

November 13, 2024

ADDENDUM 3 – JOB 22957

TO: All prospective bidders on Projects IM-X-094(214)162, Job No. 22957 scheduled for the November 15, 2024 bid opening.

The following revision(s) shall be made:

Plan Revisions:

See attached summary from Kirk J. Hoff, P.E. dated November 13, 2024 for an explanation.

This addendum is to be incorporated into the bidder's proposal for this project.



PHILLIP MURDOFF, P.E. – CONSTRUCTION SERVICES ENGINEER

80: jwj

Enclosure

PLAN ADDENDUM SUMMARY AND APPROVAL

PROJECT INFORMATION		
Project:	IM-X-1-094(214)162	PCN: 22957
Location:	BURLEIGH CO; I-94, BISMARCK E TO E OF MENOKEN - EB	
Date:	11/12/24	Lead Designer: Apex Engineering Group
Bid Opening Date:	11/15/24	JOB#: 22957 Addendum#: 3

PLAN SHEET CHANGES		
Section	Sheet	Description
		Added Structural Plate Pipe Replacements Geotechnical Exploration Report to Supplemental Information
2	1	Added Soil Stabilization Special Provision SP 283(24)
6	2	Revised plan note 302-115 to plan note 302-P01 to allow Type B trimming under HMA shoulders.
6	3	Revised plan note number for 302-P01 to plan note 302-P02.
6	7	Added plan note 754-P04.

APPROVAL

Should the revisions described above be processed as a plan addendum?

X Yes No

Kirk J Hoff
Kirk J. Hoff, P.E. – Design Engineer

11/13/2024
Date

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

SOIL STABILIZATION

PROJECT:1-094(214)162 – PCN 22957

DESCRIPTION

A. General.

This SP overrides Section 253 “Mulching”

B. Straw or Hydraulic Mulch.

This work consists of grass hay or straw mulching, and hydraulic mulching for temporary or permanent stabilization.

C. Soil Stabilizer.

This work consists of hydraulic application of soil stabilizers for temporary stabilization.

EQUIPMENT

Use straw mulch equipment that uniformly distributes the mulch over the seedbed.

Use a puncher that consists of a series of dull, flat disks:

- With notched or cutout edges;
- Approximately 20 inches in diameter;
- 0.25 inches thick;
- Spaced approximately 8 inches apart; and
- Fitted with scrapers.

MATERIALS

A. Seed.

Use the seed classification shown in the bid item that meets the requirements of Section 251.03 D, “Seed Class”.

B. Hydraulic Mulch.

Use hydraulic mulch free of germination or growth inhibiting factors. Provide hydraulic mulch free of recycled paper and toxins.

Provide hydraulic mulch with fibers capable of absorbing water and allowing infiltration to the underlying soil without restricting emergence of seedlings.

C. Straw Mulch.

Use mulch material consisting of straw from cereal grain or native hay. The mulch shall be free of seed bearing stalks of noxious weeds as defined by the North Dakota Department of Agriculture.

The Engineer will not accept mulch that:

- Is wet, musty, moldy, or rotted;
- Is chopped or ground; or
- Contains deleterious material.

D. Tackifier.

Use a tackifier consisting of one of the following:

1. Water soluble natural proteins, vegetable gums, or guar gums blended with gelling and hardening agents. Guar gum based tackifier shall consist of a minimum of 95 percent guar gum by weight with the remainder consisting of dispersing and cross-link additives.
2. Water soluble blend of hydrophilic polymers, viscosifiers, sticking aids and other gums.

E. Soil Stabilizer.

Use soil stabilizer from the list below or an approved equal:

Product	Manufacturer
StarTak 600 Applied at a rate of 150 Lb/Acre	Chemstar Products Company Minneapolis, MN Phone: 1-800-328-5037 www.chemstar.com
M-Binder Applied at a rate of 150 Lb/Acre	Ecology Controls Carpinteria, CA Phone: 1-805-684-0436 www.ssseeds.com
FiberRX Applied at a rate of: Slope None to 4:1 50 Lb/Acre 3:1 60 Lb/Acre 2:1 70 Lb/Acre 1:1 or steeper 80 Lb/Acre	Hydrostraw, LLC Manteno, IL Phone: 1-800-545-1755 hydrostraw.com
Enviropam Applied at a rate of 9 Lb/Acre	Innovative Turf Solutions, LLC Cincinnati, OH Phone: 1-513-317-8311 www.innovativeturfsolutions.com
HydraTack, Tack Plus, Tack-P, or Tack-P Plus Applied at a rate of 30 Lb/Acre	Innovative Turf Solutions, LLC Cincinnati, OH Phone: 1-513-317-8311 www.innovativeturfsolutions.com
FI-1045 Hydrobond or FI-1046 Hydrobond Applied at a rate of 15 Lb/Acre	JRM Chemical, Inc. Cleveland, OH Phone: 1-216-475-8488 www.soilmoist.com
EarthGuard SFM Applied at a rate of 60 LB/Acre (approx. 6 Gallons/Acre)	Terra Novo Inc. Bakersfield, CA Phone: 1-661-747-5956 www.terranovo.com

Product	Manufacturer
HF5000 Tack Applied at a rate of 60 Lb/Acre	Rantec Corporation Ranchester, WY Phone: 1-307-655-9565 www.ranteccorp.com
R-Tack Applied at a rate of 150 Lb/Acre	
SpecTack Applied at a rate of: Slope None 30 to 80 Lb/Acre 4:1 50 to 100 Lb/Acre 3:1 80 to 120 Lb/Acre 2:1 100 to 170 Lb/Acre	
Super Tack Applied at a rate of 60 Lb/Acre	

F. Tracer Material.

Provide tracer material that consists of a hydraulic mulch that contains a green dye.

Provide tracer material that is free of the following:

- Recycled paper;
- Toxins; and
- Germination or growth inhibitors.

CONSTRUCTION REQUIREMENTS

A. General.

Uniformly cover areas of disturbed ground where construction activities have temporarily or permanently ceased.

Uniformly cover seeded areas with mulch within 24 hours of initiating seeding.

Protect traffic, signs, structures, and other objects from being marked or splattered by the material.

B. Hydraulic Mulch.

1. General.

Use mulch that is evenly dispersed and suspended in agitated water. Apply at a rate of one ton per acre with a minimum of 95 percent coverage of the seedbed.

2. Anchoring.

Use tackifier on areas where temporary stabilization is required for slopes that are steeper than 3:1. Mix tackifier with the mulch and apply at the rate recommended by the manufacturer.

C. Straw Mulch.

1. Application.

Place mulch at a rate of 2 tons per acre.

Do not perform mulching operations when the sustained wind velocity is greater than 25 miles per hour.

Avoid placing excessive cover that smothers seedlings.

2. Anchoring.

a. General.

Anchor mulch using one of the following methods to:

b. Punching.

Immediately following application, punch mulch into the soil using a puncher.

Operate the tiller parallel to the contours of the ground.

Push the mulch into the soil 3 inches, with the ends of the mulch exposed above the soil surface.

c. Tackifier.

Use tackifier on areas where slopes are steeper than 3:1. Apply the tackifier at the rate recommended by the manufacturer. If no manufacturer recommendations are available, apply at a rate between 175 and 275 pound per acre by spraying with the mulch or immediately following the mulching application.

3. Maintenance.

Repair or re-mulch damaged areas.

D. Soil Stabilizer.

1. General.

Only use soil stabilizer in temporary stabilization applications.

Uniformly cover areas of disturbed ground where construction activities have temporarily ceased with a minimum of 95 percent coverage of the disturbed area.

Hydraulically apply soil stabilizer with tracer material in accordance with the manufacturer's application instructions and at the rate specified in the list of approved soil stabilizers.

Protect traffic, signs, structures, and other objects from being marked or splattered by the material.

2. Tracer Material.

Mix tracer material at a rate of 300 pounds per acre. Use tracer material that is evenly dispersed and suspended in agitated water and Soil Stabilizer mix.

METHOD OF MEASUREMENT

The Engineer will measure, completed and in place, as specified in Section 109.01, "Measurement of Quantities".

Soil stabilization is the use of any mulching material to cover the disturbed ground.

BASIS OF PAYMENT

Pay Item	Pay Unit
Soil Stabilization	Acre

Such payment is full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

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2	1 - 2	Table of Contents	SSP 2	Federal Migratory Bird Treaty Act			
4	1	Scope of Work	SSP 4	Longitudinal Joint Density			
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Include all costs to remove the structural plate pipe with concrete headwall, and to furnish and place grout, and dewatering in the price bid for the item "Removal of Structure – Site 1."

202-P06 REMOVAL OF STRUCTURE-SITE 2: The existing structural plate pipe with concrete headwall at Station 2236+85 (Structure 0094-164.917) was previously lined by placing 84" diameter and 36" diameter spiral rib corrugated steel pipes through the structure, and filling of the remaining void with grout through the entire length of the structure. Portions of the structural plate pipe floor were also removed, and voids below the invert of the structural plate pipe were filled with grout.

Excavate to remove the south half of the 12'-10" x 8'-4" structural plate pipe, headwall, and liner pipes as shown in the plans. Make neat vertical cuts at the median centerline through the existing structural plate pipe, grout and spiral rib liner pipes to remove the south half of the structure and to provide for the installation of the new 90" diameter RCP culvert.

Provide dewatering if necessary according to site conditions.

Remove bedding, or soils or grout from under the existing SPP to a depth of 6" below the proposed 90" RCP, from 6" north of the median centerline to 6" south of the median centerline. Fill the resulting void with grout as shown in the plans to provide a 1' wide seal across the joint between the lower end of the new RCP and the structural plate pipe, before setting the 90" RCP pipe section in place to the end of the 84" diameter spiral rib liner pipe. Protect the joint of the 90" diameter RCP from intrusion of grout to allow for future extension of the pipe through the westbound roadway. Place a minimum 6" thick by 1' wide seal of grout around the joint between the end of the 84" spiral rib liner pipe and the new 90" diameter RCP.

Plug the cut end of the existing 36" diameter spiral rib liner pipe as shown on the concrete pipe plug detail on Standard Drawing D-714-1. Either grout or Class AE-3 concrete may be used to plug this pipe end.

Include all costs to remove the structural plate pipe with headwall, and to furnish and place Class AE-3 concrete or grout, and dewatering in the price bid for the item "Removal of Structure – Site 2."

202-P07 REMOVAL OF STRUCTURE-SITE 3: At Station 2363+83, remove the south half of the existing 11' diameter structural plate pipe with concrete headwall, Structure 0094-167.314), from the median to the outlet (south) end of the structure, with the upper portion of the pipe cut and removed from 3' south of the median centerline, and the lower portion removed beginning at 1' north of the median centerline to allow for insertion of the new 108" diameter RCP into the structural plate pipe, as shown in the plans.

After shoring has been installed, excavate to allow removal of the south half of the structural plate pipe and installation of the 108" diameter RCP culvert as shown in the plans.

Provide dewatering if necessary according to site conditions.

Make neat vertical and horizontal cuts in the existing structural plate pipe end to remove the south half of the structure, and to provide for the installation of the new 108" diameter RCP culvert into the end of the structural plate pipe, with a 4' overlap of the pipes. Remove bedding or soils from under the existing SPP to a depth of 1' below the proposed 108" RCP, from 2' north of the median centerline to 1' south of the median centerline and fill the resulting void with grout as shown in the plans to provide a seal between the lower end of the new RCP and the structural plate pipe. Protect the joint of the 108" RCP from intrusion of grout to allow for future extension of the pipe through the westbound roadway.

Form and fill the void between the new 108" RCP and the structural plate pipe with Class AE-3 concrete, as shown in the plans.

Include all costs to remove the structural plate pipe with concrete headwall and to furnish and place grout, and dewatering in the price bid for the item "Removal of Structure – Site 3."

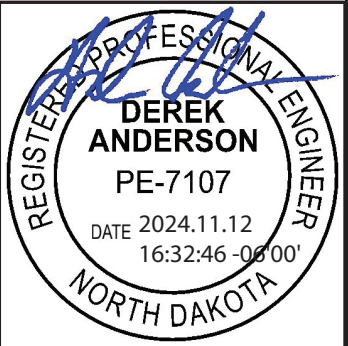
202-P08 REMOVE FENCE: The number of strands on the existing fence vary along the project and may contain up to five strands of wire. The bottom wires are buried in grass and topsoil in some locations. Remove the posts and wire completely in the locations shown in section 80. Include the cost of all equipment, material, and labor to remove the existing fence in the price bid for "Remove Existing Fence".

203-010 SHRINKAGE: 25 percent additional volume is included for shrinkage in earth embankment.

203-P01 SUBGRADE SURFACE TOLERANCE: Construct the final subgrade elevation to within 0.08 feet of the proposed subgrade elevation.

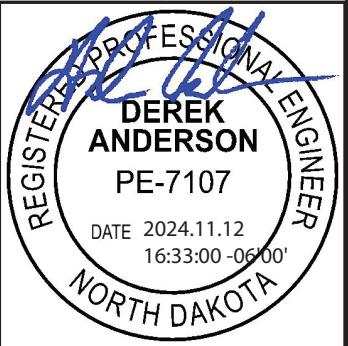
261-P01 PERMANENT FIBER ROLLS: If fiber rolls are to remain on the project, use fiber rolls that are composed of 100 percent bio- or photo-degradable netting that has a life expectancy between 6 to 24 months.

302-P01 BASE COURSE: Trim base course placed below the concrete pavement as specified in Section 302.04 C.3, "Surface Tolerance Type C." Trim base course placed below the asphalt shoulder as specified in Section 302.04 C.2, "Surface Tolerance Type B."



NOTES		Revised 11/7/2024 Revised 11/12/2024	STATE ND	PROJECT NO. IM-X-1-094(214)162	SECTION NO. 6	SHEET NO. 3
302-P02	HAULING: The shoulder of eastbound I-94 can be used as a haul route. Do not drive on the base course and/or geosynthetic material, except when the haul vehicle is dumping. When dumping, the haul vehicle is allowed to drive on the base course in the immediate vicinity of where the load is dumped. Repair any subgrade damage from hauling operations per 203.04D. Scarify, shape and compact the damaged subgrade to a depth specified by the Engineer. Re-establish subgrade tolerance per contract requirements prior to placement of the salvaged base course. Repair any base course damage from hauling operations per 302.04B and re-establish base course tolerance per contractor requirements. Repair any base course or subgrade damage from hauling operations at no additional cost to the Department.	- Construct the finished surface to within 0.10 feet of the proposed elevation with the first pass of trimming equipment. - Construct the finished surface to the specified surface tolerance prior to the placement of reinforcing steel, tie bars and dowel bar assemblies. - Place the reinforcing steel and tie bars on approved supports securely, properly and accurately in advancing of the paving operation.				
401-P01	TRIMMING AND PRIME: Prime shoulders within one mile or within 48 hours of the trimming operations unless HMA paving is to take place within 24 hours of trimming.					
430-P01	MAINTENANCE OF TRAVELED ROADWAY USING HOT MIX ASPHALT: The Contractor will be fully responsible for monitoring the condition of the traveled roadway, crossovers and ramp connections within the limits of the project. Patch with an approved mix any areas that have subsided more than one inch from the adjacent pavement, any rutting, sponginess and/or breakups as directed by the Engineer. Compact patched areas in accordance with Section 430.04 I.3 of the Standard Specifications. Include all cost of equipment, labor, and materials, including asphalt cement and tack coat in the unit price bid for "Patching". Provide a traffic control plan that minimizes disruption to traffic. Necessary traffic control devices and flagging will be paid for under the normal contract bid item. Additionally, the contractor will be required to perform an initial inspection of the roadway, used by the traveling public before construction begins, and make all repairs in accordance with the above requirements or as directed by the Engineer. A quantity of 500 Tons of "Patching" has been provided for this purpose.	550-P02 3IN EXPANSION JOINT: Install expansion joints consisting of a pre-compressed polymer impregnated self-expanding polyurethane foam joint seal coated with a silicone surface providing a permanent weather tight seal. The joint seal may be: - Wabo FS Bridge Seal (Watson Bowman Acme); - BEJS Bridge Expansion Joint System (EMSEAL); - Iso-Flex Silfast XL (LymTal International), Prepare the joint opening and install the joint seal according to the manufacturer's recommendations. Follow the manufacturer's recommendation for attaching the expansion joint seal to the concrete and for splicing foam together. Install the membrane sealant material into the joint, positioning it with the manufacturer's recommended recess from the top surface of the concrete. Do not stretch or compress the membrane sealant material. Fabricate and install protection armor angles on each side of the expansion joint as shown in the Sec 20 Details. Galvanize the armor angles according to Section 854.01, "Galvanizing". Splices are permitted. Weld spliced ends. Coat weld splices or damaged coating areas with galvanizing paint according to Section 854.02, "Damaged Galvanized Coatings". Include all work and materials associated with the expansion joint seal and protection armor angles in the contract unit price of "3 IN Expansion Joint."				
430-P02	RAP SUPERPAVE: Incorporate RAP at a rate between 10 and 35 percent of the mix, by weight.	550-P03 CONCRETE SLEEPER SLAB: This work consists of constructing a concrete sleeper slab at the location of an expansion joint in the PCC pavement. Finish the surface of the sleeper slab smooth. Allow the sleeper slab to cure for 24 hours before performing additional work on or adjacent to the slab. Cover the sleeper slab with a double layer of 4 or 6 mil polyethylene sheeting before covering the slab with the concrete roadway. Include all costs for any excavation, removal of existing sleeper slab, aggregate base, reinforcing steel, labor, and equipment in the contract unit price of "Concrete Sleeper Slab".				
430-P03	SPECIFIED DENSITY: Section 430.04 I.2, calculated density, will apply to mainline shoulder pavement.					
550-P01	CONCRETE PAVEMENT: The Department will waive the requirement to place the reinforcing steel, tie bars and dowel bar assemblies a minimum of 2,000 feet ahead of the paving operation as stated in Sections 550.04 B.1 and 550.04 F.2 and allow the use of the roadway as a haul road at the Contractor's request, provided the following conditions are met: - Repair all damaged areas. - Provide an additional trimmer in advance of the paving operation.					

REGISTERED PROFESSIONAL ENGINEER
DEREK ANDERSON
PE-7107
DATE 2024.11.12 16:33:00 -06'00'
NORTH DAKOTA



NOTES

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- 754-P01 REMOVE SIGNS & SUPPORTS: Remove and dispose of all existing telescoping perforated tube, w-shape post supports, signs and extruded aluminum sign panels. Salvage and deliver the existing round pipe supports to the NDDOT Bismarck District Yard, 218 Airport Road, Bismarck, ND. Contact the Bismarck District 24 hours prior to delivery at 701-328-6950. Include all costs associated with the removal and delivery of the sign panels and supports in the price bid for the item "Remove Sign Foundation."
- 754-P02 DELINEATOR-TYPE A-SINGLE SIDED: Provide 3" x 9" reflectors on delineator posts. Install Delineators-Type A as shown in the signing plans. The NDDOT currently owns a stockpile of Type A delineator posts and white reflectors at the Bismarck District Yard. Obtain the delineators at the NDDOT Bismarck District Yard, 218 Airport Road, Bismarck, ND. Provide new yellow reflectors and fastening hardware.
- At least two weeks before obtaining the stockpiled materials, notify the Engineer and contact Larry Gangl, (District Engineer) of the date that the materials will be obtained. Contact the District Office at 701-328-6950. Notify the District staff 24 hours in advance to verify the time of pickup. Before obtaining materials, perform an inventory of materials to be received with the district staff, and document the results. Both parties must sign and date the inventory. Each party must retain a signed copy of the inventory. Provide necessary equipment to load and deliver the materials to the project work site. Include all costs for this described work in the contract unit price bid for "DELINEATOR-TYPE A-SINGLE SIDED"
- 754-P03 DELINEATORS: Remove the existing delineators within the I-94 project limits. Furnish and install new delineators per plans. Include the cost for removal and disposal of the delineators in the price bid for "Delineators-Type_".
- 754-P04 SIGN HARDWARE: Replace Section 894.03 A.1, "General" with the following:
- Coat aluminum bolts, nuts, U-bolts, lock washers, and washers with a minimum of a 0.002-inch anodic coating. Galvanize all steel bolts, nuts, U-bolts, lock washers, and washers.
- The Engineer may approve the use of substitute alloys in lieu of the specified hardware alloy for signs upon submission of Certificate of Compliance that the proposed substitute alloy that meets or exceeds the applicable specifications to the designated alloy.
- 762-050 PAVEMENT MARKING: If the Engineer and Contractor agree, plan quantity will be used as the measurement for payment for pavement marking items.
- 770-P01 REMOVAL OF PULL BOX: There is an existing weigh in motion site (WIM) located at RP 165.0. NDIT will disconnect the roadway sensors at the pull box prior to construction. Remove two pull boxes and cap the associated conduit at the pull box locations. Contact the Project Engineer two weeks prior to working in area. Project Engineer will contact NDIT at 701-328-6973 to coordinate the disconnecting of the

roadway sensors. Include all costs for this described work in the contract unit price bid for "Remove Pull Box".

- 772-P01 FEED POINT – FLASHING BEACON: This pay item is for the installation of the new control switch, flasher cabinet, work within the rest area building, bollards, concrete pad, mounting structures, and all associated basic electrical materials as shown on the detail drawings.
- 772-P02 FLASHING BEACON: This pay item is for the installation of the new Flashing Beacons and all related conduit, conductor, hardware, confirmation light, and other incidental items mounted to the new sign structure. The Flasher Cabinet/Beacons are to be wired so the flashing beacons become activated once the switch at the rest area is turned on. The confirmation light is also to turn on to indicate beacons are operational and is to be aimed as directed in the field.
- 930-P01 SHORING: Obtain the services of a registered professional engineer to design shoring for the excavations to remove the south half of the existing 72" diameter RCP culvert at Station 2110+07, the south half of the 9' diameter structural plate pipe (Structure 0094-162.739) at Station 2122+11, and the south half of the existing 11' diameter structural plate pipe (Structure 0094-167.314) at Station 2363+83.
- Design the shoring systems to allow for excavation of the eastbound roadway and removal of the south half of the 72" diameter RCP and south half of the structural plate pipes, and installation of the 66" diameter, 84" diameter and 108" diameter RCP centerline culverts as shown in the plans.
- At Station 2110+07, the proposed 66" diameter RCP will be installed with a riser and median drain at the median centerline. Install shoring as necessary approximately 7' north of the median centerline to allow for the removal of the 72" diameter RCP, and for installation of a 6' long 66" diameter median drain tee section, and a 4' section of 66" RCP.
- Remove all shoring after culvert installations have been completed.
- Submit design calculations and working drawings for each of the shoring installations to the Engineer for review.
- Include all costs for design, materials, equipment and labor to install the shoring in the price bid for the item "Shoring." Include all costs for removal of shoring in the price bid for the item "Removal of Shoring."

