State of Alaska, Standard Specifications
for Highway Construction, Dated 2017 are
modified as follows:

STANDARD MODIFICATIONS

SECTION 101
DEFINITIONS AND TERMS

07/01/18 (HSM18-1)

101-1.03 DEFINITIONS. *Delete the definition* for "BID" *and substitute the following:*

BID (OR PROPOSAL). The bidder's offer, on the prescribed forms, to perform the specified work at the prices quoted.

Add the following definitions:

BID FORMS. Department-furnished forms that a bidder must complete and submit when making a bid in response to an advertised project. Bid forms may include a bid schedule, certification forms, acknowledgment forms, and other documents.

DIGITAL SIGNATURE. An electronic signature that conforms to the Uniform Electronic Transactions Act, AS 09.80.010 et seq.

ELECTRONIC BID. A bid that a bidder (i) prepares on the Department's bid forms accessed through the Department's approved online bidding service and (ii) submits to the Department through use of that bidding service's online submittal process.

ELECTRONIC MAIL (EMAIL). A system for sending messages from one person to another via telecommunications links between computers or terminals using dedicated software.

MANUAL BID. A bid that a bidder (i) prepares on the Department's bid forms accessed either through the Department's approved online bidding service or obtained from the Department's Regional Contracts Office and (ii) submits to the Department in physical paper form by hand delivery, U.S. Mail, or courier service.

SECTION 102
BIDDING REQUIREMENTS AND CONDITIONS

07/01/18 (HSM18-1)

102-1.05 PREPARATION OF BID. *Delete this subsection in its entirety and substitute the following:* A bidder shall prepare its bid using either the Department approved bid preparation software or the Department provided bid forms or legible copies of the Department's forms. All entries shall be legible and in ink or type.

Bidders shall:

1. Enter all prices required on the Bid Schedule, in figures;

2. Enter a unit price for each contract item for which a quantity is given;

3. Enter the products of the respective unit prices and quantities in the column provided;

4. Enter lump sum prices for lump sum contract items in the column(s) provided; and

5. Enter the total amount of all contract items for the basic bid and, when specified, any alternates.

When a bid item contains a choice to be made by the bidder, the bidder shall indicate a choice according to the Specifications for that item. No further choice is permitted.

The bid must be signed in ink or by a digital signature by the person or persons authorized to sign the Contract for the bidder. If a bidder is a corporation, the bid must be signed by a corporate officer or agent with authority to bind the corporation. If a bidder is a partnership, a partner must sign. If the bidder is a joint venture, each principal member must sign. If a bidder is a sole proprietorship, the owner must sign. Each person signing the bid must initial any changes made to entries on the bid forms.

A bidder submitting an electronic bid agrees that its digital signature constitutes a binding signature.

The bidder shall make no claim against the Department in the event it is unable to submit its bid through approved online bidding service and/or approved online bidding service is unable to submit the bid(s) to the Department. The Department reserves the right to postpone the public bid opening in the event of technical problems.

For multiple-project bid openings, the bidder may limit the total dollar amount or number of projects to be accepted by completing and attaching the following statement with its bid for at least one of the projects. The Department will then determine which of the low bids it will accept, up to the total indicated.

"We wish to disqualify all of our successful bids at this bid opening which exceed the total of $_____ or ____ contracts and hereby authorize the Department to determine which bids to disqualify, based on this limit."

102-1.06 NONRESPONSIVE BIDS. *Delete this subsection in its entirety and substitute the following:*

1. A bid shall be rejected as nonresponsive if it:

    a. Is not properly signed by an authorized representative of the bidder and in a legally binding manner;

    b. Contains unauthorized additions, conditional or alternative bids, or other irregularities that make the bid incomplete, indefinite, or ambiguous;

    c. Includes a reservation of the right to accept or reject any award, or to enter into a contract pursuant to an award, except for an award limitation under Subsection 102-1.05;

    d. Fails to include an acceptable bid guaranty with the bid;

    e. Is materially unbalanced; or

    f. Fails to meet any other material requirement of the Invitation To Bid.

2. A bid may be rejected as nonresponsive, in the Department's discretion, if it:

    a. Is not typed or completed in ink;

    b. Fails to include an acknowledgement of receipt of each addendum by assigned number and date of issue; or

    c. Is missing a bid price for any pay item, except when alternate pay items are authorized.

102-1.07 BID GUARANTY. *Delete this subsection in its entirety and substitute the following:* Bids shall be accompanied by a bid guaranty in the amount specified on the Invitation To Bid. The guaranty shall be unconditionally payable to the State of Alaska and shall be in the form of an acceptable paper Bid Bond (Form 25D-14), an electronic bid bond acceptable to the Department and verified through its online bidding service, a certified check, a cashier's check, or a money order.

The surety of a Bid Bond may be any corporation or partnership authorized to do business in Alaska as an insurer under AS 21.09. A legible power of attorney shall be included with each paper Bid Bond (Form 25D-14).

An individual surety will not be accepted as a bid guaranty.

102-1.08 DELIVERY OF BIDS. *Delete this subsection in its entirety and substitute the following:* Bids shall be submitted electronically through the online bidding service, or shall be submitted in a sealed envelope. When bids are submitted in a sealed envelope, the envelope shall clearly indicate its contents and the designated address, as specified on the Invitation to Bid. Bids for other work may not be included in the envelope. In the event of a bid delay, electronic bidders that have already submitted their bid prior to the bid delay must resubmit their bid utilizing all Bid Forms EBSX Files or their bid will not be received.

The Department will not accept a bid submitted by email or fax unless specifically called for in the Invitation To Bid.

102-1.09 WITHDRAWAL OR REVISION OF BIDS. *Delete the subsection in its entirety and substitute the following:* Manual Bids may be withdrawn or revised in writing delivered by mail, fax, or email , provided that the designated office receives the withdrawal or revision before the deadline stated in the in the Invitation To Bid. Withdraw requests must be signed and submitted by the bidder's duly appointed representative who is legally authorized to bind the bidder. Revisions shall include both the modification of the unit bid price and the total modification of each item modified but shall not reveal the amount of the total original or revised bids.

Electronic Bids may be withdrawn or resubmitted through the online bidding service. Revisions to electronic bids delivered by mail, fax, or email will not be permitted. If electronic bid withdrawal is unsuccessful, electronic bids may be withdrawn in writing delivered by mail, fax, or email provided that the designated office receives the withdrawal before the deadline stated in the Invitation To Bid. Written withdrawal requests must be signed and submitted by the bidder's duly appointed representative who is legally authorized to bind the bidder.

102-1.11 ADDENDA REQUIREMENTS. *Delete this subsection in its entirety and substitute the following:* The Department will issue addenda if it determines, in its discretion, that clarifications or changes to the Contract documents or bid opening date are needed. The Department may send addenda by any reasonable method such as fax, email, or may post the addenda on its website or online bidding service. Unless picked up in person or included with the bid documents, addenda or notice that an addendum has been issued will be addressed to the individual or company to whom bidding documents were issued and sent to the email address or fax number on the plan holders' list. Notwithstanding the Department's efforts to distribute addenda, bidders are responsible for ensuring that they have received all addenda affecting the Invitation To Bid. Bidders must acknowledge all addenda on the Bid Forms, by fax, or by email before the deadline stated in the Invitation to Bid.

102-1.12 RECEIPT AND OPENING OF BIDS. *Delete this subsection in its entirety and substitute the following:* The Department will only consider bids, revisions, and withdrawals received before the deadline stated in the Invitation To Bid.

The Department will assemble, open, and publicly announce bids at the time and place indicated in the Invitation to Bid, or as soon thereafter as practicable. The Department is not responsible for prematurely opening or failing to open bids that are improperly addressed or identified.

Add the following subsection:

102-1.14 ELECTRONIC MAIL. Within its submitted bid, a bidder must include a current electronic mail (email) address of bidder's representative who possesses authority to receive, process, and respond to Department emails regarding the advertised project.

The Department may send notices and information to a bidder by using the furnished email address of the bidder's authorized representative.

A bidder shall notify the Department if the bidder requests the Department to send email notices or information to an address different from the email address initially provided in its bid forms. The bidder shall notify the Department of such change by sending a request in writing to the Contract's point of contact identified on the Invitation to Bid that is signed by a representative who is authorized and empowered to legally bind the bidder.

Delivery of an email sent by the Department is complete upon receipt in the addressee's email account. An email sent after 4:30 pm shall be deemed to have occurred at the opening of business on the next working day.

If needed, the Department may demonstrate proof of email delivery by affidavit or certification that includes the following:

1. The date and time that the Department sent the email message;
2. The email address from which the Department sent the message;
3. The name and email address to which the Department sent the message;
4. A statement that the Department sent the email message and that the person signing the affidavit or certification believes the transmission to have been complete and without error; and
5. An attached copy of the subject email.

SECTION 103
AWARD AND EXECUTION OF CONTRACT

07/01/18 (HSM18-1)

103-1.01 CONSIDERATION OF BIDS. *Delete this subsection in its entirety and substitute the following:*
After the bids are opened and read, the bids will be mathematically checked and compared on the basis of the sum of the products of the bid schedule quantities and the unit bid prices. The unit bid prices govern if there is an error in extending the unit bid prices, or in totaling the extensions, or if an extension is missing. The results of the bid comparisons will be made available to the public as soon as practicable.

Until the Award, the Department may reject any or all bids, waive minor informalities or advertise for new bids without liability to any bidder if the Department, in its discretion, determines that to do so is in the best interests of the State.

A bidder may request withdrawal of a bid after opening and before the Award only in accordance with AS 36.30.160(b) and State procurement regulations. Submit the request to the Contracting Officer.

An interested party, as defined in AS 36.30.699, may protest a proposed Award of contract as per AS 36.30.560 and AS 36.30.565. Submit the protest to the Contracting Officer.

WHOLLY STATE-FUNDED PROJECTS. On wholly state-funded projects, determination of the low bidder will include bidder preferences as required under AS 36.30.321, according to subsections 1-3 below. Alaska Bidder Preference, Alaska Veteran Preference, and Alaska Product Preference are not applicable on projects with federal funding.

1. Alaska Bidder Preference: A bidder claiming this preference shall provide with their bid an Alaska Bidder Preference Certification, certifying they qualify as an Alaska bidder eligible for Alaska Bidder Preference according to AS 36.30.

   If the bidder qualifies as an Alaska bidder, a five percent (5%) preference will be applied to the price of the bid. "Alaska bidder" means a person who:

   a. holds a current Alaska business license;

   b. submits a bid for goods, services, or construction under the name as appearing on the person's current Alaska business license;

   c. has maintained a place of business within the state staffed by the bidder or an employee of the bidder for a period of six months immediately preceding the date of the bid;

   d. is incorporated or qualified to do business under the laws of the state, is a sole proprietorship and the proprietor is a resident of the state, is a limited liability company organized under AS 10.50 and all members are residents of the state, or is a partnership under former AS 32.05, AS 32.06, or AS 32.11 and all partners are residents of the state; and

   e. If a joint venture, is composed entirely of ventures that qualify under (a) through (d), above.

2. Alaska Veteran Preference: A bidder claiming this preference shall provide an Alaska Veteran Preference Certification, certifying they qualify as an Alaska bidder eligible for Alaska Veteran preference according to AS 36.30.

   If a bidder qualifies as an Alaska bidder and is a qualifying entity, an Alaska Veteran Preference of 5 percent shall be applied to the bid price. The preference may not exceed $5,000 (AS 36.30.321). A “qualifying entity” means a:

   a. sole proprietorship owned by an Alaska veteran;

   b. partnership under AS 32.06 or AS 32.11 if a majority of the partners are Alaska veterans;

   c. limited liability company organized under AS 10.50 if a majority of the members are Alaska veterans; or

   d. corporation that is wholly owned by individuals, and a majority of the individuals are Alaska veterans.

   A preference under this section is in addition to any other preference for which the bidder qualifies.

   To qualify for this preference, the bidder must add value by the bidder itself actually performing, controlling, managing and supervising a significant part of the services provided or the bidder must have sold supplies of the general nature solicited to other state agencies, governments, or the general public.

An Alaska veteran is a resident of Alaska who:

(1) served in the Armed forces of the United States, including a reserve unit of the United States armed forces; or the Alaska Territorial Guard, the Alaska Army National Guard, the Alaska Air National Guard, or the Alaska Naval Militia; and

(2) was separated from service under a condition that was not dishonorable.

3. Alaska Product Preference: A bidder claiming this preference shall complete and sign the Alaska Product Preference Worksheet, according to the worksheet instructions, and submit the completed worksheet with their bid.

   Except for timber, lumber and manufactured lumber products used in the construction project under AS 36.30.322(b), an Alaska products preference will be given as required under AS 36.30.326 - 36.30.332 when the bidder designates the use of Alaska products.

   If the successful bidder/contractor proposes to use an Alaska product and does not do so, a penalty will be assessed against the successful bidder/contractor according to AS 36.30.330(a).

   Each Alaska product declared on the Alaska Product Preference Worksheet must have an "Approval" date on the Alaska Product Preference Program List, that is on or before the bid opening date for this contract, and that does not expire before the bid opening date for this contract.

103-1.03 AWARD OF CONTRACT. *Delete this subsection in its entirety and substitute the following:* The Department will award the Contract to the lowest responsible and responsive bidder unless it rejects all bids. The Department will notify all bidders in writing via email, fax, or U.S. Mail of its intent to award.

The Department will notify the successful bidder in writing of its intent to award the Contract and request that certain required documents, including the Contract Form, bonds, and insurance be submitted within the time specified. The successful bidder's refusal to sign the Contract and provide the requested documents within the time specified may result in cancellation of the notice of intent to award and forfeiture of the bid security.

If an award is made, it will be made as soon as practicable and usually within 40 days after bid opening. Award may be delayed due to bid irregularities or a bid protest, or if the award date is extended by mutual consent. Bids shall be valid for 120 days after bid opening, and may be extended by mutual consent.

SECTION 109
MEASUREMENT AND PAYMENT

07/01/18 (HSM18-1)

109-1.01 GENERAL. *Add the following after the second paragraph:* Pay item numbers in the Bid Schedule are cross-referenced to the pay item numbers in all other contract documents. The cross-reference for pay item numbers is included in the Estimate of Quantities table on the Plans.

SECTION 120
DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM

12/22/17 (SM-3)

120-1.01 DESCRIPTION. *Delete the second paragraph in its entirety and substitute the following:* The Department, in coordination with the Federal Highway Administration (FHWA), adopted a Race-Neutral DBE Program with an overall DBE Utilization Goal of 8.83 percent for Alaska's FHWA Federal-Aid program. Although the Race-Neutral program does not establish or require individual project DBE Utilization Goals, 49 CFR establishes the Bidder is responsible to make a portion of the work available to DBEs and to select those portions of the work or material needs consistent with the available DBEs to facilitate DBE participation.

Delete Section 630 in its entirety and substitute the following:

SECTION 630
GEOTEXTILE FOR EMBANKMENT AND ROADWAY SEPARATION, STABILIZATION AND REINFORCEMENT

10/12/18 (HSM18-3)

630-1.01 DESCRIPTION. Prepare ground surface, and furnish and place geotextiles for separation, stabilization, and/or reinforcement as shown on the Plans.

630-2.01 MATERIALS. Use materials that conform to the following:

Geotextiles and Sewn Seam Strength	Subsection 729-2.01

Sewing Thread. Use high strength polypropylene, or polyester. Do not use nylon thread. Use thread of contrasting color to that of the geotextile itself.

630-3.01 CONSTRUCTION.

1. Surface Preparation. Prepare ground surface by removing stumps, brush, boulders, and sharp objects. Fill holes and ruts over 3 inches deep, with material shown on the Plans or as approved by the Engineer.

2. Geotextile Placement. Unroll geotextile directly onto the prepared surface. Stretch geotextile to remove any creases, folds or wrinkles. Do not drag the geotextile through mud or over sharp objects that could damage the geotextile. Do not expose geotextiles to sunlight for longer than 14 days after removal of protective covering. Do not allow geotextiles to get wet prior to installation.

   a. Separation and Stabilization. Lay geotextile for embankment separation and stabilization parallel to roadway centerline. On horizontal curves, place in segment lengths not exceeding those listed in Table 630-1, with butt ends cut to match and sewn or overlapped. On tangents, straighten the geotextile and sew or overlap butt ends. Shingle overlaps in the same direction as fill placement. Prevent overlapped edges from lifting during construction.

   b. Reinforcement. Lay the machine direction of the geotextile for embankment reinforcement perpendicular to the roadway centerline or as shown on the Plans. Join segments by sewing or an approved bonding or attachment process. Shingle overlaps in the same direction as fill placement if seams are not sewn. Prevent overlapped edges from lifting during construction.

TABLE 630-1
GEOTEXTILE PLACEMENT ON CURVES

Degree of Curve	Maximum Segment Length (ft.)
1	125
2	90
3	75
4	65
5	55
6	50

3. Joining. Join adjacent geotextiles for separation or stabilization by overlapping or sewing. Join adjacent geotextiles for reinforcement by sewing or as shown on the Plans.

   a. Sew seams with a Butterfly or J-Seam using a double-thread chain stitch (lock stitch). Bring adjacent sections of geotextile together and fold so that the stitching penetrates four layers of geotextile for the full seam length. Make the stitching line 1-1/4 inches (±1/4 inch) from the folded edge of the seam and at least 1/2 inch from the free edge of the geotextile. Sew seams so that they face upward and can be easily inspected by the Engineer. Illustrations showing correct stitch formation and seam configurations are provided in Figure 1-2 (page 1-28) of the FHWA publication, *Geosynthetic Design & Construction Guidelines*, FHWA-NHI-07-092, August 2008.

   b. Overlap geotextile sections by a minimum of 3 feet at all longitudinal and transverse joints. Place the beginning of each new roll beneath the end of the previous roll to prevent the advancing fill from lifting the geotextile. Shingle in the direction of construction.

4. Material Placing and Spreading. During placing and spreading of material, maintain a minimum depth of 12 inches of cover material; or a minimum depth equal to the separation distance between multiple layers of geotextile as shown on the Plans when this separation distance is less than 12 inches; at all times between the geotextile and the wheels or tracks of the construction equipment. Limit the size and weight of construction equipment to reduce rutting in the initial lift above the geotextile to not greater than 3 inches deep to prevent overstressing the geotextile.

   Spread the material in the direction of the upper overlapped geotextile. Maintain proper overlap and geotextile continuity. If sewn or bonded seams are used, place the cover material and spread in only one direction for the entire length of the geotextile. On weak subgrades limit height of dumped cover material to prevent localized subgrade and/or geotextile failure. Do not drop stones or frozen material larger than 1 foot in diameter directly onto the geotextile from a height of more than 1 foot.

   Compact using a smooth drum roller. Do not allow construction equipment to make sudden stops, starts, or turns on the cover material. Do not allow turning of vehicles on the initial lift of cover material above the geotextile. Fill any ruts over 3 inches deep occurring during construction with material shown on the Plans; do not grade adjacent material into rut; and compact to the specified density.

5. Geotextile Repair. Repair and replace damaged geotextile (torn, punctured, or disturbed at the overlaps or sewn joints). For damage evidenced by visible geotextile damage, subgrade pumping, intrusion, or embankment distortion, remove the backfill around and under the damaged or displaced area, and repair with material matching the damaged material. Make patches overlap or sew patches to the existing geotextile.

   a. Separation and Stabilization. Overlay torn area with geotextile with a minimum 3 foot overlap around the edges of the torn or damaged area or sew and bond according to Subsection 630-3.01.3.a. Ensure the patch remains in place when cover material is placed over the affected area.

b. Reinforcement. Sew according to Subsection 630-3.01.3.a unless joining by overlap is shown on the Plans. Ensure the patch remains in place when cover material is placed over the affected area.

630-4.01 METHOD OF MEASUREMENT. By multiplying plan neat line width by the measured length in final position parallel to installation centerline along the ground surface. No allowance will be made for overlap, whether at joints or patches.

630-5.01 BASIS OF PAYMENT. Payment will be made at the contract unit price per square yard. Material used to fill ruts and holes will be paid for under separate materials pay items.

Pay Item	Pay Unit
630(1) Geotextile, Separation, Class 3	Square Yard
630(2) Geotextile, Stabilization, Class 1	Square Yard
630(3A) Geotextile, Reinforcement – Type 1	Square Yard
630(3B) Geotextile, Reinforcement – Type 2	Square Yard

Delete Section 631 in its entirety and substitute the following:

SECTION 631
GEOTEXTILE FOR SUBSURFACE DRAINAGE AND EROSION CONTROL

10/12/18 (HSM18-3)

631-1.01 DESCRIPTION. Prepare ground surface, and furnish and place geotextiles for subsurface drainage and erosion control, as shown on the Plans.

631-2.01 MATERIALS. Use materials that conform to the following for the class specified in the bid schedule:

Geotextiles and Sewn Seam Strength Subsection 729-2.01

Sewing Thread. Use high strength polypropylene, or polyester. Do not use nylon thread. Use thread of contrasting color to that of the geotextile itself.

631-3.01 CONSTRUCTION.

1. Surface Preparation. Prepare ground surface by removing stumps, brush, boulders, and sharp objects. Fill holes and ruts over 3 inches deep, with material shown on the Plans or as approved by the Engineer. Construct smooth and stable trench walls.

2. Geotextile Placement. Unroll geotextile directly onto the prepared surface. Stretch geotextile to remove any creases, folds or wrinkles. Place geotextile in a manner which will ensure intimate contact between the trench wall and the geotextile (i.e., no voids, folds, or wrinkles). The geotextile may be held in place with securing pins at 3-foot spacing along all edges (but not closer than 2 inches from the edge) to prevent movement during construction. Do not expose geotextiles to sunlight for longer than 14 days after removal of protective covering. Do not allow geotextile rolls to get wet prior to installation.

   a. Subsurface Drainage. In trenches, after placing the geotextile and material shown on the Plans, fold the geotextile over the top of the material shown on the Plans to produce a minimum overlap of 12 inches, for trenches greater than 12 inches wide. In trenches less than 12 inches wide, make the overlap equal to the width of the trench. Then cover the geotextile with the subsequent course of material.

b. Erosion Control. Place and anchor geotextile on the approved surface so it will not be torn or excessively stretched by placement of the overlying materials. Secure the geotextile to the slope but secure it loosely enough so that the geotextile will not tear when riprap or other cover material is placed on the geotextile. The geotextile shall not be keyed at the top of the slope until the riprap or other cover material is in place at the top of the slope. Anchor the terminal ends of the geotextile using key trenches or aprons with a minimum of 24 inches depth into the soil substrate at the crest and toe of slope, or as shown on the Plans. Place geotextile with the machine direction parallel to the direction of water flow (normally parallel to the slope for erosion control runoff and wave action, and parallel to the stream or channel).

3. Joining. Join geotextile by sewing or overlapping.

   a. Sew seams with a Butterfly or J-Seam using a double thread chain stitch (lock stitch). Bring adjacent sections of geotextile together and fold so that the stitching penetrates four layers of geotextile for the full seam length. Make the stitching line 1-1/4 inches (±1/4 inch) from the folded edge of the seam and at least 1/2 inch from the free edge of the geotextile. Sew seams so that they can be easily inspected by the Engineer or representative. Illustrations showing correct stitch formation and seam configurations are provided in Figure 1-2 (page 1-28) of the FHWA publication, *Geosynthetic Design & Construction Guidelines*, FHWA-NHI-07-092, August 2008. Conform both factory and field sewn seams to the strength requirements of Table 1 as outlined in the AASHTO M288 for subsurface drainage and erosion control applications.

   b. Overlap geotextile sections by a minimum of 3 feet at all longitudinal and transverse joints. Overlap successive geotextile sheets in the direction of flow so that the upstream sheet is placed over the downstream sheet and/or upslope over downslope. In trenches, where overlapped seams are constructed in the longitudinal trench direction, make the overlap equal to the width of the trench.

4. Placement of Cover Material. Following placement of the geotextile on the prepared surface, place cover material of the type shown on the Plans. Place the cover material and armor from the bottom to the top of the slope using methods which minimize tearing and/or excessive stretching of the geotextile. In underwater applications, place the geotextile and the required thickness of cover material in the same day. Maintain proper overlap and geotextile continuity. Do not exceed the allowable drop heights for cover material shown in Table 631-1. Do not allow stones with a weight of more than 100 pounds to roll down the slope on the geotextile. Do not grade the slope in a way that will disturb the cover material or armor stone once it has been placed. Backfill all voids in the riprap or other cover material, which allows the geotextile to be visible, with material shown on the Plans, so that the geotextile is completely covered.

TABLE 631-1 ALLOWABLE DROP HEIGHT FOR GEOTEXTILE

INDIVIDUAL STONE Max. Weight (lbs)	**ALLOWABLE DROP HEIGHT (ft)**	
	UNPROTECTED GEOTEXTILE	PROTECTED GEOTEXTILE*
< 5	3	3
5-250	0	3
> 250	0	0**

* Protected geotextile is defined as having a gravelly covering (cushion layer) at least 6 inches thick.
** If stones greater than 250 pounds must be dropped or if a height of drop greater than 3 feet is required, then perform field trials to determine the minimum cushion thickness and/or maximum height of safe drop without damaging the geotextile.

Maintain a minimum depth of 12 inches of cover material between the geotextile and the wheels or tracks of the construction equipment.

5. Geotextile Repair. Should the geotextile be torn, punctured, or the overlaps or sewn joints disturbed – as evidenced by visible geotextile damage – remove the backfill around the damaged area and repair or replace the damaged area at no additional expense to the State. Make repairs to the damaged area with a patch of the same type of geotextile originally placed. Overlay torn area with geotextile with a minimum 3 foot overlap around the edges of the torn area. Ensure that the patch remains in place when material is placed over the affected area.

631-4.01 METHOD OF MEASUREMENT. By multiplying plan neat line width by the measured length in final position parallel to installation centerline along the ground surface No allowance will be made for geotextile in key trenches or for overlap, whether at joints or patches.

631-5.01 BASIS OF PAYMENT. Payment will be made at the contract unit price per square yard. Material used to fill ruts and holes will be paid for under separate materials pay items at the unit price for the type of material used.

Pay Item	Pay Unit
631(1) Geotextile, Drainage, Class 2	Square Yard
631(2) Geotextile, Erosion Control, Class 1	Square Yard

Delete Section 632 in its entirety and substitute the following:

SECTION 632
PAVING FABRIC

10/12/18 (HSM18-3)

632-1.01 DESCRIPTION. Furnish and install geotextile paving fabric where shown on the Plans.

632-2.01 MATERIALS. Use materials that conform to the following:

Paving Fabric	Subsection 729-2.03
Asphalt Binder	Subsection 702-2.01 (for grade of asphalt used in the overlay)
Emulsified Asphalt	Subsection 702-2.03

632-3.01 CONSTRUCTION.

1. Surface Preparation. Prepare the surface on which the fabric is to be placed as follows:

   a. Remove excess asphalt material, loose aggregate, and other foreign materials from the surface.

   b. Fill all potholes and cracks wider than 1/4 inch with emulsified asphalt (CSS-1) sand slurry.

2. Application of Sealant. Apply asphalt sealant by distributor meeting all requirements set forth under Subsection 402-3.02. Apply asphalt sealant (tack coat) uniformly at 0.20 to 0.30 gallons per square yard and at a temperature between 295°F and 320°F in the distributor tank, or as recommended by the Paving Fabric manufacturer. Do not apply asphalt material on a wet surface or when the ambient air temperature is below 45 °F or when other conditions would prevent proper application.

3. Fabric Laydown Equipment. Use approved mechanical laydown equipment to place fabric.

4. Fabric Placement. Place fabric directly on top of the asphalt sealant (tack coat) before the sealant has cooled and lost its tackiness. Lay fabric in full rolls without wrinkles and/or folds. Place the fabric per the manufacturer's recommendations. Overlap geotextile joints to ensure full closure of the joint, but do not exceed 6 inches of overlap. Overlap transverse joints in the direction of paving. Apply 0.20 gallons per square yard of additional asphalt sealant beneath all fabric joints. Remove and replace damaged geotextiles. Removal and replacement of damaged geotextiles is subsidiary to Section 632 Pay Items.

5. Bituminous Surface Course Overlay. Place the bituminous surface course closely following the fabric laydown to avoid exposure of uncovered fabric overnight or to traffic or inclement weather. Do not allow the temperature of the hot-mix asphalt to exceed manufacturer's recommendations. If asphalt sealant bleeds through the fabric before the placement of the overlay, apply sand or bituminous surface course evenly over the affected area to prevent fabric pick-up by construction equipment. Prevent paver or other construction equipment from turning and/or pivoting on the fabric.

632-4.01 METHOD OF MEASUREMENT. By multiplying plan neat line width by the measured length in final position parallel to installation centerline along the ground surface. No allowance will be made for overlap, whether at joints or patches.

632-5.01 BASIS OF PAYMENT.

Pay Item	Pay Unit
632(1) Paving Fabric	Square Yard

Delete Section 633 in its entirety and substitute the following:

SECTION 633
SILT FENCE

10/12/18 (HSM18-3)

633-1.01 DESCRIPTION. Furnish, install, maintain, and remove temporary silt fence as shown on the Plans or as directed.

633-2.01 MATERIALS. Use materials that conform to the following:

Geotextile	Subsection 729-2.01
Silt Fence	Subsection 729-2.04
Posts	Wood 1.5-inch x 1.5-inch x 36-inch min., steel, or approved synthetic material.
Prefabricated Silt Fence	Meet the Plans and Section 633 requirements.
Attachment Devices	Staples; wire; self-locking nylon, plastic, wire ties; or other approved means to attach fabric to posts.
Support Mesh between Posts	14-gage welded wire fencing, metal chain-link fabric, or geosynthetic mesh with equivalent strength. Use maximum mesh spacing of 6 inches. Use height shown on the Plans, or specified in the Bid Schedule.

633-3.01 CONSTRUCTION. Install silt fence according to Plans. Use Trenchless Detail when installing silt fence over permanently frozen ground. Drill holes for support posts, if required.
When joining to another roll, place both end posts together and wrap them with silt fence by turning them one full rotation. Drive the wrapped posts.

633-3.02 MAINTENANCE. Maintain the integrity of the fence to contain sediment in runoff until final stabilization.

633-3.03 REMOVAL. After disturbed area has been accepted as permanently stabilized or when sediment protection is no longer needed, remove silt fence.

633-4.01 METHOD OF MEASUREMENT. Section 109. Measure silt fence by the length of fence installed. No allowance will be made for overlap, whether at joints or patches.

633-5.01 BASIS OF PAYMENT. The contract price includes installation, maintenance, removal and disposal of the silt fence.

Pay Item	Pay Unit
633(1) Silt Fence	Linear Foot
633(2) Support Mesh Reinforced Silt Fence	Linear Foot

Delete Section 634 in its entirety and substitute the following:

SECTION 634
GEOGRID FOR EMBANKMENT AND ROADWAY STABILIZATION AND REINFORCEMENT

10/12/18 (HSM18-3)

634-1.01 DESCRIPTION. Furnish and install geogrid material as shown on the Plans.

634-2.01 MATERIALS. Use materials that conform to the following:

Geogrid Subsection 729-2.04

634-3.01 CONSTRUCTION.

1. Surface Preparation.

   a. Soft Ground (CBR ≤3). Prepare surface by removal of stumps, brush, boulders, and sharp objects. Fill holes and ruts over 3 inches deep, with material shown on the Plans or as approved by the Engineer.

   b. Firm Ground (CBR >3). Compact and finish subgrade or subbase prior to placement of the geogrid.

2. Geogrid Placement. Unroll geogrid directly onto the prepared ground surface in the direction of advancing construction, parallel to the centerline of the roadway or according to the Plans. Do not drag the geogrid across the subgrade. Install the geogrid in the longest continuous practical length, free from folds, creases or wrinkles. Hold the geogrid in place with pins, staples, sandbags or piles of granular material. Do not expose geogrids to sunlight for longer than 14 days after removal of protective covering.

   a. Soft Ground (CBR ≤3). Overlap geogrid panels a minimum of 24 inches at all joints with the upper geogrid in the direction that fill will be placed. Tie panels together securely with cable ties or hog rings at 20 foot intervals, or according to the manufacturer's recommendations.

   b. Firm Ground (CBR >3). Overlap geogrid panels a minimum of 12 inches at all joints in the direction that fill will be placed. Tie panels together securely with cable ties or hog rings at 20 foot intervals and hand-tension geogrid and stake to the ground at the edges, overlaps, and in the center of each roll, at 30 foot intervals or as shown on the Plans.

Place the beginning of each new roll beneath the end of the previous roll to prevent the advancing fill from lifting the geogrid. Stagger end overlaps at least 10 feet from other end overlaps in adjacent rolls.

3. Placement of Cover Material. Do not operate equipment directly on the unprotected geogrid. Spread fill material in the direction of the fabric overlap. Compact using a smooth drum roller. Do not allow construction equipment to make sudden stops, starts, or turns on the cover material.

    a. Very Soft Ground (CBR < 1). End-dump material onto previously placed material and spread over the geogrid with a low ground pressure dozer to the depth permitted. Maintain a minimum depth of 12 inches of cover material at all times between the geogrid and the wheels or tracks of the construction equipment unless otherwise shown on the Plans. Do not dump material directly onto the geogrid. To prevent a mud wave, end-dump fill along the edges of the geogrid to form toe berms or access roads that extend one to two panel widths ahead of the remainder of the embankment fill placement. After constructing the two berms, spread fill in the area between the toe berms by placing material parallel to the alignment and symmetrical from the toe berms inward toward the center to maintain a U-shaped leading edge (i.e., concave outward) to contain the mud wave. Limit height of dumped piles above the geogrid to avoid local bearing failure. Traffic on the first lift should be parallel to the embankment alignment. Do not allow construction equipment to turn on the first lift. Compact first lift by tracking in place with dozers or end-loaders. Compact with specified compaction equipment once embankment is at least 2 feet above the geogrid.

    b. Soft Ground (1 ≤ CBR ≤ 3). End-dump material onto previously placed material and spread over the geogrid with a low ground pressure dozer to the depth permitted. Maintain a minimum depth of 6 inches of cover material at all times between the geogrid and the wheels or tracks of the construction equipment unless otherwise shown on the Plans. Place the end-dumped material along the roadway centerline and spread it outward to the roadway edges to prevent the development of wrinkles or movement of the geogrid during construction. Fill in any ruts that form during construction with material shown on the Plans. Do not cut down the fill adjacent to the ruts.

    c. Firm Ground (CBR > 3). Maintain a minimum depth of 6 inches of cover material at all times between the geogrid and the wheels or tracks of the construction equipment.

4. Geogrid Repair. Should the geogrid be torn, punctured, or the overlaps disturbed – as evidenced by visible geogrid damage – remove the backfill around the damaged area and repair or replace the damaged area at no additional expense to the State. Make repairs to the damaged area with a patch of the same type of geogrid originally placed. Overlay torn area with geogrid with a minimum 3 foot overlap around the edges of the torn area and secure as recommended by the geogrid manufacturer.

634-4.01 METHOD OF MEASUREMENT. By multiplying plan neat line width by the measured length in final position parallel to installation centerline along the ground surface. No allowance will be made for overlap, whether at joints or patches.

634-5.01 BASIS OF PAYMENT. Payment will be made at the contract unit price per square yard. Material used to fill ruts and holes will be paid for at the unit price for the type of material used.

Pay Item	Pay Unit
634(1) Geogrid, Stabilization, Class _____	Square Yard
634 (2) Geogrid, Reinforcement, Class _____	Square Yard

SECTION 641
EROSION, SEDIMENT, AND POLLUTION CONTROL

04/30/17 (SM-2)

641-3.03 SWPPP INSPECTIONS, AMENDMENTS, REPORTS, AND LOGS. *Delete subparagraph 5. Stabilization before Seasonal Thaw and substitute the following:*

5. Stabilization before Fall Freeze up and Spring Thaw. Construction Activities within the Project Zone must be stabilized with appropriate BMPs prior to the anticipated date of fall freeze up, in accordance with the CGP, Section 4.12.

   Exceptions to stabilization prior to anticipated date of fall freeze up include:

   When stabilization activities are precluded by snow cover or frozen ground conditions prior to the anticipated date of fall freeze up, or

   When winter construction activity is authorized by the Engineer and conducted according to the contract.

   Construction Activities within the Project Zone must be stabilized with appropriate BMPs prior to spring thaw, as defined in the CGP.

Delete Section 729 in its entirety and substitute the following:

SECTION 729
GEOSYNTHETICS

10/12/18 (HSM18-3)

729-2.01 GEOTEXTILE FOR SUBSURFACE DRAINAGE, SEPARATION, STABILIZATION, EROSION CONTROL AND EMBANKMENT REINFORCEMENT.

1. Subsurface Drainage. Meet AASHTO M 288 for Subsurface Drainage, except provide a minimum permittivity of 0.50 sec^{-1}, and meet Class 2 Strength Property Requirements.
2. Separation. Meet AASHTO M 288 for Separation, except provide a minimum permittivity of 0.50 sec^{-1}, and meet Class 3 Strength Property Requirements.
3. Stabilization. Meet AASHTO M 288 for Stabilization, except provides a minimum permittivity of 0.50 sec^{-1}, and meet Class 1 Strength Property Requirements.
4. Erosion Control. Meet AASHTO M 288 for Permanent Erosion Control and meet Class 1 Strength Property Requirements.
5. Reinforcement. Meet the requirements in Table 729-1 for Type 1 or Type 2.

Package, label, handle and store geotextile materials according to ASTM D 4873.

TABLE 729-1
GEOTEXTILE REINFORCEMENT PROPERTIES

Property	Test Method	Units	Requirement[a]	
			Type 1	Type 2
Grab Tensile	ASTM D4632	lb.	200/200	400/400
Grab Elongation	ASTM D4632	% (MD)	10	10
Wide Width Tensile	ASTM D4595	lb/in. (ultimate)	200/200	400/400
Wide Width Tensile	ASTM D4595	lb/in. (@ 5% strain)	100/100	200/200
Seam Breaking Strength	ASTM D4632	lb./in.	180	360
Puncture	ASTM D6241	lb.	500	1500
Trapezoidal Tear	ASTM D4533	lb.	100	150
AOS	ASTM D4751	U.S. sieve size	#30[b]	#30[b]
Permittivity	ASTM D4491	sec^{-1}	0.20	0.20
Flow Rate	ASTM D4491	$gal./min./ft^2$	10	10

[a] Minimum Average Roll Values (MARV) in machine direction (MD) / cross-machine direction (XD) unless otherwise specified
[b] Maximum average roll value

729-2.02 SILT FENCE. Meet AASHTO M 288 for Temporary Silt Fence.

729-2.03 PAVING FABRIC. Meet AASHTO M 288 for Paving Fabric.

729-2.04 GEOGRID FOR EMBANKMENT AND ROADWAY STABILIZATION AND REINFORCE-MENT. Provide geogrid consisting of a regular network of connected polymer tensile elements with aperture geometry sufficient to provide significant mechanical interlock with the surrounding material. Provide dimensionally stable geogrid that is able to retain its geometry during construction. Provide geogrid structure that resists ultraviolet degradation and all forms of chemical and biological degradation encountered in the material in which it is buried.

Package, label, handle, and store geogrid material according to ASTM D 4873.

1. Stabilization. Provide geogrid that meets the survivability requirements in Table 729-2 and meets the physical requirements in Table 729-3.
2. Reinforcement. Provide geogrid that meets the survivability requirements in Table 729-2 and as shown on the Plans.

TABLE 729-2
GEOGRID SURVIVABILITY REQUIREMENTS

Property	Test Method	Units	Requirement	
			CLASS 1	CLASS 2
Ultimate Multi-Rib Tensile Strength[a]	ASTM D6637	lb./ft.	1230	820
Junction Strength[a]	ASTM D7737	lb.	25	25
Ultraviolet Stability (Retained Strength)	ASTM D4355	%	50% after 500 hours of exposure	

[a] Minimum Average Roll Value (MARV) in any rib direction.

TABLE 729-3
GEOGRID PHYSICAL REQUIREMENTS

Property	Test Method	Units	Requirement
2% Tensile Strength[a]	ASTM D6637	lb./ft.	≥ 400
5% Tensile Strength[a]	ASTM D6637	lb./ft.	≥ 800
Percent Open Area	COE, CW-02215	%	50 – 80
Aperture Size[b]	Direct measure	in.	0.5 – 3.0

[a] Minimum Average Roll Value (MARV) in machine and cross-machine directions.
[b] measured as the spacing between parallel ribs.

SPECIAL PROVISIONS

SECTION 102
BIDDING REQUIREMENTS AND CONDITIONS

Add the following subsection:

102-1.15 MANDATORY POST AWARD CONFERENCE.

DESCRIPTION. Participate in a Post Award Conference. The Post Award Conference is an informational public meeting to be held in the community of project location. Provide information about local employment and economic opportunities, as well as project activities and project contacts.

GENERAL. Attend and participate in the Post Award Conference. The Engineer and representatives of other agencies will also participate. The Conference will be held in the community of project location at a time and location to be determined.

SCHEDULING. The Post Award Conference will be scheduled to take place within 30 days prior to the Contractor beginning work. The Conference will be scheduled in cooperation with the local community and other participants.

TRAVEL. The Contractor shall provide his own transportation at his own expense.

REQUIRED INFORMATION. Present the following information at the Post Award Conference:

- Overview of the project
- Project timeline
- Project impacts on the community
- Project workforce (number and types of employees)
- Contractor's employment opportunities, qualifications, and hiring process

BASIS OF PAYMENT. Work under this item is subsidiary to other contract items and no separate payment will be made.

SECTION 104
SCOPE OF WORK

11/30/12 (H5)
Add the following subsection:

104-1.07 FROZEN GROUND. Frozen areas, ice lenses, and saturated soils may be encountered on this project and related material sources. Specific locations and specific content of frozen areas, ice lenses, and saturated soils are not defined. Any such area that may be encountered by the Contractor in the performance of the contract work will not be considered unforeseeable within the terms of the contract such as to entitle the Contractor to any adjustment in contract price or contract time. Reference is made to Subsection 203-3.03 of these Specifications.

SECTION 106
CONTROL OF MATERIAL

106-1.02 MATERIALS SOURCES.

1. General. *Add the following subparagraph:*

    j. If pre-existing, naturally occurring, hazardous material is encountered in any Material Source under Department ownership, management, or permit; the Department will pay in accordance with Section 109-1.05 for the proper handling and disposal of the hazardous material. Avoid excavation activity in the vicinity of the hazardous material. The Department will not be liable for any delays or impacts to the production of any materials items due to encountering the hazardous material. Contractor shall adhere to Subsection 107-1.11(6). Nothing in this subsection relieves the Contractor of any statutory liability.

4. Types of Sources. *Add the following subparagraph:*

    f. Two stockpiles of Selected Material, Type B are Mandatory for use in the project. The material is stockpiled on City owned property, and the material is owned by the Northwest Arctic Borough (NAB). Contractor shall abide by the Material Sale Agreement between the Department and NAB, included as Supplemental Information.

    A stockpile of State-Furnished Aggregate Surface Course, Grading E-1, is Mandatory for use in the project. No Contractor furnished sources of E-1 will be accepted. The material is located on City owned property. There is no royalty for this material. See Supplemental Information.

    Mandatory source locations are shown in the Plans. Any necessary access improvements to Mandatory sources are to be coordinated with the City of Kotzebue, and are the sole responsibility of the Contractor.

    Some quantity of material in each Mandatory stockpile will be un-available for use in the project due to settlement. Contractor is solely responsible for confirming the available quantity.

SECTION 203
EXCAVATION AND EMBANKMENT

203-1.01 DESCRIPTION. *Add the following:* Use mandatory sources in accordance with Section 106.

203-3.01 GENERAL. *Delete the first sentence and substitute the following:* Clearing and grubbing are not anticipated on this project. The vegetation mat will be left intact where possible.

01/20/15 (N8)
Add the following to the eighth paragraph: Disposal in wetlands is prohibited, except as described in Subsection 107-1.11.

Add the following after the eighth paragraph: The Contractor shall certify in writing to the Engineer that all permits and clearances relating to all waste disposal sites selected by the Contractor have been obtained prior to any clearing or ground disturbance in the disposal site.

203-3.03 EMBANKMENT CONSTRUCTION. *Delete the fifth and seventh paragraphs.*

Add the following after the tenth paragraph: Construct lower portion of Borrow embankment, as shown on the Plans, entirely in frozen conditions and within one winter season. Embankment and bedding materials placed in frozen conditions shall be placed in lifts not exceeding 24”, unless otherwise required by the

Plans, and shall be compacted in accordance with Subsection 203-3.05. Frozen embankment shall consist of fragments smaller than 12 inches. No ice shall be placed in the embankment. Ice and snow shall be removed from the road footprint prior to the placement of fill. All additional snow and ice that may accumulate during embankment construction shall also be removed to the satisfaction of the Engineer so that no significant amounts of snow & ice are incorporated within the embankment. Snow and ice removal is subsidiary to the 203 series items. Care must be taken to protect the tundra at all times during construction, including during snow removal efforts.

During thawing conditions, embankment material previously placed in winter may be too soft to allow operating of equipment or achieving proper compaction until the material has adequately dried, and may therefore require work on the embankment to cease until the material has stabilized adequately to allow resumption of work. If hauling over the embankment causes loss of stability as evidenced by pumping, rutting, or other damage, the Contractor shall repair the damage at his expense, as directed by the Engineer, and adjust his schedule, equipment and procedures to avoid causing further damage.

Any loss of material due to subsidence, consolidation, or erosion during this project will be replaced at no cost to the Department.

01/20/15 (N11)
Delete the fourteenth paragraph and substitute the following: When embankments are to be constructed across wet or swampy ground, which will not support the weight of heavy hauling and spreading equipment, the Contractor shall choose such methods of embankment construction and use such hauling and spreading equipment as will least disturb the soft foundation. When soft foundations are encountered, and when approved by the Engineer, the lower part of the fill may be constructed by dumping and spreading successive vehicle loads in a uniformly distributed layer of a thickness not greater than that necessary to support the vehicle while placing subsequent layers, after which the remainder of the embankment shall be constructed in layers and compacted as specified.

It is not the policy of the State to allow an increase in the planned depth of embankment material over soft, wet, or swampy ground for the sole purpose of providing support for heavy hauling and spreading equipment, unless the Contractor proves to the satisfaction of the Engineer that the planned depth is inadequate to support light hauling vehicles. If use of smaller hauling vehicles or different methods of embankment construction than originally contemplated are necessary to comply with the foregoing, such shall not be the basis for a claim for extra compensation. The contract unit price for the various pay items involved shall be full compensation for all labor, materials, and equipment necessary to perform the work outlined herein.

203-3.05 COMPACTION WITHOUT MOISTURE AND DENSITY CONTROL. *Delete the second sentence and substitute the following*: Compact each lift with sheep-foot or grid roller and routing construction equipment over the entire surface of layer to the satisfaction of the Engineer. The roller shall have a minimum drum width of 84 inches.

The existing ground and new embankment is expected to be soft when thawed, and may not freeze sufficiently to support heavy construction equipment. The Contractor shall use low ground pressure equipment when soft embankment and ground conditions exist.

01/20/15 (N12)
203-4.01 METHOD OF MEASUREMENT. *Add the following:* Borrow will not be weighed or used while free moisture is observed draining from the haul vehicle at the scale location.

04/30/17 (N13)
203-5.01 BASIS OF PAYMENT. *Add the following:* Ten percent (10%) of the value earned in the progress period shall be withheld on progress payments for all Section 203 items of work. Five percent (5%) will be released by work area, as defined in the SWPPP, when final stabilization is initiated. The last five percent (5%) will be released by work area, as defined in the SWPPP, when final stabilization as

defined by the *Construction General Permit* has been obtained and accepted by the Engineer. Withholding will be made under Item 641(6) Withholding.

Add the following pay item:

Pay Item	Pay Unit
203(19) Selected Material, Type B, Mandatory	Ton

Add the following section:

SECTION 301
AGGREGATE BASE AND SURFACE COURSE

301.2.01 MATERIALS. *Delete this subsection in its entirety and substitute the following:* Contractor shall use the mandatory source of Aggregate Surface Course, Grading E-1, per Section 106.

SECTION 603
CULVERTS AND STORM DRAINS

603-5.01 BASIS OF PAYMENT. *Add the following pay item:*

Pay Item	Pay Unit
603(122) Corrugated Polyethylene Pipe 24 inch	Ton

Add the following section:

SECTION 618
SEEDING

618-1.01 DESCRIPTION. It is the intent of this work that a uniform living vegetative cover be established according to the Plans and Specifications. This work consists of soil preparation, seeding, fertilizing, mulching, and establishing, and maintaining vegetated areas.

618-2.01 MATERIALS. Use materials that conform to the following:

Seed	Section 724
Fertilizer	Section 725
Mulch	Subsection 727-2.01
Water	Subsection 712-2.01

CONSTRUCTION REQUIREMENTS

618-3.01 SOIL PREPARATION. Clear all areas to be seeded of stones 4” and larger in diameter and of all weeds, plant growth, sticks, stumps and other debris or irregularities which may interfere with the seeding, establishment, and maintenance of the vegetated areas.

Prior to the application of seed, prepare slopes using one or more of the following methods, or as approved by the Engineer:

1. Manual Raking – Requires manual labor with landscaping rakes to produce a uniform pattern of grooves perpendicular to the fall of the slope.
2. Mechanical Raking - Requires the use of a scarifying slope board to produce grooves with an approximate width and depth of 1", and no more than 6" apart. The resultant indentations shall leave a uniform pattern of grooves perpendicular to the fall of the slope.
3. Mechanical Track Walking - Requires operating tracked equipment in such a manner as to leave a uniform pattern of grooves perpendicular to the fall of the slope.

618-3.02 SEEDING SEASON. Perform seeding after the ground is free of snow and no sooner than June 15 and no later than August 15. Perform seeding when wind conditions, climatic conditions, and soil conditions will not hinder seeding and establishment.

618-3.03 APPLICATION METHOD. Use the Hydraulic Method. You must obtain the Engineer's permission to use the Mechanical Method.

Hydraulic Method:

1. Seeding by the hydraulic method consists of furnishing and placing a slurry of dye, seed, fertilizer, trace mulch, water, and a second application of mulch.
2. Do not place seed in the slurry prior to 30 minutes before application.
3. Add the proportionate amount of seed to the water slurry in the hydraulic seeder after the proportionate amounts of trace mulch and fertilizer have been added.
4. Apply the slurry mixture in a manner that results in an even distribution of all materials. Apply seed, fertilizer, and trace mulch together in one application.
5. Hydraulic seeding equipment must maintain continuous slurry agitation so that a homogeneous, uniform mixture is applied through a spray nozzle, for the complete tank load. The pump must be capable of producing sufficient pressure to maintain a continuous, nonfluctuating spray capable of reaching the extremities of the seeding area with the pump & nozzle unit located on the roadbed. Provide sufficient hose to reach areas not practical to seed from the pump & nozzle unit situated on the road bed.
6. A second application of mulch shall be applied within 24-hours after seeding. Mulch shall be furnished and evenly applied at the rates required for temporary stabilization per the manufacturer's recommendations and according to Subsection 727-2.01. Mulch sprayed on signs or sign structures shall be removed the same day.

Mechanical Method:

1. Use mechanical spreaders, seed drills or other approved mechanical seeding equipment when seed and fertilizer are to be applied in dry form.
2. Water seeding area both prior to and after the application of fertilizer.
3. Spread fertilizer separately from seed.
4. An application of mulch shall be applied within 24-hours after seeding. Mulch shall be furnished and evenly applied at the rates required for temporary stabilization per the manufacturer's recommendations and according to Subsection 727-2.01. Mulch sprayed on signs or sign structures shall be removed the same day.

618-3.04 APPLICATION RATE. Apply seed, fertilizer, and trace mulch at the rates specified in the table below:

MATERIALS	TYPE	APPLICATION RATE (1 lb/1,000 sq. ft) PER 1,000 SQUARE FEET
Seed*	Arctared' Red Fescue 'Nortran' Tufted Hairgrass 'Tundra' Glaucous Bluegrass Annual Ryegrass	0.35 lbs 0.35 lbs 0.25 lbs 0.05 lbs
	Total	1.0 lbs
Fertilizer	20N-20P-10K	450 lbs/acre
Trace mulch**	See Subsection 727-2.01	20 lbs.

* Do not remove the required tags from the seed containers.

** Trace mulch application rate may be adjusted according to the manufacturer's recommendations when approved by the Engineer. Trace mulch is not required for mechanical seeding.

618-3.05 MAINTENANCE. Protect seeded areas against erosion and sedimentation. Protect seeded areas against traffic by approved warning signs or barricades. Water seeded areas, in a non-erosive manner, as required to establish a uniform living perennial vegetative cover. Be responsible for identifying, retracking, reseeding, refertilizing and remulching gullied or otherwise damaged areas. The second application of mulch shall be maintained so it properly performs its temporary stabilization function until final stabilization is achieved. Rescarify, reseed, refertilize and remulch unproductive areas as directed by the Engineer.

618-3.06 PERIOD OF ESTABLISHMENT. The establishment period extends until a uniform (e.g. evenly distributed, without large bare areas) perennial living vegetative cover with a density of 70 percent of the native background vegetative cover is established.

618-3.07 ACCEPTANCE. The Engineer will accept seeding when a uniform (e.g. evenly distributed, without large bare areas) perennial living vegetative cover with a density of 70 percent of the native background vegetative cover is established.

618-4.01 METHOD OF MEASUREMENT. Section 109 and as follows:

Watering seeded areas per Subsection 618-3.05 will not be measured directly for payment and is subsidiary, except when Pay Item 618(3) is listed on the Bid Schedule.

Identifying, retracking, reseeding, refertilizing and remulching gullied or otherwise damaged areas will not be measured directly for payment and is subsidiary.

Seeding by the Acre. By the area of ground surface acceptably seeded and maintained. Soil preparation, seed, fertilizer, all mulch, dye, and water required for seed and fertilizer application will not be measured directly for payment and is subsidiary.

Seeding by the Pound. By the dry weight of seed acceptably seeded and maintained. Soil preparation, fertilizer, all mulch, dye, and water required for seed and fertilizer application will not be measured directly for payment and is subsidiary.

Water for Seeding. By the M Gal. (1,000 gallons) acceptably placed. Use a conversion factor of 8.34 pounds per gallon, if measured by weight.

618-5.01 BASIS OF PAYMENT. The accepted quantity will be paid for at the contract price, per unit of measurement, for the pay items listed below that appear on the bid schedule. Water for Seeding will not be measured or paid for separately, but will be subsidiary.
Payment will be made under:

Pay Item	Pay Unit
618 (1) Seeding	Acre
618 (2) Seeding	Pound
618 (3) Water for Seeding	M Gal.

SECTION 642
CONSTRUCTION SURVEYING AND MONUMENTS

642-3.01 GENERAL. *Delete the fifth paragraph and substitute the following:* Follow the Department's Construction Surveying Requirements, or if GPS survey is approved by the Engineer, use the Alaska Survey Manual GPS Surveys 2010 (rev. 8/15/10).

Add the following to the last sentence in the second to the last paragraph: or the Alaska Survey Manual GPS Surveys 2010 (rev. 8/15/10).

01/20/15 (N38)
642-4.01 METHOD OF MEASUREMENT.

Item 642(3A) Three Person Survey Party. *Delete in its entirety and substitute the following:* Contingent sum work will be measured according to Subsections 101-1.03 and 109-1.02 or 109-1.05. This item, when appearing on the Bid Schedule, will be used only for additional or unanticipated work made necessary by changes in the Contract.

SECTION 643
TRAFFIC MAINTENANCE

03/07/19 (N40)
643-5.01 BASIS OF PAYMENT.

11. Traffic Control. *Add the following schedule:*

TRAFFIC CONTROL RATE SCHEDULE

TRAFFIC CONTROL DEVICE	PAY UNIT	UNIT RATE
Construction Signs	Each/Day	$ 6.50
Special Construction Signs	Square Foot	$ 28.00
Type II Barricade	Each/Day	$ 3.30
Type III Barricade	Each/Day	$ 11.00
Traffic Cone or Tubular Marker	Each/Day	$ 1.10
Drums	Each/Day	$ 3.30
Temporary Guardrail	Linear Foot	$ 25.00
Portable Concrete or Steel F Shape Barrier (12.5 foot standard length or$8/foot)	Each	$ 100.00

TRAFFIC CONTROL DEVICE	PAY UNIT	UNIT RATE
Temporary Crash Cushion/ non-redirective Water filled barrier (all required per end)	Each	$ 2,500.00
Temporary Crash Cushion / non-redirective Water filled Barrels (all required per end)	Each	$ 3,285.00
Temporary Crash Cushion / non-redirective Sand filled Barrels (all required per end)	Each	$ 4,325.00
Temporary Crash Cushion / Redirective	Each	$ 9,230.00
Plastic Safety Fence	Foot	$ 1.00
Temporary Sidewalk Surfacing	Square Foot	$ 2.00
Flexible Markers (Flat Whip, Reflective)	Each	$ 60.00
Flagging	Hour	$58.00
Electronic Boards, Panels and Signals		
Sequential Arrow Panel	Each/Day	$ 36.00
Portable Changeable Message Board Sign	Each/Day	$ 130.00
Portable Traffic Signals (Two)	Each/Day	$361.00
Cars and Trucks w/driver		
Pilot Car (4x2 ½ ton truck, or any car)	Hour	$72.00
Watering Truck – up to 4900 gallon capacity	M-Gallon	$ 28.00
Watering Truck – more than 4900 gallon	M-Gallon	$ 21.00
Street Sweeping (Regenerative Sweeper, Vacuum Sweeper, Mechanical or Power Broom with vacuum)	Hour	$ 214.00
40,000 GVW Truck with Crash Attenuator	Hour	$ 162.00
Interim Pavement Markings		
Painted Markings	Linear Foot	$ 0.30
Preformed Pavement Marking Tape (removable or non-removable)	Linear Foot	$ 1.75
Temporary Raised Pavement Markers	Each	$ 1.00
Word or Symbol Markings	Each	$ 40.00
Temporary Cover Markings	Linear Foot	$ 4.00
Removal of Pavement Markings	Linear Foot	$1.25

Delete Section 644 in its entirety and substitute the following:
04/15/16 (N41)

SECTION 644
SERVICES TO BE FURNISHED BY THE CONTRACTOR

644-1.01 DESCRIPTION. Furnish and maintain facilities and services specified in the Contract for the Department's project administrative personnel to use during the project. Services include heat, electrical power (NEC compliant), water and any others required to operate the facilities. All furnished facilities remain the property of the contractor when the work is completed.

The Engineer may delete any 644 Items, by Directive within five working days after the Preconstruction Conference. If any 644 Items are deleted within the specified period, Subsection 109-1.09, Eliminated Items, shall not apply to the deleted 644 Items.

644-2.01 FIELD OFFICE. Furnish and maintain a suitable office for the Engineer to use during construction. Make the Field Office available for occupancy 2 weeks before commencing work on the project through one week after Project Completion. The Field Office shall be within one half of one mile from the project.

1. Submit office proposal to the Engineer prior to procurement or transporting office to the project. The Engineer will approve the office general condition, location, access, features, and physical layout prior to beginning any office setup work. If this office is part of your building, completely partition it from the rest of the structure and provide a separate outside door equipped with a lock.

2. Provide at least the following minimum requirements, or as approved by the Engineer:
   a. Floor space of at least 400 ft^2
   b. Window area of at least 60 ft^2
   c. Lockable outside door(s)
   d. 4 each plastic folding tables, 8 ft. long
   e. Shelf space of at least 24 linear feet
   f. Adequate heating and cooling devices, and fuel or power to run the devices, to maintain an office temperature between 65° and 75°F.
   g. Adequate ventilation
   h. Continuous supply of drinking water from an approved source or commercial supplier
   i. Sanitary facilities including adequate hand soap, hand sanitizer, toilet paper, and paper towels
   j. Janitorial services at least weekly
   k. Provide electrical service as indicated in 644-2.09, #1 Field Office

   l. Internet Service and Phone:
      Furnish and install a high speed internet service and three telephones, with all necessary ancillary equipment.

      The internet system shall have a send and receive capability supporting 1.0 Mbps download speed or higher and 0.5 Mbps upload speed at all times. The internet system shall have a minimum monthly data usage of 10 GB. Include a wireless router and an appropriately sized battery backup for the internet system. The system shall be for the exclusive use of the Engineer.

      The telephone system shall consist of commercially available telephones with the necessary equipment for each line. Provide one telephone that includes a built in digital answering machine.

      Internet and telephone service shall be supplied and operational no more than two weeks after the field office has been set up on site. Service plans shall be provided and remain in effect for the duration of the use of the field office.

   m. One multifunction Color Printer/Scanner/Copier meeting the following requirements:
      New or like-new condition
      Printing/copying at least 32 ppm
      Scan speed of 40 ppm at 400 DPI in color, at a minimum
      Print/Scan/Copy 8.5” X 11” and 11” X 17” in color, at a minimum
      Supports network scanning (FTP and SMB Support)
      Supports network printing (PCL and Postscript)
      Network card included
      Automatic Document Feeder

      Furnish ink and toner and perform repairs and maintenance as necessary.

      The Printer/Scanner/Copier remains property of the Contractor upon completion of the contract.

n. Make the field office accessible according to the requirements of *Americans with Disabilities Act Accessibility Guidelines* (ADAAG). Provide at least one designated handicap parking space.
o. One AED (Automated External Defibrillator), with carrying case and properly marked wall cabinet. Provide training on how to use the AED.
p. One combination Smoke and Carbon Monoxide Detector minimum. Provide combination Smoke and Carbon Monoxide Detectors in any location requested by the Engineer.
q. One 25 Person Trauma First Aid Kit.
r. 2 mobile hotspots with month-to-month data plans. Include car charger and 5 gigabytes of data usage per month.

3. Provide electrical power to the Department's portable concrete compressive strength lab if there are any bridge items in the bid schedule as identified in 644-2.09, #9.

4. Provide electrical power to the Department's portable nuclear storage trailer as identified in 644-2.09, #8.

5. Provide the following to the Department's portable asphalt lab if there are any asphaltic materials in the bid schedule and item 644(2) Field Laboratory does not appear in the bid schedule.
   a. electrical service as identified in 644-2.09, #4 Asphalt Laboratory.
   b. internet service as specified for the Field Laboratory.

All long distance calls made by State personnel will be paid by the State. Installation and maintenance fees, local calls, connection fees and internet service provider fees, and all other fees shall be paid by the Contractor. Paper used by the copier/scanner/printer will be paid by the State.

644-2.02 FIELD LABORATORY. Furnish and maintain a field laboratory for the Engineer to use exclusively throughout the contract. Provide a completely functional installation 2 weeks before commencing construction work through one week after Project Completion.

1. Grade and compact a site for the lab acceptable to the Engineer. Locate and level the structure on this site. If subsequent ground movement causes an unlevel or unstable condition, re-level or re-locate the facility as directed.

2. Provide a weatherproof structure suitable to field test construction materials, with the following minimum functional requirements:
   a. Floor space of 300 ft^2
   b. Two 10-ft^2 windows that open and lock
   c. Lockable door(s)
   d. Work bench(es), 2-1/2 X 16 feet total, 3 feet high
   e. Shelf space, 1 X 16 feet
   f. One 18-inch deep sink with attached industrial faucet with hand sprayer attachment and approved drain
   g. A gravity-fed 250-gallon tank or pressurized constant water supply of acceptable quality
   h. electrical service as indicated in 644-2.09, #2 Field Laboratory
   i. Heating equipment suitable to maintain a uniform room temperature of 65° to 75°F
   j. Storage cabinet, 3 ft X 3 ft X 3 ft, lockable, securely fixed to an inside wall with a hinged door opening outward
   k. Office desk and 2 chairs
   l. One combination Smoke and Carbon Monoxide Detector minimum. Provide Combination Smoke and Carbon Monoxide Detectors at any location requested by the Engineer.
   m. One 25 person Trauma First Aid Kit.
   n. Internet Service and Phone:

      Furnish and install a high speed internet service and a telephone, with all necessary ancillary equipment.

The internet system shall have a send and receive capability supporting 1.0 Mbps download speed or higher and 0.5 Mbps upload speed at all times. The internet system shall have a minimum monthly data usage of 10 GB. Include a wireless router and an appropriately sized battery backup for the internet system. The system shall be separate from the internet system of the contractor for exclusive use of the Department.

The telephone system shall consist of commercially available telephones with the necessary equipment for each line. Provide one telephone that includes a built in digital answering machine.

Internet and telephone service shall be supplied and operational no more than two weeks after the field laboratory has been set up on site. Service plans shall be provided and remain in effect for the duration of the use of the field laboratory.

3. If the lab is a mobile unit mounted on axles and wheels, block the structure under the frame so that the wheels do not touch the ground and the blocking rests firmly on the prepared site.

4. Provide a separate weatherproof shed within 20 feet of the main lab structure with the following minimum functional requirements:
   a. Floor 8 ft X 12 ft, ceiling height 8 ft
   b. Door 4 ft wide and window 5 ft^2 that opens, both lockable
   c. electrical service as identified in 644-2.09, #3 Field Laboratory Out Building
   d. Work table 3 ft X 1-1/2 ft X 3 ft high, capable of supporting 250 pounds and affixed to an inside wall as directed
   e. Concrete-slab floor, 8 ft X 8 ft X 4 inches thick, cast-in-place or pre-cast. Install anchor bolts in the floor to accommodate the mounting pattern of the Gilson sieving machine at a location as directed.
      (1) Comply with 1. above for slab foundation requirements.
      (2) Found the slab directly on the prepared site.

5. For all types of installations, if the entryway is located higher than a single 7-inch rise, provide the following:
   a. Stairway, 3 feet wide X 11-inch tread X 7-inch rise
   b. Landing, 4 ft X 4 ft centered on the entryway
   c. Handrail(s) firmly affixed to the stairway

6. Provide the following lab equipment and services:
   a. Propane necessary for the lab operation, including two 100-lb tanks, regulators, hoses, fittings, and incidentals for a functional system
   b. Specialized sampling equipment such as belt templates or belt sampling devices as required
   c. Fuel and power necessary to continuously operate the facilities

7. Provide the following to the Department's portable asphalt lab if there are any asphaltic materials in the bid schedule.
   a. electrical service as identified in 644-2.09, #4 Asphalt Laboratory.
   b. internet service as specified for the Field Laboratory.

644-2.03 CURING SHED. Furnish and maintain a suitable weather tight shed for curing concrete test cylinders, with a suitable tank(s) for curing concrete test cylinders.

Provide a tank(s) large enough to contain at least 6 each 4" X 8" test cylinders from each pour that you propose to make during any 28-day period. Use a tank(s) at least 18 inches high, insulated, and constructed of heavy duty plastic or non-corrosive metal. Construct a lid to provide access to the tank(s).

Provide suitable heating to maintain the temperature in the tank between 70° and 77°F at all times when curing the test cylinders. In addition, provide suitable thermometers in the shed and tank(s) to check the temperature.

Provide a supply of calcium hydroxide (high-calcium hydrated lime) sufficient to maintain a fully saturated water bath in the tank(s). Provide a source of potable water.

Provide one combination smoke alarm and carbon monoxide detector.

Provide electrical service as identified in 644-2.09, #5 Curing Shed

644-2.04 MEALS AND LODGING. When Items 644(4) and 644(5) appear in the bid schedule, furnish, and maintain suitable boarding facilities, at or near the project, for State employees. State employees include Department employees assigned to the project and other personnel authorized by the Engineer. The Special Provisions will list an estimated number of state employees.

Provide facilities meeting the Alaska Administrative Code 8 AAC 61.1010 and 8 AAC 61.1040 Occupational Safety and Health Standards, 18 AAC 31 Alaska Food Code, and U.S. Code of Federal Regulations 29 CFR 1910.142 Temporary Labor Camps.

Boarding Facilities may include a Contractor Camp or the use of roadhouses, homes, or lodges located near the project, providing the accommodations conform with Contract requirements and the applicable requirements of State employee labor union agreements.

Provide as a minimum, the following facilities:

1. Meals
    a. Three well balanced meals per day per person
    b. Food, drinks, and bottled water for employees to pack a mid-shift lunch
2. Kitchen and Dining Area
    a. Kitchen capable of preparing meals so that all portions are served at one time
    b. Separate dining area with 50 sq-ft per person based on full capacity
3. Lodging (room and bedding)
    a. Heated, well ventilated housing of 60 sq-ft of floor area for each person with twin size bed frame, box spring, mattress, mattress pad, sheets, pillow, and a heavy blanket or comforter.
    b. A weekly change of sheets
    c. Lockable room door with keys
    d. Lockable storage space in the room of 35 cubic feet for each person
4. Common area (reading/recreation area)
    a. A common area with furnishings at a rate of 10 square feet per person based on full capacity
    b. Satellite TV access or equal with a minimum of 30 channels
    c. Furnishings to include adequate couches, easy chairs, and padded folding chairs
5. Sanitary facilities and services
    a. Toilets, showers, and sinks at a rate of 1 each per 10 persons
    b. Separate bathroom units for males and females at a rate specified above
    c. Clothes washers and dryers at a rate of 1 each per 30 persons
    d. Adequate hand soap, toilet paper, paper towels, bath towels, and wash cloths
    e. Clean bathrooms and empty garbage daily
    f. Vacuum rooms, launder towels and sheets, and do other cleaning as required
6. Safety facilities
    a. First aid facilities
    b. Emergency response plan

c. Emergency evacuation plan
d. Fire alarms, smoke alarms, and fire extinguishers according to "Occupational safety & Health Administration, U.S. Department of Labor"

7. Other facilities and services required by codes, regulations, and labor union agreements

Make boarding facilities available for use by State employees starting 2 weeks before commencing work on the project through one week after project completion.

Require state employees to sign a meal and/or lodging sheet to document receipt of each meal and each night's lodging.

644-2.05 VEHICLES. Furnish and maintain vehicles in good condition that are less than three years old and with less than 36,000 miles on the odometer for the exclusive use of the Department throughout the project. Provide full-size four-wheel drive pickups or sport utility vehicles. The Special Provisions will state the required number and type of vehicles. Provide vehicles from two weeks before commencing work to one week after Project Completion. Maintain the vehicles in satisfactory running condition throughout the duration of the contract. Provide insurance, fuel, fluids, lubricants, tire repair/replacement, and windshield repair/replacements as needed. If a vehicle is down for more than 24 hours, provide a replacement Vehicle of the same type at no additional cost.

The State of Alaska is responsible for damage to any vehicle caused by its own negligent operation.

The Engineer will approve the vehicles prior to transporting them to the project site. In addition to use on the project, all of the vehicles will be allowed to make round trips to the Department's regional headquarters. Remove all vehicles from the project at the end of the Contract.

Provide the specified number of the following vehicle types:

1. **LT/SUV.** Provide full-size four-wheel drive pickups or sport utility vehicles. Provide vehicles from two weeks before commencing work to one week after Project Completion. Maintain the vehicles in satisfactory running condition throughout the duration of the contract. Provide insurance, fuel, fluids, lubricants, tire repair/replacement, and windshield repair/replacements as needed. If a vehicle is down for more than 24 hours, provide a replacement Vehicle of the same type at no additional cost. Equip each truck as follows:

    a. Four wheel drive
    b. V-8 engine
    c. Automatic transmission
    d. Power steering
    e. Air conditioning
    f. Fire extinguisher & basic first aid kit
    g. Jack and lug wrench
    h. Load range D tires in good condition
    i. Two full size load range D spare tires in good condition mounted on rims
    j. 2 sets of keys
    k. CB Radio with 48" Antenna
    l. 3 each AKDOT&PF magnetic stickers. Plans available at http://dot.alaska.gov/documents/DOT-SOA-Construction-Magnets-Specs.pdf

2. **Snow Machine.** Provide Snow Machines as follows:
    a. Minimum 500 cc fan-cooled engine
    b. Sled hitch

    c. 2 sets of keys

3. **ATV.** Provide Side-by-Side ATVs as follows:
   a) Four wheel drive
   b) 31 HP minimum Engine
   c) Cargo bed
   d) 2 sets of keys
   e) CB Radio securely attached in the cab.

Number of Vehicles	Type
2	Truck
1	ATV

Equip each vehicle as follows:

1. Four wheel drive
2. V-8 engine
3. Automatic transmission
4. Power steering
5. Air conditioning
6. Fire extinguisher & basic first aid kit
7. Jack and lug wrench
8. Load range D tires in good condition
9. Two full size load range D spare tires in good condition mounted on rims
10. 360-degree Permanent Beacon
11. 2 sets of keys
12. CB Radio with 48" Antenna for all projects more than 50 miles from Fairbanks.
13. 3 each AKDOT&PF magnetic stickers. Plans available at http://dot.alaska.gov/documents/DOT-SOA-Construction-Magnets-Specs.pdf

644-2.06 NUCLEAR TESTING EQUIPMENT STORAGE SHED. Design, furnish and maintain a weatherproof, heated, and ventilated nuclear densometer/testing equipment storage shed for the Engineer to use exclusively throughout the contract. Install the building at least 15-feet from an occupied area at a location approved by the Engineer. Install the shed at least one week before the commencement of construction activities and maintain it until one week after Project Completion. Provide sufficient floor area for the nuclear testing equipment and a portable electric heater to maintain a minimum room temperature of 50°F. Design the building with enough floor area to provide sufficient clearance between the equipment, heater, and combustibles. Provide a commercial grade metal-clad exterior entrance door of 3'-0" min width by 6'-8" height with dead-bolt lockset. Hang the door so that hinge pins are not accessible from the exterior. Provide the Engineer with 2 keys to control access. Provide a 5/16" X 10 foot long welded steel security chain securely attached inside the structure with tamperproof hardware for the Engineer to secure the testing equipment. Provide electrical service as identified in 644-2.09, #7 Nuclear Testing Equipment Storage Shed. Secure the structure to the ground with tamperproof anchors to resist wind loads and prevent unauthorized movement of the building. The Nuclear Testing Equipment Storage Shed remains the property of the Contractor. Remove the shed from the site following project completion. The Nuclear Testing Equipment Storage Shed must be windowless.

644-2.07 STORAGE CONTAINER. Furnish, transport and maintain a weathertight, lockable, steel enclosed 20 foot long X 8 foot wide X 8 foot high wooden floored container for the storage of the Department's materials, supplies and testing equipment (but not nuclear equipment). Provide twenty equally spaced fastening points on the interior walls that are capable of securing the Department's contents. Door opening dimensions of the storage container shall be greater than 60 square feet. Supply necessary equipment to lift and move container with minimal disturbance to the Department's contents. The container shall not be moved by skidding or hook lift. The Contractor shall be listed as the shipper on all documents listing and acknowledging receipt of the Department's goods for shipment.

Deliver an empty and clean container to the Regional Materials Laboratory, or location acceptable to the Engineer, three weeks prior to transporting to the project site. Allow 7 days for the Department to load the container. Transport the loaded container to the project site. Set up container at a location approved by

the Engineer at least one week before the commencement of construction activities and maintain it until one week after Project Completion.

1. Provide electrical service and other facilities as follows:
   a. Provide a stairway with railing, built to meet the International Building Code, if there is more than 12-inch difference in floor entry and existing ground elevation.
   b. Provide electrical service as identified in 644-2.09, #6 Storage Container.

Return the container to the Regional Materials Laboratory, or location acceptable to the Engineer, upon project completion. Allow 7 days for the Department to unload the container. The storage container remains your property after you complete the work.

644-2.08 FIELD COMMUNICATIONS. Furnish and maintain a satellite communications system that includes internet and phone for the Engineer to use exclusively throughout the contract. Provide a completely functional installation 2 weeks before commencing construction work through one week after Project Completion.

Two weeks prior to procuring the field office, submit to the Engineer the proposed communications system consisting of phone and internet service. Obtain the Engineer's approval of the communications system prior to procuring the system.

Furnish and install the approved high speed internet service and three telephones, with all necessary ancillary equipment. Provide internet and phone jacks in the field office and field laboratories in locations identified by the Engineer. Furnish one mobile satellite phone in addition to the phone system in the field office.

The internet system shall have a send and receive capability supporting 1.0 Mbps download speed or higher and 0.5 Mbps or higher upload speed at all times. Include a wireless router and an appropriately sized battery backup for the internet system. The system shall be separate from the internet system of the contractor.

The telephone system shall consist of commercially available telephones with the necessary equipment for each line. Provide one telephone that includes a built in digital answering machine.

Internet and telephone service shall be supplied and operational no more than two weeks after the field office has been set up on site. Service plans shall be provided and remain in effect for the duration of the use of the field office.

When Item 644(105), Field Communications appears in the bid schedule, internet and telephone service will be measured and paid under 644(105), and are not subsidiary to 644(1) and 644(2).

644-2.09 ELECTRICAL POWER. Furnish and maintain a constant source of power to the facilities specified in the contract for the Department's use during the project. Provide a completely functional installation 2 weeks before commencing construction work through 2 weeks after Project Completion.

1. FIELD OFFICE. Provide electrical services as follows:
   a. Heating/Cooling adequate to maintain temperatures between 65° to 75°F
   b. Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
   c. Wiring system to support a 40 amp user load demand with two 20-amp circuits
   d. Eight conveniently spaced outlets on the interior wall, consistent with local codes
   e. Eight 100-watt incandescent or sixteen 40-watt florescent

2. FIELD LABORATORY. Provide electrical services as follows:
    a. Heating/Cooling adequate to maintain temperatures between 65° to 75°F
    b. Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
    c. Wiring system to support a 40 amp user load demand with two 20-amp circuits, GFI Protected
    d. Six conveniently spaced outlets on the interior wall, consistent with local codes
    e. Four 100-wat incandescent or eight 40-watt florescent
    f. Exhaust fan: 5 cfs

3. FIELD LABORATORY OUT BUILDING. Provide electrical services as follows:
    a. Heating/Cooling adequate to maintain temperatures between 65° to 75°F
    b. Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
    c. Wiring system to support a 20-amp user load demand, GFI Protected
    d. Three conveniently spaced outlets on the interior wall, consistent with local codes
    e. Two 100-watt incandescent or four 40-watt florescent
    f. Exhaust fan: 5 cfs

4. ASPHALT LABORATORY. Provide electrical services as follows:
    a. Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
    b. 100-amp service

5. CURING SHED. Provide electrical services as follows:
    a. Heating/Cooling adequate to maintain temperatures between 70° to 77°F
    b. Two 100-watt incandescent or four 40-watt florescent

6. STORAGE CONTAINER. Provide electrical services as follows:
    a. Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
    b. Wiring system to support a 20-amp user load demand, GFI Protected
    c. Two conveniently spaced outlets on the interior wall, consistent with local codes
    d. Four 100-watt incandescent or eight 40-watt florescent

7. NUCLEAR TESTING EQUIPMENT STORAGE SHED. Provide electrical services as follows:
    a. Heating/Cooling adequate to maintain minimum temperatures of 50°F
    b. Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
    c. Two 100-watt incandescent or four 40-watt florescent
    d. Wiring system to support a 20-amp user load demand

8. NUCLEAR TESTING EQUIPMENT STORAGE SHED (STATE PROVIDED). Provide electrical services as follows:
    a. Electrical current, 120/240 VAC, 60-cycle on 24-hour basis
    b. Wiring system to support a 20-amp user load demand

9. PORTABLE CONCRETE COMPRESSIVE LABORATORY. Provide electrical services as follows:
    a. Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
    b. Wiring system to support a 20-amp user load demand

If 644(15), Nuclear Testing Equipment Storage Shed is deleted the electrical power requirement are still required per 644-2.09, #8.

If the contract contains bridge items that require concrete or grout provide electrical power to the Department's Portable Concrete Compressive Laboratory per 644-2.09, #9.

644-3.01 METHOD OF MEASUREMENT. Section 109 and as follows:

Storage Container. By the number of storage containers specified, to include all components, installed and accepted as completed units and ready for materials and equipment storage.

Meals. EACH, by the number of man-days.

Lodging. EACH, by the number of man-days.

644-4.01 BASIS OF PAYMENT.

Vehicles. Includes all resources, including fuel, oil, maintenance, and insurance to furnish the specified number of fully operational vehicles for the duration specified in the contract.

Lump Sum Items. Payment for lump sum items will be made as follows:

1. A percentage of the lump sum amount, to be determined by the Engineer, will be paid as full compensation for furnishing the facility at the site.

2. The balance of the lump sum amount will be prorated over the anticipated active construction period with a portion included as part of each interim payment, for maintenance, repairs, providing all utilities, and for removing it from the site. If anticipated construction period changes, the final increment will be held until final payment.

Storage Container. At the contract unit price to include all labor, materials, tools, equipment and supplies required to deliver the storage shed to the regional office for loading, to deliver it to the project office, to install it before commencement of construction, to maintain it for the duration of the project, to remove the shed and electrical service after project completion, to deliver it to the regional office for unloading, and to remove the storage shed. Electrical service and utility costs are subsidiary to this item.

Field Communications. Installation and maintenance of equipment and monthly invoice costs will be paid for by Contingent sum under Item 644(105), Field Communications. Provide invoices from vendor for installation, maintenance, and monthly subscription costs.

Payment will be made under:

Pay Item	Pay Unit
644(1) Field Office	Lump Sum
644(2) Field Laboratory	Lump Sum
644(3) Curing Shed	Lump Sum
644(4) Meal	EACH
644(5) Lodging	EACH
644(6) Vehicle (LT/SUV)	EACH
644(8) Vehicle (ATV)	EACH
644(9) Vehicle (Snow Machine)	EACH
644(6) Vehicles	Lump Sum
644(15) Nuclear Testing Equipment Storage Shed	Each
644(16) Storage Container	Each
644(101) Nuclear Testing Equipment Storage Shed	Lump Sum
644(105) Field Communications	Contingent Sum

Add the following:

SECTION 645
TRAINING PROGRAM

01/01/16 (SSP-39)

645-1.01 DESCRIPTION. This Statewide Special Provision for on-the-job training (OJT) implements 23 CFR 230, Subpart A, Appendix B.

As part of the Equal Employment Opportunity Affirmative Action Program, the Contractor shall provide on-the-job training aimed at developing full journey status in the type of trade or job classification involved. The number of individuals to be trained and the number of hours of training to be provided under this contract will be as shown on the bid schedule.

645-2.01 OBJECTIVE. Training and upgrading of minorities and women toward journey status is the primary objective of this program. The Contractor shall enroll minorities and/or women, where possible, and document good faith efforts prior to the hire of non-minority males in order to demonstrate compliance with this Training Special Provision. Specific good faith efforts required under this Section for the recruitment and employment of minorities and women are found in the Federal EEO Bid Conditions, Form 25A-301.

645-3.01 GENERAL. The Contractor shall determine the distribution of the required number of apprentices/trainees and the required number of hours of training among the various work classifications based upon the type of work to be performed, the size of the workforce in each trade or job classification, and the shortage of minority and female journey workers within a reasonable area of recruitment.

Training will be provided in the skilled construction crafts unless the Contractor can establish prior to contract award that training in the skilled classifications is not possible on a project; if so, the Department may then approve training either in lower level management positions such as office engineers, estimators, and timekeepers, where the training is oriented toward construction applications, or in the unskilled classifications, provided that significant and meaningful training can be provided. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Credit for offsite training hours indicated above may only be made to the Contractor where the apprentices/trainees are concurrently employed on the project and the Contractor does one or more of the following: contributes to the cost of the training, provides the instruction to the apprentice/trainee, or pays the apprentice's/trainee's wages during the offsite training period.

Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

Prior to award of the contract, the Contractor shall submit Form 25A-311, Training Utilization Report, indicating the training program to be used, the number of apprentices/trainees to be trained in each selected classification, the number of hours of training to be provided, and the anticipated starting time for training in each of the classifications.

Training must begin within 2 weeks of the anticipated start date(s); unless otherwise authorized by a Directive. Such authorization will be made only after submission of documentation by the Contractor, and approval by the Engineer, of efforts made in good faith which substantiate the necessity for a change.

Contractors may use a training program approved by the U.S. Department of Labor, Office of Apprenticeship (USDOL/OA); or one developed by the Contractor using Form 25A-310 and approved prior to contract award by the OJT Coordinator in the DOT&PF Civil Rights Office.

The minimum length and type of training for each classification will be established in the training program selected by the Contractor. Training program approval by the Department for use under this section is on a project by project basis.

It is expected that each apprentice/trainee will begin training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist or until training has been completed. It is not required that apprentices/trainees be continuously employed for the duration of the contract.

If, in the judgment of the Contractor, an apprentice/trainee becomes proficient enough to qualify as a journey worker before the end of the prescribed training period and the Contractor employs that individual as a journey worker in that classification for as long as work in that area remains, the individual's training program will be considered completed and the balance of training hours required for that apprentice/trainee shall be waived.

The Contractor shall furnish each ADOT&PF training program trainee a copy of the program (Form 25A-310) to be followed during training on the project, and with a written certification showing the type and length of training completed on the project. Existing USDOL/OA apprentices should already have a copy of their program. No employee shall be employed for credit as an apprentice/trainee in a classification in which that employee has previously worked at journey status or has previously completed a training course leading to journey status.

The Contractor shall periodically review the training and promotion potential of minority and women employees and shall encourage eligible employees to apply for such training and promotion.

The Contractor shall provide for the maintenance of records and the furnishing of periodic reports documenting the progress of each apprentice/trainee. The Contractor must submit Form 25A-313 by the 15th of each month and provide each ADOT&PF trainee written evaluation reports for each unit of training provided as established on Form 25A-310.

645-3.02 WAGES. Trainees in ADOT&PF approved training programs will be paid prevailing Davis-Bacon fringe benefits plus at least 60 (but less than 100) percent of the appropriate minimum journey rate specified in the contract for the first half of the training period, at least 75 (but less than 100) percent for the third quarter of the training period, and at least 90 (but less than 100) percent for the last quarter of the training period. Trainee wages shall be identified on Form 25A-310. Apprentices in USDOL/OA training programs shall be paid in accordance with their approved program. Beginning wages of each trainee/apprentice enrolled in a Section 645 Training Program on the project shall be identified on Form 25A-312.

645-3.03 SUBCONTRACTS. In the event the Contractor subcontracts a portion of the work, he shall determine how many, if any, of the apprentices/trainees are to be trained by the subcontractor. Any such subcontracts shall include this Section 645, Form 25A-311 and Form 25A-310, where appropriate. However, the responsibility for meeting these training requirements remains with the Contractor; compliance or non-compliance with these provisions rests with the Contractor and sanctions and/or damages, if any, shall be applied to the Contractor in accordance with Subsection 645-5.01, Basis of Payment.

645-4.01 METHOD OF MEASUREMENT. The Contractor will be credited for each approved apprentice/trainee employed on the project and reimbursed on the basis of hours worked, as listed in the certified payrolls. There shall be no credit for training provided under this section prior to the Contractor's submittal and approval by the Engineer of Form 25A-312 for each apprentice/trainee trained under this Section. Upon completion of each individual training program, no further measurement for payment shall be made.

645-5.01 BASIS OF PAYMENT. Payment will be made at the contract unit price for each hour of training credited. Where a trainee or apprentice, at the discretion of the Contractor, graduates early and is employed as a journey worker in accordance with the provisions of Subsection 645-3.01, the Contractor will receive payment only for those hours of training actually provided.

This payment will be made regardless of any other training program funds the Contractor may receive, unless such other funding sources specifically prohibit the Contractor from receiving other reimbursement.

Payment for training in excess of the number of hours specified on the approved Form 25A-311 may be made only when approved by the Engineer through Change Order.

Non-compliance with these specifications shall result in the withholding of progress payments until good faith efforts documentation has been submitted and acceptable remedial action has been taken.

Payment will be at the end of the project following the completion of all training programs approved for the project. No payment or partial payment will be made to the Contractor if he fails to do any of the following and where such failure indicates a lack of good faith in meeting these requirements:

1. provide the required hours of training (as shown in the Bid Schedule and approved Form 25A-311),

2. train the required number of trainees/apprentices in each training program (as shown in the Bid Schedule and approved Form 25A-311), or

3. hire the apprentice/trainee as a journey worker in that classification upon completion of the training program for as long as work in that area remains.

Failure to provide the required training damages the effectiveness and integrity of this affirmative action program and thwarts the Department's federal mandate to bring women and minorities into the construction industry. Although precise damages to the program are impractical to calculate, they are at a minimum, equivalent to the loss to the individuals who were the intended beneficiaries of the program. Therefore, where the Contractor has failed, by the end of the project, to provide the required number of hours of training and has failed to submit acceptable good faith efforts documentation which establishes why he was unable to do so, the Contractor will be assessed an amount equal to the following damages to be deducted from the final progress payment:

Number of hours of training not provided, times the journey worker hourly scale plus benefits. The journey worker scale is that for the classification identified in the approved programs.

Payment will be made under:

Pay Item	Pay Unit
645(1) Training Program, ___ Trainees/Apprentices	Labor Hour

Add the following section:

SECTION 651
WORK BY OTHERS

651-1.01 DESCRIPTION. Coordinate with utility owners according to Section 105.

651-3.01 CONSTRUCTION REQUIREMENTS. Utilities (overhead and buried) to the extent they are known are shown on the plans. Before conducting any ground-disturbing activities, the Contractor shall verify

utility locations by contacting the utility company(s). The Contractor is responsible for locating and protecting utilities in the project work areas.

Utility Type	Utility Company	Contact
Electric	Kotzebue Electric Association	Garreth Howarth (907) 442-3491 or (907) 995-3707
Telecom	OTZ Telephone	Harold Lambert (907) 442-1010 or (907) 995-2685
Telecom	GCI	Don Smith (907) 374-4312

Utilities in the project area do not subscribe to the dig-line.

651-3.02 DESCRIPTION OF WORK AND SCHEDULE. Adjust schedule and phasing as necessary to allow utility owners, their contractors, and other third party entities to complete their work on or before the completion date given in the utility relocation agreement.

Notify the utility owners a minimum of one week before beginning work requiring utility coordination.

Utility adjustments by others are shown on the Plans and are scheduled to be performed under relocation agreements, as follows:

Utility Type	Utility Company	Agreement Number	Agreement Completion Date
Electric	KEA	2-90418-20-14	TBD
Telecom	OTZ	2-90418-20-15	TBD
Telecom	GCI	2-90418-20-16	TBD

Utility relocation agreement plans are available for inspection by making arrangements with the contact for pre-bid information, as listed on the Invitation for Bids.

651-3.03 ADDITIONAL UTILITY REQUIREMENTS. The Contractor shall provide KEA, OTZ, and GCI with a copy of the build schedule at the time of the Preconstruction Conference.

Representatives from Kotzebue Electric Association (KEA) shall inspect and approve the new poles and electric adjustments. Coordinate with KEA to schedule power outages in advance. All removed materials will be returned to KEA.

Representatives from OTZ shall inspect and approve of the adjustment of their facilities. Coordinate with OTZ to schedule telecommunications outages in advance.

Representatives from GCI shall inspect and approve of the adjustment of their facilities. Coordinate with GCI to schedule telecommunications outages in advance. GCI will splice their own fiber; provide a minimum 21 days of notice before GCI needs to be on site and coordinate with GCI to allow access for their work.

Add the following section:

SECTION 687
POWER

687-1.01 DESCRIPTION. This item consists of the work required to furnish and install, transfer, modify or remove electrical utility facilities of wood poles, guying, anchors, conductor, cable, fiber, and miscellaneous associated equipment and appurtenances.

Where an existing system is to be transferred, reuse the existing material in the revised system as shown on the Plans, or specified in the Special Provisions, and salvage or dispose of all other materials.

687-1.02 REGULATIONS AND CODE. All work shall be done in a thorough and workmanlike matter in accordance with the Plans and Specifications. The latest edition of the National Electrical Safety Code (NESC) shall be followed except where local regulations are more stringent, in which case local regulations shall govern.

687-2.01 MATERIALS. The Contractor shall be responsible to provide materials that conform to standards of Kotzebue Electric Association (KEA), GCI, and OTZ Telephone Cooperative (OTZ) and are suitable for the specified service. The Contractor also shall comply with the requirements of 23 CFR 635.410, Buy America Requirements, and shall submit a completed Material Origin Certificate Form 25D-60, prior to award of the contract.

Materials shall be specified by manufacturer and part number as listed on the material list for each assembly detail on the detail drawings, or as specified in the Special Provisions.

All materials furnished by the Contractor for this project shall be new.

1. Equipment List(s) and Drawings. Within 30 days after the Contract award, submit 4 collated copies of a portfolio of equipment and materials proposed for installation to the Department for review and approval. Include a table of contents in the portfolio(s) that includes each item's intended use(s) and the following:

    a. Materials: A description that includes product name, manufacturer, model or part number, type of product, size, model number, conformance specifications, and other data a may berequired.

    b. Materials Not Requiring Submittal: Incidental materials incorporated into the work (such as nuts, ties, bolts, washers, etc.) must meet all applicable Specifications and be installed per all manufacturer's recommendations. Submittal is not needed unless required by the Special Provisions or Material Certification List or requested by the Engineer.

2. As-Built Plans. The Contractor shall keep a redlined set of completed record copy plans and specifications. These plans shall be kept with the construction and record all construction assemblies and correct any changes made to the Plans or discrepancies. Prepare 3 complete sets of red-lined as-built plans. Include the following information on the appropriate sheets:

    a. Station and offset of all poles.

    b. Size and type of all conductors. Station and offset of routing angle points not at underground equipment shall also be included.

    c. Locations of conductor splices.

    d. Locations, size and voltage of all transformers, fuses, switches, and other related electrical transmission equipment.

Before final inspection of the work, submit 3 complete sets of as-built plans to the Engineer.

687-2.02 WOOD POLES. Classes and lengths as indicated on the drawings conforming to RUS Bulletin 1728F-700 and ANSI O5.1. Pressure treat in accordance with AWPA C1 and AWPA C4. Grain and Roof Poles prior to treatment.

687-2.03 CROSSARMS. All wood crossarms furnished for the project shall meet the requirements of ANSI Standards 05.2 and 05.3, and RUS Specification 1728H-701. Pressure treat wood crossarms with oil borne pentachlorophenol in accordance with AWPA C25. Crossarms shall be sized as indicated on the Drawings and shall be predrilled prior to treatment for the structure configurations indicated in the assembly details on the Drawings. Crossarms shall be bundled and protected from damage during shipment.

687-2.04 CONDUCTORS. Primary overhead conductor shall be ACSR, sized as indicated on the Drawings, conforming with ASTM B 232.

687-2.05 GUY STRANDS AND ANCHORS. Guy Strand shall be 16M with a 16000 lb. breaking load, conforming to the requirements of ASTM B-416. Anchors shall be size and type as indicated in the assembly details on the Drawings.

687-2.06 MEDIUM VOLTAGE CABLE. Medium Voltage Cable shall be 15kV rated, 133% EPR Insulated, with full concentric neutral, and aluminum or copper conductor as indicated on the Drawings. Medium voltage cables shall be Okonite Okoguard series in accordance with KEA Standards.

687-3.01 CONSTRUCTION REQUIREMENTS.

1. Qualifications. The Contractor and craftsmen shall have the appropriate licenses and certifications required by the State of Alaska for high voltage distribution line construction. These include a current valid Electrical Administrator License in the unlimited linework category. All personnel shall have their appropriate Journeyman or Trainee Certificate of Fitness. Documentation of a minimum of five (5) years' experience for lineman is required.

2. Scheduling of Work. The relocation work shall be sequenced with the highway construction. The Contractor shall provide a work schedule to the Department and affected utilities for approval.

3. Service Interruptions and Switching. No electric power or communications consumer shall be placed out of service without the advance permission of KEA. Consumers shall be exposed to a minimum number of outages, and those outages shall be limited to outages required for cutover between the existing line alignment and the new alignment or on a limited basis as necessary for construction activities beneath the KEA transmission line.

   The Contractor shall submit an outage plan to KEA, OTZ, GCI and KOTZ AM Radio 720 and the Department not less than 2 weeks prior to anticipated work outages. Approval of the proposed plan must be obtained from all utilities prior to commencing work.

   Outages shall be of a limited duration and shall only occur between the hours of 9 AM and 3 PM.

   For each requested power outage, the Contractor shall coordinate with KEA and follow the procedure set forth by the KEA Line Foreman, performing all responsibilities set forth.

4. Temporary or Incidental Construction. The Contractor shall provide any temporary or incidental construction necessary to complete the work in a timely manner in accordance with the approved work schedule.

5. Easements. Construction activities shall be limited to within existing rights-of-way. Only activities specified in the terms of the easements shall be permitted and the Contractor shall restore the property to the original condition or as directed by the Engineer.

6. Surplus Material. Surplus material in good condition shall be reasonably protected and returned to the utility. Surplus material of no value shall be removed from the right-of-way by the Contractor and discarded in an approved manner.

7. Material Handling. Materials stored after delivery shall be arranged and placed, using blocking as necessary, to ensure that they do not come into contact with standing water or the ground. Insulators, hardware and equipment shall be stored in their appropriate shipping containers until installation. Reels of wire shall be stored blocked up off the ground and adequately supported to avoid damage to reel, lagging, and wire. Wire and reels shall be kept free of standing water, mud and dust, and must be covered. Cable shall be handled carefully to avoid damage and shall not be dragged across the ground or sharp projections. Care shall be exercised to avoid excessive bending of the cable. Ends of the cable shall be sealed at all times against moisture with suitable end caps. When cutting the cable, the ends shall be terminated or re-sealed after the cutting operation.

687-3.02 WOOD POLE INSTALLATION AND BACKFILL. Installation, setting depths, and backfill for wood poles shall in in accordance with RUS Standard Bulletin 1728F-803, Section W.

687-3.03 POLETOP ASSEMBLIES. Installation of pole top assemblies shall be in accordance with RUS Standard Bulletin 1728F-803, Section C.

687-3.04 GUYS AND ANCHORS. Installation of down guys shall be in accordance with RUS Standard Bulleting 1728F-803, Section E. Installation and Backfill of utility anchors shall be in accordance with RUS Standard Bulletin 1728F-803, Section F.

687-4.01 METHOD OF MEASUREMENT. See Section 109.

687-5.01 BASIS OF PAYMENT. The 687(1) Power Utility Relocation pay item is for all work shown on the Plans related to Electric Power and Communications Utility relocation. Any temporary work is subsidiary to this pay item. All incidental work and costs required to relocate and maintain a complete and operational system throughout this project is subsidiary to this pay item.

Payment will be made under:

Pay Item	Pay Unit
687(1) Power Utility Relocation	Lump Sum

SECTION 703
AGGREGATES

703-2.07 SELECTED MATERIAL. *Delete this subsection in its entirety and substitute the following:* Meet the following requirements for the type specified.

Meet the following requirements for the type specified. For materials obtained from sources other than Mandatory Sources, as defined in Specifications Section 106, obtain the Engineer's approval for the intended purpose prior to use on the project.

1. Type B. Earth, Sand, and Gravel containing no muck, frozen material, roots, peat, sod or other deleterious matter meeting the following gradation as tested by ATM 304:

Sieve	Percent Passing by Weight
No. 4	Maximum 70% passing
No. 200	Maximum 25% passing, determined on the minus 3-inch portion of the sample

2. Type C. Earth, Sand, Gravel, rock, or combinations thereof containing no muck, frozen material, roots, peat, sod or other deleterious matter and is compactible under the provisions of Subsections 203-3.04 or 203-3.05.

Delete Section 724 in its entirety and substitute the following:
04/15/16 (N51)

SECTION 724
SEED

724-2.01 DESCRIPTION. This specification provides the requirements for grass seed, used to provide a living vegetative cover.

724-2.02 MATERIALS. Grasses of the type specified shall meet the applicable requirements as outlined by the State of Alaska Department of Natural Resources, Division of Agriculture, "Seed Regulations," latest edition. Seed shall meet or exceed the percentages of purity and germination as specified in Table 724-1. Grass seed shall be furnished in standard containers on which shall be shown the following information:

(1) the common accepted name of the specie (kind) and cultivar (variety) of the seed;
(2) the country or state where the seed was grown;
(3) the total percentage by weight of pure seed;
(4) the total percentage by weight of all weed seed;
(5) the total percentage by weight of inert matter;
(6) the total percentage by weight of other crop seed;
(7) the name and approximate number per pound of each kind of restricted noxious weed seed;
(8) the percentage of germination of the seed, together with the month and year the seed was tested;
(9) the percentage of hard seed, if any is present;
(10) the name and address of the person labeling the seed or selling, offering, or exposing the seed for sale within the state; and
(11) the lot number or other lot identification.

If furnished as a premixed seed, the containers shall state that the seed is a mixture; the name of the species and cultivars of seed; and total percentage by weight of each species of seed present in order of predominance; and the information listed above: (4), (5), (7), (8), (10) and (11).

Seed which contains any prohibited noxious weeds as listed in the Alaska Department of Natural Resources Division of Agriculture's Prohibited and Restricted Noxious Weeds list shall be rejected. The Prohibited and Restricted Noxious Weeds list is located at the following URL:
http://plants.alaska.gov/invasives/noxious-weeds.htm.

Seed containing more than the maximum allowable tolerance of restricted noxious weeds shall be rejected. Restricted noxious weeds, with their maximum allowable tolerances are listed in the Alaska Department of Natural Resources Division of Agriculture's Prohibited and Restricted Noxious Weeds list. The Prohibited and Restricted Noxious Weeds list is located at the following URL:
http://plants.alaska.gov/invasives/noxious-weeds.htm.

The Contractor shall furnish to the Engineer duplicate copies of a statement signed by the vendor certifying that each lot of seed has been tested by a recognized seed testing laboratory. Seed that has not been tested within nine (9) months shall be rejected. The Contractor shall not remove tags from the seed containers. Seed containers that do not have tags shall be rejected. Discrepancies in the lot numbers listed on the statement to the lot numbers indicated on the tags of the seed containers shall be grounds for rejection. Seed which has become wet, moldy, or otherwise damaged in transit or storage will not be accepted. The Contractor shall immediately remove rejected seed from the project premises.

TABLE 724-1
SEEDING REQUIREMENTS

SPECIES (KIND)	CULTIVAR (VARIETY)	PERCENT PURITY	PERCENT GERMINATION	PURE LIVE SEED (PERCENT PURITY X PERCENT GERMINATION)
American Sloughgrass	Egan	90	80	72
Annual Ryegrass	---	85	80	68
Alpine Bluegrass	Gruening	90	90	81
Beach Wildrye	Benson, Reeve	95	40	38
Bering Hairgrass	Norcoast	95	75	71
Bluejoint	Sourdough	95	75	71
Brome	Manchar, Polar	90	80	72
Glaucous Bluegrass	Tundra	95	80	76
Kentucky Bluegrass	Merion, Nugget, Park	95	80	76
Perennial Ryegrass	---	85	80	68
Polargrass	Alyeska, Kenai	95	75	71
Red Fescue	Arctared, Boreal, Pennlawn	98	80	78
Timothy	Climax, Engmo	95	90	85
Tufted Hairgrass	Nortran	95	75	71
Wheatgrass	Wainwright	95	85	81

SECTION 725
FERTILIZER

01/20/15 (N52)

725-2.02 MATERIALS. *Add the following:* Fertilizer which has become wet, moldy or otherwise damaged in transit or storage will not be accepted. The Contractor shall immediately remove rejected fertilizer from the project premises.

SECTION 727
SOIL STABILIZATION MATERIAL

8/02/2018 (N54)

727-2.01 MULCH. *Delete this subsection in its entirety and substitute the following:* All mulch, excluding trace mulch, shall provide 100% ground coverage. Apply mulch at the manufacturer's recommended application rate and increase as needed to achieve 100% ground coverage. All mulch, including trace mulch, shall meet one of the following:

1. Wood Cellulose Fiber or Natural Wood Fiber. Fiber shall be produced from natural or recycled (pulp) fiber, such as wood chips or similar wood materials, or from newsprint, corrugated cardboard, or a combination of these processed materials. Fiber shall not contain any rock, metal, or plastic. Fiber shall be treated with a green dye nontoxic to plant and animal life to facilitate inspection of the placement of the material. Fiber shall be manufactured in such a manner that after addition and

agitation in slurry tanks with water, the fibers in the material will become uniformly suspended to form a homogenous slurry. When hydraulically sprayed on the ground, the material shall allow the absorption and percolation of moisture. The organic matter content shall be at least 90 percent on an oven-dry basis. The moisture content shall be no more than 15 percent as determined by oven dried weight. Each package of the cellulose fiber shall be marked by the manufacturer to show the dried weight. Product must be nontoxic to plant and animal life.

Wood Cellulose Fiber or Natural Wood Fiber may be used to stabilize slopes flatter than 4H:1V. On slopes 4H:1V or steeper Wood Cellulose Fiber or Natural Wood Fiber may be used if an approved tackifier is used, in addition to Wood Cellulose Fiber or Natural Wood Fiber, according to the Manufacturer's recommendations. Wood Cellulose Fiber or Natural Wood Fiber may not be used after August 1.

2. Wood Strand. Wood Strand shall be a blend of loose, long, thin wood pieces derived from native conifer or deciduous trees with high length to width ratio. A minimum of 95-percent of the wood strands shall have lengths between 2 and 10 inches, with a width and thickness between 1/16 and 3/8 inches. Wood Strand shall not contain resin, tannin, or other compounds in quantities that are detrimental to plant life. Sawdust or wood shavings shall not be used as Wood Strand. Wood Strand may be used on slopes flatter than 4H:1V. Wood Strand may not be used after August 1.

3. Straw. All straw material shall be in an air dried condition, free of noxious weeds, seeds, and other materials detrimental to plant life. Hay is not acceptable. Straw shall be suitable for spreading with mulch blower equipment. Straw may be used on slopes flatter than 4H:1V. Straw may not be used after August 1.

4. Bonded Fiber Matrix (BFM). The BFM shall be a hydraulically-applied blanket/mulch/covering composed of long strand, thermally processed wood fibers and crosslinked, hydro-colloid tackifier. The BFM may require a 24-48 hour curing period to achieve maximum performance. Once cured, the BFM shall form an intimate bond with the soil surface to create a continuous, absorbent, flexible erosion resistant blanket that allows for rapid germination and accelerated plant growth. BFM may be used to stabilize slopes between 2H:1V and 4H:1V. BFM may be used after August 1.

5. Fiber Reinforced Matrix (FRM). The FRM shall be a hydraulically-applied, flexible erosion control blanket/mulch/covering composed of long strand, thermally processed wood fibers, crimped, interlocking fibers and performance enhancing additives. The FRM shall require no curing period and upon application shall form an intimate bond with the soil surface to create a continuous, porous, absorbent and erosion resistant blanket that allows for rapid germination and accelerated plant growth. FRM may be used to stabilize slopes 2H:1V and steeper. FRM may be used after August 1.

A list of pre-approved products can be found in Table 1.

Table 1. Pre-Approved Mulch Products List

Product Name	Product Type	Manufacturer
Astro-Mulch	Wood Cellulose Fiber	Thermo-Kool Inc. Wasilla, AK
Fibermulch	Wood Cellulose Fiber	Thermo-Guard Insulation, Spokane, WA
NaturesOwn High Density Paper Hydroseeding Mulch	Wood Cellulose Fiber	Hamilton Manufacturing, Inc., Twin Falls, ID
Hydro-Spray	Wood Cellulose Fiber	National Fiber, Belchertown, MA
EcoFibre	Natural Wood Fiber	Profile Products LLC, Buffalo Grove, IL
EcoFibre plus Tack	Natural Wood Fiber	Profile Products LLC, Buffalo Grove, IL
Terra Novo Wood Fiber Plus Tackifier	Natural Wood Fiber	Terra-Novo Inc. Bakersfield, CA
Conwed Fiber 1000	Natural Wood Fiber	Profile Products LLC, Buffalo Grove, IL
Rainier Fiber plus Tack	Natural Wood Fiber	Fiber Marketing International, Spokane, WA
Terra Wood with Tack	Natural Wood Fiber	Profile Products LLC, Buffalo Grove, IL
Excel Fibermulch II	Natural Wood Fiber	American Excelsior Co., Rice Lake, WI
Mat-Fiber Plus	Natural Wood Fiber	Mat, Inc., Floodwood, MN
Mat-Fiber	Natural Wood Fiber	Mat, Inc., Floodwood, MN
EcoAegis	Bonded Fiber Matrix (BFM)	Profile Products LLC, Buffalo Grove, IL
ProMatrix Engineered Fiber Matrix	Bonded Fiber Matrix (BFM)	Profile Products LLC, Buffalo Grove, IL
Verdyol Virgin BFM	Bonded Fiber Matrix (BFM)	Erosion Control Blankets, Manitoba, Canada
Rainier Fiber Bonded Fiber Matrix	Bonded Fiber Matrix (BFM)	Fiber Marketing International, Spokane, WA
Profile Hydro-Blanket BFM	Bonded Fiber Matrix (BFM)	Profile Products LLC, Buffalo Grove, IL
Soil Guard	Bonded Fiber Matrix (BFM)	Mat, Inc., Floodwood, MN
Flexterra FGM	Fiber Reinforced Matrix (FRM)	Profile Products LLC, Buffalo Grove, IL
Flex Guard	Fiber Reinforced Matrix (FRM)	Mat, Inc., Floodwood, MN
Hydra CX	Fiber Reinforced Matrix (FRM)	Tensar North American Green Poseyville, IN

APPENDIX A

PERMITS

DEPARTMENT OF THE ARMY
ALASKA DISTRICT, U.S. ARMY CORPS OF ENGINEERS
REGULATORY DIVISION
P.O. BOX 6898
JBER, AK 99506-0898

Regulatory Division
POA-2012-272

Alaska Department of Transportation and Public Facilities (ADOT&PF)
Attention: Mr. Brett Nelson
2301 Peger Rd.
Fairbanks, Alaska 99709

Dear Mr. Brett Nelson:

Enclosed are two copies of Department of the Army permit POA-2012-272, Kotzebue Sound, which would authorize the improvement and widening of 1.7 miles of existing road, the creation of 9.9 miles of new road with turnouts, and the creation of a staging area near Cape Blossom. The proposed work would impact approximately 107.5 acres of wetlands and 432 linear feet of streams by discharging approximately 996,253 cubic yards of clean fill material. The project site is located near Kotzebue, Alaska, North Arctic Borough (NAB), starting at approximately Latitude 66.8580º N., Longitude 162.6180º W., and ending at approximately Latitude 66.7299º N., Longitude 162.4314º W., Kotzebue Sound, near Cape Blossom.

The Alaska Department of Environmental Conservation has issued a Certificate of Reasonable Assurance pursuant to Section 401 of the Clean Water Act for your project and found it to be in accordance with the Alaska Water Quality Standards. This certification is attached to the Department of the Army permit and will become a part of this permit when it is finalized.

Additionally, we have enclosed a Notification of Administrative Appeal Options and Process and Request for Appeal form regarding this Department of the Army Permit (see section labeled “Initial Proffered Permit”).

If you accept the conditions of the enclosed permit, please sign and date both copies and return them to us. The permit will not be valid until we have returned a finalized copy to you. This is not an authorization to commence construction. No work is to be performed in wetlands until you have received a validated copy of the permit.

Nothing in this letter shall be construed as excusing you from compliance with other Federal, State, or local statutes, ordinances, or regulations which may affect this work.

Please contact Jeremy Grauf via email at Jeremy.Grauf@usace.army.mil, by mail at the address above, by phone at (907) 753-2798, or toll free from within Alaska at (800) 478-2712, if you have questions. For more information about the Regulatory Program, please visit our website at www.poa.usace.army.mil/Missions/Regulatory.

Sincerely,

Ryan Winn
North Section Chief

Enclosures

Location:

Kateel River Meridian

T17N, R18W Section 21, 26, 27, 28, 35, 36
T16N, R18W Section 2, 11, 12, 13
T16N, R17W Section 18, 19, 30, 31
T15N, R17W Section 6

- Place Name
- Project Location
- Kotzebue Cape Blossom Road
- DOT & PF Road
- Windmill Road
- Stream River
- Waterbody

Vicinity

Applicant:
STATE OF ALASKA
Department of Transportation and Public Facilities
2301 Peger Rd. Fairbanks, AK 99709

Kotzebue to Cape Blossom
Road Construction Project

File No.: POA-2012-272

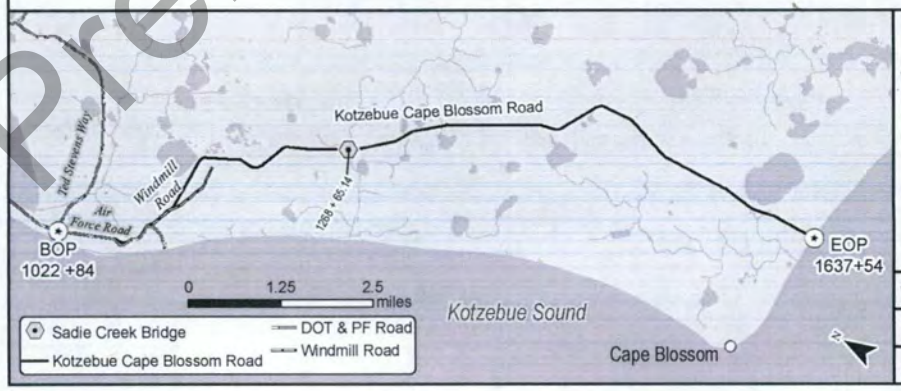
Waterway: Kotzebue Sound

Proposed Activity: Wetland fill for roadway

Date: June 2017

SUMMARY OF PROPOSED IMPACTS TO WETLANDS AND WATERS OF THE U.S.

SUMMARY OF PROJECT IMPACTS					
Duration	**Disturbance**	**Wetlands**		**Below OHW**	
		Area (Acres)	Fill (yd^3)	Area (Acres)	Fill (yd^3)
Permanent	Roadway / Embankment	107.06	995,000	0.091	1,000
	Culverts	0.13	447	0.015	27
	Culvert Riprap	0.08	264	0.004	12
	Bridge Riprap	0.14	456	0.017	54
	Bridge Piers	N/A	N/A	0.001	20
	Permanent Impact Total	107.41	996,167	0.128	1,113
Temporary	Work Zone	27.77	N/A	0.046	N/A
	Vegetative Buffer	69.65	N/A	0.073	N/A
	Bridge Work Zone	0.29	N/A	0.388	N/A
	Temporary Impact Total	97.71	0	0.507	0
All	**TOTAL**	**205.12**	**996,167**	**0.63**	**1,113**



Impact Summary

Applicant:
STATE OF ALASKA
Department of Transportation and Public Facilities
2301 Peger Rd. Fairbanks, AK 99709

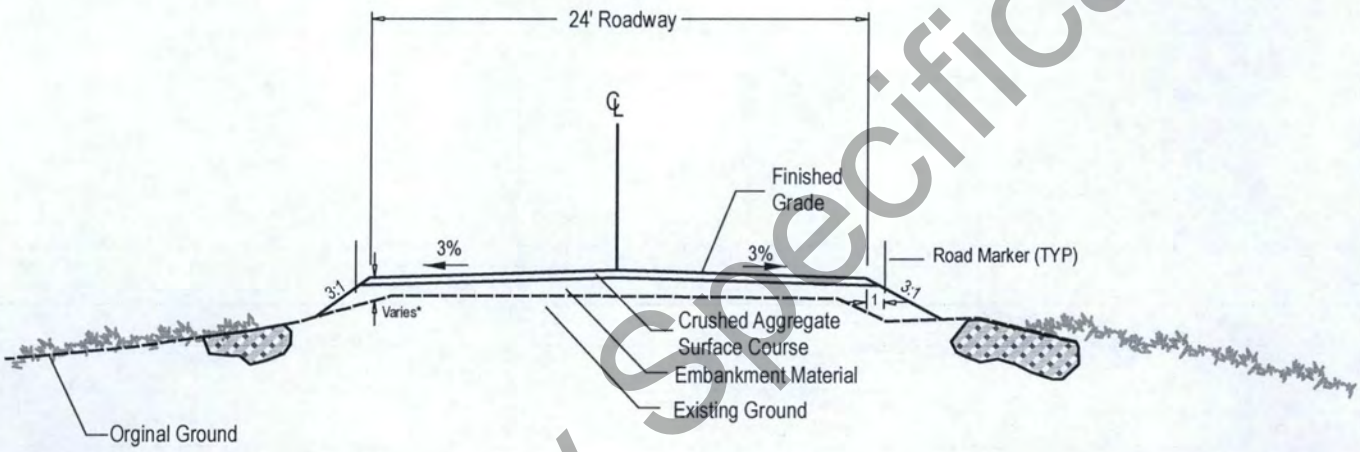
Kotzebue to Cape Blossom
Road Construction Project

File No.: POA-2012-272

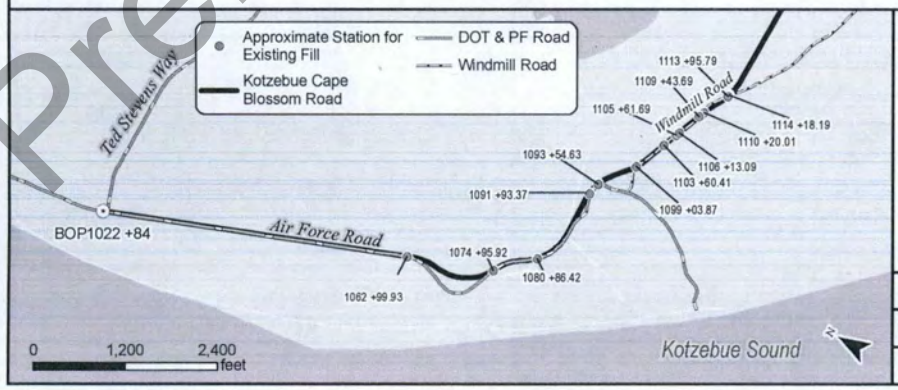
Waterway: Kotzebue Sound

Proposed Activity: Wetland fill for roadway

Date: June 2017



Typical Section
Not to Scale



Road Reconstruction Detail

Applicant:
STATE OF ALASKA
Department of Transportation and Public Facilities
2301 Peger Rd. Fairbanks, AK 99709

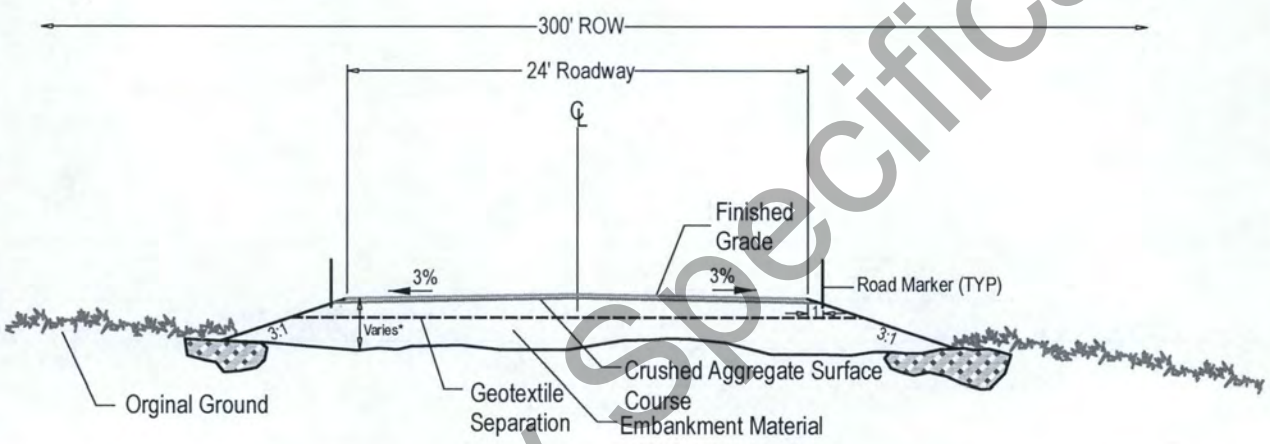
Kotzebue to Cape Blossom
Road Construction Project

File No.: POA-2012-272

Waterway: Kotzebue Sound

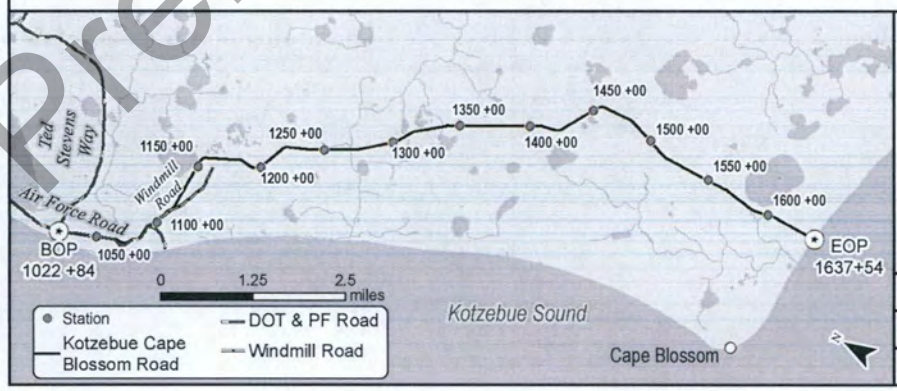
Proposed Activity: Wetland fill for roadway

Date: June 2017



* Embankment height will vary, averaging 8 feet.

Embankment height may vary in areas of potential snow drifting or in areas where there is concern of thawing underlying permafrost.



Road Construction Detail

Applicant:
STATE OF ALASKA
Department of Transportation and Public Facilities
2301 Peger Rd. Fairbanks, AK 99709

Kotzebue to Cape Blossom
Road Construction Project

File No.: POA-2012-272

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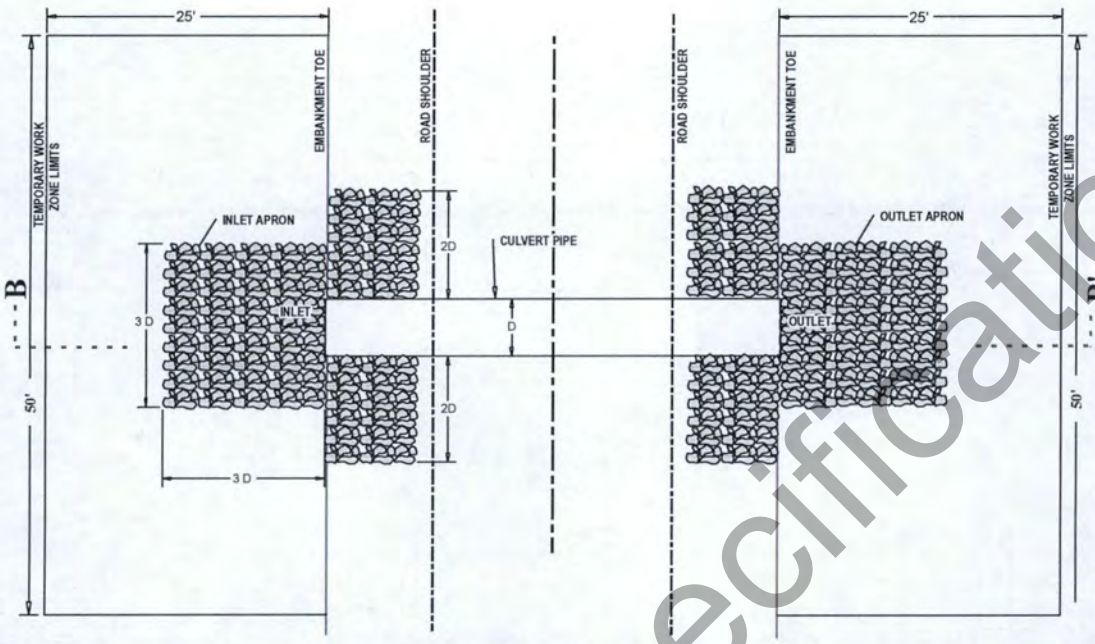
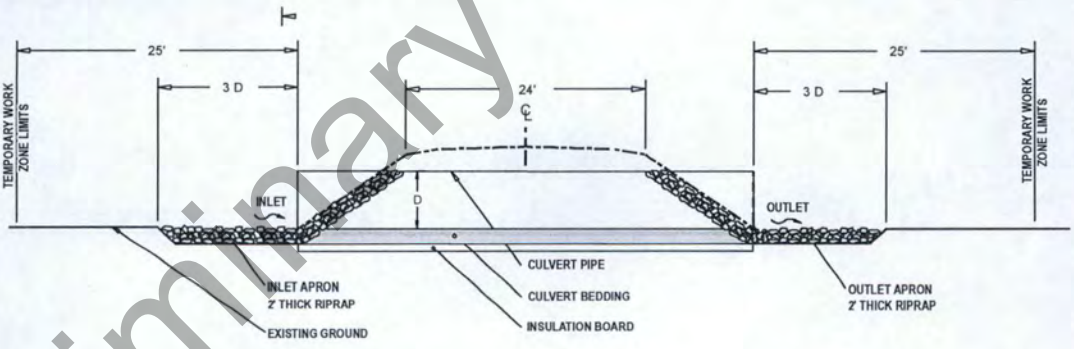
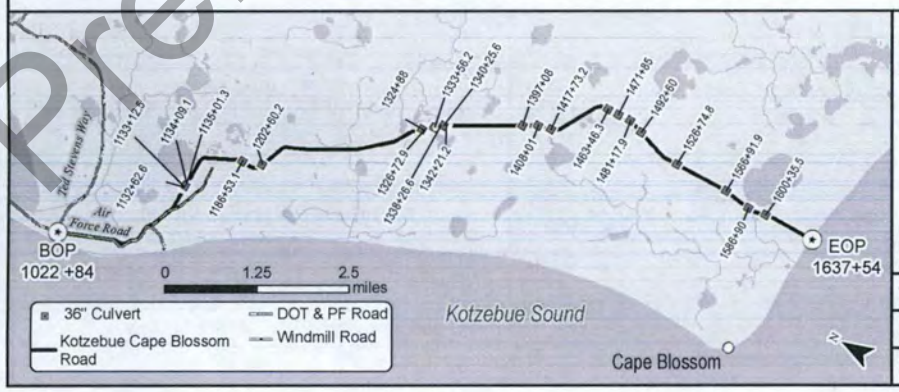


TYPICAL CULVERT APRON DETAIL
NOT TO SCALE



SECTION B-B'
NOT TO SCALE



Culvert Detail

Applicant:
STATE OF ALASKA
Department of Transportation and Public Facilities
2301 Peger Rd. Fairbanks, AK 99709

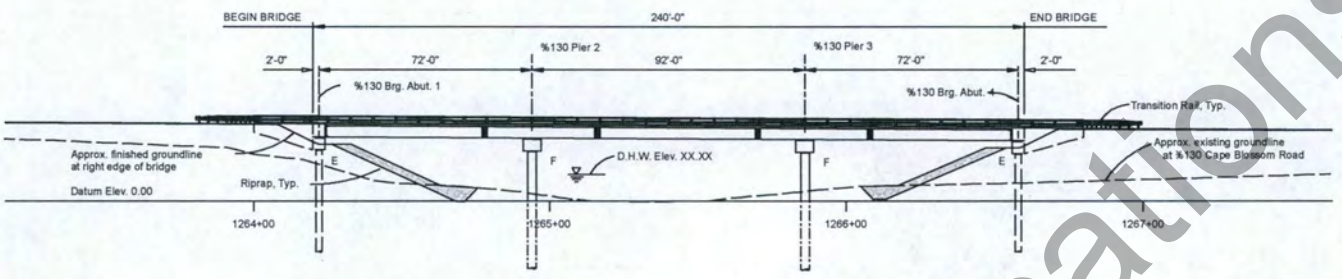
Kotzebue to Cape Blossom
Road Construction Project

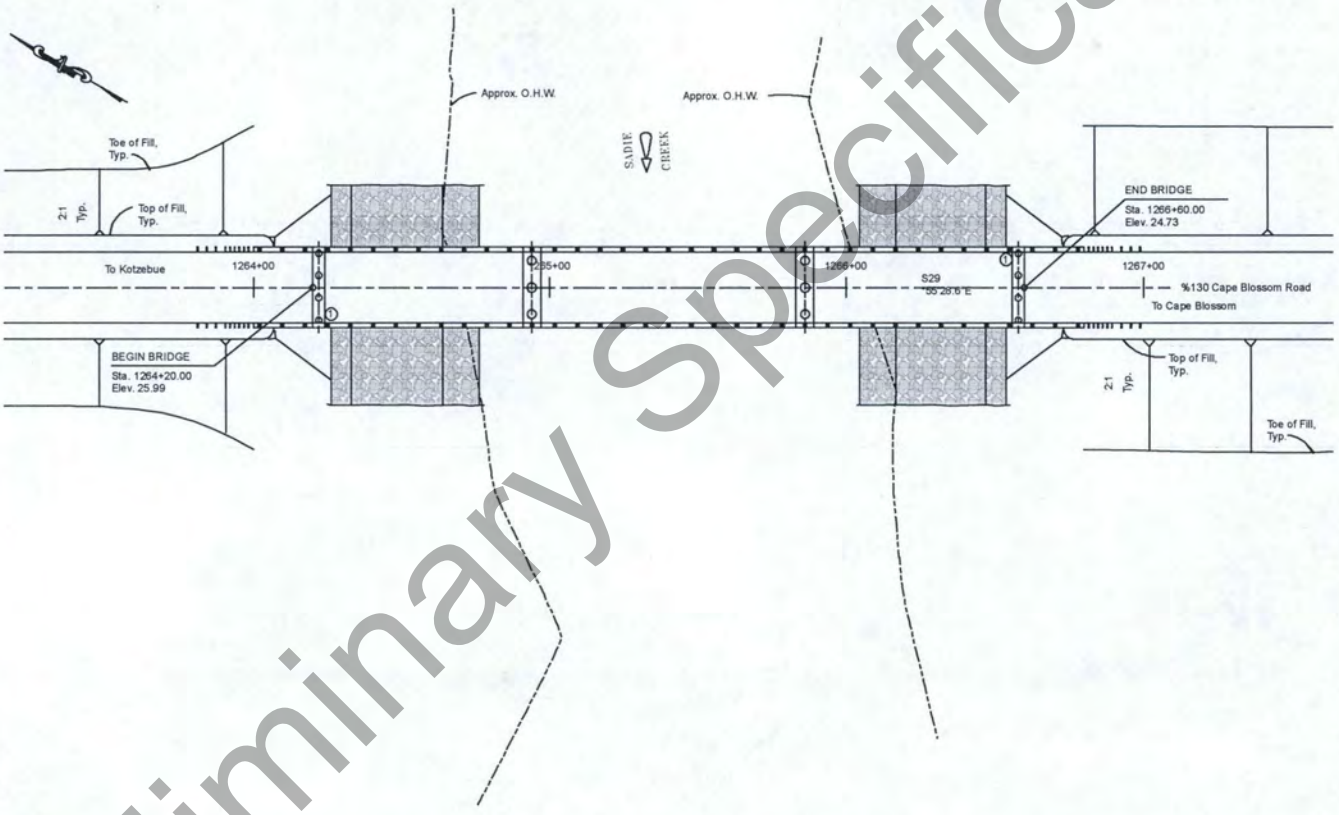
File No.: POA-2012-272

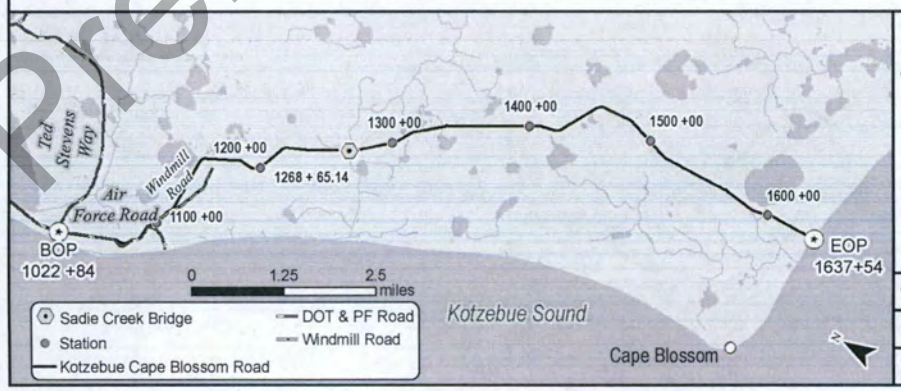
Waterway: Kotzebue Sound

Proposed Activity: Wetland fill for roadway

Date: June 2017







Bridge Detail

Applicant:
STATE OF ALASKA
Department of Transportation and Public Facilities
2301 Peger Rd. Fairbanks, AK 99709

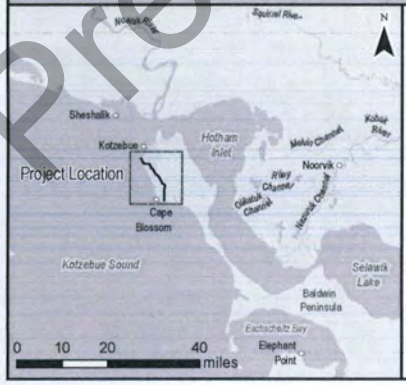
Kotzebue to Cape Blossom
Road Construction Project

File No.: POA-2012-272

Waterway: Kotzebue Sound

Proposed Activity: Wetland fill for roadway

Date: June 2017



- Place Name
- Project Location
- Page Index
- Waterbody
- DOT & PF Road
- Windmill Road
- Kotzebue Cape Blossom Road
- Stream River

Plan View

Applicant:
STATE OF ALASKA
Department of Transportation and Public Facilities
2301 Peger Rd. Fairbanks, AK 99709

Kotzebue to Cape Blossom
Road Construction Project

File No.: POA-2012-272

Waterway: Kotzebue Sound

Proposed Activity: Wetland fill for roadway

Date: June 2017

DEPARTMENT OF THE ARMY PERMIT

Permittee: Alaska Department of Transportation and Public Facilities

Permit No.: POA-2012-272

Issuing Office: U.S. Army Engineer District, Alaska

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

The discharge of 996,253 cubic yards of clean fill material within approximately 107.5 acres of wetlands and 432 linear feet of streams. The authorized fill will improve and widen of 1.7 miles of existing road, create of 9.9 miles of new road with turnouts, and create a staging area near Cape Blossom.

All work will be performed in accordance with the attached plan, sheets [1-7], dated [June 2017].

Project Location:

The project site is located near Kotzebue, Alaska, North Arctic Borough (NAB), starting at approximately Latitude 66.8580º N., Longitude 162.6180º W., and ending at approximately Latitude 66.7299º N., Longitude 162.4314º W., Kotzebue Sound, near Cape Blossom.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **January 31, 2023**.

If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. Prior to initiation of construction activities within waters of the U.S. The permittee must implement the Corps approved mitigation plan dated November 17, 2017.

2. The permittee must take the actions required to record the Conservation Easement with the Registrar of Deeds or other appropriate official charged with the responsibility for maintaining records of title to or interest in real property. You must provide a copy of the recorded document to the Corps clearly showing a stamp from the appropriate official indicating the book, page and date prior to initiation of construction activities within waters of the U.S.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(x) Section 404 of the Clean Water Act (33 U.S.C. 1344).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorization required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a revaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

_____ _____

(PERMITTEE) AND TITLE (DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

_____ _____

FOR (DISTRICT COMMANDER) (DATE)
Colonel Michael S. Brooks
Ryan Winn, North Section Chief
North Branch, Regulatory Division

When the structures or work authorized by this permit are still in existence at the time the property is transferred the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions have the transferee sign and date below.

_____ _____

(TRANSFEREE) (DATE)

THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Environmental Conservation

DIVISION OF WATER
Wastewater Discharge Authorization Program

555 Cordova Street
Anchorage, Alaska 99501-2617
Main: 907.269.6285
Fax: 907.334.2415
www.dec.alaska.gov/water/wwdp

October 5, 2017

State of Alaska Department of Transportation and Public Facilities (ADOT&PF)
Attention: Mr. Brett Nelson
2301 Peger Road
Fairbanks, AK 99709

Re: ADOT&PF, Barge Landing and Access Road
POA-2012-272, Kotzebue Sound

Dear Mr. Nelson:

In accordance with Section 401 of the Federal Clean Water Act of 1977 and provisions of the Alaska Water Quality Standards, the Department of Environmental Conservation (DEC) is issuing the enclosed Certificate of Reasonable Assurance for placement of dredged and/or fill material in waters of the U.S., including wetlands and streams, associated with the development of an access road and barge landing, near Cape Blossom, Kotzebue, Alaska.

DEC regulations provide that any person who disagrees with this decision may request an informal review by the Division Director in accordance with 18 AAC 15.185 or an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340. An informal review request must be delivered to the Director, Division of Water, 555 Cordova Street, Anchorage, AK 99501, within 15 days of the permit decision. Visit http://dec.alaska.gov/commish/ReviewGuidance.htm for information on Administrative Appeals of Department decisions.

An adjudicatory hearing request must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, PO Box 111800, Juneau, AK 99811-1800, within 30 days of the permit decision. If a hearing is not requested within 30 days, the right to appeal is waived.

By copy of this letter we are advising the U.S. Army Corps of Engineers of our actions and enclosing a copy of the certification for their use.

Sincerely,

James Rypkema
Program Manager, Storm Water and Wetlands

Enclosure: 401 Certificate of Reasonable Assurance

cc: (with encl.)
Jeremy Grauf, USACE, Anchorage
Jack Winters, ADF&G
USFWS Field Office Fairbanks
Gayle Martin, EPA Operations, Anchorage

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CERTIFICATE OF REASONABLE ASSURANCE

In accordance with Section 401 of the Federal Clean Water Act (CWA) and the Alaska Water Quality Standards (18 AAC 70), a Certificate of Reasonable Assurance, is issued to ADOT&PF, Attention: Mr. Brett Nelson, at 2301 Peger Road, Fairbanks, Alaska 99709, for placement of dredged and/or fill material in waters of the U.S. including wetlands and streams in association with the development of an access road and barge landing, near Cape Blossom, Kotzebue, Alaska.

ADOT&PF's stated purpose is to provide improved transportation efficiency and reduce the cost of shipping freight via marine cargo barges to the remote communities of the Northwest Arctic Borough (NAB). The project would construct a road from Kotzebue, Alaska to the Kotzebue Sound near Cape Blossom, an all-season transportation facility and freight staging area, and provide access to a deeper barge landing site. The existing deep draft marine freight vessels serving Kotzebue currently set anchor in 300 feet of water approximately 15 miles from shore, and freight is then lightered by smaller vessels. The proposed project would provide access to a deep water barge landing with no dynamic shoaling.

The proposed project would improve and widen 1.7 miles of existing road, create 9.9 miles of new road with turnouts, and create a staging area near Cape Blossom. The proposed work would impact approximately 107.5 acres of wetlands and 432 linear feet of streams by placing approximately 996,253 cubic yards of clean fill material.

A state issued water quality certification is required under Section 401 because the proposed activity will be authorized by a U.S. Army Corps of Engineers permit (POA-2012-272) and a discharge of pollutants to waters of the U.S. located in the State of Alaska may result from the proposed activity. Public notice of the application for this certification was given as required by 18 AAC 15.180 in the Corps Public Notice POA-2012-272 posted from July 27, 2017 to August 28, 2017.

The proposed activity is located within Township 17 N, Range 18 W., Sections 21, 26, 27, 28, 35, 36; Township 16 N., Range 18 W., Sections 2, 11, 12, 13; Township 16 N., Range 17 W. Sections 18, 19, 30, 31; Township 15 N., Range 17 W., Section 6, Kateel River Meridian; starting Latitude 66.8580° N., Longitude -162.6180° W.; ending at Latitude 66.7299° N., Longitude -162.4314° W.; near Kotzebue Alaska.

The Department of Environmental Conservation (DEC) reviewed the application and certifies that there is reasonable assurance that the proposed activity, as well as any discharge which may result, will comply with applicable provisions of Section 401 of the CWA and the Alaska Water Quality Standards, 18 AAC 70, provided that the following additional measures are adhered to.

1. Reasonable precautions and controls must be used to prevent incidental and accidental discharge of petroleum products or other hazardous substances. Fuel storage and handling activities for equipment must be sited and conducted so there is no petroleum contamination of the ground, subsurface, or surface waterbodies.

2. During construction, spill response equipment and supplies such as sorbent pads shall be available and used immediately to contain and cleanup oil, fuel, hydraulic fluid, antifreeze, or other pollutant spills. Any spill amount must be reported in accordance with Discharge Notification and Reporting Requirements (AS 46.03.755 and 18 AAC 75 Article 3). The applicant must contact by telephone the DEC Area Response Team for Northern Alaska at (907) 451-2121 during work hours or 1-800-478-9300 after hours. Also, the applicant must contact by telephone the National Response Center at 1-800-424-8802.
3. Runoff discharged to surface water (including wetlands) from a construction site disturbing one or more acres must be covered under Alaska's General Permit for Storm Water Discharges from Large and Small Construction Activities in Alaska (AKR100000). This permit requires a Storm Water Pollution Prevention Plan (SWPPP). For projects that disturb more than five acres, this SWPPP must also be submitted to DEC (William Ashton, 907-269-6283) prior to construction.
4. Construction equipment shall not be operated below the ordinary high water mark if equipment is leaking fuel, oil, hydraulic fluid, or any other hazardous material. Equipment shall be inspected and recorded in a log on a daily basis for leaks. If leaks are found, the equipment shall not be used and pulled from service until the leak is repaired.
5. All work areas, material access routes, and surrounding wetlands involved in the construction project shall be clearly delineated and marked in such a way that equipment operators do not operate outside of the marked areas.
6. Natural drainage patterns shall be maintained, to the extent practicable, without introducing ponding or drying.
7. Excavated or fill material, including overburden, shall be placed so that it is stable, meaning after placement the material does not show signs of excessive erosion. Indicators of excess erosion include: gullying, head cutting, caving, block slippage, material sloughing, etc. The material must be contained with siltation best management practices (BMPs) to preclude reentry into any waters of the U.S., which includes wetlands.
8. Include the following BMPs to handle storm water and total storm water volume discharges as they apply to the site:
    a. Divert storm water from off-site around the site so that it does not flow onto the project site and cause erosion of exposed soils;
    b. Slow down or contain storm water that may collect and concentrate within a site and cause erosion of exposed soils;
    c. Place velocity dissipation devices (e.g., check dams, sediment traps, or riprap) along the length of any conveyance channel to provide a non-erosive flow velocity. Also place velocity dissipation devices where discharges from the conveyance channel or structure join a water course to prevent erosion and to protect the channel embankment, outlet, adjacent stream bank slopes, and downstream waters.
9. Fill material must be clean sand, gravel or rock, free from petroleum products and toxic contaminants in toxic amounts.

10. Any disturbed ground and exposed soil not covered with fill must be stabilized and re-vegetated with endemic species, grasses, or other suitable vegetation in an appropriate manner to minimize erosion and sedimentation, so that a durable vegetative cover is established in a timely manner.

This certification expires five (5) years after the date the certification is signed. If your project is not completed by then and work under U.S Army Corps of Engineers Permit will continue, you must submit an application for renewal of this certification no later than 30 days before the expiration date (18 AAC 15.100).

Date: October 5, 2017

James Rypkema, Program Manager
Storm Water and Wetlands

APPENDIX B

MATERIALS CERTIFICATION LIST (MCL)

HIGHWAY MASTER MATERIALS CERTIFICATION LIST, EXCEPT SECTION 660/661/740 (current 1/30/12)

Project Name Kotzebue to Cape Blossom Road - Stage 1

Project Number Pending/NFHWY00418

Project Engineer Signature

Unshaded boxes indicate who approves the manufacturer's certificate of compliance or materials submittals. If two boxes not shaded, either approving authority may be used.

Materials Item	Specification	Construction		Design			Statewide Materials		Manufacturer/ Remarks	Certificate Location e.g. Binder #
	2017 or Std. Mod. if noted	Project Engineer	Regional Materials or QA Engineer	Design Engineer of Record	State Bridge Engineer	Regional Traffic Engineer	*Qualified Products List (QPL)	State Materials or QA Engineer		
603 CULVERTS AND STORM DRAINS										
Flexible Watertight Gaskets										
Corrugated Polyethylene Pipe										
Culverts, 24_ Inch	706-2.07									
607 FENCE										
Concrete Mix Design	501-3.01									
Pre-mixed sack concrete	607-2.01									
Fence Posts	710-2.05									
613 MONUMENTS AND MARKERS										
Marker Posts	730-2.05/Plans									
618 SEEDING										
Seed	724									
Fertilizer	618-2.01/725									
624 CALCIUM CHLORIDE FOR DUST CONTROL										
Calcium Chloride	624-2.01									
630 GEOTEXTILE FOR EMBANKMENT SEPARATION AND STABILIZATION										
Geotextiles and Sewing Thread										

*Unshaded boxes under QPL do not indicate that the materials are currently on that list. They indicate materials with potential for being on the QPL once qualified.
See Section 106-1.05 for submittal requirements.

Unshaded boxes indicate who approves the manufacturer's certificate of compliance or materials submittals. If two boxes not shaded, either approving authority may be used.

Materials Item	Specification	Construction		Design			Statewide Materials		Manufacturer/ Remarks	Certificate Location e.g. Binder #
	2017 or Std. Mod. if noted	Project Engineer	Regional Materials or QA Engineer	Design Engineer of Record	State Bridge Engineer	Regional Traffic Engineer	*Qualified Products List (QPL)	State Materials or QA Engineer		
Stabilization	729-2.01									
633 SILT FENCE										
Geotextile	729-2.04									
Posts	729-2.04									
641 EROSION, SEDIMENT AND POLLUTION CONTROL										
BMP Installations	641-2.05								641 Control and Stabilization Materials identified and documented in SWPPP and approved on project.	
642 CONSTRUCTION SURVEYING AND MONUMENTS										
Monument Cases	642-2.01									
Primary Monument	642-2.01									
Secondary Monument	642-2.01									
643 TRAFFIC MAINTENANCE										
Traffic Control Devices	643-2.01								643 Materials approved on project with TCP conforming to Alaska Traffic Manual (ATM).	

*Unshaded boxes under QPL do not indicate that the materials are currently on that list. They indicate materials with potential for being on the QPL once qualified.
See Section 106-1.05 for submittal requirements.

Unshaded boxes indicate who approves the manufacturer's certificate of compliance or materials submittals. If two boxes not shaded, either approving authority may be used.

Materials Item	Specification	Construction		Design			Statewide Materials		Manufacturer/ Remarks	Certificate Location e.g. Binder #
	2017 or Std. Mod. if noted	Project Engineer	Regional Materials or QA Engineer	Design Engineer of Record	State Bridge Engineer	Regional Traffic Engineer	*Qualified Products List (QPL)	State Materials or QA Engineer		

*Unshaded boxes under QPL do not indicate that the materials are currently on that list. They indicate materials with potential for being on the QPL once qualified.
See Section 106-1.05 for submittal requirements.

APPENDIX C

EROSION AND SEDIMENT CONTROL PLAN (ESCP)

Erosion and Sediment Control Plan

For

Kotzebue to Cape Blossom Road – Stage I

0002(204)/NFHWY00418

Kotzebue, AK

Alaska Department of Transportation & Public Facilities
Northern Region
2301 Peger Rd
Fairbanks, Alaska 99709

ESCP Preparation Date: October, 2019

The following Erosion and Sediment Control Plan (ESCP) has been prepared by the Alaska Department of Transportation and Public Facilities (DOT&PF) to assist bidders in successfully planning their construction means and methods to comply with the 2016 Alaska Construction General Permit (ACGP), United States Army Corps of Engineers (USACE) 404/10 Permit, Alaska Department of Environmental Conservation (ADEC) 401 Water Quality Certification, and other permits associated with this project. This document is not intended to be all inclusive of the best management practices (BMPs) that will be required to reduce the potential for sediment discharge during construction and comply with permit conditions or construction specifications. This ESCP is intended to guide contractors during the bidding process and assist in the preparation of the contractor's Storm Water Pollution Prevention Plan (SWPPP) that must be approved prior to commencing construction after award. The contractor is responsible for the risk assessment analysis, planning, preparation and implementation of the SWPPP.

TABLE OF CONTENTS

SECTION 1 - GENERAL INFORMATION

1.0 PERMITTEE (5.3.1)

The Department of Transportation & Public Facilities (DOT&PF) will be a permittee for the project. Upon the approval of the contractor's Storm Water Pollution Prevention Plan (SWPPP) by DOT&PF, the contractor will be required to submit a Notice of Intent (NOI) and obtain permit coverage as an operator. The contractor's contact information, as well as contact information for all subcontractors must be included in the contractor's SWPPP. All subcontractors will be required to sign a certification (DOT&PF Form 25D-105) demonstrating they have read the Alaska Construction General Permit (ACGP), the contractor's SWPPP, and will adhere to their terms and conditions.

1.1 Operator(s)/Contractor(s)

Insert Company or Organization Name
Insert Name
Insert Address
Insert City, State, Zip Code
Insert Telephone Number
Insert Fax/Email

The contractor has day-to-day operational control over activities in the field, including subcontractors and implementation of the SWPPP.

Alaska Department of Transportation and Public Facilities, Northern Region
Ryan Anderson
2301 Peger Road
Fairbanks, Alaska 99709
907-451-2210
ryan.anderson@alaska.gov

DOT&PF has operational control over construction plans and specifications, including the ability to make modifications and ensure compliance with the SWPPP.

2.0 STORM WATER CONTACTS (5.3.2)

Identify the qualified persons responsible for the following required positions:

Superintendent; Storm Water Lead (5.3.2.1); SWPPP Preparer (5.3.2.2); Person(s) Conducting Inspections- Contractor's SWPPP Manager and DOT&PF's Storm Water Inspector (5.3.2.3); Person(s) Conducting Monitoring (if applicable, 5.3.2.4), and Person(s) Operating Active Treatment System (if applicable, 5.3.2.5). The SWPPP Manager and Superintendent must be different individuals when a SWPPP Manager item is included in the Contract). Document that the named individuals are Qualified Persons as described in ACGP Appendix C and as required in Section 641-1.04, whichever is most stringent. Include documentation of qualifications in Appendix E of the SWPPP.

Qualified Personnel	Responsibility
Storm Water Lead/SWPPP Manager Insert Name Insert Address Insert City, State, Zip Code Insert Telephone Number Insert Fax/Email	Authority to stop and/or modify construction activities as necessary to comply with the SWPPP and the terms and conditions of the permit.
Contractor's Superintendent Insert Name Insert Address Insert City, State, Zip Code Insert Telephone Number Insert Fax/Email	Day-to-day operational control activities at a site which are necessary to ensure compliance with a SWPPP or other permit conditions. The superintendent is also responsible for certifying SWPPP inspection reports.
DOT&PF's Project Engineer Insert Name Insert Address Insert City, State, Zip Code Insert Telephone Number Insert Fax/Email	Oversees the project. Assesses the conditions at the construction site that could impact storm water quality, as well as the effectiveness of any erosion and sediment control measures. The project engineer is also responsible for certifying SWPPP inspection reports.
DOT&PF Storm Water Inspector Insert Name Insert Address Insert City, State, Zip Code Insert Telephone Number Insert Fax/Email	Assess conditions at the construction site that could impact storm water quality. Assess the effectiveness of any erosion and sediment control measures selected to control the quality of storm water discharge, and familiar with Part 6 as a means to ensure compliance with the permit. .
SWPPP Preparer Insert Company Insert Name Insert Address Insert City, State, Zip Code Insert Telephone # Insert Fax/Email	Possess the skills to assess conditions at the construction site that could impact storm water quality. Familiar with Part 5 of the permit as a means to implement the permit.

*Person Conducting Monitoring (if applicable)
*Person Operating Active Treatment System (if applicable)

3.0 PROJECT INFORMATION (5.3.3)

3.1 Project Information

Project/Site Name: **Kotzebue to Cape Blossom Road – Stage 1**

Project State Number/Federal Number: **0002(204) / NFHWY00418**

Project Street/Location: **Cape Blossom Road**

City: **Kotzebue** State: **AK** Zip Code: **99752**

Borough or Subdivision: **Northwest Arctic Borough**

Latitude:

66 º 51 ' 28.9 " N

Longitude:

162 º 37 ' 04.44” W

Method for determining latitude/longitude:

☐ USGS topographic map (specify scale: _____) ☐ EPA Web site ☐ GPS

☒ Other (please specify): Google Earth

3.2 Project Site-Specific Conditions (5.3.3)

Mean annual precipitation based on nearest weather station (inches): **11.02 https://www.usclimatedata.com/climate/kotzebue/alaska/united-states/usak0135**

Size of the 2-yr, 24-hr storm event (in inches): **0.877 (NOAA Kotzebue Station #505076 https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_ak.html)**

Soil Type(s) and Slopes: **Organic soil over brown and gray silts, sometimes visible ice. Gentle slopes. Poorly drained lowland tundra, with thaw lakes, polygonal ground and deep permafrost**

Landscape Topography: **Flat tundra with gradual slope down toward the Kotzebue Sound**

Drainage patterns: **Generally water flows south and to the west into Sadie Creek and Kotzebue Sound.**

Type of Existing Vegetation: **Grass, sedges, and dwarf willows. (Kotzebue to Cape Blossom Road Environmental Assessment October 2013)**

Approximate growing season: **May 2nd to Oct. 4th**

Seeding Dates: **May 15th to Aug. 15th**

Fall Freeze-Up and Spring Thaw Dates: **September 27th and June 18th (WRCC https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ak5076)**

Clearing Window: **Vegetative clearing is not allowed in the Project Zone without Engineer approval.**

Fish Window: **None**

Historic site contamination evident from existing site features and known past usage of the site. List all DEC Identified Contaminated Sites located within 1500 feet of the project:

Site	Hazard ID	Cleanup Status
Kotzebue LRRS ST004 ASTs	830	Cleanup Complete
Kotzebue LRRS SS010 Solvent Spill	856	Cleanup Complete
Kotzebue LRRS SS009 PCB Spill Site	855	Cleanup Complete
Kotzebue LRRS SS011 Jet Fuel Spill	833	Cleanup Complete
Kotzebue LRRS SS016 Buildings 101 & 102	828	Cleanup Complete
Kotzebue LRRS SS017 Former Nav Aid Bldg.	853	Cleanup Complete
Kotzebue LRRS SD003 Road Oiling	840	Cleanup Complete
Kotzebue LRRS SS018 Truck Fill Stand	829	Cleanup Complete
Kotzebue LRRS SS019 South Fence Spill	835	Cleanup Complete - Institutional Controls

Kotzebue LRRS SS012 Spill No. 2 and 3	826	Cleanup Complete
Kotzebue LRRS SS020 Septic Holding Tan	847	Cleanup Complete - Institutional Controls
Kotzebue LRRS SS006 Spill Number 1	839	Cleanup Complete
Kotzebue LRRS SS015 Former Power Plant	852	Cleanup Complete
Kotzebue LRRS SS008 Barracks Pad	834	Cleanup Complete
Kotzebue LRRS SS013 Landfarm	827	Cleanup Complete
Kotzebue LRRS SS014 East Tanks Site	832	Cleanup Complete
Kotzebue LRRS SS001 Waste Accum. Area #1	838	Cleanup Complete
Kotzebue LRRS SS002 Former Landfill	850	Cleanup Complete - Institutional Controls
Kotzebue LRRS ST005 Beach Tanks	831	Cleanup Complete - Institutional Controls
Kotzebue LRRS AOC 2 POL Line	836	Cleanup Complete

4.0 NATURE OF CONSTRUCTION ACTIVITY (5.3.4)

4.1 Scope of Work

The purpose of the project is to construct a 24' wide roadway with surfacing from the intersection of Hillside Drive and Air Force Road to Sadie Creek, which is the extent of the project limits will extend from the intersection of Stickman Road and to the beginning of airport property. The total project length is 4.6 miles.

Major work elements will include:

- **Improve/realign the existing roadway out to the windmill farm.**
- **Construct a new road embankment beginning to the northwest of the windmill farm out to Sadie Creek.**
- **New gravel roadway resurfacing**
- **Application of dust palliative**
- **Approach regrading and resurfacing**
- **Overhead Utility Relocations**
- **Drainage improvements include culverts for cross drainage.**

4.2 Project Function (5.3.4.1)

This project is a low-density gravel road that provides access from the town to Sadie Creek. The Stage II project will provide access to Cape Blossom.

4.3 Support Activities (As Applicable)

If the Department has legal interest in the support activity (e.g. Material Sale Agreement, mining reclamation plans, Army Corps permit) or the support activity is located within the Project Zone as defined in DOT Spec 641 (P-156 for Airports), then the support activity must be included in the Project SWPPP. If support activity locations for this project are known at the time of design, list available sites and locations here:

Support Activity	Location	Dedicated	
		Yes	No
Concrete Batch Plant		☐	X
Asphalt Batch Plant		☐	X
Equipment Staging Yards		☐	X
Material Storage Areas	Near Kotzebue City Landfill	X	☐
Excavated Material Disposal Areas		☐	X
Borrow Areas	Near Kotzebue City Landfill	X	☐

4.5 Size of property and total area expected to be disturbed (5.3.4.3)

Estimate the area to be disturbed by excavation, grading, or other construction activities, including "support activities" (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, and/or borrow areas) as defined Appendix C of the 2016 ACGP. **If the Department has a legal interest in the support activity, such as Material Sale Agreement, mining reclamation plan, Army Corps permit, or could be construed to control the daily operations or plans and specifications, then the support activity acreage must be included in the Department's NOI and in the Project SWPPP.

Calculate the percentage of impervious surface area before and after construction. Calculate the run-off coefficients before and after construction. For most projects the weighted "C" from the rational equation is appropriate. Insert calculations on following page, and delete this page entirely after calculations are completed.

There are drop down menus for the Land, Soil, Slope, and Percent Coverages rows. The Coefficient and Weighted Coefficient are automatically filled in. Make sure that total percent coverage equals 100%. For soil groups, only use C or D for wetlands, there are no values for A and B. Soil groups are as follows:

Group A – Deep sand; deep loess; aggregated soils.

Group B – Shallow loess; sandy loam.

Group C – Clay loams; shallow sandy loam; soils low in organic content; soils usually high in clay

Group D – Soils that swell significantly when wet; heavy plastics; certain saline soils

Runoff Coefficient Before Construction Table:

	Type 1	Type 2	Type 3	Type 4
Land	Street, Gravel	Forest, brush	Slope, Gravel	
soil	B	C	B	
slope	2-6%	2-6%	2-6%	
Coefficient	0.55	0.16	0.3	0
Percent Coverage	20%	80%	0%	
Weighted Coefficient	0.238	0		

Runoff Coefficient After Construction Table:

	Type 1	Type 2	Type 3	Type 4
Land	Street, Gravel	Forest, brush	Slope, Gravel	
soil	B	C	B	
slope	2-6%	2-6%	2-6%	
Coefficient	0.55	0.16	0.3	0
Percent Coverage	50%	50%	0%	
Weighted Coefficient	0.355			

The following are estimates of the construction site:

Description	Number	Remarks
Total project area:	**149** acres	ROW to ROW
Construction-site area to be disturbed:	**28.5** acres	.
Percentage impervious area BEFORE construction:	**21.6** %	Existing road out to Windmill Farm
Runoff Coefficient BEFORE construction:	**0.238**	
Percentage impervious area AFTER construction:	**49.7** %	

Runoff coefficient AFTER construction:	**0.355**	

The values shown in the table above were calculated with the information available at the time of the final design. The contractor's values may be different due to staging areas, batch plants, material stockpiles, etc. **2.3 acres from MS 202-007-2** was used to calculate the Runoff Coefficient. If a discrepancy is found, contact the Project Engineer to request further information.

5.0 SITE MAPS (5.3.5)

See ESCP sheet(s) within the Plans.

SECTION 2 – COMPLIANCE WITH STANDARDS, LIMITS, AND OTHER APPLICABLE REQUIREMENTS DOCUMENTATION OF PERMIT ELIGIBILITY RELATED TO TOTAL MAXIMUM DAILY LOADS (3.2, 5.6)

If the project is discharging into a water body with an EPA-established or approved Total Maximum Daily Load (TMDL), the project must implement measures to ensure the discharge of pollutants from the site is consistent with the assumptions and requirements of the TMDL. Refer to the 2016 ACGP for additional requirements.

The SWPPP must include documentation supporting a determination of permit eligibility with regard to waters that have a TMDL.

A search of the "Alaska's Final **2014/2016** Integrated Water Quality Monitoring and Assessment Report" found the following: Waterbody Categories 2 through 5 – Kotzebue AK-50301-401_00; Kotzebue Estuary AK-50403-601_00; Kotzebue Lagoon AK-50301-601

7.1 Identify Receiving Waters (5.3.3.3)

Description of receiving waters: **The project ends 150' from Sadie Creek, which empties into the Kotzebue Sound. A majority of the project is adjacent to wetlands. Sadie Creek is not cataloged as an anadromous fish stream but hosts a resident fish population. The Iggy Hill material site is on the NE corner of the Baldwin Peninsula and is near the Kotzebue Sound. If material is obtained from Iggy Hill, an adequate barrier to the Kotzebue Sound will be maintained and drainage will be directed inland.**

Description of storm sewer and/or drainage systems: **N/A**

Other: **N/A**

7.2 Identify TMDLs (5.6.1)

Is an EPA-established or approved TMDL published for the receiving water(s) listed in Section 7.1?

☐ Yes ☒ No

TMDL: **N/A**

Summary of consultation with state or federal TMDL authorities (5.6.2): **N/A**

Measures taken to ensure compliance with TMDL (5.6.3): **N/A**

8.0 DOCUMENTATION OF PERMIT ELIGIBILITY RELATED TO ENDANGERED SPECIES (3.3, 5.7)

8.1 Information on endangered or threatened species or critical habitat (5.7.1)

Are endangered or threatened species and critical habitats on or near the project area?

☐ Yes ☒ No

Describe how this determination was made: Correspondence with US Fish and Wildlife

Will species or habitat be adversely affected by storm water discharge (5.7.2)?

☐ Yes ☒ No

Describe the species and/or critical habitat, if species or habitat will be affected by storm water discharge.

N/A

Provide summary of necessary measures (5.7.5): N/A

9.0 Applicable federal, state, tribal, or local requirements (4.15)

Permittees must ensure that the storm water control measures implemented on the site are consistent with all applicable federal, state, tribal, or local, requirements for soil erosion control and storm water management.

- **USACE, Section 404, Nationwide Permit, and General Permit, NWAB Title 9.**

The project will comply with all applicable Federal, state, local, and tribal requirements for soil erosion control and storm water management. The contractor will be responsible for obtaining all necessary permits and clearances for material and disposal sites, and/or equipment storage areas in accordance with the ACGP for Storm water Discharges from Construction Activities.

A search of the ADEC Drinking Water Protection Areas (DWPA) map located at http://dec.alaska.gov/das/GIS/apps.htm found that the project is outside any drinking water protection zones

Water System Number:

PWS Contact Information:

Name: insert text	Phone: insert text	Address: insert text

10.11 Dewatering (4.4)

Will excavation dewatering be conducted during construction? ☐ Yes ☒ No

If YES and the dewatering is anticipated on the project. The contractor must review and comply with the ADEC Excavation Dewatering General Permit (AKG002000) or most current version, for specific requirements. If a NOI for coverage under the dewatering permit is submitted, attach it and ADECs response in Appendix D of the SWPPP with a copy of the permit.

10.18 Permanent/Post-Construction BMPs

Permanent BMP's will consist of permanent seeding in disturbed areas.

12.0 MONITORING PLAN (IF APPLICABLE) (5.5; 7.0)

12.1 Determination of Need for Monitoring Plan

Is there an EPA-established or approved TMDL for **Sadie Creek**? ☐ Yes ☒ No

Is the receiving water listed as impaired for turbidity and/or sediment? ☐ Yes ☒ No