

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0902(18)101	1	205

Plotting Date: 03/18/2024

INDEX OF SECTIONS

- Section A: Estimate of Quantities and Environmental Commitments
- Section B: Grading Plans
- Section C: Traffic Control Plans
- Section D: Erosion and Sediment Control Plans
- Section E: Structure Plans
- Section F: Surfacing Plans
- Section M: Pavement Marking Plans
- Section S: Permanent Signing Plans
- Section X: Cross Sections
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**PROJECT IM 0902(18)101
INTERSTATE 90 EBL & WBL
PENNINGTON COUNTY**

STRUCTURES, APPROACH GRADING,
AC SURFACING, & ROW PLANS

PCN 035F

**BEGIN IM 0902(18)101 (EASTBOUND)
BEGIN SHOULDER WIDENING**

Station 342+28=348+23.28 on
I 90 - 2(17)96 located 128.60 feet North and
126.29 feet East of the Southwest corner
of Section 1 - Township 1 North - Range 14 East
of the B.H.M.
MRM 101.00+0.240

**BEGIN IM 0902(18)101 (WESTBOUND)
BEGIN GRADING**

Station 344+00 = Station 343+81 on I 90 - 2(17)96
located 202.82 feet North and 302.82 feet East of the
Southwest corner of Section 1 - Township 1 Range 14 East
of the B.H.M.
MRM 101.00+0.275

**END GRADING
BEGIN SHOULDER WIDENING**

Station 351+82

**END IM 0902(18)101 (WESTBOUND)
END SHOULDER WIDENING**

Station 359+39 = Station 362+75 on
I 90 - 2(17)96 located 192.95 feet North and
804.40 West of the South 1/4 corner of
Section 1-Township 1 North - Range 14 East
of the B.H.M.
MRM 101.00+0.571

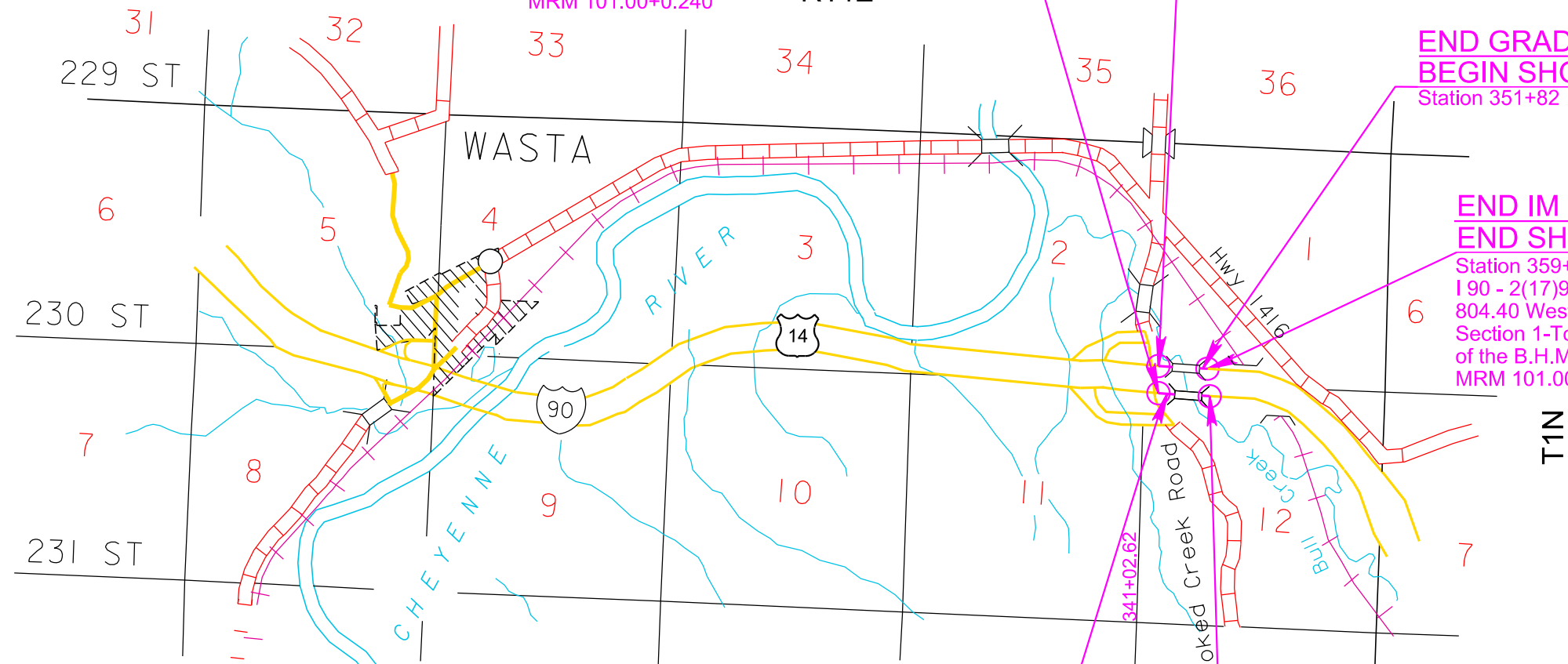
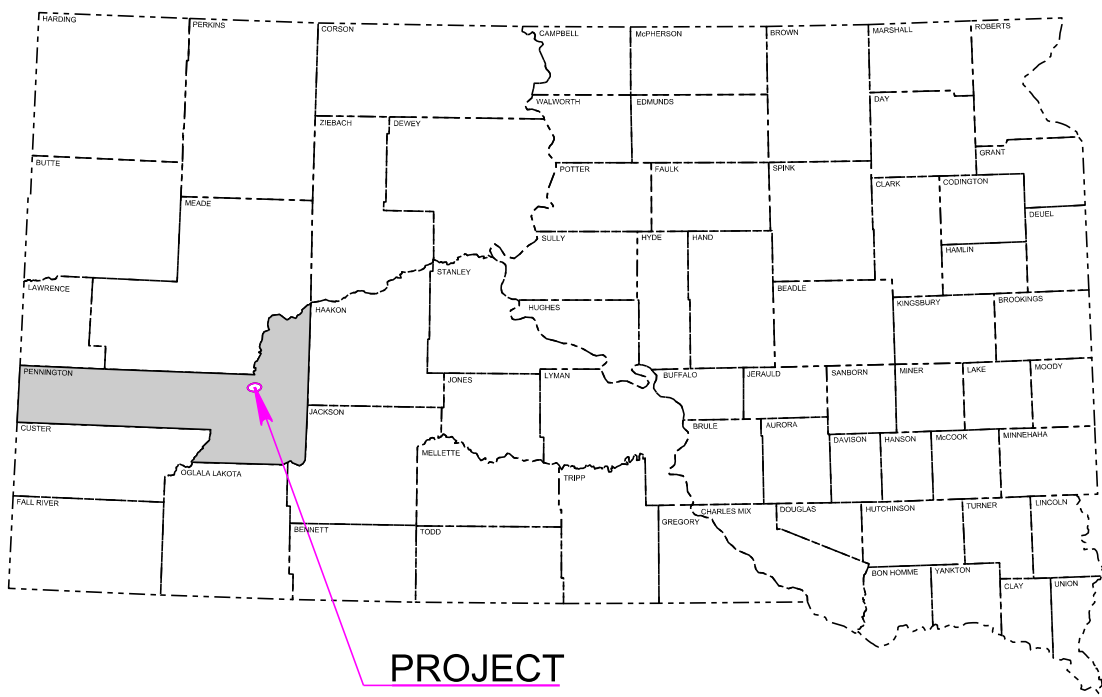
**END SHOULDER WIDENING
BEGIN GRADING**

Station 346+79

**END IM 0902(18)101 (EASTBOUND)
END GRADING**

Station 354+00 = Station 360+84 on
I 90 - 2 (17)96 located 100.44 feet North and
1331.29 feet West of the South 1/4 corner of Section 1 -
Township 1 North - Range 14 East
of the B.H.M.
MRM 101.00+0.466

	Eastbound		Westbound	
Gross Length	1172.00 Feet	0.222 Miles	1539.00 Feet	0.291 Miles
Length of Exceptions	0 Feet	0 Miles	0 Feet	0 Miles
Net Length	1172.00 Feet	0.222 Miles	1539.00 Feet	0.291 Miles



DESIGN DESIGNATION

AAADT (2023)	4000
AAADT (2048)	6016
DHV	1112
D	51%
DHV T%	11.7%
AAADT T%	25.7%
V	80 mph

STORM WATER PERMIT

Major Receiving
Body of Water: Cheyenne River
Area Disturbed: 9 Acres
Total Project Area: 20 Acres
Approx. Begin Lat,Long: 44.0672, -102.3882



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September 4, 2024

Plot Scale - 1:200

TRPR17192

Plotted From -

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ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0902(18)101	A1	A6

Plotting Date: 08/07/2024 Rev 08/07/24 RU

Section B – Grading

Section B – Grading (Cont.)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3220	Reestablish Right-of-Way and Property Corner	8	Each
009E3225	Reestablish Public Land Survey System Corner	2	Each
009E3230	Grade Staking	1.026	Mile
009E3245	Final Cross Section Survey	0.513	Mile
009E3250	Miscellaneous Staking	0.513	Mile
009E3280	Slope Staking	0.513	Mile
009E3290	Structure Staking	2	Each
009E3301	Engineer Directed Surveying/Staking	40.0	Hour
009E4200	Construction Schedule, Category II	Lump Sum	LS
100E0100	Clearing	Lump Sum	LS
110E0400	Remove Drop Inlet	2	Each
110E0600	Remove Fence	2,094	Ft
110E0740	Remove 3 Cable Guardrail Anchor Assembly	8	Each
110E1010	Remove Asphalt Concrete Pavement	4,735.3	SqYd
110E4100	Salvage 3 Cable Guardrail	1,483	Ft
110E4106	Salvage High Tension 4 Cable Guardrail	150	Ft
110E4116	Salvage High Tension 4 Cable Guardrail Anchor Assembly	2	Each
110E4290	Salvage Beam Guardrail	748.0	Ft
110E4292	Salvage Type 1 MGS	306.0	Ft
110E4340	Salvage W Beam to Thrie Beam Guardrail Transition	2	Each
110E4342	Salvage Type 1 Guardrail Transition	2	Each
110E4343	Salvage Type 3 Guardrail Transition	2	Each
110E4390	Salvage MGS MASH Tangent End Terminal	4	Each
110E6006	Remove High Tension 4 Cable Guardrail for Reset	212	Ft
110E6016	Remove High Tension 4 Cable Guardrail Anchor Assembly for Reset	3	Each
110E6410	Remove Type 1 MGS for Reset	200.0	Ft
110E6619	Remove MGS MASH Tangent End Terminal for Reset	2	Each
120E0010	Unclassified Excavation	63,742	CuYd
120E2000	Undercutting	8,327	CuYd
120E6100	Water for Embankment	470.1	MGal
250E0020	Incidental Work, Grading	Lump Sum	LS
450E0122	18" RCP Class 2, Furnish	68	Ft
450E0130	18" RCP, Install	68	Ft
450E0142	24" RCP Class 2, Furnish	106	Ft
450E0150	24" RCP, Install	106	Ft
450E2016	24" RCP Flared End, Furnish	1	Each
450E2017	24" RCP Flared End, Install	1	Each
450E4758	18" CMP 14 Gauge, Furnish	358	Ft
450E4760	18" CMP, Install	358	Ft
450E5010	18" CMP Elbow, Furnish	6	Each
450E5011	18" CMP Elbow, Install	6	Each

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
450E5211	18" CMP Flared End, Furnish	1	Each
450E5212	18" CMP Flared End, Install	1	Each
450E5306	18" CMP Sloped End, Furnish	2	Each
450E5307	18" CMP Sloped End, Install	2	Each
450E5406	18" CMP Safety End, Furnish	1	Each
450E5407	18" CMP Safety End, Install	1	Each
462E0100	Class M6 Concrete	5.9	CuYd
480E0100	Reinforcing Steel	994	Lb
600E0200	Type II Field Laboratory	1	Each
620E0020	Type 2 Right-of-Way Fence	1,507	Ft
620E0515	Type 1A Temporary Fence	1,412	Ft
620E1020	2 Post Panel	18	Each
620E1030	3 Post Panel	5	Each
629E0110	High Tension 4 Cable Guardrail	150	Ft
629E0211	Reset High Tension 4 Cable Guardrail	212	Ft
629E0290	High Tension Cable Guardrail Anchor Assembly	2	Each
629E0295	Reset High Tension Cable Guardrail Anchor Assembly	3	Each
* 629E1109	Furnish High Tension Cable Guardrail Post and Sleeve	50	Each
630E0110	Straight Double Class A Thrie Beam Guardrail with Wood Posts	144.0	Ft
630E0500	Type 1 MGS	1,681.5	Ft
630E1500	Type 1 Guardrail Transition	4	Each
630E1510	Type 3 Guardrail Transition	4	Each
630E2001	Asymmetrical W Beam to Thrie Beam Guardrail Transition	4	Each
630E2018	MGS MASH Tangent End Terminal	10	Each
630E2055	Thrie Beam Guardrail Trailing End Terminal	2	Each
630E5010	Reset Type 1 MGS	200.0	Ft
630E5204	Reset MGS MASH Tangent End Terminal	2	Each
670E0200	Type A Frame and Grate	4	Each
670E4205	Type M Frame and Grate Assembly	1	Each
670E5400	Precast Drop Inlet Collar	4	Each
680E0040	4" Underdrain Pipe	85	Ft
680E0440	4" Slotted Corrugated Polyethylene Drainage Tubing	177	Ft
680E2000	Concrete Headwall for Underdrain	1	Each
680E2500	Porous Backfill	75.0	Ton
700E0110	Class A Riprap	674.1	Ton
720E1010	PVC Coated Bank and Channel Protection Gabion	13.5	CuYd
831E0110	Type B Drainage Fabric	380	SqYd

* - Denotes Non-Participating

INDEX OF SHEETS

A1 to A3 Estimate of Quantities for Sections B, C, D, E, F, M, and S
A4 to A6 Environmental Commitments

Section C - Traffic Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	40.0	Hour
634E0110	Traffic Control Signs	1,035.3	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0275	Type 3 Barricade	17	Each
634E0340	Temporary Raised Pavement Markers	12.0	Mile
634E0380	Tubular Marker	194	Each
634E0420	Type C Advance Warning Arrow Board	2	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	2,640	Ft
634E0630	Temporary Pavement Marking	0.5	Mile
634E1002	Detour and Restriction Signing	266.0	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	2	Each
634E1240	Queue Detection System	2	Each
634E1245	Maintenance of Queue Detection System	40	Hour

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0902(18)101	A2	A6

Plotting Date: 07/02/2024 Rev 07/02/24 RU

Section E – Structure

Section D - Erosion and Sediment Control

Str. No. 52-831-309

Str. No. 52-831-310

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1690	Remove Sediment	4.1	CuYd
110E1695	Remove Sediment Filter Bag	128	Ft
110E1700	Remove Silt Fence	477	Ft
230E0010	Placing Topsoil	2,143	CuYd
730E0100	Cover Crop Seeding	3.0	Bu
730E0210	Type F Permanent Seed Mixture	104	Lb
731E0200	Fertilizing	3.00	Ton
732E0100	Mulching	12.0	Ton
734E0044	Soil Stabilizer	2.3	Acre
734E0103	Type 3 Erosion Control Blanket	11,922	SqYd
734E0154	12" Diameter Erosion Control Wattle	1,225	Ft
734E0165	Remove and Reset Erosion Control Wattle	307	Ft
734E0180	Sediment Filter Bag	128	Ft
734E0602	Low Flow Silt Fence	1,600	Ft
734E0604	High Flow Silt Fence	306	Ft
734E0610	Mucking Silt Fence	132	CuYd
734E0620	Repair Silt Fence	477	Ft
734E0845	Sediment Control at Inlet with Frame and Grate	5	Each
900E1310	Concrete Washout Facility	2	Each
900E1320	Construction Entrance	2	Each

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3310	Bridge Elevation Survey	Lump Sum	LS
009E5000	Concrete Penetrating Sealer	1,754.0	SqYd
120E7000	Select Granular Backfill	19.6	Ton
250E0030	Incidental Work, Structure	Lump Sum	LS
410E0030	Structural Steel, Miscellaneous	Lump Sum	LS
410E2600	Membrane Sealant Expansion Joint	83.8	Ft
420E0100	Structure Excavation, Bridge	29	CuYd
430E0200	Bridge End Embankment	536	CuYd
430E0300	Granular Bridge End Backfill	119.4	CuYd
430E0510	Approach Slab Underdrain Excavation	9.5	CuYd
430E0700	Precast Concrete Headwall for Drain	2	Each
460E0030	Class A45 Concrete, Bridge Deck	605.2	CuYd
460E0050	Class A45 Concrete, Bridge	254.6	CuYd
460E0150	Concrete Approach Slab for Bridge	190.6	SqYd
460E0160	Concrete Approach Sleeper Slab for Bridge	41.9	SqYd
460E0500	Deck Drain, Girder Bridge	3	Each
465E0100	Class A45 Concrete, Drilled Shaft	263.8	CuYd
465E0200	Drilled Shaft Excavation	259.4	CuYd
465E1056	56" Permanent Casing	151.1	Ft
480E0100	Reinforcing Steel	82,392	Lb
480E0200	Epoxy Coated Reinforcing Steel	2,883	Lb
480E0300	Stainless Reinforcing Steel	125,037	Lb
510E0100	Extract Pile	5	Each
510E0300	Preboring Pile	180	Ft
510E3421	HP 12x74 Steel Test Pile, Furnish and Drive	140	Ft
510E3425	HP 12x74 Steel Bearing Pile, Furnish and Drive	1,040	Ft
560E8081	81" Minnesota Shape Prestressed Concrete Beam	2,345	Ft
680E0040	4" Underdrain Pipe	131	Ft
680E2500	Porous Backfill	18.0	Ton
700E0210	Class B Riprap	1,611.0	Ton
700E1100	Overburden Excavation for Riprap	950	CuYd
831E0110	Type B Drainage Fabric	1,922	SqYd
831E1030	Perforated Geocell	560	SqFt

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3310	Bridge Elevation Survey	Lump Sum	LS
009E5000	Concrete Penetrating Sealer	1,754.0	SqYd
120E7000	Select Granular Backfill	19.6	Ton
250E0030	Incidental Work, Structure	Lump Sum	LS
410E0030	Structural Steel, Miscellaneous	Lump Sum	LS
410E2600	Membrane Sealant Expansion Joint	83.8	Ft
420E0100	Structure Excavation, Bridge	29	CuYd
430E0200	Bridge End Embankment	537	CuYd
430E0300	Granular Bridge End Backfill	119.4	CuYd
430E0510	Approach Slab Underdrain Excavation	9.5	CuYd
430E0700	Precast Concrete Headwall for Drain	2	Each
460E0030	Class A45 Concrete, Bridge Deck	605.2	CuYd
460E0050	Class A45 Concrete, Bridge	255.1	CuYd
460E0150	Concrete Approach Slab for Bridge	190.6	SqYd
460E0160	Concrete Approach Sleeper Slab for Bridge	41.9	SqYd
460E0500	Deck Drain, Girder Bridge	3	Each
465E0100	Class A45 Concrete, Drilled Shaft	263.5	CuYd
465E0200	Drilled Shaft Excavation	259.1	CuYd
465E1056	56" Permanent Casing	151.1	Ft
480E0100	Reinforcing Steel	82,430	Lb
480E0200	Epoxy Coated Reinforcing Steel	2,883	Lb
480E0300	Stainless Reinforcing Steel	125,037	Lb
510E0100	Extract Pile	5	Each
510E0300	Preboring Pile	180	Ft
510E3421	HP 12x74 Steel Test Pile, Furnish and Drive	140	Ft
510E3425	HP 12x74 Steel Bearing Pile, Furnish and Drive	1,040	Ft
560E8081	81" Minnesota Shape Prestressed Concrete Beam	2,345	Ft
680E0040	4" Underdrain Pipe	131	Ft
680E2500	Porous Backfill	18.0	Ton
700E0210	Class B Riprap	1,699.0	Ton
700E1100	Overburden Excavation for Riprap	1,028	CuYd
831E0110	Type B Drainage Fabric	2,020	SqYd
831E1030	Perforated Geocell	560	SqFt

Plot Scale - 1:200

Plotted From - TRPR17190

Plotted From -

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ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0902(18)101	A3	A6

Plotting Date: 06/29/2024 Rev 06/29/24 RU

Section F - Surfacing

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3320	Checker	Lump Sum	LS
120E6200	Water for Granular Material	124.4	MGal
260E1010	Base Course	10,382.8	Ton
320E3000	Compaction Sample	8	Each
320E5020	Saw Joint in Asphalt Concrete	2,493	Ft
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	0.7	Mile
330E0010	MC-70 Asphalt for Prime	10.5	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	5.2	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	1.6	Ton
330E1000	Blotting Sand for Prime	5.0	Ton
330E2000	Sand for Flush Seal	6.5	Ton

Alternate A

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0008	PG 64-34 Asphalt Binder	166.1	Ton
320E1060	Class G Asphalt Concrete	2,891.6	Ton
320E4000	Hydrated Lime	28.6	Ton

Alternate B

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0008	PG 64-34 Asphalt Binder	146.8	Ton
320E1060	Class G Asphalt Concrete	2,969.5	Ton
320E4000	Hydrated Lime	29.4	Ton

Section M - Pavement Marking

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0015	Cold Applied Plastic Pavement Marking, 6"	670	Ft
633E1201	High Build Waterborne Pavement Marking Paint with Reflective Elements, White	2,710	Gal
633E1206	High Build Waterborne Pavement Marking Paint with Reflective Elements, Yellow	2,710	Gal
633E5002	Grooving for Cold Applied Plastic Pavement Marking, 6"	670	Ft
633E5102	Grooving for Durable Pavement Marking, 6"	5,420	Ft

Section S - Permanent Signing

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E0130	Remove Traffic Sign	1	Each
110E7150	Remove Sign for Reset	3	Each
110E7152	Remove Delineator for Reset	6	Each
632E1340	2.5"x2.5" Perforated Tube Post	26.0	Ft
632E2100	Reset Delineator	6	Each
632E2220	Guardrail Delineator	50	Each
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	20.0	SqFt
632E3500	Reset Sign	3	Each

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications, and Special Provisions as included in the Proposal.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT IM 0902(18)101	SHEET A4	TOTAL SHEETS A6
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Plotting Date: 02/21/2024

ENVIRONMENTAL COMMITMENTS

The SDDOT is committed to protecting the environment and uses Environmental Commitments as a communication tool for the Engineer and Contractor to ensure that attention is given to avoid, minimize, and/or mitigate an environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency with permitting authority can delay a project if identified environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. During construction, the Project Engineer will verify that the Contractor has met Environmental Commitment requirements. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office.

Additional guidance on SDDOT's Environmental Commitments can be accessed through the Environmental Procedures Manual found at: <https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf>

For questions regarding change orders in the field that may have an effect on an Environmental Commitment, the Project Engineer will contact the Environmental Engineer at 605-773-3180 or 605-773-4336 to determine whether an environmental analysis and/or resource agency coordination is necessary.

Once construction is complete, the Project Engineer will review all environmental commitments for the project and document their completion.

COMMITMENT A: WETLANDS

All efforts to avoid and minimize wetland impacts from the project have resulted in approximately 0.07 acre of wetlands (includes temporary and permanent) becoming impacted. Refer to Section B – Grading Plans for location and boundaries of the impacted wetlands.

Table of Impacted Wetlands

Wetland No.	Station	Perm. Impact Left (Acres)	Perm. Impact Right (Acres)	Temp. Impact Left (Acres)	Temp. Impact Right (Acres)	Total Impact (Acres)
1	349+53	0	0	0.04	0.03	0.07

Action Taken/Required:

Temporary impacts identified in the Table of Impacted Wetlands will not be mitigated as original contours and elevations will be re-established as designated in Section B – Grading Plans. Prior to initiating temporary work in wetlands, the Contractor will submit a plan to the Project Engineer in accordance with Section 7.21 D of the Specifications.

The Contractor will notify the Project Engineer if additional easement is needed to complete work adjacent to any wetland. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any wetlands beyond the work limits and easements shown in the plans.

COMMITMENT B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES

COMMITMENT B2: WHOOPING CRANE

The Whooping Crane is a spring and fall migratory bird in South Dakota that is about 5 feet tall and typically stops on wetlands, rivers, and agricultural lands along their migration route. An adult Whooping Crane is white with a red crown and a long, dark, pointed bill. Immature Whooping Cranes are cinnamon brown. While in flight, their long necks are kept straight and their long dark legs trail behind. Adult Whooping Cranes' black wing tips are visible during flight.

Action Taken/Required:

Harassment or other measures to cause the Whooping Crane to leave the site is a violation of the Endangered Species Act. If a Whooping Crane is sighted roosting in the vicinity of the project, borrow pits, or staging areas associated with the project, cease construction activities in the affected area until the Whooping Crane departs and immediately contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

COMMITMENT B5: NORTHERN LONG-EARED BAT

This project is within the range of suitable habitat for the Northern Long-Eared Bat (NLEB) and project work will avoid conflicts with NLEB roosting habitat.

Action Taken/Required:

Project activities that include tree removal, structure work, and/or work within one-quarter mile of a known hibernacula or 150 feet of a known maternity roost tree, or suitable habitat should not occur within the location(s) listed below during the NLEB seasonal work restriction timeframe without approval from the SDDOT Environmental Office.

Station	NLEB Seasonal Work Restriction
347+00 to 351+50	April 1 to October 31

Tree removal will occur between November 1st and March 31st.

COMMITMENT C: WATER SOURCE

The Contractor will not withdraw water with equipment previously used outside the State of South Dakota or previously used in aquatic invasive species (AIS) positive waters within South Dakota without prior approval from the SDDOT Environmental Office. To prevent and control the introduction and spread of invasive species into the project vicinity, all equipment will be power washed with hot water (≥140 °F) and completely dried for a minimum of 7 days prior to subsequent use. South Dakota administrative rule 41:10:04:02 forbids the possession and transport of AIS; therefore, all attached dirt, mud, debris and vegetation must be removed and all compartments and tanks capable of holding standing water must be drained. This includes, but is not limited to, all equipment, pumps, lines, hoses and holding tanks.

Action Taken/Required:

The Contractor will obtain the necessary permits from the regulatory agencies such as the South Dakota Department of Agriculture and Natural Resources (DANR) and the United States Army Corps of Engineers (USACE) prior to water extraction activities.

Additional information and mapping of water sources impacted by Aquatic Invasive Species in South Dakota can be accessed at:

< <http://sdleastwanted.com/maps/default.aspx> >

< [South Dakota Administrative Rule 41:10:04 Aquatic Invasive Species: https://sdlegislature.gov/rules/DisplayRule.aspx?Rule=41:10:04](https://sdlegislature.gov/rules/DisplayRule.aspx?Rule=41:10:04) >

COMMITMENT D: WATER QUALITY STANDARDS

COMMITMENT D1: SURFACE WATER QUALITY

This project may be in the vicinity of multiple streams and wetlands. These waters are considered waters of the state and are protected under Administrative Rules of South Dakota (ARSD) Chapter 74:51. Special construction measures may have to be taken to ensure that this water body is not impacted.

Action Taken/Required:

The Contractor is advised that the South Dakota Surface Water Quality Standards, administered by the South Dakota Department of Agriculture and Natural Resources (DANR), apply to this project. Special construction measures will be taken to ensure the above standard(s) of the surface waters are maintained and protected.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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Plotting Date: 02/21/2024

COMMITMENT D2: SURFACE WATER DISCHARGE

The DANR General Permit for Temporary Discharge is required for temporary dewatering and discharges to waters of the state. The effluent limit for total suspended solids will be 90 mg/L 30-day average. The effluent limit applies to discharges to all waters of the state except discharges to waters classified as cold water permanent fish life propagation waters according to the ARSD 74:51:01:45. For discharges to waters of the state classified as cold water permanent fish life propagation waters, the effluent limit for total suspended solids will be 53 mg/L daily maximum.

The permittee has the option of completing effluent testing or implementing a pollution prevention plan for compliance with this permit. If the permittee develops a pollution prevention plan instead of total suspended solids sampling, the plan must be developed and implemented prior to discontinuing total suspended solids sampling. Refer to Section 4.0 of the permit. If any pollutants are suspected of being discharged, a sample must be taken for those parameters listed in Section 3.4 of the permit.

Refer to Commitment D1: Surface Water Quality for stream classification.

Action Taken/Required:

If construction dewatering is required and this project is currently covered under a General Permit for Stormwater Discharges Associated with Construction Activities, the contractor will need to submit the dewatering information to the SDDANR using the following form:

< https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR_AddTemplInfoFillable.pdf >

The Contractor will provide a copy of the approved permit or the submitted dewatering information to the Project Engineer prior to proceeding with any dewatering activities. The approved permit or submitted dewatering information must be kept on-site and as part of the project records.

Effluent monitoring, as a result of dewatering activities, will be summarized for each month and recorded on a separate Discharge Monitoring Report (DMR) and submitted to DANR monthly. Additional information can be found at:

< <http://denr.sd.gov/des/sw/WhatisaDMR.aspx> >

COMMITMENT E: STORM WATER

Construction activities constitute 1 acre or more of earth disturbance and/or work in a waterway.

Action Taken/Required:

The DANR General Permit for Stormwater Discharges Associated with Construction Activities is required for construction activity disturbing one or more acres of earth and work in a waterway. The SDDOT is the owner of this permit and will submit the NOI to DANR 15 days prior to project start in order to obtain coverage under the General Permit. Work can begin once the DANR letter of approval is received.

The Contractor must adhere to the "Special Provision Regarding Storm Water Discharges to Waters of the State."

The Contractor will complete the DANR Contractor Certification Form prior to the pre-construction meeting. The form certifies under penalty of law that the Contractor understands and will comply with the terms and conditions of the permit for this project. Work may not begin on this project until this form is signed and submitted to DANR.

The form can be found at:

< https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR_CGPAAppendixCCA2018.pdf >

The Contractor is advised that permit coverage may also be required for off-site activities, such as borrow and staging areas, which are the responsibility of the Contractor.

Storm Water Pollution Prevention Plan

The Storm Water Pollution Prevention Plan (SWPPP) will be developed prior to the submittal of the NOI and will be implemented for all construction activities for compliance with the permit. The SWPPP must be kept on-site and updated as site conditions change. Erosion control measures and best management practices will be implemented in accordance with the SWPPP.

The DOT 298 Form will be used for site inspections and to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents and retained for a minimum of three years.

The inspection will include disturbed areas of the construction site that have not been finally stabilized, areas used for storage materials, structural control measures, and locations where vehicles enter or exit the site. These areas will be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the SWPPP will be observed to ensure that they are operating correctly, and sediment is not tracked off the site.

Information on storm water permits and SWPPPs are available on the following websites:

SDDOT: < <https://dot.sd.gov/doing-business/environmental/stormwater> >

DANR: < <https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/stormwater/default.aspx> >

EPA: < <https://www.epa.gov/npdes> >

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor will furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

Action Taken/Required:

Construction and/or demolition debris may not be disposed of within the Public ROW.

The waste disposal site(s) will be managed and reclaimed in accordance with the following from the General Permit for Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Agriculture and Natural Resources.

The waste disposal site(s) will not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Environmental Office and the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements will apply:

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials will be buried in a trench separate from wood debris. The final cover over the construction and/or demolition debris will consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public ROW will be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor will control the access to waste disposal sites not within the Public ROW with fences, gates, and placement of a sign or signs at the entrance to the site stating, "No Dumping Allowed".

2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period not to exceed the duration of the project. Prior to project completion, the waste will be removed from view of the ROW or buried, and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) will be incidental to the various contract items.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0902(18)101	A6	A6

Plotting Date: 02/21/2024

COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historic Preservation Office (SHPO or THPO) for all work included within the project limits and all department designated sources and designated option material sources, stockpile sites, storage areas, and waste sites provided within the plans.

Action Taken/Required:

All earth disturbing activities not designated within the plans require a cultural resource review prior to scheduling the pre-construction meeting. This work includes but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

The Contractor will arrange and pay for a record search and when necessary, a cultural resource survey. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review if the site was previously surveyed; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor will provide ARC with the following: a topographical map or aerial view in which the site is clearly outlined, site dimensions, project number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that artifacts have not been found on the site.

The Contractor will submit the cultural resources survey report to SDDOT Environmental Office, 700 East Broadway Avenue, Pierre, SD 57501-2586. SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

In the event of an inadvertent discovery of human remains, funerary objects, or if evidence of cultural resources is identified during project construction activities, then such activities within 100 feet of the inadvertent discovery will immediately cease and the Project Engineer will be immediately notified. The Project Engineer will contact the SDDOT Environmental Office, who will contact the appropriate SHPO/THPO within 48 hours of the discovery to determine an appropriate course of action.

SHPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered species, or waterways. The Contractor will not utilize a site known or suspected of having contaminated soil or water. The Contractor will provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

COMMITMENT J: CONSTRUCTION PRACTICES FOR TEMPORARY WORKS IN WATERWAYS OF THE U.S.

The Contractor is advised that special construction measures must be taken to ensure that the waterways of the U.S. are not impacted.

Action Taken/Required:

Excavation will not occur below the ordinary high-water elevation in waterways outside of caissons, cribs, cofferdams, steel piling, or sheeting. The natural streambed will not be disturbed unless specified by the plans and under the observation of the Project Engineer. Refer to the Table of U.S. Waterways to Protect for ordinary high-water elevations. Any structure work over or within the waterway will be constructed according to Section 7.21 C of the Specifications.

All dredged or excavated materials will be placed at a site above the ordinary high-water elevation in a confined area (not classified as a wetland) that is a minimum of 50 feet away from concentrated flows of storm water, drainage courses, and inlets to prevent return of such material to the waterway.

The construction of temporary work platforms, crossings, or berms below the ordinary high-water elevation will be allowed if all material placed below the ordinary high-water elevation consists of Class B or larger riprap.

All temporary caissons, cribs, cofferdams, steel piling, sheeting, work platforms, crossings, and berms will be removed with minimal disturbance to the streambed. Proper construction practices will be used to minimize increases in suspended solids and turbidity in the waterway.

Bridge berms, wing dams, traffic diversions, channel reconstruction, stream diversions, grading, etc. will be constructed in close conformity with the plans to ensure that the hydraulic capacity of the waterway is not changed.

Temporary waterway crossings required for the Contractor's construction operations will be constructed with an adequate drainage structure size and minimum fill height to reduce the potential for upstream flooding. The Contractor will be responsible for sizing the temporary drainage structure for these crossings.

All temporary works in waterways of the US are required to be covered in the Corp of Engineers 404 Permit. At the time of the preconstruction meeting, the Contractor will submit documentation for all temporary works for the purpose of complying with the 404 Permit requirements in accordance with Section 423.3 A of the Specifications.

If an on-site construction crossing is used, the temporary crossing will need to be designed so it will not increase the Q_{100} water surface elevation. The Contractor will submit the proposed temporary crossing geometric layout and structure size to the Project Engineer during the preconstruction meeting. This information will be forwarded to the SDDOT Hydraulics Office and Environmental Office for review. Construction of the temporary crossing is not allowed until approval of the proposal is obtained from the SDDOT Hydraulics Office and Environmental Office.

Table of U.S. Waterways to Protect

Station	Waterway	Ordinary High-Water Elevation
349+52 (EBL)	Bull Creek	2307.7'
349+53 (WBL)	Bull Creek	2307.7'

Stream channel excavation within "Waters of the US" is subject to USACE regulatory jurisdiction. Stream channel excavation cannot exceed the permitted quantities and/or surface area. The 404 Permit is included in the Special Provisions.

The Contractor will take all precautions necessary to prevent any incidental discharges associated with the excavation and hauling of material from the stream channel. This pertains to any excavation operations such as, foundation, pier, or abutment excavation, channel cleanout, excavation for riprap protection, and removal of any temporary fill associated with construction activities.

COMMITMENT N: SECTION 404 PERMIT

The SDDOT has obtained a Section 404 Permit from the USACE for the permanent actions associated with this project.

Action Taken/Required:

The Contractor will comply with all requirements contained in the Section 404 Permit.

The Contractor will also be responsible for obtaining a Section 404 Permit for any dredge, excavation, or fill activities associated with material sources, storage areas, waste sites, and Contractor work sites outside the plan work limits that affect wetlands, floodplains, or waters of the United States.