STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0902(157)94	1	141

Plotting Date: 01/29/2015

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

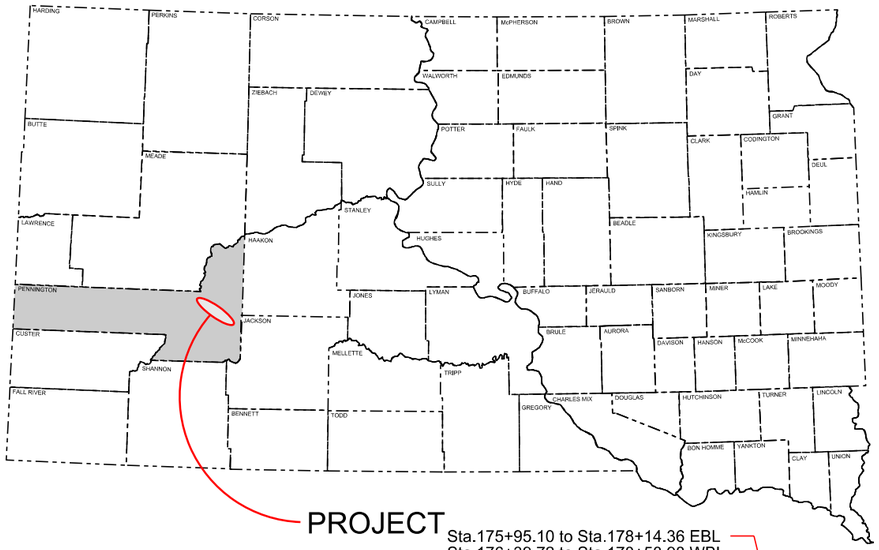
IM 0902(157)94
INTERSTATE 90
PENNINGTON COUNTY

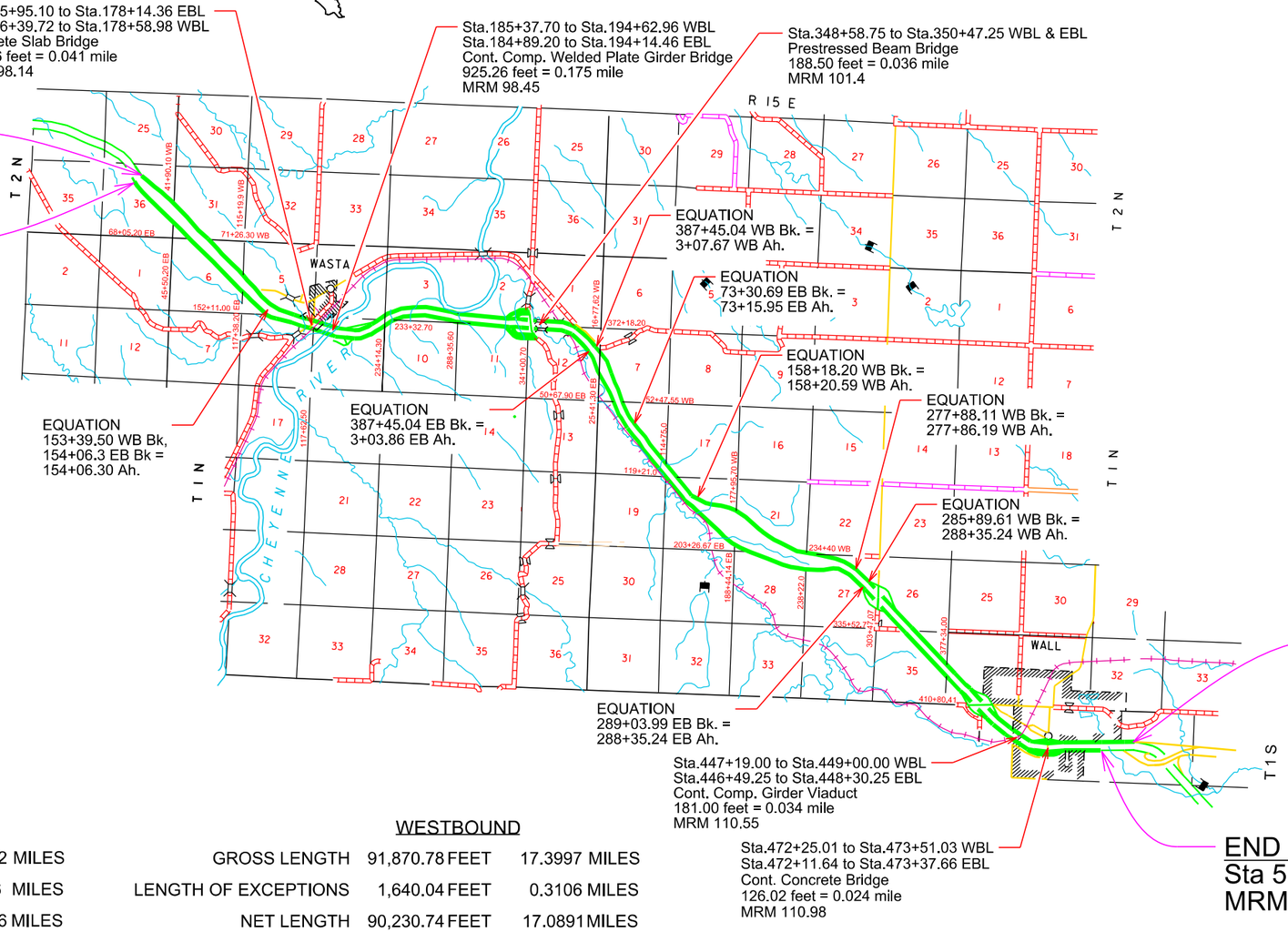
COLD MILL ASPHALT CONCRETE AND ASPHALT CONCRETE RESURFACING

PCN 034V

INDEX OF SECTIONS

Section A: Estimate of Quantities
Section C: Traffic Control Plans
Section D: Erosion And Sediment Control Plans
Section F: Surfacing Plans
Section M: Pavement Marking Plans
Section S: Permanent Signing Plans





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DESIGN DESIGNATION

ADT (2013)	7096
ADT (2033)	9828
DHV	1782
D	51%
T DHV	11.5%
T ADT	25.3%
V	75 mph

STORM WATER PERMIT

Major Receiving
Body of Water: None
Area Disturbed: 65 acres
Total Project Area:
Approx. Begin Lat/Long: EB 44.1005395889/-102.512696014
WB 44.1007722234/-102.51259108

	EASTBOUND		WESTBOUND		
GROSS LENGTH	89,460.50 FEET	16.9432 MILES	GROSS LENGTH	91,870.78 FEET	17.3997 MILES
LENGTH OF EXCEPTIONS	1,640.04 FEET	0.3106 MILES	LENGTH OF EXCEPTIONS	1,640.04 FEET	0.3106 MILES
NET LENGTH	87,820.46 FEET	16.6326 MILES	NET LENGTH	90,230.74 FEET	17.0891 MILES

Plot Scale - 1:200
Plotted From - trrc11610
File - ...\Permit034V\Design\034V_Title.dgn

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0902(157)94	A1	A4

Revised: 2/2/15 klh

Traffic Control – Section C

Bid Item Number	Item	Quantity	Unit
009E4200	Construction Schedule, Category II	Lump Sum	LS
634E0010	Flagging	2,000	Hour
634E0100	Traffic Control	6,112	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	4	Each
634E0630	Temporary Pavement Marking	112.9	Mile
634E0920	Hazard Identification Beacon	4	Site
634E1002	Detour Signing	924.0	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	4	Each
634E1255	Contractor Furnished Speed Monitoring Radar Trailer	2	Each

Erosion and Sediment Control – Section D

Bid Item Number	Item	Quantity	Unit
230E0020	Placing Contractor Furnished Topsoil	6,491	CuYd
730E0210	Type F Permanent Seed Mixture	1,674	Lb
731E0200	Fertilizing	48.30	Ton
732E0100	Mulching	128.7	Ton

Surfacing – Section F

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
009E3320	Checker	Lump Sum	LS
100E0100	Clearing	Lump Sum	LS
110E4100	Salvage 3 Cable Guardrail	13,820	Ft
110E4105	Salvage High Tension 3 Cable Guardrail	6,577	Ft
110E4110	Salvage 3 Cable Guardrail Anchor Assembly	65	Each
110E4115	Salvage High Tension 3 Cable Guardrail Anchor Assembly	22	Each
110E4290	Salvage Beam Guardrail	262.5	Ft
110E6000	Remove 3 Cable Guardrail for Reset	8,021	Ft
110E6005	Remove High Tension 3 Cable Guardrail for Reset	21,217	Ft
110E6015	Remove High Tension 3 Cable Guardrail Anchor Assembly for Reset	32	Each
110E6200	Remove Double Thrie Beam Guardrail for Reset	75.0	Ft
110E6230	Remove W Beam Guardrail for Reset	412.5	Ft
110E6240	Remove W Beam to Thrie Beam Guardrail Transition for Reset	5	Each
110E6250	Remove Beam Guardrail Trailing End Terminal for Reset	6	Each
110E6260	Remove W Beam Guardrail Breakaway Cable Terminal for Reset	8	Each
110E6270	Remove W Beam Guardrail Flared End Terminal for Reset	6	Each
120E0010	Unclassified Excavation	1,968	CuYd
120E0100	Unclassified Excavation, Digouts	1,795	CuYd
120E9000	Pit Run Material	3,714.0	Ton
260E1050	Base Course, Salvaged Asphalt Mix	8,219.6	Ton
320E0005	PG 58-34 Asphalt Binder	381.1	Ton
320E0008	PG 64-34 Asphalt Binder	2,625.2	Ton
320E1090	Modified Class S Asphalt Concrete	45,375.2	Ton
320E1800	Asphalt Concrete Blade Laid	5,058.3	Ton
320E3100	Stabilizing Additive for Asphalt Concrete	114.0	Ton
320E4000	Hydrated Lime	50.6	Ton
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	67.4	Mile
330E0100	SS-1h or CSS-1h Asphalt for Tack	370.4	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	50.5	Ton
332E0010	Cold Milling Asphalt Concrete	868,477	SqYd
600E0300	Type III Field Laboratory	1	Each
629E0110	NCHRP 350 Test Level 3 High Tension Cable Guardrail	14,639	Ft
629E0200	Reset 3 Cable Guardrail	8,021	Ft
629E0210	Reset High Tension 3 Cable Guardrail	21,217	Ft
629E0290	NCHRP 350 Test Level 3 High Tension Cable Guardrail Anchor Assembly	42	Each
629E0295	Reset High Tension Cable Guardrail Anchor Assembly	32	Each
629E0300	3 Cable Guardrail Slip Base Anchor Assembly	20	Each
* 629E1143	High Tension 3 Cable Guardrail Post	25	Each
* 629E1158	High Tension 3 Cable Guardrail Post and Sleeve	25	Each
630E0010	Straight Class A Thrie Beam Guardrail with Wood Posts	325.0	Ft
630E0110	Straight Double Class A Thrie Beam Guardrail with Wood Posts	25.0	Ft
630E2000	W Beam to Thrie Beam Guardrail Transition	4	Each
630E2110	Beam Guardrail Post and Block	278	Each
630E5130	Reset Double Thrie Beam Rail	75.0	Ft
630E5160	Reset W Beam Rail	600.0	Ft
630E5180	Reset W Beam Guardrail Breakaway Cable Terminal	8	Each
630E5190	Reset W Beam to Thrie Beam Guardrail Transition	4	Each

INDEX OF SHEETS

A1 and A2 — Estimate of Quantities for Sections C,D, F, M, and S

A3 to A4 — Environmental Commitments

Surfacing – Section F (Cont.)

Bid Item Number	Item	Quantity	Unit
630E5207	Reset W Beam Guardrail Flared End Terminal	6	Each
630E5210	Reset Beam Guardrail Trailing End Terminal	6	Each
632E2220	Guardrail Delineator	181	Each
632E2520	Type 2 Object Marker	20	Each
680E0240	4" Corrugated Polyethylene Drainage Tubing	408	Ft
680E2010	Precast Concrete Headwall for Drain	12	Each
680E2500	Porous Backfill	18.0	Ton
831E0210	Non-woven Geotextile Separator	3,834	SqYd
831E0300	MSE Geotextile Fabric	5,214	SqYd
900E1980	Storage Unit	1	Each

* - Denotes Non-Participating

Surfacing Alt A – Section F

Bid Item Number	Item	Quantity	Unit
* 270E0210	Haul and Stockpile Granular Material	60,140.0	Ton
320E0005	PG 58-34 Asphalt Binder	2,941.8	Ton
320E1204	Class Q4R Hot Mixed Asphalt Concrete	66,574.4	Ton
320E4000	Hydrated Lime	685.4	Ton

* - Denotes Non-Participating

Surfacing Alt B – Section F

Bid Item Number	Item	Quantity	Unit
* 270E0210	Haul and Stockpile Granular Material	59,815.0	Ton
320E0005	PG 58-34 Asphalt Binder	2,809.0	Ton
320E1204	Class Q4R Hot Mixed Asphalt Concrete	68,284.3	Ton
320E4000	Hydrated Lime	699.9	Ton

* - Denotes Non-Participating

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0902(157)94	A2	A4

Pavement Marking – Section M

Bid Item Number	Item	Quantity	Unit
633E0010	Cold Applied Plastic Pavement Marking, 4"	48,289	Ft
633E0020	Cold Applied Plastic Pavement Marking, 8"	288	Ft
633E0025	Cold Applied Plastic Pavement Marking, 12"	10,998	Ft
633E1200	Waterborne Pavement Marking Paint with High Grade Polymer, White	992.0	Gal
633E1205	Waterborne Pavement Marking Paint with High Grade Polymer,Yellow	992.0	Gal
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	48,289	Ft
633E5005	Grooving for Cold Applied Plastic Pavement Marking, 8"	288	Ft
633E5010	Grooving for Cold Applied Plastic Pavement Marking, 12"	10,998	Ft
633E5100	Grooving for Durable Pavement Marking, 4"	376,918	Ft

Permanent Signing – Section S

Bid Item Number	Item	Quantity	Unit
110E5010	Salvage Delineator	789	Each
110E5020	Salvage Traffic Sign	4	Each
632E1340	2.5"x2.5" Perforated Tube Post	112.0	Ft
632E2004	4"x8" Amber Delineator with 1.12 Lb/Ft Post	29	Each
632E2008	4" Tubular Amber Delineator with 1.12 Lb/Ft Post	12	Each
632E2020	4"x4" White Delineator with 1.12 Lb/Ft Post	545	Each
632E2024	4"x8" White Delineator with 1.12 Lb/Ft Post	359	Each
632E2028	4" Tubular White Delineator with 1.12 Lb/Ft Post	51	Each
632E2520	Type 2 Object Marker	12	Each
632E3003	Aluminum Overlay Sign, Nonremovable Copy High Intensity	6,274.0	SqFt
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	121.5	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	153.0	SqFt
632E3520	Remove, Salvage, Relocate, and Reset Traffic Sign	54	Each

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

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 C: WATER SOURCE

The Contractor shall not withdraw water with equipment previously used outside the State of South Dakota without prior approval from the SDDOT Environmental Office. Thoroughly wash all construction equipment before entering South Dakota to reduce the risk of invasive species introduction into the project vicinity.

Action Taken/Required:

The Contractor shall obtain the necessary permits from the regulatory agencies such as the Department of Environment and Natural Resources (DENR) and the United States Army Corps of Engineers (COE) prior to executing water extraction activities.

COMMITMENT E: STORM WATER

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.

Construction activities constitute 1 acre or more of earth disturbance.

Action Taken/Required:

The DENR and the US Environmental Protection Agency (EPA) have issued separate general permits for the discharge of storm water runoff. The DENR permit applies to discharges on state land and the EPA permit applies to discharges on federal or reservation land. The Contractor is advised this project is regulated under the Phase II Storm Water Regulations and must receive coverage under the General Permit for Construction Activities. A Notice of Intent (NOI) will be submitted to DENR a minimum of 15 days prior to project start by the DOT Environmental Office. A letter must be received from DENR that acknowledges project coverage under this general permit before project start. The Contractor is advised that permit coverage may also be required by off-site activities, such as borrow and staging areas, which are the responsibility of the Contractor.

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

A major component of the storm water construction permits is development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which is a joint effort and responsibility of the SDDOT and the Contractor. Erosion control measures and best management practices will be implemented in accordance with the SWPPP. The SWPPP is a dynamic document and is to be available on-site at all times.

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

SDDOT:http://sddot.com/transportation/highways/environmental/stormwater/Default.aspx

DENR: http://www.denr.sd.gov/des/sw/stormwater.aspx

EPA: http://cfpub.epa.gov/npdes/home.cfm?program_id=6

Contractor Certification Form:

The "Department of Environmental and Natural Resources – Contractor Certification Form" (SD EForm – 2110LDV1-ContractorCertification.pdf) shall be completed by the Contractor or their certified Erosion Control Supervisor after the award of the contract. Work may not begin on the project until this form is signed.

The form certifies under penalty of law that the Contractor understands and will comply with the terms and conditions of the Surface Water Discharge General Permit for Storm Water Discharges Associated with Construction Activities for the Project.

The online form can be found at:
http://denr.sd.gov/des/sw/eforms/E2110LDV1-ContractorCertification.pdf

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.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

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.