

Planning & Engineering Office of Project Development

700 E Broadway Avenue Pierre, South Dakota 57501-2586 O: 605.773.3275 | F: 605.773.2614 dot.sd.gov

February 10, 2025

ADDENDUM NO. 3

RE: Item #1, February 12, 2025 Letting - NH 0100(106)409, P 8042(00), P 8042(00), PCN 01V7, 08DG, 08DH, Lincoln County - Grading, Structure's (2-12x5 Precast RCBC, (2)12x10 CIP RCBC, 196.5' Steel Girder, 2-11x5 CIP RCBC, 9x5 Precast RCBC), PCC Surfacing, Curb & Gutter, Storm Sewer, Signals, Lighting

TO WHOM IT MAY CONCERN:

The following addenda to the plans shall be inserted and made a part of your proposal for the referenced project.

SPECIAL PROVISIONS: NONE

SDEBS BID PROPOSAL: The electronic bid proposal for this contract has been revised to include the changes associated

with this addendum. Bidders must log in to the SDEBS to retrieve and incorporate these changes

into their bid.

Quantities for Bid Items were changed:

Bid Item 734E2020 "Bridge Berm Slope Protection, Coated Crushed Aggregate" changed from 125 to 13.9 SqYd

PLANS: Please destroy sheets A3, E2, E76, and E77 and replace with the enclosed sheets, dated

2/10/25.

Sheets A3, E2, E76 & E77: Section E Structure (MSE Wire Face Retaining Wall)

Quantity for Bid Item 734E2020 "Bridge Berm Slope Protection, Coated Crushed Aggregate" changed from 125 to 13.9 SqYd.

Sheet 77: COATED CRUSHED AGGREGATE SLOPE PROTECTION note was added.

Sincerely,

Sam Weisgram Engineering Supervisor

SW/cj

CC: Travis Dressen, Mitchell Region Engineer

Harry Johnston, Sioux Falls Area Engineer

STATE OF SOUTH DAKOTA PROJECT PROJECT SHEET SHEETS TOTAL SHEETS NH 0100(106)409 & P 8042(00) A3 A9

Section E – Structures

			Quar	ntity		
Bid Item Number	ltem	PCN 01V7 Veterans	PCN 08DG Southeastern	PCN 08DH Sycamore	Total	Uni
260E2010	Gravel Cushion	9.7	-	-	9.7	Ton
380E2400	Concrete Barrier with Concrete Reinforced Footing	1,967	-	-	1,967	Ft
420E0200	Structure Excavation, Box Culvert	261	47	-	308	CuYo
420E0300	Structure Excavation, Retaining Wall	170	-	-	170	CuYo
420E1000	Foundation Preparation, Retaining Wall	159	-	-	159	CuYo
421E0200	Box Culvert Undercut	750	188	-	938	CuYo
430E0700	Precast Concrete Headwall for Drain	3	-	-	3	Each
460E0120	Class A45 Concrete, Box Culvert	627.8	-	-	627.8	CuYo
460E0204	Anti-Graffiti Coating	12,549.0	-	-	12,549.0	SqFt
470E0230	Steel Bicycle Railing on Concrete Barrier	88.0	-	-	88.0	Ft
480E0100	Reinforcing Steel	114,408	-	-	114,408	Lb
530E0400	MSE Wire Face Wall	957	-	-	957	SqFt
530E0704	Granular Backfill for MSE Wire Face Wall	461.0	-	-	461.0	CuYo
560E0110	9' x 5' Precast Concrete Box Culvert, Furnish	-	138.0	-	138.0	Ft
560E0111	9' x 5' Precast Concrete Box Culvert, Install	-	138.0	-	138.0	Ft
560E1110	9' x 5' Precast Concrete Box Culvert End Section, Furnish	-	2	-	2	Ea
560E1111	9' x 5' Precast Concrete Box Culvert End Section, Install	-	2	-	2	Ea
621E0240	Special 4' Chain Link Fence	268	60	-	328	Ft
680E0040	4" Underdrain Pipe	1,655	-	-	1,655	Ft
680E2500	Porous Backfill	1,258.2	-	-	1,258.2	Ton
700E0210	Class B Riprap	-	28.0	-	28.0	Ton
734E2020	Bridge Berm Slope Protection, Coated Crushed Aggregate	13.9	-	-	13.9	SqYo
831E0110	Type B Drainage Fabric	-	40	-	40	SqY
831E0300	Reinforcement Fabric (MSE)	227	-	-	227	SqY
831E1010	Geogrid Reinforcement	522	_	_	522	SqY

Structure No. 42-111-016						
		Quantity				
Bid Item		PCN 01V7	PCN 08DG	PCN 08DH		
Number	ltem	Veterans	Southeastern	Sycamore	Total	Unit
420E0200	Structure Excavation, Box Culvert	170	-	-	170	CuYd
421E0200	Box Culvert Undercut	540	-	-	540	CuYd
560E2164	2-12'x5' Precast Concrete Box Culvert, Furnish	198.0	-	-	198.0	Ft
560E2165	2-12'x5' Precast Concrete Box Culvert, Install	198.0	-	-	198.0	Ft
560E3164	2-12'x5' Precast Concrete Box Culvert End Section, Furnish	2	-	-	2	Each
560E3165	2-12'x5' Precast Concrete Box Culvert End Section, Install	2	-	-	2	Each
621E0240	Special 4' Chain Link Fence	91	-	-	91	Ft
700E0210	Class B Riprap	44.8	-	-	44.8	Ton
831E0110	Type B Drainage Fabric	65	-	-	65	SqYd

Section E – Structures

REV DATE: 2/10/2025 INITIAL: LPR

	27 2000		Quar	ntity		1
Bid Item Number	ltem	PCN 01V7 Veterans	PCN 08DG Southeastern	PCN 08DH Sycamore	Total	Unit
009E3310	Bridge Elevation Survey	Lump Sum	-	7 * 300	Lump Sum	LS
009E5000	Concrete Penetrating Sealer	2,128.8	-	/*: //	2,128.8	SqYd
120E7000	Select Granular Backfill	36.7	-	3. 4 .00	36.7	Ton
410E0020	Structural Steel	Lump Sum	-	5,400	Lump Sum	LS
410E2600	Membrane Sealant Expansion Joint	371.4		5 + .55	371.4	Ft
411E0100	Bridge Painting	Lump Sum		-	Lump Sum	LS
430E0200	Bridge End Embankment	4,034			4,034	CuYd
430E0300	Granular Bridge End Backfill	318.7	-	21 4. (Å	318.7	CuYd
430E0700	Precast Concrete Headwall for Drain	4	-	0±00	4	Each
460E0030	Class A45 Concrete, Bridge Deck	623.0	-	3 + (1)	623.0	CuYd
460E0050	Class A45 Concrete, Bridge	259.6		-	259.6	CuYd
460E0150	Concrete Approach Slab for Bridge	412.6	-	•	412.6	SqYd
460E0160	Concrete Approach Sleeper Slab for Bridge	149.6	-		149.6	SqYd
460E0380	Install Dowel in Concrete	376			376	Each
460E0500	Deck Drain, Girder Bridge	8		(**)	8	Each
470E0030	Special Steel Railing	231.0	-		231.0	Ft
470E0230	Steel Bicycle Railing on Concrete Barrier	232.0	-	(**)	232.0	Ft
480E0100	Reinforcing Steel	26,866		(*.)	26,866	Lb
480E0200	Epoxy Coated Reinforcing Steel	10,319			10,319	Lb
480E0300	Stainless Reinforcing Steel	136,381			136,381	Lb
510E0300	Preboring Pile	1,242			1,242	Ft
510E3521	HP 14x73 Steel Test Pile, Furnish and Drive	240	-		240	Ft
510E3525	HP 14x73 Steel Bearing Pile, Furnish and Drive	5,060	-	-	5,060	Ft
651E0160	6" Reinforced Concrete Sidewalk	220	-	-	220	Sqft
680E0040	4" Underdrain Pipe	296	-	-	296	Ft
680E1200	Fiberglass Drain Pipe	204	-		204	Ft
680E2500	Porous Backfill	13.0	-	-	13.0	Ton
734E2022	Bridge Berm Slope Protection, Quarried Aggregate	1,514.8	-		1,514.8	SqYd
831E1030	Perforated Geocell	1,050	-		1,050	SqFt

Landard III		Quantity				
Bid Item Number	Item	PCN 01V7 Veterans	PCN 08DG Southeastern	PCN 08DH Sycamore	Total	Unit
420E0200	Structure Excavation, Box Culvert	200	-	2*27	200	CuYd
421E0200	Box Culvert Undercut	526	-	(*)	526	CuYd
460E0120	Class A45 Concrete, Box Culvert	436.6	-	2*00	436.6	CuYd
480E0100	Reinforcing Steel	89,124		- 1	89,124	Lb
621E0240	Special 4' Chain Link Fence	91		; - ; 5	91	Ft
700E0210	Class B Riprap	53.0		3 - 23	53.0	Ton
831E0110	Type B Drainage Fabric	68	-	-	68	SqYd
831E0300	Reinforcement Fabric (MSE)	763	-	- 0	763	SqYd

STATE OF PROJECT SHEET NO. SHEETS S.D. NH 0100(106)409 & P 8042(00) E02 E84

SECTION E - ESTIMATE OF STRUCTURE QUANTITIES PCN 01V7

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
260E2010	Gravel Cushion	9.7	Ton
380E2400	Concrete Barrier with Concrete Reinforced Footing	1,967	Ft
420E0200	Structure Excavation, Box Culvert	261	CuYd
420E0300	Structure Excavation, Retaining Wall	170	CuYd
420E1000	Foundation Preparation, Retaining Wall	159	CuYd
421E0200	Box Culvert Undercut	750	CuYd
430E0700	Precast Concrete Headwall for Drain	3	Each
460E0120	Class A45 Concrete, Box Culvert	627.8	CuYd
460E0204	Anti-Graffiti Coating	12,549.0	SqFt
470E0230	Steel Bicycle Railing on Concrete Barrier	88.0	Ft
480E0100	Reinforcing Steel	114,408	Lb
530E0400	MSE Wire Face Wall	957	SqFt
530E0704	Granular Backfill for MSE Wire Face Wall	461.0	CuYd
621E0240	Special 4' Chain Link Fence	268	Ft
680E0040	4" Underdrain Pipe	1,655	Ft
680E2500	Porous Backfill	1,258.2	Ton
734E2020	Bridge Berm Slope Protection, Coated Crushed Aggregate	<u>(13.9</u>	SqYd
831E0300	Reinforcement Fabric (MSE)	227	SqYd
831E1010	Geogrid Reinforcement	522	SqYd

PCN 08DG

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
420E0200	Structure Excavation, Box Culvert	47	CuYd
421E0200	Box Culvert Undercut	188	CuYd
560E0110	9' x 5' Precast Concrete Box Culvert, Furnish	138	Ft
560E0111	9' x 5' Precast Concrete Box Culvert, Install	138	Ft
560E1110	9' x 5' Precast Concrete Box Culvert End Section, Furnish	2	Each
560E1111	9' x 5' Precast Concrete Box Culvert End Section, Install	2	Each
621E0240	Special 4' Chain Link Fence	60	Ft
700E0210	Class B Riprap	28.0	Ton
831E0110	Type B Drainage Fabric	40	SqYd

PCN 01V7 Str. No. 42-115-015

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3310	Bridge Elevation Survey	Lump Sum	LS
009E5000	Concrete Penetrating Sealer	2,128.8	SqYd
120E7000	Select Granular Backfill	36.7	Ton
410E0020	Structural Steel	Lump Sum	LS
410E2600	Membrane Sealant Expansion Joint	371.4	Ft
411E0100	Bridge Painting	Lump Sum	LS
430E0200	Bridge End Embankment	4,034	CuYd
430E0300	Granular Bridge End Backfill	318.7	CuYd
430E0700	Precast Concrete Headwall for Drain	4	Each
460E0030	Class A45 Concrete, Bridge Deck	623.0	CuYd
460E0050	Class A45 Concrete, Bridge	259.6	CuYd
460E0150	Concrete Approach Slab for Bridge	412.6	SqYd
460E0160	Concrete Approach Sleeper Slab for Bridge	149.6	SqYd
460E0380	Install Dowel in Concrete	376	Each
460E0500	Deck Drain, Girder Bridge	8	Each
470E0030	Special Steel Railing	231.0	Ft
470E0230	Steel Bicycle Railing on Concrete Barrier	232.0	Ft
480E0100	Reinforcing Steel	26,866	Lb
480E0200	Epoxy Coated Reinforcing Steel	10,319	Lb
480E0300	Stainless Reinforcing Steel	136,381	Lb
510E0300	Preboring Pile	1,242	Ft
510E3521	HP 14x73 Steel Test Pile, Furnish and Drive	240	Ft
510E3525	HP 14x73 Steel Bearing Pile, Furnish and Drive	5,060	<u>Ft</u>
635E8040	4" Rigid Galvanized Steel Conduit	1,892	Ft
651E0160	6" Reinforced Concrete Sidewalk	220	^SqFt ˆ
680E0040	4" Underdrain Pipe	296	Ft
680E1200	Fiberglass Drain Pipe	204	Ft
680E2500	Porous Backfill	13.0	Ton
734E2022	Bridge Berm Slope Protection, Quarried Aggregate	1,514.8	SqYd
831E1030	Perforated Geocell	1,050	SqFt

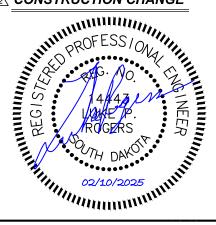
PCN 01V7 Str. No. 42-111-016

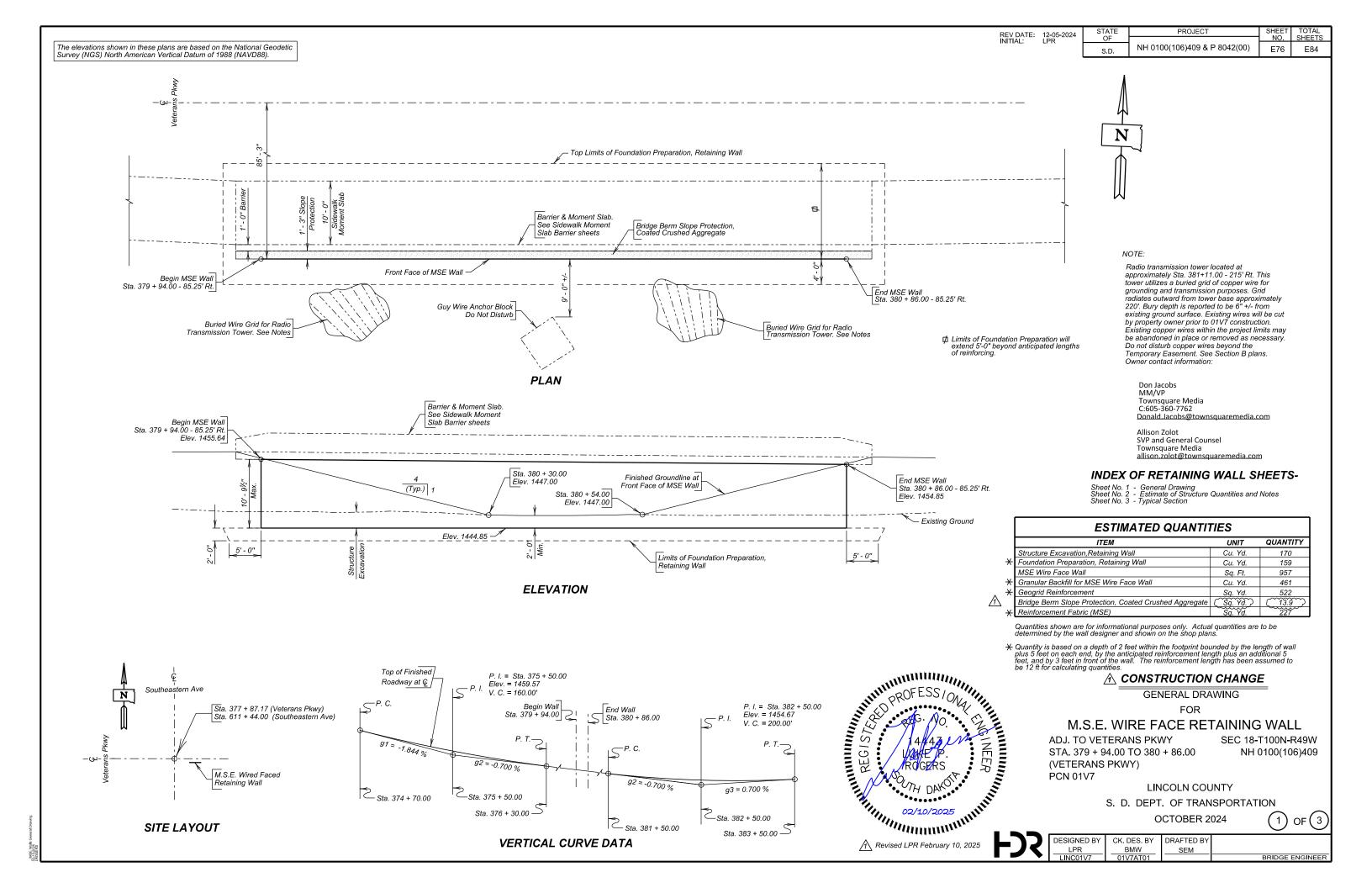
BID ITEM NUMBER	ITEM	QUANTITY	UNIT
420E0200	Structure Excavation, Box Culvert	170	CuYd
421E0200	Box Culvert Undercut	540	CuYd
560E2164	2 - 12' x 5' Precast Concrete Box Culvert, Furnish	198	Ft
560E2165	2 - 12' x 5' Precast Concrete Box Culvert, Install	198	Ft
560E3164	2 - 12' x 5' Precast Concrete Box Culvert End Section, Furnish	2	Each
560E3165	2 - 12' x 5' Precast Concrete Box Culvert End Section, Install	2	Each
621E0240	Special 4' Chain Link Fence	91	Ft
700E0210	Class B Riprap	44.8	Ton
831E0110	Type B Drainage Fabric	65	SqYd

PCN 01V7 Str. No. 42-121-015

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
420E0200	Structure Excavation, Box Culvert	200	CuYd
421E0200	Box Culvert Undercut	526	CuYd
460E0120	Class A45 Concrete, Box Culvert	436.6	CuYd
480E0100	Reinforcing Steel	89,124	Lb
621E0240	Special 4' Chain Link Fence	91	Ft
700E0210	Class B Riprap	53.0	Ton
831E0110	Type B Drainage Fabric	68	SqYd
831E0300	Reinforcement Fabric (MSE)	763	SqYd

CONSTRUCTION CHANGE





PROJECT NH 0100(106)409 & P 8042(00) E77 E84 S.D.

ESTIMATE OF STRUCTURE QUANTITIES

Description	Quantity	Unit	Remarks
Structure Excavation, Retaining Wall	170	CuYd	
Foundation Preparation, Retaining Wall	*159	CuYd	See
MSE Wire Face Wall	957	SqFt	Special
Granular Backfill for MSE Wire Face Wall	*461	CuYd	Provision
Geogrid Reinforcement	*522	SqYd]
Bridge Berm Slope Protection, Coated Crushed Aggregate	13.9	SqYd	
Reinforcement Fabric (MSE)	*227	SqYd	

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Quantities shown are for informational purposes only. Actual quantities are to be determined by the wall designer and shown on the shop plans.

*Quantity is based on a depth of 2 feet within the footprint bounded by the length of wall plus 5 feet on each end, by the anticipated reinforcement length plus an additional 5 feet, and by 3 feet in front of the wall. The reinforcement length has been assumed to be 8ft for calculating quantities.

SPECIFICATIONS

- 1. Design Specifications: AASHTO LRFD Bridge Design Specifications, 9th
- 2. Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, 2015 Edition and required provisions, supplemental specifications, and special provisions as included in the proposal.

MSE RETAINING WALL GENERAL NOTES

- 1. The Mechanically Stabilized Earth (MSE) Wire Face Retaining Wall will be on the current approved products list located at the following website address: http://apps.sd.gov/HC60ApprovedProducts/main.aspx.
- 2. See Special Provision for Permanent Mechanically Stabilized Earth Wire Faced Walls.
- 3. The minimum embedment depth to the bottom of the MSE Wire Face retaining wall will be 2.0-foot.
- 4. Horizontal dimensions shown are measured along the front face of the wall at the bottom of wall elevation.
- 5. Top of wall elevations shown are minimum wall limits.
- 6. The retaining wall will be installed in accordance to the selected wall companies' instructions, specifications, and approved shop drawings.
- 7. Construction of the wall will begin at the lowest course and proceed upward. The lowest course of the wall must be placed and backfilled in its entirety prior to construction of any subsequent courses. Backfill must be placed in successive horizontal lifts.
- 8. A layer of Type B Drainage Fabric will be placed over the top of the Granular Backfill for MSE Wire Face Wall prior to placing any soil over the granular backfill. The intent of the fabric is to act as a separator and keep fines from intruding into the granular material. All costs in furnishing and installing the Type B Drainage Fabric will be incidental to the contract unit price per cubic yard for "Granular Backfill for MSE Wire Face Wall."

- Required minimum reinforcement length will be 12 feet, or as determined by the wall designer. Calculations performed by SDDOT determined that reinforcement lengths of 12' will required to satisfy global stability. The wall designer will contact the SDDOT Geotechnical Engineering Activity prior to utilizing reinforcement lengths shorter than these values.
- 10. Excavation procedures and wall construction activities will not disturb the nearby radio tower guy wires or concrete anchor block.

FOUNDATION PREPARATION

Foundation preparation will consist of undercutting the wall footprint to 2 feet below the bottom of the wall elevation. Limits of the undercut will extend from 3 feet in front of the wall to 5 feet beyond the wall reinforcement, and from 5 feet before the beginning of the wall to 5 feet past the end of the wall. The undercut will be backfilled with granular material conforming to the requirements of Granular MSE (Wire Face) Backfill. Extensive dewatering will be required during construction. Granular material will not be placed through standing water. The foundation area will be dry and stable prior to placing granular material.

REINFORCEMENT FABRIC (MSE)

- 1. A layer of Reinforcement Fabric (MSE) will be placed at the bottom of the undercut prior to backfilling with granular material.
- 2. Prior to placing the Reinforcement Fabric (MSE), all spoil or loose material will be removed, and the area proof rolled to ensure adequate density. Within the granular material, two layers of biaxial geogrid will be installed; one layer 6 inches above the bottom of the undercut and one layer 18 inches above the bottom of the undercut. Geogrid will be installed according to the typical installation procedure detailed in the plan notes.
- 3. Place the Reinforcement Fabric (MSE) on as level and smooth of a surface as possible. Any protrusions that might damage the geotextile will be removed prior to placing the geotextile. All seams in the geotextile will be stitched in accordance with the seaming procedure and as shown on the detail labeled "Seam Types." No equipment will be allowed on the geotextile until the granular material is in place. The geotextile will be kept as taut as possible prior to backfilling. Granular material will be dumped behind the leading edge of the fill and pushed into place with a loader or dozer.
- 4. Reinforcement Fabric (MSE) will conform to Section 831. The Reinforcement Fabric (MSE) provided will be on the Approved Products List or will be certified by the supplier to meet this specification prior to installation.
- 5. Reinforcement Fabric (MSE) will be paid for at the contract unit price per square yard for Reinforcement Fabric (MSE). Payment will be full compensation for furnishing and installing the Reinforcement Fabric (MSE) only. Granular material will be paid for as Granular Backfill for MSE Wire Face Wall

GEOGRID SPECIFICATIONS

1. The geogrid will be a biaxial grid of single layer construction. Vibratory welded, integrally formed or woven and coated geogrids will be acceptable. Grids with laser welded grid junctions will not be allowed. The geogrid will be certified by the supplier to meet the following specification prior to installation:

Property	Test	MARV
Wide Width Strip	ASTM D 6637	850 lb/ft MD and XD
Tensile Strength		
(Ultimate)		

2. Geogrid will be paid for at the contract unit price per sq. yd. for Geogrid Reinforcement. Payment quantities will be based on area covered plus 15%. Overlaps are accounted for by the additional 15%. Payment will be full compensation for furnishing and installing the geogrid only. Granular backfill materials will be paid for under a different bid item.

TYPICAL GEOGRID INSTALLATION PROCEDURE

- 1. Geogrid shall be placed on a level surface and overlapped a minimum of 2 feet.
- 2. Geogrid will be placed as taut as possible with minimal wrinkles. Placement will be done so that subsequent granular cover material does not shove, wrinkle, or distort the in-place geogrid. Overlaps will be shingled in a manner that assures granular material will not be forced under the geogrid during backfilling operations. Geogrid may be held in place with small piles of granular material
- 3. Granular material will be dumped at least 20 feet behind the leading edge of the backfill and pushed into place with a loader or dozer from covered areas to uncovered areas. No traffic will be allowed on uncovered geogrid.

COATED CRUSHED AGGREGATE SLOPE PROTECTION

- The aggregate used in the crushed aggregate slope protection will conform to the requirements of Section 820 of the Construction Specifications for coarse aggregate for Class A Concrete (Size #1).
- 2. The asphalt material used in the crushed aggregate slope protection will be either Asphalt Type MC-70 or MC-250, or emulsified Asphalt Type RS-1, RS-2, CRS-1, or CRS-2 meeting the requirements of Section 890 of the Construction Specifications and AASHTO M81, AASHTO M140, and AASHTO M208 respectively.
- The surface upon which the slope protection is to be placed will be smooth, uniform, and free from foreign material. The top surface of the slope protection will conform to the dimensions, elevations, and slopes shown in the plans.
- The asphalt material will be applied at a rate sufficient to assure penetration and binding of the aggregate in the upper 2 inches of the slope protection. (Estimated Rate = 1.3 gallons per square vard.) The surfaces of the adjacent structure will be protected from spattering or discoloration from the asphalt material.
- 5. Payment for crushed aggregate slope protection will be at the contract unit price per square yard for Bridge Berm Slope Protection, Coated Crushed Aggregate and will be full compensation for slope paving, including furnishing all materials, labor, and equipment necessary or incidental to the satisfactory completion of this work. Payment will be for plans quantity.

∧ **CONSTRUCTION CHANGE**

ESTIMATE OF STRUCTURE QUANTITIES AND NOTES FOR

M.S.E. WIRE FACE RETAINING WALL

ADJ. TO VETERANS PKWY STA. 379 + 94.00 to 380 + 86.00 (VETERANS PKWY)

SEC 18-T100N-R49W NH 0100(106)409

LINCOLN COUNTY

S. D. DEPT. OF TRANSPORTATION

OCTOBER 2024





DESIGNED BY CK. DES. BY DRAFTED BY BRIDGE ENGINEER