

STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION  
PLANS FOR PROPOSED

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0046(69)288	1	546

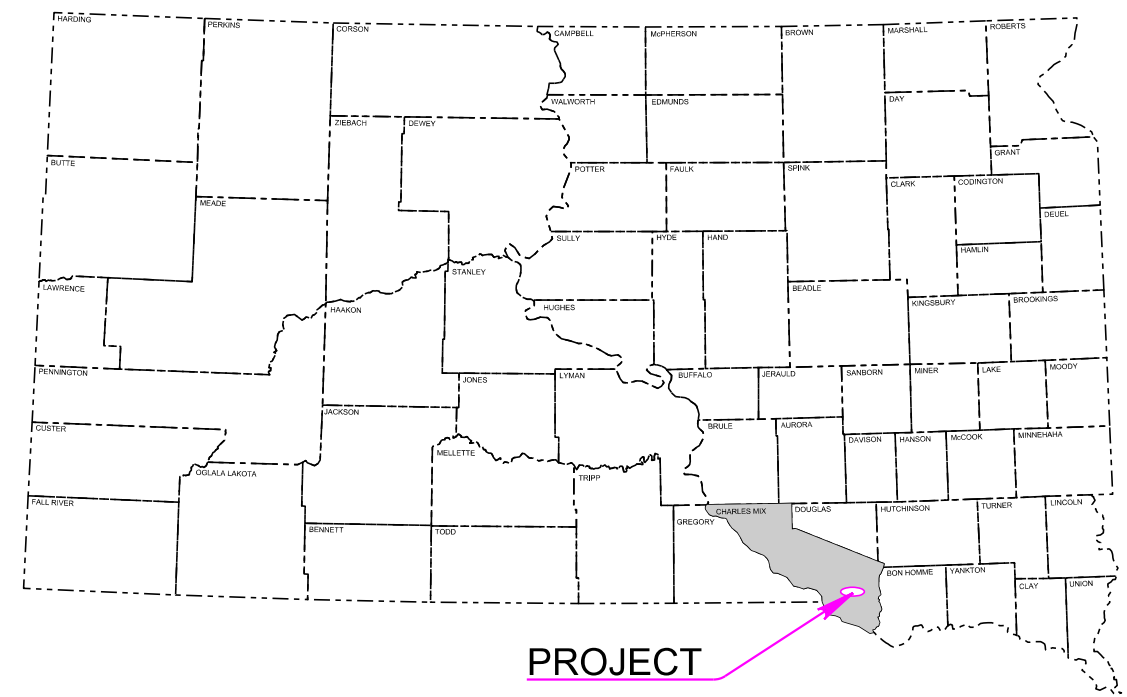
Plotting Date: 11/27/2024

# PROJECT NH-CR 0046(69)288 SD HIGHWAY 46 CHARLES MIX COUNTY

GRADING, SURFACING, STORM SEWER,  
CURB & GUTTER, SIDEWALK, PAVEMENT MARKINGS,  
LIGHTING, & SIGNALS  
PCN 05JN

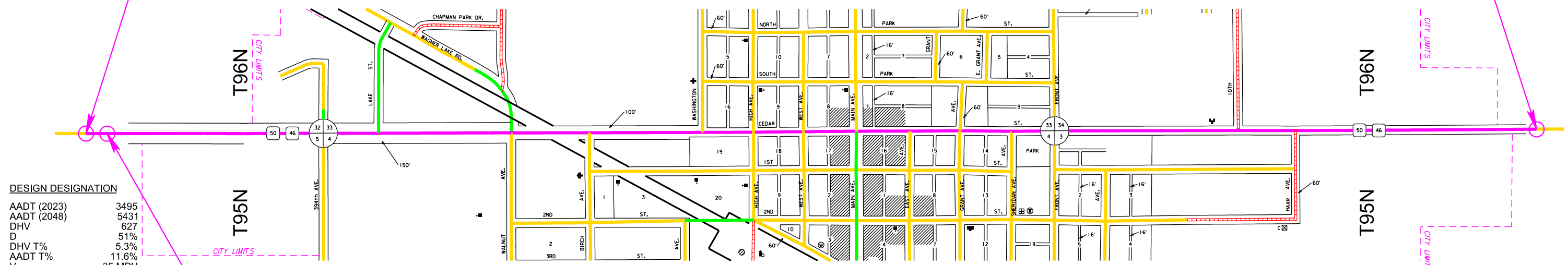
## INDEX OF SECTIONS

- Section A: Estimate of Quantities and Environmental Commitments
- Section B: Grading Plans
- Section C: Traffic Control Plans
- Section D: Erosion and Sediment Control Plans
- Section F: Surfacing Plans
- Section L: Signal and Lighting Plans
- Section M: Pavement Marking Plans
- Section S: Permanent Signing Plans
- Section X: Cross Sections
- Section Z: Pipe Sections



**BEGIN NH-CR 0046(69)288**  
Station 9+55.00 = Station 596+28.20 on  
S 7561(2) located 5.25 feet north and  
715.04 feet east of the north quarter corner of  
Section 5 - Township 95 North - Range 63 West  
of the 5th P.M.  
MRM 288+0.128

**END NH-CR 0046(69)288  
END GRADING**  
Station 124+66.00 = Station 5+28.33 on  
F 012-1(5) located 17.86 feet south and  
1021.84 feet west of the northeast corner  
of Section 3 - Township 95 North -  
Range 63 West of the 5th P.M.  
MRM 290.1+0.200



**DESIGN DESIGNATION**

AAADT (2023)	3495
AAADT (2048)	5431
DHV	627
D	51%
DHV T%	5.3%
AAADT T%	11.6%
V	35 MPH

**STORM WATER PERMIT**  
Major Receiving  
Body of Water: Choteau Creek  
Area Disturbed: 25 Ac  
Total Project Area: 38 Ac  
Approx. Begin Lat,Long: 43.0817, -98.3152

**BEGIN GRADING**  
Station 11+00.00

Gross Length	11,511.00 Feet	2.180 Miles
Length of Exceptions	0.00 Feet	0.00 Miles
Net Length	11,511.00 Feet	2.180 Miles

# 1

February 5, 2025

Plot Scale - 1:200

Plotted From - TRSE12139

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# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0046(69)288	A1	A7

Plotting Date: 11/27/2024 Revised 11-27-2024 JWF

## Section B - Grading

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
004E0050	Remove Traffic Diversion(s)	Lump Sum	LS
009E0010	Mobilization	Lump Sum	LS
009E3220	Reestablish Right-of-Way and Property Corner	179	Each
009E3225	Reestablish Public Land Survey System Corner	4	Each
009E3230	Grade Staking	8,232	Mile
009E3250	Miscellaneous Staking	2,154	Mile
009E3280	Slope Staking	2,154	Mile
009E3290	Structure Staking	1	Each
009E3301	Engineer Directed Surveying/Staking	40.0	Hour
009E4300	Construction Schedule, Category III	Lump Sum	LS
009E4330	Project Management, Category III	Lump Sum	LS
100E0020	Clear and Grub Tree	26	Each
100E0100	Clearing	Lump Sum	LS
110E0300	Remove Concrete Curb and/or Gutter	6,590	Ft
110E0400	Remove Drop Inlet	64	Each
110E0460	Remove Manhole	1	Each
110E0600	Remove Fence	637	Ft
110E1010	Remove Asphalt Concrete Pavement	42,037.8	SqYd
110E1100	Remove Concrete Pavement	28,691.4	SqYd
110E1130	Remove Concrete Driveway Pavement	5,371.5	SqYd
110E1140	Remove Concrete Sidewalk	4,187.7	SqYd
110E5800	Salvage Fence	211	Ft
110E7800	Remove Chain Link Fence for Reset	55	Ft
120E0010	Unclassified Excavation	83,962	CuYd
120E0600	Contractor Furnished Borrow Excavation	25,365	CuYd
120E0900	Contaminated Material Excavation	100	CuYd
120E1000	Muck Excavation	343	CuYd
120E2000	Undercutting	56,132	CuYd
120E6100	Water for Embankment	898.0	MGal
250E0020	Incidental Work, Grading	Lump Sum	LS
270E0040	Salvage and Stockpile Asphalt Mix and Granular Base Material	5,612.5	Ton
270E0110	Salvage and Stockpile Granular Material	21,803.0	Ton
380E3520	6" PCC Approach Pavement	711.9	SqYd
380E3540	8" PCC Approach Pavement	2,184.6	SqYd
380E4050	8" PCC Fillet Section	1,100.0	SqYd
421E0100	Pipe Culvert Undercut	31	CuYd
450E0122	18" RCP Class 2, Furnish	3,984	Ft
450E0130	18" RCP, Install	3,984	Ft
450E0142	24" RCP Class 2, Furnish	584	Ft
450E0150	24" RCP, Install	584	Ft
450E0162	30" RCP Class 2, Furnish	1,374	Ft
450E0170	30" RCP, Install	1,374	Ft

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
450E0182	36" RCP Class 2, Furnish	1,394	Ft
450E0190	36" RCP, Install	1,394	Ft
450E0192	42" RCP Class 2, Furnish	704	Ft
450E0200	42" RCP, Install	704	Ft
450E0203	48" RCP Class 3, Furnish	2,730	Ft
450E0210	48" RCP, Install	2,730	Ft
450E0408	18" RCP Bend, Furnish	1	Each
450E0409	18" RCP Bend, Install	1	Each
450E0700	RCP Tee, Furnish	9	Each
450E0701	RCP Tee, Install	9	Each
450E2028	36" RCP Flared End, Furnish	2	Each
450E2029	36" RCP Flared End, Install	2	Each
450E2036	48" RCP Flared End, Furnish	1	Each
450E2037	48" RCP Flared End, Install	1	Each
450E2304	18" RCP Safety End, Furnish	19	Each
450E2307	18" RCP Safety End, Install	19	Each
450E2308	24" RCP Safety End, Furnish	6	Each
450E2311	24" RCP Safety End, Install	6	Each
450E3002	18" RCP Arch Class 2, Furnish	512	Ft
450E3010	18" RCP Arch, Install	512	Ft
450E3012	24" RCP Arch Class 2, Furnish	280	Ft
450E3020	24" RCP Arch, Install	280	Ft
450E4600	24" RCP Arch Sloped End, Furnish	6	Each
450E4601	24" RCP Arch Sloped End, Install	6	Each
450E4650	18" RCP Arch Safety End, Furnish	13	Each
450E4653	18" RCP Arch Safety End, Install	13	Each
462E0100	Class M6 Concrete	309.2	CuYd
470E0020	Pipe Handrail	54.7	Ft
480E0100	Reinforcing Steel	54,539	Lb
480E0200	Epoxy Coated Reinforcing Steel	418	Lb
530E0300	Type C Concrete Retaining Wall	195	SqFt
600E0300	Type III Field Laboratory	1	Each
621E0520	Reset Chain Link Fence	55	Ft
650E0079	Modified Type B68 Concrete Curb and Gutter	12,740	Ft
650E0080	Type B68 Concrete Curb and Gutter	2,321	Ft
650E1079	Modified Type F68 Concrete Curb and Gutter	4,230	Ft
650E1080	Type F68 Concrete Curb and Gutter	175	Ft
650E3060	Type B6 Concrete Curb	47	Ft
650E4379	Modified Type D48 Concrete Curb and Gutter	87	Ft
650E4380	Type D48 Concrete Curb and Gutter	9	Ft
650E4679	Modified Type P8 Concrete Gutter	2,186	Ft
650E4680	Type P8 Concrete Gutter	123	Ft
651E0040	4" Concrete Sidewalk	81,027	SqFt

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
651E0140	4" Reinforced Concrete Sidewalk	2,449	SqFt
651E0540	4" Colored Concrete Sidewalk	19,133	SqFt
651E0740	4" Reinforced Colored Concrete Sidewalk	636	SqFt
651E5000	Sidewalk Drain	21.4	Ft
651E7000	Type 1 Detectable Warnings	1,103	SqFt
670E1030	5.5' x 3' Type B Drop Inlet	6	Each
670E1200	Type B Frame and Grate	57	Each
670E2200	Type C Frame and Grate	14	Each
670E4448	7' x 11' Concrete Type S Drop Inlet Base	4	Each
670E5340	4' x 11' Precast Concrete Type S Drop Inlet Lid	36	Each
670E5342	4' x 6' Precast Concrete Type S Drop Inlet Lid	31	Each
670E5400	Precast Drop Inlet Collar	57	Each
671E1096	96" Manhole	1	Each
671E5502	2" Adjusting Ring for Manhole	2	Each
671E6009	Type A9 Manhole Frame and Lid	1	Each
720E1010	PVC Coated Bank and Channel Protection Gabion	12.0	CuYd
831E0110	Type B Drainage Fabric	34	SqYd
900E0010	Refurbish Single Mailbox	1	Each
900E0012	Refurbish Double Mailbox	2	Each

### INDEX OF SHEETS

A1 and A3 Estimate of Quantities for Sections B, C, D, F, L, M, and S  
A4 to A7 Environmental Commitments

### SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 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-CR 0046(69)288	A2	A7

Plotting Date: 11/27/2024 Revised 11-27-2024 JWF

## Section C - Traffic Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	500.0	Hour
634E0110	Traffic Control Signs	1,351.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0275	Type 3 Barricade	56	Each
634E0330	Temporary Raised Pavement Markers	32,900	Ft
634E0380	Tubular Marker	30	Each
634E0420	Type C Advance Warning Arrow Board	2	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	12,350	Ft
634E0640	Temporary Pavement Marking	25,220	Ft
634E0650	Temporary Pavement Marking	269	Gal
634E1002	Detour and Restriction Signing	741.0	SqFt
634E1020	Temporary Business Signing	204.0	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	2	Each
634E2000	Longitudinal Pedestrian Barricade	7,500	Ft
634E2020	Temporary Curb Ramp	12	Each
634E2025	Longitudinal Pedestrian Barrier	7,500	Ft
634E2052	Temporary Flexible Sidewalk	2,500	SqFt
634E3000	Traffic Control Barrier	5,994	Ft
634E3000	Traffic Control Barrier	4,500	Ft
634E3000	Traffic Control Barrier	4,439	Ft
634E3030	Reset Traffic Control Barrier	14,933	Ft
900E1080	Orange Plastic Safety Fence	12,300	Ft

## Section D - Erosion and Sediment Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1690	Remove Sediment	37.7	CuYd
110E1693	Remove Erosion Control Wattle	98	Ft
110E1695	Remove Sediment Filter Bag	5,516	Ft
110E1700	Remove Silt Fence	1,595	Ft
120E6300	Water for Vegetation	397.0	MGal
230E0010	Placing Topsoil	3,749	CuYd
730E0100	Cover Crop Seeding	2.4	Bu
730E0206	Type D Permanent Seed Mixture	1,390	Lb
730E0212	Type G Permanent Seed Mixture	63	Lb
731E0200	Fertilizing	3.60	Ton
732E0100	Mulching	4.8	Ton
732E0200	Fiber Mulching	8.3	Ton
734E0044	Soil Stabilizer	3.5	Acre
734E0103	Type 3 Erosion Control Blanket	2,025	SqYd
734E0154	12" Diameter Erosion Control Wattle	390	Ft
734E0165	Remove and Reset Erosion Control Wattle	98	Ft
734E0180	Sediment Filter Bag	5,516	Ft
734E0185	Remove and Reset Sediment Filter Bag	1,379	Ft
734E0510	Shaping for Erosion Control Blanket	812	Ft
734E0602	Low Flow Silt Fence	1,445	Ft
734E0604	High Flow Silt Fence	4,936	Ft
734E0610	Mucking Silt Fence	443	CuYd
734E0620	Repair Silt Fence	1,595	Ft
734E0845	Sediment Control at Inlet with Frame and Grate	77	Each
734E0847	Sediment Control at Type S Reinforced Concrete Drop Inlet	760	Ft
734E5005	Dewatering	Lump Sum	LS
734E5010	Sweeping	20	Hour
900E1320	Construction Entrance	2	Each

## Section F - Surfacing

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3320	Checker	Lump Sum	LS
120E6200	Water for Granular Material	363.1	MGal
260E1010	Base Course	2,772.1	Ton
260E1030	Base Course, Salvaged	2,285.0	Ton
260E2010	Gravel Cushion	2,078.8	Ton
260E2030	Gravel Cushion, Salvaged	21,803.0	Ton
260E3500	Temporary Gravel Surfacing	1,371.0	Ton
320E1200	Asphalt Concrete Composite	3,673.4	Ton
380E0050	8" Nonreinforced PCC Pavement	60,488.6	SqYd
380E0800	PCC Shoulder Pavement	751.8	SqYd
380E3020	6" PCC Driveway Pavement	292.8	SqYd
380E3040	8" PCC Driveway Pavement	4,137.5	SqYd
380E6000	Dowel Bar	42,175	Each
380E6110	Insert Steel Bar in PCC Pavement	260	Each
831E0300	Reinforcement Fabric (MSE)	6,390	SqYd

1:200

Plot Scale -

Plotted From -

TRSE12139

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# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0046(69)288	A3	A7

Plotting Date: 11/27/2024 Revised 11-27-2024 JWF

## Section L - Signal and Lighting

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1510	Remove Luminaire Pole	38	Each
110E1520	Remove Signal Equipment	Lump Sum	LS
110E1530	Remove Signal Pole Footing	4	Each
110E1540	Remove Luminaire Pole Footing	38	Each
110E5110	Salvage Signal Equipment	Lump Sum	LS
635E0040	Breakaway Base Luminaire Pole with Arm, 40' Mounting Height	74	Each
635E2000	Pedestal Signal Pole	4	Each
635E2130	Signal Pole with 30' Mast Arm and Luminaire Arm	1	Each
635E2145	Signal Pole with 45' Mast Arm and Luminaire Arm	3	Each
635E3700	Roadway Luminaire, LED with Photoelectric Cell	78	Each
635E4010	1 Section Vehicle Signal Head	4	Each
635E4030	3 Section Vehicle Signal Head	10	Each
635E4090	4 Section Directional Vehicle Signal Head	4	Each
635E5020	2' Diameter Footing	690.0	Ft
635E5030	3' Diameter Footing	47.0	Ft
635E5301	Type 1 Electrical Junction Box	36	Each
635E5302	Type 2 Electrical Junction Box	3	Each
635E5303	Type 3 Electrical Junction Box	2	Each
635E5400	Electrical Service Cabinet	8	Each
635E5405	Electrical Service Cabinet with Secondary Disconnect	1	Each
635E5430	Traffic Signal Controller	1	Each
635E5515	Battery Backup System for Traffic Signal	1	Each
635E5520	Video Detection System	1	Each
635E5562	Siren Emergency Vehicle Preemption System	1	Each
635E5880	Accessible Pedestrian Signal	8	Each
635E5910	Pedestrian Push Button Pole	12	Each
635E5922	Pedestrian Signal Head with Countdown Timer	8	Each
635E5930	Pedestrian Crossing Sign	8	Each
635E5980	Rectangular Rapid Flashing Beacon System	2	Each
635E8110	1" Rigid Conduit, Schedule 40	100	Ft
635E8120	2" Rigid Conduit, Schedule 40	11,885	Ft
635E8130	3" Rigid Conduit, Schedule 40	20	Ft
635E8140	4" Rigid Conduit, Schedule 40	35	Ft
635E8220	2" Rigid Conduit, Schedule 80	3,295	Ft
635E8230	3" Rigid Conduit, Schedule 80	50	Ft
635E8240	4" Rigid Conduit, Schedule 80	55	Ft
635E9012	1/C #2 AWG Copper Wire	4,675	Ft
635E9013	1/C #3 AWG Copper Wire	2,605	Ft
635E9014	1/C #4 AWG Copper Wire	15,030	Ft
635E9016	1/C #6 AWG Copper Wire	16,945	Ft
635E9018	1/C #8 AWG Copper Wire	13,480	Ft
635E9020	1/C #10 AWG Copper Wire	1,895	Ft

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
635E9026	3/C #14 AWG Copper Wire	140	Ft
635E9502	2/C #14 AWG Copper Tray Cable, K2	1,680	Ft
635E9504	4/C #14 AWG Copper Tray Cable, K2	380	Ft
635E9505	5/C #14 AWG Copper Tray Cable, K2	700	Ft
635E9506	6/C #14 AWG Copper Tray Cable, K2	340	Ft
635E9525	25/C #14 AWG Copper Tray Cable, K2	750	Ft
635E9710	2/C #10 AWG Copper Pole and Bracket Cable	4,290	Ft

## Section M - Pavement Marking

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E3000	Durable Pavement Marking, 4" White	25,055	Ft
633E3005	Durable Pavement Marking, 4" Yellow	26,150	Ft
633E3030	Durable Pavement Marking, 24" White	1,160	Ft
633E3035	Durable Pavement Marking, 24" Yellow	90	Ft
633E3040	Durable Pavement Marking, Area	55	SqFt
633E3045	Durable Pavement Marking, Arrow	67	Each
633E3055	Durable Pavement Marking, Lane Reduction Arrow	7	Each
633E5100	Grooving for Durable Pavement Marking, 4"	51,205	Ft
633E5115	Grooving for Durable Pavement Marking, 24"	1,250	Ft
633E5120	Grooving for Durable Pavement Marking, Area	55	SqFt
633E5125	Grooving for Durable Pavement Marking, Arrow	67	Each
633E5131	Grooving for Durable Pavement Marking, Lane Reduction Arrow	7	Each

## Section S - Permanent Signing

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E0100	Remove Concrete Footing(s)	Lump Sum	LS
110E0130	Remove Traffic Sign	84	Each
110E0135	Remove Delineator	17	Each
110E7150	Remove Sign for Reset	5	Each
632E1320	2.0"x2.0" Perforated Tube Post	614.9	Ft
632E1340	2.5"x2.5" Perforated Tube Post	144.5	Ft
632E2022	4"x4" White Delineator Back to Back with 1.12 Lb/Ft Post	6	Each
632E2510	Type 2 Object Marker Back to Back	17	Each
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	508.0	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	318.1	SqFt
632E3500	Reset Sign	5	Each

Plot Scale - 1:200

Plotted From - TRSF-12139

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# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT NH-CR 0046(69)288	SHEET A4	TOTAL SHEETS A7
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Plotting Date: 11/27/2024 Revised 11-27-2024 JWF

## 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: <https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf>

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 A: AQUATIC RESOURCES

### COMMITMENT A1: WETLANDS

All efforts to avoid and minimize wetland impacts from the project have resulted in approximately 0.89 acres of wetlands (includes temporary and permanent) becoming impacted. Refer to Section B – Grading Plans for location and boundaries of the impacted wetlands.

#### Table of Impacted Wetlands

Wetland No.	Station	Perm. Impact Left (Acres)	Perm. Impact Right (Acres)	Temp. Impact Left (Acres)	Temp. Impact Right (Acres)	Total Impact (Acres)
1	19+25 – 22+00	0.050	0.040	0.100	0.030	0.220
2	21+75 – 26+75	0.000	0.300	0.000	0.060	0.360
3	27+25 – 28+50	0.000	0.080	0.000	0.070	0.150
4	33+75 – 35+75	0.000	0.040	0.000	0.000	0.040
5	113+75 – 116+00	0.000	0.020	0.040	0.020	0.080
6	119+75 – 120+75	0.000	0.000	0.000	0.040	0.040

## Action Taken/Required:

Mitigation is required in accordance with the "Statewide Finding Regarding Wetlands for South Dakota Federal-Aid Highway Projects (February 2018)".

Replacement of 0.23 acres of permanent wetland impacts will be completed through another wetland mitigation opportunity in a manner which considers FHWA's program-wide goal of 'net gain' of wetlands through enhancement, creation, and preservation.

SDDOT will acquire 2.92 credits from a wetland mitigation bank site or In-Lieu Fee program within the Lower Missouri GSA to mitigate permanent impacts.

Temporary impacts identified in the Table of Impacted Wetlands will not be mitigated as original contours and elevations will be re-established as designated in Section B – Grading Plans. Prior to initiating temporary work in wetlands, the Contractor will submit a plan to the Project Engineer in accordance with Section 7.21 D of the Specifications.

The Contractor will notify the Project Engineer if additional easement is needed to complete work adjacent to any wetland. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any wetlands beyond the work limits and easements shown in the plans.

## 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://sdleaswanted.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](https://sdlegislature.gov/rules/DisplayRule.aspx?Rule=41:10:04) >

# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT NH-CR 0046(69)288	SHEET A5	TOTAL SHEETS A7
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Plotting Date: 11/27/2024 Revised 11-27-2024 JWF

## COMMITMENT D: WATER QUALITY STANDARDS

### COMMITMENT D1: SURFACE WATER QUALITY

Wagner Lake is classified as a warm water semi-permanent fishery with a total suspended solids standard of less than 90 mg/L 30-day average, less than 158 mg/L daily maximum.

This project may be in the vicinity of multiple streams and wetlands. These waters are considered waters of the state and are protected under Administrative Rules of South Dakota (ARSD) Chapter 74:51. Special construction measures may have to be taken to ensure that this water body is not impacted.

#### Action Taken/Required:

The Contractor is advised that the South Dakota Surface Water Quality Standards, administered by the South Dakota Department of Agriculture and Natural Resources (DANR), apply to this project. Special construction measures will be taken to ensure the above standard(s) of the surface waters are maintained and protected.

### COMMITMENT D2: SURFACE WATER DISCHARGE

The DANR General Permit for Temporary Discharge is required for temporary dewatering and discharges to waters of the state. The effluent limit for total suspended solids will be 90 mg/L 30-day average. The effluent limit applies to discharges to all waters of the state except discharges to waters classified as cold water permanent fish life propagation waters according to the ARSD 74:51:01:45. For discharges to waters of the state classified as cold water permanent fish life propagation waters, the effluent limit for total suspended solids will be 53 mg/L daily maximum.

The permittee has the option of completing effluent testing or implementing a pollution prevention plan for compliance with this permit. If the permittee develops a pollution prevention plan instead of total suspended solids sampling, the plan must be developed and implemented prior to discontinuing total suspended solids sampling. Refer to Section 4.0 of the permit. If any pollutants are suspected of being discharged, a sample must be taken for those parameters listed in Section 3.4 of the permit.

Refer to Commitment D1: Surface Water Quality for stream classification.

#### Action Taken/Required:

If construction dewatering is required and this project is currently covered under a General Permit for Stormwater Discharges Associated with Construction Activities, the contractor will need to submit the dewatering information to the SDDANR using the following form:

<  
[https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR\\_AddTempInfoFillable.pdf](https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR_AddTempInfoFillable.pdf) >

The Contractor will provide a copy of the approved permit or the submitted dewatering information to the Project Engineer prior to proceeding with any dewatering activities. The approved permit or submitted dewatering information must be kept on-site and as part of the project records.

Effluent monitoring, as a result of dewatering activities, will be summarized for each month and recorded on a separate Discharge Monitoring Report (DMR) and submitted to DANR monthly. Additional information can be found at:

<  
<https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/swdpermitting/Ereporting.aspx> >

## COMMITMENT E: STORM WATER

Construction activities constitute 1 acre or more of earth disturbance and/or work in a waterway.

#### Action Taken/Required:

The DANR General Permit for Stormwater Discharges Associated with Construction Activities is required for construction activity disturbing one or more acres of earth and work in a waterway. The SDDOT is the owner of this permit and will submit the NOI to DANR 15 days prior to project start in order to obtain coverage under the General Permit. Work can begin once the DANR letter of approval is received.

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

The Contractor will complete the DANR Contractor Certification Form prior to the pre-construction meeting. The form certifies under penalty of law that the Contractor understands and will comply with the terms and conditions of the permit for this project. Work may not begin on this project until this form is signed and submitted to DANR.

The form can be found at:

<  
[https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR\\_CGPAAppendixCCA2018Fillable.pdf](https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR_CGPAAppendixCCA2018Fillable.pdf) >

The Contractor is advised that permit coverage may also be required for off-site activities, such as borrow and staging areas, which are the responsibility of the Contractor.

### Storm Water Pollution Prevention Plan

The Storm Water Pollution Prevention Plan (SWPPP) will be developed prior to the submittal of the NOI and will be implemented for all construction activities for compliance with the permit. The SWPPP must be kept on-site and updated as site conditions change. Erosion control measures and best management practices will be implemented in accordance with the SWPPP.

The DOT 298 Form will be used for site inspections and to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents and retained for a minimum of three years.

The inspection will include disturbed areas of the construction site that have not been finally stabilized, areas used for storage materials, structural control measures, and locations where vehicles enter or exit the site. These areas will be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the

SWPPP will be observed to ensure that they are operating correctly, and sediment is not tracked off the site.

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

SDDOT: < <https://dot.sd.gov/doing-business/environmental/stormwater> >

DANR:<  
<https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/stormwater/default.aspx> >

EPA: < <https://www.epa.gov/npdes> >

## COMMITMENT G: DEWATERING AND SEDIMENT COLLECTION

The purpose of a dewatering and sediment collection system is to collect turbid stormwater on the project, treat it with flocculants as needed, and capture the sediment that falls out of suspension before the water is discharged into "Waters of the US" or "Waters of the State". Refer to Commitment D1: Surface Water Quality for stream classification.

#### Action Taken/Required:

The Contractor will meet the terms of the Temporary Discharge Permit and the Storm Water Permit for Construction Activities.

The Contractor will create a Pollution Prevention Plan (PPP) for dewatering and sediment collection if the Contractor chooses to discharge the water into "Waters of the US" or "Waters of the State". Refer to the detail sheet OPTIONS FOR DEWATERING AND SEDIMENT COLLECTION in the plans. The PPP must be kept on-site and updated as site conditions change.

# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0046(69)288	A6	A7

Plotting Date: 11/27/2024 Revised 11-27-2024 JWF

## 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:

- 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".
- 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) and the Tribal Historic Preservation Office (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 150 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 and 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.

## COMMITMENT L: CONTAMINATED MATERIAL

Contaminated soil and/or known gas stations, undergrounds storage tanks, etc. are located within the project limits. Petroleum contaminated soil may be located at the following sites:

Description	Station	L / R
K's Qwik Stop Gas Station	65+50 – 67+00	L
Midtowne-Sinclair Gas Station	75+50 – 78+50	L

### Action Taken/Required:

The Contractor will give notice to the Engineer when contaminated soil is encountered on the project. The Engineer will contact the Environmental Office so that contact with the DANR and consultant to inspect and monitor removal of any contaminated soil can be initiated.

The Contractor will be responsible for having the existing underground utilities located in the construction area. Underground utilities damaged by the Contractor due to negligence will be repaired at the Contractor's expense.

Petroleum contaminated soil may be disposed of at the City of Lake Andes Dump (phone 605-487-7694 or 605-481-1715). Measurement of "Contaminated Material Excavation" will be in accordance with Section 120.4 of the Specifications. All costs for excavating and transporting the contaminated materials to the disposal site and all fees charged per cubic yard by the disposal site will be incidental to the contract unit price per cubic yard for "Contaminated Material Excavation".

# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0046(69)288	A7	A7

Plotting Date: 11/27/2024 Revised 11-27-2024 JWF

## COMMITMENT M: SECTION 4(f)/6(f) RESOURCES

### COMMITMENT M1: SECTION 4(f) PROPERTY

A Section 4(f) Evaluation concluded there are no feasible and prudent alternatives to avoiding Section 4(f) property located within the project.

Station	Section 4(f) Property
78+90 – 81+75 R	Wagner City Park
62+00 – 63+50 L	CH00000129
88+50 – 95+25 L	CH01300001

#### Action Taken/Required:

The following measures are required to minimize harm to the above Section 4(f) property, Wagner City Park:

- The duration of occupancy is temporary and less than the time needed for construction of the project and no permanent change in ownership of the land will occur;
- The scope of work is minor, in that both the nature and magnitude of the changes to the existing 4(f) property are minimal;
- There are no anticipated permanent adverse physical impacts, nor interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
- Any land to be disturbed will be fully restored and returned to a condition which is at least as good as that which existed prior to the project.
- There must be a documented agreement of the Official with Jurisdiction over the Section 4(f) resource regarding the above conditions.

The Contractor is not permitted to stage equipment or materials within Wagner City Park. The Contractor will notify the Project Engineer if additional easement is needed to complete the work adjacent to any Section 4(f) property. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any Section 4(f) property.

The following measures are required to minimize harm to the above Section 4(f) properties, CH00000129 and CH01300001:

- The duration of occupancy is temporary and less than the time needed for construction of the project and no permanent change in ownership of the land will occur;
- The scope of work is minor, in that both the nature and magnitude of the changes to the existing 4(f) property are minimal;
- There are no anticipated permanent adverse physical impacts, nor interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
- Any land to be disturbed will be fully restored and returned to a condition which is at least as good as that which existed prior to the project.

The Contractor is not permitted to stage equipment or materials within the property boundaries of CH00000129 and CH01300001. The Contractor will notify the Project Engineer if additional easement is needed to complete the

work adjacent to any Section 4(f) property. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any Section 4(f) property.

### COMMITMENT M2: SECTION 6(f) PROPERTY

SDGFP has been notified of the impacts to the following resource acquired and developed through a Land and Water Conservation Fund grant.

Station	Section 6(f) Property
78+90 – 81+75 R	Wagner City Park

#### Action Taken/Required:

The following actions are required to ensure the Section 6(f) Non-Conforming Use stipulations are achieved:

- Any land to be disturbed will be fully restored and returned to a condition which is at least as good as that which existed prior to the project.
- Work within Wagner City Park will be less than 180 days.

The Contractor is not permitted to stage equipment or materials within Wagner City Park. The Contractor will notify the Project Engineer if additional easement is needed to complete the work adjacent to any Section 6(f) property. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any Section 6(f) property.

### COMMITMENT N: SECTION 404 PERMIT

The SDDOT has obtained a Section 404 Permit from the USACE for the permanent actions associated with this project.

#### Action Taken/Required:

The Contractor will comply with all requirements contained in the Section 404 Permit.

The Contractor will also be responsible for obtaining a Section 404 Permit for any dredge, excavation, or fill activities associated with material sources, storage areas, waste sites, and Contractor work sites outside the plan work limits that affect wetlands, floodplains, or waters of the United States.

## COMMITMENT Q: ARCHAEOLOGICAL COORDINATION

As a result of a Cultural Resources Survey, historic properties have been identified adjacent to the project rights-of-way.

The following historic properties have been identified that require avoidance of construction activities:

### Table of Historic Properties

Station	Offset (Ft.)	L/R	Environmental Sensitive Site	Action
62+00 – 63+50	61.5	L	CH00000129	Do Not Disturb
88+50 – 95+25	91.8	L	CH01300001	Do Not Disturb

#### Action Taken/Required:

If evidence for cultural resources is uncovered during project construction activities, then such activities within 150 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 consult with the Archaeological Research Center (ARC), the Yankton Sioux Tribe THPO, the SHPO, and FHWA, to determine the appropriate course of action.

All artifacts, features, or other items of interest uncovered by project construction activities will not be displaced unless the landowner, YST THPO, and the SHPO consent to it.