State of Alaska
Department of Transportation
&
Public Facilities

Northern Region

Bid Forms, Contract, Bond, Standard Modifications, and Special Provisions for:

Healy Spur Road Rehabilitation

Project No. 0638005/NFHWY00580

Preliminary PS&E: July 14, 2022

To be used in conjunction with State of Alaska Standard Specifications for Highway Construction dated 2020, and the Plans for the above referenced project.

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

INVITATION TO BID

for Construction Contract

Date _____

Healy Spur Road Rehabilitation, 0638005/NFHWY00580

Project Name and Number

The Department invites bidders to submit bids for furnishing all labor, equipment, and materials and performing all work for the project described below. The Department will only consider bids received **before 2:00 PM local time (per the Department's time source) on the _____ day of _____ 2022**. On that date, the Department will assemble, open, and then publicly announce the timely-received bids at **Engineering Services Building, Room 4, 2301 Peger Road, Fairbanks, Alaska** at **2:00 PM**, or as soon thereafter as practicable.

Location of Project: Healy, Alaska
Contracting Officer: Joseph P. Kemp, P.E., Acting Regional Director
Issuing Office: Northern Region DOT&PF

State Funded ☐ Federal Aid ☒

Description of Work:

Rehabilitate Healy Spur Road in Healy. Project will include widening shoulders and drainage improvements.

Project DBE Utilization Goal: ☒ Race-Neutral, Goal is N/A ☐ Race-Conscious, Goal is XX.X%

The Engineer's Estimate is between $1,000,000 and $2,500,000

All work shall be completed in N/A Calendar Days, or by **October 31, 2023**.
The Department will identify interim completion dates, if any, in the Special Provisions.

The apparent successful bidder must furnish a payment bond in the amount of 100% of the contract and a performance bond in the amount of 100% of the contract as security conditioned for the full, complete and faithful performance of the contract. The apparent successful bidder must execute the said contract and bonds within fifteen calendar days, or such further time as may be allowed in writing by the Contracting Officer, after receiving notification of the acceptance of their bid.

Submission of Bidding Documents

Bidders may submit bidding documents electronically via the Department's approved online bidding service, through the mail or hand delivered. For mailed or hand delivered bids and for electronically submitted bids with a paper bid guaranty, documents shall be submitted in a sealed envelope marked as follows:

Bidding Documents for Project: **0638005/NFHWY00580** **Healy Spur Road Rehabilitation**	ATTN: Chief of Contracts State of Alaska Department of Transportation & Public Facilities 2301 Peger Road Fairbanks, Alaska 99709

It is incumbent upon the bidder to ensure its bid, any amendments, and/or withdrawal arrive, in its entirety, at the location and before the deadline stated above. A bidder sending a bid amendment or withdrawal via email or fax must transmit its documentation to the Department at this email address: nrdotpfcontracts@alaska.gov or fax number: (907) 451-5390.

To be responsive, a bid must include a bid guaranty equal to 5% of the amount bid. (*When calculating the bid amount for purposes of determining the 5% value of the bid guaranty, a bidder shall include its base bid amount, plus the amount bid for alternate and supplemental bid items, if any.)*

The Department hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this Invitation, Disadvantaged Business Enterprises will be afforded full opportunity to submit bids and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award.

NOTICE TO BIDDERS

Bidders must have a Vendor ID or your bid may not be accepted. More information can be obtained at the following website: http://dot.alaska.gov/aashtoware/docs/AWP-Vendor-List-Guidance.pdf

The following data may assist a bidder in preparing its bid:

- Quantity Calculations
- Cross Sections
- Geotechnical Report
- As Builts
- Other applicable information

All supplemental information can be found under the letting for this project which may be selected using the following link: https://www.bidx.com/ak/lettings

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A bidder may obtain hard copy project plans and specifications for the price of $100, from:
Engineering Services Building, Room 3
2301 Peger Road
Fairbanks, Alaska 99709
Phone: (907) 451-2247 TDD (for Hearing Impaired, requires special equipment): 711 or 1-800-770-8973

If a bidder has a question relating to design features, constructability, quantities, or other technical aspects of the project, it may direct its inquiry to the questions and answers area of the Bid Express proposal page: https://www.bidx.com/ak/lettings

A bidder requesting assistance in viewing the project site must make arrangements at least 48 hours in advance.

The point of contact for inquiries for this project is **David M. Arvey, P.E., Construction Manager**.
Email: david.arvey@alaska.gov Phone: (907) 451-2621

For questions relating to electronic bidding or for assistance with your Bid Express account, contact Bid Express customer support at customer.support@bidx.com or call toll free (888)352-BIDX(2439) Monday through Friday 7:00am to 8:00pm (Eastern).

A bidder may direct questions concerning bidding procedures and requirements to:
Construction Contracts Coordinator

Email: stacy.mcsorley@alaska.gov Phone: (907) 451-2219

Other Information:

To report bid rigging activities call: 1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday thru Friday. 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

State of Alaska, Standard Specifications
for Highway Construction, Dated 2020 are
modified as follows:

STANDARD MODIFICATIONS

SECTION 102
BIDDING REQUIREMENTS AND CONDITIONS

04/30/22 (HSM20-42)

102-1.05 PREPARATION OF BID. *In the third paragraph, replace the fourth sentence with the following:* If the bidder is a joint venture, the bid must be signed by an officer or agent with authority to bind the joint venture.

SECTION 104
SCOPE OF WORK

11/30/2020 (HSM20-2)

104-1.06 VALUE ENGINEERING CHANGE PROPOSALS BY CONTRACTOR. *Delete item 3.e of this subsection and substitute the following:* The Contractor may submit VECPs for an approved subcontractor. If the Contractor elects to submit a VECP for an approved subcontractor and it is subsequently accepted by the Department, the Department will reimburse the Contractor per 104-1.06.5.

SECTION 106
CONTROL OF MATERIAL

12/31/21 (HSM20-20)

106-1.01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS. *Add the following:*

PROHIBITION ON CERTAIN TELECOMMUNICATION AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT. On projects using federal funds, the Contractor shall comply with the requirements of 2 CFR 200.216, Prohibition on certain telecommunication and video surveillance services or equipment, including any future amends thereto that are applicable to the project.

By submitting a bid or by execution of the contract, the Contractor certifies that it has not entered into a contract nor extended or renewed a contract to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system produced by:

- Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
- Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
- Any entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

The Contractor further certifies that it has complied with the requirements of 2 CFR 200.216 and that it will continue to do so throughout the term of the Contract.

SECTION 108
PROSECTUTION AND PROGRESS

01/01/22 (HSM20-41)

108-1.01 SUBCONTRACTING OF CONTRACT. *In item 1.g delete* "AS 45.45.101(a)" *and substitute the following:* AS 45.45.010(a).

In item 2.f delete "AS 45.45.101(a)" *and substitute the following:* AS 45.45.010(a).

07/01/22 (HSM20-43)

108-1.07 FAILURE TO COMPLETE ON TIME. *Replace Table 108-1 with the following:*

TABLE 108-1
DAILY CHARGE FOR LIQUIDATED DAMAGES
FOR EACH CALENDAR DAY OF DELAY

Original Contract Amount		Daily Charge
From More Than	To and Including	
$ 0	500,000	$1,400
500,000	1,000,000	1,700
1,000,000	5,000,000	2,600
5,000,000	10,000,000	3,800
10,000,000	25,000,000	4,500
25,000,000	----------	6,600

SECTION 109
MEASUREMENT AND PAYMENT

11/30/2020 (HSM20-3)

109-1.08 FINAL PAYMENT. *Add the following after the fifth paragraph of this subsection:* On federally funded projects, if DOLWD Wage and Hour Administration notifies the Department of a pending prevailing wage investigation, and that the investigation is preventing the closing out of the project, the Contractor may place the notified amount in escrow under Wage and Hour for the exclusive purpose of satisfying unpaid prevailing wages. Upon receipt of notice from Wage and Hour that the contractor has satisfactorily transferred the necessary funds into escrow, the Department will proceed to issue final payment.

SECTION 120
DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

12/31/21 (HSM20-21)

120-1.01 DESCRIPTION. *In the first sentence of the second paragraph, delete* "8.83 percent" *and substitute the following:* 8.28 percent.

120-3.01 DETERMINATION OF COMPLIANCE. *Delete the statement in 2.a. Written DBE Commitment and substitute the following:* Complete Form 25A-326 for each DBE to be used on the project.

SECTION 203
EXCAVATION AND EMBANKMENT

11/30/2020 (HSM20-5)

203-3.04 COMPACTION WITH MOISTURE AND DENSITY CONTROL. *In the second paragraph of this subsection, delete the words "*and ATM 214".

SECTION 205
EXCAVATION AND FILL FOR MAJOR STRUCTURES

11/30/2020 (HSM20-5)

205-3.05 COMPACTION. *In the second paragraph of numbered paragraph 1. Compaction With Moisture and Density Control, delete the words* "and ATM 214".

SECTION 301
AGGREGATE BASE AND SURFACE COURSE

11/30/2020 (HSM20-5)

301-3.03 SHAPING AND COMPACTION. *In the second paragraph of this subsection, delete the words* "and ATM 214".

SECTION 615
STANDARD SIGNS

12/31/21 (HSM20-29)

615-2.01 MATERIALS.

1. Shop Drawings. *Delete the first sentence and substitute the following:* Submit shop drawings for all signs that must meet the ASDS letter width and spacing charts for variable width legends (such as D-series and I-3 signs), and which require custom shop drawings specific to the project.

SECTION 633
SILT FENCE

11/30/2020 (HSM20-13)

633-2.01 MATERIALS. Use materials that conform to the following: *Delete the second item in the Materials reference list and substitute the following:*

Silt Fence	Subsection 729-2.02

633-3.01 CONSTRUCTION REQUIREMENTS. *Delete the first sentence of this subsection and substitute the following:* Install silt fence according to the SWPPP, Appendix B.

SECTION 643
TRAFFIC MAINTENANCE

12/31/21 (HSM20-30)

643-2.02 CRASHWORTHINESS. *Delete Table 643-2 and substitute the following:*

TABLE 643-2
WORK ZONE TRAFFIC CONTROL DEVICE AND BARRIER CRASH TESTING COMPLIANCE

Category	Devices	Devices Manufactured Before Dec. 31, 2019 [1]	Devices Manufactured After Dec. 31, 2019 [1]	Method of Documentation
1	Low-mass single-piece devices w/o attachments: traffic cones, tubular markers, single piece drums, delineators	NCHRP 350, MASH 2009, or MASH 2016	MASH 2016	Manufacturer's Certification for devices exceeding height and weight limits
2	Category 1 devices with attachments, barricades, portable sign supports, drums w/lights, other devices weighing less than 100 pounds but not included in category 1	NCHRP 350, MASH 2009, or MASH 2016	MASH 2016	FHWA eligibility letter, at Test Level 3 [2]
3	Fixed sign supports, truck mounted attenuators, temporary crash cushions, bridge railing, bridge and guardrail transitions, and guardrail and barrier end treatments.	NCHRP 350, MASH 2009, or MASH 2016	MASH 2016	FHWA eligibility letter, at Test Level 3 [2]
	Portable concrete and steel barriers	NCHRP 350, MASH 2009, or MASH 2016	MASH 2016	FHWA eligibility letter, at Test Level 3, unless otherwise required in the contract.

[1] The Engineer will determine whether a device is in serviceable condition. Serviceable means the device will function equivalent to a new device of the same manufacture.
[2] When no test level is specified in an FHWA Eligibility letter; it is implied that the tests were run for Test Level 3.

02/01/2022 (HSM20-39)

643-3.06 TRAFFIC PRICE ADJUSTMENT. *Delete Table 643-3 Adjustment Rates in its entirety and substitute the following:*

TABLE 643-3
ADJUSTMENT RATES

Published ADT	Dollars/Minute of Unauthorized Lane Reduction or Closure
Less than 1,000	$6
1,000-4,999	$25
5,000-9,999	$75
10,000-29,999	$105
30,000+	$150

SECTION 702
ASPHALT MATERIALS

12/31/21 (HSM20-32)

702-2.03 EMULSIFIED ASPHALT.

1. Cationic Emulsified Asphalt. *Delete the sentence and substitute the following:* Meet AASHTO M 208, except CRS-2P meet AASHTO M 316.

SECTION 703
AGGREGATES

05/01/22 (HSM20-40)

703-2.03 AGGREGATE FOR BASE AND SURFACE COURSE. *In Table 703-1 replace the line for Degradation Value with the following:*

TABLE 703-1
AGGREGATE QUALITY PROPERTIES FOR BASE AND SURFACE COURSE

PROPERTY	BASE COURSE	SURFACE COURSE	TEST METHOD
Micro-Deval	15%, max.	15%, max.	AASHTO T 327

703-2.04 AGGREGATE FOR HOT MIX ASPHALT. *In Table 703-3 replace the line for Degradation Value with the following:*

TABLE 703-3
COARSE AGGREGATE QUALITY FOR HMA

Description	Specification	Type II, Class A	Type I, Type II Class B, Type III	Type IV	Type V	Type SP
Micro-Deval, max.	AASHTO T 327	18%	18%	18%	18%	18%

703-2.05 AGGREGATE FOR COVER COAT AND SURFACE TREATMENT. *In Table 703-5 replace the line for Degradation Value with the following:*

TABLE 703-5
QUALITY PROPERTIES FOR COVER COAT AND SURFACE TREATMENT

Micro-Deval	AASHTO T 327	15%, max.

703-2.09 SUBBASE. *In Table 703-8 replace the line for Degradation Value with the following:*

TABLE 703-8
QUALITY PROPERTIES FOR SUBBASE

Micro-Deval	AASHTO T 327	25%, max.

SECTION 712
MISCELLANEOUS

12/31/21 (HSM20-35)

712-2.08 GLASS BEADS. *In the second sentence, delete EPA Testing Method* "3062" *and substitute the following:* 3052.

SPECIAL PROVISIONS

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

04/30/17 (N2)
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 Subsection 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:

    d. Available Sources. *Add the following to the list of Available Material Sources:*

Pit ID#	Highway	Mile Post	Owner
MS 37-2-143-2	Parks Highway	252.5	DNR

SECTION 201
CLEARING AND GRUBBING

03/02/20 (N79)
201-3.01 GENERAL. *Add the following*: Do not perform mechanized vegetation clearing between (begin date – end date).

SECTION 203
EXCAVATION AND EMBANKMENT

01/20/15 (N8)
203-3.01 GENERAL. *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.

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.

02/01/20 (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 641.0006.____ Withholding.

SECTION 204
STRUCTURE EXCAVATION FOR CONDUITS AND MINOR STRUCTURES

02/01/20 (N75)
204-2.01 MATERIALS. *Delete the first paragraph and substitute the following:*

Embedment Material: Embedment Material consists of bedding, and backfill to 12 inches above the pipe. Use Selected Material, Type A (Subsection 703-2.07) passing the 2-inch sieve for embedment material between vertical planes 18 inches outside the horizontal projection of the outer most diameter of the pipe, horizontal planes located 12 inches above and below the outermost diameter of the pipe or to the depth shown on the Plans.

204-4.01 METHOD OF MEASUREMENT. *Delete the first sentence and substitute the following:* Embedment Material will be measured according to Section 109 as follows:

1. 204.2002.0000 By neat line volume.
2. 204.2003.0000 Will not be measured directly for payment.
3. 204.2004.0000 By weighing.

Structure Excavation will be measured according to Section 109 using neat line method as follows:

204-5.01 BASIS OF PAYMENT. *Delete this subsection in its entirety and substitute the following:*

1. Structure Excavation. The contract price includes:

   a. The placing and compacting of backfill more than 12 inches above the pipe when the material used is obtained from excavation
   b. Clearing and grubbing required and not paid for under other items
   c. The formation of any embankments made with surplus material from structure excavation
   d. The disposal of all surplus or unsuitable excavation.

   Additional excavation to provide for shoring, sheet piles, excavation shields or flattening the excavation slopes, is subsidiary.

   When items 204.0001.____ through 204.0003____, Structure Excavation, do not appear in the bid schedule, structure excavation required to complete other items of work is subsidiary except that excavation and disposal of unsuitable material required from below a plane 12 inches below the invert elevation of conduits and 12 inches below the bottom of structures will be paid for as extra work.

2. Embedment Material. The contract price includes all work and materials necessary to provide, place, and compact Embedment Material.

Add the following pay items:

PAY ITEM		
Item Number	**Item Description**	**Unit**
204.2002.0000	Embedment Material	CY
204.2003.0000	Embedment Material	LS
204.2004.0000	Embedment Material	TON

SECTION 401
HOT MIX ASPHALT PAVEMENT

04/08/21 (N76)

401-2.01 ASPHALT BINDER. *Add the following:* Provide the grade of Asphalt Binder shown in the Bid Schedule, except PG 52-28 may be used for Items 401.0011.____ and 401.0012.____, HMA Driveway.

401-2.08 RECYCLED ASPHALT PAVEMENT. *Add the following:* The maximum amount of RAP in the HMA is limited to 10%.

401-2.09 JOB MIX DESIGN. *Delete the last two rows of Table 401-1 HMA MARSHALL DESIGN REQUIREMENTS.*

(04/08/21) N85

Add the following: For HMA placed under Item 401.2010.0000 HMA, Sidewalks and Paths:

1. JMD shall be Type II or Type III, Class B.
2. Asphalt Binder shall be PG 52-28 or PG 52E-40.
3. The maximum amount of RAP in the HMA is limited to 10%.

401-3.18 SURFACE REQUIREMENTS AND TOLERANCES. *Add the following:* When Item 401.0010.___ appears in the Bid Schedule, profiler measurements will be taken on through lanes and passing lanes.

401-4.02 ACCEPTANCE SAMPLING AND TESTING. *Add the following:* The bid quantity for Item 401.2010.0000 HMA, Sidewalks and Path will be considered 1 lot. The lot will be divided into sublots of 500 tons. HMA for Sidewalks and Paths will be accepted for payment based on:

1. The Engineer's approval of the JMD.
2. Placement and compaction of the HMA to the specified depth, finished surface requirements, and tolerances.
3. Conformance to the Upper Specification Limit (USL) and Lower Specification Limit (LSL) shown in Table 401-2. The TV is the specification value shown in the approved Job Mix Design.
4. Mat Density will be sampled and tested according to Subsection 401-4.02.3. Density test results will be based on the MSG from the approved JMD.
5. At the discretion of the Engineer, Asphalt Binder Content may be tested according to Subsection 401-4.02.1, Aggregate Gradation may be tested according to Subsection 401-4.02.2, and Asphalt Binder Grade may be tested according to Subsection 401-4.02.5.

The Engineer reserves the right to perform any testing required in order to determine acceptance.

401-5.01 BASIS OF PAYMENT. *Add the following:* HMA placed on driveways, turnouts, and pullouts will be paid under Item 401.0012.____ HMA, Driveway, Type ___; Class ___.

Asphalt binder, liquid anti-strip additives and tack coat are subsidiary to Item 401.2010.0000 HMA, Sidewalks and Paths.

Item 401.0008.____ HMA Price Adjustment does not apply to Item 401.2010.0000 HMA, Sidewalks and Paths.

Add the following pay item:

PAY ITEM		
Item Number	**Item Description**	**Unit**
401.2010.0000	HMA, Sidewalks and Paths	TON

SECTION 603
CULVERTS AND STORMDRAINS

01/20/15 (N21)

603-3.03 JOINING PIPE. *Delete numbered subparagraphs 2.a.2) & 3) and substitute the following:*

(2) Bands shall have a minimum width of 22 inches.

Delete numbered subparagraphs 2.b.2), 3) and 4) and substitute the following:

(2) Bands shall have a minimum width of 22 inches and shall have two circumferential rows of projections for each pipe end being joined.

(3) Furnish and install these bands with a gasket that resists infiltration and leakage.

Delete Section 613 in its entirety and substitute the following:

02/01/20 (N25)

SECTION 613
MONUMENTS AND MARKERS

613-1.01 DESCRIPTION. This work consists of furnishing and installing culvert marker posts in conformance with the Plans and Specifications or as directed.

613-2.01 MATERIALS. Steel mounting supports shall conform to the requirements of ASTM A 36. Steel mounting supports and fasteners for culvert marker posts shall be galvanized in accordance with AASHTO M 232.

Culvert marker posts shall be Carsonite CIB-380 flexible markers, or approved equal.

613-3.01 CONSTRUCTION REQUIREMENTS. Culvert marker posts shall be installed as detailed on the Plans.

613-4.01 METHOD OF MEASUREMENT. The quantities paid for shall be the actual number of culvert marker posts furnished, installed, and accepted.

If Item 613.0002.____ does not appear on the bid schedule all costs associated with providing and installing culvert marker posts shall be considered subsidiary to culvert installation and will not be measured or paid for separately.

613-5.01 BASIS OF PAYMENT. Culvert marker posts shall be paid for at the contract price, per unit of measurement, for the pay item shown in the bid schedule.

Payment will be made under:

PAY ITEM		
Item Number	**Item Description**	**Unit**
613.0002.____	Culvert Marker Post	EACH

SECTION 615
STANDARD SIGNS

01/20/15 (N27)
615-3.01 CONSTRUCTION REQUIREMENTS. *Delete numbered subparagraph 8 in its entirety and substitute the following:*

8. All materials and finished signs are subject to inspection and acceptance in place.

    a. Surfaces exposed to weathering must be free of defects in the coating.

    b. Finished signs must be clean and have no chatter marks, burrs, sharp edges, loose rivets, delaminated reflective sheeting, oxidation, corrosion, other blemishes, aluminum marks, or unapproved coatings. Do not make repairs to the face sheet.

    c. Replace any finished sign not meeting a. and b. with a replacement sign at no cost to the Department.

11/01/16 (N68)
615-5.01 BASIS OF PAYMENT. *Delete the first sentence and substitute the following:* Sign posts, bases, mounting hardware and all traffic control devices necessary for removal, installation, reconstruction, or maintenance of 615 Pay Items are subsidiary.

Delete Section 618 in its entirety and substitute the following:
02/01/20 (N30)

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 _____ and no later than _____. 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 PER 1,000 SQUARE FEET
Seed*	Annual Ryegrass	lb lb 0.1 lb
	Total	lb
Fertilizer	20-20-10	10 lb
Trace mulch**	See Subsection 727-2.01	20 lb

* 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 618.0003.____ 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.

Payment will be made under:

PAY ITEM		
Item Number	**Item Description**	**Unit**
618.0001.____	Seeding	ACRE
618.0002.____	Seeding	LB
618.0003.____	Water for Seeding	MGAL

Delete Section 641 in its entirety and substitute the following:

SECTION 641
EROSION, SEDIMENT, AND POLLUTION CONTROL

2/14/22 (N91)

641-1.01 DESCRIPTION. Provide project administration and work relating to control of erosion, sedimentation, and discharge of pollutants, according to this Section and applicable local, state, and federal requirements, including the Alaska Pollution Discharge Elimination System (APDES) Construction General Permit (CGP). The state APDES program is administered by the Department of Environmental Conservation (DEC). Section 301(a) of the Clean Water Act (CWA) and 18 AAC 83.015 provide that the discharge of pollutants to water of the U.S. is unlawful except as allowed by the CGP.

641-1.02 DEFINITIONS. These definitions apply only to Section 641.

ACTIVE TREATMENT SYSTEM (ATS) OPERATOR. See CGP Appendix C.

ALASKA CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (AK-CESCL). A person who has completed training, testing, and other requirements of, and is currently certified as, an AK-CESCL from an AK-CESCL Training Program (a program developed under a Memorandum of Understanding between the Department and others). The Department recognizes AK-CESCLs as “qualified personnel” required by the CGP. An AK-CESCL must be recertified every three years. (See Qualified Person).

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC). The state agency authorized by EPA to administer the Clean Water Act’s National Pollutant Discharge Elimination System.

ALASKA GENERAL PERMIT FOR EXCAVATION, DEWATERING (Excavation Dewatering Permit). The permit authorizing excavation dewatering discharges from Construction Activities.

ALASKA MULTI-SECTOR GENERAL PERMIT (MSGP). The permit authorizing stormwater discharges associated with Industrial Activity.

ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM (APDES). A system administered by DEC that issues and tracks permits for stormwater discharges.

BEST MANAGEMENT PRACTICES (BMPS). See CGP Appendix C.

CLEAN WATER ACT (CWA). Federal Water Pollution Control Amendments of 1972, as amended (33 U.S.C. 1251 et seq.).

CONSTRUCTION ACTIVITY. Ground disturbing activity by the contractor, subcontractor or utility company; that may result in erosion, sedimentation, or a discharge of pollutants into stormwater. See CGP Appendix C.

CONSTRUCTION GENERAL PERMIT (CGP). The permit authorizing stormwater discharges from Construction Activities, issued and enforced by Alaska DEC. It authorizes stormwater discharges providing permit conditions and water quality standards are met.

U.S. ARMY CORPS OF ENGINEERS PERMIT (COE PERMIT). A COE permit for construction in waters of the U.S. May be issued under Section 10 of the Rivers and Harbors Act of 1899, or Section 404 of the Clean Water Act.

ELECTRONIC NOTICE OF INTENT (ENOI). See CGP Appendix C.

ELECTRONIC NOTICE OF TERMINATION (ENOT). See CGP Appendix C.

ENVIRONMENTAL PROTECTION AGENCY (EPA). The federal agency charged to protect human health and the environment.

ERODIBLE STOCKPILE. Any material storage area or stockpile consisting of mineral aggregate, organic material, or a combination thereof, with greater than 5 percent passing the #200 sieve, and any material storage where wind or water transports sediments or other pollutants from the stockpile. Erodible Stockpile also includes any material storage area or stockpile, where the Engineer determines there is potential for wind or water transport, of sediments or other pollutants away from the stockpile.

EROSION AND SEDIMENT CONTROL PLAN (ESCP). The Department's project specific document that illustrates measures to control erosion and sediment on the project. The ESCP provides bidders with the basis for cost estimating and guidance for developing an acceptable Storm Water Pollutant Prevention Plan (SWPPP).

FINAL STABILIZATION. See CGP, Appendix C, "Stabilization."

HAZARDOUS MATERIAL CONTROL PLAN (HMCP). The Contractor's detailed project specific plan for prevention of pollution from storage, use, transfer, containment, cleanup, and disposal of hazardous material (including, but are not limited to, petroleum products related to construction activities and equipment). The HMCP is included as an appendix to the SWPPP.

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT. A DEC stormwater discharge permit issued to certain local governments and other public bodies, for operation of stormwater conveyances and drainage systems. See CGP Appendix C.

OPERATOR(S). The party(s) responsible to obtain CGP permit coverage. CGP, Appendix C.

1. Contractor – the Contractor is an Operator inside and outside the Project Zone.

2. Department – the Department is an Operator inside the Project Zone.

POLLUTANT. Any substance or item meeting the definition of pollutant contained in 40 CFR § 122.2. A partial listing from this definition includes: dredged spoil, solid waste, sediment, sewage, garbage, sewage sludge, chemical wastes, biological materials, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial or municipal waste.

PROJECT ZONE. The physical area provided by the Department for Construction. The Project Zone includes the area of highway or facility under construction, project staging and equipment areas, and material and disposal sites; when those areas, routes and sites, are provided by the Contract.

Material sites, material processing sites, disposal sites, haul routes, staging and equipment storage areas; that are furnished by the Contractor or a commercial operator, are not included in the Project Zone.

QUALIFIED PERSON. See CGP Appendix C and Subsection 641-1.04.

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN (SPCC PLAN). The Contractor's detailed plan for petroleum spill prevention and control measures that meet the requirements of 40 CFR 112.

SPILL RESPONSE FIELD REPRESENTATIVE. The Contractor's representative with authority and responsibility for managing, implementing, and executing the HMCP and SPCC Plan.

STORM EVENT. See CGP Appendix C.

STORM WATER POLLUTION PREVENTION PLAN TWO (SWPPP2). The Contractor's plan for compliance with both the CGP and MSGP construction activities outside the Project Zone.

SUPERINTENDENT. The Contractor's duly authorized representative with authority and responsibility for the overall operation of the Project, and Contractor furnished sites and facilities.

SWPPP AMENDMENT. A modification to the SWPPP. CGP Part 5.0.

SWPPP MANAGER. The Contractor's Qualified Person with authority and responsibility. CGP Appendix C.

SWPPP PREPARER. The Contractor's Qualified Person with authority and responsibility. CGP Appendix C.

SWPPPTRACK. Software subscription service version SWPPPTrack LTIS AK developed and provided by Storm Water Simplified Ltd, for use on construction projects that require coverage under the APDES CGP.

TEMPORARY STABILIZATION. See CGP Appendix C. See "Stabilization."

641-1.02.01 REFERENCE. A complete list of websites and documents referenced herein can be found at the DOT&PF Statewide Design and Engineering Services Stormwater webpage.

DEC Permit information can be found at the DEC Division of Water webpage. SWPPP preparation documents can be found at the DOT&PF Design and Engineering Services Stormwater webpage. Construction forms are found at the DOT&PF Design and Engineering Services Construction Forms webpage.

641-1.03 PLAN AND PERMIT SUBMITTALS.

For plans listed in Subsection 108-1.03.5 (SWPPP, HMCP, and SPCC), use the Contractor submission and Department review deadlines identified in this Subsection.

Partial and incomplete submittals will not be accepted for review. Any submittal that is re-submitted or revised after submission, but before the review is completed, will restart the submittal review timeline. No additional Contract time or additional compensation will be allowed due to delays caused by partial or incomplete submittals, or required re-submittals.

1. Storm Water Pollution Prevention Plan. Submit an electronic copy of the SWPPP to the Engineer for approval. Deliver these documents to the Engineer at least 21 days before beginning Construction Activity. Organize the SWPPP and related documents for submittal according to the requirements of Subsection 641-2.01.2.

The Department will review the SWPPP submittals within 14 days after they are received. Submittals will be returned to the Contractor, and marked as either "rejected" with reasons listed or as "approved" by the Department. When the submittal is rejected, the Contractor must revise and resubmit the SWPPP. The 14 day review period will restart when the Contractor submits an electronic copy of the revised SWPPP to the Engineer for approval.

After the SWPPP is approved and certified by the Department using Form 25D-109, the Contractor must certify the approved SWPPP using Form 25D-111. See Subsection 641-1.03.4 for further SWPPP submittal requirements.

2. Hazardous Material Control Plan. The HMCP Template can be found at the DOT&PF Construction Forms webpage. The HMCP submittal and review timeline, and signature requirements are the same as the SWPPP.

3. Spill Prevention, Control and Countermeasure Plan. When a SPCC Plan is required under Subsection 641-2.03, submit an electronic copy of the SPCC Plan to the Engineer. Deliver these documents to the Engineer at least 21 days before beginning Construction Activity. The Department reserves the right to review the SPCC Plan and require modifications.

4. CGP Coverage. The Contractor is responsible for permitting of Contractor and subcontractor Construction Activities related to the Project. Do not use the SWPPP for Construction Activities outside the Project Zone where the Department is not an operator. For Construction Activities outside the Project Zone, the Contractor must use a SWPPP2. Department approval is not needed for a SWPPP2.

   After the Department certifies the SWPPP and prior to beginning Construction Activity, submit an eNOI with the required fee to DEC for coverage under the CGP. Submit a copy of the signed eNOI and DEC's written acknowledgement (by letter or other document), to the Engineer as soon as practicable and no later than three days after filing eNOI or receiving a written response.

   Do not begin Construction Activity until the conditions listed in Subsection 641-3.01.1 are completed.

   The Department will submit an eNOI to DEC for Construction Activities inside the Project Zone. The Engineer will provide the Contractor with a copy of the Department's eNOI and DEC's written acknowledgment (by letter or other document), for inclusion in the SWPPP.

   Before Construction Activities occur, transmit to the Engineer an electronic copy of the approved and certified SWPPP, with signed Delegations of Signature Authorities on Forms 25D-107 and 25D-108, SWPPP Certifications on Forms 25D-111 and 25D-109, both permittee's signed eNOIs and DEC's written acknowledgement.

5. DEC SWPPP Review. When CGP Part 2.1.3 or 2.1.4, requires DEC SWPPP review:

   a. Transmit a copy of the Department-approved SWPPP to DEC using delivery receipt confirmation;

   b. Transmit a copy of the delivery receipt confirmation to the Engineer within seven (7) days of receiving the confirmation; and

   c. Retain a copy of delivery receipt confirmation in the SWPPP.

6. Local Government SWPPP Review. When local government or the CGP Part 2.1.4, requires local government review:

   a. Transmit a copy of the Department-approved SWPPP and other information as required to local government, with the required fee. Use delivery receipt confirmation;

b. Transmit a copy of the delivery receipt confirmation to the Engineer within seven days of receiving the confirmation;

c. Transmit a copy of any comments by the local government to the Engineer within seven days of receipt;

d. Amend the SWPPP as necessary to address local government comments and transmit SWPPP Amendments to the Engineer within seven days of receipt of the comments;

e. Include a copy of local government SWPPP review letter in the SWPPP; and

f. File a notification with local government that the project is ending.

7. Modifying Contractor's eNOI. When required by the CGP Part 2.7, modify your eNOI to update or correct information within 30 calendar days of the change. Reasons for modification are found in the CGP Part 2.7.1. The Contractor must submit an eNOT instead of an eNOI modification when the operator has changed. The new operator must file an eNOI to obtain permit coverage.

641-1.04 PERSONNEL QUALIFICATIONS. Provide documentation in the SWPPP that the individuals serving in these positions meet the personnel qualifications. The Department accepts the following certificates as equivalent to AK-CESCL: CPESC, Certified Professional in Erosion and Sediment Control or CISEC, Certified Inspector in Sediment and Erosion Control, which are found in the CGP Appendix C and repeated below.

Table 641-1.04 Personnel Qualifications

Personnel Title	Required Qualifications
SWPPP Preparer	Current certification as a Certified Professional in Erosion and Sediment Control (CPESC); OR Current certification as AK-CESCL, and at least two years' experience in erosion and sediment control, as a SWPPP Manager or SWPPP writer, or equivalent. OR Professional Engineer registered in the State of Alaska with current certification as AK-CESCL.
Superintendent	Current AK-CESCL or substitute training from CGP Appendix C Qualified Person Table 4
SWPPP Manager	Current AK-CESCL or substitute training from CGP Appendix C Qualified Person Table 4
Active Treatment System Operator	Current AK-CESCL or substitute training from CGP Appendix C Qualified Person Table 4. ATS operator should possess a recognized certification, or professional standing, or who by extensive knowledge, training, and experience has successfully demonstrated the ability to meet the ATS requirement.

641-1.05 SIGNATURE/CERTIFICATION REQUIREMENTS AND DELEGATIONS.

1. eNOI and eNOT. The eNOI, eNOT, and eNOI Modifications must be signed and certified by a responsible corporate officer according to CGP Appendix A, Part 1.12. Signature and certification authority for the eNOI and eNOT cannot be delegated.

2. Delegation of Signature Authority for Other SWPPP Documents and Reports. Use Form 25D-108 to delegate signature authority and certification authority to the Superintendent position, according to CGP Appendix A, Part 1.12.3, for the SWPPP, inspection reports and other reports required by the

CGP. The Superintendent position is responsible for signing and certifying the SWPPP, inspection reports, and other reports required by the CGP, except the eNOI, eNOI Modifications, and eNOT.

The Engineer will provide the Department's delegation on Form 25D-107, which the Contractor must include in the SWPPP.

3. Subcontractor Certification. Subcontractors must certify on Form 25D-105, that they have read and will abide by the CGP and the conditions of the project SWPPP.

4. Signatures and Initials. Where documents are completed in SWPPPTrack, utilize SWPPPTrack to sign and initial documents. When documents are not completed in SWPPPTrack (e.g. Form 25D-111 SWPPP Certification for Contractor), upload scanned copies after signing and initialing the documents into SWPPPTrack.

641-1.06 RESPONSIBILITY FOR STORM WATER PERMIT COVERAGE.

1. The Department and the Contractor are jointly responsible for permitting and permit compliance within the Project Zone.

2. The Contractor is responsible for permitting and permit compliance for all construction support activity in the Project Zone and outside the Project Zone. The Contractor has sole responsibility for compliance with DEC, COE and other applicable federal, state, and local requirements, and for securing all necessary clearances, rights, and permits. The Contractor shall be responsible for protection, care, and upkeep of all work, and all associated off-site zones. Subsection 107-1.02 describes the requirement to obtain permits, and to provide permit documents to the Engineer.

3. The Contractor is responsible for obtaining an Excavation Dewatering Permit (AKG002000) if construction activities are within 1,500 feet of a DEC-identified contaminated site or groundwater plume.

4. An entity that owns or operates, a commercial plant (as defined in Subsection 108-1.01.4) or material source or disposal site outside the Project Zone, is responsible for permitting and permit compliance. The Contractor has sole responsibility to verify that the entity has appropriate permit coverage. Subsection 107-1.02 describes the requirement to obtain permits, and to provide permit documents to the Engineer.

5. The Department is not responsible for permitting or permit compliance, and is not liable for fines resulting from noncompliance with permit conditions:

   a. For areas outside the Project Zone;
   b. For Construction Activity and Support Activities outside the Project Zone; and
   c. For commercial plants, commercial material sources, and commercial disposal sites.

641-1.07 UTILITY. (Reserved for Regions)

641-1.08 USE OF SWPPPTRACK. The Contractor is responsible for purchasing and contracting with Storm Water Simplified Ltd. for the use of the SWPPPTrack software application and services until final stabilization is achieved and the eNOT has been completed. Contact SWPPPTrack Alaska Support at (888) 401-1993 or AKSupport@SWPPPTrack.com for project fees, setup coordination, device requirements, and training.

Perform and document all inspections required by the CGP and the SWPPP with SWPPPTrack and populate all inspection fields accurately to represent current project conditions. Complete the following forms using SWPPPTrack:

1. SWPPP Construction Site Inspection Report (25D-100)

2. SWPPP Grading & Stabilization Activities Log (25D-110)

3. SWPPP Corrective Action Log (25D-112)

4. SWPPP Amendment Log (25D-114)

5. SWPPP Daily Record of Rainfall (25D-115)

6. SWPPP Training Log (25D-125)

7. SWPPP Project Staff Tracking (25D-127)

641-2.01 STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS.

1. SWPPP Preparer and Pre-Construction Site Visit.

   Use a SWPPP Preparer to develop the SWPPP in accordance with the CGP, DEC and Department SWPPP templates. See Subsection 641-1.02.01 for guidance and templates. The SWPPP Preparer must conduct a pre-construction inspection at the Project Site before Construction Activity begins. If the SWPPP Preparer is not a Contractor employee, the SWPPP Preparer must visit the site accompanied by the Contractor. Give the Department at least seven days advance notice of the site visit, so that the Department may participate.

   Document the SWPPP Preparer's pre-construction inspection in the SWPPP on Form 25D-106, SWPPP Pre-Construction Site Visit, including the names of attendees and the date.

2. Developing the SWPPP.

   Use the Department's ESCP, Environmental commitments, and other Contract documents as a starting point for developing the SWPPP.

   Develop the SWPPP with sections and appendices, according to the DEC CGP SWPPP template and DOT&PF SWPPP template. Include information required by the Contract and described in the CGP Part 5.0. Use SWPPP forms found at the DOT&PF Construction Forms website.

   Compile the SWPPP in three ring binders with tabbed and labeled dividers for each appendix. One electronic copy of the SWPPP must be submitted as a single PDF file.

3. SWPPP Considerations and Contents.

   a. The SWPPP must provide erosion and sediment control measures for all Construction Activity within the Project Zone. Construction Activity outside the Project Zone must have permit coverage and document permit compliance according to a SWPPP2.

   b. The SWPPP must consider the activities of the Contractor and all subcontractors and utility companies performing work in the Project Zone. The SWPPP must describe the roles and responsibilities of the Contractor, subcontractors, utility companies, and the Department with regard to implementation of the SWPPP. The SWPPP must identify all operators for the project, including utility companies performing Construction Activity, and identify the areas:

      (1) Over which each operator has operational control, and;

      (2) Where the Department and Contractor are co-operators.

c. For work outside the Project Zone the SWPPP must identify the entity that has stormwater permit coverage, the operator, and the areas that are:

(1) Dedicated to the project and where the Department is not an operator; and

(2) Not dedicated to the project, but used for the project.

d. The SWPPP must meet all CGP requirements. Utilize the DEC CGP SWPPP Template in conjunction with the DOT&PF SWPPP Template to develop the SWPPP.

e. Comply with the CGP Part 1.4.3 Authorized Non-Storm Water Discharges.

f. If the project discharges to a Tier III, Outstanding Natural Resource Water, comply with CGP Part 2.1.6. Submittal deadlines apply prior to filing an eNOI and beginning construction activities. As noted, none have been designated in the state of Alaska as of the issuance of the 2021 CGP.

g. There are special requirements in the CGP Part 3.2, for stormwater discharges into an impaired water body, and they may include monitoring of stormwater discharges. The Contractor is responsible for monitoring and reporting outside the Project Zone.

h. Describe the sequence and timing of activities that disturb soils and BMP implementation and removal. Phase earth disturbing activities to minimize unstabilized areas, and to achieve temporary or final stabilization. Whenever practicable incorporate final stabilization work into excavation, embankment and grading activities. Include drawings showing each phase of the project with the BMPs implemented in the phase.

i. Delineate the site according to CGP Part 4.2.1.

j. Minimize the amount of soil exposed and preserve natural topsoil on site, unless infeasible according to the CGP Part 4.2.2.

k. Describe methods and time limits, to initiate temporary or final soil stabilization. Comply with stabilization requirements in the CGP Part 4.5.

l. If construction will cease during winter months, describe all requirements for winter shutdown according to the CGP Part 4.12.

m. Plans for ATS must meet with the requirements in the CGP Part 2.1.5 and 4.6.

n. Design all temporary BMPs to accommodate a two year 24-hour storm event. All installed control measures must be described and documented in the SWPPP, according to the CGP Part 5.3.6. All installed BMPs must include a citation from a published BMP Manual, publication, or manufacturers specification used as a source, or include a statement “No BMP Manual was used for this design.” If using out of state BMPs follow the instructions in the SWPPP Guide, found at the DOT&PF Stormwater webpage.

o. Provide a legible site map or set of maps in the SWPPP, showing the entire site and identifying boundaries of the property where construction and earth-disturbing activities will occur. Include all the elements described in the CGP Part 5.3.5, and DEC CGP SWPPP Template Section 5.0.

p. Identify the inspection frequency in the SWPPP according to the CGP Part 6.1.

q. Linear Project Inspections, described in CGP Part 6.5, are not applicable to this contract.

r. The SWPPP must cite and incorporate applicable requirements of the project permits, environmental commitments, COE permit, and commitments related to historic preservation. Make additional consultations or obtain permits as necessary for Contractor specific activities that were not included in the Department’s permitting and consultation.

s. The SWPPP is a dynamic document. Keep the SWPPP current by noting installation, modification, and removal of BMPs, and by using amendments, SWPPP amendment logs, inspection reports, corrective action logs, records of land disturbance and stabilization, and any other records necessary to document stormwater pollution prevention activities and to satisfy the requirements of the CGP and this specification. See Subsection 641-3.03 for more information.

4. Recording Personnel and Contact Information in the SWPPP.

Identify the SWPPP Manager as the Storm Water Lead and Stormwater Inspector positions in the SWPPP. Document the SWPPP Manager's responsibilities in Section 2.0 Stormwater Contacts, of the SWPPP template and:

a. Identify that the SWPPP Manager does not have authority to sign inspection reports (unless the SWPPP Manager is also the designated project Superintendent).

b. Identify that the SWPPP Manager cannot prepare the SWPPP unless the SWPPP Manager meets the Contract requirements for the SWPPP Preparer.

Include in the SWPPP proof of AK-CESCL or equivalent certifications for the Superintendent and SWPPP Manager, and for any acting Superintendent and acting SWPPP Managers. If the Superintendent or SWPPP Manager is replaced permanently or temporarily, by an acting Superintendent or acting SWPPP Manager; record in the SWPPP (use Form 25D-127) the names of the replacement personnel and date of replacement. For temporary personnel, record their beginning and ending dates.

Provide 24-hour contact information for the Superintendent and SWPPP Manager. The Superintendent and SWPPP Manager must have 24-hour contact information for all Subcontractor SWPPP Coordinators and Utility SWPPP Coordinators.

Include in the SWPPP proof of AK-CESCL or equivalent certifications of ATS operators. Record names of ATS operators and their beginning and ending dates, on Form 25D-127.

The Department will provide proof of AK-CESCL, or equivalent certifications for the Department's Project Engineer, Stormwater Inspectors, and Monitoring Person (if applicable), and names and dates they are acting in that position. Include the Department's staff certifications in Appendix E. Include Department's staff names, dates acting, and assignments in Section 2.0 of the SWPPP and Form 25D-127.

641-2.02 HAZARDOUS MATERIAL CONTROL PLAN (HMCP) REQUIREMENTS.

Prepare the HMCP using the Department template for the prevention of pollution from storage, use, containment, cleanup, and disposal of all hazardous material, including petroleum products related to construction activities and equipment. Include the HMCP as an appendix to the SWPPP. Compile Material Safety Data Sheets in one location and reference that location in the HMCP.

641-2.03 SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN (SPCC Plan) REQUIREMENTS.

Prepare and implement an SPCC Plan when required by 40 CFR 112 when both of the following conditions are present on the project:

1. Oil or petroleum products from a spill may reach navigable waters (as defined in 40 CFR 112); and

2. Total above ground storage capacity for oil and any petroleum products is greater than 1,320 gallons (not including onboard tanks for fuel or hydraulic fluid used primarily to power the movement of a motor vehicle or ancillary onboard oil-filled operational equipment, and not including containers with a storage capacity of less than 55 gallons).

Reference the SPCC Plan in the HMCP and SWPPP.

641-2.04 RESPONSIBILITY AND AUTHORITY OF THE SUPERINTENDENT AND SWPPP MANAGER.

The Superintendent shall certify the SWPPP, inspection reports, and other reports required by the CGP, except the eNOI and eNOT. The Superintendent may not delegate the task or responsibility of signing and certifying these documents.

The Superintendent may assign certain duties to the SWPPP Manager.

1. Ensuring Contractor's and subcontractor's compliance with the SWPPP and CGP;

2. Ensuring the control of erosion, sedimentation, or discharge of pollutants;

3. Directing and overseeing installation, maintenance, and removal of BMPs;

4. Performing inspections; and

5. Updating the SWPPP including adding amendments and forms.

When Bid Item 641.0007.____ is part of the Contract, the SWPPP Manager must be a different person than the Superintendent and must be available at all times to administer SWPPP requirements, and be physically present within the Project Zone or the project office, when construction activities are occurring.

The Superintendent and SWPPP Manager shall be knowledgeable in the requirements of Section 641, the SWPPP, CGP, BMPs, HMCP, SPCC Plan, environmental permits, environmental commitments.

The Superintendent and SWPPP Manager shall have the Contractor's complete authority and be responsible for suspending construction activities that do not conform to the SWPPP or CGP.

641-2.05 MATERIALS.

Use materials suitable to withstand hydraulic, wind, and soil forces, and to control erosion and trap sediments according to the requirements of the CGP and the Specifications.

Use the seed mixture specified in the contract or as directed by the Engineer.

Use soil stabilization material as specified in Section 727.

Use silt fences as specified in Section 729.

Use straw and straw products certified weed free of prohibited and restricted noxious weed seed and quarantined pests, according to Alaska Administrative Code, Title 11, Chapter 34 (11 AAC 34). When straw or straw products certified according to 11 AAC 34 are not available, use non-certified products manufactured within Alaska before certified products manufactured in another state, country, or territory. Non-certified straw or straw products manufactured in another state, country, or territory shall not be used. Grass, legumes, or any other herbaceous plants produced as hay, shall not be substituted for straw or straw products.

641-3.01 CONSTRUCTION REQUIREMENTS.

Comply with the SWPPP and the requirements of the CGP Part 5.0.

1. Before Construction

   The following actions must be completed before Construction Activity begins:

   a. The SWPPP Preparer must visit the project, the visit must be documented in the SWPPP using Form 25D-106, and the SWPPP must be developed or amended with findings from the visit.

   b. The SWPPP must be approved by the Engineer on Form 25D-109.

   c. The Contractor must be authorized to begin work by the Engineer.

   d. The Project must have an eNOI for the Department and for the Contractor.

   e. The Department approved SWPPP must be submitted to DEC and Local Government per CGP Part 2.1.2, Part 2.1.4, and Part 2.4.1.

   f. The Contractor has transmitted to the Engineer an electronic copy of the approved SWPPP.

   g. The Delegation of Authority forms 25D-108 and 25D-107 for both the Contractor and Engineer are signed.

   h. Main entrance signage must meet requirements of CGP Part 5.10.2.

      Post notices on the outside wall of the Contractor's project office, and near the main entrances of the construction project. Protect postings from the weather. Locate postings so the public can safely read them without obstructing construction activities or the traveling public (for example, at an existing pullout). Do not use retroreflective signs for the SWPPP posting. Do not locate SWPPP signs in locations where the signs may be confused with traffic control signs or devices. Update the notices if the listed information changes.

   i. Track precipitation according to CGP Part 7.3.9. Submit the method to track precipitation to the Engineer for approval.

   j. Complete all setup and training required to implement SWPPPTrack.

   k. Complete the upload of the BMP inventory into SWPPPTrack.

2. During Construction.

   a. Delineate the site according to the CGP Part 4.2.1.

   b. Install required BMPs according to the SWPPP prior to the initiation of ground disturbance.

   c. Document subcontractors. Provide a copy of the SWPPP and the CGP to all subcontractors and utility companies before they begin soil disturbing activities, and verify they understand and comply the with SWPPP and CGP and:

      (1) Document all subcontractors and utility companies that may work on the site, according to the CGP Part 5.3.1, and SWPPP Section 1.2.

      (2) Require subcontractors and utility companies to sign the SWPPP Subcontractor Certification (Form 25D-105). Include in the signed Form in the SWPPP Appendix E.

(3) Inform subcontractors and utility companies in a timely manner of SWPPP amendments that affect them. Coordinate with subcontractors and utility companies to protect BMPs, including temporary and final stabilization from damage.

(4) Notify the Engineer immediately if the actions of any utility company or subcontractor do not comply with the SWPPP and the CGP.

d. Provide ongoing training to all employees, subcontractors and utility companies, in according to the CGP Part 4.14. Training must:

(1) Be given no less than once a month during construction activity;

(2) Be documented in the SWPPP Training Log using Form 25D-125. Include the training record in the SWPPP Appendix I.

e. Protection and Restoration. Comply with Subsection 107-1.11.

f. Good housekeeping measures to comply with the SWPPP and CGP 4.8.

g. Control measures. Comply with the SWPPP and CGP Part 5.3.6 including:

(1) Maintain BMPs.

(2) Comply with requirements of the HMCP and SPCC Plan, if applicable and all local, state and federal regulations that pertain to the handling, storage, containment, cleanup, and disposal of petroleum products or other hazardous materials.

(3) Keep the SWPPP and HMCP current (refer to Subsection 641-2.01.3, SWPPP Considerations and Contents).

3. Winter Construction

If winter construction activity occurs, the project must have appropriate BMPs in place CGP Part 4.12.2. Inspections can be reduced to once per month if the project meets the requirements in the CGP Part 6.2.4.

4. Storm Water Discharge Pollutant Reporting Requirements.

If an incident of non-compliance occurs that may endanger health or the environment a report must be made, CGP, Appendix A, Part 3.4.

A permit non-compliance is considered any type of pollutant, such as turbidity or petroleum that enters storm water runoff and flows into a receiving water body, MS4, or wetland that is connected to waters of the U.S.

a. Immediately report the incident to the Engineer verbally;

b. Report to DEC verbally within 24 hours after the permittee becomes aware of the incident, and;

c. Report to DEC in writing within five days after the permittee becomes aware of the circumstances. To report in writing, complete the written noncompliance report on Form 25D-143, and file the written report with DEC. Coordinate the report with the Engineer. Include in the report:

(1) A description of the noncompliance and its causes;

(2) The exact dates and times of noncompliance;

(3) If not yet corrected the anticipated time the project will be brought back into compliance, and;

(4) The corrective action taken or planned to reduce, eliminate and prevent reoccurrence.

d. Notify the Engineer immediately if there is incident of noncompliance with COE Permits. The Engineer will notify the COE.

5. Hazardous Materials Reporting Requirements.

Any release of a hazardous substance must be reported immediately to the Engineer as soon as the person has knowledge of the discharge.

Report spills of petroleum products or other hazardous materials to the Engineer and other agencies as required by law, and according to CGP Part 9.3.

a. To water; any amount released must be reported immediately to the Engineer, DEC, and the Coast Guard.

b. To land:

(1) Any release of a petroleum product in excess of 55 gallons must be reported as soon as the person has knowledge of the discharge CGP Part 9.3.2.

(2) Any release of a petroleum product in excess of 10 gallons but less than 55 gallons must be reported to the Engineer and must be reported to DEC within 48 hours after the person has knowledge of the discharge CGP Part 9.3.2.

(3) Any release of a petroleum product in excess of 1 gallon to 10 gallons must be recorded and logged and provided to DEC on a monthly basis.

c. Use the HMCP and SPCC Plan (if available) for contact information to report spills to regulatory agencies.

d. Implement measures to prevent the reoccurrence of and to respond to such releases.

e. Prior to disposal of contaminated material, submit a Contaminated Media Transport and Treatment Disposal Approval Form to DEC Spill Prevention and Response. Dispose as approved by DEC.

6. Corrective Action and Maintenance of BMPs.

Implement maintenance as required by the CGP Part 4.13 and Part 8.0, SWPPP, and manufacturer's specifications, whichever is more restrictive.

a. Implement corrective action to comply with the CGP Part 8.0 and the SWPPP.

b. Corrective action deadlines and documentation:

(1) Corrective actions must be completed according to CGP Part 8.2.

(2) Document corrective actions in the Corrective Action Log (25D-112) according to the SWPPP, CGP Part 8.3 and Part 5.9.2.

If a different BMP is installed to correct the condition leading to the corrective action a SWPPP Amendment must be completed.

(3) If a corrective action is not completed according to the CGP 8.2, document the conditions in the Corrective Action Log, notify the Engineer, and implement the corrective action as soon as possible.

The Engineer may assign a new complete-by date using a Delayed Action Item Report, Form 25D-113 (DAIR Form), if the Contractor is unable to complete the corrective action within the required timeframe. The DAIR Form can only be authorized and completed by the Engineer.

7. Stabilization.

   a. All Soil Stabilization requirements must be met in accordance with CGP Part 4.5 and the SWPPP.

   b. When temporary or permanent seeding is required, provide a working hydro seeding equipment located within 100 miles of the project by road; with 1,000 gallon or more tank capacity, paddle agitation of tank, and the capability to reach the seed areas with an uniform mixture of water, seed, mulch and tackifier. If the project is located in an isolated community, the hydro-seeder must be located at the project.

   c. Apply temporary seed and stabilization measures after preparing the surface to reduce erosion potential and to facilitate germination and growth of vegetative cover according to Section 618.

   d. Apply permanent seed and stabilization measures after land-disturbing activity has permanently ceased. Comply with the CGP, SWPPP, and the contract Sections 618, 724, and 727.

   e. Incorporate final or temporary stabilization immediately after installing culverts or drainage structures to satisfy CGP Part 4.5, the SWPPP and the Engineer. Stabilize under any bridges, and in areas upstream and downstream of culverts, drainages and areas disturbed by related construction activities after installation, or before deactivating stream bypass or diversion.

   f. Stabilization before Fall Freeze up and Spring Thaw.

      Stabilize Construction Activities within the Project Zone with appropriate BMPs prior to the anticipated date of fall freeze up, in accordance with the SWPPP and CGP, Part 4.12.

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

      (1) Where temporary stabilization activities are precluded by snow cover or frozen ground conditions prior to the anticipated date of fall freeze up, stabilization measures must be initiated as soon as practicable following the actual spring thaw.

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

8. Ending CGP Coverage.

   a. The Engineer will determine the date that all the following conditions for ending CGP coverage have been met within the Project Zone:

      (1) Land disturbing activities have ceased;

      (2) Final Stabilization has been achieved on all portions of the Project Zone, according to the CGP 4.5.2 (including at Department furnished material sources, disposal sites, staging areas, equipment areas, etc.), and;

      (3) Temporary BMPs have been removed.

   b. After the Engineer has determined the conditions have been met for submitting an NOT in accordance to CGP Part 10.2, the Department will:

      (1) Send written notice to the Contractor with the date that the conditions were met;

      (2) Submit an eNOT to DEC within 30 days, and;

(3) Provide a copy of the eNOT and DEC's acknowledgement letter to the Contractor.

c. If the Contractor's CGP eNOI acreage includes Support Activities and any other areas where the Department is not an Operator, the Contractor may not be able to file an eNOT at the same time as the Department.

d. The Contractor must submit a copy of each signed eNOT and DEC's acknowledgement letter to the Department within three days of filing the eNOT or receiving a written response. Insert the eNOT and DEC acknowledgement letter in SWPPP Appendix Q.

e. The Contractor is responsible for coordinating local government inspections of work and ending permit coverage with local government. See Subsection 641-1.03.6 for more information.

9. Ending BMP Maintenance in the Project Zone.

The Contractor is responsible for continuing inspections, BMP maintenance and SWPPP updates until permit coverage is ended.

10. Transmit final SWPPP.

Transmit one electronic copy of the final SWPPP, including all SWPPP documents, to the Engineer, when the Contractor's eNOT is filed, or within 30 days of the Department's eNOT being filed, whichever is sooner. Collate all documents into a single electronic file before transmittal.

641-3.02 SWPPP DOCUMENTS, LOCATION ON-SITE, AVAILABILITY, AND RECORD RETENTION.

The SWPPP and related documents maintained by the Contractor are the record for demonstrating compliance with the CGP. Copies of SWPPP documents transmitted to the Engineer under the requirements of this specification are informational and do not relieve the Contractor's responsibility to maintain complete records as required by the CGP and this specification.

Keep the SWPPP, HMCP and SPCC Plan if applicable at the on-site project office. If there is not an on-site project office, keep the documents at a locally available location that meets CGP requirements and is approved by the Engineer. Records may be moved to another office for record retention after the eNOTs are filed. Records may be moved to another office during winter shutdown. Update on-site postings if records are relocated during winter shutdown. Provide the Department with copies of all records.

Retain records and a copy of the SWPPP, for at least three years after the date of eNOT according to the CGP Part 9.4.

The SWPPP and related documents must be made available for review and copy, to the Department and other regulatory agencies that request them. See CGP Parts 5.10, 6.6 and 9.5.

641-3.03 SWPPP INSPECTIONS, AMENDMENTS, REPORTS, AND LOGS.

Perform inspections, prepare Inspection Reports, and prepare SWPPP Amendments in compliance with the SWPPP and the CGP using Department forms found at the DOT&PF Construction Forms website.

1. Inspection during Construction.

Conduct Inspections according to the schedule and requirements of the SWPPP and CGP Part 6.0. When the project is on a 14 calendar day inspection frequency, conduct Post-Storm Event Inspections within 24 hours of the end of a storm event, as required, in addition to the 14 day predetermined inspection cycle.

Inspections required by the CGP and SWPPP must be performed by the Contractor's SWPPP Manager and the Department's Stormwater Inspector jointly, unless approved by the Engineer, when:

a. One of the inspectors is not on site, access is only by air, and weather delayed or canceled flights;

b. One of the inspectors is sick;

c. The project is on a reduced frequency inspection schedule with no staff on site, the only access to the site is by air, and it is economical to send only one inspector, or;

d. When the Engineer determines a safety concern that makes joint inspection impracticable.

When this is the case, the Operator who conducts the inspection must provide a copy of the Inspection Report to the other Operator within three days of the inspection date and document the date of the report transmittal in SWPPP Appendix K.

2. Inspection Reports.

Use only the Department SWPPP Construction Site Inspection Report, Form 25D-100, to record inspections. Changes or revisions to Form 25D-100 are not permitted, except for adding or deleting data fields that list Location of Discharge Points and Site Specific BMPs. Complete all fields in the Inspection Report; do not leave any fields blank.

Refer to the DOT&PF Construction Forms webpage for instruction to complete Form 25D-100.

The Superintendent or SWPPP Manager must review and correct all errors within three days of the date of inspection.

Inspection Reports must be signed by the person described in the CGP Appendix A, Part 1.12 or by a duly authorized representative of that person. Only the Superintendent can certify the Inspection Form.

Insert a Complete-by-Date for each corrective action listed that complies CGP Part 8.2.

Provide a copy of the completed, unsigned Inspection Report to the Engineer by the end of the next business day following the inspection.

The Engineer may coordinate with the Superintendent to review and correct any errors or omissions before the Superintendent signs the report. Corrections are limited to adding missing information or correcting entries to match field notes and conditions present at the time the inspection was performed. The signed and certified Inspection Report must be provided to the Engineer on the same day the Superintendent signed the form.

The Engineer will sign and certify the Inspection Report and will return the original to the Contractor within three working days if compliant with the CGP and SWPPP.

If the Inspection Report is not compliant with the CGP or SWPPP the Engineer may make corrections after the Superintendent has signed and certified the Inspection Report. The Engineer will initial and date each correction. If the Engineer makes corrections, the Superintendent must recertify the Inspection Report by entering a new signature and date in the white space below the original signature and date lines. Send a copy of the recertified Inspection Report to the Engineer on the day it is recertified.

When a correction is required to an Inspection Report that was already certified by both the Superintendent and Engineer, follow directions given below:

If subsequent corrections are required for a certified Inspection Report 25D-100, document the corrections in an addendum memo that addresses only the omitted or erroneous portions of the original Inspection Report. The Superintendent and the Engineer must both sign and certify the updated Inspection Report and addendum memo. File the corresponding Inspection Report and memo

in the SWPPP Appendix K and update the amendment log. The issuance of an addendum memo does not relieve the Contractor of liquidated damages that may have been incurred as a result of the error on the original certified inspection report.

3. Items and Areas to Inspect.

   Conduct inspections of all areas required by the CGP Part 6.4 and SWPPP.

4. Reduced Inspection Frequencies.

   Conduct inspections according to the inspection schedule indicated in the approved SWPPP. Any change in inspection frequency must be approved by the Engineer, and beginning and ending dates documented as an amendment to the SWPPP.

   If the Engineer approves and the entire site is stabilized, the frequency of inspections may be reduced in accordance to the CGP Part 6.2.1. At actively staffed sites, inspect within two business days of the end of a storm event that results in a discharge from the site.

5. Winter Shutdown Inspection.

   Conduct winter shutdown inspection 14 calendar days after the anticipated fall freeze up date and conditions under the CGP Parts 4.12, 6.2.3, and the SWPPP are met. The Engineer may approve suspension of inspections and waive requirements for updating the Grading and Stabilization Activities Log and Daily Record of Rainfall Form during Winter Shutdown.

   Inspections must resume on a regular frequency or reduced inspection frequency identified in the SWPPP, at least 21 days before anticipated spring thaw CGP Part 6.2.3. Resume updating the Daily Record of Rainfall Form at the start of the 21-day spring thaw inspection.

6. Inspection before Project Completion.

   Conduct inspection to ensure Final Stabilization is complete throughout the Project, and temporary BMPs that are required to be removed are removed. Temporary BMPs that are biodegradable and are specifically designed and installed with the intent of remaining in place until they degrade, may remain in place after project completion if approved by the Project Engineer.

7. SWPPP Amendments and SWPPP Amendment Log.

   The SWPPP Amendment Log Form 25D-114 must be filled out by an individual who holds a current AK-CESCL, or equivalent certification. The Superintendent or the SWPPP Manager must sign and date amendments to the SWPPP and updates to the SWPPP Amendment Log.

   SWPPP Amendments must be approved by the Engineer.

   Amendments must occur:

   a. Whenever there is a change in design, construction operation, or maintenance at the construction site that has or could cause erosion, sedimentation or the discharge of pollutants that has not been previously addressed in the SWPPP;

   b. If an inspection identifies that any portion of the SWPPP is ineffective in preventing erosion, sedimentation, or the discharge of pollutants;

   c. Whenever an inspection identifies a problem that requires additional or modified BMPs or a BMP not shown in the original SWPPP is added;

   d. If the inspection frequency is modified (note beginning and ending dates);

e. When there is a change in personnel who are named in the SWPPP, according to Subsection 641-2.01;

f. When an inspection is not conducted jointly;

g. When a NOI modification is filed;

h. When a Noncompliance Report is filed with DEC.

Place all correspondence with DEC, EPA or MS4s in Appendix Q.

Amend the SWPPP as soon as practicable after any change or modification, but in no case later than seven days following identification of the need for an amendment. All SWPPP Amendments must have an amendment number, be dated, and signed.

Keep the SWPPP Amendment Log current. Prior to a scheduled inspection or submittal of an inspection, submit to the Engineer a copy of the pages of the Amendment Log that contain new entries since the last submittal. Include copies of any documents amending the SWPPP.

Keep the SWPPP Amendment Log in Appendix M.

8. Site Maps.

Maintain site maps in accordance with CGP Part 5.3.5 and the SWPPP template 5.0. It is acceptable to have separate site maps for BMPs and grading and stabilization activities.

9. Corrective Action Log.

The Superintendent and SWPPP Manager are the only persons authorized to make entries on the SWPPP Corrective Action Log, Form 25D-112.

The Corrective Action Log must document corrective actions required by the conditions listed in the CGP Part 8.0. Document the need for corrective action within 24 hours of either:

a. Identification during an inspection, or;

b. Discovery by the Department's or Contractor's staff, a subcontractor, or a regulatory agency inspector;

c. If a corrective action is discovered outside of an inspection, update the log with the date of discovery, the proposed corrective action, and the date the corrective action was completed.

Keep the Corrective Action Log current and submit a copy to the Engineer prior to performing each scheduled SWPPP Inspection.

Keep the Corrective Action Log in Appendix J of the SWPPP.

10. Grading and Stabilization Activities Log.

The Superintendent and SWPPP Manager are the only persons authorized to date and initial entries on the SWPPP Grading and Stabilization Activities Log, Form 25D-110. Use the SWPPP Grading and Stabilization Activities Log, to record land disturbance and stabilization activities.

Keep the Grading and Stabilization Activities Log current and submit a copy to the Engineer prior to performing each scheduled SWPPP Inspection. Keep the Grading and Stabilization Activities Log organized and completed to demonstrate compliance with the CGP Part 4.5.

Keep the Grading and Stabilization Activities Log in Appendix G of the SWPPP.

11. Daily Record of Rainfall.

    Use SWPPP Daily Record of Rainfall, Form 25D-115 to comply with CGP Part 7.3.9. Submit a copy to the Engineer with each completed Inspection Report. Keep the Daily Record of Rainfall current in Appendix N of the SWPPP.

    For projects on a 14-day inspection frequency or reduced inspection frequency, SWPPPTrack will generate a precipitation alert for storm events that produce more than 0.5 inch of rainfall in 24 hours. If a storm event does not produce a discharge from the project zone, submit an explanation in response to the SWPPPTrack precipitation alert.

12. Staff Tracking Log.

    Use the SWPPP Project Staff Tracking Form 25D-127, to identify project staff that are required to be AK-CESCL certified or hold an equivalent qualification CGP Appendix C. Complete this form to document the following positions; Superintendent, SWPPP Manager, Engineer, DOT&PF Stormwater Inspector, and when positions have changed in personnel, either permanent or temporary. Update the SWPPP Project Staff Tracking Form within 24-hours of any changes in personnel, qualifications, or other staffing items related to administration of the CGP or Section 641.

641-3.04 FAILURE TO PERFORM WORK.

The Engineer has authority to suspend work and withhold monies according to Subsections 105-1.01 and 108-1.06 for the reasons listed under Subsection 108-1.06 and for an incident of noncompliance with the CGP or SWPPP that may endanger health or the environment or for failure to perform work related to Section 641.

1. An incident of noncompliance includes, but is not limited to, the Contractor's failure to:

    a. Obtain appropriate permits before Construction Activities occur;

    b. Perform SWPPP administration;

    c. Perform timely inspections;

    d. Update the SWPPP;

    e. Transmit updated SWPPP, Inspection Reports, and other updated SWPPP forms to the Engineer;

    f. Maintain effective BMPs to control erosion, sedimentation, and pollution in accordance with the SWPPP, the CGP, and applicable local, state, and federal requirements;

    g. Perform duties according to the requirements of Section 641;

    h. Meet requirements of the CGP, SWPPP, or other permits, laws, and regulations related to erosion, sediment, or pollution control, or;

    i. Any other requirements established or included in the contract.

2. No additional Contract time or additional compensation will be allowed due to delays caused by the Engineer's suspension of work.

641-3.05 ACCESS TO WORK.

The Project, including any related off-site areas or support activities, must be made available for inspection, or sampling and monitoring, by the Department and other regulatory agencies. See CGP Part 6.6.

641-4.01 METHOD OF MEASUREMENT. See Section 109 and as follows:

Items 641.0001.____, 641.0003.____ and 641.0007.____, are lump sum.

Items 641.0002.____, 641.0004.____ and 641.0005.____, measured on a contingent sum basis as specified by the Directive authorizing the work.

Item 641.0006.____ measured on a contingent sum basis with withholding determined by the Department.

TABLE 641-1 BMP VALUES – RESERVED

Liquidated Damages assessed according to Table 641-2 are not an adjustment to the Contract amount. These damages charges are related to Contract performance but are billed by the Department to the Contractor, independent of the Contract amount. An amount equal to the Liquidated Damages may be withheld for unsatisfactory performance, from payment due under the Contract, until the Contractor remits payment for billed Liquidated Damages.

TABLE 641-2 - VERSION C
EROSION, SEDIMENT AND POLLUTION CONTROL – LIQUIDATED DAMAGES

Code	Specification Section Number and Description	Deductible Amount in Dollars	Cumulative Deductible Amounts in Dollars
A	641-1.05 Failure to have a qualified (AK-CESCL or equivalent) SWPPP Manager	Calculated in Code B or F	
B	Failure to meet SWPPP requirements of: (1) 641-2.01.1 Name of SWPPP Preparer (2) Not Applicable (3) 641-3.03.8 Sign and Date SWPPP amendments by qualified person (4) 641-3.02 Records maintained at project and made available for review	$750 per omission	
C	Not Applicable		
D	641-3.03.5 Failure to stabilize a Project prior to fall freeze up.	$5,000 per Project per year	
E	641-2.01.1 Failure to conduct pre-construction inspections before Construction Activities on all projects greater than 1 acre.	$2,000 per Project	
F*	641-3.03. Failure to conduct and record CGP Inspections 641-3.03.1 Personnel conducting Inspections and Frequency 641-3.03.2 Inspection Reports, use Form 25D-100, completed with all required information	$750 per Inspection	Additional $750 for every additional 7 day period without completing the required inspection.
G	641-3.01.4 Corrective action, failure to timely accomplish BMP maintenance and/or repairs. In effect until BMP maintenance and/or repairs is completed.	$500 per Project per day	
H	641-3.01.3 Failure to provide to the Engineer and DEC a timely oral noncompliance report of violations or for a deficient oral noncompliance report	$750 for the first day the report is late or deficient	Additional $750 for every 14 day period with- out the required information
I	641-3.01.3 Failure to provide to the Engineer and DEC a timely written noncompliance report, use Form 25D-143, of violations or for a deficient written noncompliance report	$750 for the first day the report is late or deficient	Additional $750 for every 14 day period without the required information
J	641-3.04 Failure to comply with the requirements of the CGP, approved SWPPP, and Section 641, except as listed above	$750 per occurrence for the first day of noncompliance	Additional $750 for every day the deficiency remains uncorrected

Code F* Liquidated Damages according to Code F will not be billed for typographic errors and minor data entry errors, except the liquidated damages will be assessed for these errors when:

a. the Contractor has previously been notified and subsequent inspection reports repeat the same or similar error,
b. multiple inspection reports are submitted after the submission due date and the same or similar errors are repeated on multiple overdue reports,
c. an error in recording the inspector's AK-CESCL certification date results in an inspector performing the inspection during a period when their certification was lapsed or was otherwise invalid.

641-5.01 BASIS OF PAYMENT.

See Subsection 641-3.04 Failure to Perform Work, for additional work and payment requirements.

Item 641.0001.____ Erosion, Sediment and Pollution Control Administration. At the Contract lump sum price for administration of all work under this Section. Includes, but is not limited to, SWPPP and HMCP and SPCC Plan preparation, agency fees for SWPPP reviews, SWPPP amendments, pre-construction inspections, inspections, monitoring, reporting, and recordkeeping or copying records related to the SWPPP and required by the CGP, and record retention.

Item 641.0002.____ Temporary Erosion, Sediment and Pollution Control. At the contingent sum prices specified for all labor, supervision, material, equipment, and incidentals to install, maintain, remove and dispose of approved temporary erosion, sedimentation, and pollution control BMPs required to implement the SWPPP and SPCC Plan.

Item 641.0003.____ Temporary Erosion, Sediment and Pollution Control. At the Contract lump sum price for all labor, supervision, material, equipment, and incidentals to install, maintain, remove and dispose of temporary erosion, sedimentation, and pollution control BMPs identified in the SWPPP and SPCC Plan.

Item 641.0004.____ Temporary Erosion Sediment and Pollution Control Additives. At the contingent sum prices specified in the Directive to authorize the work, for all labor, supervision, materials, equipment, and incidentals for extra, additional, or unanticipated work, to install, maintain, remove and dispose of temporary erosion, sedimentation, and pollution control BMPs not covered by Item 641.0003.____. All additional Erosion, Sediment, and Pollution Control Administration necessary due to this item will not be paid for separately but will be subsidiary to other bid items.

Item 641.0005.____ Temporary Erosion Sediment and Pollution Control by Directive. At the contingent sum prices specified in the Directive using time and materials to authorize the work, for all labor, supervision, materials, equipment, and incidentals to install, maintain, remove and dispose of temporary erosion, sedimentation, and pollution control BMPs. Prices for this item will be by time and materials according to Subsection 109-1.05, or by mutual agreement between the Engineer and Contractor. All additional Erosion, Sediment, and Pollution Control Administration necessary due to this item will not be paid for separately but will be subsidiary to other bid items.

Item 641.00006.___ Withholding. The Engineer may withhold an amount equal to Liquidated Damages, assessed according to Section 641, from payment due the Contractor. Liquidated Damages for violations of the Contract, CWA, CGP, are determined by the Engineer according to Table 641-2. The Engineer may withhold payment due the Contractors until the Contractor pays the Liquidated Damages to the Department.

The Department will not release performance bonds until Liquidated Damages assessed according to Section 641 are paid to the Department, and all requirements according to Subsection 103-1.05 are satisfied.

Item 641.0007.____ SWPPP Manager. At the Contract lump sum price for a SWPPP Manager that conforms to this specification. When Item 641.0007.____ appears in the Bid Schedule, the SWPPP Manager must be a different person than the superintendent, and must be physically present during construction activity with duties and authority as described in Subsection 641-2.04. When Item 641.0007.____ does not appear in the Bid Schedule, the SWPPP Manager is subsidiary to Item 641.0001.____.

Subsidiary Items. Temporary erosion, sediment and pollution control measures that are required outside the Project Zone are subsidiary. Work required by the HMCP and SPCC Plan including hazardous material storage, containment, removal, cleanup and disposal, are subsidiary to Item 641.0001._____Erosion, Sediment and Pollution Control Administration.

Work under other pay items. Work that is paid for directly or indirectly under other pay items will not be measured and paid for under Section 641. This work includes but is not limited to:

1. Dewatering;
2. Shoring;
3. Bailing;
4. Permanent seeding;
5. Installation and removal of temporary work pads;
6. Temporary accesses;
7. Temporary drainage pipes and structures;
8. Diversion channels;
9. Settling impoundment, and;
10. Filtration.

Permanent erosion, sediment and pollution control measures will be measured and paid for under other Contract items, when shown on the bid schedule.

Work at the Contractor's Expense. Temporary erosion, sediment and pollution control measures that are required due to carelessness, negligence, or failure to install temporary or permanent controls as scheduled or ordered by the Engineer, or for the Contractor's convenience, are at the Contractor's expense.

Payment will be made under:

PAY ITEM		
Item Number	**Item Description**	**Unit**
641.0001.____	Erosion, Sediment and Pollution Control Administration	LS
641.0002.____	Temporary Erosion, Sediment and Pollution Control	CS
641.0003.____	Temporary Erosion, Sediment and Pollution Control	LS
641.0004.____	Temporary Erosion, Sediment and Pollution Control Additives	CS
641.0005.____	Temporary Erosion, Sediment and Pollution Control by Directive	CS
641.0006.____	Withholding	CS
641.0007.____	SWPPP Manager	LS

SECTION 642
CONSTRUCTION SURVEYING AND MONUMENTS

01/20/15 (N34)

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).

642-3.02 CROSS-SECTION SURVEYS. *Add the following to the first paragraph:* or the Alaska Survey Manual GPS Surveys 2010 (rev. 8/15/10).

Delete numbered paragraph 4 of the second paragraph in its entirety and substitute the following: Department's Construction Surveying Requirements or the Alaska Survey Manual GPS Surveys 2010 (rev. 8/15/10).

SECTION 643
TRAFFIC MAINTENANCE

04/01/22 (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	$31.00
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
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	$65.00
Electronic Boards, Panels and Signals		
Sequential Arrow Panel	Each/Day	$40.00
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	$77.00
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	$55.00

TRAFFIC CONTROL DEVICE	PAY UNIT	UNIT RATE
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:
04/08/21 (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 ___ ft^2
   b. Window area of at least __ ft^2
   c. Lockable outside door(s)
   d. ____ each plastic folding tables, 8 ft. long
   e. Shelf space of at least __ 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. A minimum of __ sanitary facilities exclusively for Department use that include adequate sink with water supply, hand soap, hand sanitizer, toilet paper, and paper towels
   j. Janitorial services at least weekly
   k. Wet/dry vacuum with a minimum capacity of 5 gallons and a minimum of 4 horsepower. Provide filters and dust bags as needed.
   l. Provide electrical service as indicated in 644-2.09, #1 Field Office
   m. 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 ___ Mbps download speed or higher and __ Mbps upload speed at all times. The internet system shall have

unlimited data. 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.

n. One multifunction Laser 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 toner and perform repairs and maintenance as necessary.

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

o. 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.
p. One AED (Automated External Defibrillator), with carrying case and properly marked wall cabinet. Provide training on how to use the AED.
q. One combination Smoke and Carbon Monoxide Detector per structure, minimum. Provide combination Smoke and Carbon Monoxide Detectors in any location requested by the Engineer.
r. One 25 Person Trauma First Aid Kit. List of required contents available at http://dot.alaska.gov/nreg/files/25-Person-Trauma-Kit-Contents.pdf
s. __ mobile hotspots with unlimited data plans and car charger.

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 644.0002.____ 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 provided 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. A sanitary facility exclusively for Department use that includes adequate sink with water supply, hand soap, hand sanitizer, toilet paper, and paper towels
    j. Heating and cooling equipment suitable to maintain a uniform room temperature of 65° to 75°F
    k. Storage cabinet, 3 ft x 3 ft x 3 ft, lockable, securely fixed to an inside wall with a hinged door opening outward
    l. Office desk and 2 chairs
    m. One combination Smoke and Carbon Monoxide Detector per structure, minimum. Provide Combination Smoke and Carbon Monoxide Detectors at any location requested by the Engineer.
    n. One 25 person Trauma First Aid Kit. List of required contents available at http://dot.alaska.gov/nreg/files/25-Person-Trauma-Kit-Contents.pdf
    o. 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 ___ Mbps download speed or higher and __ Mbps upload speed at all times. The internet system shall have unlimited data. 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 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 (Shaking Shed). Grade and compact a site for the Shaking Shed 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.

    a. The Shaking Shed shall have the following minimum functional requirements:

        (1) Floor 8 ft x 12 ft, ceiling height 8 ft
        (2) Door 4 ft wide and window 5 ft^2 that opens, both lockable

(3) electrical service as identified in 644-2.09, #3 Field Laboratory Out Building
(4) 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
(5) 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.

Found the slab directly on the prepared site such that it is continuously supported.

5. Provide a weatherproof pole shed adjacent to the Shaking Shack. Grade and compact a site for the Splitting shed 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.

a. The Splitting shed shall meet the following minimum requirements
(1) 12' x 24' Pole shed structure with 8' minimum ceiling height.
(2) Pole spacing 4' to 6'
(3) Water proof roof
(4) 2x4 construction, or manufactured structure approved by the Engineer.
(5) 6 each 4' T8 LED lighting fixtures with bulbs spaced evenly across the roof structure
(6) Manufactured, industrial strength, welded-metal shelving with total 52 square feet of shelving
(7) 2 walls
(8) Smooth rigid floor as approved by the Engineer

6. 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

7. 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

8. 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

644-2.05 VEHICLES. Furnish and maintain vehicles in good condition that are less than six years old and with less than 100,000 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.

Number of Vehicles	Type
___	_____

Equip each vehicle as follows:

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

Materials Truck

Number of Vehicles
___

Meet the above requirements for a vehicle and the following:

1. 3/4 Ton Crew Cab Pickup
2. Minimum 500 lb hydraulic tailgate lift attached to the bed of the truck

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. Provide internet and phone communication systems as directed by the Engineer.

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 8ft LED minimum 5000 lumen lamps or sixteen 4ft LED minimum 2000 lumen lamps, between 2800K and 5000K color temperature

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. Eight 8ft LED minimum 5000 lumen lamps or sixteen 4ft LED minimum 2000 lumen lamps, between 2800K and 5000K color temperature
f. Exhaust fan: minimum 300 CFM

3. SHAKING SHED. 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 8ft LED minimum 5000 lumen lamps or four 4ft LED minimum 2000 lumen lamps, between 2800K and 5000K color temperature
f. Exhaust fan: minimum 300 CFM

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 4ft LED minimum 2000 lumen lamps, between 2800K and 5000K color temperature

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 4ft LED minimum 2000 lumen lamps, between 2800K and 5000K color temperature

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 4ft LED minimum 2000 lumen lamps, between 2800K and 5000K color temperature
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 644.0015____, 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.

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 644.2002.0000, Field Communications. Provide invoices from vendor for installation, maintenance, and monthly subscription costs. When this bid item appears in the Bid Schedule, internet and phone service are not subsidiary to 644.0001.____ Field Office.

Payment will be made under:

PAY ITEM		
Item Number	**Item Description**	**Unit**
644.0001.____	Field Office	LS
644.0002.____	Field Laboratory	LS
644.0003.____	Curing Shed	LS
644.0006.____	Vehicle	LS
644.0015.____	Nuclear Testing Equipment Storage Shed	EACH
644.0016.____	Storage Container	EACH
644.2002.0000	Field Communications	CS
644.2010.0000	Nuclear Testing Equipment Storage Shed	LS

Delete Section 646 in its entirety and substitute the following:
02/01/20 (N42)

SECTION 646
CPM SCHEDULING

646-1.01 DESCRIPTION. Provide and maintain a Critical Path Method (CPM) progress schedule for the project. Use the schedule in coordinating and monitoring of all work under the Contract including activity of subcontractors, manufacturers, suppliers, and utility companies, and submittal review by the Department. Update the CPM as described in this specification.

Provide to the Engineer a legal copy of the software program to be utilized for the CPM Schedule item on the project. The software program shall have the full capacity to analyze and modify the CPM Schedule.

646-2.01 SUBMITTALS.

1. Submit a detailed initial CPM schedule at least 5 working days prior to the preconstruction conference, for the Engineer's approval. The construction schedule, for the entire project, may not exceed the specified contract time.

   Following the Engineer's review, if revisions to the proposed CPM schedule are required, do so promptly. The CPM schedule must be finalized within 15 days of the Notice to Proceed.

   No contract work may be pursued at the project site without an approved CPM schedule.

2. Weekly Work Plans. Submit a Weekly Work Plan in conjunction with Weekly Progress Meeting agenda. Detail your proposed operations for the upcoming week. This work plan shall reflect a true and accurate assessment by the Contractor concerning the actual progress on the project. Include:

   a. Tasks / work activities
   b. Work hours
   c. Subcontractors
   d. Location of the work to be performed

The approval by the Department of the initial CPM Schedule, subsequent CPM updated schedules, and the weekly Work Plans shall not relieve the Contractor as the responsible party for development and execution of the means, method, and timing of performance reflected in the schedule, nor completing the project within the specified contract time.

646-3.01 REQUIREMENTS AND USE OF SCHEDULE.

1. Schedule Requirements. Prepare the CPM schedule as a Precedence Diagram Network developed in the activity-on-node format which includes:

   a. Activity description
   b. Activity duration
   c. Critical Sequence of activities and Critical Path.

   Show on the activity-on-node diagram the sequence and interdependence of all activities required for complete performance of all items of work under this Contract, including shop drawing submittals and reviews and fabrication and delivery activities. The maximum review period allowed by the contract shall be shown where review functions by the Department are noted on the schedule

   The contract completion time will be adjusted only for causes specified in this Contract.

2. Weekly Progress Meetings. Hold Weekly job site progress meetings with the Engineer for the purpose of reviewing and updating the CPM schedule. Review progress and verify finish dates of completed activities, remaining duration of uncompleted activities, and any proposed time estimate revisions. At a minimum, the Contractor's Project Manager, Project Superintendent, Traffic Control Supervisor shall attend the weekly job site meetings.

   Provide an updated CPM schedule when the critical path on the CPM schedule has changed by 7 or more days.

646-4.01 METHOD OF MEASUREMENT. Section 109.

646-5.01 BASIS OF PAYMENT. If the requirements of Item 646 CPM Scheduling are not in full compliance, five percent (5%) of the total progress payment value earned during the progress period will be withheld until the requirements of Item 646 CPM Scheduling are in full compliance.

Payment will be made under:

PAY ITEM		
Item Number	**Item Description**	**Unit**
646.0001.____	CPM Scheduling	LS

SECTION 670
TRAFFIC MARKINGS

01/20/15 (N46)
670-3.01 CONSTRUCTION REQUIREMENTS. *Add the following after the first sentence:* All completed pavement marking symbols and words will be solid as shown on the Plans. When a stencil with bridges is used, fill all breaks not shown on the Plans after removing the stencil.

SECTION 702
ASPHALT MATERIALS

11/16/20 (N82)
702-2.01 ASPHALT BINDER. *Delete the first paragraph and substitute the following:* Meet AASHTO M 320 for PG 52-28 binder.

Meet AASHTO M 332 for PG 52E-40 binder, except that J_{NR} Diff (AASHTO T 350) and Direct Tension (AASHTO T 314) do not apply. PG 52E-40 binder shall have a minimum Percent Recovery$_{3.2}$ of 75% according to AASHTO T 350.

SECTION 703
AGGREGATES

12/08/15 (N63)
703-2.09 SUBBASE. *Add the following:*

Subbase, Grading F. Aggregate containing no muck, frozen material, roots, sod or other deleterious matter and with a plasticity index not greater than 6 as tested by ATM 204 and ATM 205. Table 703-8 and the first paragraph of Subsection 703-2.09 do not apply to Grading F. Meet the following gradation as tested by ATM 304:

Sieve	Percent Passing by Weight
2 in	100%
No. 4	15-65%
No. 200	0-6%

SECTION 707
METAL PIPE

04/30/17 (N48)
707-2.01 CORRUGATED STEEL PIPE, PIPE ARCHES, AND UNDERDRAINS. *Add the following:* All seams on pipes manufactured with helical corrugations shall have a continuous weld extending from end to end of each length of pipe in conformance with AASHTO M 36. Seams shall be welded in such a manner that they develop 90% of the average ultimate strength of the base metal. A test shall be performed by an independent lab in accordance with AASHTO T 241 Section 4 during the year in which the pipe is fabricated. The Supplier shall maintain quality control test results and provide them upon request. A copy of the test results containing the information specified in Section 4.6 of AASHTO T 241 shall be furnished to the Engineer.

A Supplier of welded helically corrugated pipe which qualifies for inclusion in the current publication of the Department's QUALIFIED PRODUCTS LIST is not required to perform the test.

01/20/15 (N49)
707-2.03 CORRUGATED ALUMINUM ALLOY CULVERT PIPE AND UNDERDRAINS. *Delete the first sentence and substitute the following:* This pipe shall conform to the requirements of AASHTO M 196 except that helical corrugations shall not be allowed.

SECTION 708
PAINTS

08/02/18 (N61)
708-2.03 PAINT FOR TRAFFIC MARKINGS. *Delete this subsection in its entirety and substitute the following:*

1. Pigment Composition: Pigments shall be first quality paint grade pigments. The inert or filler pigments must be of a type and quality generally recognized as first quality paint grade products, and shall not contribute to settling of the paint in storage.

2. Vehicle or Resinous Binder Composition: The vehicle may be any combination of natural or synthetic resinous materials that are not prohibited per this specification. All resins used must be permanently capable of re-dissolving in the solvent combination used in the paint. Paint and binder combinations shall minimize build-up of the paint on the sides of tanks, paint lines, and clogging of spray equipment from un-dissolvable skins.

3. Use material that satisfies the requirements in Table 708-1

TABLE 708-1
PAINT FOR TRAFFIC MARKINGS

CHARACTERISTIC	MINIMUM	MAXIMUM	TEST METHOD
Viscosity @ 77ºF, (25ºC), KU	75	90	ASTM D562
Weight per Gallon at 77ºF, (25ºC)	11.0	---	ASTM D1475
Fineness of Grind, Hegman	2	---	ASTM D1210
Drying Time for no-pick-up, Minutes	---	5	ASTM D711
Contrast Ratio @ 5 mils wet, White and Colors (Black)	0.95 (1.0)	---	ASTM D2805
Colors: Yellow 33538; White: 37925; Blue 35180; Red 31138; Black 37038 or approved equals	Pass		FED-STD-595C
Directional reflectance of white paint applied at 15 mils wet film, percent (Measured with 45°:0° or 0°:45° geometry)	85	---	ASTM E1347
Directional reflectance of yellow paint applied at 15 mils wet film, percent (Measured with 45°:0° or 0°:45° geometry)	45	---	ASTM E1347
Volatile Organic Compounds (VOC), grams/liter (lbs./gallon)	-	150 (1.25)	EPA 40 CFR Part 59, ASTM D3960
Total Solids, % by Weight	70	-	ASTM D2369
Total Solids, % by Volume	43	-	ASTM D2697

4. Prohibited Materials: The Manufacturer must certify that the product does not contain mercury, lead, hexavalent chromium, halogenated solvents (such as Methylene Chloride), or any carcinogen, as defined in 29 CFR 1910.1200.

5. Condition in Container: Store according to the manufacturer's recommendations. For a minimum of one year from the date of manufacture, the paint shall meet each of the following conditions:

   a. Not show excessive settling in a freshly opened full can
   b. Show no curdling, livering, caking, lumps, skins, or color separation
   c. Be easily re-dispersed when mixed with a paddle
   d. Be easily re-dispersed after 5 minutes of mechanical shaking using a standard commercial paint shaker
   e. Water Resistance: Guaranteed water resistant when applied properly.

6. Weathering: Guaranteed against cracking and weathering under extreme conditions when applied properly.

7. Storage Stability:

   a. There must be no viscosity increase of 5 Krebs Units over the originally reported viscosity after aging in the container or decomposition of the product. Field examination of previously unopened containers must not disclose evidence of un-dissolvable gelatinous vehicle separation, heavy skin formation, or corrosion of the container of batches in storage one year or less. Containers stored under adverse conditions such as uncovered areas unprotected from the elements must show no evidence of the above conditions over a period of 6 months from date of shipment from manufacturer.

8. Application Temperature: The manufacturer's recommended minimum application temperature (air, surface and material) must be 40° Fahrenheit or lower.

Delete Section 724 in its entirety and substitute the following:
12/10/20 (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. Furnish seed true of genus and species. Meet applicable requirements of the State of Alaska *Seed Regulations*, Alaska Administrative Code, Title 11, Chapter 34 (11 AAC 34), and the Federal Seed Act, 7 CFR Part 201. Seed shall meet or exceed the percentages of purity and germination as specified in Table 724-1.

The Contractor may propose an alternate seed mix to the Engineer. Alternate seed mix proposals must include confirmation that the Alaska Plant Materials Center finds the proposed seed mix suitable for use on the project, and that the vendor can provide the proposed seed mix in quantities adequate for the project. The Engineer will determine the acceptability of the proposed alternate for use on the project.

Grass seed shall be furnished in standard containers on which shall be shown the following information:

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

Furnish seed certified to be free of prohibited noxious weeds or quarantined pests, and certified to contain no more than the maximum allowable tolerances for restricted noxious weeds, according to 11 AAC 34. Prohibited and restricted noxious weeds are listed in 11 AAC 34.020, and can be viewed at the following URL: http://plants.alaska.gov/invasives/noxious-weeds.htm

Seed found to contain prohibited noxious weeds or quarantined pests will be rejected, according to 11 AAC 34.020(a) and 11 AAC 34.105 through 34.180, respectively.

Seed found to contain restricted noxious weed seed in excess of the maximum allowable tolerance per pound will be rejected, according to 11 AAC 34.020(b).

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

NOT USED

APPENDIX B

NOT USED

APPENDIX C

EROSION AND SEDIMENT CONTROL PLAN (ESCP)

Erosion and Sediment Control Plan

For

Healy Spur Road Rehabilitation

Project Number NFHWY00580/0638005

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

ESCP Preparation Date: June 2022

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 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.

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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
Joseph P. Kemp, P.E.
2301 Peger Road
Fairbanks, Alaska 99709
907-451-5129
joseph.kemp@alaska.gov

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

3.0 PROJECT INFORMATION (5.3.3)

3.1 Project Information

Project/Site Name: Healy Spur Road Rehabilitation

Project State Number/Federal Number: NFHWY00580 / 0638005

Project Street/Location: Healy Spur Road MP 0 - 1.25

City: Healy State: Alaska Zip Code: 99743

Borough or Subdivision: Denali Borough

Latitude/Longitude:

Latitude: Longitude:

63.869567 º N (decimal) -149.019929 ° W (decimal)

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): 14.75 inches (Source: WRCC Database, HEALY NW 2 (50-3585), Accessed 4/4/2022)

Size of the 2-yr, 24-hr storm event (in inches): 1.32 Inches (Source: NOAA Atlas 14 Point Precipitation Frequency Estimates: HEALY 2 NW (50-3585), Accessed 4/4/2022)

Soil Type(s) and Slopes[VMT(1]: The project area traverses the natural gradient of an abandoned channel of Dry Creek, which was occupied during the last glacial advance before erosion caused the stream to reroute. The general foundation material in the area consists of terrace and alluvial gravels with a thin layer of sandy silt and silt. (Source: Healy Secondary Road Materials Report, DOT&PF, May 1968.) Existing embankment side slopes in the project area are generally 6:1 to 4:1, and should not exceed 3:1 per the as-builts. Other slopes within the project APE are generally shallow to moderate, ranging from roughly 0% to 8%.**

Landscape Topography: The regional topology in the area around Healy Spur Road is generally sloped from the west toward the Nenana River, which is located to the east of the project limits.

Drainage patterns: Drainage in the project area is generally from west to east. Rainfall runoff from the roadway surface is channelized into roadside ditches, flows to natural vegetation, or collects in low-lying areas. The existing drainage patterns in the surrounding area will not change significantly as a result of this project.

Type of Existing Vegetation: Most of the project area is covered by pavement and gravel. Existing vegetation located within the project area typically consists of grasses, ericaceous shrubs, spruce, birch, and willow. (Source: NEON Field Site Database – Healy.) A query of the AKEPIC database performed July 30, 2021 found no record of invasive species within the project area.

Approximate growing season: May 24 to October 3 (source: USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region (Version 2.0), Table 5, Page 51, Ecoregion 116 (Alaska Range)).

Seeding Dates: June 1st to August 31st

Fall Freeze-Up and Spring Thaw Dates: estimated fall freeze up September 12th, estimated spring thaw June 5th.

Clearing Window: The Department intends to adhere to USFWS guidance on avoiding mechanized vegetation clearing during the recommended bird nesting window for the project area (May 1 – July 15). (Source: Expedited CE approval Form for Healy Spur Road).

Fish Window: N/A

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: **Insert Text**[VMT(2]

Site Name	Hazard ID	File Number	Status	Distance from CL (approximate)	Location

Healy Mountain View Liquor & Grocery	25019	150.26.025	Cleanup Complete - Institutional Controls	180-ft	Intersection of Healy Spur & Coal Street
ADOTPF - Healy Maintenance Facility	25142	150.26.034	Cleanup Complete	500-ft	DOT Healy M&O Station
ADOT&PF Healy Maintenance Station Class V Injection Well	26568	152.38.004	Active	630-ft	DOT Healy M&O Station
Residence - NHN Carbon Way	1594	150.38.004	Cleanup Complete	500-ft	Carbon Way Residence

Additional information about these sites is available on the DEC Division of Spill Prevention and Response website: https://dec.alaska.gov/spar/csp.aspx

4.0 NATURE OF CONSTRUCTION ACTIVITY (5.3.4)

4.1 Scope of Work

The scope of this project is to rehabilitate Healy Spur Road, beginning at the intersection with the Parks Highway and extending east approximately 1.25 miles to the intersection of Healy Spur and Carbon Way. The project will rehabilitate the existing roadway, widen the road surface to provide more shoulder width for non-motorized users, and replace damaged culverts to improve drainage where necessary.

4.2 Project Function (5.3.4.1)

Healy Spur Road connects many key features within the community of Healy, including the community center, borough offices, post office, chamber of commerce, and Tri-Valley K-12 School. With the expansion of nearby Denali National Park tourist facilities, pedestrian usage in Healy has increased substantially over the past few years. This project will address increased usage and greater community cohesion, as well as an aging roadway.

4.3 Support Activities (As Applicable)

Support Activity	Location	Dedicated	
		Yes	No
Material Site 37-2-143-2 (Panguingue Creek Pit)	Parks Hwy MP 252.5	X	

4.5 Size of property and total area expected to be disturbed (5.3.4.3)[VMT(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 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				
soil				
slope				
Coefficient	0	0	0	0
Percent Coverage	0%	0%		
Weighted Coefficient	0			

Runoff Coefficient After Construction Table:

	Type 1	Type 2	Type 3	Type 4
Land				
soil				
slope				
Coefficient	0	0	0	0
Percent Coverage	0%	0%		
Weighted Coefficient	0			

The following are estimates of the construction site:

Description	Number	Remarks
Total project area:	30 acres	ROW to ROW
Construction-site area to be disturbed:	6 acres	Construction impacted area
Percentage impervious area BEFORE construction:	**Percentage** %	
Runoff Coefficient BEFORE construction:	**Number**	
Percentage impervious area AFTER construction:	**Percentage** %	
Runoff coefficient AFTER construction:	**Number**	

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. **Insert Text** 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 REQUIREMENTSDOCUMENTATION 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 ACGP for additional requirements.

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

The Integrated Water Quality Report can be found at:

https://dec.alaska.gov/water/water-quality/integrated-report

A search of the "Alaska's Final **2018** Integrated Water Quality Monitoring and Assessment Report" found no listings or impairments for the Nenana River (?)**[VMT(4].

7.1 Identify Receiving Waters (5.3.3.3)

Description of receiving waters: Nenana River (**?) and surrounding wetlands located outside of the project APE.

Description of storm sewer and/or drainage systems: roadside ditches to culverts, draining primarily to the south-east.

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): Reviewed ADEC impaired waterbodies listing and map.

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: **This determination was made during the environmental phase of the project and an Expedited Categorical Exclusion (CE) for the project has been developed.**

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 at the site are consistent with all applicable federal, state, tribal, or local, requirements for soil erosion control and storm water management.

No permits are anticipated for this project, per the Environmental Document.

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

https://dec.alaska.gov/das/GIS/apps.htm

If the search shows that the project area intersects a PWS DWPA and multiple provisional protection areas, and will have to follow the requirements of the ACGP Part 4.10. The PWS contact will need to be notified by whatever method is most expedient: email, phone or post (4.10.1). Records of this contact will be placed in Appendix Q of the SWPPP. This should be done by the ADOT&PF Project Engineer on behalf of both parties. Activities within the identified DWPA will be restricted so that no significant changes to natural surface water drainage or ground water gradient occur. In the event of any identified potential contamination, such as spills or excess erosion, the PWS contact will be immediately notified. List all, repeat as necessary below[VMT(5].

TRI-VALLEY COMMUNITY CENTER

Water System Number: AK2391087

PWS Contact Information:

Name: SCOLES, MEGAN	Phone: 907-683-2223	Address: PO Box 146, HEALY, AK-99743

TOTEM INN (Well #2)

Water System Number: AK2390439

PWS Contact Information:

Name: HAMEL, KEVIN	Phone: 907-683-6500	Address: P.O. BOX 417, HEALY, AK-99743-0417

HEALY BEST ASIAN FOOD TO GO

Water System Number: AK2392114

PWS Contact Information:

Name: PHETAMPHONE, SETH	Phone: 907-306-3545	Address: PO Box 266, HEALY, AK-99743

STAMPEDE LODGE

Water System Number: AK2391118

PWS Contact Information:

Name: SHREEVE, WESTON	Phone: 907-683-4034	Address: P.O. BOX 110, DENALI PARK, AK-99755

LDS / DENALI CHAPEL

Water System Number: AK2391736

PWS Contact Information:

Name: TEDD, KELLEY	Phone: N/A; kelley.tedd@am.jll.com	Address: 821 E. DELLWOOD ST., WASILLA, AK-99654

PRINCESS HOMESTEAD LODGE

Water System Number: AK2391524

PWS Contact Information:

Name: SHREEVE, WESTON	Phone: 907-683-4034	Address: P.O. BOX 110, DENALI PARK, AK-99755

DENALI BOROUGH SD - TRI-VALLEY

Water System Number: AK2390285

PWS Contact Information:

Name: HAMEL, CURTIS	Phone: 907-683-2278	Address: P.O. BOX 3120, ANDERSON, AK-99744-3120

THREE BEARS HEALY STORE #45

Water System Number: AK2392067

PWS Contact Information:

Name: WEISZ, DAVID	Phone: 907-357-4311	Address: 7362 West Parks Highway #814, WASILLA, AK-99623

10.12 Dewatering (4.4)

Describe dewatering practices to be implemented if water must be removed from an area so construction activity can continue. [VMT(6]

Will dewatering be conducted during construction? ☐ Yes ☒ No

Will excavation dewatering be conducted within 1,500 feet of a DEC mapped contaminated site found on the following website? ☐ Yes ☒ No
http://www.arcgis.com/home/item.html?id=315240bfbaf84aa0b8272ad1cef3cad3

If YES to either question above, then describe BMPs below that comply with the CGP and the ADEC Excavation Dewatering General Permit (AKG002000). If a NOI for coverage under the excavation dewatering permit is submitted, attach it and ADEC's response in Appendix D of the SWPPP with a copy of the permit.

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

12.1 Determination of Need for Monitoring Plan

Use the information collected and presented in Section 7.0 of this ESCP to help complete this section. Answer briefly the following questions and determine whether the project has a monitoring requirement for turbidity.

Is there an EPA-established or approved TMDL for **the Nenana River(?**)**? ☐ Yes ☒ No

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

If NO, there is no monitoring requirement and delete the rest of this section & Section 12.2 & 12.3. If YES, answer the following questions.

What is the acreage of the disturbance in the proposed construction project? 6 acres

Is the disturbed acreage equal to or greater than 20 acres? ☐ Yes ☒ No

Does all 20 of the disturbed acreage drain to the impaired water body ? ☐ Yes ☒ No

If NO, there is no monitoring requirement and delete the following paragraph & Section 12.2 & 12.3. If YES, proceed with monitoring template.

A project subject to the monitoring requirements of ACGP Part 3.2 is required to collect and analyze storm water discharge samples and document monitoring activities with the procedures described in ACGP Part 7.0.

12.2 Monitoring Plan Development

If subject to the monitoring requirements of ACGP Part 3.2, the Contractor must develop a written site-specific monitoring plan for analytical monitoring that includes all the requirements of ACGP Part 7.0 and follows the applicable ADEC Quality Assurance Guide for a Water Quality Monitoring Plan (see http://dec.alaska.gov/water/wqapp/wqapp_index.htm). Most monitoring projects should fall under the Tier 2 Quality Assurance Project Plan (QAPP) criteria. A *Generic Tier 2 QAPP* (follow the link on the above site) has been developed to assist applicants in developing a project specific QAPP.

Also see the ADEC storm water website http://dec.alaska.gov/water/wnpspc/stormwater/index.htm) for information to use in developing the monitoring plan.

The monitoring plan must be included as a part of the SWPPP as either an appendix or separate SWPPP section.

At a minimum, the SWPPP must document the person(s) responsible for conducting monitoring, schedules to be followed for monitoring, any checklist or form that will be used to record monitoring results, and correct action procedures.

Monitoring schedules (5.5.1.2; 7.3.2): **Insert Text**

Monitoring form or checklist (5.5.1.3; 7.3.9): **Insert Text**

Corrective action procedures (5.5.1.4; 8.0): **Insert Text**

12.3 Monitoring Considerations

This section does not need to be filled out but is a list of reminders for the applicant.

- Locate upstream/upgradient sampling point(s) to determine background turbidity in the receiving water body. The location should be reasonably close to discharge but not so close as to experience increased turbidity from discharge. Clearly mark in field and on map in SWPPP.

- Sample the discharge where it enters the receiving water body or where it leaves the construction site. Clearly mark in field and on map in SWPPP.

- Per 18 AAC 70, the discharge entering the water body impaired for turbidity or sediment must not exceed 5 nephelometric turbidity units (NTU) above natural conditions when the natural turbidity is 50 NTU or less, and may not have more than a 10-percent increase in turbidity when the natural turbidity is more than 50 NTU, not to exceed a maximum increase of 25 NTU.

If Turbidity exceeds allowable levels:

- Correct control measures within seven (7) calendar days, update your SWPPP to reflect improvements, submit a Corrective Action Report consistent with the ACGP, AND continue daily sampling until discharge meets allowable turbidity.

- If a specific waste-load allocation has been established for turbidity or sediment that would apply to the discharge of storm water from the construction site, the permittee must implement necessary steps to meet that allocation.

- If there is only a general waste-load allocation applicable to construction storm water discharges, the permittee must consult the ADEC to confirm consistency with approved TMDL.[VMT(7]