

STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION  
PLANS FOR PROPOSED

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(188)30	1	110

Plotting Date: 01/06/2015

**PROJECT IM 0901(188)30**  
**INTERSTATE 90**  
**MEADE COUNTY**

LOW SLUMP DECK OVERLAY, EPOXY CHIP SEAL,  
JOINT MODIFICATION, DECK REPAIR,  
CURB REPAIR, AND FATIGUE RETROFIT  
PCN 04VW

**INDEX OF SECTIONS**

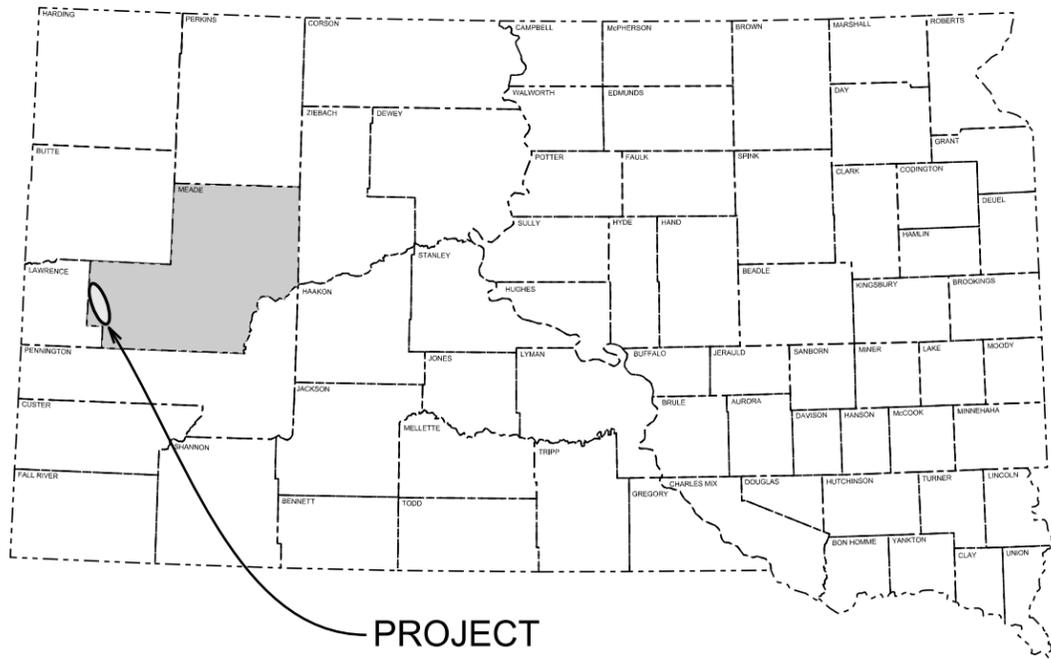
Section A: Estimate of Quantities and Environmental Commitments

Section C: Traffic Control Plans

Section E: Structure Plans

Section F: Surfacing Plans

Plot Scale - 1:200



PROJECT

**DESIGN DESIGNATION**  
**190 EBL MRM 30.28 to MRM 32.41**

ADT (2013)	6824
ADT (2033)	9750
DHV	1267.4
D	50 %
T DHV	7.1 %
T ADT	15.7 %
V	75 MPH

Str. No. 47-018-428 & Str. No. 47-018-430  
Exit 30 US14/SD34 Interchange  
MRM 30.28

**DESIGN DESIGNATION**  
**190 WBL MRM 30.28 to MRM 31.41**

ADT (2013)	6812
ADT (2033)	9744
DHV	1266.8
D	50 %
T DHV	7.2 %
T ADT	15.7 %
V	75 MPH

Str. No. 47-019-430 & Str. No. 47-019-431  
0.2 SE US14/SD34 Interchange  
MRM 30.48

**DESIGN DESIGNATION**  
**Exit 38 Pleasant Valley Rd**

ADT (2014)	375
ADT (2034)	505
DHV	75
D	50 %
T DHV	3.4 %
T ADT	7.4 %
V	25 MPH

Str. No. 47-030-443 & Str. No. 47-030-444  
0.1 NW Sturgis Interchange  
MRM 32.27

**DESIGN DESIGNATION**  
**Exit 40 Tilford**

ADT (2014)	540
ADT (2034)	725
DHV	110
D	50 %
T DHV	3.4 %
T ADT	7.4 %
V	25 MPH

Str. No. 47-033-444 & Str. No. 47-033-445  
Exit 32 Sturgis Interchange  
MRM 32.41

Str. No. 47-061-480  
Exit 37 Pleasant Valley Interchange  
MRM 37.01

Str. No. 47-069-510  
Exit 40 Tilford Interchange  
MRM 40.20

**STORM WATER PERMIT**  
None Required



Plotted From - trrc11610

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# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(188)30	A1	A2

Revised: 2/2/15 klh

## Traffic Control – Section C

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
009E4200	Construction Schedule, Category II	Lump Sum	LS
110E1400	Remove Pavement Marking, 4" or Equivalent	400	Ft
633E1400	Pavement Marking Paint, 4" White	3,576	Ft
633E1405	Pavement Marking Paint, 4" Yellow	2,825	Ft
634E0010	Flagging	450	Hour
634E0100	Traffic Control	4,264	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	4	Each
634E0610	4" Temporary Pavement Marking Tape Type 2	288	Ft
634E0640	Temporary Pavement Marking	6,500	Ft
634E0920	Hazard Identification Beacon	2	Site
634E1215	Contractor Furnished Portable Changeable Message Sign	8	Each

## Structure – Section E

### Str. No. 47-018-428

Bid Item Number	Item	Quantity	Unit
460E0172	Concrete Patching Material, Bridge Deck	53.2	CuFt
491E0015	Two Coat Bridge Deck Epoxy Chip Seal	764.5	SqYd
491E0110	Abrasive Blasting of Bridge Deck	764.5	SqYd
491E0120	Bridge Deck Grinding	764.5	SqYd
491E0130	Concrete Removal, Class A	4.0	SqYd
491E0140	Concrete Removal, Class B	4.0	SqYd

### Str. No. 47-018-430

Bid Item Number	Item	Quantity	Unit
460E0172	Concrete Patching Material, Bridge Deck	53.2	CuFt
491E0015	Two Coat Bridge Deck Epoxy Chip Seal	603.6	SqYd
491E0110	Abrasive Blasting of Bridge Deck	603.6	SqYd
491E0120	Bridge Deck Grinding	603.6	SqYd
491E0130	Concrete Removal, Class A	4.0	SqYd
491E0140	Concrete Removal, Class B	4.0	SqYd

### Str. No. 47-019-430

Bid Item Number	Item	Quantity	Unit
410E0512	Grind Weld	164	In
412E0100	Bridge Repainting, Class I	Lump Sum	LS
460E0172	Concrete Patching Material, Bridge Deck	24.8	CuFt
491E0015	Two Coat Bridge Deck Epoxy Chip Seal	991.8	SqYd
491E0110	Abrasive Blasting of Bridge Deck	991.8	SqYd
491E0120	Bridge Deck Grinding	991.8	SqYd
491E0130	Concrete Removal, Class A	4.0	SqYd
491E0140	Concrete Removal, Class B	4.0	SqYd
998E0100	Railroad Protective Insurance	Lump Sum	LS

### Str. No. 47-019-431

Bid Item Number	Item	Quantity	Unit
410E0512	Grind Weld	297	In
412E0100	Bridge Repainting, Class I	Lump Sum	LS
460E0172	Concrete Patching Material, Bridge Deck	24.8	CuFt
460E0174	Concrete Patching Material, Miscellaneous	6.4	CuFt
460E0300	Breakout Structural Concrete	0.3	CuYd
480E5000	Galvanic Anode	14	Each
491E0015	Two Coat Bridge Deck Epoxy Chip Seal	991.8	SqYd
491E0110	Abrasive Blasting of Bridge Deck	991.8	SqYd
491E0120	Bridge Deck Grinding	991.8	SqYd
491E0130	Concrete Removal, Class A	4.0	SqYd
491E0140	Concrete Removal, Class B	4.0	SqYd
998E0100	Railroad Protective Insurance	Lump Sum	LS

### Str. No. 47-030-443

Bid Item Number	Item	Quantity	Unit
460E0172	Concrete Patching Material, Bridge Deck	24.8	CuFt
491E0015	Two Coat Bridge Deck Epoxy Chip Seal	1,365.1	SqYd
491E0110	Abrasive Blasting of Bridge Deck	1,365.1	SqYd
491E0120	Bridge Deck Grinding	1,365.1	SqYd
491E0130	Concrete Removal, Class A	4.0	SqYd
491E0140	Concrete Removal, Class B	4.0	SqYd

### Str. No. 47-030-444

Bid Item Number	Item	Quantity	Unit
460E0172	Concrete Patching Material, Bridge Deck	24.8	CuFt
491E0015	Two Coat Bridge Deck Epoxy Chip Seal	1,365.1	SqYd
491E0110	Abrasive Blasting of Bridge Deck	1,365.1	SqYd
491E0120	Bridge Deck Grinding	1,365.1	SqYd
491E0130	Concrete Removal, Class A	4.0	SqYd
491E0140	Concrete Removal, Class B	4.0	SqYd

### Str. No. 47-033-444

Bid Item Number	Item	Quantity	Unit
410E2600	Membrane Sealant Expansion Joint	41.8	Ft
460E0070	Class A45 Concrete, Bridge Repair	1.5	CuYd
460E0172	Concrete Patching Material, Bridge Deck	25.6	CuFt
460E0300	Breakout Structural Concrete	1.5	CuYd
480E0200	Epoxy Coated Reinforcing Steel	84	Lb
480E0504	No. 4 Rebar Splice	3	Each
491E0015	Two Coat Bridge Deck Epoxy Chip Seal	983.3	SqYd
491E0110	Abrasive Blasting of Bridge Deck	983.3	SqYd
491E0120	Bridge Deck Grinding	983.3	SqYd
491E0130	Concrete Removal, Class A	4.0	SqYd
491E0140	Concrete Removal, Class B	4.0	SqYd

### Str. No. 47-033-445

Bid Item Number	Item	Quantity	Unit
460E0172	Concrete Patching Material, Bridge Deck	25.6	CuFt
491E0015	Two Coat Bridge Deck Epoxy Chip Seal	990.7	SqYd
491E0110	Abrasive Blasting of Bridge Deck	990.7	SqYd
491E0120	Bridge Deck Grinding	990.7	SqYd
491E0130	Concrete Removal, Class A	4.0	SqYd
491E0140	Concrete Removal, Class B	4.0	SqYd

## INDEX OF SHEETS

A1	Estimate of Quantities for Sections C, E and F
A2	Environmental Commitments

### Str. No. 47-061-480

Bid Item Number	Item	Quantity	Unit
009E3310	Bridge Elevation Survey	Lump Sum	LS
460E0200	Special Surface Finish	838	SqFt
460E0300	Breakout Structural Concrete	0.8	CuYd
480E0200	Epoxy Coated Reinforcing Steel	84	Lb
480E5000	Galvanic Anode	48	Each
550E0010	Low Slump Dense Concrete Bridge Deck Overlay	61	CuYd
550E0100	Concrete Removal Type 1A	861.2	SqYd
550E0110	Concrete Removal Type 1B	86.7	SqYd
550E0120	Concrete Removal Type 1C	49.8	SqYd
550E0130	Concrete Removal Type 1D	44.7	SqYd
550E0140	Concrete Removal Type B	20.0	Ft
550E0200	Class A45 Concrete Fill	7.5	CuYd
550E0500	Finishing and Curing	861.2	SqYd

### Str. No. 47-069-510

Bid Item Number	Item	Quantity	Unit
410E2220	Replace Expansion Device	2	Each
460E0070	Class A45 Concrete, Bridge Repair	1.5	CuYd
460E0172	Concrete Patching Material, Bridge Deck	87.8	CuFt
460E0300	Breakout Structural Concrete	1.1	CuYd
480E5004	Galvanic Strip Anode	110	Ft
491E0015	Two Coat Bridge Deck Epoxy Chip Seal	743.8	SqYd
491E0110	Abrasive Blasting of Bridge Deck	743.8	SqYd
491E0120	Bridge Deck Grinding	743.8	SqYd
491E0130	Concrete Removal, Class A	18.0	SqYd
491E0140	Concrete Removal, Class B	18.0	SqYd

## Surfacing – Section F

Bid Item Number	Item	Quantity	Unit
110E1010	Remove Asphalt Concrete Pavement	31.0	SqYd
110E6200	Remove Double Thrie Beam Guardrail for Reset	50.0	Ft
320E1200	Asphalt Concrete Composite	11.0	Ton
630E5130	Reset Double Thrie Beam Rail	50.0	Ft

## SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2004 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	SHEET	TOTAL SHEETS
	IM 0901(188)30	A2	A2

## ENVIRONMENTAL COMMITMENTS

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project if perceived 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. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office. The environmental commitments associated with this project are as follows:

### 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 pit, or staging site associated with the project, cease construction activities in the affected area until the Whooping Crane departs and contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

### 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.

## COMMITMENT H: WASTE DISPOSAL SITE

The Contractor shall 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 State ROW.

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

The waste disposal site(s) shall 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 Project Engineer.

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

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the State ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the State ROW through the use of 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 of time not to exceed the duration of the project. Prior to project completion, the waste shall 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) shall be incidental to the various contract items.

## COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historical Preservation Office (SHPO or THPO) for all work included within the project limits and all designated option borrow sites provided within the plans.

#### Action Taken/Required:

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: staging areas, borrow sites, waste disposal sites, and all material processing sites.

The Contractor shall arrange and pay for a cultural resource survey and/or records search. 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; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor shall provide ARC with the following: a topographical map or aerial view on 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 shall submit the records search or cultural resources survey report and if the location of the site is within the current geographical or historic boundaries of any South Dakota reservation to SDDOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). 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.

If evidence for cultural resources is uncovered during project construction activities, then such activities shall cease and the Project Engineer shall be immediately notified. The Project Engineer will contact the SDDOT Environmental Engineer in order 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 staging areas, borrow sites, waste disposal sites, or material processing sites that affect wetlands, threatened and endangered species, or waterways. The Contractor shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.