

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

Plotting Date: 05/10/2016

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	212-351	1	6

Plotting Date: 05/10/2016

PROJECT 212-351 US HIGHWAY 212 POTTER COUNTY

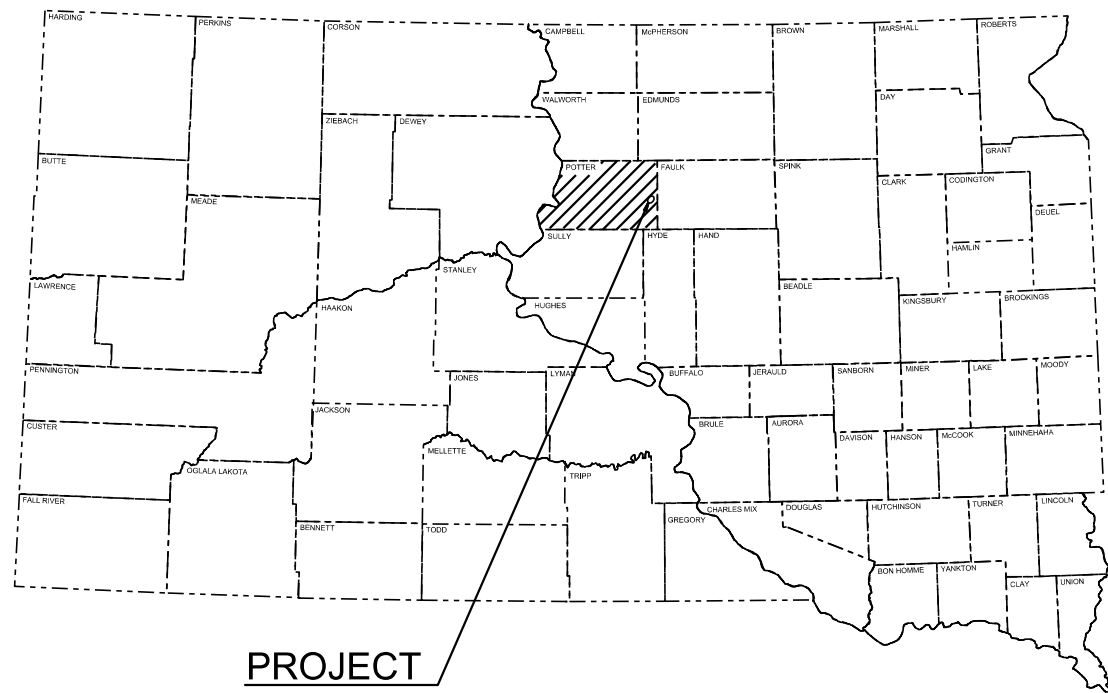
INDEX OF SHEETS

1	General Layout w/ Index
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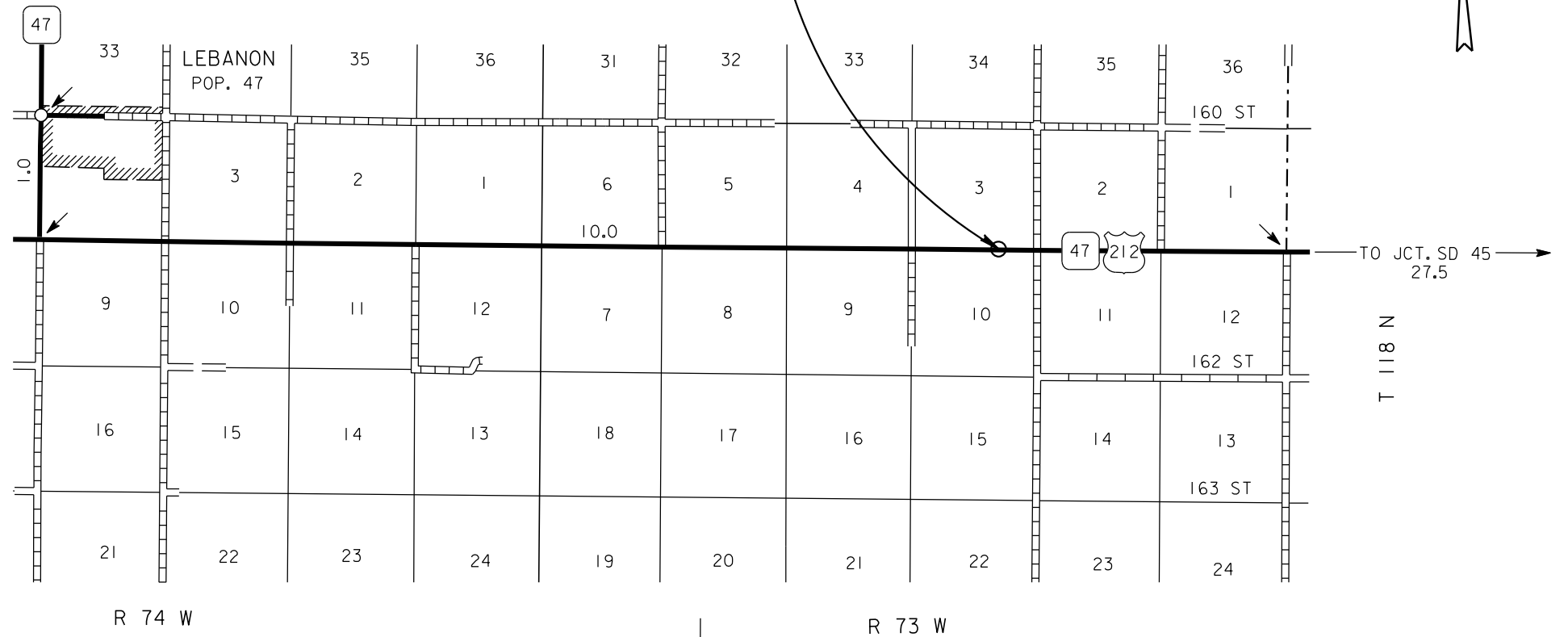
Plug Well
PCN I45P

212-351

Station 874+83 - 89' Lt
Section 3 - Township 118 North -
Range 73 East
MRM = 242.000+0.500 to
242.000+0.600



PROJECT



DESIGN DESIGNATION

ADT (2015)	833
ADT (2035)	849
DHV	107
D	50%
T DHV	8.6%
T ADT	18.8%
V	65 mph

STORM WATER PERMIT

NONE

Plot Scale - 1:200

Plotted From - trp2nt10

Plot Name - 1

File - ...lpj\PottI45P\I45Ptitle.dgn

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	212-351	2	6

ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
250E0020	Incidental Work, Grading	Lump Sum	LS
634E0110	Traffic Control Signs	42.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications, and Special Provisions as included in the Proposal.

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 Public ROW.

The waste disposal site(s) shall 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 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 Public 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 Public 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.

COMMITMENT H: WASTE DISPOSAL SITE (CONTINUED)

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 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 review of cultural resources impacts. 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 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 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 shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

UTILITIES

The Contractor shall contact the involved utility companies through South Dakota One Call (1-800-781-7474) prior to starting work. It shall be the responsibility of the Contractor to coordinate work with the utility owners to avoid damage to existing facilities.

Utilities are not planned to be affected on this project. If utilities are identified near the improvement area through the SD One Call process as required by South Dakota Codified Law 49-7A and Administrative Rule Article 20:25; the Contractor shall contact the Project Engineer to determine if project changes are necessary to avoid utility impacts.

The Contractor shall be aware that the existing utilities shown in the plans were surveyed prior to the design of this project and might have been relocated or replaced by a new utility facility prior to construction of this project, might be relocated or replaced by a new utility facility during the construction of this project, or might not require adjustment and may remain in its current location. The Contractor shall contact each utility owner and confirm the status of all existing and new utility facilities. The utility contact information is provided elsewhere in the plans or bidding documents.

INCIDENTAL WORK, GRADING

The well diameter is 2 ft. The total well depth is 21.5 ft. measured down from the concrete floor. Respectively the water level was measured at 5 ft. below the concrete floor. The well pump is not hooked up to MDU electrical however, it could not be verified if the well pump is hooked up to power from an adjacent farm house source. The Contractor shall be responsible for inspecting the site prior to bidding. Work shall include, but is not limited to, removal of the existing metal structure, removal of the concrete pad, removal of the electrical panel and all conduit and electrical wiring, plugging of the well, and erosion control to include shaping of area, seeding, and installation of type 1 erosion control blanket.

There is an estimated 3.1 cubic yards of concrete to be removed.

Station	L/R	Remarks
874+83	89' Lt	Plug Well

PLUG WELL

The well at Sta. 874+83 – 89' Lt shall be plugged by a South Dakota Licensed Water Well Driller and shall be in conformance with Administrative Rule of South Dakota (ARSD) 74:02:04, Section 69. The Contractor and the South Dakota Licensed Water Well Driller shall inspect the site prior to the bid letting in order to determine the material and labor necessary to complete the work. All costs involved in plugging the well shall be incidental to the contract lump sum price for "Incidental Work, Grading".

74:02:04:69. Requirements for plugging wells or test holes completed into unconfined aquifers with only one aquifer encountered. Wells completed into unconfined aquifers, provided only one aquifer is encountered, may be backfilled with clean sand or gravel to the top of the aquifer (should contain 5 pounds of HTH per yard). Test holes encountering a single, unconfined aquifer may be backfilled with drill cuttings or clean sand or gravel to the top of the aquifer. Above the aquifer, clay, bentonite grout, or cement grout shall be used for plugging to within at least three feet of the ground surface. If clay is to be used as a backfill material, a minimum of two feet of dry bentonite, bentonite grout, or cement grout must be placed at the top of the aquifer. The top three feet of casing or hole, if not filled with clay, bentonite grout, or cement grout, shall be backfilled with

native material. Plugging materials must be added to the well or hole via tremie pipe to any well or test hole less than 16 inches in diameter and to any well or test hole more than 50 feet deep. If it cannot be verified that a well's casing was grouted in accordance with this chapter, an effort must be made to plug the annulus from the bottom of the annulus up to the ground surface with the same type of material or materials required for plugging inside the casing.

Source: 12 SDR 50, effective September 29, 1985; 13 SDR 129, 13 SDR 141, effective July 1, 1987; 18 SDR 224, effective July 16, 1992.

General Authority: SDCL 46-2-5, 46-6-6.1, 46-6-9, 46-6-20, 46-6-27.

Law Implemented: SDCL 46-2-9, 46-6-6.1, 46-6-10, 46-6-14, 46-6-18, 46-6-20, 46-6-27, 46-6-28.

The Licensed Water Well Driller shall submit a Plugging report, which can be obtained from the following link:

<http://denr.sd.gov/des/wr/app/E1622LDV1-WaterWellPlug.pdf>

Ken Buhler, SD DENR Water Rights Program (605) 773-3352.

EROSION CONTROL

The estimated area requiring erosion control is 304 square feet. All costs for the erosion control work for furnishing, placing, and maintaining erosion control including equipment, labor, shaping, seeding, and installation of type 1 erosion control blanket shall be incidental to the contract lump sum price for "Incidental Work, Grading".

The limits of erosion control work will be determined by the Engineer during construction.

Type C Permanent Seed Mixture shall consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Arriba, Flintlock, Rodan, Rosana	16
Canada Wildrye	Mandan	2
Total:		18

The estimated area requiring erosion control blanket to be installed is approximately 16 feet wide by 19 feet long or as determined by the Engineer during construction.

The erosion control blanket provided shall be from the approved product list. The approved product list for erosion control blanket may be viewed at the following internet site:

<http://sddot.com/business/certification/products/Default.aspx>

GENERAL MAINTENANCE OF TRAFFIC

All traffic control sign locations shall be set in the field by the contractor and verified by the Engineer prior to installation.

TRAFFIC CONTROL

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-1	ROAD WORK AHEAD	2	48" x 48"	16	32
G20-2	END ROAD WORK	2	36" x 18"	5	10
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT					42.0

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	212-351	4	6

874+83-89' L (MRM 242.6)
 Plug Well
 Remove Existing Metal Structure.
 Remove Existing Concrete Pad with
 Electrical Box & Well
 (Incidental Work, Grading)

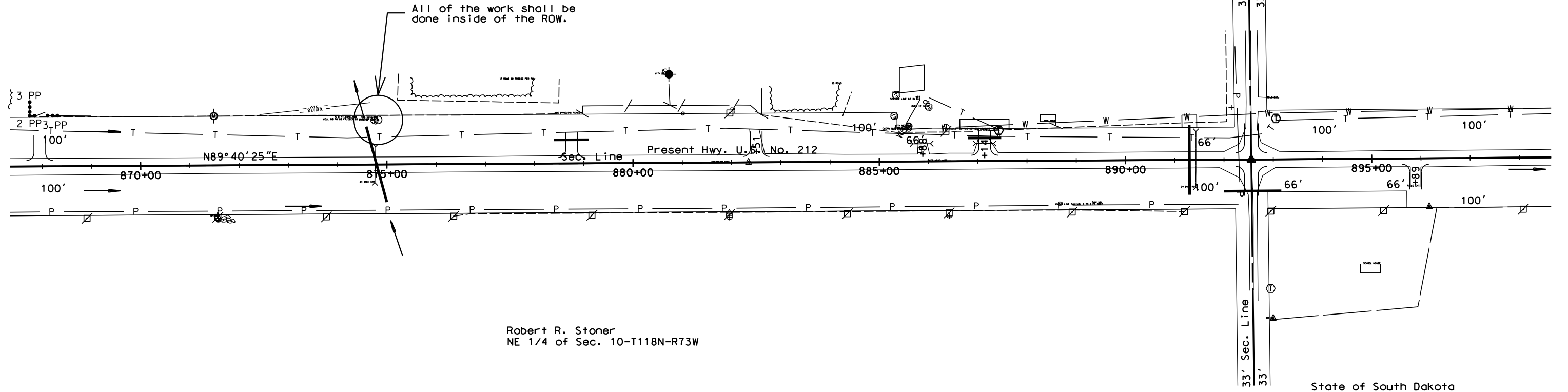
Sec. 3 - T118N - R73W

Sec. 2 - T118N - R73W

Edward R. Wheeler, Jr.
 SW 1/4 of Sec. 2-T118N-R73W

Edward R. Wheeler, Jr.
 SE 1/4 of Sec. 3-T118N-R73W

All of the work shall be done inside of the ROW.



Robert R. Stoner
 NE 1/4 of Sec. 10-T118N-R73W

State of South Dakota
 School and Public Lands
 NW 1/4 of Sec. 7-T118N-R73W

Sec. 10 - T118N - R73W

Sec. 11 - T118N - R73W

The signs illustrated are not required if the work space is behind a barrier, more than 2 feet behind the curb, or 15 feet or more from the edge of any roadway.

The signs illustrated shall be used where there are distracting situations, such as: vehicles parked on shoulder, vehicles accessing the work site via the highway, and equipment traveling on or crossing the roadway to perform work operations.

The ROAD WORK AHEAD sign may be replaced with other appropriate signs, such as the SHOULDER WORK sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.

* If the work space is on a divided highway, an advance warning sign should also be placed on the left side of the directional roadway.

For short term, short duration, or mobile operations, all signs and channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 80	1000

April 15, 2015

Published Date: 1st Qtr. 2017	S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES WORK BEYOND THE SHOULDER	PLATE NUMBER 634.01
			Sheet 1 of 1

RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE

URBAN DISTRICT

RURAL DISTRICT 3 DAY MAXIMUM
(Not applicable to regulatory signs)

* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

September 22, 2014

Published Date: 1st Qtr. 2017	S D D O T	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	212-351	6	6

