

STATE OF	PROJECT	SHEET NO.	TOTA SHEET
SOUTH DAKOTA	IM 2292(105)3	A2	A6

Plotting Date: 03/25/2024 Rev 03/25/2024 PLG

SECTION B – GRADING

BID ITEM NUMBER	TI-M		UNIT
009E0010	Mobilization	Lump Sum	LS
009E3230	Grade Staking	1.824	Mile
009E3245	Final Cross Section Survey	1.824	Mile
009E3250	Miscellaneous Staking	1.824	Mile
009E3280	Slope Staking	1.824	Mile
009E3290	Structure Staking	4	Each
009E3301	Engineer Directed Surveying/Staking	40.0	Hour
009E4200	Construction Schedule, Category II	Lump Sum	LS
100E0100	Clearing	Lump Sum	LS
110E0650	Remove Crossover Closure	311	Ft
110E0700	Remove 3 Cable Guardrail	1,311	Ft
110E0730	Remove Beam Guardrail	79.5	Ft
110E0740	Remove 3 Cable Guardrail Anchor Assembly	7	Each
110E1100	Remove Concrete Pavement	4,016.5	SqYd
110E7510	Remove Pipe End Section for Reset	1	Each
120E0010	Unclassified Excavation	25,145	CuYd
120E0500	Option Borrow Excavation	56,838	CuYd
120E1000	Muck Excavation	761	CuYd
120E2000	Undercutting	15,903	CuYd
120E6100	Water for Embankment	560.0	MGal
250E0020	Incidental Work, Grading	Lump Sum	LS
450E0105	12" RCP Class 5, Furnish	182	Ft
450E0110	12" RCP, Install	182	Ft
450E0143	24" RCP Class 3, Furnish	20	Ft
450E0150	24" RCP, Install	20	Ft
450E4738	12" CMP 14 Gauge, Furnish	106	Ft
450E4740	12" CMP, Install	106	Ft
450E4758	18" CMP 14 Gauge, Furnish	94	Ft
450E4760	18" CMP, Install	94	Ft
450E5000	12" CMP Elbow, Furnish	6	Each
450E5001	12" CMP Elbow, Install	6	Each
450E5203	12" CMP Flared End, Furnish	3	Each
450E5204	12" CMP Flared End, Install	3	Each
450E5406	18" CMP Safety End, Furnish	1	Each
450E5407	18" CMP Safety End, Install	1	Each
450E7999	12" RCP to CMP Transition, Furnish	3	Each
450E8000	12" Pipe Transition, Install	3	Each
450E9001	Reset Pipe End Section	1	Each
462E0100	Class M6 Concrete	6.2	CuYd
480E0100	Reinforcing Steel	899	Lb
629E9000	Crossover Closure	530	Ft
629E9010	Interim Crossover Closure	530	Ft
-2020010	Type 1 MGS	1,512.5	Ft

SECTION B - GRADING (cont'd)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
630E0530	Type 3 MGS	150.0	Ft
630E1005	18'-9" Longspan MGS	1	Each
630E2017	MGS MASH Flared End Terminal	5	Each
630E2018	MGS MASH Tangent End Terminal	1	Each
630E2065	MGS Trailing End Terminal	2	Each
670E3300	Type E Frame and Grate	3	Each
670E5400	Precast Drop Inlet Collar	3	Each

SECTION C - TRAFFIC CONTROL

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
628E0200	Remove and Reset Crash Cushion	5	Each
628E1500	Concrete Barrier End Protection	4	Each
633E0030	Cold Applied Plastic Pavement Marking, 24"	60	Ft
633E0040	Cold Applied Plastic Pavement Marking, Arrow	6	Each
634E0110	Traffic Control Signs	2,240.7	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	15	Each
634E0380	Tubular Marker	194	Each
634E0390	Replace Tubular Marker	19	Each
634E0420	Type C Advance Warning Arrow Board	3	Each
634E0525	Linear Delineation System Panel, Barrier Mounted	479	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	2,200	Ft
634E0565	Remove Pavement Marking, Arrow	8	Each
634E0575	Remove Pavement Marking, Area 200.0		SqFt
634E0640	Temporary Pavement Marking 22,34		Ft
634E0702	Contractor Supplied Traffic Control Movable Concrete Barrier	479	Each
634E0705	Remove and Reset Traffic Control Movable Concrete Barrier	3	Each
634E0750	Temporary Concrete Barrier End Protection	5	Each
634E0755	Remove and Reset Temporary Concrete Barrier End Protection	5	Each
634E0760	Temporary Concrete Barrier End Protection Module Set or Repair Kit	1	Each
634E1215	Contractor Furnished Portable Changeable Message Sign	2	Each
634E1235	Queue Detection System	9.0	Mth
634E1245	Maintenance of Queue Detection System		Hour
634E2000	Longitudinal Pedestrian Barricade	8	Ft
634E2020	Temporary Curb Ramp	2	Each
634E2025	Longitudinal Pedestrian Barrier	300	Ft

SECTION D - EROSION CONTROL

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1690	Remove Sediment	1.1	CuYd
110E1700	Remove Silt Fence	2,142	Ft
230E0010	Placing Topsoil	6,425	CuYd
730E0202	Type B Permanent Seed Mixture	216	Lb
731E0200	Fertilizing	5.97	Ton
732E0200	Fiber Mulching	23.3	Ton
734E0102	Type 2 Erosion Control Blanket	7,767	SqYd
734E0133	Type 3 Turf Reinforcement Mat	652.0	SqYd
734E0154	12" Diameter Erosion Control Wattle		Ft
734E0160	160 20" Diameter Erosion Control Wattle		Ft
734E0165	Remove and Reset Erosion Control Wattle 114		
734E0510	Shaping for Erosion Control Blanket 4,312		Ft
734E0602	Low Flow Silt Fence	8,505	Ft
734E0610	Mucking Silt Fence	595	CuYo
734E0620	Repair Silt Fence	2,142	Ft
734E0845	Sediment Control at Inlet with Frame and Grate	3	Each
734E0847	Sediment Control at Type S Reinforced Concrete Drop Inlet 16		Ft
734E5010	Sweeping 32		Hour
900E1310	10 Concrete Washout Facility 2		
900E1320	Construction Entrance	6	Each

SECTION E – STRUCTURE

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
004E0060	Temporary Detour Structure	1	Each
420E0100	Structure Excavation, Bridge	57	CuYd
420E0300	Structure Excavation, Retaining Wall	35	CuYd
421E1000	21E1000 Footing Undercut		CuYd
460E0050	460E0050 Class A45 Concrete, Bridge		CuYd
480E0100	E0100 Reinforcing Steel		Lb
510E3120	HP 10 Pile Tip Reinforcement	16	Each
510E3365	10E3365 HP 10x42 Steel Bearing Pile, Furnish and Drive		Ft
530E0470	Gravity Large Concrete Block Wall	2,592	SqFt
530E0718	Granular Backfill for Gravity Large Concrete Block Wall	386.8	CuYd
680E0040	4" Underdrain Pipe	659	Ft
680E2500	Porous Backfill	29.6	Ton

INDEX OF SHEETS

A2 to A3 Estimate of Quantities for Sections B, C, D, E, F,

M, and S

A4 to A6 Environmental Commitments

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SOUTH DAKOTA		IM 2292(105)3		A3	A6
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SECTION F - SURFACING

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
120E6200	Water for Granular Material	132.7	MGal
120E9000	Pit Run	377.9	Ton
260E1010	Base Course	11,055.1	Ton
320E1200	Asphalt Concrete Composite	7,059,6	Ton
332E0010	Cold Milling Asphalt Concrete	1,813	SqYd
380E6450	Saw Joint in PCC Pavement	959.1	Ft
831E0210	Non-woven Separator Fabric	445	SqYd

SECTION M - PAVEMENT MARKING

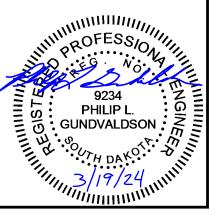
BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0010	Cold Applied Plastic Pavement Marking, 4"	7,900	Ft
633E0030	Cold Applied Plastic Pavement Marking, 24"	100	Ft
633E0040	Cold Applied Plastic Pavement Marking, Arrow	7	Each
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	7,900	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	100	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	7	Each

SECTION S - PERMANENT SIGNING

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E0100	Remove Concrete Footing(s)	Lump Sum	LS
110E0130	Remove Traffic Sign	5	Each
110E5000	Salvage Sign Bridge	2	Each
110E7150	Remove Sign for Reset	5	Each
632E0012	1.5' Diameter Breakaway Support Concrete Footing	8.0	Ft
632E0014	1.75' Diameter Breakaway Support Concrete Footing	24.0	Ft
632E1215	S4x7.7 Steel Post	22.0	Ft
632E1235	W6x20 Steel Post	58.0	Ft
632E1340	2.5"x2.5" Perforated Tube Post	64.8	Ft
632E3105	Extruded Aluminum Sign, Removable Copy Super/Very High Intensity	229.5	SqFt
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	42.5	SqFt
632E3500	Reset Sign	6	Each
634E0275	Type 3 Barricade	3	Each

SPECIFICATIONS

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



Plotting Date: 03/01/2024

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: AQUATIC RESOURCES

COMMITMENT A1: WETLANDS

All efforts to avoid and minimize wetland impacts from the project have resulted in approximately 0.121 acre(s) of wetlands (includes temporary and permanent) becoming impacted. Refer to Section B – Grading Plans/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	31+00 to 34+50 (Ramp C)	0.00	0.00	0.00	0.109	0.109
2	5208+50 to 5210+25 (I-229 NB Diversion)	0.00	0.00	0.00	0.012	0.012

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 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
173+85.65 – 224+77.22	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.

The Contractor will not withdraw water directly from streams of the James, Big Sioux, and Vermillion watersheds without prior approval from the SDDOT Environmental Office.

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:

- < https://sdleastwanted.sd.gov/maps/default.aspx >
- South Dakota Administrative Rule 41:10:04 Aquatic Invasive Species: https://sdlegislature.gov/rules/DisplayRule.aspx?Rule=41:10:04 >

COMMITMENT D: WATER QUALITY STANDARDS

COMMITMENT D1: SURFACE WATER QUALITY

The Big Sioux River is classified as a warm water semi-permanent fishery with a total suspended solids standard of less than 90 mg/L 30-day average, less than 158 mg/L daily maximum.

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.

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.

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COMMITMENT D2: SURFACE WATER DISCHARGE (cont'd)

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_AddTe mpInfoFillable.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:

https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/swdpermitting/Ereporting.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_CGPAppendixCCA2018Fillable.pdf >

The Contractor is advised that permit coverage may also be required for offsite 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.

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

COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES (cont'd)

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 150 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/THPO 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 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.

FOR BIDDING PURPOSES ONLY

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