMMARY OF WORK

PART 1-GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Contract Method.
- B. Work by Others.
- C. Coordination.
- D. Work covered by Contract Documents.

1.2 RELATED REQUIREMENTS:

- A. Section 00 70 00 – General Conditions.
- B. Section 00 80 00 – Supplementary Conditions.
- C. Division 1
- D. Division 2
- E. Division 31

1.3 CONTRACT METHOD

- A. This Contract is lump sum as shown on the Section 00 32 00 – Bid Schedule. This work shall be measured and paid for in accordance with Section 00 70 00 – General Conditions, Article 13 – Payment to Contractors and Completion and Section 01 29 73 - Schedule of Values.

1.4 WORK BY OTHERS

- A. All work shall be included in this Contract except for tasks specifically indicated as being performed by others.

1.5 COORDINATION

- A. Coordinate Work to assure efficient and orderly sequence of demolition.
- B. Prior to procurement, verify that characteristics of interrelated equipment are compatible.
- C. Coordinate space requirements and installation of components. Utilize spaces efficiently to maximize accessibility for other installations, maintenance, and repairs.

1.6 WORK COVERED BY CONTRACT DOCUMENTS

General Description

The removal of the 69-kVA poles and lines are broken into segments based on access and land ownership. The wooden poles are between 40 and 70 feet in

length and buried 6 to 9 feet depending on the length of the pole. At each identified location, there may be one, two, or three poles to be removed. The poles are all located within a 100-foot ROW just south of a 100-foot ROW for the 115-kVA lines. While vehicles are allowed within most of the ROW, some of the surrounding property is designated as Wilderness and is prohibited to vehicles (please see Appendix A).

Figures of line location (Appendix A) and list of pole locations (Appendix B) are included for each section.

In many areas, downed trees make accessing the 69-kVA poles and conductors difficult (see Appendix C for aerial imagery of each pole location).

The Scope of Work included below is preliminary. The Kenai National Wildlife Refuge and Chugach National Forest may include additional requirements as part of the permitting process. ***A draft schedule is to be submitted to the Alaska Energy Authority within thirty days of contract execution.***

General Notes

In each of the following work sections, the total number of locations and individual poles are estimates. Some locations may have one or more poles. Because of this, the Bidder shall provide alternate unit pricing for the removal of additional single poles, conductors, and equipment in order to provide for the contingency that there are more poles than expected. Separate alternate pricing will be provided for removal via vehicle and helicopter access.

The Base Bid will be for the removal of poles, conductors, and equipment for vehicle access.

The Additive Alternate #1 bid will include the removal of poles, conductors, and equipment for helicopter access.

The existence of the conductor is also for informational purposes, and field conditions may differ from available imagery. ***It is highly recommended that all Bidders perform site visits pre-bid in order to determine site conditions for themselves.***

The Landowners' conditions for access and pole removal are for informational purposes, and the final conditions will be determined by Special Use Permits acquired by the CONTRACTOR.

Clearing and grubbing is not permitted within the migratory bird window of May 1 to July 15; except as permitted by Landowners.

Any pole hole fill material shall be clean of invasive species and shall be

subjected to review by governing land authority.

Pressure wash all tracked equipment, excavation equipment, and excavation hauling equipment prior to every mobilization in order to ensure that the spread of invasive species is minimized. Clean equipment so that no invasive species would have the chance of being spread or imported into the site. At a minimum, there should be no visible dirt on equipment. Landowner staff will inspect all equipment before entering Refuge or National Forest lands. See 01 71 13 Mobilization and Demobilization for more information.

Permitting

- Prior to work occurring and where applicable, the contractor shall coordinate with and obtain approval from the from the following agencies and entities:
- Prior to work occurring within 50-ft of any anadromous water body, the successful bidder shall coordinate with and obtain approval from the Kenai Peninsula Borough (KPB). A copy of the KPB authorization shall be provided to the Kenai National Wildlife Refuge and/or Chugach National Forest, as needed.
- Fish Habitat Permit from Alaska Department of Fish & Game (ADF&G).
- USACE Sec. 10/404
- Special Use Permits from the Kenai National Wildlife Refuge and Chugach National Forest
- Alaska Department of Transportation

Copies of permits and authorizations shall be supplied to the AEA and Landowner prior to work occurring.

USFWS Kenai National Wildlife Refuge E-48-KE Permit Requirements

- All ROW Permit stipulations (E-48-KE) shall remain in full force and effect and will be held as a valid part of this authorization.
- This Permit does not authorize the crossing of any anadromous or resident fish streams without first obtaining the proper, required permits.
- The CONTRACTOR will be responsible for ensuring all personnel, including those of its assigns conducting activities authorized by the Refuge, are familiar with and adhere to its General, Regional and Special Conditions.

- A copy of the Special Conditions for the Retirement of the 69-kV line and Removal Associated Structures within the 69-kV ROW of E-48-KE Permit (included in Appendix D) shall be in the possession of field crews at all times during work activities.

Project Segments

Chugach National Forest (QK-74 to QK-76)

See Map: A2

Land ownership: Chugach National Forest

Total # of locations	Pole Decommission			Access	
	Remove pole butt/fill w clean rock	Cut flush at surface	Locations w/ existing conductor	Access trail	Helicopter/foot
3	0	3	3	3	0

- Poles located near Russian Lakes Trail and RA7. Poles will be cut off flush with the ground surface, with the pole butts remaining in place and poles and equipment removed.
- See Project Stipulations for Removal of 69-kV poles for permit SEW764 from US Forest Service in Appendix F. The access to the poles through the Russian River Campground may be closed (see Appendix G).

Kenai to Russian River Segment – Russian River (QK-77) to MP 55.6 (QK-94)

See Maps: A-2 and A-3

Land ownership: Kenai National Wildlife Refuge

Total # of locations	Pole Decommission			Access	
	Remove pole butt/fill w clean rock	Cut flush at surface	Locations w/ existing conductor	Access trail	Helicopter/foot
18	0	20	18	0	18

- This segment runs along the south side of the highway from the Kenai River to the eastern Refuge boundary at the Russian River. With the exception of QK-94, all of the poles lie south of the Kenai River. Prior to work occurring, Refuge

- approval will be required to land a helicopter. Based on aerial imagery, at least two of the pole locations have more than one pole to be removed.
- b. All poles in this segment require helicopter removal. Poles will be cut off flush with the ground surface, with the pole butts remaining in place and poles and equipment removed.
 - c. Work shall be performed at the Kenai River crossing (River Mile 73), and in the Kenai to Russian River segment, consistent with the anadromous stream buffer requirements in Sec. 4.5.2.1, 4.5.2.2, and 4.5.2.3 of the Protocol (Appendix E).
 - i. **4.5.2.1.** Maintain anadromous buffer: Russian River west shore buffer of 100' (Sec. 33, T5N-R4W.).
 - ii. **4.5.2.2.** There are no additional buffers or considerations between Sterling Highway and river mile 73, Kenai River (Sec. 29/32, T5N-R4W). This area is typically hand cleared due to inability to get machinery into the area. No additional buffers or considerations.
 - iii. **4.5.2.3.** Maintain anadromous buffer: Kenai River crossing (Sec. 32, T5N-R4W).
 - d. Poles QK-77 thru QK-92. ROW and poles accessed by helicopter. Poles will be cut off flush with the ground surface, with the pole butts remaining in place and poles and equipment removed.
 - e. Poles QK-93 thru QK-94. ROW and poles accessed by helicopter and/or hike from highway. Conductor crosses over Kenai River. Safety of boaters and fishermen must be a priority when dropping conductor. Once the conductor is dropped, it shall be removed the same day. Poles will be cut off flush with the ground surface, with the pole butts remaining in place and poles and equipment removed. Prior to work occurring, contractor shall coordinate with and obtain approval from Kenai Peninsula Borough (KPB). A copy of the KPB authorization shall be provided to the Refuge.

Fuller Creek Segment – MP 55.6 (QK-95) to MP58.3 (QK-125)

See Maps: A-3 through A-6

Land ownership: Kenai National Wildlife Refuge

Total # of locations	Pole Decommission			Access	
	Remove pole butt/fill w clean rock	Cut flush at surface	Locations w/ existing conductor	Access trail	Helicopter/foot
31	12	30	28	9	22

This segment runs along the north side of the highway through the Fuller Creek Trail area from MP 55.6 to MP 58.3. Most of the poles are located over 1,000-ft from the highway in difficult to access, steep terrain. Based on aerial imagery,

numerous pole locations have more than one pole to be removed.

- a. Conductor crosses over highway between QK-94 and QK-95. Traffic control and approval from the Alaska Department of Transportation is required when dropping the conductors. Once the conductor is dropped, it shall be removed that day. Cut poles at ground level and remove poles and equipment. Contact Alaska Department of Transportation at least 2 weeks prior to work occurring for restrictions and/or assistance.
- b. Poles between Sterling Highway MP 55.6 and Fuller Creek Canyon (QK-95 to QK-110) will require helicopter use as the terrain is challenging and there is no equipment access from the highway in this location. In addition, a portion of the ROW crosses a public-use trail (Fuller Lakes Trail), and trail users must be notified prior to work in this area to ensure public safety is addressed. Additional restrictions may be required. Poles in this section will be cut off flush with the ground surface, with pole butts being left in place and poles and equipment removed.
- c. All poles between QK-111 and QK-116 at the edge of Fuller Creek Canyon will require helicopter access and removal. An unauthorized trail currently exists within and adjacent to the 115-kV ROW. However, it crosses into Wilderness just west of HA4, and vehicles are expressly prohibited in this section. Poles will be cut off flush with the ground surface, with the pole butts remaining in place and poles and equipment removed.
- d. Poles east of MP 58.3 (QK-117 to QK-125) may be accessed overland from RA8. Trail access has boulders in order to prevent traffic from highway and along ROW. If boulders are moved they must be replaced by the end of each working shift or access restricted by other Landowner-approved methods. The unauthorized access trail within the 115-kVA ROW has several short steep grades that may prevent use of wheeled vehicles. This trail has recolonized with vegetation, and no ground surface disturbance (grading, disking, and plowing) is authorized. Erosion control materials must be replaced at end of work. Brush & small tree cutting may be required to access 69-kVA pole. Poles to be removed from ground and holes filled with clean one inch minus (pea gravel) rock to surface. Poles and equipment removed.

Jean Lake Segment - MP 58.3 (QK-126) to MP 62.4 (QK-167)

See Maps: A-6 to A-9

Land ownership: Kenai National Wildlife Refuge

Total # of locations	Pole Decommission			Access	
	Remove pole butt/fill w clean rock	Cut flush at surface	Locations w/ existing conductor	Access trail	Helicopter/foot
41	9	33	37	41	0

This segment runs along the south side of the Sterling Highway, south of the Jean Creek valley and lake complex. Most of the poles are located about 1200-ft to 1800-ft away from the highway. Based on aerial imagery, at least one location has two poles to be removed.

- a. As this segment of the 69-kVA ROW approaches the Sterling Highway near MP 58.3, on the northeast end, it crosses Jean Creek, a small, meandering, anadromous stream, in at least two to three places. Access across Jean Creek shall only occur while frozen conditions are adequate to facilitate crossings. Prior to work occurring contractor shall coordinate with and obtain approval from Kenai Peninsula Borough (KPB). A copy of the KPB authorization shall be provided to the Refuge. This work could impact Jean Creek, an anadromous stream. Extreme caution is required at this location and additional restrictions are likely per the KPB permit.
- b. Poles in potential wetlands (potentially QK-126 and QK-127) shall remain in place until ground conditions are suitable to support the weight of tracked equipment in order to attempt removal under frozen conditions. A reasonable attempt at complete removal of these poles without excavation shall be made and holes filled with clean one inch minus rock to surface. Should removal not be possible, and agreed to by AEA, the poles will be cut off flush with the ground surface, with the pole butts remaining in place and poles and equipment removed.
 - i. QK-126 can be accessed from highway. Pole may be in wetlands so that mats under tracks may be required.
 - ii. Pole QK-127 is located near Jean Creek. Pole may be in wetlands, such that mats under tracks may be required. Crossing stream requires sufficient ice thickness and mats, to be coordinated with the Kenai National Wildlife Refuge and Alaska Department of Fish and Game.
- c. Poles QK-128 thru QK-157. Poles run adjacent to 115-kVA ROW where an unauthorized access trail exists. This trail has recolonized with vegetation and no ground surface disturbance (grading, disking, plowing) is authorized. Brush & small tree cutting may be required to access 69-kVA pole. Poles will be cut off flush with the ground surface, with the pole butts remaining in place and poles and equipment removed.

- d. Poles QK-158 thru QK-167. Poles run adjacent to 115-kVA ROW that has an access trail. Brush & small tree cutting may be required to access 69-kVA pole. Poles to be removed from ground and holes filled with clean one-inch minus rock to surface. Poles and equipment are to be removed.

Sterling Highway Segment - MP 62.4 (QK-168) to MP 69 (QK-232)

See Maps: A-9 to A-13

Land ownership: Kenai National Wildlife Refuge

Total # of locations	Pole Decommission			Access	
	Remove pole butt/fill w clean rock	Cut flush at surface	Locations w/ existing conductor	Access trail	Helicopter/foot
64	64	0	63	64	0

This segment runs along the north side of the highway from where the transmission line crosses to the south side of the highway at MP 62.4 to just west of the Kelly Lake Road. The poles vary in distance from within 150-ft up to about 350-ft from the edge of pavement. Poles QK-187 and QK-188 have already been removed.

- a) Poles QK-167 thru QK-232. Poles run adjacent to and south of 115-kVA ROW where a revegetated access trail exists. Brush & small tree cutting may be required to access 69-kVA pole. Poles to be removed from ground and holes filled with clean one inch minus rock to surface. Poles and equipment to be removed.
- b) Poles in potential wetlands (QK 212 and/or QK-217) shall remain in place until ground conditions are suitable to support the weight of tracked equipment to attempt removal under frozen conditions. A reasonable attempt at complete removal of these poles (without excavation) will be made. Should removal not be possible, and agreed to by AEA, the poles will be cut off flush at the ground surface with the butts remaining below ground.

1.7 BASE BID DESCRIPTION OF WORK

Provide all work for the Quartz Creek to Sterling 69-kVA Pole Removal project except for work specifically indicated on the Additive Alternates. Work shall include but not be limited to:

- A. Removal of all poles and associated equipment that are accessible by motorized vehicles. It is expected that 117 poles will be removed by motorized vehicle.

- B. Fill pole holes as required and noted.
- C. Document pole removal as per project requirements.

1.8 ADDITIVE ALTERNATE #1 (HELICOPTER ACCESS) DESCRIPTION OF WORK

- A. Removal of all poles and associated equipment that are accessible by helicopter. It is expected that 40 individual poles will be removed by helicopter.
- B. Document pole removal as per project requirements.

1.9 ADDITIVE ALTERNATE #2 (SINGLE MOTORIZED VEHICLE ACCESS POLE REMOVAL) DESCRIPTION OF WORK

- A. Removal of a single pole and associated equipment that is accessible by a motorized vehicle.
- B. Fill pole hole as required.
- C. Document pole removal per project requirements.

1.10 ADDITIVE ALTERNATE #3 (SINGLE HELICOPTER ACCESS POLE REMOVAL) DESCRIPTION OF WORK

- A. Removal of a single pole and associated equipment that is accessible only by helicopter.
- B. Document pole removal per project requirements.

1.11 ADDITIVE ALTERNATE #4 (EROSION CONTROL) DESCRIPTION OF WORK

- A. Erosion control is a critical part of the pole removal process. However, it is difficult to quantify and predict needed erosion control measures that will be needed. In light of this unknown, all Bidders are to carry an allowance of \$10,000 for unknown, needed erosion control measures. The allowance is not authorized for cases where it has been determined that unnecessary ground and/or vegetation disturbance impacts have occurred.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

PROJECT SCHEDULE CRITICAL DATES

Pre-Bid Meeting	See 001150a Special Notice to Bidders
Bid Opening	See 000200 Invitation to Bid
Substantial Completion	October 31, 2023
Final Completion	November 21, 2023

END OF SECTION

SECTION 01 12 21

CONTRACTOR'S CERTIFICATION OF SUBCONTRACTS

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Procedures for preparing, submitting and accepting subcontracts.

1.2 RELATED REQUIREMENTS

- A. Section 00 70 00 – General Conditions: Subcontractor Certification and Approval.
- B. Section 01 33 00 – Submittal Procedures.

1.3 PREPARATION OF CERTIFICATION

- A. Certification Forms: Use forms provided by the Authority.
- B. Contractor shall prepare certification form. Where required, attach additional information to the certification form.
- C. Substitute certification forms will not be considered.

1.4 SUBMITTAL OF CERTIFICATION

- A. The Contractor shall submit certification forms for all subcontractors for review and approval by the Authority.

1.5 CONSIDERATION OF CERTIFICATION

- A. Following receipt of submitted subcontractor certification forms, the Authority will review for the following, at minimum:
 - 1. Completeness of forms and attachments
 - 2. Proper execution (signatures) of forms and attachments
- B. Incomplete or improperly executed subcontractor certification forms will be returned to the Contractor for revision and resubmittal.
- C. Contractor shall remove its subcontractor from the project site until its subcontractor certification form is submitted, reviewed, and approved.
- D. The Authority will not process payments for work performed by a non-certified subcontractor.

1.6 ACKNOWLEDGMENT OF CERTIFICATION

- A. Submittals which have been examined by the Authority and are determined to be complete and properly executed shall be acknowledged as such by the Project Manager's signature.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

ALASKA ENERGY AUTHORITY	SUBCONTRACTOR CERTIFICATION	
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Note: The Contractor shall provide this form for ALL subcontractors working on this project. This form is applicable to all projects, including Small Procurement Contracts, and must be completed in full.

PROJECT: Quartz Creek to Sterling kVa Pole Removal Project PROJ. #: 23040

PRIME CONTRACTOR: _____

Pursuant to the Contract Documents, we hereby stipulate the following concerning the award of Work to the last Subcontractor on the following list:

1. First Tier Subcontractor: _____ DBE? **Yes** **No**
Second Tier: _____ DBE? **Yes** **No**
Third Tier: _____ DBE? **Yes** **No**
Fourth Tier: _____ DBE? **Yes** **No**

2. Date of Subcontract: _____

3. Amount of Subcontract: \$ _____

4. Scope of Work: _____

5. Are the following documents kept on file by both the Contractor and the Subcontractor (check the appropriate answer)?

Contract Minimum Wage Schedule	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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6. Does the Subcontract contain provisions for prompt payment, release of retainage, and interest on late payment and retainage conforming to AS 36.90.210?

	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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7. Does the Subcontract specifically bind the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the Authority and does it contain waiver provisions and termination provisions as required by the Contract Documents?

	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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8. a. Does the Subcontractor have adequate insurance coverages as specified in the Contract Documents?

	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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If not, does the Contractor stipulate that the insurance limits of the Subcontractor are acceptable to the Contractor and that he has notified his insurance carrier of the reduced insurance limits?

	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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b. Does the evidence of insurance certify that the policies described thereon comply with all aspects of the insurance requirements for this project?

	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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PROJECT: Sterling to Quartz Creek 69-kV Line Removal Project

PROJ. #: _____

Subcontractor Name: _____

c. Does the evidence of insurance list the Authority as an "Additional Insured" or "Certificate Holder"?

Yes No

d. Does the evidence of insurance commit to providing 30 day written notice of cancellation or reduction of any coverage?

Yes No

e. Insurance Expiration dates:

Comprehensive or Commercial General Liability: _____

Automobile: _____ Workers' Compensation: _____

(Other): _____

9. Copies of the following professional certifications, licenses, and registrations are attached (circle all that apply):

Business License (mandatory)

Contractor License (mandatory)

Land Surveyor's License

Electrical Administrator's License (mandatory for electrical subs)

Mechanical Administrator's License (mandatory for mechanical subs)

Engineer/Architect

Other: _____

10. Exceptions to any of the above are explained as follows: _____

CERTIFICATION (to be completed and signed by PRIME CONTRACTOR): I certify all the above to be true and correct.

Signature: _____

Printed Name: _____

Company: _____

Date: _____

AUTHORITY'S APPROVAL/DISAPPROVAL

The subject subcontract is **APPROVED**. Nothing in this approval should be construed as relieving the Prime Contractor of the responsibility for complete performance of the work or as a waiver of any right of the Approval to reject defective work.

Signature: _____ Date: _____
Project Manager

The subject subcontract is **NOT APPROVED** for the following reasons:

Signature: _____ Date: _____
Project Manager

SECTION 01 20 13

APPLICATIONS FOR PAYMENT

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Procedures for preparation and submittal of Applications for Payment.

1.2 RELATED REQUIREMENTS

- A. Section 00 70 00 General Conditions.
- B. Section 01 33 00 Submittal Procedures.
- C. Section 01 29 73 Schedule of Values.
- D. Section 01 77 19 Closeout Requirements.
- E. Section 01 78 39 Project Record Documents.

1.3 FORMAT

- A. Application for Payment form as provided by AEA or Contractor's form containing same information.

1.4 PREPARATION OF APPLICATIONS

- A. Type required information on Application for Payment form approved by AEA.
- B. Execute certification by original signature of authorized officer upon each copy of the Application for Payment.
- C. Submit names of individuals authorized to be responsible for information submitted on Application for Payment.
- D. Indicate breakdown of costs for each item of the Work on accepted schedule of values as specified in Section 01 29 73 Schedule of Values.
- E. List each authorized Change Order as an extension on continuation sheet, listing Change Order number and dollar amount as for an original item of Work.
- F. Include 10% retainage on each pay request. Retainage shall be eligible for payment on Contractor's final pay request.
- G. Prepare Application for Final Payment as specified in Section 01 77 19 Closeout Requirements.

1.5 SUBMITTAL PROCEDURES

- A. Submit one copy of each Application for Payment at times stipulated in Contract.
- B. Submit under AEA accepted transmittal letter. See Section 01 29 73 Schedule of Values. Identify Contract by the AEA contract number.

1.6 SUBSTANTIATING DATA

- A. When AEA requires substantiating information, submit data justifying line item amounts in question.
- B. Provide one copy of data with cover letter for each copy of Application for Payment. Show Application for Payment number and date, and line item by number and description.

1.7 SUBMITTALS WITH APPLICATION FOR PAYMENT

- A. Submit the following with each Application for Payment.
 - 1. Updated construction schedule as required.
 - 2. Updated Schedule of Values as required by Section 01 29 73 Schedule of Values.
 - 3. Evidence of transmittal of certified payrolls, if required, to the Labor Department.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

Procedures

SECTION 01 26 57

CHANGE PROCEDURES

PART 1 – GENERAL

1.1 RELATED REQUIREMENTS

- A. Section 00 70 00 – General Conditions.
- B. Section 01 29 73 – Schedule of Values.

1.2 SUBMITTALS

- A. Submit the name of the individual authorized to accept changes, and to be responsible for informing others in the Contractor's employ of changes in the Work.
- B. Submit with each price proposal a complete, detailed, itemized cost breakdown defining all impacts on Contract Price and Contract Time, in sufficient detail to fully explain the basis for the proposal.
- C. All change forms shall be provided by the Authority.

1.3 CHANGE AUTHORIZATION

- A. In accordance with Section 00 70 00 – General Conditions, Article 9 Changes, the Authority may authorize changes to the Work. The Authority may authorize changes in one of the following ways:
 - 1. Directive (Section 00 70 00, Article 9.3).
 - 2. Change Order (CO) (Section 00 70 00, Article 9.4).
 - 3. Acceptance of Shop Drawing variations, which have been identified by the Contractor. (Section 00 70 00, Article 9.5).
 - 4. Interim Work Authorization (IWA) (Section 00 70 00, Article 9.10).

1.4 CHANGE PROCEDURES

- A. The Authority may initiate change to the contract by issuing to the Contractor a Request for Proposal (RFP) document. The RFP may include:
 - 1. Change narrative.
 - 2. Supplementary revised drawings, specifications, additional details, or sketches.
 - 3. Other information as deemed appropriate.

Procedures

- B. The Contractor shall request a change to the contract by submitting to the Authority a written Change Order Request form provided by the Authority. The Authority may respond by rejecting it, or with an RFP to initiate contract change. The Contractor's Change Order Request shall include, at minimum:
1. A description of the proposed change with a statement of the justification of the change.
 2. Statement of the effect of the change on Contract Price and Contract Time.
 3. The information required in Section 00 70 00 – General Conditions, Article 15 Claims and Disputes.
- C. Upon receipt of a Request for Proposal (RFP) from the Authority, the Contractor shall respond with a price proposal. The Contractor shall make every effort to return its price proposal in response to the RFP within the time frame requested by the Authority, but in no event later than 14 calendar days from date the RFP is issued. For work to be performed after the execution of a Change Order, the basis of pricing shall be estimated. For work performed prior to the execution of a Change Order, the pricing shall be based upon documentation of actual incurred costs. The price proposal shall include:
1. A complete, detailed, itemized price breakdown.
 2. For the prime contractor and subcontractors, detailed documentation of costs for direct costs, labor, equipment, consultants, sub-contractor markups, overhead and profit, and other items set forth in General Conditions Section 00 70 00, Article 10.
 3. Other information as required by the Authority.
- D. Upon receipt of pricing response to an RFP, the Authority may execute a change to the contract. The issuance of an RFP or the receipt of pricing response to an RFP shall not obligate the Authority to execute a change to the contract.

1.5 DIRECTIVES

- A. The Authority may issue Directives as per Section 00 70 00 – General Conditions, Article 9.3.

1.6 INTERIM WORK AUTHORIZATIONS (IWA)

- A. The Authority may issue Interim Work Authorizations in accordance with Section 00 70 00 – General Conditions, Article 9.10.

1.7 CHANGE ORDER

Procedures

- A. Any change in Contract Time, Contract Price, or associated responsibility within the general scope of the Contract, shall be made by Change Order.
- B. The Contractor shall use forms furnished by the Authority for Change Orders.

1.8 CHANGE PRICING AND TIME ANALYSIS

- A. Unless specified elsewhere, Section 00 70 00 – General Conditions, Article 10 shall be applied to the negotiation of all changes to the scope of the contract.
 - 1. Unit Price, when unit prices are contained in the Contract.
 - 2. Mutually acceptable Lump Sum Price, including overhead and profit.
 - 3. Cost of the Work.
- B. UNIT PRICE CHANGE – For unit price CHANGE PROCEDURES, prices shall be determined by multiplying the contractual unit price(s) by the estimated quantities of Work associated with changed scope. Payment will be based on the actual installed quantities. Document actual installed quantities and submit information requested by the Authority on a daily basis for its approval and certification. Refer to Section 00 70 00 – General Conditions, Article 10 for additional requirements.
- C. LUMP SUM PRICE CHANGE – The Contractor and the Authority shall negotiate an equitable price (and time adjustment if appropriate) in good faith. If negotiations do not result in a mutually acceptable lump sum price, the Authority may, at its discretion, direct the Contractor to perform the work under Cost of the Work Change Order.
- D. COST OF THE WORK CHANGE – The Contractor shall document Cost of the Work on forms acceptable to the Authority, and shall submit documented costs to the Authority daily for verification and certification. Cost of the Work pricing proposals shall be supported by invoices for substantiation of purchase and rental costs and with additional data as may be requested by Authority.
- E. Time Analysis: NOT USED.
- F. The Authority shall have the right to audit all records in possession of the Contractor relating to activities covered by the Contractor’s pricing of Contract CHANGE ORDER PROCEDURES, including Cost of the Work pricing, as set forth in Section 00 70 00 – General Conditions. If the Contractor is a joint venture, the right of Authority shall apply collaterally to the same extent to the records of joint venture sponsor, and of each individual joint venture member.

1.9 FORM EXECUTION

Procedures

- A. Contract forms issued under this section shall be effective the date the Authority's authorized person signs the form.
- B. For Change Orders, Contractor signature will indicate acceptance of the terms or acknowledgment of order, depending on box checked. Acknowledgment of Change Order does not substitute for notification requirements of Section 00 70 00 – General Conditions, Article 15.1.

1.10 PAYMENT

- A. The Contractor shall promptly revise its Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item. For Change Orders, adjust the Contract Price as shown on the Change Order.
- B. The Contractor shall promptly revise and resubmit its progress schedules to reflect any change in Contract Time, including adjustments for other items of Work affected by the change.
- C. Payment for contract changes shall be made only following the execution of Change Orders and the inclusion of the Change Order by reference on the Application for Payment form.
- D. Payment shall not be made for Work authorized via Interim Work Authorization until such work is formalized in a Change Order.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 29 73

SCHEDULE OF VALUES

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Procedures for preparation and submittal of Schedule of Values.

1.2 RELATED REQUIREMENTS

- A. Section 00 70 00 General Conditions.
- B. Section 01 20 13 Applications for Payment.
- C. Section 01 33 00 Submittal Procedures.

1.3 FORMAT

- A. Form and content must be acceptable to AEA.
- B. Contractor's standard form or media-driven printout will be considered on request.
- C. Follow the table of contents of Project Manual and the Bid Schedule for listing component parts. Identify each line item by number and title of listed Specification sections.

1.4 CONTENT

- A. List installed value of each major item of Work and each subcontracted item of Work as a separate line item to serve as a basis for computing values for progress payments. Round off values to nearest dollar.
- B. For each major subcontract, list products and operations of that subcontract as separate line items.
- C. Coordinate listings with progress schedule.
- D. Component listings shall each include a directly proportional amount of Contractor's overhead and profit.
- E. For items on which payments will be requested for stored products, list sub-values for cost of stored products.
- F. No progress payments will be made for Substantial Completion Submittals and Closeout Submittals until **all** submittals have been submitted to and accepted by AEA.
- G. The sum of values listed shall equal total Contract Price.

1.5 SUBMITTAL

- A. Submit a copy of Schedule in electronic format within fifteen (15) days after the Notice to Proceed. Subsequent updated Schedule of Values shall be presented for review ten (10) days prior to each Application for Payment.
- B. Transmit on an AEA accepted form transmittal letter. Identify Project by AEA's title and Project number; identify Contract by AEA's Contract number.

1.6 SUBSTANTIATING DATA

- A. When AEA requires substantiating information, submit data justifying line item amounts in question.
- B. Provide an electronic copy of data with cover letter for each copy of the Application for Payment. Show application number and date, and line item by number and description.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

PART 1 - GENERAL1.01 SUMMARY

A. This Specification Section covers the minimum requirements for meetings between the CONTRACTOR and AEA representative.

1.02 PRECONSTRUCTION CONFERENCE

A. Prior to the commencement of work at the Site, a Preconstruction Conference will be held in at a mutually agreed upon location, date and time. The conference shall be attended by the CONTRACTOR's Project Manager, Construction Manager, Superintendent, and Controller. Other attendees will be:

1. Landowner
2. AEA representative
3. Agency representatives.
4. Others as requested by attendees.

B. The purpose of the conference is to designate responsible personnel, initiate lines of communication, and establish working relationships. Matters requiring coordination will be discussed and procedures for handling such matters established. The complete agenda will be furnished to the CONTRACTOR prior to the meeting date. At a minimum, the CONTRACTOR shall be prepared to discuss the items listed below.

1. CONTRACTOR's general plan for site management, including camps, storage areas, security, and housekeeping.
2. CONTRACTOR's Health and Safety Plan and Emergency Response Plan.
3. CONTRACTOR's initial Project Schedule, contractor identified milestones, and critical work elements with the greatest risk and/or potential to affect (positively or negatively) the schedule
4. List of permits and licenses the CONTRACTOR shall obtain, indicating the agency required to grant the permit, the expected date of submittal for the permit, and required date for receipt of the permit.
5. Requests for Information (RFIs), Field Directives (FDs), and Change Orders (COs).
6. Processing applications for payment.
7. Maintaining record documents.
8. Review the Contract Documents.

C. The AEA Representative will preside at the Preconstruction Conference and will distribute

the minutes to meeting participants.

D. The CONTRACTOR should plan on the conference taking one full work day.

1.03 PROGRESS MEETINGS

A. Progress Meetings between the AEA Representative, and the CONTRACTOR's construction management team shall be held every two weeks at the Site or other location agreed upon by the parties in accordance with a mutually acceptable schedule. More frequent meetings may be held at the request of the AEA Rep or CONTRACTOR. Progress Meetings may also include off-site parties, such as the Landowner, by phone/teleconference.

B. The Progress Meetings will allow for review of construction progress, discussion of scheduled equipment deliveries, and identification of, and measures to resolve, issues that may affect the project schedule.

C. When requested by the CONTRACTOR or AEA Representative, subcontractors, suppliers, and others may be invited to participate in Progress Meetings in which their aspects of the work are involved.

D. Persons designated by the CONTRACTOR to attend and participate in Progress Meetings shall have all required authority to commit the CONTRACTOR to any actions as agreed upon in the Progress Meetings. To the maximum extent practicable, the CONTRACTOR shall appear in person, or assign the same person or persons as representatives, at Progress Meetings throughout the construction period. The CONTRACTOR's Construction Manager and Superintendent shall attend each meeting.

E. The AEA Representative will preside at the Progress Meetings and will be responsible for distributing the minutes.

1.04 SPECIAL MEETINGS

A. The AEA Representative or CONTRACTOR may request Special Meetings be convened during the interim period between regular Progress Meetings. The time and place of Special Meetings shall be established by the AEA Representative. Notice of Special Meetings will be announced as far in advance as practicable.

1.05 MEETING MINUTES

A. The AEA Representative shall distribute meeting minutes to the meeting participants as draft minutes.

B. Minutes will be considered to be an accurate representation of the proceedings of the meeting. Meeting participants shall review the minutes for accuracy and to respond to the AEA Representative with potential corrections. The AEA Representative shall review the potential corrections and coordinate resolution with the necessary party(ies). Corrections to Progress Meeting minutes shall be reviewed at the next Progress Meeting and incorporated into the next Progress Meeting minutes; corrections to Special Meeting minutes shall be issued to all meeting participants as a revision to the Special Meeting minutes.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

1.02 NOTIFICATION REQUIREMENTS

Prior to work, the landowners will need to be notified. Notification shall occur one month and again one week prior to field work. An operational plan will be submitted to and approved by each Landowner for approval prior to work commencing. The required progress reporting as approved by the landowners will supersede this specification in the case of any conflicts.

AEA should be copied on any communications with the USFWS and/or USFS.

USFWS

- The CONTRACTOR, shall notify the Kenai National Wildlife Refuge (Refuge) Operations Specialist, Lynnda Kahn, via email (lynnda_kahn@fws.gov) or by phone (907-260-2818), or Deputy Refuge Manager, Steve Miller (stephen_a_miller@fws.gov) at (907-260-2805), copying AEA, at least 3 business days prior to travel onto the Refuge for the purpose of undertaking each phase of the 69-kVA line removal.
- The CONTRACTOR shall submit an operating plan to the USFWS for approval that includes timelines, work schedule, equipment to be used, hazmat plan, refueling plans, aviation plans if applicable and access routes.
- The CONTRACTOR, shall also notify the Refuge, copying AEA, at least 3 business days prior to mechanized equipment accessing the ROW off the paved highway surface, in order to allow for visual inspection of the equipment.
- Where helicopter access is deemed necessary, prior approval must be obtained from the Refuge. The CONTRACTOR must notify the Refuge by phone or email, copying AEA, at least 3 business days prior to the aircraft landing, in order to alert appropriate Refuge Law Enforcement and State Parks staff of impending operations.
- The CONTRACTOR shall notify the Refuge via email, copying AEA, no later than 2 business days following completion of each phase of the 69-kVA structure removal effort.
- Post-removal site investigations by the Refuge shall be conducted within 10 days of completion of each project segment.
- If it is determined that unnecessary ground and/or vegetation disturbance impacts have occurred, timely erosion control and site restoration will be required, after consultation with the Refuge Manager, at the contractor's expense.

Chugach National Forest

- Prior to work commencing, the holder/contractor shall submit an operating plan to the USFS Permit Administrator for approval that includes timelines, work schedule, equipment to be used, hazmat plan, refueling plans, and access routes.
- Contact: Buffie Cerutti Stewart, (907) 743-9542, buffie.cerutti@usda.gov

Reporting Requirements**1.03 WEEKLY REPORTS**

- Weekly updates on project progress shall be provided to the respective landowner via email each Friday morning, to allow for scheduling of routine site inspections.
- Pre- and post-clearing photos taken and submitted to the Refuge via email with the weekly progress reports.
- AEA will be copied on all communications with the landowners.

1.04 CLOSE-OUT REPORT

- All pole removal points (including those cut flush with ground surface) shall be documented by photo and GPS location in a closeout report. GPS locations can be collected with any device accurate to within a minimum of ten feet. Closeout report shall have six pole removal photos per page with pole numbers and associated GPS coordinates. Photos of restored rock barriers, erosion control measures, and any site restoration East of RA8 shall also be documented in Closeout Report. Aerial photo or Google Earth map showing Pole numbers where pole butts remain in place shall be included.
- Poles and equipment shall be disposed of properly and receipts included in the Closeout Report.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

**SECTION 01 33 00
SUBMITTAL PROCEDURES**

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Procedures for the preparation, tracking, and review of submittals for the project.

1.2 RELATED REQUIREMENTS

- A. Section 00 70 00 – General Requirements.
- B. Section 00 80 00 – Supplementary Conditions.
- C. Section 01 11 13 – Summary of Work.
- D. Section 01 12 19 – Contractor’s Certification of Subcontracts.
- E. Section 01 29 73 – Schedule of Values.
- F. Section 01 45 00 – Quality Control.
- G. Section 01 77 19 – Contract Closeout Procedures.
- H. Technical Specifications.
- I. Operations and Maintenance Manuals.
- J. Equipment Installation Data.

1.3 SUBMITTAL REGISTER

- A. Submit preliminary Submittal Register as required by Section 00 70 00 – General Conditions. In addition to manufacturer’s data and shop drawing submissions, include all submittals required by the Contract Documents in the Submittal Register.
- B. Submittal Register shall portray an orderly sequence of submittals, early submittals for long lead-time items, and submittals which require extensive review.
- C. Preliminary Submittal Register shall be provided to the Authority within 7 calendar days of the contract award.
- D. Submittal Register shall be reviewed by the Authority and shall be revised and resubmitted until accepted by the Authority.

1.4 SUBMITTAL PREPARATION

- A. The Contractor shall prepare all submittals as required by the provisions of Section 00 70 00 – General Conditions, Section 00 80 00 – Supplementary Conditions, the technical specifications, and the drawings.
- B. The Contractor shall review submittals for accuracy and completeness prior to submitting.
- C. All Submittals shall be provided to the Authority within 28 calendar days of the contract award.

1.5 SUBMITTAL REQUIREMENTS

- A. Unless otherwise directed in these documents or by Authority, provide each submittal as an electronic portable document format (PDF) file, transmitted via email. If file is too large to be received by Authority via email, provide a download link, deliver in portable USB drive, or as otherwise instructed by Authority.
- B. Submit each submittal with a Submittal Summary form as its face document. Use a Submittal Summary form provided by the Authority, or a substitute approved by the Authority.
- C. Label submittals with a numbering system approved by the Authority. Identify the project by title and Authority's project number; identify Work and product by Specification section and Article number.
- D. Submit items required by individual Specification sections together. Do not mix items specified in different sections in the same submittal. Sequence the submission of submittals to correspond with the approved Submittal Register.
- E. Before the submission of each submittal, the Contractor shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto and reviewed or coordinated each submittal with other submittals and with the requirements of the Work and the Contract Documents, upon which the Contractor shall certify in writing on each submittal that it has made this determination. The failure to review and certify a submittal shall be cause for the Authority to return the submittal without review.
- F. On the submittal, notify the Authority in writing of any deviations from requirements of the Contract Documents.
- G. Organize the submittals into logical groupings to facilitate the processing of related submittals, such as:
 - 1. By Specification Section number. Sequentially number each submittal. Resubmittals shall be identified with the original submittal number followed by a sequential alphabetic suffix.

2. Finishes which involve Authority selection of colors, textures, or patterns.
 3. Items required by the individual Technical Product Specification Sections.
 4. Associated items, which require correlation for efficient function or for installation.
- H. Submit all required color and finish samples in order to receive approval for colors and finishes.

1.6 RESUBMITTALS

- A. Provide complete copies of re-submittals. Do not re-submit partial copies of submittals for incorporation into the Authority's retained submittals from the prior submission.
- B. If drawings, product submittals, samples, mockups, or other required submittals are incomplete or not properly submitted, the Authority will not review the submittal and will return it to the Contractor. The Authority will review a submittal no more than 2 times without additional charge to the Contractor. The Contractor shall pay all review costs associated with more than 2 reviews.

1.7 AUTHORITY REVIEW

- A. The Authority will review submittals and re-submittals, and return submittal comments within 7 calendar days of receipt.
- B. The Authority or authorized agent will receive, review and return submittals to the Contractor with one of the following dispositions noted:

“Approved” – denotes that the submittal is generally consistent with the requirements of the Contract Documents. A resubmittal is not required.

“Approved with Corrections Noted” – denotes that the submittal is generally consistent with the requirements of the Contract Documents but only as conditioned by notes and corrections made on the submittal. A resubmittal is not required provided the Contractor understands the review comments and desires no further clarification.

“Revise and Resubmit” – denotes that revisions are required in the submittal in order for the submittal to be generally consistent with the requirements of the Contract Documents. The Authority will indicate on the returned submittal what revisions are necessary. A resubmittal is required.

“Rejected” – denotes that the submittal does not meet the requirements of the Contract Documents and shall not be used in the Work. The Authority will indicate on the returned submittal the reasons for its rejection. A resubmittal is required.

- C. Review by the Authority of submittals shall not be construed as a complete check, but will indicate only that the general method of construction and detailing is consistent with the requirements of the Contract Documents. Review of submittals shall not relieve the Contractor of the responsibility for compliance with the requirements of the Contract Documents or for errors, dimensions, and quantities unless specific exception is requested and approved on the submittal.
- D. The Authority's review shall not extend to the means, methods, techniques, sequences or procedures of construction or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

1.8 DISTRIBUTION

- A. The Contractor shall be responsible for making and distributing any reproductions of approved submittals that it may require for its use.
- B. The Contractor shall perform work in accordance with approved submittals.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 45 00
QUALITY CONTROL

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Contractor’s quality assurance program and control procedures for executing the Work.

1.2 RELATED REQUIREMENTS

- A. Section 00 70 00 – General Conditions.
- B. Section 01 33 00 – Submittal Procedures.

1.3 SUBMITTALS

- A. As part of the Submittal process submit proposed testing forms as required. Note that upon request, the Authority can provide the Contractor forms for common tests such as tank and piping pressure test, phase rotation, continuity and insulation, etc.

1.4 GENERAL

- A. The Contractor shall provide and maintain an effective Quality Control Program related to testing and inspection. The Contractor shall perform Quality Control Testing as specified and shall provide copies of all results to the Authority for use in observing contract compliance.
- B. The Contractor’s Quality Control Program shall include, but is not limited to: administration, management, supervision, reports, record-keeping, submittals, services of independent testing agencies and labs, and other related services.
- C. Quality Control is the sole responsibility of the Contractor.
- D. General Quality Control requirements entail ensuring that all aspects of the Work conform to the technical requirements of the Contract Documents.
- E. The Contractor’s Quality Control Program described herein is not intended to limit the Contractor’s Quality Control activities, which may be necessary to achieve compliance with the Contract Documents.

1.5 JOB CONDITIONS

- A. Where Specifications require work to be field-tested or approved, it shall be tested in the presence of the Authority after timely notice of its readiness for inspection and testing, and the work after testing shall be concealed only upon approval of Authority. The Authority shall have the right to witness all tests.

- B. The results of tests are for use by the Authority to evaluate the acceptability of Work with respect to specified testing requirements. Regardless of the test results, Contractor is solely responsible for quality of workmanship and materials and for compliance with requirements of Contract Documents.
- C. Maintain quality control over sub-contractors, suppliers, manufacturers, products, services, site conditions, and workmanship to produce work of specified quality. Verify applicability and follow all manufacturers' recommendations and instructions for assembly, installation and testing of materials and equipment. In any case where the Contractor believes that such recommendations or instructions are not applicable, the Contractor shall so notify the Authority and state the reasons for the Contractor's determination. The Contractor shall then follow the Authority's written direction on whether to follow manufacturer's recommendations and instructions.
- D. Upon failure of Work which has been tested or inspected, previous acceptance may be withdrawn and Work be subject to removal and replacement with Work in accordance with the Contract Documents, at no cost to the Authority.

1.6 MANUFACTURER'S FIELD SERVICES

- A. Required when technical specifications require the manufacturer or fabricator to provide qualified personnel to observe field conditions, installation, quality of workmanship, and to start, test, and adjust equipment as applicable.
- B. Submit to the Authority the manufacturer or fabricator representative's written reports containing observations and recommendations within five (5) calendar days of manufacturer's field services.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION**3.1 GENERAL**

- A. The Contractor shall provide full and complete documentation of Quality Control procedures and activities.

3.2 QUALITY CONTROL

- A. The Contractor shall establish the methodology to perform the Contractor's inspection and tests of all items including that of its subcontractors. The Contractor shall ensure conformance to applicable technical specifications and drawings with respect to the materials, Codes, workmanship, storage, installation, construction, finishes, functional performance, and identification. The Contractor shall ensure quality for all construction work performed under this Contract, including assigned subcontract work. The Contractor shall specifically include surveillance and tests required in the technical specifications.
- B. The Contractor shall coordinate all work requiring Special Inspection, where specified, to ensure full access by Special Inspectors and Quality Assurance testing personnel.
- C. The Contractor shall provide, as a minimum, the following components for all definable features of work:
 - 1. Preparatory Inspection Meeting: Contractor shall schedule and attend a preparatory meeting to review testing procedures a minimum of a week prior to beginning work on any element of Work which has been identified in the Contract Documents to require testing and inspection by the Contractor and Code-required Special Inspection. Subsequent meetings shall be conducted as necessary to ensure continued accuracy of testing and inspection procedures.
 - 2. Document Control: Contractor shall have and follow a procedure for ensuring that all Work is performed in accordance with the following:
 - a. Conformed sets of Contract Drawings and Specifications.
 - b. Contract Change Order documents.
 - c. Approved Submittals.
 - d. Applicable Requests for Information (RFI's) or Design Clarification Verifications (DCVR's).
 - e. Manufacturer's Instruction.

3. In Progress Inspection: Contractor shall perform in-progress inspections as work progresses on the Work which shall include, but not be limited to:
 - a. Examination of the quality of workmanship with respect to Contract Drawings, Technical Specifications and Approved Submittals.
 - b. Review of control testing for compliance with Contract requirements.
 - c. Inspection for use of defective or damaged materials, omissions and dimensional requirements.
 - d. Review of timeliness and scheduling requirements for all tests, retests and eventual approvals.
4. Non-Conformance Procedure: Contractor shall have and follow a procedure for identifying, documenting, tracking, and resolving items in the Work which do not comply with Contract Documents, Specifications, Approved Submittals, or Manufacturer's Instructions. If a quality control test indicates that the tested material does not conform to the requirements of the Contract Documents, the Contractor shall take supplemental tests at the same location from which the non-conforming result was obtained, after correction of the work, to document conformance with the Contract Documents. Otherwise, the Authority reserves the right to reject materials for which final Quality Control tests indicate non-conformance with the Contract Documents.
5. Code Required Inspection: Contractor shall coordinate and make timely requests for inspections, tests and other activities required by Codes and Regulations as specified.

3.3 RECORD KEEPING

- A. The Contractor shall maintain current Quality Control records, on forms acceptable to the Authority, of all inspections and tests performed. The records shall include factual evidence that the required inspections or tests have been performed, including, but not limited to, the following information for each such test and inspection: Specification reference, date, type and number of inspections or test involved; results of the inspections, tests or retests; the nature of defect, causes for rejection, proposed remedial action, corrective action(s) taken, and similar information related to any re-inspection.
- B. The Contractor shall maintain the following Quality Control records and reports and shall submit to the Authority as required:
 1. The Contractor shall fill out test reports immediately upon completion of each test. Test reports shall be signed and dated and shall include adequate

photographs to document test procedure and conditions. Test reports shall be submitted with the daily report for the day of testing.

2. **Inspection Logs:** The Contractor shall maintain a daily log of all inspections performed for both Contractor and subcontractor operations. The Inspection Log shall include compliance with shop drawings submittals, identification by Specification section and schedule activity of inspections, tests, and retests conducted, results of inspections and tests, location and nature of defects found, causes for rejection, and remedial or corrective actions taken or proposed. The Inspection Log shall be available for review by the Authority upon request.
3. **Immediate Notification of Deficiencies:** Contractor shall provide immediate notification to the Authority whenever a failed or nonconforming test or inspection occurs. This immediate notification shall be followed up with a written report describing the deficiency and a correction plan.

3.4 ORGANIZATION

- A. **Staffing Levels:** Provide sufficient qualified personnel to monitor the work quality at all times. The scheduling and coordinating of all inspection and testing must match the type and pace of work activity.
 1. In cases where multiple trades, disciplines or subcontractors are on site at the same time, each activity shall be inspected and tested by personnel skilled in that portion of the work.
 2. In cases where multiple shifts are employed, the Quality Control staff shall be increased as required to monitor the work on each shift.

3.5 QUALITY SURVEILLANCE BY THE AUTHORITY

- A. All items of materials and equipment shall be subject to surveillance testing and inspection by the Authority at the point of production, manufacture or shipment to determine if the producer, manufacturer or shipper maintains an adequate inspection system which ensures conformance to the applicable specifications and drawings with respect to materials, workmanship, construction, finish, functional performance and identification. In addition, all items or materials, equipment and work in place shall be subject to surveillance testing and inspection by the Authority at the site for the same purposes. Surveillance by the Authority does not relieve the Contractor of performing Quality Control inspections and testing of either onsite or offsite Contractor's or subcontractor's workplace or manufacturing assembly plant.

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

A. While the project Site is connected to the highway system, not all of the sites can be accessed by the highway. All access points must be approved by AEA and the Landowner and may require additional approval through the Alaska Department of Transportation and Public Facilities. Areas of the site in close proximity to areas designated wilderness and/or without trail access must be accessed by helicopter.

1.02 SITE INSPECTION

A. Prior to moving onto the Site, the CONTRACTOR shall inspect the Site conditions, review maps of the Site and facilities.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 SAFETY TRAINING

A. All personnel must complete applicable safety training prior to commencement of on-site work.

3.02 ACCESS

A. Helicopter Access

1. Helicopter access to the site must comply with regulations and avoid disturbing wildlife.
2. Helicopter refuel and sling staging areas are preferably on the same side of highway as operations. Sling operations over the highway will require traffic control such that helicopters with a sling load do not travel over traffic.
3. Where helicopter access is deemed necessary, prior approval must be obtained from the Refuge. CONTRACTOR, with copy to AEA representative, must notify the Refuge by phone or email, at least 3 business days prior to the aircraft landing, in order to alert appropriate Refuge Law Enforcement and State Parks staff of impending operations.

B. Sterling Highway

1. Contact Alaska Department of Transportation at least 2 weeks prior to work occurring for any permitting requirements and/or restrictions.
2. Access off paved highway by vehicles is by Road Access points on the attached pole location figures.

3. Mechanized equipment may be used provided ground conditions are suitable to support the weight of the equipment without causing penetration of, or disturbance to, the soil surface or plant roots.
4. All mechanized equipment and vehicles accessing the Refuge off the paved highway are required to be cleaned of any attached grease and oil residue on wheel tracks, undercarriage and engine. In addition, equipment shall be cleaned of all mud, dirt, and plant parts to reduce the potential for introduction of non-native and invasive plants. Cleaning shall occur at a vehicle washing station or steam cleaning facility (power or high-pressure wash) off of Refuge and/or National Forest lands. Vehicles will be inspected by employees of the USFS or Refuge prior to leaving the paved highway surface and if they are not adequately cleaned will be directed to be washed again until clean and subject to citation. Provide the cleaning and inspection records to AEA Representative.
5. To the greatest extent practicable, avoid clearing vegetation along access trails as well as within the ROW, which functions as a visual buffer adjacent to the Sterling Highway.
 - a. While tracking through and over vegetation is preferred, “limited” clearing may be authorized, with prior Landowner approval, and copy to the AEA representative, to accommodate equipment access.
6. Areas to be cleared shall be identified on an aerial photo, and pre- and post-clearing photos taken and submitted to the Landowner, with copy to the AEA representative, via email with the weekly progress reports.
7. Many 69-kVA poles can be accessed from an access trail under the 115-kVA line. However, brush or trees that may need to be cut may be present between 115-kVA access trail and 69-kVA poles.
 - a. Note that 115-kVA line is energized. Equipment traveling under line must maintain minimum clearance of 10 feet between equipment and closest point of line.
8. Prior to final demobilization from the project, CONTRACTOR shall restore the access points to condition equal or better than the condition at the beginning of the project.

C. Sanitary Facilities

1. Toilet Facilities: The CONTRACTOR shall furnish and maintain toilet facilities at the CONSTRUCTION site and construction camp whenever construction activities are occurring. Toilet facilities will conform to the requirements of the OSHA Standards for Construction.
2. Sanitary and Other Organic Wastes: The CONTRACTOR shall regularly collect and dispose of sanitary and organic wastes to keep a neat and orderly site and to prevent attraction of wildlife. Wastes and refuse from sanitary facilities, or organic material wastes from any other source related to the CONTRACTOR's operations, will be disposed of away from the site in accordance with all applicable laws and regulations.

D. VEHICLES

1. Vehicles shall be operated in a safe manner at all times.

2. Gasoline and Diesel Fuel: Fuel storage, and equipment and vehicle refueling procedures shall be in accordance with the CONTRACTOR's Hazardous Material Control Plan.

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

A. CONTRACTOR shall furnish staging and stockpile areas as required by the Contract or as required to perform the Work.

B. Scope: This section covers:

1. Use of existing areas as temporary parking and staging areas.

1.02 STAGING AREAS

A. The CONTRACTOR shall establish its staging areas only in areas approved by AEA representative, the Landowners, and/or the Alaska Department of Transportation and Public Facilities.

B. Any clearing, grubbing, or grading in the staging, stockpile, and disposal areas for setting up and maintaining staging areas shall be approved by the LANDOWNER.

1.03 SECURITY

A. The CONTRACTOR is responsible for securing staging and demolition areas. The CONTRACTOR shall provide any security measures they deem necessary to protect these Work areas. All security fences and gates, if used by the CONTRACTOR, shall be removed by the CONTRACTOR at the end of construction. The CONTRACTOR shall provide keys for all locks to the AEA representative, or access to allow the AEA representative to place its own padlock on a chain. In any case, the CONTRACTOR shall provide a means for the AEA representative to access the staging and stockpile areas at all times.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 PARKING AND STAGING AREAS

A. The CONTRACTOR shall establish its staging areas, including any temporary shop and office facilities, as approved by the AEA representative and Landowner.

B. Any clearing and grubbing in the staging, stockpile, borrow, and disposal areas shall be performed in accordance with Section 31 11 00 – Clearing and Grubbing.

C. Protect staging areas according to Storm Water Pollution Protection plan according to Section 01 57 23 or as directed.

D. The CONTRACTOR shall restore staging areas to original condition. Submit pre- and post-construction photos.

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

A. This Section covers environmental controls and procedures required to be put in place and followed by the CONTRACTOR, including hauling requirements, dust abatement, storm water pollution prevention, use of herbicides and pesticides, control of rubbish, and procedures for dealing with cultural resources if discovered in the course of the Work.

1.02 STORMWATER POLLUTION PREVENTION

A. Prepare, implement and maintain a Storm Water Pollution Prevention Plan (SWPPP) or an Under-an-Acre Pollution Plan (UPPP). in accordance with Section 01 57 23 – Temporary Storm Water Pollution Control.

1.03 USE OF HERBICIDES AND PESTICIDES

A. Chemicals may not be used to control undesirable woody and herbaceous vegetation, aquatic plants, insects, and rodents without the prior written approval from the Landowner.

1.04 NOXIOUS WEED CONTROL

A. To prevent the spread of non-native and noxious plant species, the CONTRACTOR shall clean all equipment by thoroughly pressure washing at an off-site location immediately prior to transporting vehicles and construction equipment onto the site. Landowner staff will inspect vehicles.

1.05 RUBBISH CONTROL

A. During the progress of the Work, the CONTRACTOR shall keep the site, and other areas for which it is responsible, in a neat and clean condition and free from accumulation of rubbish. The CONTRACTOR shall dispose of rubbish and waste materials off-site and shall establish regular collection and disposal intervals of such materials and waste. The CONTRACTOR shall also keep its haul roads free from rubbish and unnecessary obstructions resulting from its operations. Disposal of rubbish and surplus materials shall be off the site in accordance with local codes and ordinances governing locations and methods for disposal, and in conformance with applicable safety laws and the particular requirements of Part 1926 of the OSHA Safety and Health Standards for Construction.

1.06 HAZARDOUS MATERIALS CONTROL

A. To prevent the discharge of hazardous materials, the CONTRACTOR shall prepare, implement, and maintain a Hazardous Materials Control Plan in accordance with 01 57 23 – Temporary Storm Water Pollution Control.

B. Duck ponds and/or catch tarps must be placed beneath any equipment to be utilized for the project while not actively being operated, through project duration, while on Refuge and/or USFS

TEMPORARY ENVIRONMENTAL CONTROLS

land. Refueling in the field require the use of drip pans and/or absorbent pads.

1.07 CULTURAL RESOURCES

A. The CONTRACTOR's attention is directed to the National Historic Preservation Act of 1966 (16 U.S.C. 470) and 36 CFR 800, which provides for the preservation of potential historical architectural, archaeological, or cultural resources (hereinafter called "cultural resources").

B. In the event potential cultural resources are discovered during subsurface excavations at the site, the following procedures shall be instituted:

1. The CONTRACTOR will notify the OWNER and LANDOWNER.
2. The OWNER will issue a temporary Notice to Suspend Work directing the CONTRACTOR to cease construction operations at the location where the potential cultural resources were found.
3. The suspension notice will contain the following:
 - a. A clear description of the Work to be suspended.
 - b. Instructions regarding issuance of further orders by the CONTRACTOR for material services.
 - c. Guidance as to the action to be taken on subcontracts.
 - d. Suggestions to the CONTRACTOR to minimize incurred costs.
 - e. Estimated duration of the temporary suspension.
4. The suspension shall be effective until such time as a qualified archaeologist can assess the value of the potential cultural resources and make recommendations to the State Historic Preservation Officer.
5. The OWNER will implement appropriate actions as directed by the State Historic Preservation Officer. The CONTRACTOR shall cease Work in the area of a discovery until appropriate actions have been determined in accordance with this paragraph.
6. If human remains are discovered, Work in the immediate vicinity of the find shall stop. The CONTRACTOR will notify the Alaska State Troopers, State Historic Preservation Office, and OWNER.

C. If the archeologist determines that the potential find is a bonafide cultural resource, the OWNER will extend the duration of the suspension in accordance with the direction of the State Historic Preservation Officer.

D. Changes to the Contract Price and Contract Time for suspension due to discovery of a potential cultural resource will be made in the following manner:

1. Contract Time
 - a. If the Work temporarily suspended is on the "critical path", the total number of Days for which the suspension is in effect will be added to the Contract Time.

TEMPORARY ENVIRONMENTAL CONTROLS

- b. If a portion of Work at the time of such suspension is not on the “critical path”, but subsequently becomes Work on the critical path, the Contract Time will be computed from the date such Work is classified as on the critical path.
2. Contract Price
- a. If, as a result of a cultural resources suspension, the CONTRACTOR sustains a loss that could not have been avoided by judicious handling of forces and equipment or redirection of forces or equipment to perform other Work on the contract, there will be paid an amount based on time and materials for the loss in accordance with the following:
 - i. Idle Time of Equipment: Compensation for equipment idle time will be determined in accordance with the General Conditions for equipment time and equipment rental time.
 - ii. Idle Time of Labor: Compensation for idle time of workers will be determined in accordance with the General Conditions for labor.
 - b. Costs of labor will be compensated only to the extent such cost was in fact caused by the suspension.
 - c. Compensation for loss due to idle time of either equipment or labor will not include markup for profit.
 - d. The hours for which compensation will be paid will be the actual normal working time during which such suspension lasts, but will in no case exceed eight hours in any single Day.
 - e. The days for which compensation will be paid exclude Saturdays, Sundays, and legal holidays during the suspension.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

TEMPORARY STORM WATER POLLUTION CONTROL

PART 1 - GENERAL**1.01 SUMMARY**

A. The Work described in this Section shall consist of providing all labor, equipment, materials, and services to prepare, implement, and maintain a Storm Water Pollution Prevention Plan (SWPPP).

B. It is not expected that land disturbance will be sufficient to trigger the requirements of an Alaska Construction General Permit (AGCP). Even if the expected land disturbance is less than the one-acre limit, the OWNER will require that the CONTRACTOR develop, maintain, and execute a SWPPP to be approved by the OWNER.

1.02 DEFINITIONS AND REFERENCES

A. Area of Land Disturbance: The calculation of the acres of land (soil) that will be disturbed by any construction activity including clearing, grading, stockpiling, and excavating associated with the Project. It is not expected that the project will result in an area of land disturbance (equal to or greater than one acre).

B. BMPs (Best Management Practices): BMPs are schedules of activities, prohibition of practices, maintenance procedures, and other management practices, including temporary or permanent structural and non-structural devices. BMPs, when used alone or in combination, reduce erosion and contain sediment within the project site, and prevent discharge of pollutants to water bodies and wetlands. Pollutant is defined in 40 CFR 122.2 (a partial listing of this definition includes solid waste, garbage, chemical wastes, dredged spoil, rock, and sand).

C. ACGP (Alaska Construction General Permit): The Storm Water Construction General Permit for Discharges from Large and Small Construction Activities, issued by the Alaska Department of Environmental Conservation (ADEC) under the Alaska Pollutant Discharge Elimination System (APDES). It is not expected that the project will result in an area of land disturbance (equal to or greater than one acre) that would require an ACGP.

D. Final Stabilization: Final stabilization occurs when soil disturbing activities at the site have been completed and the following two criteria are met: (a) establish a uniform and evenly distributed perennial vegetative cover with a density of seventy percent (70%) of the native background vegetative cover on the unpaved areas that are not covered by non-erodible permanent stabilization and (b) equivalent non-erodible permanent stabilization measures have been constructed (such as riprap, gabions, geotextiles, and crushed aggregate base course) where vegetative cover is not required.

E. HMCP (Hazardous Material Control Plan): The CONTRACTOR's detailed plan for prevention of pollution that stems from the storage, use, containment, cleanup, and disposal of hazardous material, including oil products related to construction activities and equipment.

F. SWPPP (Storm Water Pollution Prevention Plan): The CONTRACTOR's detailed plan and record of activities to prevent pollution, reduce erosion, and contain sediment before it leaves the project site or enters waterways or wetlands.

- a. SWPPP Amendment. A document that adds to, deletes from, or changes

TEMPORARY STORM WATER POLLUTION CONTROL

the SWPPP.

- b. SWPPP Manager. The CONTRACTOR's representative in the field who supervises implementation of the SWPPP and conducts required SWPPP inspections.
- c. SWPPP Preparer. The person who prepares the initial SWPPP.
- d. SWPPP Template. A template provided by the ADEC for a uniform SWPPP format.

G. Temporary Stabilization: Temporary stabilization measures are BMPs that protect disturbed land, material stockpiles, material sources, and waste disposal sites until the next land disturbance, grading, material movement, or final stabilization occurs.

H. Internet References: The following websites about erosion, sediment, and pollution control are referenced in this document or are considered good resources for information:

- a. The ADEC Construction General Permit and SWPPP Template is available at http://dec.alaska.gov/water/wnpspc/stormwater/sw_construction.htm
- b. The Alaska SWPPP Guide, including template and inspection form is at www.dot.state.ak.us/stwddes/dcspubs/otherpubs.shtml
- c. The EPA's "Developing your SWPPP, A Guide for Construction Sites," is at www.epa.gov/npdes/swpppguide
- d. The EPA National Menu of Storm Water Best Management Practices is at www.epa.gov/npdes/stormwater/menuofbmps
- e. The International Erosion Control Association website is at www.ieca.org
- f. The Construction Industry Compliance Assistance Center www.cicacenter.org
- g. The ADEC eNOI Form 3510-9 is available at: <http://dec.alaska.gov/water/wnpspc/stormwater/APDESeNOI.html>
- h. The status of ADEC eNOI is available at <http://dec.alaska.gov/water/wnpspc/stormwater/eNOI.htm>

1.03 PLAN AND PERMIT SUBMITTALS

A. Submit in accordance with Section 01 33 01 – CONTRACTOR Submittal Procedures.

TEMPORARY STORM WATER POLLUTION CONTROL

- B. Thirty days after the contract award, prepare and submit:
- a. A determination if a SWPPP for the ACGP will be required for the project.
 - b. If the ACGP is required, submit a SWPPP in conformance with the AGCP.
 - c. If the AGCP is not required, submit a SWPPP to the AEA Representative for approval.
 - d. Inspection Schedule: Submit schedule for inspection and monitoring of all pollution prevention measures.
 - e. Erosion Control Products: Submit manufacturer's product information and installation recommendations for silt fence, filter fabric, erosion control blanket, straw bales, and any other materials proposed for use on this project.
- C. HMCP: Submit two signed copies of the HMCP to the OWNER for approval no less than 21 days before construction begins. The OWNER will review the HMCP submittals within 14 days. HMCP Submittals will be returned to the CONTRACTOR, and marked as either requiring modification or as approved by the OWNER.

1.04 PERSONNEL QUALIFICATION AND AUTHORITY

- A. The SWPPP Preparer must meet the following qualifications:
- a. Current certification as a Certified Erosion and Sediment Control Lead (CESCL), or as a Certified Inspector of Sediment and Erosion Control (CISEC), or as a Certified Professional in Erosion and Sediment Control (CPESC).
 - b. Two years of experience in erosion and sediment control.
- B. The SWPPP Manager must meet the following qualifications:
- a. Current certification as a Certified Erosion and Sediment Control Lead (CESCL), or as a Certified Inspector of Sediment and Erosion control (CISEC), or as a Certified Professional in Erosion and Sediment Control (CPESC).
 - b. Two years of experience in earthwork construction.
 - c. A duly authorized representative, as defined in the ACGP, Appendix A.
- C. Responsibilities:
- a. The SWPPP Manager must be knowledgeable in the requirements of this Section, the SWPPP, and the ACGP (if necessary). The SWPPP Manager shall be responsible for, and oversee the installation, maintenance, and removal of erosion and pollution control BMPs, as detailed in the SWPPP or as directed by the OWNER.
 - b. The SWPPP Manager shall be responsible for supervising and directing Work described in this Section and shall conduct required SWPPP inspections. The SWPPP manager shall be available on-site whenever land is being disturbed, moved, stockpiled, or disposed and shall inspect BMPs and update the SWPPP.
 - c. The SWPPP Manager must have the CONTRACTOR's authority to order immediate corrective action.

1.05 CONTROL AND PREVENTION PLAN CONTENTS

TEMPORARY STORM WATER POLLUTION CONTROL

A. SWPPP Requirements

- a. The SWPPP must address preventing pollution, minimizing erosion, and containing sediment before it leaves the project site, or enters waterways or wetlands. Identify specific areas where pollution or erosion may occur, and describe BMPs, including site-specific controls and procedures. Establish a record of land disturbance and the installation, maintenance, and removal of BMPs. Describe temporary and permanent stabilization measures.
- b. The SWPPP must address the activities of subcontractors performing Work in the Project area. The SWPPP must describe the roles and responsibilities of the CONTRACTOR, subcontractors, and the OWNER with regard to implementation of the SWPPP.
- c. All material and waste disposal sites must be included in the Project SWPPP, except when sites are covered under the ACGP through a separate eNOI and SWPPP specific to that site. Commercial material sites and waste sites that sell to both public and private purchasers, and are not solely associated with the Project, are responsible for implementing their own site-specific eNOI (if necessary) and SWPPP.
- d. Specify the line of authority and designate a SWPPP Manager for implementing SWPPP compliance. Designate one representative for each subcontractor who performs land disturbing activities, or who installs and maintains erosion and sediment control measures.
- e. Once demolition begins, the SWPPP must be updated with records of land disturbance and erosion and sediment control activity at a frequency compliant with the ACGP or as required by the AEA Representative.
- f. Within the SWPPP include copies of:
 - i. The HMCP;
 - ii. A reference to the SPCC Plan location (if required);
 - iii. Inspection reports, record updates and amendments required during construction;
 - iv. CONTRACTOR's and other on-site operators' signed certification of SWPPP;
 - v. CONTRACTOR's eNOI (if necessary);
 - vi. OWNER'S eNOI (if necessary);
 - vii. eNOIs submitted by other on-site operators (if necessary);
 - viii. ADEC acknowledgement of receipt of each eNOI (if necessary);
 - ix. CONTRACTOR delegation of signature authority; and
 - x. OWNER'S delegation of signature authority.

B. Hazardous Material Control Plan (HMCP) Requirements

- a. The HMCP shall address prevention of pollution that stems from the storage,

TEMPORARY STORM WATER POLLUTION CONTROL

use, containment, cleanup, and disposal of hazardous material, including oil products related to construction activities and equipment. Refer to 40 CFR 117 and 302 for listing of hazardous materials. Collate Material Safety Data Sheets in one location and reference location in HMCP.

- b. List the types and quantities of equipment and cleanup materials available on site.
- c. Include a list and location map of cleanup materials at each different Work site and readily available off site (main site, material site, batch plant, storage yard, , equipment or fueling yard, etc.).
- d. Specify the line of authority and designate a field representative for spill response, and one representative for each subcontractor.
- e. List and give the location of hazardous materials, including office materials, to be used or stored on site, and estimated quantities. Store hazardous materials in covered storage areas.
- f. Detail methods of disposing of waste petroleum products and other hazardous materials generated by the project.
- g. Identify the locations where storage, fueling and maintenance activities will take place, describe the maintenance activities, and list controls to prevent the accidental spillage of oil, petroleum products and other hazardous materials.
- h. Detail procedures for containment and cleanup of hazardous substances. Detail a plan for the prevention, containment, cleanup, and disposal of soil and water contaminated by accidental spills. Detail a plan for dealing with unexpected contaminated soils and water encountered during construction.

PART 2 - PRODUCTS**2.01 GENERAL**

Materials used shall be in compliance with Section 01 57 01 – Environmental Restoration & Revegetation Requirements and Section 01 57 13 Temporary Erosion & Sediment Control.

PART 3 - EXECUTION**3.01 ENVIRONMENTAL PROTECTION**

- A. Protection of Natural Resources: Comply with applicable regulations and these specifications. Preserve the natural resources within the project boundaries and outside the limits of work performed under this Contract in their existing condition or restore to an equivalent or improved condition as approved by the AEA Representative.
- B. Construction Zone: Arrange construction activities to minimize pollution (i.e., erosion, trash, etc.) to the maximum practical extent.
 - a. Clearing, excavation, and grading shall be limited to those areas of the project site necessary for construction. Minimize the area exposed and unprotected.

TEMPORARY STORM WATER POLLUTION CONTROL

- b. Clearly mark and delineate the limits of work activities.
- c. Equipment shall not be allowed to operate outside the limits of work or to disturb existing vegetation.
- d. Excavation and grading shall be completed during the dry season to the maximum extent possible
- e. Material should be stored away from locations where water is present to the greatest extent practicable.

3.02 POLLUTION PREVENTION PLAN

- A. Review and Acceptance: The CONTRACTOR and the AEA Representative will jointly review the draft Plan and agree to any needed revisions. The CONTRACTOR shall incorporate all revisions, sign, and submit the final Plan to the AEA Representative. The final Plan will be the document enforced on the project.
 - a. The accepted Plan will describe and ensure implementation of the practices which will be used to reduce the pollutants in storm water discharges.
 - b. The CONTRACTOR shall maintain a current copy of the Plan and all associated records and forms at the jobsite throughout the duration of the project.
 - c. The Plan shall be available at all times for public inspection and for the inspection and use of the AEA Representative.
 - d. Approval of CONTRACTOR's Plan will not relieve the CONTRACTOR of responsibility for compliance with applicable environmental regulations.
- B. Implementation: Implement the Plan as required throughout the construction period and maintain all erosion control elements in proper working order.
- C. Do not perform clearing and grubbing or earthwork until the Plan has been implemented.

3.03 SWPPP INSPECTIONS, REPORTS AND AMENDMENTS.

- A. Perform inspections, prepare inspection reports, and prepare SWPPP amendments in compliance with the project SWPPP. The CONTRACTOR's SWPPP is the SWPPP of record that regulatory agencies will examine.
- B. Construction Site Inspections.
 - a. The SWPPP Manager shall conduct joint site inspections with the AEA Representative and additional personnel named at weekly intervals:
 - b. Before starting construction with the SWPPP Preparer. Discuss implementation of the SWPPP and placement dates of BMPs in relation to the progress schedule.
 - c. Inspections shall be documented.
 - d. The inspection forms shall be retained onsite in the Plan notebook throughout the construction period.
 - e. At project completion, to ensure final stabilization of the project.
- C. Winter Site Inspections.
 - a. The SWPPP Manager may reduce the frequency of joint site inspections with the OWNER, from weekly one per month and within twenty-four (24) hours of

TEMPORARY STORM WATER POLLUTION CONTROL

a storm resulting in rainfall of one-half inch (1/2") or greater in twenty-four (24) hours if the following requirements are met:

- i. The entire site is temporarily stabilized; and
 - ii. The requirement to conduct joint site inspections within twenty-four (24) hours of a storm resulting in rainfall of one-half inch (1/2") or greater in twenty-four (24) hours only applies if the site is actively staff. If the site is not actively staffed during winter conditions, joint site inspections are only required at least once every month.
- b. The AEA Representative may waive winter monthly inspection requirements until one month before thawing conditions are expected to result in a discharge, if the following requirements are met:
- i. Runoff is unlikely due to winter conditions (e.g. the site is covered with snow, ice or the ground is frozen), and winter conditions (e.g., below-freezing) are anticipated to continue for more than one month;
 - ii. Land disturbance activities have been suspended; and
 - iii. The beginning and ending dates of the waiver period are documented in the SWPPP.

D. Items to Inspect.

- a. Inspect the following items during a construction or winter site inspection:
- i. Disturbed areas that have not been finally stabilized;
 - ii. Areas used for storage of erodible materials that are exposed to precipitation;
 - iii. BMPs;
 - iv. Locations where vehicles enter or exit the site;
 - v. Offsite material sources and waste disposal sites;
 - vi. Staging and equipment storage areas;
 - vii. Petroleum storage, handling and fueling sites; and
 - viii. Hazardous material storage sites.

E. Inspection Reports.

- a. Prepare reports on forms prepared and provided in the SWPPP.
- b. Sign and certify the report. Include reports as an appendix to the SWPPP. If the report identifies incidents of non-compliance with either the SWPPP, then implement corrective action and record when the action was taken.

F. Updating SWPPP.

- a. The SWPPP Manager shall keep the CONTRACTOR's SWPPP up to date at all times.
- b. Keep SWPPP amendments in the SWPPP document, with a summary of

TEMPORARY STORM WATER POLLUTION CONTROL

amendments. Keep inspection reports in the SWPPP document.

- c. Record in the SWPPP:
- d. The location, date of installation, date maintenance was performed, and date of removal for all BMPs;
- e. The dates when major grading activities occur (begin and end dates);
- f. The dates when construction activities temporarily or permanently cease on a portion of the site;
- g. The dates when stabilization measures are initiated; and
- h. The rainfall and outside air temperature each day.

G. Prepare SWPPP amendments, and initial and date them, within seven (7) days following an inspection:

- a. Whenever there is a change in design, construction, operation, or maintenance that could have a significant effect on the discharge of pollutants in storm water leaving the project site;
- b. If during inspections it is determined that the SWPPP is ineffective in eliminating or significantly minimizing pollutants in storm water discharges from the project site; and
- c. Whenever inspections identify a problem that requires additional or modified BMPs.

H. Negligence:

- A. Provide additional temporary erosion and pollution controls made necessary by Contractor's errors or negligence at no additional cost to the Government.

3.04 EROSION CONTROL MEASURES

- A. Erosion control measures shall consist of any and all BMPs for storm water discharges, including but not limited to silt fencing, barrier protectors, straw bales, temporary soil retention blankets, excelsior drainage filters, sediment traps and berms.
- B. Berms and excelsior drainage filters shall be used to form sediment traps and to control run-on and run-off into other areas, including creeks, streams, marshes, access roads, well areas, and the staging areas.
- C. Erosion control measures shall be used to contain only direct precipitation in the construction zone. The contained water shall be allowed to percolate into the ground or drain slowly through the drainage filter sediment traps.
- D. Earthen sediment traps or holding ponds shall not be used unless accepted by the CO.
- E. Reduce runoff velocity as well as direct surface runoff around and away from all fuel containment, storage, and borrow areas.
- F. Divert surface runoff around and away from cut and fill slopes.
- G. Place drainage filters around all catch basins to create sediment traps to control run-off

TEMPORARY STORM WATER POLLUTION CONTROL

from the construction area.

- H. Excess water used for dust control shall be contained within the demolition areas by the erosion control measures.
- I. The Contractor shall prevent the deposition of materials onto paved areas. The Contractor shall inspect the paved areas for deposited materials weekly and remove the materials immediately.
- J. Furnish, install, maintain, and operate necessary control measures and other equipment necessary to prevent erosion as described in the approved SWPPP.
- K. Before the work begins, sufficient equipment shall be available on the site to assure that the operation and adequacy of the erosion control system can be maintained.

3.05 MAINTENANCE OF TEMPORARY FACILITIES

- A. Ensure erosion and sediment control structures remain effective throughout excavation and grading operations. Relocate structures as necessary.
- B. Inspect control structures after each significant rainfall. Promptly repair breaches which occur.
- C. The Contractor shall remove entrapped sediment from behind excelsior drainage filter after each storm.

3.06 REPORTING

- A. If a discharge occurs or if the project receives a written notice or order from any regulatory agency, the Contractor will immediately notify the AEA Representative and will file a written report to the Agency(ies) with Jurisdiction within 7 days of the discharge event, notice, or order. Corrective measures shall be implemented immediately following the discharge, notice, or order. The report to the Agency(ies) with Jurisdiction shall contain the following items at a minimum:
 - a. The date, time, location, nature of operation, and type of discharge, including the cause or nature of the notice or order.
 - b. The BMPs deployed before the discharge event, or prior to receiving the notice or order.
 - c. The date of deployment and type of BMPs deployed after the discharge event, or after receiving the notice or order, including additional BMPs installed or planned to reduce or prevent re-occurrence.
 - d. An implementation and maintenance schedule for any affected BMPs.

3.07 SEDIMENT DISPOSAL

- A. Sediment excavated from temporary sediment control structures shall be disposed on the site with general fill, or with topsoil. Sediment shall be allowed to dry out as required before reuse.

TEMPORARY STORM WATER POLLUTION CONTROL

- B. Contractor shall place the sediment removed from traps and other structures where it will not enter a storm drain or watercourse and where it will not immediately reenter the basin.

3.08 REMOVAL OF TEMPORARY POLLUTION CONTROL MEASURES

- A. All temporary control measures shall be removed with permission of the AEA Representative within 20 working days after final acceptance of the project, and/or once slopes and all soil disturbances have stabilized.

END OF SECTION

PART 1 - GENERAL**1.01 SUMMARY**

- A. Mobilization work consists of operations and preparatory work necessary to become ready to perform the work or an item of Work.
- B. Demobilization work consists of operation and preparatory work necessary to remove CONTRACTOR-owned items and restore site(s) to original condition or as directed by AEA Representative.
- C. While the project Site is connected to the highway system, not all of the site can be accessed by the highway. Areas of the site in areas designated as wilderness and/or without trail access must be accessed by helicopter. Because of this, pre-mobilization and post-mobilization pictures of staging areas and site locations where impact is expected to occur shall be submitted to AEA's Representative.
- D. Prior to every mobilization of equipment, the CONTRACTOR must pressure wash all tracked equipment, excavation equipment, and excavation hauling equipment to ensure that the spread of invasive species is minimized. Clean equipment so that no invasive species would have the chance of being spread or imported into the site. See also Section 01 51 00.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 01 77 19

CONTRACT CLOSEOUT PROCEDURES

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Requirements for Substantial Completion.
- B. Requirements for Final Completion.
- C. Requirements for Final Acceptance and Payment.

1.2 RELATED REQUIREMENTS

- A. Section 00 70 00 – General Conditions: Substantial Completion, Final Completion, Final Payment, Final Acceptance.
- B. Section 01 11 13 – Summary of Work.
- C. Section 01 29 73 – Schedule of Values.
- D. Section 01 33 00 – Submittal Procedures.
- E. Section 01 78 39 – Project Record Documents.

1.3 SUBSTANTIAL COMPLETION SUBMITTALS

Submit the following prior to requesting the Substantial Completion Inspection:

- A. Evidence of Compliance with Requirements of the Authority Having Jurisdiction:
 - 1. Required Certificates of Inspection.
 - 2. Pre-Commissioning Substantial Completion Inspection Checklist
 - 3. Other approvals as may be required.
- B. Project Record Documents.
- C. Operation and Maintenance Data.
- D. Spare Parts and Maintenance Materials.
- E. Warranties and Bonds.
- F. Keys and Keying Schedule.

- G. No progress payments will be made for Substantial Completion until all required submittals have been submitted and accepted by the Authority.

1.4 SUBSTANTIAL COMPLETION

- A. In accordance with Section 00 70 00 – General Conditions, Article 13.10 Substantial Completion, the Contractor shall notify the Authority in writing that the Work or a portion of the Work which has been specifically identified in the Contract Documents (except for items specifically listed by the Contractor as incomplete) is substantially complete and request that the Authority issue a Certificate of Substantial Completion. The Authority will consider the Contractor's request for Substantial Completion only when:
1. Written request for Substantial Completion is provided at least ten (10) calendar days in advance of the Substantial Completion inspection date.
 2. List of items to be completed or corrected is submitted.
 3. All Operation and Maintenance Manuals are submitted and approved by the Authority.
 4. All equipment and systems have been tested, adjusted, are properly operating and fully operational.
 5. All automated and manual controls are fully operational and the entire system is ready for commissioning.
 6. Test reports for required tests have been submitted for all required tests.
 7. Spare parts, maintenance materials, keys, etc. are on site and available to be turned over to the Authority.
 8. All warranties and bonds are submitted and approved.
- B. When all of the preceding requirements for the consideration of Substantial Completion have been met, the Authority and/or their designee will conduct a scheduled Substantial Completion inspection. If upon the completion of the inspection, the Authority should find that the Work is not substantially complete, the Authority will promptly notify the Contractor in writing, listing observed deficiencies.
- C. The Contractor shall remedy deficiencies and send a second written notice of Substantial Completion.
- D. When the Authority finds the Work is substantially complete, it will issue a certificate of Substantial Completion with an attached punch list of deficiencies, all in accordance with the provisions of the General Conditions.

- E. The Contractor shall be responsible for scheduling the activities required for Substantial Completion to enable completion within the Contract Time.

1.5 FINAL COMPLETION

- A. In accordance with Section 00 70 00 – General Conditions, Article 13.13 Final Completion, when the Contractor considers that it has completed all the deficiencies listed on the Substantial Completion punch list, and that the Work is otherwise complete, it shall submit written certification that:
 - 1. Contract Documents have been reviewed.
 - 2. Work has been completed in accordance with Contract Documents, and deficiencies listed with certificate of Substantial Completion have been corrected.
 - 3. Work is complete and ready for final inspection.
- B. Upon the receipt of the preceding written notice, the Authority will conduct a Final Completion inspection. If the Authority should then find the Work to be incomplete, it will promptly notify the Contractor in writing with a list of observed deficiencies.
- C. The Contractor shall remedy deficiencies and transmit to the Authority a second certification of Final Completion.
- D. The Authority reserves the right to review photographic documentation in lieu of on-site inspection.
- E. When the Authority determines the Work is complete, all in accordance with the General Conditions article, “Final Completion and Application for Payment”, the Contractor may make application for Final Payment.

1.6 REINSPECTION FEES

- A. In accordance with Section 00 70 00 – General Conditions, Articles 13.10 Substantial Completion and 13.12 Final Inspection, the Contractor shall pay for all costs incurred by the Authority for re-inspection.
- B. The Authority may deduct the re-inspection costs from the application for final payment.

1.7 FINAL ACCEPTANCE AND PAYMENT

- A. Following the issuance of Final Completion, and subject to the completion of requirements specified in Section 00 70 00 – General Conditions, Articles 13.14 Final Payment and 13.15 Final Acceptance, the Authority will review the project files for completeness. The Authority may require the Contractor to submit or re-submit any of the following documents, upon request:
1. Contractor's transmittal letter: O&M Manuals.
 2. Contractor's transmittal letter: Warranty/Bonds.
 3. Contractor's transmittal letter: Record Documents.
 4. Spare parts, maintenance materials receipts.
 5. Contractor's transmittal letter: Keys & keying schedule.
 6. Contractor's certification of insurance.
 7. EEO compliance certification (Federally funded projects only).
 8. Submittals and miscellaneous registers.
 9. Original final pay estimate.
 10. Contractor's release.
 11. Department of Labor Notice of Completion (NOC).
 12. Other documentation as required by the Authority.
- B. Statement of Adjustment of Accounts – The Authority may require the Contractor to submit a final statement reflecting adjustments to the Contract Price showing:
1. Original Contract Price.
 2. Previous Change Orders.
 3. Changes under Allowances.
 4. Changes under Unit Prices.
 5. Deductions for uncorrected Work.
 6. Penalties and Bonuses.
 7. Deductions for Liquidated Damages.

8. Deductions for Re-inspection Fees.
 9. Other adjustments to Contract Price.
 10. Total Contract Price as adjusted.
 11. Previous payments.
 12. Sum remaining due.
- C. The Authority will issue a final Change Order reflecting all remaining adjustments to Contract Price not previously made by Change Orders.
- D. See Section 01 29 73 – Schedule of Values for minimum value that shall be assigned for Final Acceptance.
- E. The Contractor shall cooperate with the Authority and shall provide the requested documentation.
- F. When the Authority determines its files are complete, it will make final payment and issue a letter of Final Acceptance.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION



CERTIFICATE OF SUBSTANTIAL COMPLETION

Project: 23040- Quartz Creek to Sterling 69-kVa Pole Removal

A/E Project Number: _____

To: _____

Community: _____

Contract Number: _____

From: Alaska Energy Authority

Contract Date: _____

The work performed under this contract has been reviewed and found to be substantially complete. The date of substantial completion of the project or portion thereof designated above is hereby established as _____ which is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

Definition of Date of Substantial Completion

The Date of Substantial Completion of the Work or designated portion thereof is the date certified by the Project Manager when construction is sufficiently complete in accordance with the Contract Documents, so the _____ can occupy or utilize the work or designated portion thereof for the use for which it is intended, as expressed in the Contract Documents.

A list of items to be completed or corrected, prepared by the Project Manager is attached hereto. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all work associated with the Contract Documents.

The date of commencement of warranties for items on the attached list will be the date of final payment unless otherwise agreed to in writing.

Attachments:

Alaska Energy Authority:
Date: _____

Project Manager

SECTION 01 78 39

PROJECT RECORD DOCUMENTS

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Maintenance of Record Documents.
- B. Submittal of Record Documents.

1.2 RELATED REQUIREMENTS

- A. Section 00 70 00 - General Conditions: Record Documents.
- B. Section 01 11 13 – Summary of Work.
- C. Section 01 77 00 – Contract Closeout Procedures.

1.3 MAINTENANCE OF RECORD DOCUMENTS

- A. In addition to requirements in General Conditions, maintain at the site for the Authority one accurate and up to date record copy of:
 - 1. Contract Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed Shop Drawings and product data.
 - 6. Field test records.
 - 7. Inspection certificates.
 - 8. Manufacturer's certificates.
- B. Prior to Substantial Completion, provide original or legible copies of each item maintained by the Contractor.
- C. Delegate responsibility for management of maintenance of Record Documents to one person on the Contractor's staff as approved in advance by the Authority.

- D. Promptly following award of Contract, secure from the Authority, at no cost to the Contractor, one complete set of all Documents comprising the Contract.
- E. Immediately upon receipt of job set described above, identify each Document with title "RECORD DOCUMENTS – JOB SET".
- F. Store record documents and samples in field office apart from documents used for Construction. Provide files, racks, and secure storage for Record Documents and samples.
- G. Label and file Record Documents and samples in accordance with Section number listings in table of contents of this Project manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
- H. Maintain Record Documents in a clean, dry and legible condition. Do not use record documents for construction purposes.
- I. Use all means necessary to maintain job set of Record Documents completely protected from deterioration and from loss and damage until completion of Work and transfer of recorded data to the Authority.
- J. Do not use job set for any purpose except entry of new data and for review and copying by the Authority.
- K. Keep record documents and samples available for inspection by the Authority.
- L. Upon request by the Authority, and at time of each Application for Payment, enable inspection of Record Documents by the Authority for review as to completeness.
- M. Prior to submitting request for Final Payment, obtain the Authority's approval of final Record Documents.

1.4 RECORDING

- A. Record information on a set of 'black-line' opaque Drawings, and in a copy of a Project manual, provided by the Authority.
- B. Using felt tip marking pens or colored pencil, maintaining separate colors for each major system, clearly describe changes by note and by graphic line, as required. Date all entries. Call attention to entry by a "cloud" around area or areas affected.
- C. Thoroughly coordinate all changes within Record Documents, making adequate and proper entries on each Specification Section and each sheet of Drawings and other Documents where such entry is required to properly show change or selection.

- D. When a change within Record Documents is referenced to another document, such as a RFI's, Shop Drawing or Change Order, attach a copy of the referenced document to the respective Record Drawing or Record Specification where the entry is made.
- E. Contract Drawings and Shop Drawings: Legibly mark each item to record actual construction, including:
 - 1. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of construction.
 - 2. Field changes of dimension and detail.
 - 3. Changes made by modifications.
 - 4. Details not on original Contract Drawings.
 - 5. References to related Shop Drawings and modifications.
 - 6. Clearly label all changes and show dimensions to establish size and location. All identifications shall be sufficiently descriptive to relate reliably to Specifications.
- F. Other Documents: Maintain manufacturer's certifications, inspection certifications, and field test records required by individual Specifications sections.

1.5 SUBMITTAL OF RECORD DOCUMENTS

- A. Upon submittal of the completed Record Documents, make changes in Record Documents as required by the Authority.
- B. Transmit with cover letter in duplicate, listing:
 - 1. Date.
 - 2. The Authority's Project title and number.
 - 3. Contractor's name, address, and telephone number.
 - 4. Number and title of each record document.
 - 5. Signature of the Contractor or authorized representative.
- C. Final Record Documents shall include both hard copies and digitally scanned copies in *.PDF format (high quality grayscale scans, minimum 200 pixels/inch). Scans shall include front and back of drawings/documents where information occurs on both sides.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

A. CONTRACTOR shall remove 69-kVA poles, conductors, and equipment.

B. Scope: This section covers:

1. Demolition of 69-kVA poles, conductors, and associated equipment.

1.02 POLE AND EQUIPMENT REMOVAL REQUIREMENTS

- Conductor wires should be removed prior to poles being removed. Any trees on the lines will need to be removed prior to removing the conductor.
- Where the conductor wire crosses the highway, contact the Alaska Department of Transportation at least 2 weeks prior to work occurring for permitting requirements and/or other restrictions.
- Pole removal
 - As indicated in the Vermont Oct. 2015 PCP Report and associated BMP's, wherever feasible and to the extent practicable, every 'reasonable' attempt shall be made to remove structures entirely and fill the holes completely with clean fill material.
 - Care shall be taken to limit soil disturbance around the poles, to further minimize the spread of potential contamination.
 - Clean, washed rock (1" minus) shall be used to adequately fill all holes where pole butts have been completely removed from below the ground surface; and material shall be slightly mounded over each hole, to allow for any settling that may occur.
- Pole cut off at ground level
 - If poles are not required to and/or cannot be removed and pole butts remain below the ground surface, these locations must be adequately documented (using high sensitivity GPS) for inclusion in the Refuge database and for future reference. Existing GIS data is acceptable if locations are within 10-ft of the actual pole locations.
 - GIS or GPS location data must be provided to the Refuge within 120 days of completion of each project phase.
 - An aerial photo or Google Earth map showing the pole numbers where pole butts remain in place shall also be included.
- Equipment on poles must be removed and all materials properly disposed of.

1.03 DISPOSAL

The CONTRACTOR is responsible for legally disposing all poles, conductors, and equipment offsite.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

END OF SECTION

PART 1 - GENERAL1.01 SUMMARY

- A. This work consists of clearing, removing, and disposing of vegetation and debris as necessary to complete the Work. The CONTRACTOR will be expected to limit ground disturbance as much as possible.

1.02 PROJECT CONDITIONS

- A. It is expected that the clearing along the Project corridor, as well as clearing areas for staging, stockpiling, and convenience, may be required by the CONTRACTOR.
- B. Local habitat supports migratory bird nesting and other wildlife. No clearing will be allowed from May 1 through July 15.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION3.01 CLEARING

- A. For staging areas and stockpile areas, clearing shall be limited to the areas approved by the AEA Representative and Landowners. The CONTRACTOR shall protect wetlands to the greatest extent practicable.
- B. To the greatest extent practicable, protect the existing vegetation, except as required to access and remove the poles, wires, and equipment.
- C. Preserve and protect wetlands and vegetation outside clearing limits.

3.02 CLEARING, GRUBBING, AND STRIPPING

- A. Demolition areas shall be cleared of debris, trees, logs, upturned stumps, loose boulders, and any other objectionable material of any kind which would interfere with the performance or completion of the Work or create a hazard to safety. Trees and other natural vegetation outside the actual lines of demolition shall be protected from damage during demolition.
- B. Chipping and mulching of cleared material is not required.
- C. Written approval from the AEA Representative shall be obtained by the CONTRACTOR prior to the removal of any trees, shrubs, fences, or other improvements outside the indicated clearing limits. Any such removal of trees, shrubs, fences, or other improvements shall be replaced as part of the Work.
- D. All operations shall be conducted in a manner which maximizes preservation of the natural scene, minimizes unnecessary clearing, and avoids ground disturbance.

- E. No ground surface disturbance, including blading, re-contouring, removal of the vegetative mat and/or rutting in uplands and/or wetlands is authorized.
- F. When mechanical equipment is moved through any vegetative buffers, care will be taken to minimize vegetation damage (single-file, blade lifted on equipment, utilizing natural breaks and pushing through alders)
- G. All pertinent visual and anadromous buffers must be maintained, consistent with the 'Exceptions to Standard Clearing Practices' in the Right of Way Re-Clearing Protocol in Appendix D.

General Vegetation Clearing Specifications

- A. If spruce trees larger than 4 inches in diameter must be cut, the bark of each tree must be treated to prevent the spread of spruce bark beetles. If each tree cannot be chipped in its entirety, the bark shall be treated in the following manner:
 - 1. A strip of bark, a minimum of 2 inches wide, shall be removed along the length of the tree.
 - 2. The tree must be touching the ground at a minimum of every 6 feet.
 - 3. The logs must not be stacked on each other, to allow the inner bark to begin drying.
 - 4. Spruce trees less than 4 inches in diameter and other brush and shrubs do not need to be treated other than spreading out the slash no higher than 16 inches above ground.

END OF SECTION