

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

PROJECT NH 0085(81)112
US HIGHWAY 85
HARDING COUNTY

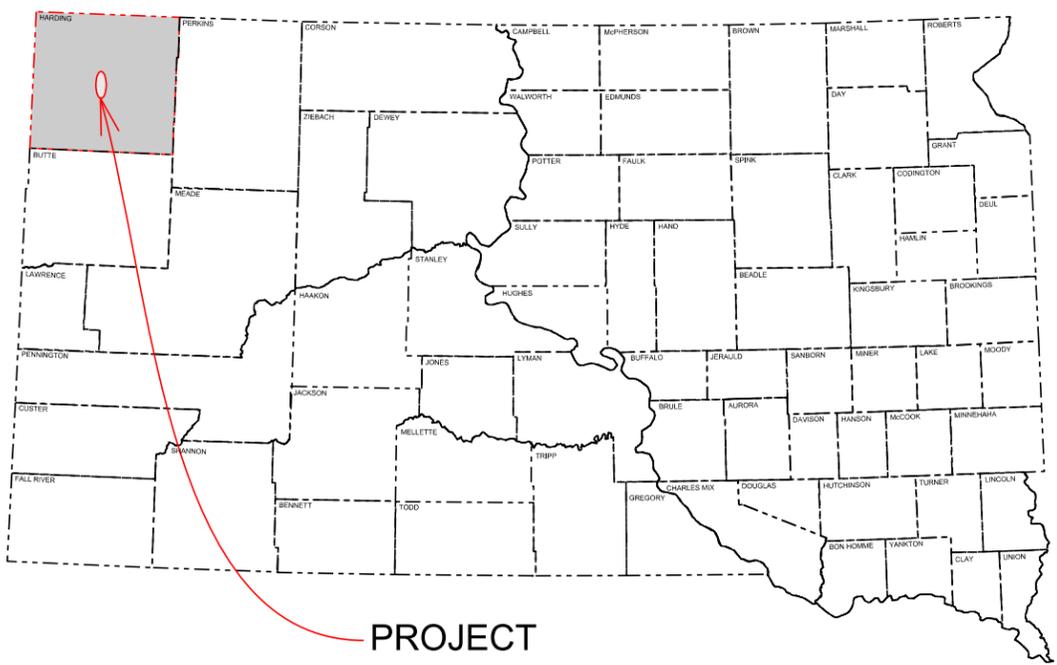
COLD MILL ASPHALT CONCRETE,
ASPHALT CONCRETE RESURFACING,
& PERMANENT SIGNING

PCN 036G

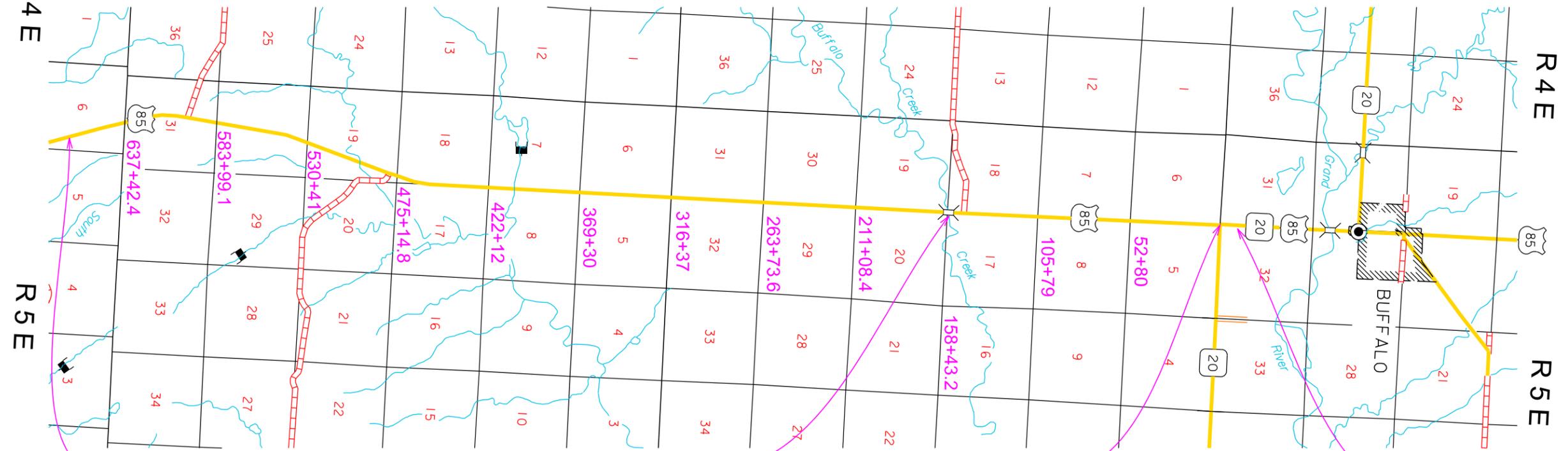
| | | | |
|---------------------------|----------------|----------------------|--------------|
| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
| | NH 0085(81)112 | 1 | 70 |
| Plotting Date: 10/31/2014 | | Revised: 10-30-14 kh | |

INDEX OF SECTIONS

- Section A: Estimate of Quantities
- Section B: Grading Plans
- 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
- Section X: Cross Sections
- Section Z: Pipe Section



T 16 N T 17 N T 18 N T 19 N
R 4 E R 5 E



END PROJECT
Sta 664+63.8
2420.2' North & 9843 West of the
Southeast Corner of Section 6 -
Township 16 North - Range 5 East
MRM 112.00 + 0.321

Exception
Sta 156+77.25 to Sta 157+82.75
Continuous Concrete Bridge
Length = 105.5' = 0.019 mile
MRM 121.82

Equation
Sta 500+55.3 Bk =
Sta 0+00 Ah
MRM 124.87

BEGIN PROJECT
Sta 496+55.3
400' North of the
Northwest Corner Section -
Township 18 North - Range 5 East
MRM 124.87

| | | |
|----------------------|---------------|---------------|
| GROSS LENGTH | 66,863.8 FEET | 12.6636 MILES |
| LENGTH OF EXCEPTIONS | 105.5 FEET | 0.0200 MILES |
| NET LENGTH | 66,758.3 FEET | 12.6436 MILES |

DESIGN DESIGNATION

| | |
|------------|-------------|
| ADT (2012) | 1597 |
| ADT (2032) | 1870 |
| DHV | 222.6 |
| D | 51 % |
| T DHV | 13.5 % |
| T ADT | 29.6 % |
| V | 30 & 65 MPH |

STORM WATER PERMIT
None Required

2

Plot Scale - 1:200

Plotted From - Irrc11610

File - ...:\Hard036G\Design\Title_036g.dgn

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

| | | | |
|-----------------------------|----------------|-------|-----------------|
| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
| | NH 0085(81)112 | A1 | A2 |

Revised: 10-20-2014 klh

Grading – Section B

| Bid Item Number | Item | Quantity | Unit |
|-----------------|-----------------------------|----------|------|
| 009E0010 | Mobilization | Lump Sum | LS |
| 110E0510 | Remove Pipe End Section | 1 | Each |
| 120E0600 | Contractor Furnished Borrow | 503 | CuYd |
| 450E4759 | 18" CMP 16 Gauge, Furnish | 22 | Ft |
| 450E4760 | 18" CMP, Install | 22 | Ft |
| 450E5010 | 18" CMP Elbow, Furnish | 1 | Each |
| 450E5011 | 18" CMP Elbow, Install | 1 | Each |
| 450E5406 | 18" CMP Safety End, Furnish | 1 | Each |
| 450E5407 | 18" CMP Safety End, Install | 1 | Each |
| 600E0300 | Type III Field Laboratory | 1 | Each |

Traffic Control – Section C

| Bid Item Number | Item | Quantity | Unit |
|-----------------|--------------------------------|----------|------|
| 634E0010 | Flagging | 1,300 | Hour |
| 634E0020 | Pilot Car | 650 | Hour |
| 634E0100 | Traffic Control | 1,449 | Unit |
| 634E0120 | Traffic Control, Miscellaneous | Lump Sum | LS |
| 634E0630 | Temporary Pavement Marking | 25.4 | Mile |

Erosion and Sediment Control – Section D

| Bid Item Number | Item | Quantity | Unit |
|-----------------|-------------------------------------|----------|------|
| 230E0100 | Remove and Replace Topsoil | Lump Sum | LS |
| 734E0010 | Erosion Control | Lump Sum | LS |
| 734E0154 | 12" Diameter Erosion Control Wattle | 360 | Ft |

Surfacing – Section F

| Bid Item Number | Item | Quantity | Unit |
|-----------------|--|----------|------|
| 009E3320 | Checker | Lump Sum | LS |
| 120E0100 | Unclassified Excavation, Digouts | 630 | CuYd |
| 120E6200 | Water for Granular Material | 123.0 | MGal |
| 260E1010 | Base Course | 14,768.0 | Ton |
| 260E1050 | Base Course, Salvaged Asphalt Mix | 499.0 | Ton |
| 280E0020 | Process In Place Surfacing, Shoulder | 122,590 | SqYd |
| 320E7012 | Grind 12" Rumble Strip or Stripe in Asphalt Concrete | 25.4 | Mile |
| 330E0010 | MC-70 Asphalt for Prime | 146.9 | Ton |
| 330E0100 | SS-1h or CSS-1h Asphalt for Tack | 124.2 | Ton |
| 330E0210 | SS-1h or CSS-1h Asphalt for Flush Seal | 57.0 | Ton |
| 330E2000 | Sand for Flush Seal | 658.2 | Ton |
| 332E0010 | Cold Milling Asphalt Concrete | 7,591 | SqYd |
| 900E0010 | Refurbish Single Mailbox | 4 | Each |
| 900E5840 | Permanent Vehicle Classification System | 1 | Each |

Alternate A

| Bid Item Number | Item | Quantity | Unit |
|-----------------|-------------------------------------|----------|------|
| 320E0007 | PG 64-28 Asphalt Binder | 2,511.6 | Ton |
| 320E1003 | Class Q3 Hot Mixed Asphalt Concrete | 43,505.0 | Ton |
| 320E4000 | Hydrated Lime | 422.1 | Ton |

Alternate B

| Bid Item Number | Item | Quantity | Unit |
|-----------------|-------------------------------------|----------|------|
| 320E0007 | PG 64-28 Asphalt Binder | 2,210.6 | Ton |
| 320E1003 | Class Q3 Hot Mixed Asphalt Concrete | 44,604.3 | Ton |
| 320E4000 | Hydrated Lime | 434.7 | Ton |

Pavement Marking – Section M

| Bid Item Number | Item | Quantity | Unit |
|-----------------|---|----------|------|
| 110E1400 | Remove Pavement Marking, 4" or Equivalent | 2,420 | Ft |
| 633E0010 | Cold Applied Plastic Pavement Marking, 4" | 6,850 | Ft |
| 633E0030 | Cold Applied Plastic Pavement Marking, 24" | 420 | Ft |
| 633E0040 | Cold Applied Plastic Pavement Marking, Arrow | 4 | Each |
| 633E1300 | Pavement Marking Paint, White | 430.0 | Gal |
| 633E1305 | Pavement Marking Paint, Yellow | 320.0 | Gal |
| 633E5000 | Grooving for Cold Applied Plastic Pavement Marking, 4" | 6,850 | Ft |
| 633E5015 | Grooving for Cold Applied Plastic Pavement Marking, 24" | 420 | Ft |
| 633E5025 | Grooving for Cold Applied Plastic Pavement Marking, Arrow | 4 | Each |

INDEX OF SHEETS

| | |
|----|--|
| A1 | Estimate of Quantities for Sections B,C,D, F, M, and S |
| A2 | Environmental Commitments |

Permanent Signing – Section S

| Bid Item Number | Item | Quantity | Unit |
|-----------------|---|----------|------|
| 110E5010 | Salvage Delineator | 19 | Each |
| 110E5020 | Salvage Traffic Sign | 8 | Each |
| 632E1320 | 2.0"x2.0" Perforated Tube Post | 8.0 | Ft |
| 632E1340 | 2.5"x2.5" Perforated Tube Post | 42.0 | Ft |
| 632E1650 | No Passing Zone Reference Post | 13 | Each |
| 632E3203 | Flat Aluminum Sign, Nonremovable Copy High Intensity | 240.0 | SqFt |
| 632E3205 | Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity | 101.6 | SqFt |
| 632E3520 | Remove, Salvage, Relocate, and Reset Traffic Sign | 79 | 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

| | | | |
|-----------------------------|----------------|-------|-----------------|
| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
| | NH 0085(81)112 | 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 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.

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.