

# **ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS**

# | STATE OF | SOUTH | DAKOTA | NH 0212(200)313 | SHEET | TOTAL SHEETS | SHEET | SHEETS | SHEET | SHEETS | SHEETS

# Section C - Traffic Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	940.0	Hour
634E0020	Pilot Car	450.0	Hour
634E0110	Traffic Control Signs	677.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0525	Linear Delineation System Panel, Barrier Mounted	16	Each
634E0630	Temporary Pavement Marking	61.4	Mile
634E0700	Traffic Control Movable Concrete Barrier	47	Each
634E0750	Temporary Concrete Barrier End Protection	2	Each
634E0900	Portable Temporary Traffic Control Signal	2	Unit
634E1002	Detour and Restriction Signing	1,379.0	SqFt

# Section D - Erosion Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
734E0010	Erosion Control	Lump Sum	LS

# Section E - Structure

#### Str. No. 58-242-240

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3310	Bridge Elevation Survey	Lump Sum	LS
120E0010	Unclassified Excavation	21	CuYd
410E2600	Membrane Sealant Expansion Joint	133.2	Ft
430E0200	Bridge End Embankment	6	CuYd
430E0300	Granular Bridge End Backfill	60.0	CuYd
430E0510	Approach Slab Underdrain Excavation	3.2	CuYd
430E0700	Precast Concrete Headwall for Drain	4	Each
460E0150	Concrete Approach Slab for Bridge	230.6	SqYd
460E0160	Concrete Approach Sleeper Slab for Bridge	21.0	SqYd
460E0300	Breakout Structural Concrete	1.2	CuYd
460E0380	Install Dowel in Concrete	56	Each
480E0504	No. 4 Rebar Splice	34	Each
480E0505	No. 5 Rebar Splice	32	Each
480E0506	No. 6 Rebar Splice	54	Each
491E0006	Two Coat Bridge Deck Polymer Chip Seal Repair	217.8	SqYd
491E0110	Abrasive Blasting of Bridge Deck	217.8	SqYd
491E0120	Bridge Deck Grinding	217.8	SqYd
680E0040	4" Underdrain Pipe	156	Ft
680E2500	Porous Backfill	6.0	Ton

# Section F - Surfacing

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E1350	Restoration of Stockpile Site	Lump Sum	LS
009E3320	Checker	Lump Sum	LS
009E4200	Construction Schedule, Category II	Lump Sum	LS
110E0400	Remove Drop Inlet	2	Each
110E0420	Remove Drop Inlet Frame and Grate Assembly	2	Each
110E0500	Remove Pipe Culvert	46	Ft
110E0730	Remove Beam Guardrail	500.0	Ft
110E1010	Remove Asphalt Concrete Pavement	617.5	SqYd
110E6410	Remove Type 1 MGS for Reset	175.0	Ft
110E6501	Remove Type 1 Retrofit Guardrail Transition for Reset	4	Each
110E6619	Remove MGS MASH Tangent End Terminal for Reset	4	Each
110E7152	Remove Delineator for Reset	20	Each
120E0010	Unclassified Excavation	639	CuYd
120E0100	Unclassified Excavation, Digouts	687	CuYd
120E0600	Contractor Furnished Borrow	68	CuYd
120E6200	Water for Granular Material	196.8	MGal
210E1000	Shoulder Preparation	15.504	Mile
210E1005	Surface Preparation	1.500	Mile
260E1010	Base Course	2,005.2	Ton
260E1030	Base Course, Salvaged	1,024.4	Ton
270E0110	Salvage and Stockpile Granular Material	1,024.4	Ton
320E0005	PG 58-34 Asphalt Binder	3,146.3	Ton
320E1200	Asphalt Concrete Composite	205.8	Ton
320E1203	Class Q3R Hot Mixed Asphalt Concrete	65,912.5	Ton
320E1800	Asphalt Concrete Blade Laid	1,235.0	Ton
320E4000	Hydrated Lime	663.9	Ton
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	26.6	Mile
320E7028	Grind Centerline Rumble Stripe in Asphalt Concrete	10.4	Mile
320E7030	Grind Sinusoidal Centerline Rumble Stripe in Asphalt Concrete	2.9	Mile
330E0010	MC-70 Asphalt for Prime	132.9	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	237.2	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	79.1	Ton
330E1000	Blotting Sand for Prime	107.5	Ton
330E2000	Sand for Flush Seal	739.2	Ton
332E0010	Cold Milling Asphalt Concrete	140,823	SqYd
450E0122	18" RCP Class 2, Furnish	8	Ft
450E0130	18" RCP, Install	8	Ft
450E2008	18" RCP Flared End, Furnish	1	Each
450E2009	18" RCP Flared End, Install	1	Each
450E4759	18" CMP 16 Gauge, Furnish	4	Ft
450E4760	18" CMP, Install	4	Ft

# **INDEX OF SHEETS**

Revised: 25Aug25, LLR

A1 Estimate of Quantities for Sections C, D, E, F and M
A2 – A3 Environmental Commitments

# Section F - Surfacing (cont.)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
450E5010	18" CMP Elbow, Furnish	2	Each
450E5011	18" CMP Elbow, Install	2	Each
450E8009	18" RCP to CMP Transition, Furnish	1	Each
450E8010	18" Pipe Transition, Install	1	Each
600E0300	Type III Field Laboratory	1	Each
630E0500	Type 1 MGS	237.5	Ft
630E1501	Type 1 Retrofit Guardrail Transition	4	Each
630E2017	MGS MASH Flared End Terminal	4	Each
630E2100	Beam Guardrail Post	92	Each
630E5010	Reset Type 1 MGS	175.0	Ft
630E5204	Reset MGS MASH Tangent End Terminal	4	Each
630E5301	Reset Type 1 Retrofit Guardrail Transition	4	Each
632E2100	Reset Delineator	20	Each
632E2220	Guardrail Delineator	16	Each
670E0200	Type A Frame and Grate	2	Each
670E1010	2' x 3' Type B Drop Inlet	2	Each
670E5400	Precast Drop Inlet Collar	2	Each
831E0300	Reinforcement Fabric (MSE)	1,073	SqYd
900E0022	Remove and Reset Mailbox	2	Each
900E1980	Storage Unit	1	Each

# Section M - Pavement Marking

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0030	Cold Applied Plastic Pavement Marking, 24"	737	Ft
633E0040	Cold Applied Plastic Pavement Marking, Arrow	17	Each
633E1200	High Build Waterborne Pavement Marking Paint, White	634	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	116	Gal
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	737	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	17	Each

# **SPECIFICATIONS**

Standard Specifications for Roads and Bridges, 10-1-25 Version, Required Provisions, and Special Provisions as included in the Proposal. The Standard Specifications for Roads and Bridges is available for download and viewing at <a href="https://dot.sd.gov/doing-business/contractors/standard-specifications">https://dot.sd.gov/doing-business/contractors/standard-specifications</a>.

# **ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS**

STATE OF	PROJECT	SHEET	TOTAL SHEETS
SOUTH DAKOTA	NH 0212(200)313	A2	A3

#### **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: <a href="https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf">https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf</a>>

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 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 B4: BALD EAGLE**

Bald eagles are known to occur in this area.

#### Action Taken/Required:

If a nest is observed within one-half mile of the project site, notify the Project Engineer immediately so that he/she can consult with the Environmental Office for an appropriate course of action.

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

Timber Creek is classified as warm water, marginal fishery with a total suspended solids standard of less than 150 mg/L 30-day average, less than 263 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 E: STORM WATER**

Construction activities constitute less than 1 acre of disturbance.

### **Action Taken/Required:**

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

# **ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS**

#### **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 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.

STATE OF	PROJECT	SHEET	TOTAL SHEETS
SOUTH DAKOTA	NH 0212(200)313	A3	A3