

# **ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS**

STATE OF	PROJECT	SHEET	TOTAL SHEETS
SOUTH DAKOTA	P 0053(12)14 & P 0047(126)60	A1	A3

# **Section C - Traffic Control**

## PCN 09LF - SD47

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E1200	High Build Waterborne Pavement Marking Paint, White	10	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	5	Gal
634E0010	Flagging	10.0	Hour
634E0110	Traffic Control Signs	219.6	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0330	Temporary Raised Pavement Markers	2,200	Ft
634E0525	Linear Delineation System Panel, Barrier Mounted	100	Each
634E0600	4" Temporary Pavement Marking Tape Type I	144	Ft
634E0700	Traffic Control Movable Concrete Barrier	100	Each
634E0750	Temporary Concrete Barrier End Protection	2	Each
634E0755	Remove and Reset Temporary Concrete Barrier End Protection	2	Each
634E0760	Temporary Concrete Barrier End Protection Module Set or Repair Kit	1	Each
634E0900	Portable Temporary Traffic Control Signal	2	Unit
634E1002	Detour and Restriction Signing	455.0	SqFt

# PCN 090U - SD53

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E1200	High Build Waterborne Pavement Marking Paint, White	5	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	1	Gal
634E0010	Flagging	10.0	Hour
634E0110	Traffic Control Signs	219.6	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0330	Temporary Raised Pavement Markers	3,802	Ft
634E0600	4" Temporary Pavement Marking Tape Type I	144	Ft
634E0900	Portable Temporary Traffic Control Signal	2	Unit
634E1002	Detour and Restriction Signing	212.6	SqFt

# **Section D - Erosion and Sediment Control**

# PCN 09LF - SD47

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1690	Remove Sediment	17.4	CuYd
230E0100	Remove and Replace Topsoil	Lump Sum	LS
734E0010	Erosion Control	Lump Sum	LS
734E0154	12" Diameter Erosion Control Wattle	250	Ft
734E0165	Remove and Reset Erosion Control Wattle	63	Ft

# **Section E – Structure**

## **PCN 09LF - SD47**

### Structure No. 43-403-308

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3310	Bridge Elevation Survey	Lump Sum	LS
110E0010	Remove Concrete Bridge Approach Slab	187.9	SqYd
410E0030	Structural Steel, Miscellaneous	Lump Sum	LS
410E2300	Strip Seal Expansion Joint	34.6	Ft
410E2600	Membrane Sealant Expansion Joint	67.8	Ft
430E0300	Granular Bridge End Backfill	9.2	CuYd
460E0030	Class A45 Concrete, Bridge Deck	5.4	CuYd
460E0150	Concrete Approach Slab for Bridge	154.2	SqYd
460E0160	Concrete Approach Sleeper Slab for Bridge	33.8	SqYd
460E0300	Breakout Structural Concrete	4.6	CuYd
460E0380	Install Dowel in Concrete	44	Each
460E4000	Nonmetallic Fiber Reinforced Concrete Overlay	127.3	CuYd
480E0200	Epoxy Coated Reinforcing Steel	850	Lb
480E0504	No. 4 Rebar Splice	28	Each
480E0505	No. 5 Rebar Splice	32	Each
480E0506	No. 6 Rebar Splice	56	Each
480E5000	Galvanic Anode	136	Each
550E0100	Concrete Removal Type 1A	1,707.6	SqYd
550E0110	Concrete Removal Type 1B	170.7	SqYd
550E0120	Concrete Removal Type 1C	85.4	SqYd
550E0130	Concrete Removal Type 1D	85.4	SqYd
550E0140	Concrete Removal Type B	20.0	Ft
550E0200	Class A45 Concrete Fill	18.4	CuYd
550E0500	Finishing and Curing	1,707.6	SqYd

# PCN 090U - SD53

### Structure No. 62-100-399

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3310	Bridge Elevation Survey	Lump Sum	LS
460E0300	Breakout Structural Concrete	1.0	CuYd
460E0380	Install Dowel in Concrete	16	Each
480E0200	Epoxy Coated Reinforcing Steel	56	Lb
550E0010	Low Slump Dense Concrete Bridge Deck Overlay	28	CuYd
550E0100	Concrete Removal Type 1A	351.6	SqYd
550E0110	Concrete Removal Type 1B	119.8	SqYd
550E0120	Concrete Removal Type 1C	59.8	SqYd
550E0130	Concrete Removal Type 1D	59.8	SqYd
550E0140	Concrete Removal Type B	20.0	Ft
550E0200	Class A45 Concrete Fill	15.4	CuYd
550E0500	Finishing and Curing	351.6	SqYd

# Section F - Surfacing

## PCN 09LF - SD47

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3200	Construction Staking	Lump Sum	LS
009E3301	Engineer Directed Surveying/Staking	40.0	Hour
009E4100	Construction Schedule, Category I	Lump Sum	LS
110E0730	Remove Beam Guardrail	325.0	Ft
120E0010	Unclassified Excavation	76	CuYd
120E0600	Contractor Furnished Borrow Excavation	371	CuYd
260E1080	Base Course, Salvaged, State Furnished	162.5	Ton
320E1200	Asphalt Concrete Composite	248.0	Ton
332E0010	Cold Milling Asphalt Concrete	1,442	SqYd
630E0500	Type 1 MGS	100.0	Ft
630E1501	Type 1 Retrofit Guardrail Transition	4	Each
630E2017	MGS MASH Flared End Terminal	4	Each
632E2220	Guardrail Delineator	16	Each

#### PCN 090U - SD53

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E4100	Construction Schedule, Category I	Lump Sum	LS
110E6410	Remove Type 1 MGS for Reset	100.0	Ft
110E6505	Remove Type 2A Guardrail Transition for Reset	4	Each
110E6618	Remove MGS MASH Flared End Terminal for Reset	4	Each
320E1200	Asphalt Concrete Composite	235.2	Ton
332E0010	Cold Milling Asphalt Concrete	1,266	SqYd
630E5010	Reset Type 1 MGS	100.0	Ft
630E5203	Reset MGS MASH Flared End Terminal	4	Each
630E5305	Reset Type 2A Guardrail Transition	4	Each

# **INDEX OF SHEETS**

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Estimate of Quantities for Sections C, D, E, and F Environmental Commitments

# **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 are available for download and viewing at https://dot.sd.gov/doing-business/contractors/standard-specifications.

### **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 B3: AMERICAN BURYING BEETLE**

This project is in an area that contains habitat associated with the American Burying Beetle. All work included within the project limits, SDDOT designated sources and sites, and designated option sources and sites provided in the plans have been coordinated with the USFWS.

## Action Taken/Required:

Earth disturbing activities will not occur outside the designated work limits shown in the plans unless specifically stated. The Contractor is responsible for obtaining USFWS review for any borrow sites, staging areas, waste sites, additional easements, and other ground disturbing activities outside the project work limits shown in the plans. At the pre-construction meeting the Contractor will provide the Project Engineer a copy of the USFWS review for any work outside the designated work limits shown in the plans to ensure all permit conditions and plans are clearly understood.

### **COMMITMENT B4: BALD EAGLE**

Bald eagles are known to occur in this area.

#### Action Taken/Required:

If a nest is observed within one 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.

### 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 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.

STATE OF	PROJECT	SHEET	TOTAL SHEETS
SOUTH DAKOTA	P 0053(12)14 & P 0047(126)60	A2	А3

## **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 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/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 SOUTH	PROJECT	SHEET	TOTAL SHEETS
	P 0053(12)14 & P 0047(126)60	А3	A3