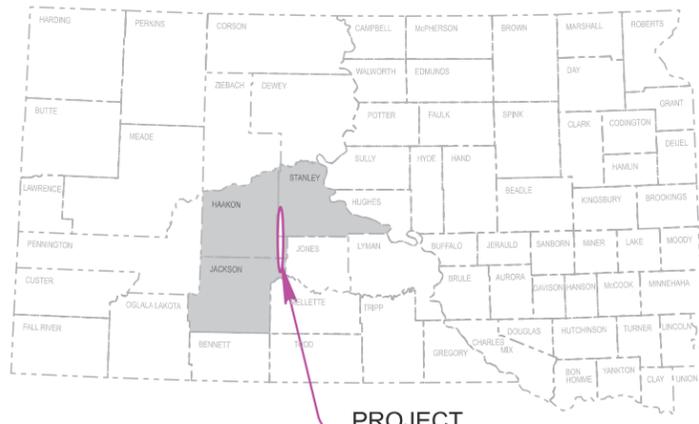


Plotting Date: 12/5/2025



# PROJECT NH-P 0031(57) US HIGHWAY 14 & SD HIGHWAY 63 HAAKON, JACKSON, & STANLEY COUNTIES

## PIPE CULVERT REPAIR PCN 095A

### INDEX OF SHEETS

1 - 2	Title Sheets
3	Estimate of Quantities
4 - 6	Environmental Commitments
7 - 11	General Notes and Tables
12 - 15	Stormwater Pollution Prevention Plan
16 - 36	Table of Pipe Quantities
37	Fixed Location Signing
38 - 42	Horizontal Alignment Data
43	Control Data
44	Legend
45 - 62	Plan Sheets
63	Riprap Detail Sheet
64 - 76	Standard Plates
77	Cross Section Sheet

### DESIGN DESIGNATION - US Hwy 14

ADT (2025)	620
ADT (2045)	890
DHV	142
D	50.0%
T DHV	8.8%
T ADT	19.3%
V	65 mph

### STORM WATER PERMIT - US HWY 14/SD HWY 63

Major Receiving  
Body of Water: Bad River, White River  
Area Disturbed: 1.5 Acres  
Total Project Area: 328.90 Acres  
Approx. Begin Lat,Long:  
44°64'41.9"N (Google Earth)  
101°09'46"W (Google Earth)

**END NH-P 0031(57)**  
Station D 393+00

MRM 168.00+0.056 (US Hwy 14)

**EQUATION**

Station C 395+55.80 Bk =  
Station D 369+98.10 Ah

**EQUATION**

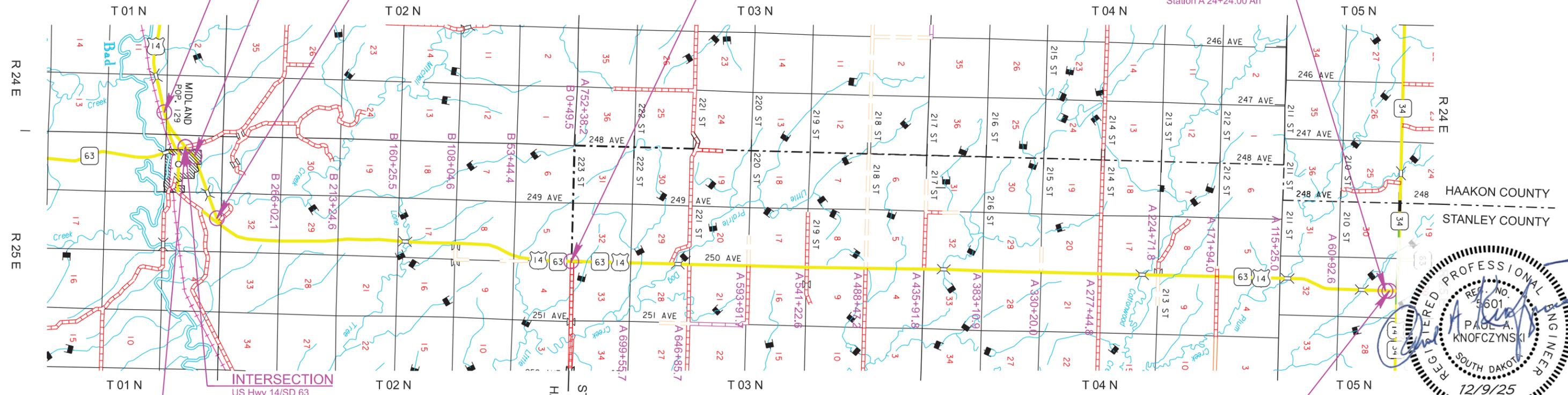
Station B 335+17.80 Bk =  
Station C 335+03.60 Ah

**EQUATION**

Station A 752+38.20 Bk =  
Station B 0+00.00 Ah

**EQUATION**

Station 14+76.00 Bk =  
Station A 24+24.00 Ah



**INTERSECTION  
MATCH POINT**

Station D 375+23.75  
MRM 168.00+0.392 (US Hwy 14) =  
Station 0+00  
MRM 96.00+0.930 (SD Hwy 63)

**INTERSECTION**

US Hwy 14/SD 63  
Station D 375+23.75  
MRM 168.00+0.392 (US Hwy 14)

### US 14

Gross Length	71,633.76 Feet	13.567 Miles
Length of Exceptions	0.00 Feet	0.000 Miles
Net Length	71,633.76 Feet	13.567 Miles

**BEGIN NH-P 0031(57)**

Station 0+25  
= Station 0+25 on S 1261(1)  
MRM 190.00+0.030 (Hwy 14)



**4**

April 1, 2026

# PROJECT NH-P 0031(57)

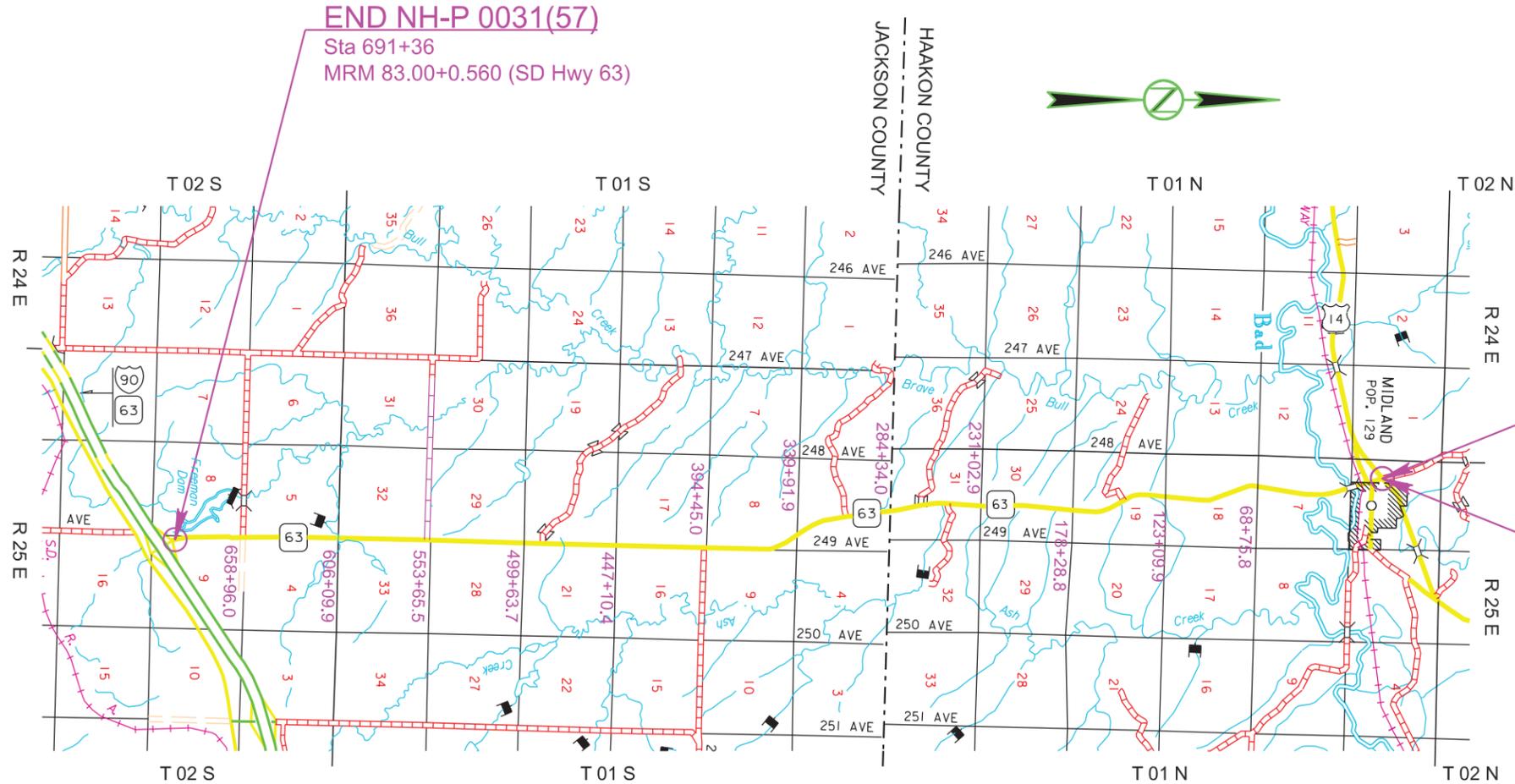
FOR BIDDING PURPOSES ONLY



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	2	77

Plotting Date: 12/5/2025

**END NH-P 0031(57)**  
Sta 691+36  
MRM 83.00+0.560 (SD Hwy 63)



**INTERSECTION MATCH POINT**  
Station 0+00  
MRM 96.00+0.930 (SD Hwy 63) =  
Station D 375+23.75  
MRM 168.00+0.392 (US Why 14)

**INTERSECTION**  
US Hwy 14/SD 63  
Station 0+00  
MRM 96.00+0.930 (SD Hwy 63)

**DESIGN DESIGNATION - SD 63**

ADT (2025)	294
ADT (2045)	422
DHV	67
D	50.0%
T DHV	12.4%
T ADT	27.3%
V	65 mph

**SD 63**

Gross Length	70,593.60 Feet	13.370 Miles
Length of Exceptions	0.00 Feet	0.000 Miles
Net Length	70,593.60 Feet	13.370 Miles



FOR BIDDING PURPOSES ONLY

Rev 2-5-26 pk

**ESTIMATE OF QUANTITIES**

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E4200	Construction Schedule, Category II	Lump Sum	LS
110E0500	Remove Pipe Culvert	113	Ft
110E0510	Remove Pipe End Section	82	Each
110E0600	Remove Fence	3,944	Ft
110E7152	Remove Delineator for Reset	145	Each
110E7500	Remove Pipe for Reset	224	Ft
110E7510	Remove Pipe End Section for Reset	54	Each
120E0600	Contractor Furnished Borrow Excavation	51	CuYd
120E0900	Contaminated Material Excavation	100	CuYd
120E4100	Reprofiling Ditch	4.3	Sta
450E0123	18" RCP Class 3, Furnish	8	Ft
450E0130	18" RCP, Install	8	Ft
450E0143	24" RCP Class 3, Furnish	56	Ft
450E0150	24" RCP, Install	56	Ft
450E0183	36" RCP Class 3, Furnish	8	Ft
450E0190	36" RCP, Install	8	Ft
450E0243	72" RCP Class 3, Furnish	40	Ft
450E0250	72" RCP, Install	40	Ft
450E2008	18" RCP Flared End, Furnish	4	Each
450E2009	18" RCP Flared End, Install	4	Each
450E2016	24" RCP Flared End, Furnish	8	Each
450E2017	24" RCP Flared End, Install	8	Each
450E2024	30" RCP Flared End, Furnish	1	Each
450E2025	30" RCP Flared End, Install	1	Each
450E2040	54" RCP Flared End, Furnish	4	Each
450E2041	54" RCP Flared End, Install	4	Each
450E2044	60" RCP Flared End, Furnish	1	Each
450E2045	60" RCP Flared End, Install	1	Each
450E2052	72" RCP Flared End, Furnish	7	Each
450E2053	72" RCP Flared End, Install	7	Each
450E2200	24" RCP Sloped End, Furnish	2	Each
450E2201	24" RCP Sloped End, Install	2	Each
450E4788	36" CMP 14 Gauge, Furnish	12	Ft
450E4790	36" CMP, Install	12	Ft
450E5215	24" CMP Flared End, Furnish	16	Each
450E5216	24" CMP Flared End, Install	16	Each
450E5219	30" CMP Flared End, Furnish	6	Each
450E5220	30" CMP Flared End, Install	6	Each
450E5223	36" CMP Flared End, Furnish	7	Each
450E5224	36" CMP Flared End, Install	7	Each
450E5227	42" CMP Flared End, Furnish	2	Each
450E5228	42" CMP Flared End, Install	2	Each

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
450E5239	60" CMP Flared End, Furnish	3	Each
450E5240	60" CMP Flared End, Install	3	Each
450E5255	84" CMP Flared End, Furnish	4	Each
450E5256	84" CMP Flared End, Install	4	Each
450E5306	18" CMP Sloped End, Furnish	2	Each
450E5307	18" CMP Sloped End, Install	2	Each
450E5310	24" CMP Sloped End, Furnish	13	Each
450E5311	24" CMP Sloped End, Install	13	Each
450E5314	30" CMP Sloped End, Furnish	2	Each
450E5315	30" CMP Sloped End, Install	2	Each
450E5318	36" CMP Sloped End, Furnish	5	Each
450E5319	36" CMP Sloped End, Install	5	Each
450E5910	30" CMP Arch Sloped End, Furnish	2	Each
450E5911	30" CMP Arch Sloped End, Install	2	Each
450E7624	24" Steel Pipe, Furnish	180	Ft
* 450E8900	Cleanout Pipe Culvert	12	Each
450E8910	Cleanout for Culvert Treatment	27	Each
450E9000	Reset Pipe	224	Ft
450E9001	Reset Pipe End Section	54	Each
450E9518	18" Cured in Place Pipe	81	Ft
450E9524	24" Cured in Place Pipe	1,686	Ft
450E9526	30" Cured in Place Pipe	721	Ft
450E9528	36" Cured in Place Pipe	689	Ft
450E9530	42" Cured in Place Pipe	250	Ft
450E9534	54" Cured in Place Pipe	96	Ft
450E9536	60" Cured in Place Pipe	444	Ft
450E9540	72" Cured in Place Pipe	584	Ft
450E9544	84" Cured in Place Pipe	360	Ft
450E9626	30" Cured in Place Arch Pipe	63	Ft
451E5124	Bore and Jack 24" Pipe	180	Ft
462E0250	Cellular Grout	20.9	CuYd
620E0020	Type 2 Right-of-Way Fence	4,109	Ft
620E0515	Type 1A Temporary Fence	833	Ft
620E0520	Type 2 Temporary Fence	7,596	Ft
620E1020	2 Post Panel	76	Each
620E1030	3 Post Panel	2	Each
632E2100	Reset Delineator	145	Each
632E2510	Type 2 Object Marker Back to Back	4	Each
634E0010	Flagging	600.0	Hour
634E0110	Traffic Control Signs	335.5	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
700E0210	Class B Riprap	10.0	Ton
720E1015	Bank and Channel Protection Gabion	36.5	CuYd

\* - Denotes Non-Participating

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
734E0010	Erosion Control	Lump Sum	LS
734E0132	Type 2 Turf Reinforcement Mat	34.0	SqYd
734E0154	12" Diameter Erosion Control Wattle	690	Ft
831E0110	Type B Drainage Fabric	131	SqYd



FOR BIDDING PURPOSES ONLY

Revised: 12/16/2025 EJW

**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 2.03 acres of wetlands (includes temporary and permanent) becoming impacted. Refer to the 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	691+36 R	0.00	0.00	0.00	0.028	0.028
2	680+22 L/R	0.00	0.00	0.002	0.025	0.027
3	362+26 L/R	0.00	0.00	0.155	0.125	0.28
4	339+77 L/R	0.005	0.005	0.087	0.109	0.206
5	313+43 L	0.007	0.00	0.012	0.00	0.019
6	287+00 L	0.00	0.00	0.191	0.00	0.191
7	254+19 L/R	0.00	0.065	0.089	0.052	0.206
8	244+28 L/R	0.00	0.00	0.089	0.036	0.125
9	223+51 L/R	0.00	0.00	0.048	0.047	0.095
10	C378+61 L/R	0.00	0.00	0.120	0.07	0.127
11	B 52+61 – B 54+28 L/R	0.00	0.00	0.025	0.026	0.051
12	B 42+33 – B 48+50 L/R	0.00	0.00	0.291	0.233	0.524
13	B 29+78 L	0.00	0.00	0.091	0.00	0.091

**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 0.08 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.

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 the plans. Prior to initiating temporary work in wetlands, the Contractor will submit a plan to the Project Engineer in accordance with Section 7.18 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 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 pits, or staging areas associated with the project, cease construction activities in the affected area until the Whooping Crane departs and immediately 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 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://sdleastwanted.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)>



**FOR BIDDING PURPOSES ONLY**

**COMMITMENT D: WATER QUALITY STANDARDS**

**COMMITMENT D1: SURFACE WATER QUALITY**

The Bad River is classified as warmwater, marginal fishery with a total suspended solids standard of less than 150 mg/L 30-day average, less than 263 mg/L daily maximum.

The Freeman Dam is classified as a warmwater 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 Activities 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 coldwater permanent fish life propagation waters according to the ARSD 74:51:01:45. For discharges to waters of the state classified as coldwater 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 Project Engineer using the following SDDOT Dewatering Info CDX form:

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

**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\\_CGPAppe ndixCCA2018Fillable.pdf](https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR_CGPAppe ndixCCA2018Fillable.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 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:

1. 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".
2. 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.



**FOR BIDDING PURPOSES ONLY**

**COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES**

The SDDOT has obtained concurrence with the State Historic Preservation Office (SHPO) 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 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 is or may be located at the following sites:

Description	Location
Hullinger Oil	43.882973, -101.142124
Mineral Oil Spill	44.364288, -101.125105
Midland Food and Fuel	C 380+00
Troska Trucking Diesel Spill	44.078112, -101.147321
Transportation Diesel Spill	44.082497, -101.135216

**Action Taken/Required:**

The Contractor will give written notice, with a copy to the Area Engineer and DANR, 30 days prior to the start of work. In addition, the Contractor will give written notice to the Engineer 7 days prior to the commencement of the work so the Engineer may notify DANR of the day work will start.

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 Wall Rubble Site (phone 605-279-2563). 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".

The estimated quantity of "Contaminated Material Excavation" is 100 cubic yards. The quantity of "Contaminated Material Excavation" may vary from the plans. No adjustment will be made to the contract unit price for variations in the quantity of "Contaminated Material Excavation". The estimated quantity of "Contaminated Material Excavation" is provided in the plans.

**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.



**FOR BIDDING PURPOSES ONLY**

**SEQUENCE OF OPERATIONS**

The Contractor will submit a sequence of operations for approval two weeks prior to the preconstruction meeting. If changes to the sequence of operations are proposed during the project, these must be submitted for review a minimum of one week prior to potential implementation. Approval for changes to the sequence of operations will only be allowed when the proposed changes meet with the Department's intent for traffic control and sequencing of the work.

**UTILITIES**

The Contractor will 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 will 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.

**GENERAL TRAFFIC CONTROL**

Existing guide, route, informational logo, regulatory, and warning signs will be temporarily reset and maintained during construction. Removing, relocating, covering, salvaging, and resetting of existing traffic control devices, including delineation, will be the responsibility of the Contractor. Cost for this work will be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost will be replaced by the Contractor at no cost to the State.

All temporary traffic control sign locations will be set in the field by the Contractor and verified by the Engineer prior to installation.

All temporary speed limit signs will have a minimum mounting height of 5 feet in rural locations, even when mounted on portable supports.

Portable sign supports will not be located on sidewalks, bicycle facilities, or other areas designated for pedestrian or bicycle traffic.

If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD, whichever is more stringent will be used, as determined by the Engineer.

Unless otherwise stated in these plans, work will not be allowed during hours of darkness.

Fixed location signing placed more than 4 calendar days prior to the start of construction will be covered or laid down until the time of construction. The covers must be approved by the Engineer prior to installation. The cost of materials, labor, and equipment necessary to complete this work will be incidental to other contract items. No separate payment will be made.

All fixed location signs, sign posts, and breakaway bases will be removed within 7 calendar days following pavement marking.

All haul trucks will be equipped with an additional flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights will be incidental to the various related contract items.

At no time will a vertical drop-off of greater than 3 inches be left overnight adjacent to the traveled way. The Contractor will utilize embankment material to ensure a 3-inch vertical drop-off is not exceeded. The slope of the embankment material will not be steeper than a 4:1 within 30 feet of the traveled way.

Traffic will be maintained on the driving lanes. Use of the shoulder as a driving lane will not be permitted. Any damage to the shoulder due to rerouted traffic or Contractor's equipment will be repaired at no expense to the Department.

**FLAGGING**

Operations will be conducted so that the traveling public will not have to wait longer than 15 minutes at the flagger station.

Additional flagger warning signs and flagger hours have been included in the Estimate of Quantities for use on intersecting roads. These flaggers will be used as directed by the Engineer and will be used primarily during daytime hours.



It is required that the flaggers will be able to communicate with one another. If an emergency vehicle needs to pass through the project, the Contractor will be required to expedite traffic movement. All costs associated with this will be incidental to the contract unit price per hour for "Flagging".

**TRAFFIC CONTROL SIGNS**

Traffic control signs have been included with the Fixed Location Signing sheet. Payment will only be for those signs used.

**EROSION CONTROL**

The erosion control areas will consist of all disturbed areas for the newly graded embankment and ditch channels within the reconstruction sites. The limits of erosion control work will be determined by the Engineer during construction.

The estimated disturbance for the project is 1.5 acres.

All costs for the erosion control work for furnishing, placing, and maintain erosion control including, labor, seeding, inoculum, and fiber mulching will be incidental to the contract lump sum price for "EROSION CONTROL".

**Permanent Seeding**

Type C Permanent Seed Mixture will consist of the following:

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

**Mycorrhizal Inoculum**

Mycorrhizal inoculum will consist of mycorrhizal fungi spores and mycorrhizal fungi-infected root fragments in a solid carrier. The carrier may include organic materials, calcinated clay, or other materials consistent with application and good plant growth. The supplier will provide certification of the fungal species claimed and the live propagule count. The inoculum will include a minimum 25% the fungal species *Rhizophagus intraradices*, the remaining 75% may include other endomycorrhizal fungal species.

All seed will be inoculated by the seed supplier with a minimum of 100,000 live propagules of mycorrhizal fungi per acre. All costs of inoculating the seed will be incidental to the contract lump sum price for Erosion Control.

The Mycorrhizal Inoculum provided will be from the approved product list. The approved product list may be viewed at the following internet site:

<http://apps.sd.gov/HC60ApprovedProducts/main.aspx>

**Fiber Mulching**

Fiber mulch will be applied in a separate operation following permanent seeding.

An additional 2% by weight of tackifier will be added to the fiber mulch product selected from the approved product list. If the product selected has guar gum tackifier included, then the additional 2% of tackifier will be guar gum. If the product selected has synthetic tackifier included, then the additional 2% of tackifier will be synthetic.

The Contractor will allow the fiber mulch to cure a minimum of 18 hours prior to watering or any storm event to ensure proper cohesion between the soil and fiber particles.

All costs for the additional tackifier added to the fiber mulch including labor, equipment, and materials will be incidental to the contract lump sum price for Erosion Control.

The fiber mulch provided will be from the approved product list. The approved product list for fiber mulch may be viewed at the following internet site:

<http://apps.sd.gov/HC60ApprovedProducts/main.aspx>



**FOR BIDDING PURPOSES ONLY**

Revised: 12/16/2025 EJW

**CONTRACTOR FURNISHED BORROW EXCAVATION**

The Contractor will provide a suitable site for Contractor furnished borrow excavation material. The Contractor is responsible for obtaining all required permits and clearances for the borrow site. The borrow material will be approved by the Engineer. The plans quantity for "Contractor Furnished Borrow Excavation" as shown in the Estimate of Quantities will be the basis of payment for this item.

Restoration of the Contractor furnished borrow excavation site will be the responsibility of the Contractor.

**EROSION CONTROL WATTLE**

Erosion control wattles (12" Diameter) for restraining the flow of runoff and sediment will be installed at locations determined by the Engineer during construction. Refer to Standard Plate 734.06 for details.

The Contractor will provide certification that the erosion control wattles do not contain noxious weed seeds.

Erosion control wattles will remain on the project to decompose.

500 feet of 12" Diameter Erosion Control Wattles has been added to the Estimate of Quantities for temporary erosion and sediment control in highway ditch channels adjacent to the highway.

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

<https://apps.sd.gov/HC60ApprovedProducts/main.aspx>

**TABLE OF EROSION CONTROL WATTLE**

Station	Location	Diameter (Inch)	Quantity (Ft)
253+37 to 254+99 L	Just inside Temporary Easement	12	160
253+99 R	Around Pipe inlet	12	30
	Additional Quantity:	12	500
	<b>Total:</b>		<b>690</b>

**CULVERT REPAIR**

The Contractor and the Engineer will verify the culvert sizes and lengths prior to ordering material.

**TABLE OF RIPRAP AND DRAINAGE FABRIC**

Station	L/R	Class B Riprap (Ton)	Type B Drainage Fabric (SqYd)
112+20	L	10.0	20
	<b>Totals:</b>	<b>10.0</b>	<b>20</b>

**CORRUGATED METAL PIPE**

Corrugated metal pipes will have 2 3/8-inch x 1/2-inch corrugations for 42-inch and smaller round pipe and 48-inch and smaller arch pipe unless otherwise stated in the plans. Corrugated metal pipes will have 3-inch x 1-inch or 5-inch x 1-inch corrugations for 48-inch and larger round pipe and 54-inch and larger arch pipe unless otherwise stated in the plans.

The gauge of the corrugated metal elbows, and ends will match the thickest gauge of corrugated metal pipe it is connected to.

Areas within the project have soils that are highly corrosive to steel. Corrugated metal pipe in these areas will be polymer coated 14 gauge steel as specified in the Table of Pipe Quantities. Any required connection bands, elbows, tees, crosses, wyes, reducers, and transitions will also be polymer coated. The connection bands will be 24 inches wide. All polymer coated corrugated metal pipe and components will be in conformance with AASHTO M245. Riveted pipe will not be allowed.

All damage to the polymer coating will be repaired in accordance with the manufacturer's recommendations prior to installation of the pipe.

All costs associated with the polymer coating including repair of polymer coating will be incidental to the corresponding CMP contract items.

Metal pipe end sections connected to polymer coated CMP will be aluminum-coated (Type 2) in accordance with AASHTO M36 as specified in the Table of Pipe Quantities. All costs associated for gauge, coating, and connections will be incidental to the corresponding CMP End Section contract items.

**REINFORCED CONCRETE PIPE**

High sulfate levels are likely to be encountered on this project. The type of cement will be either a Type V or a Type II with 20% to 25% Class F Modified Fly Ash substituted for cement in accordance with Section 605 of the Specifications. The Water/Cementitious material ratio will not exceed 0.45 as defined in Section 460.3 C of the Specifications. The mix will be as per the fabricator's design; however, minimum compressive strength will not be less than 4500 psi at 28 days. The pipe must be marked in an acceptable way to designate meeting requirements for sulfate resistance.

**REMOVE & RESET PIPE**

The Contractor will tie each section of pipe to the adjacent sections with tie bolts conforming to Standard Plate 450.18. All costs for drilling holes, furnishing, and installing the tie bolt assembly will be incidental to the corresponding pipe contract item.

Existing tie bolts, if any, may be salvaged and reused if condition is acceptable to the Engineer.

**TURF REINFORCEMENT MAT**

Turf Reinforcement Mat will be installed at locations shown in the table at the widths specified, and at locations determined by the Engineer during construction. The Contractor will use a turf reinforcement mat from the approved products list. The approved product list for turf reinforcement mat may be viewed at the following internet site:

<https://apps.sd.gov/HC60ApprovedProducts/main.aspx>

Turf Reinforcement Mat will be installed in accordance with the manufacturer's installation instructions.

**TABLE OF TURF REINFORCEMENT MAT**

Station	Location	Width (Ft)	Type	Quantity (SqYd)
A 487+44 L	Pipe End	10	2	17
A 488+09 R	Pipe End	10	2	17
<b>Total Type 2 Turf Reinforcement Mat:</b>				<b>34</b>

**TABLE OF PVC COATED BANK AND CHANNEL PROTECTION GABIONS AND DRAINAGE FABRIC**

Station	L/R	PVC Coated Bank and Channel Protection Gabion (CuYd)	Type B Drainage Fabric (SqYd)
739+69	R	15.5	43
584+21	L	6	19
473+00	L	4.5	15
473+00	R	4.5	15
312+72	R	6	19
	<b>Total</b>	<b>36.5</b>	<b>111</b>

**CLEANOUT PIPE CULVERT**

Material in existing pipe culvert will be cleaned out by water flushing or other approved methods.

Material removed from the pipe culvert will become property of the Contractor for disposal.

The Contractor will implement appropriate sediment control measures prior to water flushing to prevent discharges from the project boundaries.

The pipe culvert will be cleaned to the satisfaction of the Engineer.

All costs to dewater, clean pipe, and dispose of removed materials will be incidental to the contract unit price per each for "Cleanout Pipe Culvert".



**FOR BIDDING PURPOSES ONLY**

**CLEANOUT FOR CULVERT TREATMENT**

Cleanout of pipe culvert will be done in advance of the culvert lining.

Material in existing pipe culvert will be cleaned out by water flushing or other approved methods.

Material removed from the pipe culvert will become property of the Contractor for disposal.

The Contractor will implement appropriate sediment control measures prior to water flushing to prevent discharges from the project boundaries.

The pipe culvert will be cleaned to the satisfaction of the Engineer.

All costs to dewater, clean pipe, and dispose of removed materials will be incidental to the contract unit price per each for "Cleanout Pipe for Culvert Treatment".

**CULVERT LINING**

Pipe culvert lengths shown in the Table of Mainline Culvert Work were obtained from the original grading plans and were not verified in the field.

The Contractor will submit to the Area Engineer a minimum of 2 week prior to the Preconstruction Meeting a detailed plan of how the pipe culvert cleaning and inspection will be staged. The plan will show how the Contractor is going to maintain traffic at each pipe culvert site, where equipment is going to be stored, the total length of the workspace if a lane of traffic needs to be closed to traffic, and the methods used to prevent material removed from the pipe culverts from entering the waterway. These plans will be approved by the Area Engineer prior to starting work on the pipe culvert cleaning and lining.

Sediment control may be required if water is flowing through the pipe culvert at the time of cleaning. Otherwise, sediment control is not anticipated.

The Contractor will implement appropriate sediment control measures prior to water flushing to prevent discharges beyond the project boundaries.

Wattles have been provided in the Estimate of Quantities and may be used to capture pipe cleanout material. Placement of the wattles will be as directed by the Engineer.

**ENGINEER DRAWING AND DESIGN CALCULATION SUBMITTALS**

The Contractor will submit the engineering drawing and design calculations for the culvert liners, as required by the various culvert lining Special Provision, in Adobe PDF format.

Adobe PDF submittals will be sent to the following email addresses:

[Paul.Knofczynski@kljeng.com](mailto:Paul.Knofczynski@kljeng.com)

**BORE AND JACK STEEL PIPE**

The Contractor will install steel pipe at station 254+14 by boring and jacking the pipe through the existing highway embankment. The pipe will be installed by boring and jacking methods as specified herein unless an alternate plan is submitted in writing and approved by the Engineer.

Steel pipe for boring and jacking will meet or exceed the requirements of ASTM A53 Grade B, ASTM A139 Grade B or ASTM A252 Grade 2. Hydrostatic testing will not be required for this application. The pipe will be required to have the minimum wall thickness as shown in the following table:

Pipe Diameter	Wall Thickness
48" & below	1/2"
54"	5/8"
60"	5/8"
66"	3/4"
72"	3/4"

The exterior of the steel pipe will be coated with a fusion bonded epoxy coating and an abrasion resistant overcoat or a two-component coal tar epoxy. The coal tar will meet the requirements of Sherwin-Williams Targuard, Tnemec Hi-Build Tneme-Tar, or an approved equal. Applications of the coatings will be in conformance with the manufacturer's recommendations.

The pipe joints will be welded by a certified welder in accordance with Section 410.3 D of the Specifications. After the welding has been completed, the exposed area will be coated with 3M Scotchkote Liquid Epoxy 328 or a two-component coal tar epoxy meeting the requirements of Sherwin-Williams Targuard, Tnemec Hi-Build Tneme-Tar, or an approved equal.

The jacking pit will be constructed of sufficient size to accommodate equipment and workmen. The pit walls will be sloped or shored to comply with all applicable State and Federal regulations. The Contractor will be responsible for the design of the pit floor and jacking thrust restraint wall to carry the cyclic loads and thrust applied by the Contractor's operation. Water will not be allowed to accumulate in the jacking pit. All components of the jacking pit will be removed after installation of the pipe unless otherwise allowed by the Engineer.

The pipe will be pushed into position from a jacking pit with hydraulic jacks while simultaneously excavating at the forward end of the pipe. Each pipe section will be jacked from the jacking pit as the excavation at the boring head progresses so that the excavation is supported by the boring head or the pipe at all points.

Jacking thrust will be applied to the pipe by means of a yoke or frame designed to distribute the thrust uniformly around the pipe joint. The thrust will be applied to the pipe joint only in the location and only to the maximum force recommended by the pipe manufacturer. The pipe will be jacked into place without visible damage to the pipe or joint.

The boring head excavation will be circular with a maximum diameter equal to the outside diameter of the jacking pipe plus 1 inch. The Contractor will take whatever corrective action is necessary to prevent running, flowing, or squeezing ground conditions at the cutting face from causing large voids or significant loss of soil that may cause surface settlement.

The Contractor will control the alignment and grade of the pipe installation to meet the following tolerances:

1. Maximum horizontal deviation from plan shown alignment will be less than 0.15% of pipe length from the downstream end of pipe to the point of measurement.
2. Maximum vertical deviation from plan shown alignment will be less than 0.075% of pipe length from the downstream end of pipe to the point of measurement.

All material excavated by the boring head for the pipe installation will be disposed of by the Contractor. The excavated material from the boring pit will be used as backfill for the pit and compacted into place to the satisfaction of the Engineer.

Steel casing will be installed horizontally through 180' of embankment. The pipe will be placed through approximately 25' vertical depth of silt clay material. The parent formation from which embankment material was excavated consists of shale and may contain minor sandstone and concretions. Large boulders are not anticipated to be encountered within the bore and jack envelope.

Installation of CMP ends on the steel pipe will require the placement of a minimum of 2 welded stops at each pipe end to prevent the end from slipping off the steel pipe. The location and size will be determined in the field by the Engineer and installed by a certified welder. Stops will be coated with a coal tar epoxy. All costs, including labor and materials for the installation of the stops will be incidental to the contract unit price per foot for the corresponding steel pipe furnish contract item. Alternative methods of attachment may be allowed with the approval of the Engineer.

Payment for furnishing the pipe will be incidental to the contract unit price per foot for the corresponding steel pipe furnish contract item.

All costs involved with boring and jacking the pipe including labor, equipment, welding, materials, disposal of waste material, constructing and backfilling the jacking pit, and excavating and backfilling the roadway embankment will be incidental to the contract unit price per foot for the corresponding bore and jack pipe contract item.



FOR BIDDING PURPOSES ONLY

**CELLULAR GROUT**

The Contractor will submit a proposed grouting procedure to the Engineer at least two weeks prior to beginning this work.

Bulkheads will be constructed at each end of the pipe. Each bulkhead will be constructed to withstand the pressure of the grouting operation. The bulkhead will extend from the end of the existing pipe inward a minimum depth of 18 inches and will be free from leaks.

Pressure grouting will be done to ensure all the voids are filled including all breaks or holes in and around the existing pipe.

The grout will be a cellular grout (grout with pre-generated foam) with a minimum 28-day compressive strength of 100 pounds per square inch. If water is not present within the pipe a low-density grout with a minimum of 30 pounds per cubic foot wet density may be used. When it is not possible to dewater the existing pipe, a high-density grout with a minimum of 70 pounds per cubic foot will be used which may include approved sand. The foaming agent used will meet the requirements of ASTM C869 when tested in accordance with ASTM C796.

Both of the cellular grout mix designs will be submitted to the SDDOT Concrete Engineer for approval prior to use. The mix design submittal will include the base cement slurry mix per cubic yard, expansion factor from the foaming agent, and the cellular grout wet density (pounds per cubic foot).

The Contractor will install a bypass valve adjacent to the location where the pressure grouting hose is attached for obtaining samples to be checked for wet density. The wet density of the cellular grout will be checked by the

Contractor to verify the proper minimum wet density before the cellular grout filling operations begin and at a minimum once every two hours during production. The SDDOT will document the results of the density checks.

Cellular grout will be wasted until the cellular grout meets the minimum wet density required; however, if 0.5 cubic yards or more of base cement slurry is wasted trying to meet density requirements, then that quantity will not be included for payment.

If grout holes are utilized, cylindrical wooden plugs or other approved plugs will be inserted to plug holes until the grout has set. After the plugs are removed the holes will be filled with concrete.

The quantity of cellular grout was estimated based on volume of the existing pipe and voids outside the existing pipe.

The quantity of base cement slurry ordered will be approved by the Engineer. The quantity of base cement slurry needed will be calculated to the nearest tenth of a cubic yard using the approved mix design, expansion factor of the foaming agent, and estimated amount of cellular grout. The quantity for payment to the nearest tenth of a cubic yard of "Cellular Grout" is a calculated quantity based on the amount of base cement slurry used on the project to the nearest tenth of a cubic yard, expansion factor of the foaming agent, and approved mix design.

All costs for furnishing and installing the cellular grout including bulkhead construction, inlet bevel construction, and incidentals necessary to satisfactorily complete the work will be included in the contract unit price per cubic yard for "Cellular Grout".

**TABLE OF CELLULAR GROUT**

Station	Quantity (CuYd)
254+08	20.9
Total:	20.9

The quantity at each location includes an additional 15% to account for void volume outside the existing pipe.

**OBJECT MARKERS**

Where specified in the plans, the existing type 2 object marker will be removed and reset. The cost to remove and reset the object marker will be paid for at the contract unit price per each for "Remove Delineator for Reset" and "Reset Delineator". If the object marker is damaged or missing, at the direction of the Engineer, the Contractor will install a new Type 2 object marker, back to back. The new object marker will be paid for at the contract unit price per each for "Type 2 Object Marker, Back to Back". The estimate of quantities includes Type 2 Object Markers, Back to Back, 2 each, for those that are missing, and Remove Delineator, 5 each, for those that are damaged and need to be replaced.

New Type 2 Object Markers and posts will be furnished and installed according to the details of Standard Plates 632.01, 632.03, and 632.04 by the Contractor at the locations shown in the Table for Mainline Culvert Work. Cost for new Type 2 Object Marker and post installation is included in the contract unit price per each for Type 2 Object Marker Back-to-Back.

**TEMPORARY FENCE**

The Contractor will verify the location of the temporary fence with the landowner prior to installation of the fence.



**TABLE OF FENCE QUANTITIES**

Station to Station		Side (L/R)	Hwy	Remove Fence Ft	Right-of-Way Fence	Temporary Fence		Post Panels	
					Type 2 Ft	Type 1A Ft	Type 2 Ft	2 PP Each	3 PP Each
A 739+28	A 740+19	R	US14	90	90		160	2	
A 29+55	B30+71	L	US14	115	115	154		2	
B 47+20	B 49+54	R	US14	227	227		521	2	
B 47+27	B 49+47	L	US14	227	227		488	2	
B 52+43	B 52+91	L	US14	50	50		148	2	
B 53+92	B 54+42	R	US14	50	50	163		2	
C 375+08	C 376+24	L	US14	344	344		265	4	
C 377+02	C 380+31	R	US14	230	230		445	2	
D 375+83	D 376+29	R	US14	46	46	319		2	
117+75	118+60	R	SD63	85	85	152		2	
118+73	119+57	L	SD63	85	85		245	2	
156+74	157+34	L	SD63	60	60			2	
156+97	157+57	R	SD63	60	60		208	2	
220+46	221+93	R	SD63	147	147		295	2	
222+29	224+06	L	SD63	177	177		386	2	
233+07	233+74	R	SD63	67	67		84	2	
233+34	233+90	L	SD63	67	67		123	2	
237+18	238+13	R	SD63	95	95		138	2	
237+45	238+40	L	SD63	95	95		196	2	
243+41	244+31	R	SD63	90	90		159	2	
243+88	244+78	L	SD63	90	90		252	2	
252+81	255+00	R	SD63	220	220		422	2	
253+20	255+25	L	SD63	205	205		388	2	
273+64	274+84	L	SD63	116	116		163	2	
285+39	286+86	R	SD63	147	147		332	2	
287+07	288+37	L	SD63	130	130		251	2	
313+12	313+73	L	SD63	60	60		98	2	
338+79	339+54	R	SD63	75	75		365	2	1
340+00	341+04	L	SD63	104	104		397	2	1
360+89	361+89	R	SD63	100	100		208	2	
361+85	362+85	L	SD63	100	100		237	2	
498+30	498+85	R	SD63	55	55		142	2	
489+31	498+86	L	SD63	55	55	95		2	
537+24	537+84	R	SD63	60	60		121	2	
537+63	538+23	R	SD63	60	60		99	2	
646+02	646+62	L	SD63	60	60		106	2	
646+62	647+27	R	SD63	65	65		154	2	
<b>TOTALS:</b>				4109	4109	883	7596	76	2



**STORMWATER POLLUTION PREVENTION PLAN CHECKLIST**

(The numbers left of the title headings are **reference numbers** to the **GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES** (Stormwater Permit))

**5.3 (2): STAFF TRAINING/SWPPP IMPLEMENTATION**

To promote stormwater management awareness specific for this project, the Contractor's Erosion Control Supervisor should provide correspondence of how the SWPPP will be implemented. The Contractor's Erosion Control Supervisor is responsible for providing this information at the preconstruction meeting, and subsequently completing an attendance log, which should identify site-specific implementation of the SWPPP and the names of the personnel who attended the preconstruction meeting. Documentation of the preconstruction meeting will be filed with the SWPPP documents.

**5.3 (3): DESCRIPTION OF CONSTRUCTION ACTIVITIES**

- **5.3 (3a): Project Limits** (See Title Sheet)
- **5.3 (3a): Project Description** (See Title Sheet)
- **5.3 (4): Site Map(s)** (See Title Sheet and Plans)
- **Major Soil Disturbing Activities** (check all that apply)
  - Clearing and grubbing
  - Excavation/borrow
  - Grading and shaping
  - Filling
  - Other (describe):
- **5.3 (3b): Total Project Area** 328.90 Acres
- **5.3 (3b): Total Area to be Disturbed** 1.5 Acres
- **5.3 (3c): Maximum Area Disturbed at One Time** 1.5 Acres
- **5.3 (3d): Existing Vegetative Cover (%)** 100%
- **5.3 (3d): Description of Vegetative Cover** Grass
  
- **5.3 (3e): Soil Properties:** AASHTO Soil or USDA-NRCS Soil Series Classification Silty Loam
- **5.3 (3f): Name of Receiving Water Body/Bodies**
- **5.3 (3g): Location of Construction Support Activity Areas**

**5.3 (3h): ORDER OF CONSTRUCTION ACTIVITIES**

- **Special sequencing requirements** (see sheet).
- The Contractor will enter the Estimated Start Date.**

Description	Estimated Start Date
Install perimeter protection where runoff may exit site.	
Install channel and ditch bottom protection.	
Remove and stockpile topsoil.	
Stabilize disturbed areas.	
Install inlet and culvert protection after completing installations.	
Final grading.	
Removal of protection devices.	
Reseed areas disturbed by removal activities.	



**5.3 (5): DESCRIPTION AND MAINTENANCE OF CONTROL MEASURES FOR BIDDING PURPOSES ONLY**

All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report. Include the technical reasoning for selecting each control. (check all that apply)

**Perimeter Controls (See Detail Plan Sheets)**

Description	Estimated Start Date
<input type="checkbox"/> Natural Buffers (within 50 ft of Waters of State)	
<input type="checkbox"/> Silt Fence	
<input checked="" type="checkbox"/> Erosion Control Wattles	
<input type="checkbox"/> Temporary Berm / Windrow	
<input type="checkbox"/> Floating Silt Curtain	
<input type="checkbox"/> Stabilized Construction Entrances	
<input type="checkbox"/> Entrance/Exit Equipment Tire Wash	
<input type="checkbox"/> Other:	

**Structural Erosion and Sediment Controls**

Description	Estimated Start Date
<input type="checkbox"/> Silt Fence	
<input type="checkbox"/> Temporary Berm/Windrow	
<input checked="" type="checkbox"/> Erosion Control Wattles	
<input type="checkbox"/> Temporary Sediment Barriers	
<input type="checkbox"/> Erosion Bales	
<input type="checkbox"/> Temporary Slope Drain	
<input type="checkbox"/> Turf Reinforcement Mat	
<input checked="" type="checkbox"/> Riprap	
<input checked="" type="checkbox"/> Gabions	
<input type="checkbox"/> Rock Check Dams	
<input type="checkbox"/> Sediment Traps/Basins	
<input type="checkbox"/> Culvert Inlet Protection	
<input type="checkbox"/> Transition Mats	
<input type="checkbox"/> Median/Area Drain Inlet Protection	
<input type="checkbox"/> Curb Inlet Protection	
<input type="checkbox"/> Interceptor Ditch	
<input type="checkbox"/> Concrete Washout Facility	
<input type="checkbox"/> Work Platform	
<input type="checkbox"/> Temporary Water Barrier	
<input type="checkbox"/> Temporary Water Crossing	
<input type="checkbox"/> Permanent Stormwater Ponds	
<input type="checkbox"/> Permanent Open Vegetated Swales	
<input type="checkbox"/> Natural Depressions to allow for Infiltration	
<input type="checkbox"/> Sequential Systems that combine several practices	
<input type="checkbox"/> Other:	

**Dust Controls**

Description	Estimated Start Date
<input type="checkbox"/> Tarps & Wind impervious fabrics	
<input type="checkbox"/> Watering	
<input type="checkbox"/> Stockpile location/orientation	
<input type="checkbox"/> Dust Control Chlorides	
<input type="checkbox"/> Other	

**Dewatering BMPs**

Description	Estimated Start Date
<input type="checkbox"/> Sediment Basins	
<input type="checkbox"/> Dewatering bags	
<input type="checkbox"/> Weir tanks	
<input type="checkbox"/> Temporary Diversion Channel	
<input type="checkbox"/> Other:	

**Stabilization Practices (See Detail Plan Sheets)**

(Stabilization measures will begin the following work day whenever earth disturbing activity on any portion of the site has temporarily or permanently ceased. Temporary stabilization will be completed as soon as practicable but no later than 14 days after initiating soil stabilization activities (3.18))

Description	Estimated Start Date
<input type="checkbox"/> Vegetation Buffer Strips	
<input type="checkbox"/> Temporary Seeding (Cover Crop Seeding)	
<input checked="" type="checkbox"/> Permanent Seeding	
<input type="checkbox"/> Sodding	
<input type="checkbox"/> Planting (Woody Vegetation for Soil Stabilization)	
<input type="checkbox"/> Mulching (Grass Hay or Straw)	
<input checked="" type="checkbox"/> Fiber Mulching (Wood Fiber Mulch)	
<input type="checkbox"/> Soil Stabilizer	
<input type="checkbox"/> Bonded Fiber Matrix	
<input type="checkbox"/> Fiber Reinforced Matrix	
<input type="checkbox"/> Erosion Control Blankets	
<input type="checkbox"/> Surface Roughening (e.g. tracking)	
<input type="checkbox"/> Other:	

**Wetland Avoidance**

Will construction and/or erosion and sediment controls impinge on regulated wetlands? Yes  No  If yes, the structural and erosion and sediment controls have been included in the total project wetland impacts and have been included in the 404 permit process with the USACE.

FOR BIDDING PURPOSES ONLY

**5.3 (6): PROCEDURES FOR INSPECTIONS**

- Inspections will be conducted at least once every 7 days.
- All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report.
- Silt fence will be inspected for depth of sediment and for tears to ensure the fabric is securely attached to the posts and that the posts are well anchored. Sediment buildup will be removed from the silt fence when it reaches 1/3 of the height of the silt fence.
- Sediment basins and traps will be checked. Sediment will be removed when depth reaches approximately 50 percent of the structure's capacity, and at the conclusion of the construction.
- Check dams will be inspected for stability. Sediment will be removed when depth reaches 1/2 the height of the dam.
- All seeded areas will be checked for bare spots, washouts, and vigorous growth free of significant weed infestations.
- Inspection and maintenance reports will be prepared on form DOT 298 for each site inspection, this form will also be used to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents.
- The SDDOT Project Engineer and Contractor's Erosion Control Supervisor are responsible for inspections. Maintenance and repair activities are the responsibility of the Contractor. The SDDOT Project Engineer will complete the inspection and maintenance reports and distribute copies per the distribution instructions on DOT 298.

**5.3 (7): POST CONSTRUCTION STORMWATER MANAGEMENT**

Stormwater management will be handled by temporary controls outlined in "DESCRIPTION AND MAINTENANCE OF CONTROL MEASURES" above, and any permanent controls needed to meet permanent stormwater management needs in the post construction period will be shown in the plans and noted as permanent.

**5.3 (8): POLLUTION PREVENTION PROCEDURES**

**5.3 (8a): Spill Prevention and Response Procedures**

➤ **Material Management**

▪ Housekeeping

- Only needed products will be stored on-site by the Contractor.
- Except for bulk materials the contractor will store all materials under cover and/or in appropriate containers.
- Products must be stored in original containers and labeled.
- Material mixing will be conducted in accordance with the manufacturer's recommendations.
- When possible, all products will be completely used before properly disposing of the container off-site.
- The manufacturer's directions for disposal of materials and containers will be followed.
- The Contractor's site superintendent will inspect materials storage areas regularly to ensure proper use and disposal.
- Dust generated will be controlled in an environmentally safe manner.

▪ Hazardous Materials

- Products will be kept in original containers unless the container is not resealable and provide secondary containment as applicable.
- Original labels and material safety data sheets will be retained in a safe place to relay important product information.
- If surplus product must be disposed of, manufacturer's label directions for disposal will be followed.
- Maintenance and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, de-greasing operations,

fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants will be conducted on an impervious surface and under cover during wet weather to prevent the release of contaminants onto the ground.

- Wheel wash water will be collected and allowed to settle out suspended solids prior to discharge. Wheel wash water will not be discharged directly into any stormwater system or stormwater treatment system.
- Potential pH-modifying materials such as: bulk cement, cement kiln dust, fly ash, new concrete washings, concrete pumping, residuals from concrete saw cutting (either wet or dry), and mixer washout waters will be collected on site and managed to prevent contamination of stormwater runoff.

➤ **Spill Control Practices**

In addition to the previous housekeeping and management practices, the following practices will be followed for spill prevention and cleanup if needed.

- For all hazardous materials stored on site, the manufacturer's recommended methods for spill cleanup will be clearly posted. Site personnel will be made aware of the procedures and the locations of the information and cleanup supplies.
- Appropriate cleanup materials and equipment will be maintained by the Contractor in the materials storage area on-site. As appropriate, equipment and materials may include items such as brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for cleanup purposes.
- All spills will be cleaned immediately after discovery and the materials disposed of properly.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- After a spill a report will be prepared describing the spill, what caused it, and the cleanup measures taken. The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring, as well as clean up instructions in the event of reoccurrences.
- The Contractor's site superintendent, responsible for day-to-day operations, will be the spill prevention and cleanup coordinator.

➤ **Spill Response**

The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize migration into stormwater runoff and conveyance systems. If the release has impacted on-site stormwater, it is critical to contain the released materials on-site and prevent their release into receiving waters. If a spill of pollutants threatens stormwater or surface water at the site, the spill response procedures outlined below must be implemented in a timely manner to prevent the release of pollutants.

- The Contractor's site superintendent will be notified immediately when a spill or the threat of a spill is observed. The superintendent will assess the situation and determine the appropriate response.
- If spills represent an imminent threat of escaping erosion and sediment controls and entering receiving waters, personnel will be directed to respond immediately to contain the release and notify the superintendent after the situation has been stabilized.
- Spill kits containing appropriate materials and equipment for spill response and cleanup will be maintained by the Contractor at the site.
- If oil sheen is observed on surface water (e.g. settling ponds, detention ponds, swales), action will be taken immediately to remove the material causing the sheen. The Contractor will use appropriate materials to contain and absorb the spill. The source of the oil sheen will also be identified and removed or repaired as necessary to prevent further releases.

- If a spill occurs the superintendent or the superintendent's designee will be responsible for completing the spill reporting form and for reporting the spill to SDDANR.
- Personnel with primary responsibility for spill response and cleanup will receive training by the Contractor's site superintendent or designee. The training must include identifying the location of the spill kits and other spill response equipment and the use of spill response materials.
- Spill response equipment will be inspected and maintained as necessary to replace any materials used in spill response activities.

**5.3 (8b): WASTE MANAGEMENT PROCEDURES**

➤ **Waste Disposal**

- All liquid waste materials will be collected and stored in approved sealed containers. All trash and construction debris from the site will be deposited in the approved containers. Containers will be serviced as necessary, and the trash will be hauled to an approved disposal site or licensed landfill. All onsite personnel will be instructed in the proper procedures for waste disposal and notices stating proper practices will be posted. The Contractor is responsible for ensuring waste disposal procedures are followed.

➤ **Hazardous Waste**

- All hazardous waste materials will be disposed of in a manner specified by local or state regulations or by the manufacturer. Site personnel will be instructed in these practices, and the Contractor will be responsible for seeing that these practices are followed.

➤ **Sanitary Waste**

- Portable sanitary facilities will be provided on all construction sites. Sanitary waste will be collected from the portable units which must be secured to prevent tipping and serviced in a timely manner by a licensed waste management Contractor or as required by any local regulations.



**5.3 (9): CONSTRUCTION SITE POLLUTANTS**

The following materials or substances are expected to be present on the site during the construction period. These materials will be handled as noted under the heading "POLLUTION PREVENTION PROCEDURES" (check all that apply).

- Concrete and Portland Cement
- Detergents
- Paints
- Metals
- Bituminous Materials
- Petroleum Based Products
- Diesel Exhaust Fluid
- Cleaning Solvents
- Wood
- Cure
- Texture
- Chemical Fertilizers
- Other:

**Product Specific Practices**

▪ **Petroleum Products**

All on-site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled.

▪ **Fertilizers**

Fertilizers will be applied only in the amounts specified by the SDDOT. Once applied, fertilizers will be worked into the soil to limit the exposure to stormwater. Fertilizers will be stored in an enclosed area. The contents of partially used fertilizer bags will be transferred to sealable containers to avoid spills.

▪ **Paints**

All containers will be tightly sealed and stored when not required for use. The excess will be disposed of according to the manufacturer's instructions and any applicable state and local regulations.

▪ **Concrete Trucks**

Contractors will provide designated truck washout facilities on the site. These areas must be self-contained and not connected to any stormwater outlet of the site. Upon completion of construction, the area at the washout facility will be properly stabilized.

**5.3 (10): NON-STORMWATER DISCHARGES**

The following non-stormwater discharges are anticipated during the course of this project (check all that apply).

- Discharges from water line flushing.
- Pavement wash-water, where no spills or leaks of toxic or hazardous materials have occurred.
- Uncontaminated ground water associated with dewatering activities.

**5.3 (11): INFEASIBILITY DOCUMENTATION**

If it is determined to be infeasible to comply with any of the requirements of the Stormwater Permit, the infeasibility determination must be thoroughly documented in the SWPPP.

**7.0: SPILL NOTIFICATION**

In the event of a spill, the Contractor's site superintendent will make the appropriate notification(s), consistent with the following procedures:

- A release or spill of a regulated substance (includes petroleum and petroleum products) must be reported to SDDANR immediately **if any one of the following** conditions exists:
  - The release or spill threatens or is able to threaten waters of the state (surface water or ground water)
  - The release or spill causes an immediate danger to human health or safety
  - The release or spill exceeds 25 gallons
  - The release or spill causes a sheen on surface water
  - The release or spill of any substance that exceeds the ground water quality standards of ARSD Chapter 74:54:01
  - The release or spill of any substance that exceeds the surface water quality standards of ARSD Chapter 74:51:01
  - The release or spill of any substance that harms or threatens to harm wildlife or aquatic life
  - The release or spill is required to be reported according to Superfund Amendments and Reauthorization Act (SARA) Title III List of Lists, Consolidated List of Chemicals Subject to Reporting Under the Emergency Planning and Community Right to Know Act, US Environmental Protection Agency.

- To report a release or spill, call SDDANR at 605-773-3296 during regular office hours (8 a.m. to 5 p.m. Central Standard Time). To report the release after hours, on weekends or holidays, call South Dakota Emergency Management at 605-773-3231. Reporting the release to SDDANR does not meet any obligation for reporting to other state, local, or federal agencies. Therefore, you must also contact local authorities to determine the local reporting requirements for releases. A written report of the unauthorized release of any regulated substance, including quantity discharged, and the location of the discharge will be sent to SDDANR within 14 days of the discharge.

**5.4: SWPPP CERTIFICATIONS**

➤ **Certification of Compliance with Federal, State, and Local Regulations**

The Storm Water Pollution Prevention Plan (SWPPP) for this project reflects the requirements of all local municipal jurisdictions for storm water management and sediment and erosion control as established by ordinance, as well as other state and federal requirements for sediment and erosion control plans, permits, notices or documentation as appropriate.

**FOR BIDDING PURPOSES ONLY**

➤ **South Dakota Department of Transportation**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Authorized Signature (See the General Permit, Section 7.4 (1))

➤ **Prime Contractor**

This section is to be executed by the General Contractor after the award of the contract. This section may be executed any time there is a change in the Prime Contractor of the project.

I certify under penalty of law that this document and all attachments will be revised or maintained under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Signature



**FOR BIDDING PURPOSES ONLY**

**CONTACT INFORMATION**

The following personnel are duly authorized representatives and have signatory authority for modifications made to the SWPPP:

➤ **Contractor Information:**

- Prime Contractor Name: \_\_\_\_\_
- Contractor Contact Name: \_\_\_\_\_
- Address: \_\_\_\_\_
- \_\_\_\_\_
- City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_
- Office Phone: \_\_\_\_\_ Field: \_\_\_\_\_
- Cell Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

➤ **Erosion Control Supervisor**

- Name: \_\_\_\_\_
- Address: \_\_\_\_\_
- \_\_\_\_\_
- City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_
- Office Phone: \_\_\_\_\_ Field: \_\_\_\_\_
- Cell Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

➤ **SDDOT Project Engineer**

- Name: \_\_\_\_\_
- Business Address: \_\_\_\_\_
- Job Office Location: \_\_\_\_\_
- City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_
- Office Phone: \_\_\_\_\_ Field: \_\_\_\_\_
- Cell Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

➤ **SDDANR Contact Spill Reporting**

- Business Hours Monday-Friday (605) 773-3296
- Nights and Weekends (605) 773-3231

➤ **SDDANR Contact for Hazardous Materials.**

- (605) 773-3153

➤ **National Response Center Hotline**

- (800) 424-8802.

➤ **SDDANR Stormwater Contact Information**

- SDDANR Stormwater (800) 737-8676
- Surface Water Quality Program (605) 773-3351

**5.5: REQUIRED SWPPP MODIFICATIONS**

➤ **5.5 (1): Conditions Requiring SWPPP Modification**

The SWPPP must be modified, including the site map(s), in response to any of the following conditions:

- When a new operator responsible for implementation of any part the SWPPP begins work on the site.
- When changes to the construction plans, sediment and erosion control measures, or any best management practices on site that are no longer accurately reflected in the SWPPP. This includes changes made in response to corrective actions triggered by inspections.
- To reflect areas on the site map where operational control has been transferred (including the date of the transfer) or has been covered under a new permit since initiating coverage under this general permit.
- If inspections by site staff, local officials, SDDANR, or U.S. EPA determine that SWPPP modifications are necessary for compliance with the Stormwater Permit.
- To reflect any revisions to applicable federal, state, or local requirements that affect the control measures implemented at the site.
- If approved by the Secretary, to reflect any changes in chemical water treatment systems or controls, including the use of a different water treatment chemical, age rates, different areas, or methods of application.

➤ **5.5 (2): Deadlines for SWPPP Modification**

Any required revisions to the SWPPP must be completed within 7 calendar days following any of the items listed above.

➤ **5.5 (3): Documentation of Modifications to the Plan**

All SWPPP modification records are required to be maintained showing the dates of when the modification occurred. The records must include the name of the person authorizing each change and a brief summary of all changes.

➤ **5.5 (4): Certification Requirements**

All modifications made to the SWPPP must be signed and certified as required in Section 7.4.

➤ **5.5 (5): Required Notice to Other Operators**

If there are multiple operators at the site, the Contractor's Erosion Control Supervisor must notify each operator that may be impacted by the change to the SWPPP within 24 hours.

When modifications as described above occur, the SWPPP will be modified to provide appropriate protection to disturbed areas, all storm water structures, and adjacent waters. The SDDOT Project Engineer will modify the SWPPP using the DOT 298 form and drawings on the plan will be modified to reflect the needed changes. Copies of the DOT 298 forms and the SWPPP will be retained on site in a designated place for review throughout the course of the project. A copy of the DOT 298 form will be given to the Contractor Erosion Control Supervisor and a copy will be emailed to the SDDOT Environmental Section in accordance with the DOT 298 Form.



# TABLE OF PIPE QUANTITIES



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	16	77

Plotting Date: 12/8/2025

Stationing	12+53	A 61+65	A 70+00	A 60+50	A 105+50	A 132+61									
<b>MRM</b>	189.45+0.523	189.00+0.029	188.15+0.728	188.15+0.338	188.15+0.043	187.00+0.676									
<b>Highway</b>	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14									
<b>Structure Type</b>	18" RCP - 74'	18" RCP - 66'	24" RCP - 118'	24" RCP - 72'	24" RCP - 58'	48" RCP - 188'									
<b>End Treatment</b>	Flared	Flared	Flared	Flared	Flared	Flared									
<b>Work Description</b>	Reset End Section (Right) and Replace End Section (Left)	Reset End Section and 1 Pipe Section (Right), Replace end and Reset 2 Pipe Sections (Left)	Replace End Section and 1 Pipe Section (Right), Replace 1 Pipe Section and Reset End Section (Left)	Remove and Reset Both End Sections	Reset End Section and 1 Pipe Section (Right), Reset End Section and Replace 1 Pipe Section (Left)	No Work									
<b>Bid Item</b>	<b>Bid Item Description</b>	<b>Unit</b>	<b>Subtotal</b>	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt
110E0500	Remove Pipe Culvert	Ft	24					8	8			8			
110E0510	Remove Pipe End Section	Each	3	1		1			1						
110E7152	Remove Delineator for Reset	Each	10	1	1	1	1	1	1	1	1	1	1		
110E7500	Remove Pipe for Reset	Ft	32			16	8						8		
110E7510	Remove Pipe End Section for Reset	Each	7		1		1	1		1	1	1	1		
450E0143	24" RCP Class 3, Furnish	Ft	24					8	8			8			
450E0150	24" RCP, Install	Ft	24					8	8			8			
450E2008	18" RCP Flared End, Furnish	Each	2	1		1									
450E2009	18" RCP Flared End, Install	Each	2	1		1									
450E2016	24" RCP Flared End, Furnish	Each	1						1						
450E2017	24" RCP Flared End, Install	Each	1						1						
450E9000	Reset Pipe	Ft	32			16	8						8		
450E9001	Reset Pipe End Section	Each	7		1		1	1		1	1	1	1		
632E2100	Reset Delineator	Each	10	1	1	1	1	1	1	1	1	1	1		

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	17	77

Plotting Date: 12/8/2025

Stationing	MRM	Highway	Structure Type	End Treatment	Work Description
A 150+45	187.00+0.339	US Hwy 14	36" RCP - 124'	Flared	Reset End Section and 1 Pipe Section (Left)
A 164+08	187.00+0.090	US Hwy 14	24" RCP - 60'	Flared	Reset End and 1 Pipe Section (Both Sides)
A 188+15	186.00+0.633	US Hwy 14	18" RCP - 56'	Flared	Replace End Section and Reset 1 Pipe Section (Right), Reset End Section (Left)
A 210+84	186.00+0.194	US Hwy 14	Twin 54" RCP - 48'	Flared	Replace Flared Ends, Cleanout for Culvert Treatment, Install CIPP Liner
A 224+30	185.67+0.290	US Hwy 14	18" RCP - 50'	Flared	Reset Left End Section
A 241+56	185.00+0.616	US Hwy 14	24" RCP - 114'	Flared	Reset Left End Section

Bid Item	Bid Item Description	Unit	Subtotal	A 150+45		A 164+08		A 188+15		A 210+84		A 224+30		A 241+56	
				Lt	Rt										
110E0510	Remove Pipe End Section	Each	5						1	2	2				
110E7152	Remove Delineator for Reset	Each	11	1		1	1	1	1	2	2	1		1	
110E7500	Remove Pipe for Reset	Ft	32	8		8	8		8						
110E7510	Remove Pipe End Section for Reset	Each	6	1		1	1	1				1		1	
450E2008	18" RCP Flared End, Furnish	Each	1						1						
450E2009	18" RCP Flared End, Install	Each	1						1						
450E2040	54" RCP Flared End, Furnish	Each	4							2	2				
450E2041	54" RCP Flared End, Install	Each	4							2	2				
450E8910	Cleanout for Culvert Treatment	Each	2							2					
450E9000	Reset Pipe	Ft	32	8		8	8		8						
450E9001	Reset Pipe End Section	Each	6	1		1	1	1				1		1	
450E9534	54" Cured in Place Pipe	Ft	96							96					
632E2100	Reset Delineator	Each	11	1		1	1	1	1	2	2	1		1	

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES FOR BIDDING PURPOSES ONLY



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	18	77

Plotting Date: 12/8/2025

Stationing	A 248+16	A 259+47	A 279+28	A 303+76	A 318+08	A 340+50
<b>MRM</b>	185.00+0.474	185.00+0.268	184.00+0.888	184.00+0.432	184.00+0.140	183.00+0.762
<b>Highway</b>	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14
<b>Structure Type</b>	18" RCP - 70'	60" RCP - 120	48" RCP - 110'	24" RCP - 92'	18" RCP - 70'	18" RCP - 56'
<b>End Treatment</b>	Flared	Flared	Flared	Flared	Flared	Flared
<b>Work Description</b>	Cleanout Pipe	No Work	Reset Ends and 1 Pipe Section (Right)	Reset End and 1 Pipe Section (Both Sides)	Reset End Sections and Cleanout Pipe	Reset End Section and 1 Pipe section (Left), Replace End Section and 1 Section of Pipe (Right)

Bid Item	Bid Item Description	Unit	Subtotal	A 248+16		A 259+47		A 279+28		A 303+76		A 318+08		A 340+50	
				Lt	Rt										
110E0500	Remove Pipe Culvert	Ft	8												8
110E0510	Remove Pipe End Section	Each	1												1
110E7152	Remove Delineator for Reset	Each	8					1	1	1	1	1	1	1	1
110E7500	Remove Pipe for Reset	Ft	32						8	8	8				8
110E7510	Remove Pipe End Section for Reset	Each	7					1	1	1	1	1	1	1	
450E0123	18" RCP Class 3, Furnish	Ft	8												8
450E0130	18" RCP, Install	Ft	8												8
450E2008	18" RCP Flared End, Furnish	Each	1												1
450E2009	18" RCP Flared End, Install	Each	1												1
450E8900	Cleanout Pipe Culvert	Each	2	1								1			
450E9000	Reset Pipe	Ft	32						8	8	8				8
450E9001	Reset Pipe End Section	Each	7					1	1	1	1	1	1	1	
632E2100	Reset Delineator	Each	8					1	1	1	1	1	1	1	1

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES



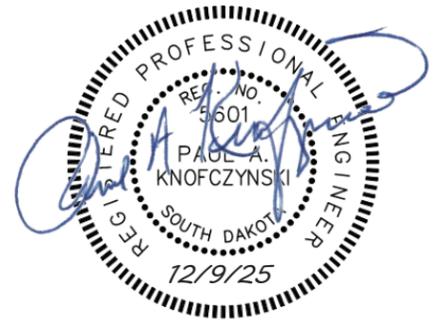
PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	19	77

Plotting Date: 12/8/2025

	Stationing	A 354+41	A 359+89	A 387+79	A 427+00	A 449+17	A 460+80								
	<b>MRM</b>	183.00+0.500	183.00+0.327	182.28+0.516	182.00+0.141	181.00+0.556	181.00+0.479								
	<b>Highway</b>	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14								
	<b>Structure Type</b>	24" RCP 64'	18" RCP - 54'	36" RCP - 102	24" RCP - 136'	24" RCP - 54'	96" CMP - 142'								
	<b>End Treatment</b>	Flared	Flared	Flared	Flared	Flared	Flared								
	<b>Work Description</b>	Reset End and 1 Pipe Section (Both Sides)	Cleanout Pipe and Reset End Section (Left)	Reset Ends and 2 Pipe Sections (Right)	Reset End Sections and Pipe Section (Left)	Reset Left End Section	No Work								
<b>Bid Item</b>	<b>Bid Item Description</b>	<b>Unit</b>	<b>Subtotal</b>	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt
110E7152	Remove Delineator for Reset	Each	8	1	1	1		1	1	1	1	1			
110E7500	Remove Pipe for Reset	Ft	40	8	8				16	8					
110E7510	Remove Pipe End Section for Reset	Each	8	1	1	1		1	1	1	1	1			
450E8900	Cleanout Pipe Culvert	Each	1			1									
450E9000	Reset Pipe	Ft	40	8	8				16	8					
450E9001	Reset Pipe End Section	Each	8	1	1	1		1	1	1	1	1			
632E2100	Reset Delineator	Each	8	1	1	1		1	1	1	1	1			

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	20	77

Plotting Date: 12/8/2025

<b>Stationing</b>	A 475+40	A 487+76	A 505+15	A 515+10	A 533+32	A 558+50
<b>MRM</b>	181.00+0.146	180.00+0.884	180.00+0.637	180.00+0.403	180.00+0.081	179.00+0.606
<b>Highway</b>	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14
<b>Structure Type</b>	36" RCP - 48'	72" RCP - 72'	24" RCP - 98'	24" RCP - 96'	24" RCP 94'	36" RCP - 82'
<b>End Treatment</b>	Flared	Flared	Flared	Flared	Flared	Flared
<b>Work Description</b>	Reset End Section and Pipe Section (Left)	Remove End Sections, Extend pipe 16' on Both Sides, Install End Sections	Cleanout Pipe	No Work	Reset End Sections and 1 Pipe Section (Both Sides)	Reset End Section and Replace 1 Pipe Section (Right), Reset End Section (Left)

Bid Item	Bid Item Description	Unit	Subtotal	A 475+40		A 487+76		A 505+15		A 515+10		A 533+32		A 558+50	
				Lt	Rt										
110E0500	Remove Pipe Culvert	Ft	8												8
110E0510	Remove Pipe End Section	Each	2			1	1								
110E7152	Remove Delineator for Reset	Each	7	1		1	1					1	1	1	1
110E7500	Remove Pipe for Reset	Ft	24	8								8	8		
110E7510	Remove Pipe End Section for Reset	Each	5	1								1	1	1	1
120E0600	Contractor Furnished Borrow	CuYd	30			15	15								
450E0183	36" RCP Class 3, Furnish	Ft	8												8
450E0190	36" RCP, Install	Ft	8												8
450E0243	72" RCP Class 3, Furnish	Ft	32			16	16								
450E0250	72" RCP, Install	Ft	32			16	16								
450E2052	72" RCP Flared End, Furnish	Each	2			1	1								
450E2053	72" RCP Flared End, Install	Each	2			1	1								
450E8900	Cleanout Pipe Culvert	Each	1					1							
450E9000	Reset Pipe	Ft	24	8								8	8		
450E9001	Reset Pipe End Section	Each	5	1								1	1	1	1
632E2100	Reset Delineator	Each	7	1		1	1					1	1	1	1
632E2510	Type 2 Object Marker Back to Back	Each	2			1	1								

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	21	77

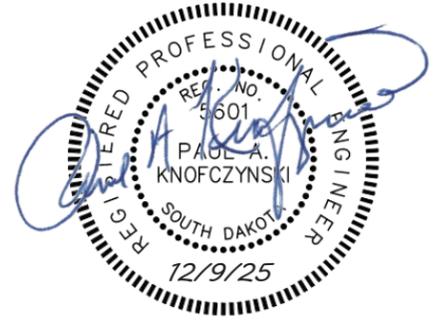
Plotting Date: 12/8/2025

<b>Stationing</b>	A 584+85	A 596+50	A 623+65	A 638+68	A 667+35	A 690+85
<b>MRM</b>	179.00+0.128	178.00+0.894	178.00+0.382	178.00+0.097	177.00+0.552	177.00+0.124
<b>Highway</b>	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14
<b>Structure Type</b>	24" RCP - 98'	24" RCP - 110'	42" RCP - 82'	24" RCP - 92'	30" RCP - 78'	2-84" CMP - 180'
<b>End Treatment</b>	Flared	Flared	Flared	Flared	Flared	Flared
<b>Work Description</b>	Reset Both End Sections	Reset End Section and 1 Pipe Section (Left)	Reset Both End Sections	Reset 2 Pipe sections (Left), and both End Sections	Reset End Section (Left)	CIPP Liner and Install End Sections

Bid Item	Bid Item Description	Unit	Subtotal	A 584+85		A 596+50		A 623+65		A 638+68		A 667+35		A 690+85	
				Lt	Rt										
110E7152	Remove Delineator for Reset	Each	12	1	1	1		1	1	1	1	1		2	2
110E7500	Remove Pipe for Reset	Ft	24			8				16					
110E7510	Remove Pipe End Section for Reset	Each	8	1	1	1		1	1	1	1	1			
450E5255	84" CMP Flared End, Furnish	Each	4											2	2
450E5256	84" CMP Flared End, Install	Each	4											2	2
450E8910	Cleanout for Culvert Treatment	Each	2											2	
450E9000	Reset Pipe	Ft	24			8				16					
450E9001	Reset Pipe End Section	Each	8	1	1	1		1	1	1	1	1			
450E9544	84" Cured In Place Pipe	Ft	360											360	
632E2100	Reset Delineator	Each	12	1	1	1		1	1	1	1	1		2	2

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	22	77

Plotting Date: 12/8/2025

<b>Stationing</b>	A 713+17	A 735+46	A 739+69	A 750+91	B 4+36	B 14+31
<b>MRM</b>	176.00+0.690	176.00 + 0.280	176.00 + 0.199	175.97 + 0.048	175.00 + 0.874	175.00 + 0.686
<b>Highway</b>	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14
<b>Structure Type</b>	36" RCP - 68'	24" RCP	60" CMP	24" RCP	30" RCP	24" RCP
<b>End Treatment</b>	Flared	Sloped	Other	Sloped	Sloped	Sloped
<b>Work Description</b>	No Work	Replace 1 Pipe Section and End Section (Left), Reset End Section (Right)	Remove 5' CMP, Install Flared End, Install Gabions (R)	Replace 1 Pipe Section and End Section (Right)	Remove and Reset End Sections	Replace 1 Pipe Section and End Section (Right)

Bid Item	Bid Item Description	Unit	Subtotal	A 713+17		A 735+46		A 739+69		A 750+91		B 4+36		B 14+31	
				Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt
110E0500	Remove Pipe Culvert	Ft	29			8			5	8					8
110E0510	Remove Pipe End Section	Each	3			1				1					1
110E7152	Remove Delineator for Reset	Each	8			1	1		2	1	1	1			1
110E7510	Remove Pipe End Section for Reset	Each	3				1					1	1		
450E0143	24" RCP Class 3, Furnish	Ft	24			8				8					8
450E0150	24" RCP, Install	Ft	24			8				8					8
450E2016	24" RCP Flared End, Furnish	Each	1			1									
450E2017	24" RCP Flared End, Install	Each	1			1									
450E2200	24" RCP Sloped End, Furnish	Each	2								1				1
450E2201	24" RCP Sloped End, Install	Each	2								1				1
450E5239	60" CMP Flared End, Furnish	Each	1						1						
450E5240	60" CMP Flared End, Install	Each	1						1						
450E9001	Reset Pipe End Section	Each	3				1					1	1		
632E2100	Reset Delineator	Each	8			1	1		2	1	1	1			1
720E1010	PVC Coated Bank and Channel Protection Gabion	CuYd	15.5						15.5						
831E0110	Type B Drainage Fabric	SqYd	43						43						

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES



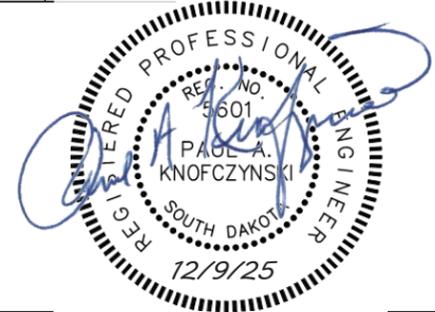
Plotting Date: 12/8/2025

<b>Stationing</b>	B 29+78	B 48+37	B 53+41	B 89+00	B 93+25	B 98+65
<b>MRM</b>	175.00 + 0.393	175.00 + 0.046	174.00 + 0.942	174.00+0.294	174.00+0.184	174.00+0.135
<b>Highway</b>	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14
<b>Structure Type</b>	36" RCP	Twin 72" RCP	72" RCP - 272'	24" RCP - 80'	30" RCP - 166'	24" RCP - 166'
<b>End Treatment</b>	Other	Sloped	Other	Flared	Flared	Flared
<b>Work Description</b>	Repair Erosion Within the ROW (Left), Reprofile Ditch (Right)	Replace End Sections, Cleanout Pipe, Install CIPP Liner (Both Pipes)	Replace 1 Pipe Section and 1 Flared End (Left)	No Work	Reset Both End Sections	Reset End Section and 1 Pipe Section (Right)

Bid Item	Bid Item Description	Unit	Subtotal	B 29+78		B 48+37		B 53+41		B 89+00		B 93+25		B 98+65	
				Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt
110E0500	Remove Pipe Culvert	Ft	8					8							
110E0510	Remove Pipe End Section	Each	5			2	2	1							
110E7152	Remove Delineator for Reset	Each	9			2	2	2				1	1		1
110E7500	Remove Pipe for Reset	Ft	8												8
110E7510	Remove Pipe End Section for Reset	Each	3									1	1		1
120E0600	Contractor Furnished Borrow	CuYd	10	10											
120E4100	Reprofiling Ditch	Sta	0.3		0.3										
450E0243	72" RCP Class 3, Furnish	Ft	8					8							
450E0250	72" RCP, Install	Ft	8					8							
450E2052	72" RCP Flared End, Furnish	Each	5			2	2	1							
450E2053	72" RCP Flared End, Install	Each	5			2	2	1							
450E8910	Cleanout for Culvert Treatment	Each	2			2									
450E9000	Reset Pipe	Ft	8												8
450E9001	Reset Pipe End Section	Each	3									1	1		1
450E9540	72" Cured in Place Pipe	Ft	584			584									
632E2100	Reset Delineator	Each	9			2	2	2				1	1		1

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	24	77

Plotting Date: 12/8/2025

<b>Stationing</b>	B 112+46	B 129+00	B 146+50	B 147+75	B 165+50	B 186+70
<b>MRM</b>	173.03+0.776	173.03+0.459	173.06+0.123	173.06+0.113	172.00+0.814	172.00+0.412
<b>Highway</b>	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14
<b>Structure Type</b>	60" RCP - 138'	18" RCP - 58'	4'x6' RC Cattle Pass	72" RCP - 114'	30" RCP - 106'	24" RCP - 56'
<b>End Treatment</b>	Flared	Flared	Flared	Flared	Flared	Flared
<b>Work Description</b>	Replace End Section (Left), Cleanout Pipe, Add Riprap (8'x12'x2' - See Detail)	Cleanout Ditch	No Work	No Work	Replace End Section (Left)	Reset End Section (Right)

Bid Item	Bid Item Description	Unit	Subtotal	B 112+46		B 129+00		B 146+50		B 147+75		B 165+50		B 186+70	
				Lt	Rt										
110E0510	Remove Pipe End Section	Each	2	1								1			
110E7152	Remove Delineator for Reset	Each	4	2								1			1
110E7510	Remove Pipe End Section for Reset	Each	1												1
120E4100	Reprofiling Ditch	Sta	2			1	1								
450E2024	30" RCP Flared End, Furnish	Each	1									1			
450E2025	30" RCP Flared End, Install	Each	1									1			
450E2044	60" RCP Flared End, Furnish	Each	1	1											
450E2045	60" RCP Flared End, Install	Each	1	1											
450E8900	Cleanout Pipe Culvert	Each	1	1											
450E9001	Reset Pipe End Section	Each	1												1
632E2100	Reset Delineator	Each	4	2								1			1
700E0210	Class B Riprap	Ton	10	10											
831E0110	Type B Drainage Fabric	SqYd	20	20											

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	25	77

Plotting Date: 12/8/2025

<b>Stationing</b>	B 212+88	B 216+00	B 220+32	B 228+02	B 253+70	B 273+00
<b>MRM</b>	171.00+0.914	171.00+0.866	171.00+0.771	171.00+0.648	171.00+0.191	170.00+0.808
<b>Highway</b>	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14
<b>Structure Type</b>	24" RCP - 270'	24" RCP - 138'	24" RCP - 144'	24" RCP - 216'	42" RCP - 198'	18" RCP - 82'
<b>End Treatment</b>	Flared	Flared	Flared		Flared	Flared
<b>Work Description</b>	No Work	No Work	Replace both End Sections	No Work	No Work	Reset End Section and 1 Pipe Section (Both Sides)

Bid Item	Bid Item Description	Unit	Subtotal	B 212+88		B 216+00		B 220+32		B 228+02		B 253+70		B 273+00	
				Lt	Rt										
110E0510	Remove Pipe End Section	Each	2					1	1						
110E7152	Remove Delineator for Reset	Each	4					1	1					1	1
110E7500	Remove Pipe for Reset	Ft	16											8	8
110E7510	Remove Pipe End Section for Reset	Each	2											1	1
450E2016	24" RCP Flared End, Furnish	Each	2					1	1						
450E2017	24" RCP Flared End, Install	Each	2					1	1						
450E9000	Reset Pipe	Ft	16											8	8
450E9001	Reset Pipe End Section	Each	2											1	1
632E2100	Reset Delineator	Each	4					1	1					1	1

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	26	77

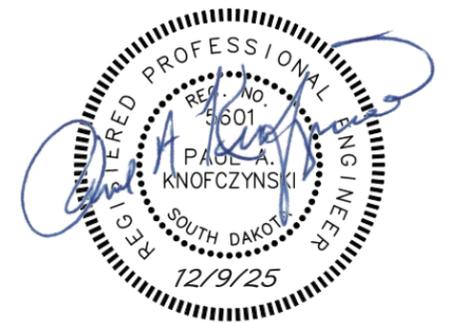
Plotting Date: 12/8/2025

<b>Stationing</b>	B 296+68	B 300+00	B 306+24	B 321+00	B 328+37	B 334+00
<b>MRM</b>	170.00+0.341	170.00+0.273	170.00+0.125	169.26+0.620	169.26+0.480	169.26+0.374
<b>Highway</b>	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14
<b>Structure Type</b>	24" CMP - 144'	24" CMP - 218'	24" RCP - 80'	24" RCP - 90'	24" CMP - 150'	24" CMP - 128'
<b>End Treatment</b>	Flared	Flared	Flared	Flared	Flared	Flared
<b>Work Description</b>	No Work	No Work	Replace End Section and 1 Pipe Section (Right)	Replace End Section (Right) and Reset End Section (Left) and 1 Pipe Section	No Work	No Work

Bid Item	Bid Item Description	Unit	Subtotal	B 296+68		B 300+00		B 306+24		B 321+00		B 328+37		B 334+00	
				Lt	Rt										
110E0500	Remove Pipe Culvert	Ft	8						8						
110E0510	Remove Pipe End Section	Each	2						1		1				
110E7152	Remove Delineator for Reset	Each	3						1	1	1				
110E7500	Remove Pipe for Reset	Ft	8							8					
110E7510	Remove Pipe End Section for Reset	Each	1							1					
450E0143	24" RCP Class 3, Furnish	Ft	8						8						
450E0150	24" RCP, Install	Ft	8						8						
450E2016	24" RCP Flared End, Furnish	Each	2						1		1				
450E2017	24" RCP Flared End, Install	Each	2						1		1				
450E9000	Reset Pipe	Ft	8							8					
450E9001	Reset Pipe End Section	Each	1							1					
632E2100	Reset Delineator	Each	3						1	1	1				

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	27	77

Plotting Date: 12/8/2025

<b>Stationing</b>	C 363+00	C 377+14	C 378+61	C 387+25	D 371+50	D 376+61
<b>MRM</b>	169.00+0.084	168.36 + 0.416	168.36 + 0.454	168.36 + 0.279	168.36 + 0.093	168.00 + 0.336
<b>Direction</b>	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14	US Hwy 14
<b>Structure Type</b>	24" RCP - 108'	60" CMP	60" CMP	24" RCP	24" RCP	24" RCP
<b>End Treatment</b>	Flared	Other	Other	Flared	Sloped	Unknown
<b>Work Description</b>	Reset 1 pipe Section (Left) and End Sections	Install CIPP Liner (Section of Pipe Crossing Midland Avenue) Install Flared End	Install CIPP Liner and End Section	Replace End Section, Cleanout Pipe, Install CIPP Liner	Reset End Section (Left), Cleanout Pipe	Cleanout Pipe

Bid Item	Bid Item Description	Unit	Subtotal	C 363+00		C 377+14		C 378+61		C 387+25		D 371+50		D 376+61	
				Lt	Rt										
110E0510	Remove Pipe End Section	Each	4			1			1	1	1				
110E7152	Remove Delineator for Reset	Each	8	1		2			2	1	1	1			
110E7500	Remove Pipe for Reset	Ft	8	8											
110E7510	Remove Pipe End Section for Reset	Each	3	1	1							1			
450E2016	24" RCP Flared End, Furnish	Each	2							1	1				
450E2017	24" RCP Flared End, Install	Each	2							1	1				
450E5239	60" CMP Flared End, Furnish	Each	2			1			1						
450E5240	60" CMP Flared End, Install	Each	2			1			1						
450E8900	Cleanout Pipe Culvert	Each	2									1		1	
450E8910	Cleanout for Culvert Treatment	Each	3			1		1	1						
450E9000	Reset Pipe	Ft	8	8											
450E9001	Reset Pipe End Section	Each	3	1	1							1			
450E9524	24" Cured in Place Pipe	Ft	153							153					
450E9536	60" Cured in Place Pipe	Ft	444			162		282							
632E2100	Reset Delineator	Each	8	1		2			2	1	1	1			

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	28	77

Plotting Date: 12/8/2025

<b>Stationing</b>	D 393+00	6+23	N/A	N/A	112+89	118+58
<b>MRM</b>	168.00+0.056	96.57 + 0.237	96.00 + 0.349	96.00 + 0.347	94.00 + 0.706	94.00 + 0.597
<b>Direction</b>	US Hwy 14	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63
<b>Structure Type</b>	10'x10' RCBC - 56'	24" CMP - 85'	4'x6' RC Cattle Pass	24" CMP - 110'	24" CMP - 254'	24" CMP - 247'
<b>End Treatment</b>	N/A	Sloped	N/A	Flared/Sloped	Flared	Flared
<b>Work Description</b>	No Work	Replace End Sections, Cleanout Pipe	No Work	No Work	No Work	Replace End Sections

Bid Item	Bid Item Description	Unit	Subtotal	D 393+00		6+23		N/A		N/A		112+89		118+58	
				Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt
110E0510	Remove Pipe End Section	Each	4			1	1							1	1
110E7152	Remove Delineator for Reset	Each	4			1	1							1	1
450E5215	24" CMP Flared End, Furnish	Each	2											1	1
450E5216	24" CMP Flared End, Install	Each	2											1	1
450E5310	24" CMP Sloped End, Furnish	Each	2			1	1								
450E5311	24" CMP Sloped End, Install	Each	2			1	1								
450E8900	Cleanout Pipe Culvert	Each	1			1									
632E2100	Reset Delineator	Each	4			1	1							1	1

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	29	77

Plotting Date: 12/8/2025

Stationing	124+00	127+19	157+17	173+50	N/A	N/A
<b>MRM</b>	94.00 + 0.495	94.00 + 0.434	93.00 + 0.864	93.00 + 0.553	93.00 + 0.343	93.00 + 0.254
<b>Direction</b>	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63
<b>Structure Type</b>	24" CMP - 300'	24" CMP - 250'	24" CMP - 343'	24" CMP - 106'	4'x6' RC Cattle Pass	24" CMP - 325'
<b>End Treatment</b>	Sloped	Flared	Sloped	Flared		Flared
<b>Work Description</b>	No Work	No Work	Replace End Sections, Cleanout Pipe	No Work	No Work	No Work

Bid Item	Bid Item Description	Unit	Subtotal	124+00		127+19		157+17		173+50		N/A		N/A	
				Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt
110E0510	Remove Pipe End Section	Each	2					1	1						
110E7152	Remove Delineator for Reset	Each	2					1	1						
450E5310	24" CMP Sloped End, Furnish	Each	2					1	1						
450E5311	24" CMP Sloped End, Install	Each	2					1	1						
450E8900	Cleanout Pipe Culvert	Each	1					1							
632E2100	Reset Delineator	Each	2					1	1						

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES FOR BIDDING PURPOSES ONLY



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	30	77

Plotting Date: 12/8/2025

<b>Stationing</b>	222+11	233+43	237+78	244+06	254+08	273+00
<b>MRM</b>	92.00 + 0.635	92.00 + 0.418	92.00 + 0.336	92.00 + 0.216	92.00 + 0.027	91.00 + 0.703
<b>Direction</b>	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63
<b>Structure Type</b>	30" CMP - 430'	24" CMP - 177'	30" CMP - 210'	24" CMP - 256'	24" CMP - 172'	24" CMP - 267'
<b>End Treatment</b>	Other	Flared	Flared	Flared	Sloped	Other/Flared
<b>Work Description</b>	Replace End Sections, Cleanout Pipe, Install CIPP Liner Reprofile Ditch on West Side	Replace End Sections, Cleanout Pipe, Install CIPP Liner	Replace End Sections, Cleanout Pipe	Replace End Sections, Cleanout Pipe, Cleanout Channel at Outlet	Bore and Jack a Steel Pipe, Install New End Sections	Replace End Sections, Cleanout Pipe

Bid Item	Bid Item Description	Unit	Subtotal	222+11		233+43		237+78		244+06		254+08		273+00	
				Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt
110E0500	Remove Pipe Culvert	Ft	16									8	8		
110E0510	Remove Pipe End Section	Each	10			1	1	1	1	1	1	1	1	1	1
110E7152	Remove Delineator for Reset	Each	10	1	1	1	1	1	1	1	1	1	1		
120E4100	Reprofiling Ditch	Sta	1		0.5					0.5					
450E5215	24" CMP Flared End, Furnish	Each	8			1	1			1	1	1	1	1	1
450E5216	24" CMP Flared End, Install	Each	8			1	1			1	1	1	1	1	1
450E5219	30" CMP Flared End, Furnish	Each	4	1	1			1	1						
450E5220	30" CMP Flared End, Install	Each	4	1	1			1	1						
450E7624	24" Steel Pipe, Furnish	Ft	180									180			
450E8900	Cleanout Pipe Culvert	Each	3					1		1				1	
450E8910	Cleanout for Culvert Treatment	Each	2	1		1									
450E9524	24" Cured in Place Pipe	Ft	177			177									
450E9526	30" Cured in Place Pipe	Ft	430	430											
451E5124	Bore and Jack 24" Pipe	Ft	180									180			
462E0250	Cellular Grout	CuYd	20.9									20.9			
632E2100	Reset Delineator	Each	10	1	1	1	1	1	1	1	1	1	1		
632E2510	Type 2 Object Marker Back to Back	Each	2									1	1		

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	31	77

Plotting Date: 12/8/2025

<b>Stationing</b>	287+00	313+43	339+77	349+77	361+85	375+75
<b>MRM</b>	91.00 + 0.400	90.00 + 0.909	90.00 + 0.406	90.00 + 0.207	89.00 + 0.984	89.00 + 0.716
<b>Direction</b>	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63
<b>Structure Type</b>	24" CMP - 406'	36" CMP - 155'	36" CMP - 400'	24" CMP - 87'	42" CMP - 250'	24" CMP - 71'
<b>End Treatment</b>	Flared	Flared	Sloped	Flared	Sloped	Flared
<b>Work Description</b>	Replace Flared End Sections, Cleanout Pipe, Install CIPP Liner	Replace Flared End Sections, Install Gabions at Outlet	Replace 12' of Pipe at Inlet, Replace Flared End Sections, Cleanout Pipe, Install CIPP Liner	No Work	Replace End Sections, Cleanout Pipe, Install CIPP Liner	No Work

Bid Item	Bid Item Description	Unit	Subtotal	287+00		313+43		339+77		349+77		361+85		375+75	
				Lt	Rt										
110E0500	Remove Pipe Culvert	Ft	12					12							
110E0510	Remove Pipe End Section	Each	8	1	1	1	1	1	1			1	1		
110E7152	Remove Delineator for Reset	Each	8	1	1	1	1	1	1			1	1		
450E4788	36" CMP 14 Gauge, Furnish	Ft	12					12							
450E4790	36" CMP, Install	Ft	12					12							
450E5215	24" CMP Flared End, Furnish	Each	2	1	1										
450E5216	24" CMP Flared End, Install	Each	2	1	1										
450E5223	36" CMP Flared End, Furnish	Each	2			1	1								
450E5224	36" CMP Flared End, Install	Each	2			1	1								
450E5227	42" CMP Flared End, Furnish	Each	2									1	1		
450E5228	42" CMP Flared End, Install	Each	2									1	1		
450E5318	36" CMP Sloped End, Furnish	Each	2					1	1						
450E5319	36" CMP Sloped End, Install	Each	2					1	1						
450E8910	Cleanout for Culvert Treatment	Each	3	1				1				1			
450E9524	24" Cured in Place Pipe	Ft	406	406											
450E9528	36" Cured in Place Pipe	Ft	400					400							
450E9530	42" Cured in Place Pipe	Ft	250									250			
632E2100	Reset Delineator	Each	8	1	1	1	1	1	1			1	1		
720E1010	PVC Coated Bank and Channel Protection Gabion	CuYd	6				6								
831E0110	Type B Drainage Fabric	SqYd	19				19								



Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.

# TABLE OF PIPE QUANTITIES



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	32	77

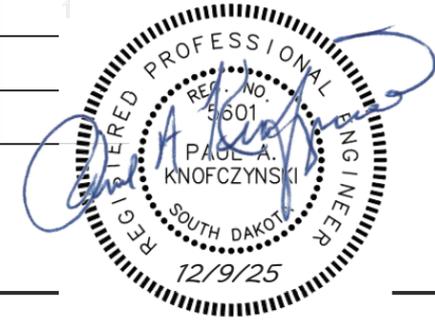
Plotting Date: 12/8/2025

<b>Stationing</b>	396+53	425+54	442+72	460+47	473+00	482+26
<b>MRM</b>	89.00 + 0.323	88.00 + 0.777	88.00 + 0.453	88.00 + 0.116	87.00 + 0.880	87.00 + 0.705
<b>Direction</b>	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63
<b>Structure Type</b>	24" CMP - 69'	24" CMP - 127'	36" CMP - 130'	24" CMP - 79'	36" CMP - 86'	18" CMP - 81'
<b>End Treatment</b>	Flared	Flared/Sloped	Flared	Flared	Sloped/Flared	Sloped
<b>Work Description</b>	Replace End Section (Right), Cleanout Pipe, Install CIPP Liner	Replace End Sections, Cleanout Pipe, Install CIPP Liner	Replace Flared End Sections	Replace Flared End Sections	Replace End Sections, Cleanout Pipe, Install CIPP Liner, Install Erosion Protection at Inlet and Outlet	Replace End Sections, Cleanout Pipe, Install CIPP Liner

Bid Item	Bid Item Description	Unit	Subtotal	396+53		425+54		442+72		460+47		473+00		482+26	
				Lt	Rt	Lt	Rt								
110E0510	Remove Pipe End Section	Each	11		1	1	1	1	1	1	1	1	1	1	1
110E7152	Remove Delineator for Reset	Each	11		1	1	1	1	1	1	1	1	1	1	1
450E5215	24" CMP Flared End, Furnish	Each	4		1	1				1	1				
450E5216	24" CMP Flared End, Install	Each	4		1	1				1	1				
450E5223	36" CMP Flared End, Furnish	Each	3					1	1				1		
450E5224	36" CMP Flared End, Install	Each	3					1	1				1		
450E5306	18" CMP Sloped End, Furnish	Each	2											1	1
450E5307	18" CMP Sloped End, Install	Each	2											1	1
450E5310	24" CMP Sloped End, Furnish	Each	1				1								
450E5311	24" CMP Sloped End, Install	Each	1				1								
450E5318	36" CMP Sloped End, Furnish	Each	1									1			
450E5319	36" CMP Sloped End, Install	Each	1									1			
450E8910	Cleanout for Culvert Treatment	Each	4	1		1						1		1	
450E9518	18" Cured in Place Pipe	Ft	81											81	
450E9524	24" Cured in Place Pipe	Ft	196	69		127									
450E9528	36" Cured in Place Pipe	Ft	86									86			
632E2100	Reset Delineator	Each	11		1	1	1	1	1	1	1	1	1	1	1
720E1010	PVC Coated Bank and Channel Protection Gabion	CuYd	9									4.5	4.5		
831E0110	Type B Drainage Fabric	SqYd	30									15	15		

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	33	77

Plotting Date: 12/8/2025

Stationing	498+58	518+73	526+44	537+74	545+48	N/A
<b>MRM</b>	87.00 + 0.396	87.00 + 0.034	86.00 + 0.889	86.00 + 0.675	86.00 + 0.529	86.00 + 0.488
<b>Direction</b>	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63
<b>Structure Type</b>	24" CMP - 212'	24" CMP - 195'	24" CMP - 241'	24" CMP - 192'	24" CMP - 130'	4'x6' RC Cattle Pass
<b>End Treatment</b>	Sloped	Flared	Flared	Sloped	Sloped	N/A
<b>Work Description</b>	Replace End Sections, Cleanout Pipe, Install CIPP Liner	No Work	No Work	Replace End Sections, Cleanout Pipe, Install CIPP Liner	Replace End Sections, Cleanout Pipe, Install CIPP Liner	No Work

Bid Item	Bid Item Description	Unit	Subtotal	498+58		518+73		526+44		537+74		545+48		N/A	
				Lt	Rt	Lt	Rt								
110E0510	Remove Pipe End Section	Each	6	1	1					1	1	1	1		
110E7152	Remove Delineator for Reset	Each	6	1	1					1	1	1	1		
450E5310	24" CMP Sloped End, Furnish	Each	6	1	1					1	1	1	1		
450E5311	24" CMP Sloped End, Install	Each	6	1	1					1	1	1	1		
450E8910	Cleanout for Culvert Treatment	Each	3	1						1		1			
450E9524	24" Cured in Place Pipe	Ft	534	212						192		130			
632E2100	Reset Delineator	Each	6	1	1					1	1	1	1		

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES



Plotting Date: 12/8/2025

<b>Stationing</b>	559+00	581+36	584+21	589+48	605+57	620+49
<b>MRM</b>	86.00 + 0.274	85.00 + 0.853	85.00 + 0.799	85.00 + 0.699	85.00 + 0.396	85.00 + 0.114
<b>Direction</b>	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63
<b>Structure Type</b>	18" CMP - 71'	24" CMP - 60'	36" CMP - 84'	36" CMP Arch - 63'	72" CMP - 130'	30" CMP - 145'
<b>End Treatment</b>	Sloped	Flared	Sloped	Sloped	Flared	Flared
<b>Work Description</b>	No Work	No Work	Replace End Sections, Cleanout Pipe, Install CIPP Liner, Regrade/Repair Scour Hole	Replace End Sections, Cleanout Pipe, Install CIPP Liner	No Work	Replace End Sections, Cleanout Pipe, Install CIPP Liner

Bid Item	Bid Item Description	Unit	Subtotal	559+00		581+36		584+21		589+48		605+57		620+49	
				Lt	Rt										
110E0510	Remove Pipe End Section	Each	6					1	1	1	1			1	1
110E7152	Remove Delineator for Reset	Each	6					1	1	1	1			1	1
120E0600	Contractor Furnished Borrow	CuYd	5					5							
450E5219	30" CMP Flared End, Furnish	Each	2											1	1
450E5220	30" CMP Flared End, Install	Each	2											1	1
450E5318	36" CMP Sloped End, Furnish	Each	2					1	1						
450E5319	36" CMP Sloped End, Install	Each	2					1	1						
450E5914	36" CMP Arch Sloped End, Furnish	Each	2							1	1				
450E5915	36" CMP Arch Sloped End, Install	Each	2							1	1				
450E8910	Cleanout for Culvert Treatment	Each	3					1		1				1	
450E9526	30" Cured in Place Pipe	Ft	145											145	
450E9528	36" Cured in Place Pipe	Ft	84					84							
450E9628	36" Cured in Place Arch Pipe	Ft	63							63					
632E2100	Reset Delineator	Each	6					1	1	1	1			1	1
720E1010	PVC Coated Bank and Channel Protection Gabion	CuYd	6					6							
831E0110	Type B Drainage Fabric	SqYd	19					19							

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	35	77

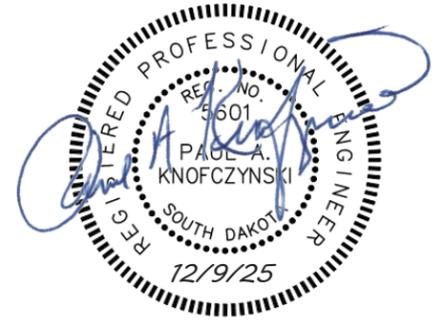
Plotting Date: 12/8/2025

<b>Stationing</b>	625+81	646+61	N/A	N/A	N/A	N/A
<b>MRM</b>	85.00 + 0.025	84.00 + 0.620	84.00 + 0.556	84.00 + 0.396	84.00 + 0.364	84.00 + 0.026
<b>Direction</b>	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63	SD Hwy 63
<b>Structure Type</b>	30" CMP Arch - 350'	24" CMP - 220'	24" CMP - 136'	24" CMP - 82'	24" CMP - 122'	4'x6' RC Cattle Pass
<b>End Treatment</b>	Flared	Sloped	Flared	Sloped	Sloped	Flared
<b>Work Description</b>	No Work	Replace End Sections, Cleanout Pipe, Install CIPP Liner	No Work	No Work	No Work	Fill Scour Hole

Bid Item	Bid Item Description	Unit	Subtotal	625+81		646+61		N/A		N/A		N/A		N/A	
				Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt	Lt	Rt
110E0510	Remove Pipe End Section	Each	2			1	1								
110E7152	Remove Delineator for Reset	Each	2			1	1								
120E0600	Contractor Furnished Borrow	CuYd	6												6
450E5310	24" CMP Sloped End, Furnish	Each	2			1	1								
450E5311	24" CMP Sloped End, Install	Each	2			1	1								
450E8910	Cleanout for Culvert Treatment	Each	1			1									
450E9524	24" Cured in Place Pipe	Ft	220			220									
632E2100	Reset Delineator	Each	2			1	1								

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# TABLE OF PIPE QUANTITIES

Stationing	680+22	691+36	N/A
MRM	83.50 + 0.507	83.50 + 0.293	83.36 + 0.039
Direction	SD Hwy 63	SD Hwy 63	SD Hwy 63
Structure Type	36" CMP - 119'	30" CMP - 146'	24" CMP
End Treatment	Flared	Sloped	Flared
Work Description	Replace Flared End Sections, Cleanout Pipe, Install CIPP Liner, Regrade Outlet	Replace Sloped Ends, Cleanout Pipe, Install CIPP Liner, Regrade Ditch	No Work

Bid Item	Bid Item Description	Unit	Subtotal	Lt	Rt	Lt	Rt	Lt	Rt
110E0510	Remove Pipe End Section	Each	4	1	1	1	1		
110E7152	Remove Delineator for Reset	Each	4	1	1	1	1		
120E4100	Reprofiling Ditch	Sta	1		0.5	0.5			
450E5223	36" CMP Flared End, Furnish	Each	2	1	1				
450E5224	36" CMP Flared End, Install	Each	2	1	1				
450E5314	30" CMP Sloped End, Furnish	Each	2			1	1		
450E5315	30" CMP Sloped End, Install	Each	2			1	1		
450E8910	Cleanout for Culvert Treatment	Each	2	1		1			
450E9526	30" Cured in Place Pipe	Ft	146			146			
450E9528	36" Cured in Place Pipe	Ft	119	119					
632E2100	Reset Delineator	Each	4	1	1	1	1		

Cleanout Pipe Culvert, Cleanout for Culvert Treatment, Bore and Jack Pipe, Cured in Place Pipe, and Cured in Place Pipe Arch bid items correspond with the entire pipe.

Right and Left in the Table of Pipe Quantities correspond with stationing. All stationing runs North to South.



# FIXED LOCATION SIGNING

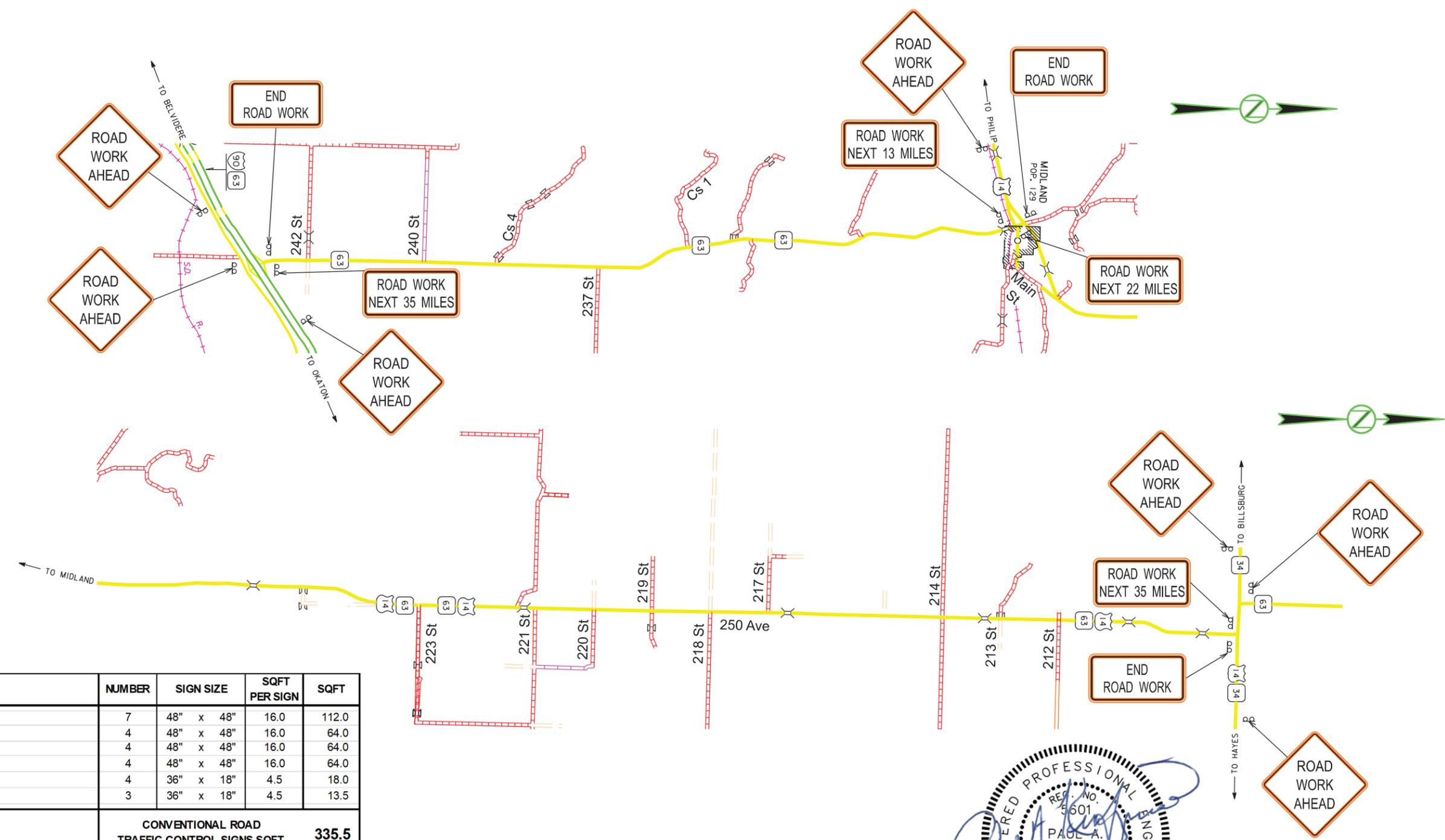
FOR BIDDING PURPOSES ONLY



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	37	77

Plotting Date: 12/5/2025

## PCN 095A SD Hwy 63 from I90 to Midland US Hwy 14/SD Hwy 63 from Midland to SD Hwy 34



SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-1	ROAD WORK AHEAD	7	48" x 48"	16.0	112.0
W20-4	ONE LANE ROAD AHEAD	4	48" x 48"	16.0	64.0
W20-7	FLAGGER (symbol)	4	48" x 48"	16.0	64.0
W21-5	SHOULDER WORK	4	48" x 48"	16.0	64.0
G20-1	ROAD WORK NEXT _ MILES	4	36" x 18"	4.5	18.0
G20-2	END ROAD WORK	3	36" x 18"	4.5	13.5
<b>CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT</b>					<b>335.5</b>

W20-1 signs are to be used in accordance with applicable Standard Plates.



FOR BIDDING PURPOSES ONLY

# HORIZONTAL ALIGNMENT DATA

**US HWY 14 MAINLINE**

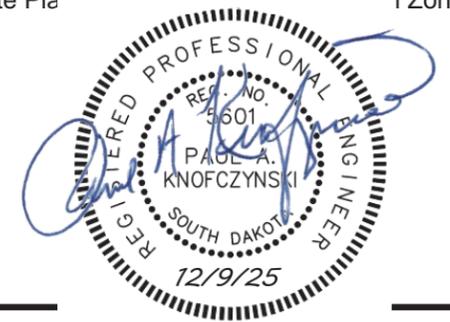
Type	Station	Length	Direction	Northing	Easting
POB	A 465+00	40000	S00°21'11"W	698471.160	1760297.425
POE	A 505+00			4698471.160	1760272.787

**US HWY 14 MAINLINE**

Type	Station	Length	Direction	Northing	Easting
POB	A 725+00.00	636.406	S00°29'55"W	672604.053	1760117.46
PI	A 731+36.41	731.633	S00°23'57"W	671967.671	1760111.92
PI	A 738+68.04	97.159	S00°12'57"W	671236.056	1760106.82
PI	A 739+65.20	149.106	S00°33'38"W	671138.898	1760106.46
PI	A 741+14.30	23.035	S00°32'32"W	670989.799	1760105
PI	A 741+37.34	1017.033	S00°23'05"W	670966.765	1760104.78
PI	A 751+54.37	45.629	S00°22'12"W	669949.755	1760097.95
PI	A 752+00.00	85.863	S00°22'12"W	669904.127	1760097.66
<b>Equation: A 753+38.20 Bk. = B 0+00.00 Ah.</b>					
PI	B 0+47.66	850.02	S00°27'32"W	669818.266	1760097.11
PI	B 8+97.68	1003.189	S00°30'01"W	668968.273	1760090.3
PI	B 19+00.87	969.538	S00°27'59"W	667965.122	1760081.54
PI	B 28+70.41	107.848	S00°39'49"W	666995.616	1760073.65
PI	B 29+78.26	146.971	S00°21'00"W	666887.775	1760072.4
PI	B 31+25.23	374.771	S00°31'12"W	666740.807	1760071.5
PI	B 35+00.00	308.781	S00°31'12"W	666366.052	1760068.1
PI	B 38+08.78	89.996	S00°33'59"W	666057.283	1760065.3
PI	B 38+98.78	44.941	S00°51'18"W	665967.291	1760064.41
PI	B 39+43.72	44.912	S01°14'34"W	665922.355	1760063.74
PI	B 39+88.63	22.448	S01°37'30"W	665877.453	1760062.76
PI	B 40+11.08	29.926	S01°59'03"W	665855.014	1760062.13
PI	B 40+41.00	14.962	S02°19'43"W	665825.107	1760061.09
PI	B 40+55.97	22.443	S02°38'45"W	665810.157	1760060.48
PI	B 40+78.41	33.67	S03°10'12"W	665787.738	1760059.45
PI	B 41+12.08	24.409	S03°45'38"W	665754.12	1760057.58
PI	B 41+36.49	16.277	S04°10'52"W	665729.763	1760055.98
PI	B 41+52.77	32.561	S04°40'52"W	665713.53	1760054.8
PI	B 41+85.33	16.284	S05°10'38"W	665681.078	1760052.14
PI	B 42+01.61	32.573	S05°40'08"W	665664.86	1760050.67
PI	B 42+34.18	32.578	S06°19'06"W	665632.447	1760047.45
PI	B 42+66.76	21.72	S06°51'15"W	665600.067	1760043.87
PI	B 42+88.48	14.48	S07°12'32"W	665578.503	1760041.28
PI	B 43+02.96	28.959	S07°37'53"W	665564.137	1760039.46
PI	B 43+31.92	28.51	S08°11'21"W	665535.434	1760035.61
PI	B 43+60.43	14.254	S08°36'34"W	665507.215	1760031.55
PI	B 43+74.68	21.379	S08°57'56"W	665493.122	1760029.42

PI	B 43+96.06	32.066	S09°30'32"W	665472.004	1760026.09
PI	B 44+28.13	32.063	S10°10'28"W	665440.378	1760020.79
PI	B 44+60.19	16.03	S10°41'00"W	665408.819	1760015.12
PI	B 44+76.22	32.059	S11°12'07"W	665393.067	1760012.15
PI	B 45+08.28	16.029	S11°43'42"W	665361.619	1760005.93
PI	B 45+24.31	24.043	S12°10'28"W	665345.924	1760002.67
PI	B 45+48.35	24.778	S12°43'18"W	665322.422	1759997.6
PI	B 45+73.13	16.519	S13°10'30"W	665298.253	1759992.14
PI	B 45+89.65	33.039	S13°42'04"W	665282.168	1759988.38
PI	B 46+22.69	16.521	S14°12'42"W	665250.069	1759980.55
PI	B 46+39.21	33.043	S14°42'09"W	665234.054	1759976.49
PI	B 46+72.25	33.046	S15°19'52"W	665202.093	1759968.11
PI	B 47+05.30	22.032	S15°49'54"W	665170.223	1759959.37
PI	B 47+27.33	14.688	S16°09'11"W	665149.027	1759953.36
PI	B 47+42.02	29.376	S16°31'30"W	665134.919	1759949.27
PI	B 47+71.39	28.998	S17°00'11"W	665106.756	1759940.92
PI	B 48+00.39	14.499	S17°21'35"W	665079.025	1759932.44
PI	B 48+14.89	21.747	S17°39'38"W	665065.187	1759928.11
PI	B 48+36.64	32.62	S18°07'03"W	665044.464	1759921.51
PI	B 48+69.26	32.618	S18°40'26"W	665013.462	1759911.37
PI	B 49+01.88	16.309	S19°05'50"W	664982.561	1759900.93
PI	B 49+18.19	32.617	S19°31'35"W	664967.149	1759895.59
PI	B 49+50.80	16.309	S19°57'38"W	664936.408	1759884.69
PI	B 49+67.11	24.463	S20°19'36"W	664921.079	1759879.12
PI	B 49+91.58	27.867	S20°48'04"W	664898.139	1759870.62
PI	B 50+19.44	13.934	S21°10'56"W	664872.089	1759860.73
PI	B 50+33.38	20.9	S21°30'03"W	664859.096	1759855.69
PI	B 50+54.28	31.35	S21°58'51"W	664839.65	1759848.03
PI	B 50+85.63	31.35	S22°33'34"W	664810.579	1759836.3
PI	B 51+16.98	15.674	S22°59'44"W	664781.628	1759824.27
PI	B 51+32.65	33.947	S23°23'31"W	664767.199	1759818.15
PI	B 51+66.60	45.262	S23°37'13"W	664736.042	1759804.67
PI	B 52+11.86	22.631	S23°25'22"W	664694.572	1759786.53
PI	B 52+34.49	47.571	S22°59'53"W	664673.806	1759777.54
PI	B 52+82.06	93.684	S23°59'18"W	664630.016	1759758.95
PI	B 53+75.75	109.485	S23°55'46"W	664544.424	1759720.87
PI	B 54+85.23	105.39	S23°45'57"W	664444.35	1759676.46
POE	B 55+90.62	909.38	S23°50'03"W	664347.897	1759633.99

The coordinates shown on this sheet are based on the South Dakota State Plane NAD 83(2011); epoch 2010.00 Geoid18; SF = 0.999847 Zone



FOR BIDDING PURPOSES ONLY

# HORIZONTAL ALIGNMENT DATA

US HWY 14 MAINLINE

Type	Station	Length	Direction	Northing	Easting
POB	B 105+00.00	1500.00	S00°35'53"W	659611.852	1758681.891
POE	B 120+00.00			658111.934	1758666.234

US HWY 14 MAINLINE

Type	Station	Length	Direction	Northing	Easting
POB	C 355+00.00	87.029	S69°25'04"W	636949.587	1754533.28
PI	C 355+87.03	803.533	S69°00'28"W	636918.992	1754451.806
PI	C 363+90.56	996.316	S69°07'22"W	636631.132	1753701.605
PI	C 373+86.88	8.205	S65°49'29"W	636276.08	1752770.7
PI	C 373+95.08	87.435	S69°08'48"W	636272.72	1752763.215
PI	C 374+82.52	99.916	S69°00'24"W	636241.595	1752681.507
PI	C 375+82.43	107.597	S68°48'08"W	636205.799	1752588.223
PI	C 376+90.03	47.152	S69°10'08"W	636166.893	1752487.906
PI	C 377+37.18	69.6	S68°50'58"W	636150.125	1752443.836
PI	C 378+06.78	73.632	S69°12'40"W	636125.012	1752378.925
PI	C 378+80.42	82.986	S68°54'53"W	636098.878	1752310.087
PI	C 379+63.40	59.502	S68°56'57"W	636069.023	1752232.657
PI	C 380+22.90	52.041	S68°20'17"W	636047.65	1752177.126
PI	C 380+74.94	58.8	S69°31'38"W	636028.44	1752128.76
PI	C 381+33.74	55.678	S68°53'08"W	636007.874	1752073.674
PI	C 381+89.42	90.424	S68°51'41"W	635987.817	1752021.734
PI	C 382+79.85	45.154	S68°35'08"W	635955.208	1751937.395
PI	C 383+25.00	45.124	S68°11'19"W	635938.722	1751895.358
PI	C 383+70.12	22.554	S67°47'26"W	635921.956	1751853.464
PI	C 383+92.68	30.066	S67°24'49"W	635913.431	1751832.584
PI	C 384+22.74	15.032	S67°03'02"W	635901.883	1751804.824
PI	C 384+37.78	22.548	S66°42'53"W	635896.022	1751790.982
PI	C 384+60.32	33.827	S66°09'30"W	635887.108	1751770.271
PI	C 384+94.15	21.61	S65°33'46"W	635873.435	1751739.33
PI	C 385+15.76	14.41	S65°10'16"W	635864.495	1751719.656
PI	C 385+30.17	28.826	S64°42'33"W	635858.444	1751706.578
PI	C 385+59.00	14.416	S64°15'15"W	635846.129	1751680.515
PI	C 385+73.41	28.836	S63°48'28"W	635839.868	1751667.53
PI	C 386+02.25	28.841	S63°13'27"W	635827.14	1751641.655
PI	C 386+31.09	19.229	S62°44'51"W	635814.147	1751615.907
PI	C 386+50.32	12.819	S62°26'06"W	635805.342	1751598.812
PI	C 386+63.14	25.638	S62°03'57"W	635799.409	1751587.448
PI	C 386+88.78	25.507	S61°34'48"W	635787.399	1751564.797

PI	C 387+14.28	12.753	S61°12'43"W	635775.259	1751542.364
PI	C 387+27.04	19.128	S60°54'01"W	635769.118	1751531.188
PI	C 387+46.16	28.69	S60°25'26"W	635759.816	1751514.474
PI	C 387+74.85	28.687	S59°50'23"W	635745.655	1751489.523
PI	C 388+03.54	14.343	S59°23'34"W	635731.242	1751464.719
PI	C 388+17.88	28.684	S58°56'11"W	635723.94	1751452.375
PI	C 388+46.57	14.341	S58°28'23"W	635709.139	1751427.805
PI	C 388+60.91	21.512	S58°04'49"W	635701.64	1751415.58
PI	C 388+82.42	22.117	S57°35'55"W	635690.266	1751397.321
PI	C 389+04.54	14.745	S57°11'57"W	635678.415	1751378.647
PI	C 389+19.28	29.491	S56°44'05"W	635670.427	1751366.253
PI	C 389+48.77	14.747	S56°17'01"W	635654.251	1751341.595
PI	C 389+63.52	29.496	S55°50'55"W	635646.065	1751329.328
PI	C 389+93.02	29.5	S55°17'25"W	635629.506	1751304.919
PI	C 390+22.52	19.669	S54°50'40"W	635612.709	1751280.668
PI	C 390+42.18	13.113	S54°33'26"W	635601.384	1751264.588
PI	C 390+55.30	26.228	S54°13'27"W	635593.779	1751253.904
PI	C 390+81.53	38.774	S53°41'03"W	635578.446	1751232.625
PI	C 391+20.30	19.386	S53°10'57"W	635555.483	1751201.383
PI	C 391+39.69	29.077	S52°44'33"W	635543.865	1751185.863
PI	C 391+68.76	29.072	S52°11'29"W	635526.262	1751162.72
PI	C 391+97.83	14.534	S51°45'43"W	635508.44	1751139.751
PI	C 392+12.37	29.061	S51°18'56"W	635499.445	1751128.336
PI	C 392+41.43	14.528	S50°51'23"W	635481.281	1751105.65
PI	C 392+55.96	21.787	S50°27'40"W	635472.11	1751094.383
PI	C 392+77.74	32.946	S49°51'58"W	635458.24	1751077.581
PI	C 393+10.69	21.962	S49°19'12"W	635437.004	1751052.392
PI	C 393+32.65	14.641	S48°59'31"W	635422.688	1751035.737
PI	C 393+47.29	29.285	S48°38'24"W	635413.081	1751024.689
PI	C 393+76.58	21.968	S48°16'39"W	635393.73	1751002.708

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. South Zone NAD 83(2011); epoch 2010.00 Geoid18; SF = 0.999847



FOR BIDDING PURPOSES ONLY

# HORIZONTAL ALIGNMENT DATA

## US HWY 14 MAINLINE (Continued)

Type	Station	Length	Direction	Northing	Easting	Type	Station	Length	Direction	Northing	Easting
PI	C 393+98.55	43.951	S47°54'04"W	635379.109	1750986.311	PI	D 398+05.67	17.22	S59°22'46"W	633449.164	1748742.889
PI	C 394+42.50	29.315	S47°34'58"W	635349.644	1750953.7	PI	D 398+22.89	25.83	S59°39'15"W	633440.393	1748728.07
PI	C 394+71.81	39.107	S47°23'44"W	635329.87	1750932.058	PI	D 398+48.72	38.745	S60°04'16"W	633427.343	1748705.779
PI	C 395+10.92	19.563	S47°18'30"W	635303.397	1750903.274	PI	D 398+87.46	38.744	S60°34'43"W	633408.013	1748672.201
PI	C 395+30.48	44.042	S47°18'24"W	635290.133	1750888.895	PI	D 399+26.21	19.372	S60°57'52"W	633388.98	1748638.454
PI	D 370+16.83	984.439	S47°20'43"W	635260.269	1750856.524	PI	D 399+45.58	19.475	S61°13'28"W	633379.578	1748621.516
<b>Equation: C 395+55.80 Bk. = D 369+98.10 Ah.</b>						PI	D 399+65.06	38.95	S61°36'45"W	633370.203	1748604.446
PI	D 380+01.26	875.202	S47°14'08"W	634593.235	1750132.517	PI	D 400+04.01	38.951	S62°07'24"W	633351.685	1748570.18
PI	D 388+76.47	20.295	S47°24'25"W	633998.986	1749489.985	PI	D 400+42.96	25.967	S62°32'34"W	633333.473	1748535.749
PI	D 388+96.76	13.524	S47°41'26"W	633985.251	1749475.044	PI	D 400+68.92	17.312	S62°49'10"W	633321.5	1748512.707
PI	D 389+10.29	27.035	S48°01'35"W	633976.147	1749465.043	PI	D 400+86.24	34.624	S63°08'53"W	633313.592	1748497.306
PI	D 389+37.32	13.511	S48°21'29"W	633958.066	1749444.944	PI	D 401+20.86	38.952	S63°36'27"W	633297.953	1748466.416
PI	D 389+50.83	27.011	S48°41'05"W	633949.088	1749434.846	PI	D 401+59.81	25.968	S64°00'27"W	633280.638	1748431.524
PI	D 389+77.84	26.998	S49°06'48"W	633931.256	1749414.559	PI	D 401+85.78	17.312	S64°16'16"W	633269.257	1748408.183
PI	D 390+04.84	17.992	S49°27'52"W	633913.584	1749394.148	PI	D 402+03.09	34.623	S64°35'02"W	633261.742	1748392.587
PI	D 390+22.83	35.969	S49°52'38"W	633901.891	1749380.474	PI	D 402+37.71	25.966	S64°56'41"W	633246.882	1748361.315
PI	D 390+58.80	40.447	S50°26'54"W	633878.711	1749352.97	PI	D 402+63.68	17.311	S65°11'59"W	633235.886	1748337.792
PI	D 390+99.25	26.956	S50°56'19"W	633852.955	1749321.783	PI	D 402+80.99	34.619	S65°30'08"W	633228.625	1748322.078
PI	D 391+26.21	17.968	S51°15'29"W	633835.969	1749300.853	PI	D 403+15.61	17.309	S65°48'07"W	633214.269	1748290.575
PI	D 391+44.17	35.929	S51°37'58"W	633824.725	1749286.838	PI	D 403+32.92	34.615	S66°05'52"W	633207.175	1748274.787
PI	D 391+80.10	26.943	S52°03'36"W	633802.423	1749258.668	PI	D 403+67.53	34.612	S66°29'14"W	633193.149	1748243.141
PI	D 392+07.05	17.961	S52°21'28"W	633785.858	1749237.42	PI	D 404+02.15	23.072	S66°48'26"W	633179.341	1748211.403
PI	D 392+25.01	35.919	S52°42'24"W	633774.889	1749223.198	PI	D 404+25.22	46.137	S67°11'08"W	633170.254	1748190.195
PI	D 392+60.93	17.959	S53°02'52"W	633753.126	1749194.622	POE	D 404+71.35	28.645	S67°41'15"W	633152.365	1748147.668
PI	D 392+78.88	35.919	S53°22'45"W	633742.329	1749180.27						
PI	D 393+14.80	35.921	S53°48'30"W	633720.903	1749151.442						
PI	D 393+50.72	23.949	S54°09'15"W	633699.692	1749122.452						
PI	D 393+74.67	47.905	S54°33'14"W	633685.667	1749103.038						
PI	D 394+22.58	45.897	S55°03'33"W	633657.885	1749064.012						
PI	D 394+68.48	22.952	S55°25'56"W	633631.599	1749026.388						
PI	D 394+91.43	34.43	S55°44'53"W	633618.576	1749007.489						
PI	D 395+25.86	34.433	S56°07'57"W	633599.198	1748979.03						
PI	D 395+60.29	17.218	S56°25'29"W	633580.009	1748950.439						
PI	D 395+77.51	34.437	S56°43'15"W	633570.487	1748936.094						
PI	D 396+11.95	17.219	S57°01'12"W	633551.591	1748907.304						
PI	D 396+29.17	25.829	S57°16'21"W	633542.218	1748892.86						
PI	D 396+54.99	34.44	S57°37'47"W	633528.253	1748871.131						
PI	D 396+89.43	17.22	S57°56'23"W	633509.815	1748842.043						
PI	D 397+06.65	25.83	S58°12'03"W	633500.674	1748827.449						
PI	D 397+32.48	38.745	S58°35'51"W	633487.063	1748805.496						
PI	D 397+71.23	34.44	S59°03'12"W	633466.875	1748772.426						

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. South Zone NAD 83(2011); epoch 2010.00 Geoid18; SF = 0.999847



FOR BIDDING PURPOSES ONLY

# HORIZONTAL ALIGNMENT DATA

**SD HWY 63 MAINLINE**

Type	Station	Length	Direction	Northing	Easting
POB	117+00.00	400.00	S06°05'12"W	623101.339	1751788.011
POE	121+00.00			622703.5940	1751745.597

**SD HWY 63 MAINLINE**

Type	Station	Length	Direction	Northing	Easting
POB	155+00.00	400.00	S28°19'25"W	619476.364	1752253.198
POE	159+00.00			619124.251	1752442.979

**SD HWY 63 MAINLINE**

Type	Station	Length	Direction	Northing	Easting
POB	220+00.00	441.2	S01°39'02"W	613064.637	1752367.6
PI	224+41.20	1234.5	S01°45'39"W	612623.62	1752354.891
PI	236+75.70	193.26	S01°40'16"W	611389.703	1752316.959
PI	238+68.96	450.373	S01°47'40"W	611196.525	1752311.323
PI	243+19.33	213.923	S01°48'56"W	610746.373	1752297.22
PI	245+33.26	800.267	S01°48'52"W	610532.557	1752290.442
PI	253+33.52	133.238	S01°31'28"W	609732.691	1752265.103
PI	254+66.76	43.195	S01°31'28"W	609599.5	1752261.558
PI	255+09.96	47.95	S00°54'22"E	609556.32	1752260.409
POE	255+57.91	42.093	S00°01'15"W	609508.376	1752261.167

**SD HWY 63 MAINLINE**

Type	Station	Length	Direction	Northing	Easting
POB	271+00.00	144.770	S17°12'59"E	608205.529	1752494.356
PI	272+44.77	110.629	S16°53'40"E	608067.246	1752537.205
PI	273+55.40	84.434	S16°33'25"E	607961.393	1752569.359
PI	274+39.83	79.091	S18°38'05"E	607880.460	1752593.420
PI	275+18.92	81.076	S14°24'42"E	607805.515	1752618.692
POE	276+00.00			607726.990	1752638.871

**SD HWY 63 MAINLINE**

Type	Station	Length	Direction	Northing	Easting
POB	284+00.00	600.00	S07°08'52"W	606755.951	1752828.714
POE	290+00.00			606160.614	1752903.373

**SD HWY 63 MAINLINE**

Type	Station	Length	Direction	Northing	Easting
POB	311+00.00	127.199	S06°19'46"E	604129.418	1753159.741
PI	312+27.20	102.310	S08°11'20"E	604002.994	1753173.764
PI	313+29.51	91.490	S08°29'26"E	603901.727	1753188.337
PI	314+21.00	79.001	S11°11'33"E	603811.240	1753201.845
POE	315+00.00			603733.741	1753217.180

**SD HWY 63 MAINLINE**

Type	Station	Length	Direction	Northing	Easting
POB	338+00.00	400.00	S34°41'59"E	606755.951	1752828.714
POE	342+00.00			606160.614	1752903.373

**SD HWY 63 MAINLINE**

Type	Station	Length	Direction	Northing	Easting
POB	359+00.00	175.000	S00°10'50"E	599762.922	1755070.261
PI	360+75.00	325.000	S00°15'05"W	599587.923	1755070.813
PI	364+00.00			599262.926	1755069.388

**SD HWY 63 MAINLINE**

Type	Station	Length	Direction	Northing	Easting
POB	424+00.00	400.00	S00°30'42"W	593246.681	1755016.659
POE	428+00.00			592846.697	1755013.087

**SD HWY 63 MAINLINE**

Type	Station	Length	Direction	Northing	Easting
POB	441+00.00	399.997	S00°24'46"W	591549.271	1755001.740
POE	444+99.98			591149.284	1754998.858

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. South Zone NAD 83(2011); epoch 2010.00 Geoid18; SF = 1.000000000



# HORIZONTAL ALIGNMENT DATA

FOR BIDDING PURPOSES ONLY

### SD HWY 63 Mainline

Type	Station	Length	Direction	Northing	Easting
POB	480+00.00	2000.00	S00°29'38"W	587655.392	1754961.236
POE	500+00.00			585655.466	1754943.999

### SD HWY 63 Mainline

Type	Station	Length	Direction	Northing	Easting
POB	536+00.00	127.000	S00°47'07"W	582159.576	1754895.842
PI	537+27.00	110.136	S00°36'18"W	582032.588	1754894.102
PI	538+37.14	862.864	S00°35'19"W	581922.458	1754892.939
POE	547+00.00	79.001		581059.640	1754884.074

### SD HWY 63 Mainline

Type	Station	Length	Direction	Northing	Easting
POB	645+00.00	120.00	S00°29'28"W	571269.104	1754807.634
PI	646+20.00	55.790	S00°15'39"W	571149.108	1754806.605
PI	646+75.79	57.968	S00°23'26"W	571093.319	1754806.351
PI	647+33.76	166.242	S01°48'59"E	571035.352	1754805.956
POE	649+00.00			570869.193	1754811.226

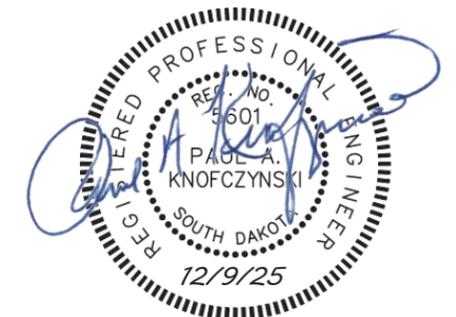
### SD HWY 63 Mainline

Type	Station	Length	Direction	Northing	Easting
POB	678+00.00	400.00	S01°58'39"E	567997.972	1754909.904
POE	682+00.00			567598.210	1754923.707

### SD HWY 63 Mainline

Type	Station	Length	Direction	Northing	Easting
POB	689+00.00	112.00	S02°05'14"E	566877.529	1754949.424
PI	690+12.00	67.058	S03°29'33"E	566765.603	1754953.503
PI	690+79.06	60.408	S03°49'27"E	566698.670	1754957.588
PI	691+39.47	51.252	S05°23'35"E	566638.397	1754961.617
PI	691+90.72	61.640	S06°01'20"E	566587.372	1754966.434
PI	692+52.36	147.643	S06°41'15"E	566526.072	1754972.901
POE	649+00.00			566379.434	1754990.094

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. South Zone NAD 83(2011); epoch 2010.00 Geoid18; SF = 1.000000000



# CONTROL DATA

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0031(57)	43	77

## US HWY 14 – SDDOT Survey

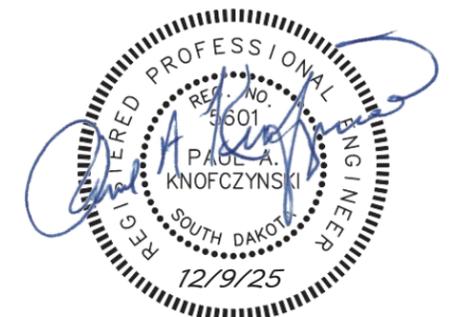
HORIZONTAL AND VERTICAL CONTROL POINTS						
POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
DOME 2			CP	614423.56	1752056.539	2228.683
HARN			REFMRK	631602.693	1733642.788	1921.15
CP 100	B69+47.27	1183.41' R	CP	662628.739	1760168.265	2189.91
CP 101			CP	638854.383	1749238.001	2111.395
CP 102	A527+65.72	167.36' R	CP	692336.568	1760423.127	2225.616
CP 103	A603+34.99	110.06' R	CP	684767.859	1760312.76	2190.015
CP 104	B172+51.57	116.63' R	REFMRK	652859.502	1758728.751	2111.536
CP 105	B42+33.64	94.67' R	REFMRK	665623.631	1760141.709	2126.12
BUNKER	A298+37.48	183.39' R	CP	715180.843	1760625.494	2130.105

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. South Zone NAD 83(2011); epoch 2010.00  
Geoid18; SF = 0.999847  
The elevations shown on this sheet are based on NAVD 88.

## SD HWY 63 – KLJ Survey

HORIZONTAL AND VERTICAL CONTROL POINTS				
POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP	CP	638854.383	1749238.001	2111.395
CP 4511	CP	613838.678	1752490.189	2184.053
CP 4505	CP	684767.968	1760312.801	2190.007
CP 4506	CP	652859.494	1758728.761	2111.565
CP 4509	CP	624549.109	1752001.635	2133.532
CP 4510	CP	620206.636	1751972.376	2157.467
CP 4513	CP	607280.427	1752841.124	2198.305
CP 4514	CP	599890.478	1755167.748	2188.61
DOT CP 4517	CP	572267.407	1754719.872	2294.828

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. South Zone NAD 83(2011); epoch 2010.00  
Geoid18; SF = 1.00000000  
The elevations shown on this sheet are based on NAVD 88.



# LEGEND

FOR BIDDING PURPOSES ONLY



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	44	77

Plotting Date: 12/5/2025

Flown Date:  
Photo Not to Scale

Anchor		Highway ROW Marker		Shrub Tree		State and National Line	
Antenna		Interstate Close Gate		Sidewalk		County Line	
Approach		Iron Pin		Sign Face		Section Line	
Assumed Corner		Irrigation Ditch		Sign Post		Quarter Line	
Azimuth Marker		Lake Edge		Slough Or Marsh		Sixteenth Line	
BBQ Grill/ Fireplace		Lawn Sprinkler		Spring		Property Line	
Bearing Tree		Mailbox		Stream Gauge		Construction Line	
Bench Mark		Manhole Electric		Street Marker		ROW Line	
Box Culvert		Manhole Gas		Subsurface Utility Exploration Test Hole		New ROW Line	
Bridge		Manhole Miscellaneous		Telephone Fiber Optics		Cut and Fill Limits	
Brush		Manhole Sanitary Sewer		Telephone Junction Box		Control of Access	
Buildings		Manhole Storm Sewer		Telephone Pole		New Control of Access	
Bulk Tank		Manhole Telephone		Television Cable Jct Box		Proposed ROW	
Cattle Guard		Manhole Water		Television Tower		(After Property Disposal)	
Cemetery		Merry-Go-Round		Test Wells/Bore Holes			
Centerline		Microwave Radio Tower		Traffic Signal			
Cistern		Miscellaneous Line		Trash Barrel		Drainage Arrow	
Clothes Line		Miscellaneous Property Corner		Tree Belt			
Commercial Sign Double Face		Miscellaneous Post		Tree Coniferous		Remove Concrete Pavement	
Commercial Sign One Post		Overhang Or Encroachment		Tree Deciduous		Remove Concrete Driveway Pavement	
Commercial Sign Overhead		Overhead Utility Line		Tree Stumps		Remove Asphalt Concrete Pavement	
Commercial Sign Two Post		Parking Meter		Triangulation Station		Remove Concrete Sidewalk	
Concrete Symbol		Pedestrian Push Button Pole		Underground Electric Line		Remove Concrete Median Pavement	
Creek Edge		Pipe With End Section		Underground Gas Line		Remove Concrete Curb and/or Gutter	
Curb/Gutter		Pipe With Headwall		Underground High Pressure Gas Line			
Curb		Pipe Without End Section		Underground Sanitary Sewer			
Dam Grade/Dike/Levee		Playground Slide		Underground Storm Sewer			
Deck Edge		Playground Swing		Underground Tank			
Ditch Block		Power And Light Pole		Underground Telephone Line			
Doorway Threshold		Power And Telephone Pole		Underground Television Cable			
Drainage Profile		Power Meter		Underground Water Line			
Drop Inlet		Power Pole		Warning Sign One Post			
Edge Of Asphalt		Power Pole And Transformer		Warning Sign Two Post			
Edge Of Concrete		Power Tower Structure		Water Fountain			
Edge Of Gravel		Propane Tank		Water Hydrant			
Edge Of Other		Property Pipe		Water Meter			
Edge Of Shoulder		Property Pipe With Cap		Water Tower			
Electric Transformer/Power Junction Box		Property Stone		Water Valve			
Fence Barbwire		Public Telephone		Water Well			
Fence Chainlink		Railroad Crossing Signal		Weir Rock			
Fence Electric		Railroad Milepost Marker		Windmill			
Fence Miscellaneous		Railroad Profile		Wingwall			
Fence Rock		Railroad ROW Marker		Witness Corner			
Fence Snow		Railroad Signs					
Fence Wood		Railroad Switch					
Fence Woven		Railroad Track					
Fire Hydrant		Railroad Trestle					
Flag Pole		Rebar					
Flower Bed		Rebar With Cap					
Gas Valve Or Meter		Reference Mark					
Gas Pump Island		Regulatory Sign One Post					
Grain Bin		Regulatory Sign Two Post					
Guardrail		Retaining Wall					
Guide Sign One Post		Riprap					
Guide Sign Two Post		River Edge					
Gutter		Rock And Wire Baskets					
Guy Pole		Rockpiles					
Haystack		Satellite Dish					
Hedge		Septic Tank					

US Hwy 14  
MRM 180.00+0.884  
Sta. A 487+76  
Stanley County

A 487+76  
Retain 72"-76' RCP

A 487+76  
Take Out 72"-2 End Sections

A 487+48-46' to A 487+56-32' L  
Install 72"-16' RCP

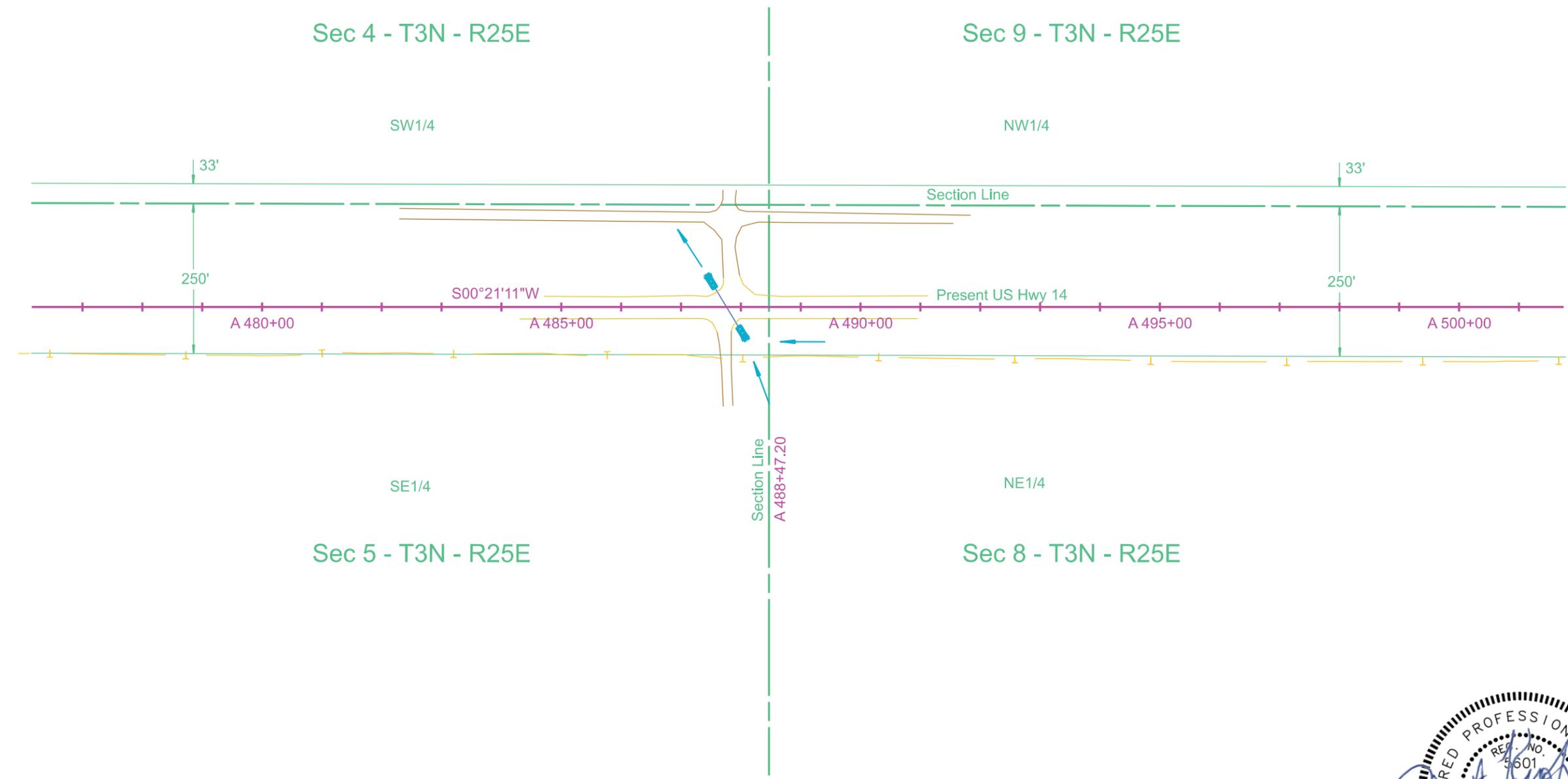
A 487+48-46' L  
Install 72"-1 RCP  
Flared End

A 487+48 L  
Place Contractor  
Furnished Borrow  
(15 CuYd)

A 487+93-33' to A 488+05-47' L  
Install 72"-16' RCP

A 487+05-47' L  
Install 72"-1 RCP  
Flared End

A 487+93 L  
Place Contractor  
Furnished Borrow  
(15 CuYd)





PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	46	77

Plotting Date: 12/5/2025

**FOR BIDDING PURPOSES ONLY**

A 735+46  
Retain 24"-98' RCP

A 735+46-43' to A 735+46-51' L  
Take Out 24"-8' RCP  
& 24"-1 End Section

A 735+46-43' to A 735+46-51' L  
Install 24"-8' RCP  
& 1 Flared End

A 735+46-53' R  
Remove 24" End Section  
for Reset

A 735+46-53' R  
Reset 24" End Section

A 739+69  
Retain 60"-99' CMP

A 739+73-90' to A 739+74-95' R  
Take Out 60"-5' CMP

A 739+73-90' R  
Install 60"-1 CMP  
Flared End

A 739+74-95' R  
Install Bank and Channel  
Protection Gabions (15.5 CuYd)  
and Type B Drainage Fabric  
(43 SqYd)

A 750+91  
Retain 24"-56' RCP  
& 1 End Section

A 750+91-24' to A 750+91-32' R  
Remove 24"-8' Pipe  
& 1 End Section

A 750+91-24' to A 750+91-32' R  
Install 24"-8' RCP  
& 1 End Section

B 4+36  
Retain 30"-124' RCP

B 4+14-64' R  
Remove 30" End Section  
for Reset

B 4+14-64' R  
Reset 30" End Section

B 4+54-53' L  
Remove 30" End Section  
for Reset

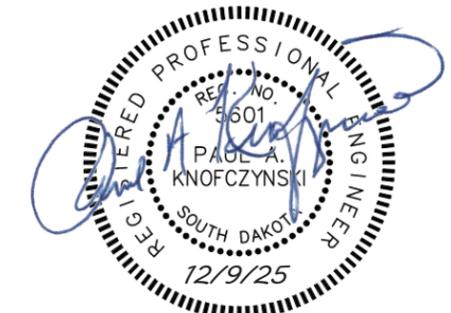
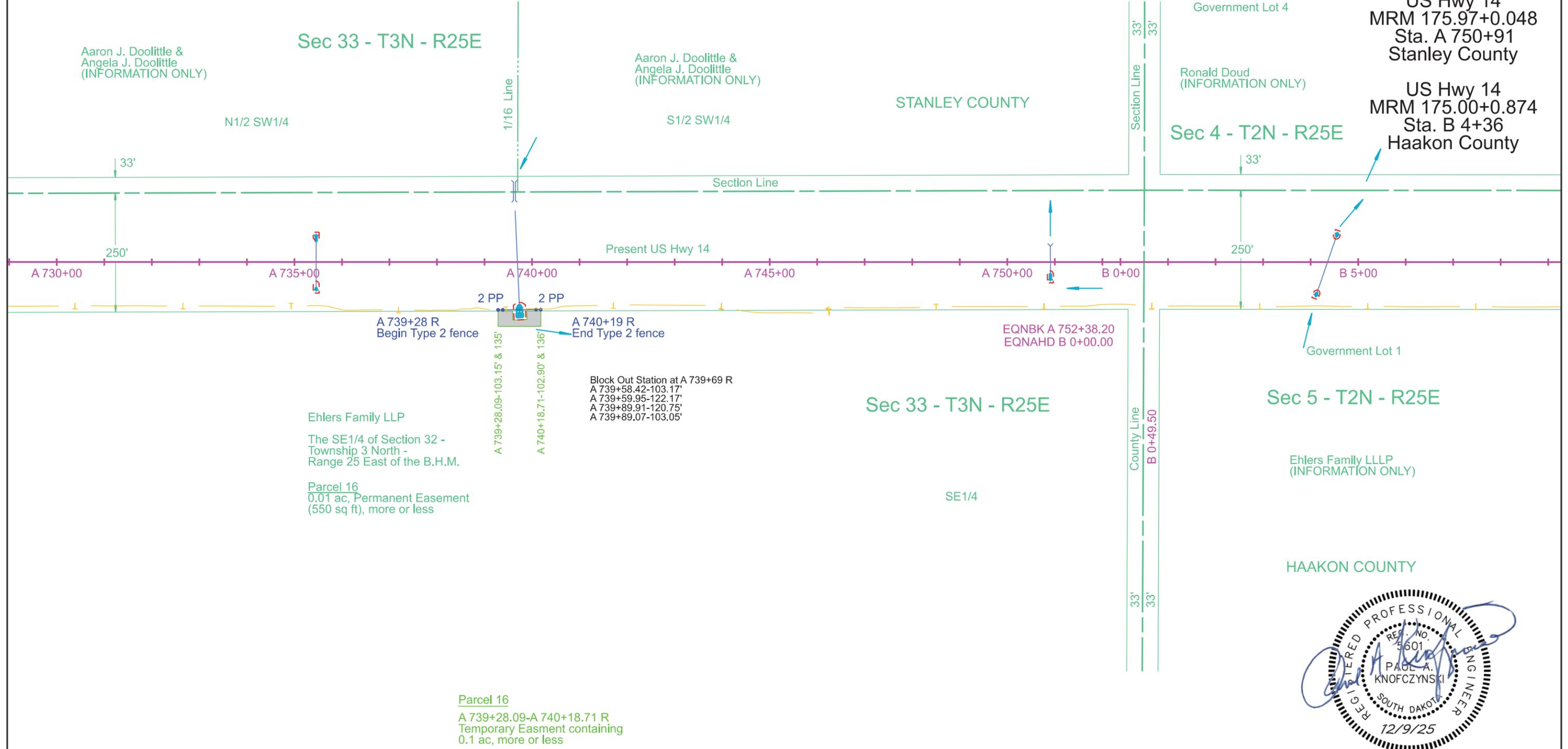
B 4+54-53' L  
Reset 30" End Section

US Hwy 14  
MRM 176.00+0.280  
Sta. A 735+46  
Stanley County

US Hwy 14  
MRM 176.00+0.199  
Sta. A 739+69  
Stanley County

US Hwy 14  
MRM 175.97+0.048  
Sta. A 750+91  
Stanley County

US Hwy 14  
MRM 175.00+0.874  
Sta. B 4+36  
Haakon County



**FOR BIDDING PURPOSES ONLY**

Plotting Date: 12/5/2025

US Hwy 14  
MRM 175.00+0.393  
Sta. B 29+78  
Haakon County

US Hwy 14  
MRM 175.00+0.046  
Sta. B 48+37  
Haakon County

US Hwy 14  
MRM 174.00+0.942  
Sta. B 53+41  
Haakon County



Sec 9 - T2N - R25E

NW1/4  
Suzanne Nelson & Ione Nelson  
(INFORMATION ONLY)

NE1/4  
Sec 8 - T2N - R25E

Block Out Station at B 52+50 L  
B 52+48.09-99.77'  
B 52+30.83-122.07'  
B 52+51.93-136.88'  
B 52+67.20-99.77'

B 52+91 L  
End Type 2 fence

Block Out Station at B 54+40 R  
B 54+23.24-99.77'  
B 54+41.01-141.05'  
B 54+57.05-128.90'  
B 54+34.97-99.77'

Suzanne Nelson  
(INFORMATION ONLY)  
Parcel 18  
Omitted Parcel



B 29+78  
Retain 36"-260' RCP  
& 1 End Section  
  
B 29+78 L  
Place Contractor Furnished  
Borrow Excavation Material to  
Fix Erosion at Pipe Outlet (10 CuYd)  
  
B 29+78 R  
Reprofile Ditch (0.3 Sta)

B 48+23  
Retain 72"-293' RCP  
  
B 48+24-156' L  
Take Out 72"-1 End Section  
  
B 48+22-137' R  
Take Out 72"-1 End Section  
  
B 48+24-156' L  
Install 72"- 1 RCP Flared End  
  
B 48+22-137' R  
Install 72"- 1 RCP Flared End  
  
B 48+23  
Cleanout for Culvert Treatment  
& Install 72"-293'  
Cured In Place Pipe

B 48+50  
Retain 72"-291' RCP  
  
B 48+50-156' L  
Take Out 72"-1 End Section  
  
B 48+51-135' R  
Take Out 72"-1 End Section  
  
B 48+50-156' L  
Install 72"- 1 RCP Flared End  
  
B 48+51-135' R  
Install 72"- 1 RCP Flared End  
  
B 48+50  
Cleanout for Culvert Treatment  
& Install 72"-291'  
Cured In Place Pipe

B 53+41  
Retain 72"-272' RCP  
  
B 52+61-108' L to B 52+65-102' L  
Take Out 72"-8' RCP  
& 1 End Section  
  
B 52+60.53-108.17' L to  
B 52+65.26-101.71' L  
Install 72"-8' RCP  
& 1 Flared End  
  
B 54+28-115' R  
Take Out 72"-1 End Section  
  
B 54+28.03-115.44' R  
Install 72"-1 RCP  
Flared End

Sec 4 - T2N - R25E

Block Out Station at B 48+37 L  
B 48+08.98-99.76'  
B 48+09.78-184.61'  
B 48+64.42-184.57'  
B 48+64.77-99.76'

B 47+27 L  
Begin Type 2 fence

B 49+47 L  
End Type 2 fence

B 52+43 L  
Begin Type 2 fence

Block Out Station at B 48+37 R  
B 48+07.11-99.76'  
B 48+06.49-165.30'  
B 48+67.47-165.36'  
B 48+66.56+99.76'

B 47+20 R  
Begin Type 2 fence

B 49+54 R  
End Type 2 fence

Sec 5 - T2N - R25E

Ronald G. Doud Revocable Trust  
The SE1/4 of Section 5 -  
Township 2 North -  
Range 25 East of the B.H.M.  
  
Parcel 17  
0.22 ac, Permanent Easement  
(9,294 sq ft), more or less

Parcel 17  
B 29+30.32-B 30+22.91 R  
Temporary Easment containing  
0.1 ac, more or less

Parcel 17  
B 47+16-B 49+59 R  
Temporary Easment containing  
0.6 ac, more or less

Parcel 17  
B 47+26.62-B 49+56.58 L  
Temporary Easment containing  
0.7 ac, more or less

Parcel 17  
B 52+34-B 52+49.97 L  
Temporary Easment containing  
0.1 ac, more or less

**FOR BIDDING PURPOSES ONLY**

B 112+46  
 Retain 60"-138' CMP

B 112+46' L  
 Take Out 60"-1 End Section

B 112+46 L  
 Install Class B Riprap  
 (7.5 Ton - 12' L x 8' W x 1.5' D)  
 Install Type B Drainage Fabric  
 (17 SqYd)

B 112+46 L  
 Install 60"-1 RCP Flared End

US Hwy 14  
 MRM 173.03+0.776  
 Sta. B 112+46  
 Haakon County



Sec 8 - T2N - R25E

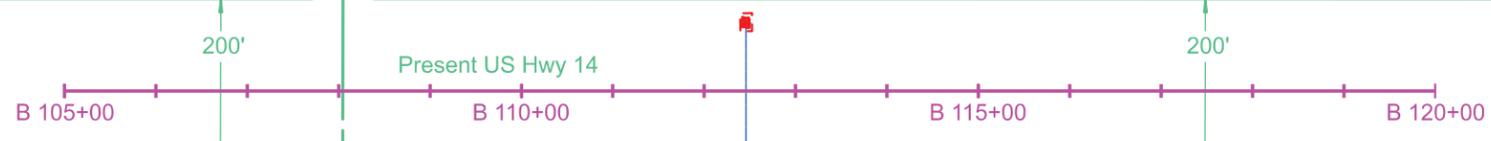
Sec 17 - T2N - R25E

SE1/4

NE1/4

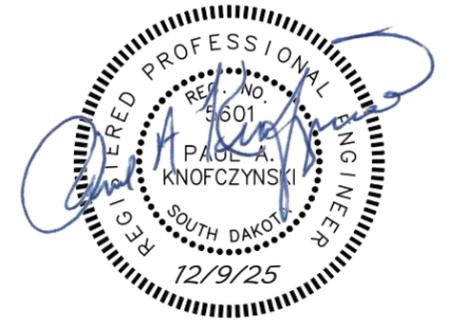
B 108+04.56  
 33'  
 33'

Section Line  
 33'  
 33'



SW1/4

NW1/4





PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	49	77

Plotting Date: 12/5/2025

**FOR BIDDING PURPOSES ONLY**

C 376+11  
Retain 60"-162' CMP

C 376+34-172' L  
Take Out 60"-1 End Section

C 376+34.07-172.25' L  
Install 60"-1 CMP Flared End

C 376+34.07-172.25' L to  
C 377+89.44-126.92' R  
Cleanout for Culvert Treatment  
& Install 60"-162'  
Cured In Place Pipe

C 378+61  
Retain 60"-282' CMP

C 379+28-119' R  
Take Out 60"-1 End Section

C 379+27.91-118.70' R  
Install 60"-1 CMP Flared End

C 377+89.44-126.92' L to  
C 379+27.91-118.70' R  
Cleanout for Culvert Treatment  
& Install 60"-282'  
Cured In Place Pipe  
Skewed 29° RHF

C 386+25  
Retain 24"-153' RCP

C 386+24-77' L  
Remove 24" End Section  
for Reset

C 386+23.56-77.46' L  
Reset 24" End Section

C 386+26.69-75.50' R  
Reset 24" End Section

C 386+23.56-77.46' L to  
C 386+26.69-75.50' R  
Cleanout for Culvert Treatment  
& Install 24"-153'  
Cured In Place Pipe  
Skewed 1° RHF

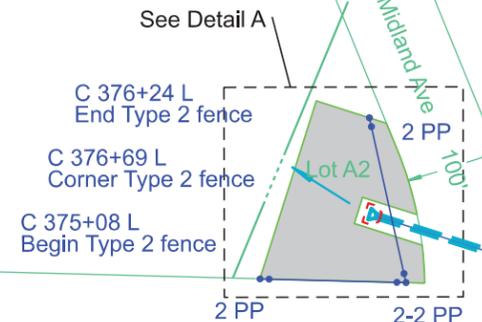
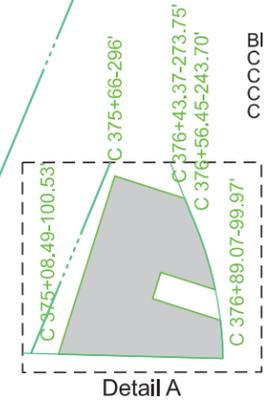
US Hwy 14  
MRM 168.36+0.454  
Sta. C 378+61  
Haakon County

US Hwy 14  
MRM 168.36+0.279  
Sta. C 387+25  
Haakon County

Sec 6 - T1N - R25E

J & J Jones Ranch, LLC  
(INFORMATION ONLY)

Block Out Station at C 376+49 L  
C 376+10.68-163.49'  
C 376+19.11-192.28'  
C 376+79.21-174.63'  
C 376+85.37-141.55'



Jensen & Jensen, LLC  
Lot A2 in S1/2 NE1/4 of Section 6 -  
Township 1 North -  
Range 25 East of the B.H.M.

Parcel 19  
0.05 ac, Permanent Easement  
(2,115 sq ft), more or less



SE1/4 NE1/4

SW1/4 NE1/4

Midland Cemetery Association  
(INFORMATION ONLY)

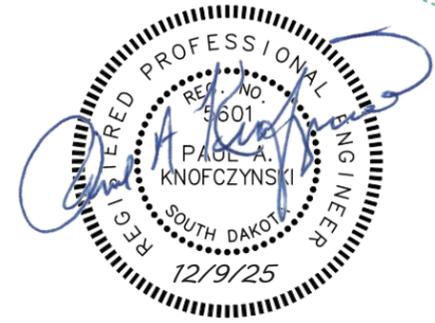
Block Out Station at C 379+27 R  
C 379+00.20-100.09'  
C 379+24.66-143.49'  
C 379+50.80-128.76'  
C 379+34.69-100.18'

J & J Jones Ranch, LLC  
SW1/4 NW1/4 of Section 6, Township 1 North,  
Range 25 East of the Black Hills Meridian except  
cemetery and 3.04 acres highway right of way  
and tract

Parcel 20  
0.03 ac, Permanent Easement  
(1,239 sq ft), more or less

Parcel 19  
C 375+08.49-C 376+89.07 L  
Temporary Easment containing  
0.5 ac, more or less

Parcel 20  
C 378+02.61-C 380+63 R  
Temporary Easment containing  
0.5 ac, more or less



FOR BIDDING PURPOSES ONLY



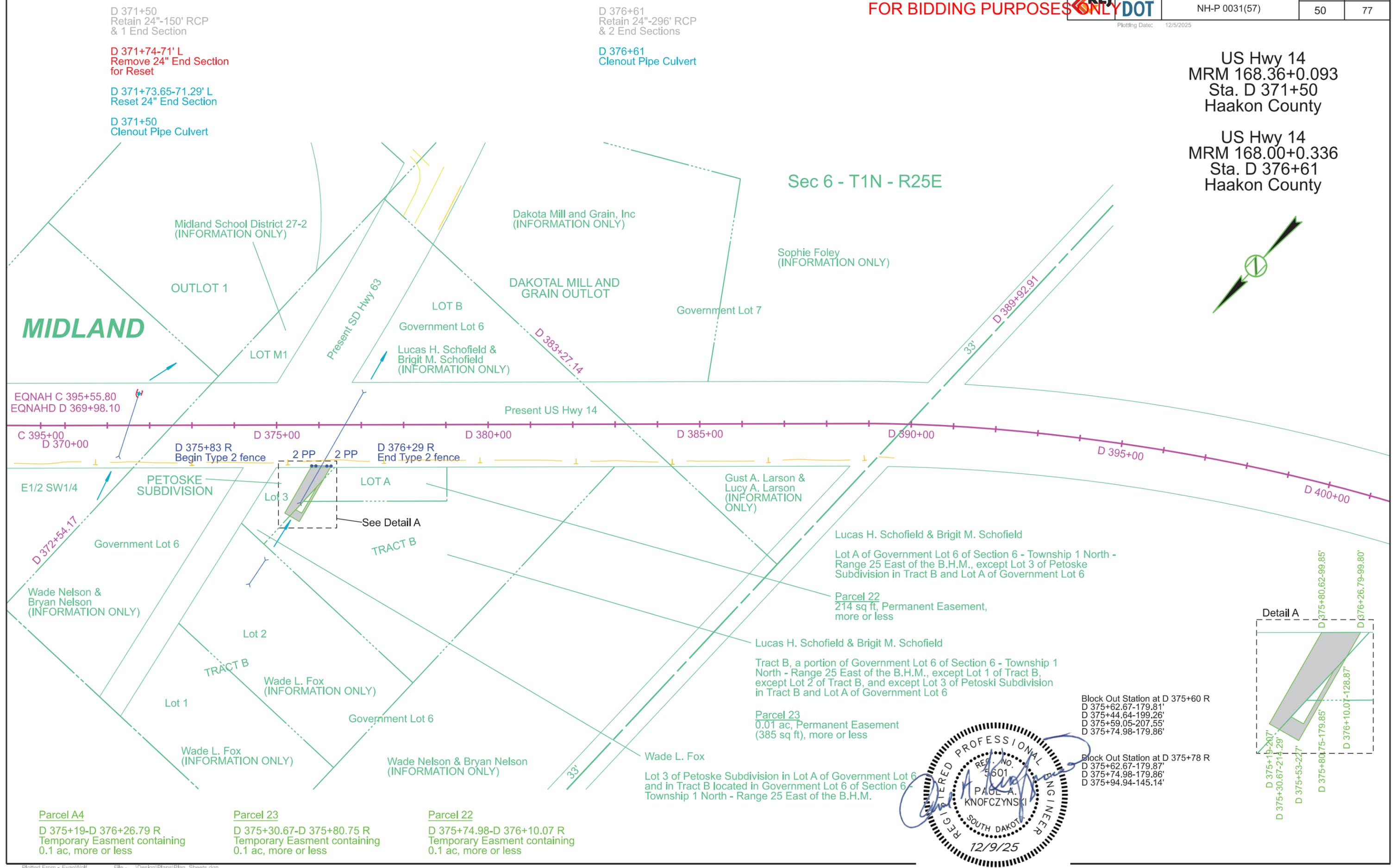
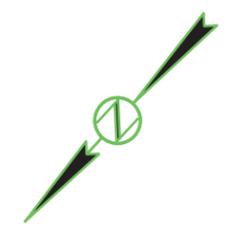
PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	50	77

Plotting Date: 12/5/2025

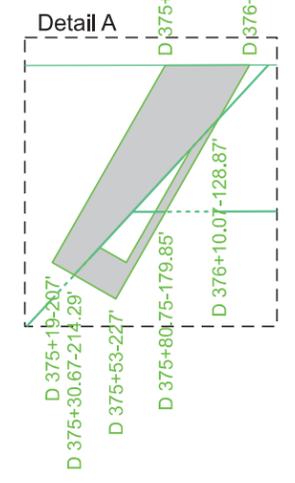
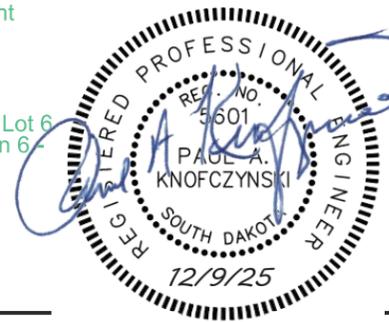
US Hwy 14  
MRM 168.36+0.093  
Sta. D 371+50  
Haakon County

US Hwy 14  
MRM 168.00+0.336  
Sta. D 376+61  
Haakon County

Sec 6 - T1N - R25E



- Parcel A4**  
D 375+19-D 376+26.79 R  
Temporary Easment containing  
0.1 ac, more or less
- Parcel 23**  
D 375+30.67-D 375+80.75 R  
Temporary Easment containing  
0.1 ac, more or less
- Parcel 22**  
D 375+74.98-D 376+10.07 R  
Temporary Easment containing  
0.1 ac, more or less



SD Hwy 63  
MRM 94.00+0.579  
Sta. 118+58  
Haakon County



118+58  
Retain 24"-240' CMP

119+06-140' L  
Take Out 24"-1 End Section

118+27-92' R  
Take Out 24"-1 End Section

119+05.56-140.12' L  
Install 24"- 1 CMP  
Flared End

118+26.62-92.17' R  
Install 24"- 1 CMP  
Flared End

Sec 18 - T1N - R25E

Triple Creek Land Company, LLC.  
The SE1/4 of Section 18 -  
Township 1 North -  
Range 25 East of the B.H.M.

SE1/4

Philip Levien &  
Maria Siff-Yang  
(INFORMATION ONLY)

Parcel 1  
0.02 ac, Permanent Easement  
(1,013 sq ft), more or less

Block Out Station at 119+05 L  
118+76.17-100.25'  
118+86.76-131.41'  
119+27.32-135.41'  
119+27.36-100.31'

Block Out Station at 119+09 L  
118+86.76-131.41'  
118+98.89-167.12'  
119+27.29-157.46'  
119+27.32-135.41'

200'

118+73 L  
Begin Type 2 fence

119+57 L  
End Type 2 fence

2 PP      2 PP

117+00      120+00      121+00

2 PP      2 PP

117+75 R  
Begin Type 2 fence

118+60 R  
End Type 2 fence

Block Out Station at 118+23 R  
118+08.18-99.83'  
118+04.89-109.52'  
118+33.29-119.17'  
118+39.88-99.79'

117+74.96-99.87' & 135'  
118+59.96-99.77' & 135'

Present SD Hwy 63

200'

Wade Nelson &  
Bryan Nelson  
The E1/2 SW1/4 of Section 18 -  
Township 1 North -  
Range 25 East of the B.H.M.

Parcel 2  
0.03 ac, Permanent Easement  
(1,509 sq ft), more or less

E1/2 SW1/4

Sec 19 - T1N - R25E

Brady J. Schofield  
(INFORMATION ONLY)

NW1/4

Parcel 2  
117+74.96-118+59.96 R  
Temporary Easment containing  
0.1 ac, more or less

Parcel 2  
118+72.37-118+86.76 L  
Temporary Easment containing  
0.1 ac, more or less

Parcel 1  
118+72.34-119+57.33 L  
Temporary Easment containing  
0.1 ac, more or less

Parcel 2  
119+27.32-119+57.37 L  
Temporary Easment containing  
0.1 ac, more or less



**FOR BIDDING PURPOSES ONLY**

SD Hwy 63  
MRM 93.00+0.864  
Sta. 157+17  
Haakon County

157+17  
Retain 24"-344' CMP

157+05-202' L  
Take Out 24"-1 End Section

157+25-144' R  
Take Out 24"-1 End Section

157+05.47-202.36' L  
Install 24"- 1 CMP  
Sloped End

157+24.85-144.15' R  
Install 24"- 1 CMP  
Sloped End

157+17  
Cleanout Pipe Culvert

Brady J. Schofield  
The SE1/4 of Section 19 -  
Township 1 North -  
Range 25 East of the B.H.M.

Parcel 3  
0.14 ac, Permanent Easement  
(5,883 sq ft), more or less

Block Out Station at 157+08 L  
156+96.18-99.97'  
156+89.12-226.15'  
157+19.07-227.83'  
157+26.22-99.97'

Block Out Station at 157+24 R  
157+07.36-100.03'  
157+11.25-169.62'  
157+41.20-167.94'  
157+37.41-100.03'

Parcel 3  
156+73.84-157+33.84 L  
Temporary Easment containing  
0.1 ac, more or less

Parcel 3  
156+96.50-157+56.50 R  
Temporary Easment containing  
0.1 ac, more or less

NE1/4  
Philip Levien &  
Maria Siff-Yang  
(INFORMATION ONLY)

NW1/4  
Brady J. Schofield  
(INFORMATION ONLY)

SW1/4  
Brady J. Schofield  
(INFORMATION ONLY)

Sec 19 - T1N - R25E

Present SD Hwy 63

156+74 L  
Begin Type 2 fence

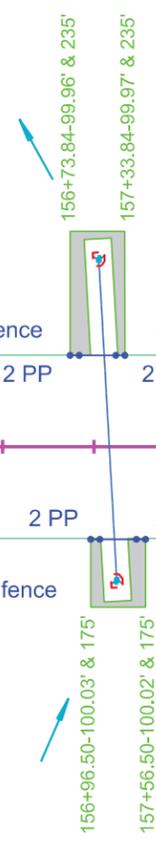
157+34 L  
End Type 2 fence

156+97 R  
Begin Type 2 fence

157+57 R  
End Type 2 fence

155+00

159+00



FOR BIDDING PURPOSES ONLY



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	53	77

Plotting Date: 12/5/2025

SD Hwy 63  
MRM 92.00+0.635  
Sta. 222+11  
Haakon County



Retain 30"-414' CMP  
223+51.64-190.67' L  
Install 30"- 1 CMP  
Flared End

221+00.20-149.85' R  
Install 30"- 1 CMP  
Flared End

220+98-153' R  
Reprofile Ditch (0.5 Sta)

222+11  
Cleanout for Culvert Treatment  
& Install 30"-430'  
Cured in Place Pipe

Block Out Station at 223+38 L  
222+65.99-99.93'  
223+53.73-218.75'  
223+77.86-200.93'  
223+77.75-99.80'

223+31-240'  
224+06.13-99.77' & 240'

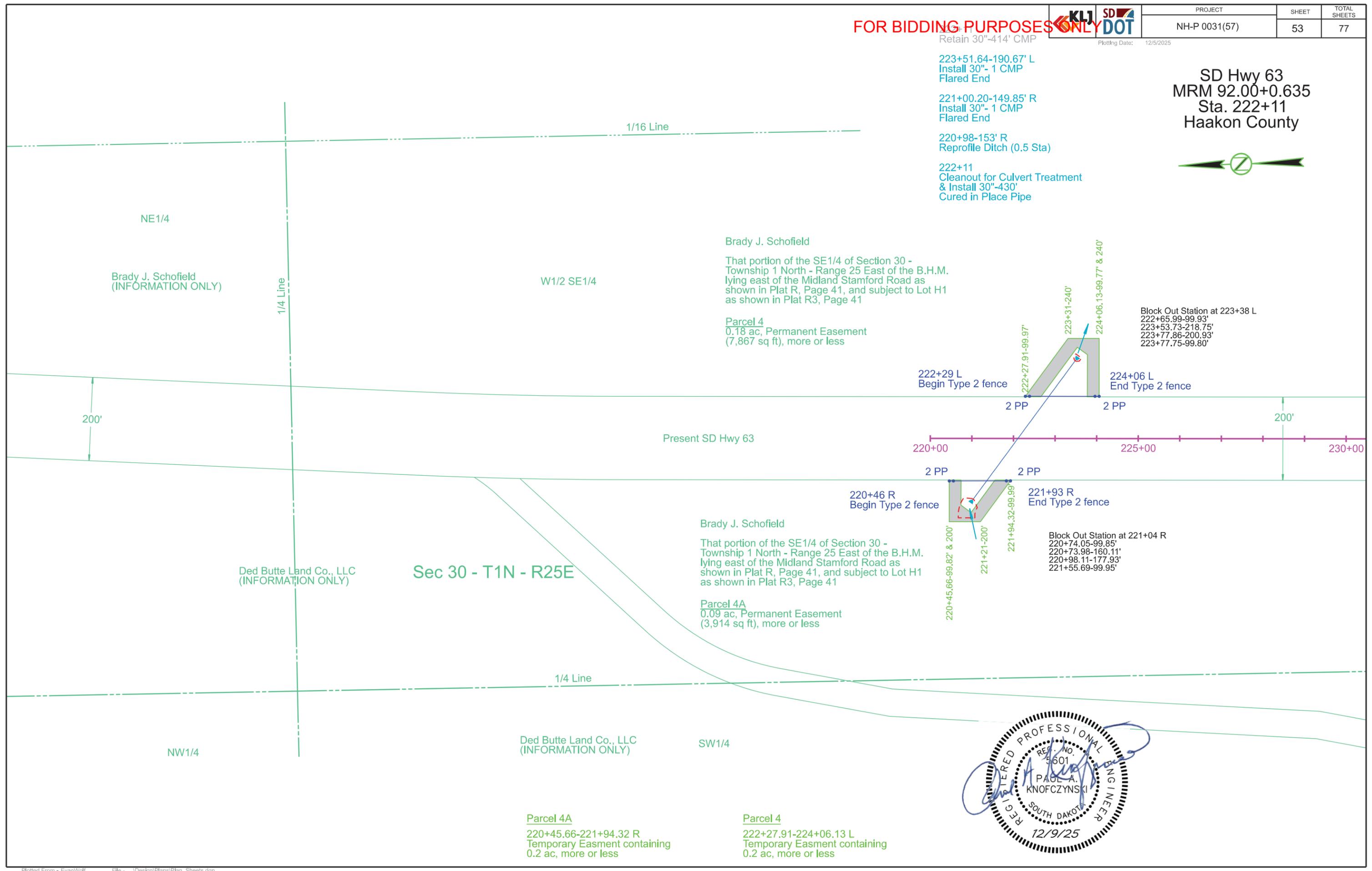
222+29 L Begin Type 2 fence  
224+06 L End Type 2 fence

220+00 225+00 230+00

220+46 R Begin Type 2 fence  
221+93 R End Type 2 fence

Block Out Station at 221+04 R  
220+74.05-99.85'  
220+73.98-160.11'  
220+98.11-177.93'  
221+55.69-99.95'

220+45.66-99.82' & 200'  
221+21-200'  
221+94.32-99.99'



Brady J. Schofield  
That portion of the SE1/4 of Section 30 - Township 1 North - Range 25 East of the B.H.M. lying east of the Midland Stamford Road as shown in Plat R, Page 41, and subject to Lot H1 as shown in Plat R3, Page 41

Parcel 4  
0.18 ac, Permanent Easement (7,867 sq ft), more or less

Brady J. Schofield  
That portion of the SE1/4 of Section 30 - Township 1 North - Range 25 East of the B.H.M. lying east of the Midland Stamford Road as shown in Plat R, Page 41, and subject to Lot H1 as shown in Plat R3, Page 41

Parcel 4A  
0.09 ac, Permanent Easement (3,914 sq ft), more or less

Ded Butte Land Co., LLC (INFORMATION ONLY)

Parcel 4A  
220+45.66-221+94.32 R  
Temporary Easment containing 0.2 ac, more or less

SW1/4

Parcel 4  
222+27.91-224+06.13 L  
Temporary Easment containing 0.2 ac, more or less



FOR BIDDING PURPOSES ONLY

Plotting Date: 12/5/2025

- 233+43 Take Out 24"-2 End Sections
- 233+43 Install 24"-2 CMP Flared Ends
- 233+43 Cleanout for Culvert Treatment & Install 24"-177' Cured In Place Pipe
- 237+78 Retain 24"-202' CMP
- 237+90-116' L Take Out 30"-1 End Section
- 237+68-89' R Take Out 30"-1 End Section
- 237+89.93-116.37' L Install 30"-1 CMP Flared End
- 237+68.13-88.74' R Install 30"-1 CMP Flared End
- 237+78 Cleanout Pipe Culvert
- 237+90 L Repofile Ditch to Establish Flow (0.5 Sta.)
- 244+06 Retain 24"-248' CMP
- 244+28-147' L Take Out 24"-1 End Section
- 243+90-101' R Take Out 24"-1 End Section
- 244+06 Cleanout Pipe Culvert
- 244+28.48-146.79' L Install 24"-1 CMP Flared End
- 243+90.1-100.77' R Install 24"-1 CMP Flared End
- 244+06 Cleanout Pipe Culvert
- 254+08 Retain 24"-154' CMP
- 254+08 Take Out 8' of Existing 24" CMP and End Section on Both Ends of Existing 24" CMP
- 254+08 Fill Remaining Pipe with Cellular Grout (20.9 CuYd±)
- 254+03.47-84.26' R Bore & Jack 24"-180' Steel Pipe Skewed 7° LHF
- 254+24.78-94.86' L Install 24"-1 CMP Flared End
- 254+03.47-84.52' R Install 24"-1 CMP Flared End

SD Hwy 63  
MRM 92.00+0.418  
Sta. 233+43  
Haakon County

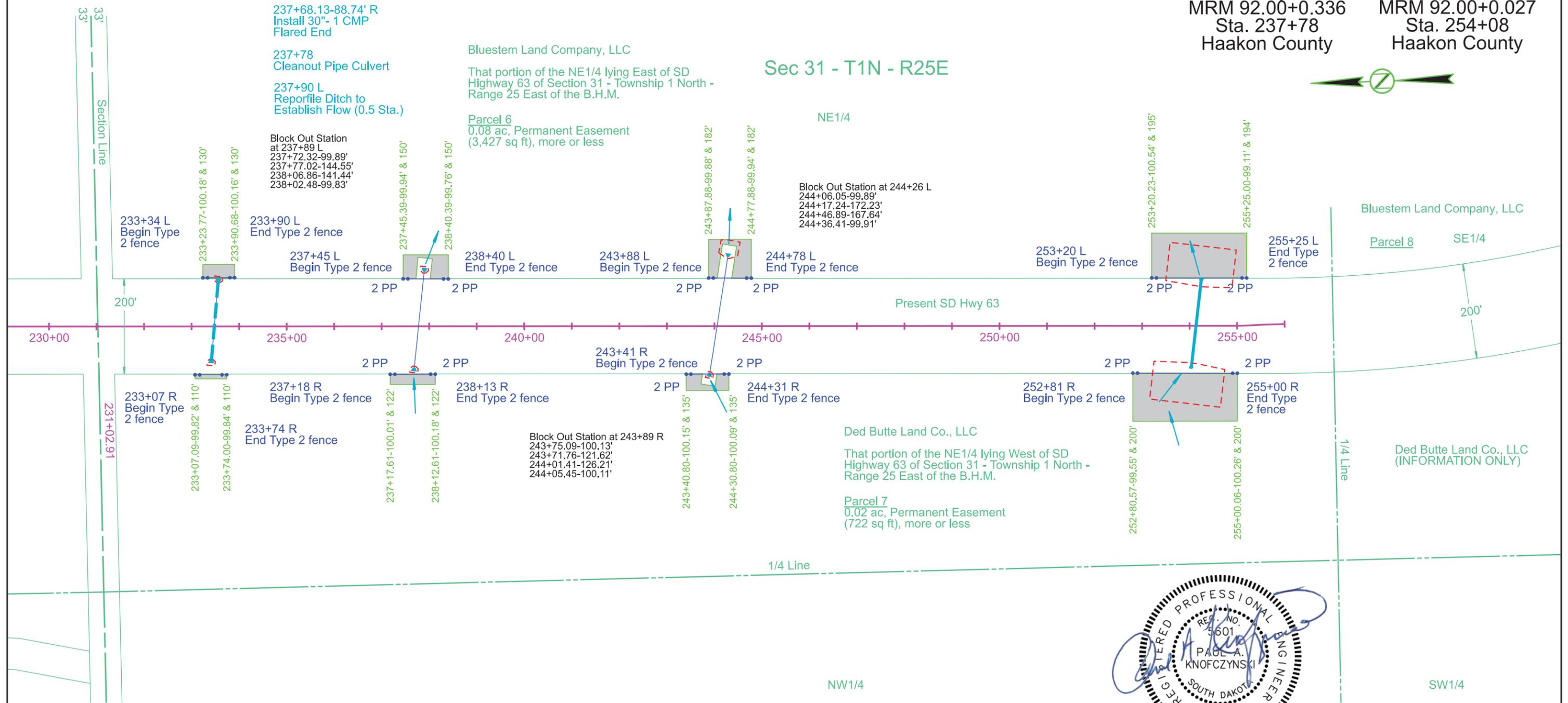
SD Hwy 63  
MRM 92.00+0.216  
Sta. 244+06  
Haakon County

SD Hwy 63  
MRM 92.00+0.336  
Sta. 237+78  
Haakon County

SD Hwy 63  
MRM 92.00+0.027  
Sta. 254+08  
Haakon County



Sec 31 - T1N - R25E



- Parcel 7: 233+07.09-233+74.00 Temporary Easment containing 0.1 ac, more or less
- Parcel 6: 233+23.77-233+90.68 L Temporary Easment containing 0.1 ac, more or less
- Parcel 7: 237+17.61-238+12.61 R Temporary Easment containing 0.1 ac, more or less
- Parcel 6: 237+45.39-238+40.39 L Temporary Easment containing 0.1 ac, more or less
- Parcel 7: 243+40.80-244+30.80 R Temporary Easment containing 0.1 ac, more or less
- Parcel 6: 243+87.88-244+77.88 L Temporary Easment containing 0.1 ac, more or less
- Parcel 7: 252+80.57-255+00.06 R Temporary Easment containing 0.5 ac, more or less
- Parcel 6: 253+20.23-255+25.00 L Temporary Easment containing 0.4 ac, more or less

	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0031(57)	55	77

Plotting Date: 12/5/2025

**FOR BIDDING PURPOSES ONLY**

273+00 Retain 24"-268' CMP  
 274+45-106' L Take Out 24"-1 End Section  
 274+44.56-106.42' L Install 24"-1 CMP Flared End  
 272+22.97-57.65' R Install 24"-1 CMP Flared End  
 273+00 Cleanout Pipe Culvert

287+00 Retain 24"-406' CMP  
 287+85-153' L Take Out 24"-1 End Section  
 285+92-193' R Take Out 24"-1 End Section  
 287+85.20-152.59' L Install 24"-1 CMP Flared End  
 285+91.88-192.55' R Install 24"-1 CMP Flared End

SD Hwy 63  
 MRM 91.00+0.703  
 Sta. 273+00  
 Haakon County  
 SD Hwy 63  
 MRM 91.00+0.400  
 Sta. 287+00  
 Jackson County

Bluestem Land Company, LLC  
 That portion of the SE1/4 lying East of SD Highway 63 of Section 31 - Township 1 North - Range 25 East of the B.H.M.  
 Parcel 8  
 0.03 ac, Permanent Easement (1,203 sq ft), more or less

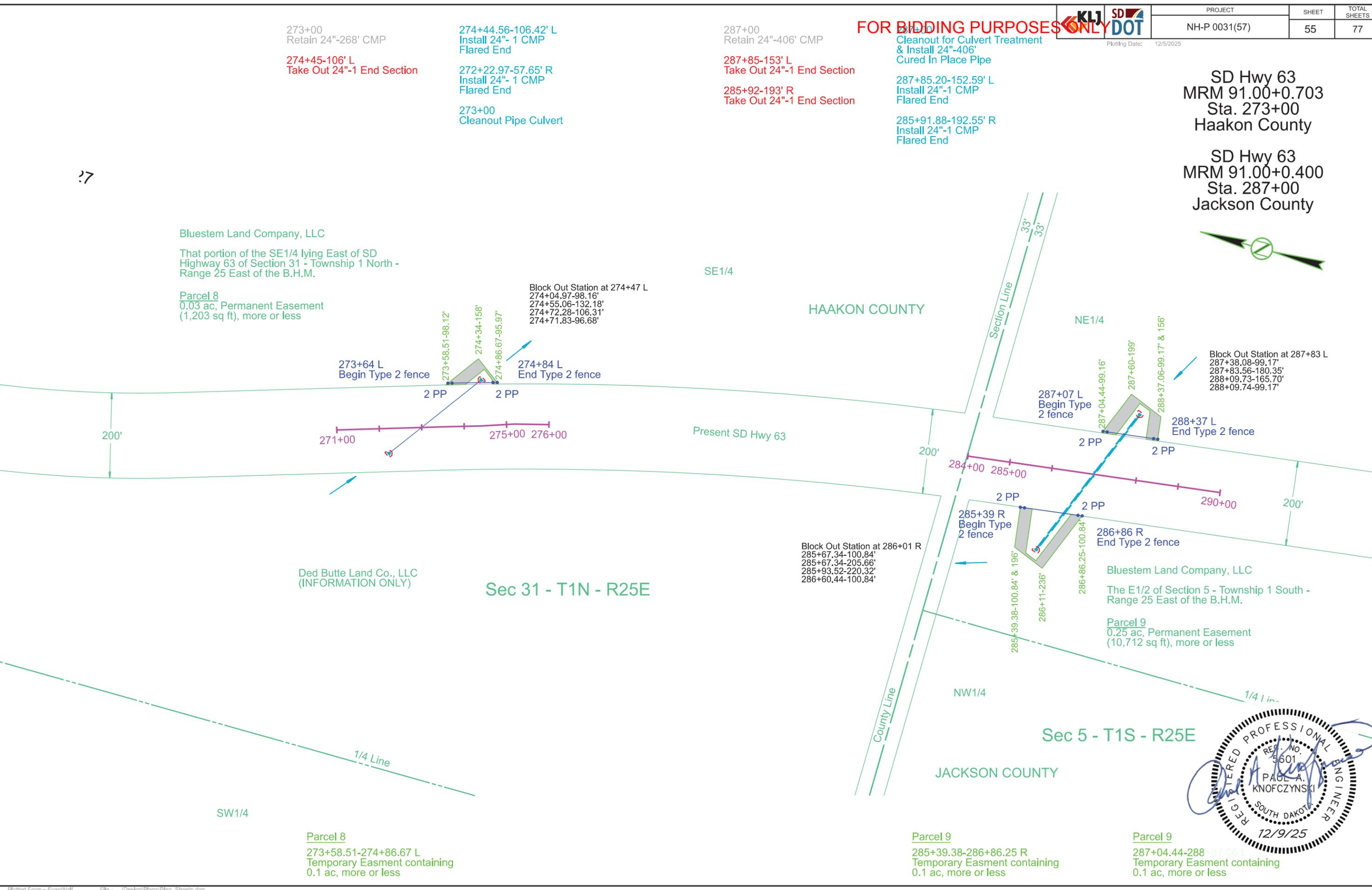
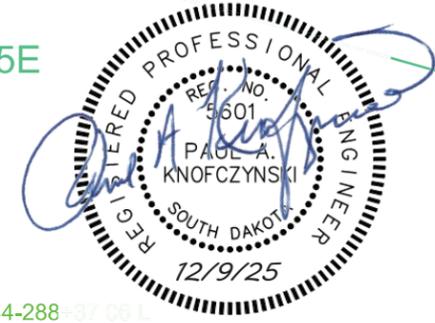
Block Out Station at 274+47 L  
 274+04.97-98.16'  
 274+55.06-132.18'  
 274+72.28-106.31'  
 274+71.83-96.68'

Block Out Station at 287+83 L  
 287+38.08-99.17'  
 287+83.56-180.35'  
 288+09.73-165.70'  
 288+09.74-99.17'

Block Out Station at 286+01 R  
 285+67.34-100.84'  
 285+67.34-205.66'  
 285+93.52-220.32'  
 286+60.44-100.84'

Ded Butte Land Co., LLC  
 (INFORMATION ONLY)

Bluestem Land Company, LLC  
 The E1/2 of Section 5 - Township 1 South - Range 25 East of the B.H.M.  
 Parcel 9  
 0.25 ac, Permanent Easement (10,712 sq ft), more or less



FOR BIDDING PURPOSES ONLY



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	56	77

Plotting Date: 12/5/2025

313+43  
Retain 36"-152' CMP

343+43-80' L  
Take Out 36"-1 End Section

313+43-74' R  
Take Out 36"-1 End Section

313+43.17-79.75' L  
Install 36"-1 CMP  
Flared End

313+43.17-82.00' L  
Install Bank and Channel  
Protection Gabions (6.0 CuYd)  
and Type B Drainage Fabric  
(19 SqYd)

313+43.35-73.51' R  
Install 36"-1 CMP  
Flared End

SD Hwy 63  
MRM 90.00+0.909  
Sta. 313+43  
Jackson County



Sec 5 - T1S - R25E

NE1/4

Present SD Hwy 63

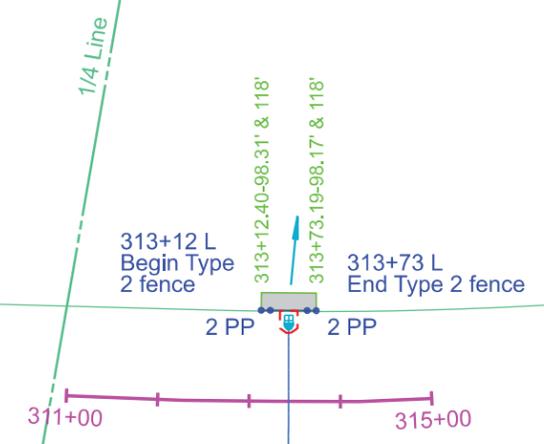
Bluestem Land Company, LLC  
Parcel 9

Bluestem Land Company, LLC  
The E1/2 of Section 5 - Township 1 South -  
Range 25 East of the B.H.M.  
Parcel 10

SE1/4

NW1/4

Parcel 10  
313+12.40-313+73.19 L  
Temporary Easement containing  
0.1 ac, more or less



**FOR BIDDING PURPOSES ONLY**

339+77  
Retain 36"-406' CMP

340+74.26-182.74' to 340+79.92-193.32' L  
Install 36"-12' CMP

339+77  
Cleanout for Culvert Treatment & Install 36"-406' Cured In Place Pipe

340+79.92-193.32' L  
Install 36"-1' CMP Sloped End

338+93.46-155.25' R  
Install 36"-1' CMP Sloped End

361+85  
Retain 42"-250' CMP

362+26-126' L  
Take Out 42"-1 End Section

361+48-110' R  
Take Out 42"-1 End Section

362+26  
Cleanout for Culvert Treatment & Install 42"-250' Cured In Place Pipe

362+26.18-125.81' L  
Install 42"-1 CMP Flared End

361+48.23-110.17' R  
Install 42"-1 CMP Flared End

SD Hwy 63  
MRM 90.00+0.406  
Sta. 339+77  
Jackson County

SD Hwy 63  
MRM 89.00+0.984  
Sta. 361+85  
Jackson County

**Sec 5 - T1S - R25E**

Bluestem Land Company, LLC  
The E1/2 of Section 5 - Township 1 South - Range 25 East of the B.H.M.

Parcel 10  
0.06 ac, Permanent Easement (2,427 sq ft), more or less

**Sec 9 - T1S - R25E**

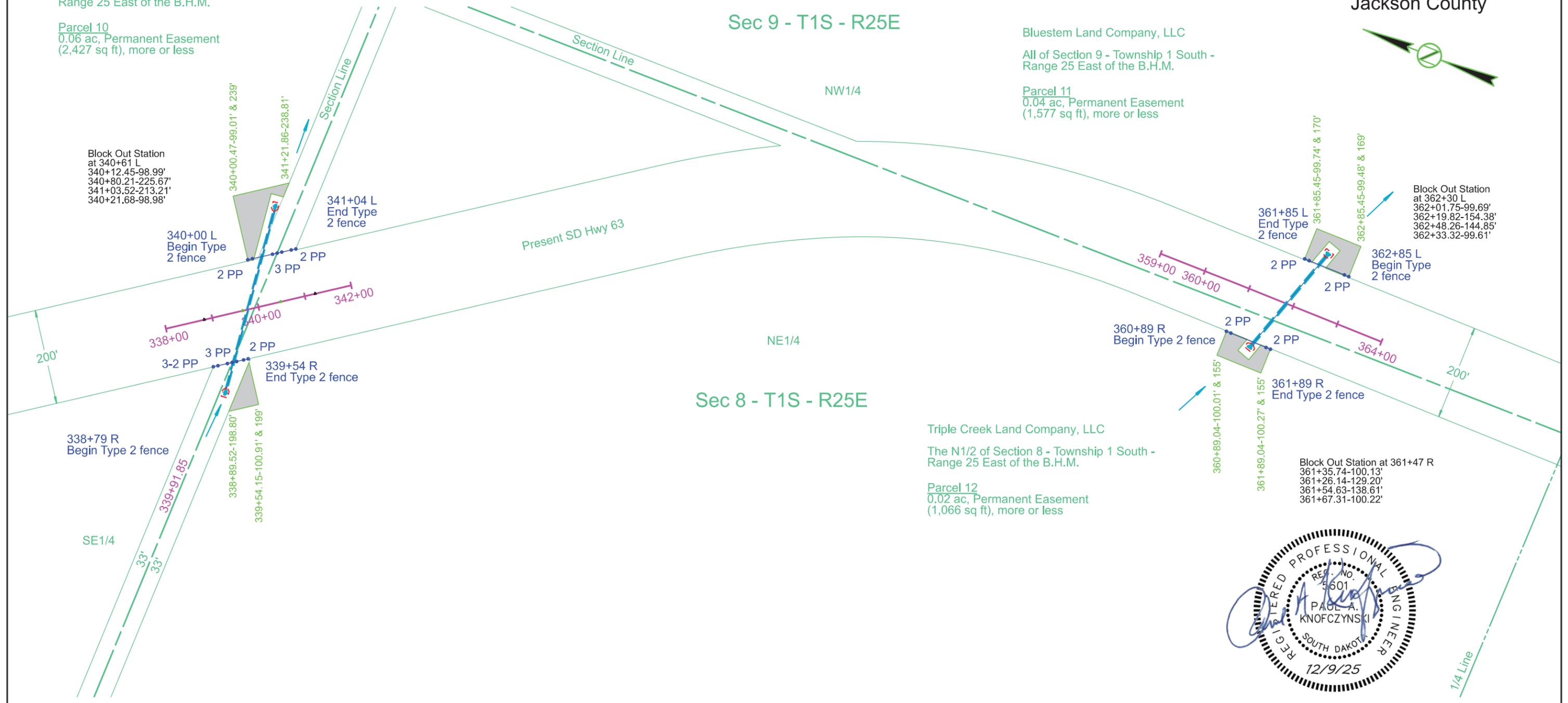
Bluestem Land Company, LLC  
All of Section 9 - Township 1 South - Range 25 East of the B.H.M.

Parcel 11  
0.04 ac, Permanent Easement (1,577 sq ft), more or less

**Sec 8 - T1S - R25E**

Triple Creek Land Company, LLC  
The N1/2 of Section 8 - Township 1 South - Range 25 East of the B.H.M.

Parcel 12  
0.02 ac, Permanent Easement (1,066 sq ft), more or less



Parcel 12  
338+89.52-339+54.15 R  
Temporary Easment containing 0.1 ac, more or less

Parcel 10  
340+00.47-341+21.86 L  
Temporary Easment containing 0.2 ac, more or less

Parcel 12  
360+89.04-361+89.04 R  
Temporary Easment containing 0.1 ac, more or less

Parcel 11  
361+85.45-362+85.45 L  
Temporary Easment containing 0.1 ac, more or less



425+54  
Retain 24"-127' CMP

425+53-59' L  
Take Out 24"-1 End Section

425+54-58' R  
Take Out 24"-1 End Section

425+54  
Cleanout for Culvert Treatment  
& Install 24"-127'  
Cured In Place Pipe

425+53.28-58.76' L  
Install 24"-1 CMP  
Flared End

425+53.77-58.31' R  
Install 24"-1 CMP  
Sloped End

442+72  
Retain 36"-122' CMP

442+71-62' L  
Take Out 36"-1 End Section

442+72-61' R  
Take Out 36"-1 End Section

442+71.58-61.05  
Install 36"-1 CMP  
Flared End

442+71.74-61.39' R  
Install 36"-1 CMP  
Flared End

FOR BIDDING PURPOSES ONLY



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	58	77

Plotting Date: 12/5/2025

SD Hwy 63  
MRM 88.00+0.777  
Sta. 425+54  
Jackson County

SD Hwy 63  
MRM 88.00+0.453  
Sta. 442+72  
Jackson County



1/4 Line

I-V Inc.  
(INFORMATION ONLY)

Sec 16 - T1S - R25E

SW1/4

Section Line

200'

424+00 425+00 2+79 428+00

Section Line

Present SD Hwy 63

441+00 445+00

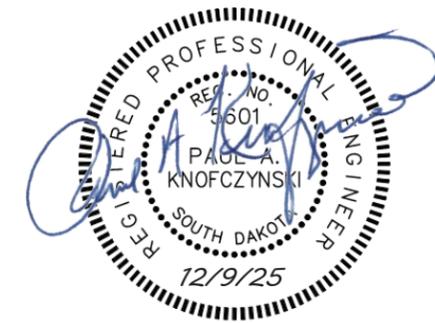
200'

Brave Bull Creek, LLC  
(INFORMATION ONLY)

Sec 17 - T1S - R25E

SE1/4

33'  
33'





PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	59	77

Plotting Date: 12/5/2025

**FOR BIDDING PURPOSES ONLY**

482+26  
Retain 18"-81' CMP  
  
482+26-45' L  
Take Out 18"-1 End Section  
  
482+26-36' R  
Take Out 18"-1 End Section

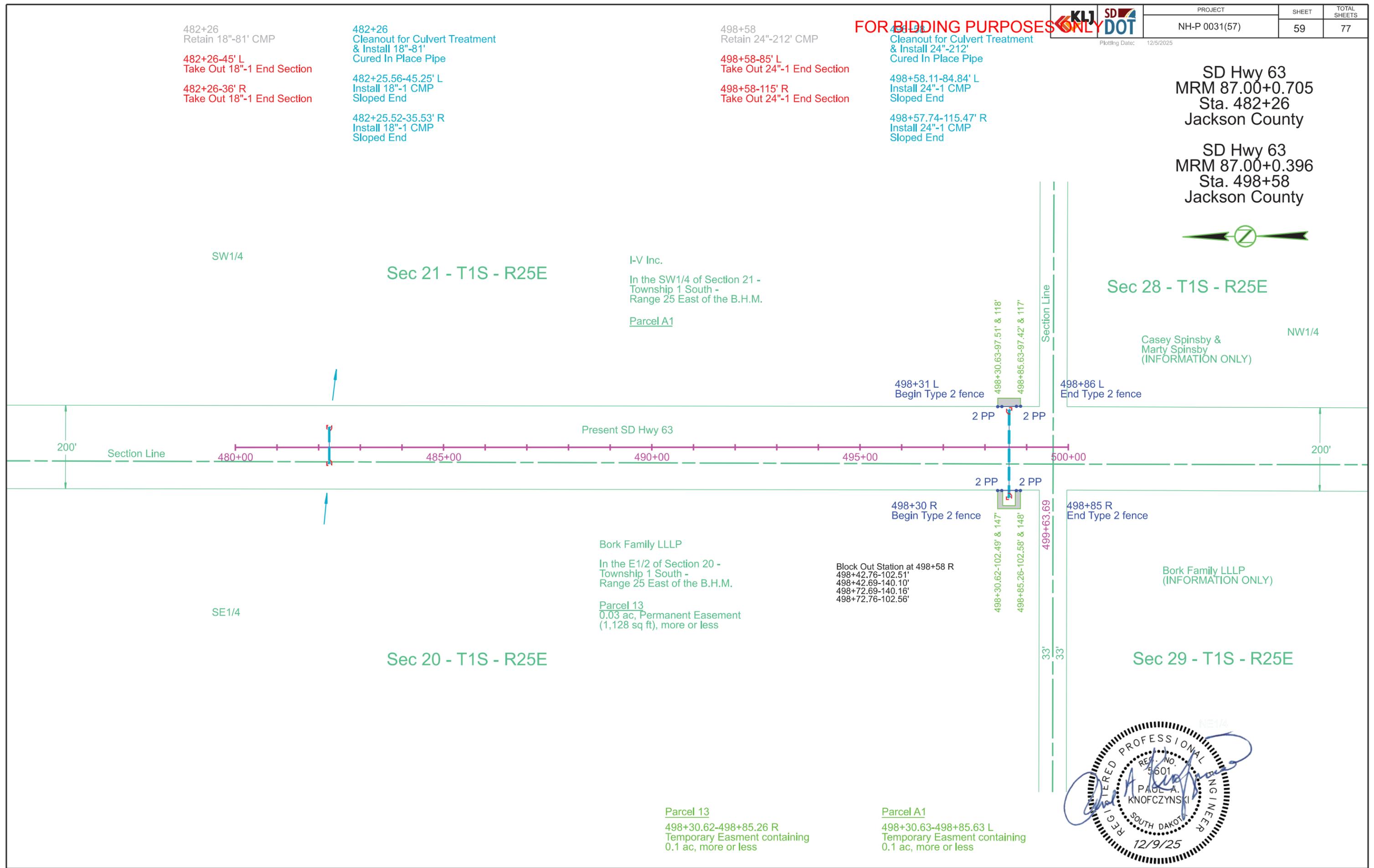
482+26  
Cleanout for Culvert Treatment  
& Install 18"-81'  
Cured In Place Pipe  
  
482+25.56-45.25' L  
Install 18"-1 CMP  
Sloped End  
  
482+25.52-35.53' R  
Install 18"-1 CMP  
Sloped End

498+58  
Retain 24"-212' CMP  
  
498+58-85' L  
Take Out 24"-1 End Section  
  
498+58-115' R  
Take Out 24"-1 End Section

498+58  
Cleanout for Culvert Treatment  
& Install 24"-212'  
Cured In Place Pipe  
  
498+58.11-84.84' L  
Install 24"-1 CMP  
Sloped End  
  
498+57.74-115.47' R  
Install 24"-1 CMP  
Sloped End

SD Hwy 63  
MRM 87.00+0.705  
Sta. 482+26  
Jackson County

SD Hwy 63  
MRM 87.00+0.396  
Sta. 498+58  
Jackson County





PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	60	77

Plotting Date: 12/5/2025

537+74  
Retain 24"-192' CMP

537+89-86' L  
Take Out 24"-1 End Section

537+57-97' R  
Take Out 24"-1 End Section

537+74  
Cleanout for Culvert Treatment  
& Install 24"-192'  
Cured In Place Pipe

537+89.35-86.06' L  
Install 24"-1 CMP  
Sloped End

537+56.99-97.00' R  
Install 24"-1 CMP  
Sloped End

545+48  
Retain 24"-192' CMP

545+48  
Take Out 24"-2 End Sections

545+48  
Cleanout for Culvert Treatment  
& Install 24"-130'  
Cured In Place Pipe

545+48  
Install 24"-2 CMP  
Sloped Ends

SD Hwy 63  
MRM 86.00+0.675  
Sta. 537+74  
Jackson County



Casey Spinsby &  
Marty Spinsby  
  
In the SW1/4 of Section 28 -  
Township 1 South -  
Range 25 East of the B.H.M.  
  
Parcel A2

SW1/4

Sec 28 - T1S - R25E

537+63 L  
Begin Type 2 fence

538+23 L  
End Type 2 fence

2 PP 2 PP

Present SD Hwy 63

536+00 540+00 Section Line 545+00 547+00

537+24 R  
Begin Type 2 fence

537+84 R  
End Type 2 fence

2 PP 2 PP

Block Out Station at 536+55 R  
537+41.26-99.80'  
537+38.30-118.68'  
537+67.47-123.90'  
537+71.72-99.86'

537+24.06-99.78' & 130'  
537+83.75-99.88' & 130'

Casey Spinsby &  
Marty Spinsby  
(INFORMATION ONLY)

NE1/4 SE1/4

Casey Spinsby &  
Marty Spinsby  
  
In the NE1/4 SE1/4 of Section 29 -  
Township 1 South -  
Range 25 East of the B.H.M.

Parcel 14  
0.02 ac, Permanent Easement  
(654 sq ft), more or less

Sec 29 - T1S - R25E

SE1/4

Parcel 14  
537+24.06-537+83.75 R  
Temporary Easement containing  
0.1 ac, more or less

Parcel A2  
537+63.28-538+23.28 L  
Temporary Easement containing  
0.1 ac, more or less



FOR BIDDING PURPOSES ONLY

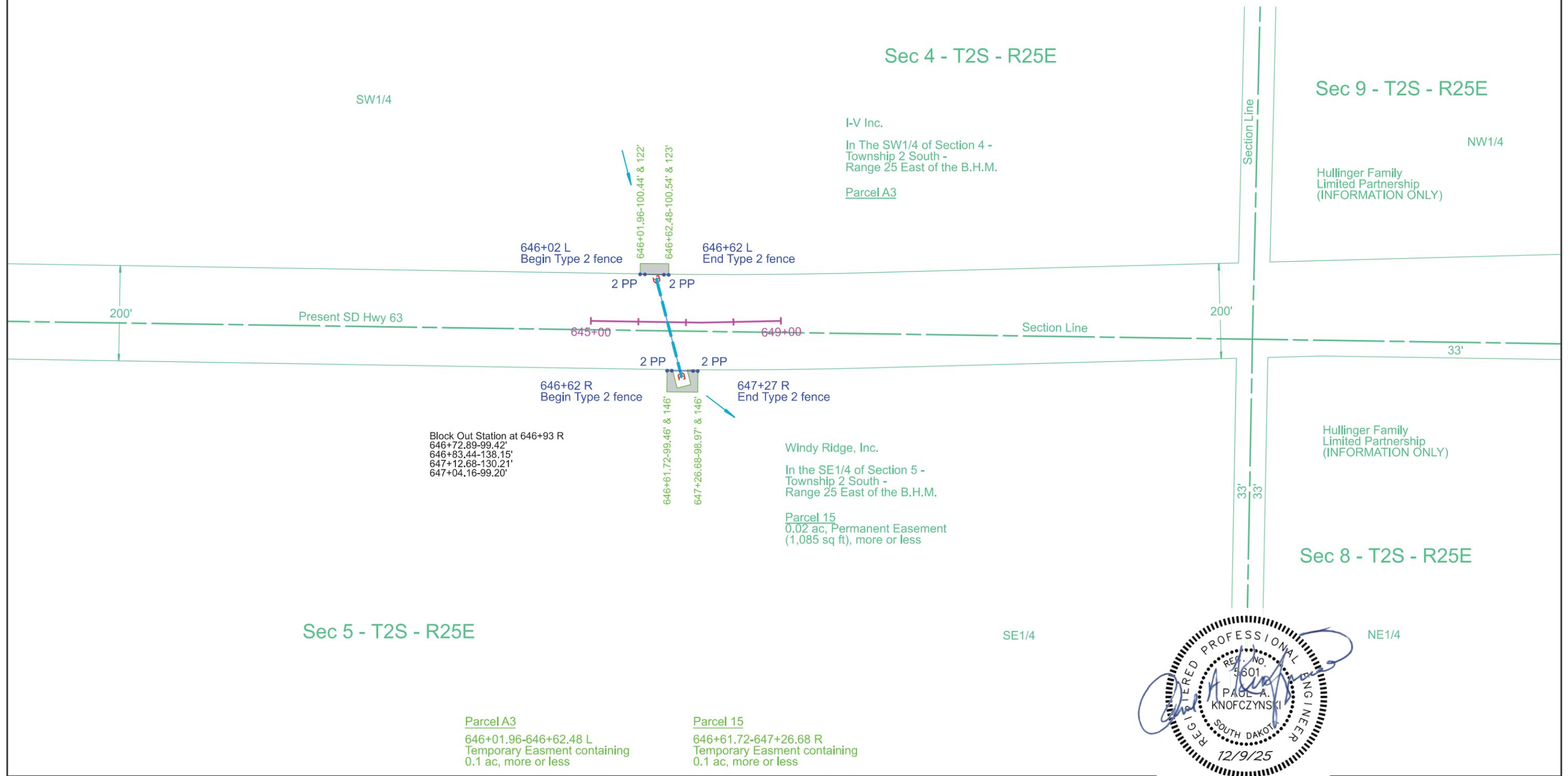
	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0031(57)	61	77

Plotting Date: 12/5/2025

646+61 Retain 24"-220' CMP  
 646+38-86' L Take Out 24"-1 End Section  
 646+92-110' R Take Out 24"-1 End Section

646+61 Cleanout for Culvert Treatment & Install 24"-220' Cured In Place Pipe  
 646+37.86-86.38' L Install 24"-1 CMP Sloped End  
 646+91.68-110.39' R Install 24"-1 CMP Sloped End

SD Hwy 63  
 MRM 84.00+0.620  
 Sta. 646+61  
 Jackson County





PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	62	77

Plotting Date: 12/5/2025

**FOR BIDDING PURPOSES ONLY**

680+22  
Retain 36"-119' CMP

680+23-58' L  
Take Out 36"-1 End Section

680+22-51' R  
Take Out 36"-1 End Section

680+22  
Cleanout for Culvert Treatment  
& Install 36"-119'  
Cured In Place Pipe

680+22.71-58.27' L  
Install 36"-1 CMP  
Flared End

680+22.13-50.92' R  
Install 36"-1 CMP  
Flared End

680+22-55' R  
Reprofile Ditch (0.5 Sta.)

691+36  
Retain 30"-146' CMP

691+36-67' L  
Take Out 30"-1 End Section

691+36-81' R  
Take Out 30"-1 End Section

691+36  
Cleanout for Culvert Treatment  
& Install 30"-146'  
Cured In Place Pipe

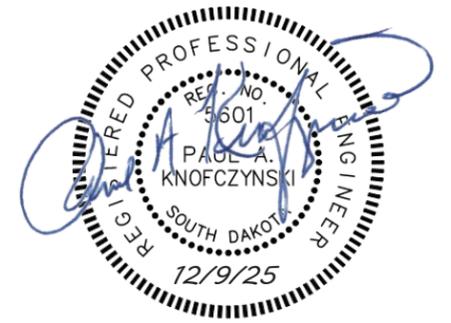
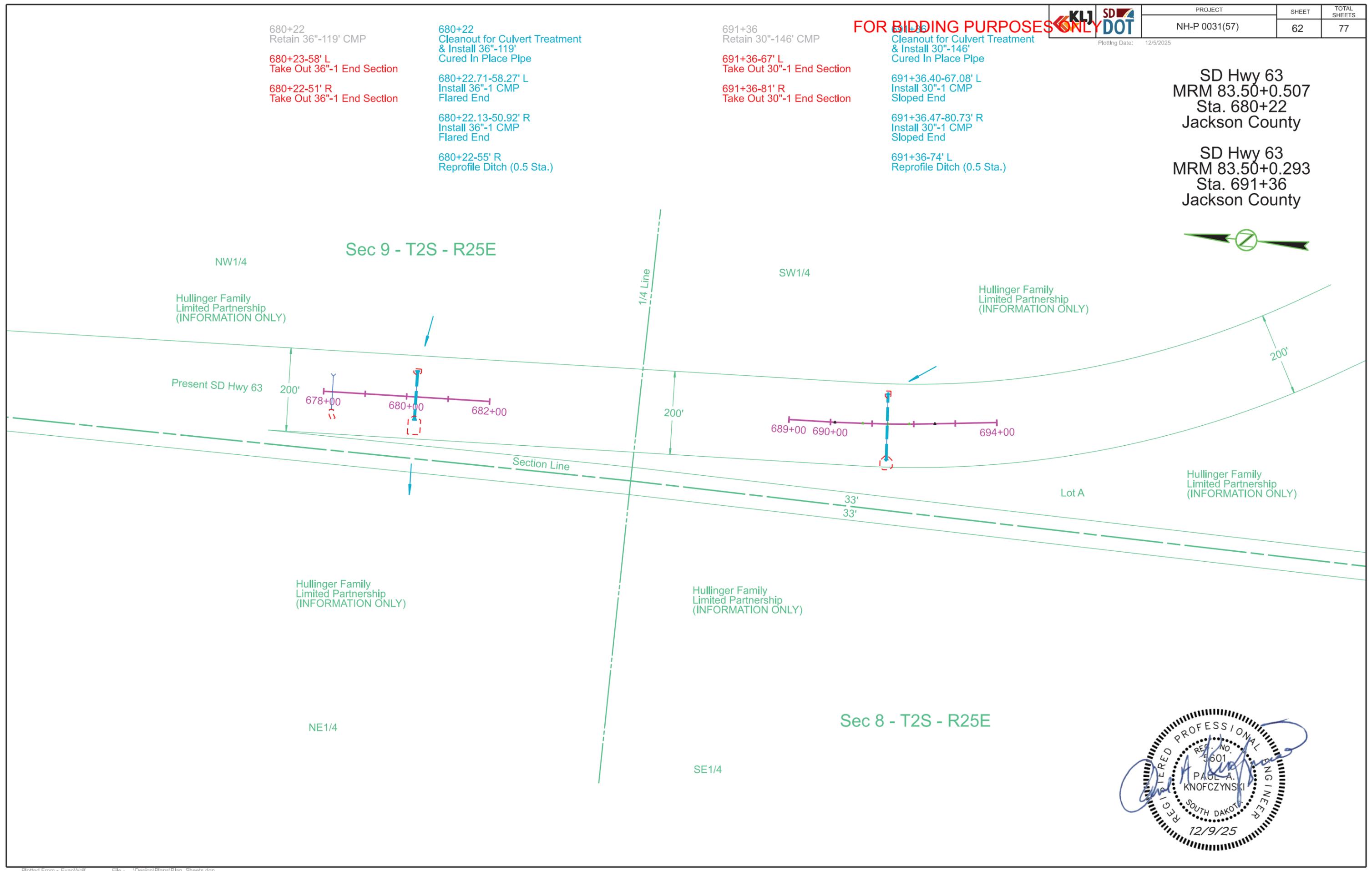
691+36.40-67.08' L  
Install 30"-1 CMP  
Sloped End

691+36.47-80.73' R  
Install 30"-1 CMP  
Sloped End

691+36-74' L  
Reprofile Ditch (0.5 Sta.)

SD Hwy 63  
MRM 83.50+0.507  
Sta. 680+22  
Jackson County

SD Hwy 63  
MRM 83.50+0.293  
Sta. 691+36  
Jackson County



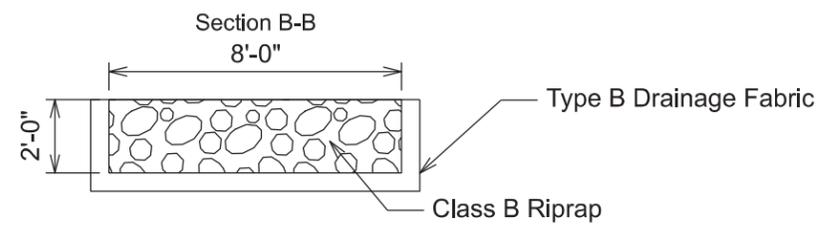
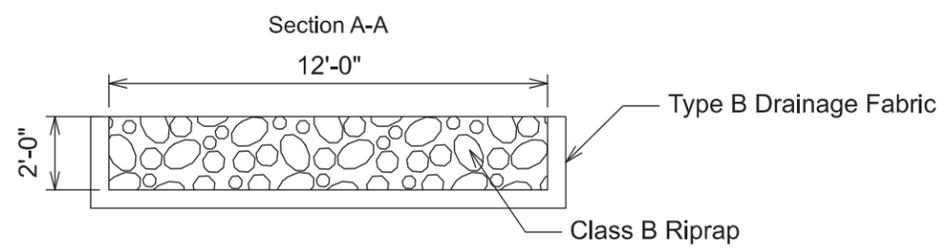
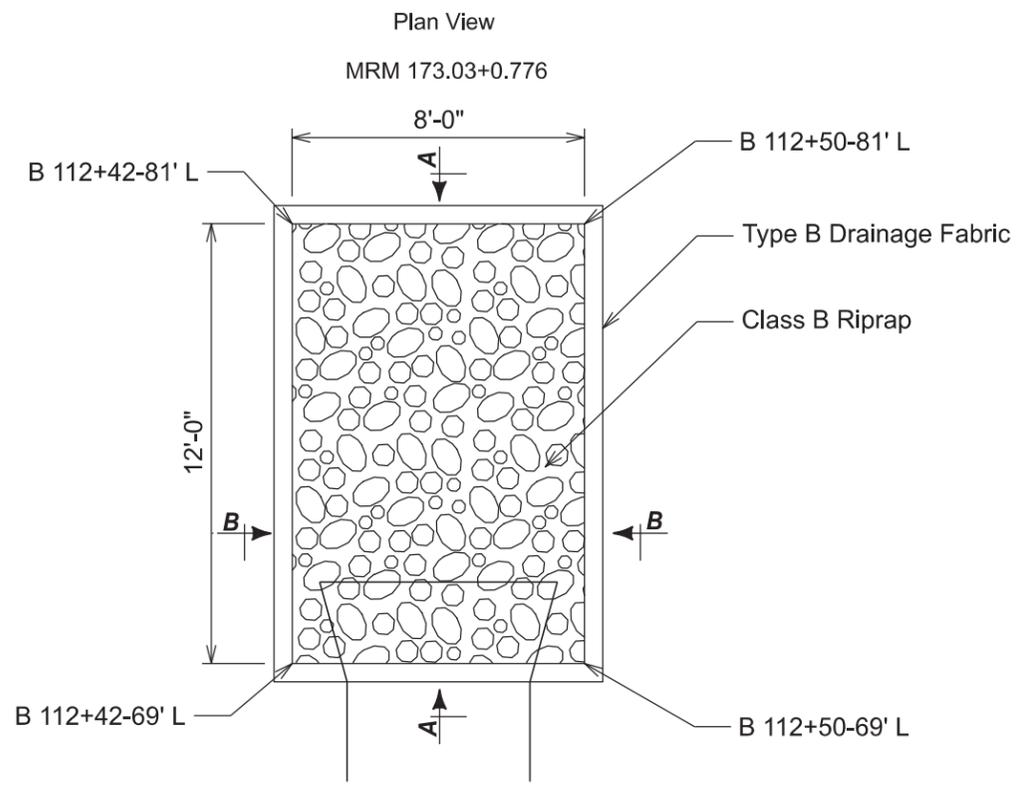
# RIPRAP DETAIL

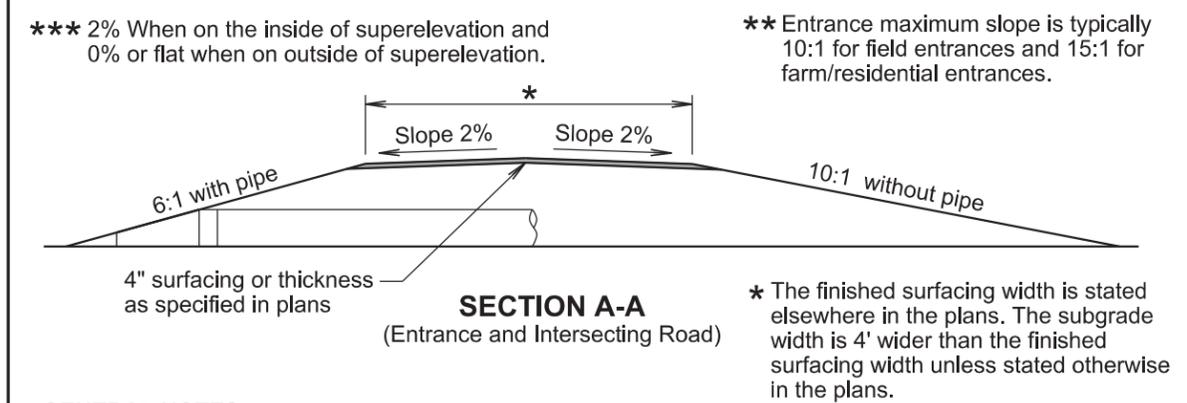
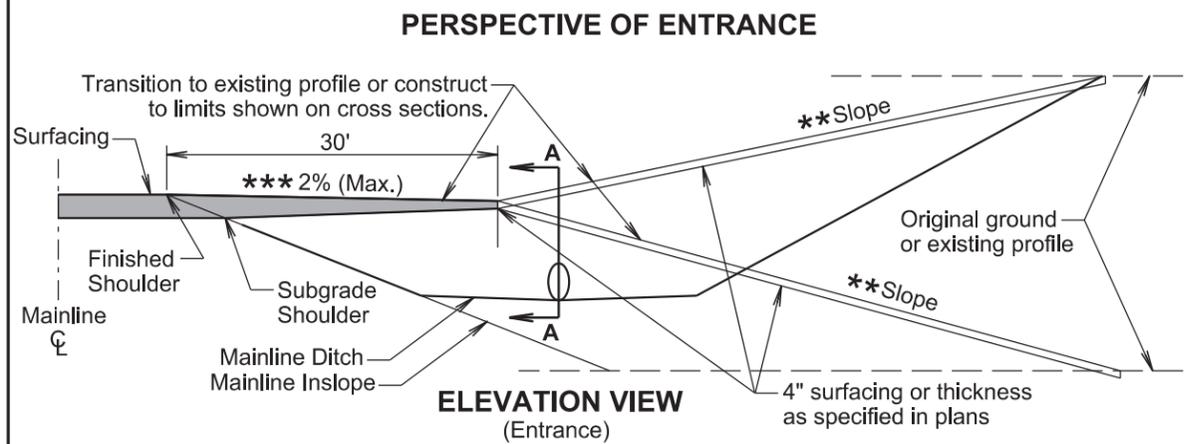
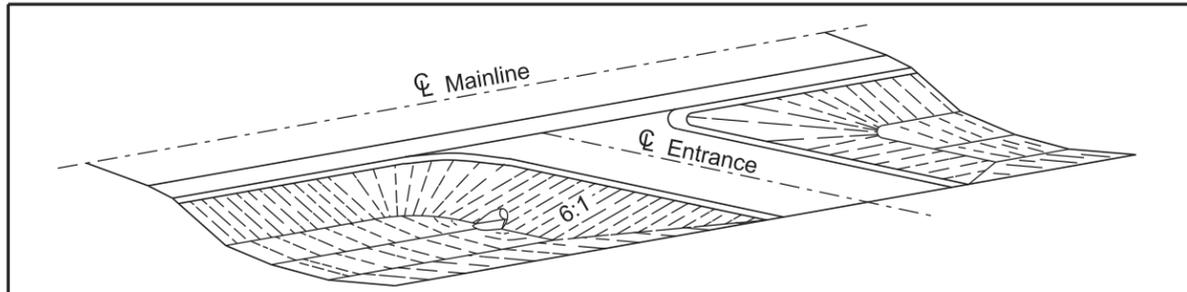
FOR BIDDING PURPOSES ONLY



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	63	77

Plotting Date: 12/5/2025





**GENERAL NOTES:**

The ditch section shown above in the perspective view is only for illustrative purpose.

The elevation view above is typical for either a ditch cut or fill section. Entrances that vary from above should be specified in the plans.

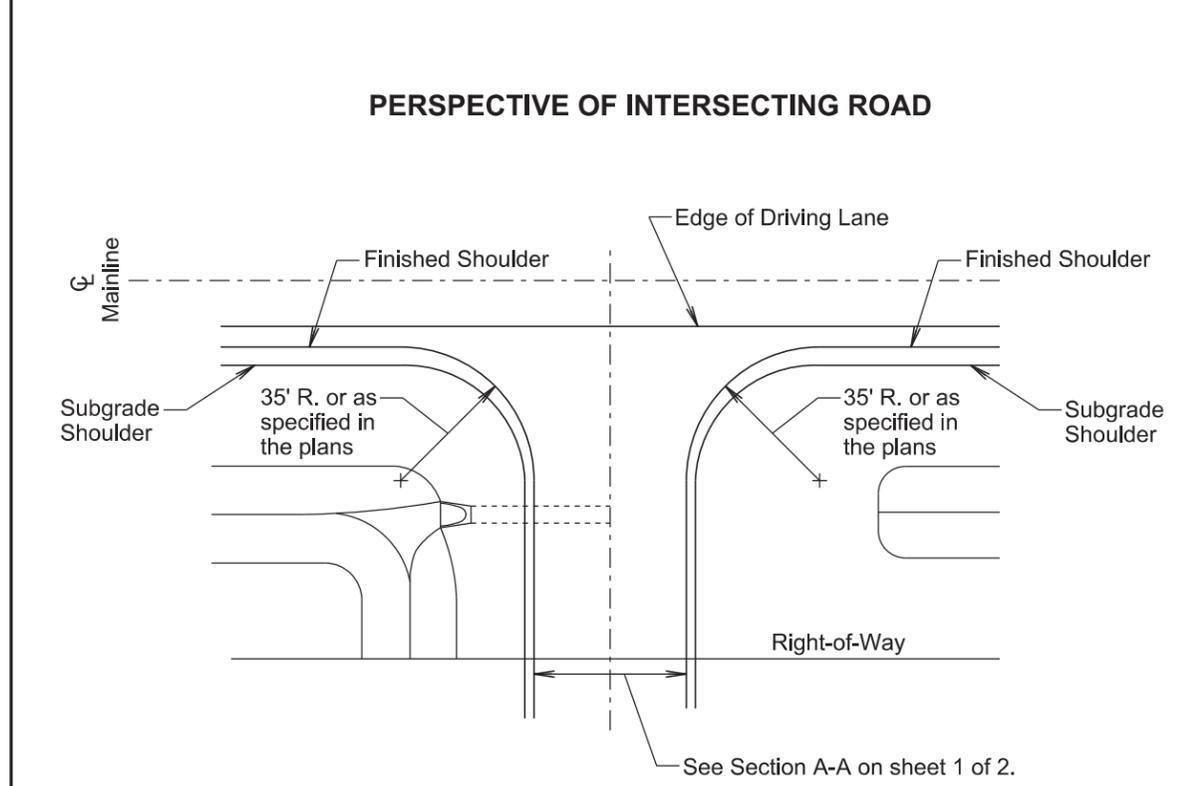
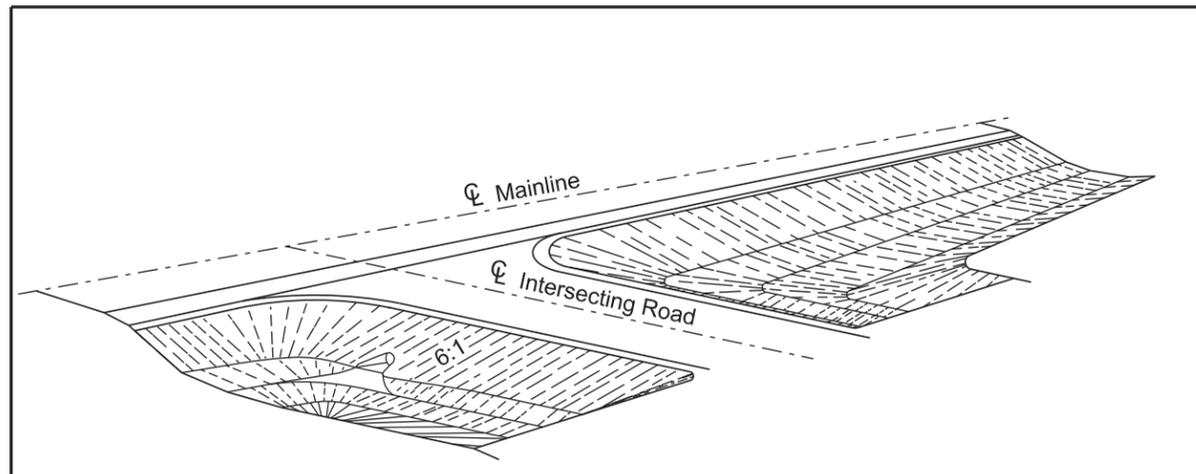
Pipe length will be adjusted if necessary during construction to obtain the 6:1 slope. For grading projects, the pipe length is estimated typically using a 4" thickness of surfacing directly over the subgrade above the pipe.

The transition area between the mainline inslope and the entrance or intersecting road inslope will be rounded to eliminate an abrupt transition.

The turning radii will be 35' for intersecting roads and entrances unless stated otherwise in the plans.

November 19, 2021

<b>Published Date: 2026</b>	<b>SD DOT</b>	<b>INTERSECTING ROADS AND ENTRANCES</b>	PLATE NUMBER 120.01
			Sheet 1 of 2



**GENERAL NOTES:**

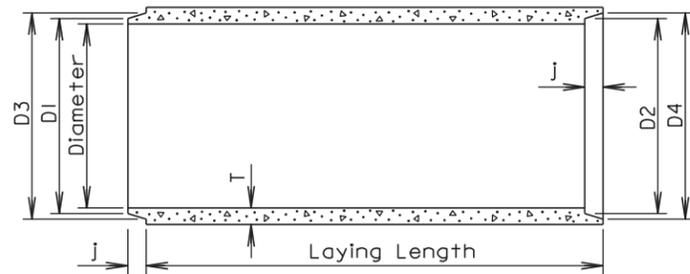
The 6:1 or 10:1 intersecting road inslope will transition to the existing intersecting road inslope near the right-of-way or at a location as determined by the Engineer.

November 19, 2021

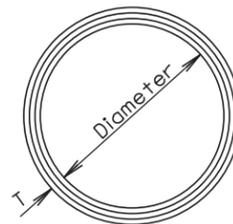
<b>Published Date: 2026</b>	<b>SD DOT</b>	<b>INTERSECTING ROADS AND ENTRANCES</b>	PLATE NUMBER 120.01
			Sheet 2 of 2

**TOLERANCES IN DIMENSIONS**

Diameter:  $\pm 1.5\%$  for 24" Dia. or less and  $\pm 1\%$  or  $\frac{3}{8}$ " whichever is more for 27" Dia. or greater.  
 Diameters at joints:  $\pm \frac{3}{16}$ " for 30" Dia. or less and  $\pm \frac{1}{4}$ " for 36" or greater.  
 Length of joint (j):  $\pm \frac{1}{4}$ ".  
 Wall thickness (T): not less than design T by more than 5% or  $\frac{3}{16}$ ", whichever is greater.  
 Laying length: shall not underrun by more than  $\frac{1}{2}$ ".



**LONGITUDINAL SECTION**



**END VIEW**

**GENERAL NOTES:**

Construction of R.C.P. shall conform to the requirements of Section 990 of the Specifications.

Not more than 2 four-foot sections shall be permitted near the ends of any culvert. Four-foot lengths shall be used only to secure the required length of culvert.

Diam. (in.)	Approx. Wt. /Ft. (lb.)	T (in.)	J (in.)	D1 (in.)	D2 (in.)	D3 (in.)	D4 (in.)
12	92	2	1 3/4	13 1/4	13 5/8	13 7/8	14 1/4
15	127	2 1/4	2	16 1/2	16 7/8	17 1/4	17 5/8
18	168	2 1/2	2 1/4	19 5/8	20	20 3/8	20 3/4
21	214	2 3/4	2 1/2	22 7/8	23 1/4	23 3/4	24 1/8
24	265	3	2 3/4	26	26 3/8	27	27 3/8
27	322	3 1/4	3	29 1/4	29 5/8	30 1/4	30 5/8
30	384	3 1/2	3 1/4	32 3/8	32 3/4	33 1/2	33 3/8
36	524	4	3 3/4	38 3/4	39 1/4	40	40 1/2
42	685	4 1/2	4	45 1/8	45 5/8	46 1/2	47
48	867	5	4 1/2	51 1/2	52	53	53 1/2
54	1070	5 1/2	4 1/2	57 7/8	58 3/8	59 3/8	59 7/8
60	1296	6	5	64 1/4	64 3/4	66	66 1/2
66	1542	6 1/2	5 1/2	70 5/8	71 1/8	72 1/2	73
72	1810	7	6	77	77 1/2	79	79 1/2
78	2098	7 1/2	6 1/2	83 3/8	83 7/8	85 5/8	86 1/8
84	2410	8	7	89 3/4	90 1/4	92 1/8	92 5/8
90	2740	8 1/2	7	95 3/4	96 1/4	98 1/8	98 5/8
96	2950	9	7	102 1/8	102 5/8	104 1/2	105
102	3075	9 1/2	7 1/2	109	109 1/2	111 1/2	112
108	3870	10	7 1/2	115 1/2	116	118	118 1/2

June 26, 2015

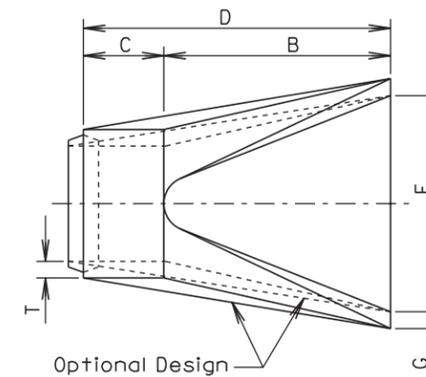
Published Date: 2026

**SD DOT**

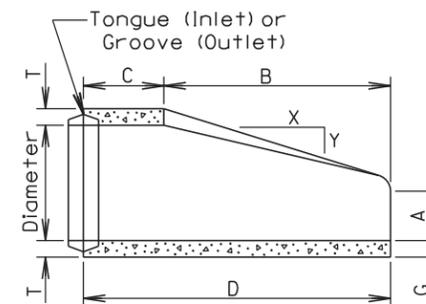
**REINFORCED CONCRETE PIPE**

PLATE NUMBER  
450.01

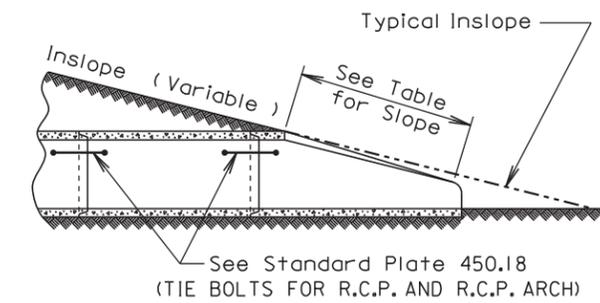
Sheet 1 of 1



**TOP VIEW**



**LONGITUDINAL SECTION**

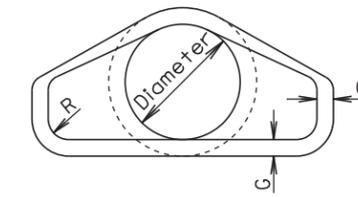


**SLOPE DETAIL**

**GENERAL NOTES:**

Lengths of concrete pipe shown on plan sheets are between flared ends only.

Construction of R.C.P. Flared End shall conform to the requirements of Section 990 of the Specifications.



**END VIEW**

Dia. (in.)	Approx. Wt. of Section (lbs.)	Approx. Slope (X to Y)	T (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	G (in.)	R (in.)
12	530	2.4:1	2	4	24	48 7/8	72 7/8	24	2	1 1/2
15	740	2.4:1	2 1/4	6	27	46	73	30	2 1/4	1 1/2
18	990	2.3:1	2 1/2	9	27	46	73	36	2 1/2	1 1/2
21	1280	2.4:1	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	1 1/2
24	1520	2.5:1	3	9 1/2	43 1/2	30	73 1/2	48	3	1 1/2
27	1930	2.5:1	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	1 1/2
30	2190	2.5:1	3 1/2	12	54	19 3/4	73 3/4	60	3 1/2	1 1/2
36	4100	2.5:1	4	15	63	34 3/4	97 3/4	72	4	1 1/2
42	5380	2.5:1	4 1/2	21	63	35	98	78	4 1/2	1 1/2
48	6550	2.5:1	5	24	72	26	98	84	5	1 1/2
54	8240	2:1	5 1/2	27	65	33 1/4	98 1/4	90	5 1/2	1 1/2
60	8730	1.9:1	6	35	60	39	99	96	5	1 1/2
66	10710	1.7:1	6 1/2	30	72	27	99	102	5 1/2	1 1/2
72	12520	1.8:1	7	36	78	21	99	108	6	1 1/2
78	14770	1.8:1	7 1/2	36	90	21	111	114	6 1/2	1 1/2
84	18160	1.6:1	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2
90	20900	1.5:1	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	6

June 26, 2015

Published Date: 2026

**SD DOT**

**R. C. P. FLARED ENDS**

PLATE NUMBER  
450.10

Sheet 1 of 1

Wall "t" (in.)	Rod Dia. (in.)	Pipe Sleeve Dia. (nominal)
≤ 3/4	5/8	3/4
3 1/2 - 6 1/2	3/4	1
≥ 7	1	1 1/4

**GENERAL NOTES:**

Tie bolts will conform to ASTM F1554, Grade 36 or ASTM A36. Nuts will be heavy hex conforming to ASTM A563. Washers will conform to ASTM F436.

Pipe Sleeve will conform to ASTM A53, Grade B or ASTM A500, Grade B or C.

Galvanize adjustable eye bolt tie assembly in accordance with ASTM A153.

ASTM F1554, Grade 36 or ASTM A36 Rod with Heavy Hex Nut and Washer

**ADJUSTABLE EYE BOLT TIE**

Pipe Dia. (in.)	"L" (in.)	Bolt Dia. (in.)
≤ 48	4	3/4
> 48	6	1

**GENERAL NOTES:**

Angles will conform to ASTM A36. Bolts will conform to ASTM A307. Nuts will be heavy hex conforming to ASTM A563. Washers will conform to ASTM F436.

Galvanize angles, bolts, nuts, and washers in accordance with ASTM A153.

ASTM A307 Bolt with Heavy Hex Nut and 2 Washers

**ANGLE AND BOLT TIE**

**GENERAL NOTES:**

In lieu of the tie bolts detailed above other types of tie bolt connections may be installed as approved by the Office of Bridge Design.

All pipe sections of R.C.P. and R.C.P. Arch will be tied with tie bolts except for pipe located between drop inlets, manholes, and junction boxes. All pipe sections of pipes that only enter or exit drop inlets, manholes, and junction boxes will be tied with tie bolts.

There will be no separate measurement or payment for the tie bolts. The cost for furnishing and installing the tie bolts will be incidental to the contract unit price per foot for the corresponding bid item for R.C.P. or R.C.P. Arch.

**END VIEW (Circular)**

**END VIEW (Arch)**

April 8, 2025

Published Date: 2026	S D D O T	TIE BOLTS FOR R.C.P. AND R.C.P. ARCH	PLATE NUMBER 450.18
			Sheet 1 of 1

Alternate Type Connector Sections may be used with approval of the Engineer.

**PLAN**

**ELEVATION**

**TUBING ATTACHMENT DETAILS SECTION A-A**

**STANDARD CONNECTIONS**

For 30" through 84"

Alternate for all sizes

NOTE: Tubing is slipped over the sheet and rivets or lugs prior to forming operations of the apron.

For 12" through 24" only

**TYPICAL CROSS-SECTION**

**SECTION A-A (alternate)**

**SECTION A-A (alternate)**

**GENERAL NOTES:**

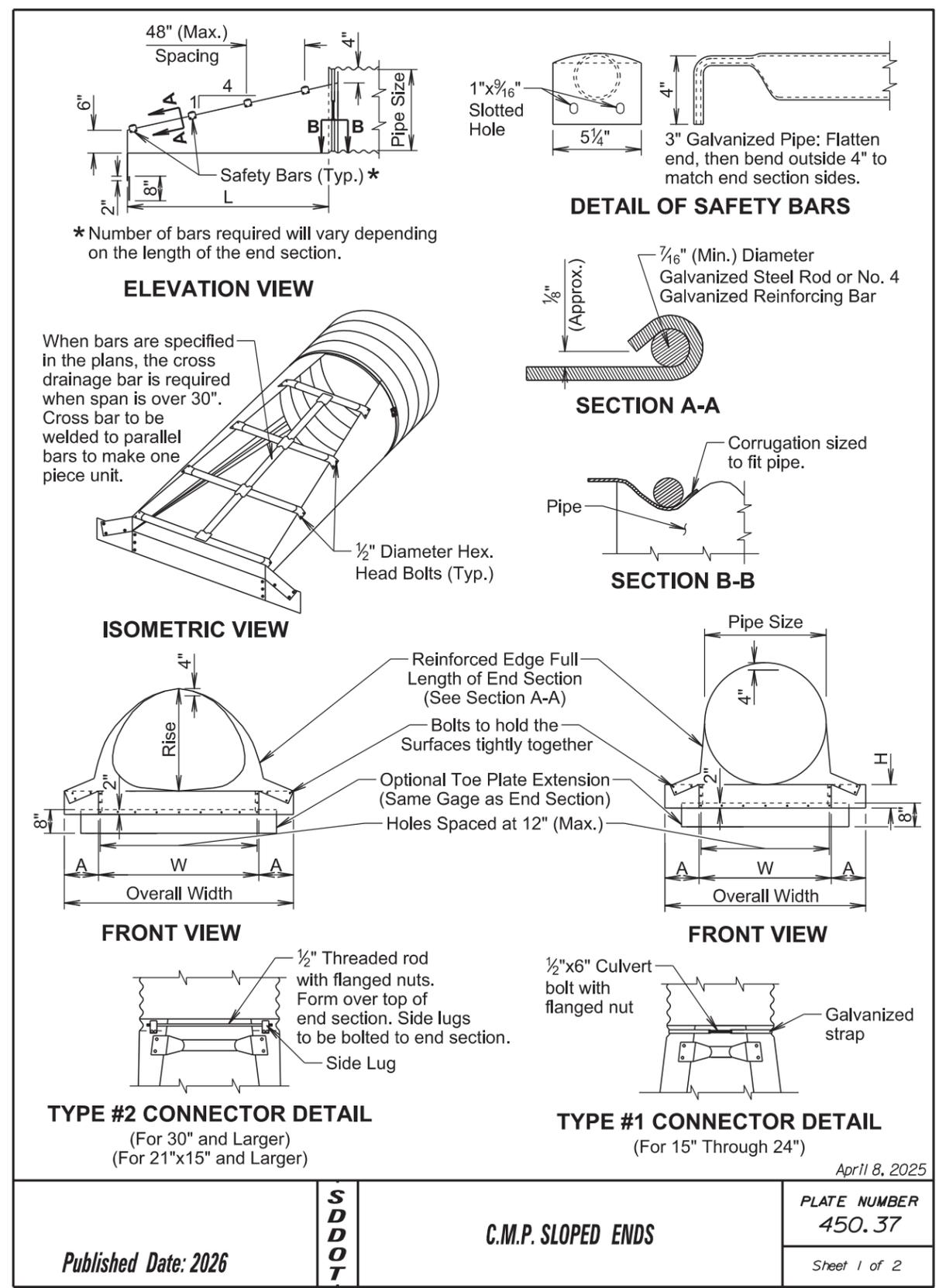
All 3 pc. bodies shall have 12 Ga. sides and 10 Ga. center panels. Width of center panels shall be greater than 20% of the pipe periphery. Multiple panel bodies to have lap seams tightly joined by 3/8" Dia. galvanized rivets or bolts.

For 60" through 84" sizes, reinforced edges shall be supplemented with galvanized stiffener angles. The angles will be 2" x 2" x 1/4" for 60" through 72" diameters and 2 1/2" x 2 1/2" x 1/4" for 78" and 84" diameters. The angles shall be attached by 3/8" diameter galvanized nuts and bolts.

Rivets and Bolts shall be 3/8" Dia. Min. for 10 Ga. and 12 Ga. sheet, and 5/16" Dia. Min. for 14 Ga. and 16 Ga. sheets. Tighten nuts with torque wrench to 25 lbs. torque.

March 31, 2000

Published Date: 2026	S D D O T	C.M.P. FLARED ENDS	PLATE NUMBER 450.35
			Sheet 1 of 1



**ARCH C.M.P. SLOPED ENDS**

Equiv. Dia. (Inch)	(Inches)		(Min.) Thick. Inch	Dimensions (Inches)			L Dimensions			
	Span	Rise		Gage	A	H	W	Overall Width	Slope	Length (Inch)
18	21	15	.064	16	8	6	27	43	4:1	20
21	24	18	.064	16	8	6	30	46	4:1	32
24	28	20	.064	16	8	6	34	50	4:1	40
30	35	24	.079	14	12	9	41	65	4:1	56
36	42	29	.109	12	12	9	48	72	4:1	76
42	49	33	.109	12	16	12	55	87	4:1	92
48	57	38	.109	12	16	12	63	95	4:1	112
54	64	43	.109	12	16	12	70	102	4:1	132
60	71	47	.109	12	16	12	77	109	4:1	148
72	83	57	.109	12	16	12	89	121	4:1	188

**CIRCULAR C.M.P. SLOPED ENDS**

Pipe Dia. (Inch)	(Min.) Thick. Inch	Dimensions (Inches)			L Dimensions			
		Gage	A	H	W	Overall Width	Slope	Length (Inch)
15	.064	16	8	6	21	37	4:1	20
18	.064	16	8	6	24	40	4:1	32
21	.064	16	8	6	27	43	4:1	44
24	.064	16	8	6	30	46	4:1	56
30	.109	12	12	9	36	60	4:1	80
36	.109	12	12	9	42	66	4:1	104
42	.109	12	16	12	48	80	4:1	128
48	.109	12	16	12	54	86	4:1	152
54	.109	12	16	12	60	92	4:1	176
60	.109	12	16	12	66	98	4:1	200

**GENERAL NOTES:**

Safety bars will be provided when specified in the plans.

Sloped ends will be fabricated from galvanized steel and will conform to the requirements of the Specifications.

Safety bars will be fabricated from steel schedule 40 pipe in conformance with ASTM A53, grade B or HSS 3.5x.216 in conformance with ASTM A500, grade B or C.

Slotted holes for safety bar attachment will be provided for all end sections.

Attachment to circular pipes 15" through 24" diameter will be made with Type #1 straps. All other sizes will be attached with Type #2 rods and lugs.

When stated in the plans, optional toe plate extension will be punched and bolted to end section apron lip with  $\frac{3}{8}$ " diameter galvanized bolts. Steel for toe plate extension will be same gauge as end section. Dimensions will be overall width less 6" by 8" high.

Installation will be performed in accordance with the Specifications.

Cost of all work and materials required for fabrication and installation of sloped ends will be incidental to the bid items for the various sizes of sloped ends.

Published Date: 2026

**SD DOT**

**C.M.P. SLOPED ENDS**

PLATE NUMBER 450.37

Sheet 1 of 2

April 8, 2025

Published Date: 2026

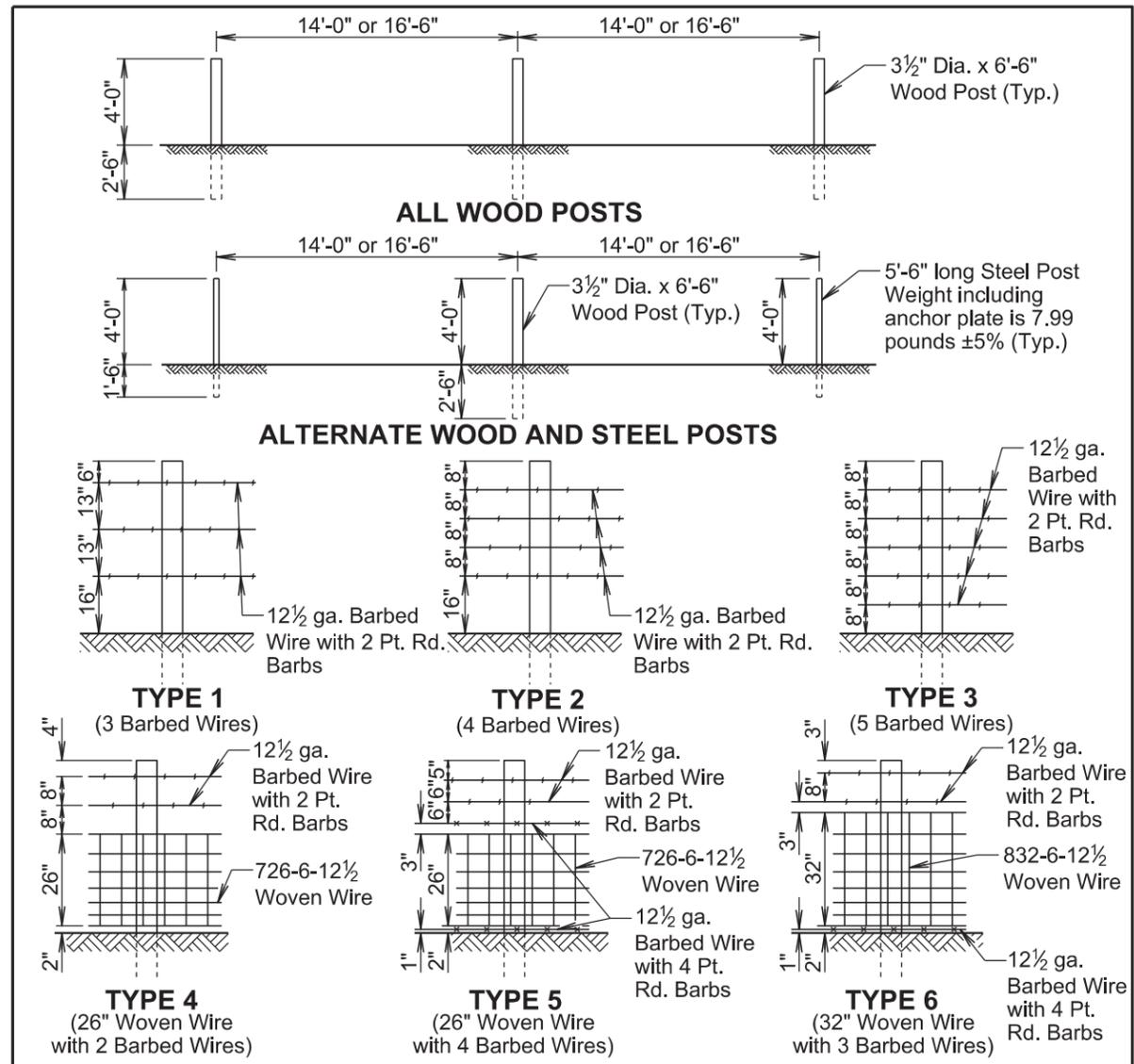
**SD DOT**

**C.M.P. SLOPED ENDS**

PLATE NUMBER 450.37

Sheet 2 of 2

April 8, 2025



TYPE OF FENCE		LINE POST SPACING	BARBED WIRE		WOVEN WIRE
			WIRE GAGE	NUMBER AND SHAPE OF BARBS	STYLE OR DESIGN NO.
TYPE	DESCRIPTION				
1	3 Barbed Wires	16'-6"	12½	2 Point Round	—
2	4 Barbed Wires	16'-6"	12½	2 Point Round	—
3	5 Barbed Wires	16'-6"	12½	2 Point Round	—
4	26" Woven Wire with 2 Barbed Wires	14'-0"	12½	2 Point Round	726-6-12½
5	26" Woven Wire with 4 Barbed Wires	14'-0"	12½	2 wires with 2 Pt. Rd. 2 wires with 4 Pt. Rd.	726-6-12½
6	32" Woven Wire with 3 Barbed Wires	14'-0"	12½	2 wires with 2 Pt. Rd. 1 wire with 4 Pt. Rd.	832-6-12½

**GENERAL NOTES:**

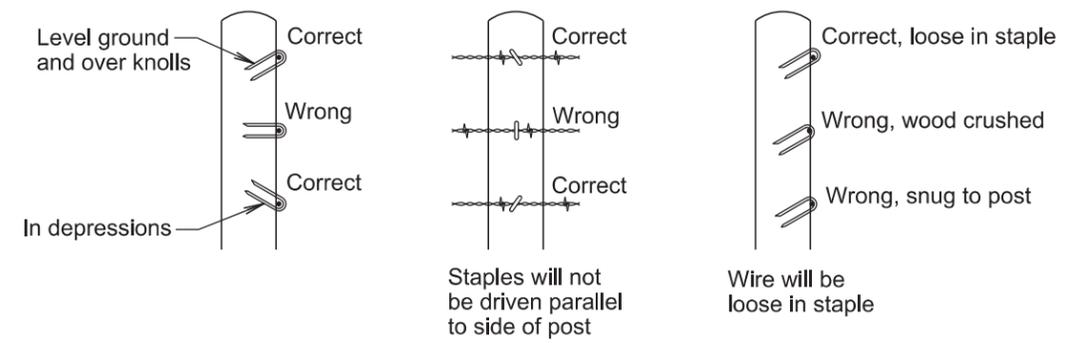
Fence types designated on the plans that are followed by the letter S will have smooth (barbless) wires.

When type 5S or 6S is designated the bottom wire may be barbed, smooth, or left off.

All radius of curvature stated for fence are at centerline of roadway.

April 8, 2025

<b>Published Date: 2026</b>	<b>SDDOT</b>	<b>RIGHT-OF-WAY FENCE</b>	PLATE NUMBER <b>620.01</b>  Sheet 1 of 1
-----------------------------	--------------	---------------------------	---



### STAPLE INSTALLATION

**GENERAL NOTES:**

The Right-of-Way fence will consist of barbed wire or a combination of woven wire and barbed wire. The barbed wire and/or woven wire will be fastened to all wood posts or fastened to alternating wood and steel posts. Only wood posts will be used for brace panels. Gates will be of the type designated in the plans or as otherwise directed by the Engineer. Fence will be constructed conforming to the details on the standard plates and in the plans unless otherwise directed by the Engineer.

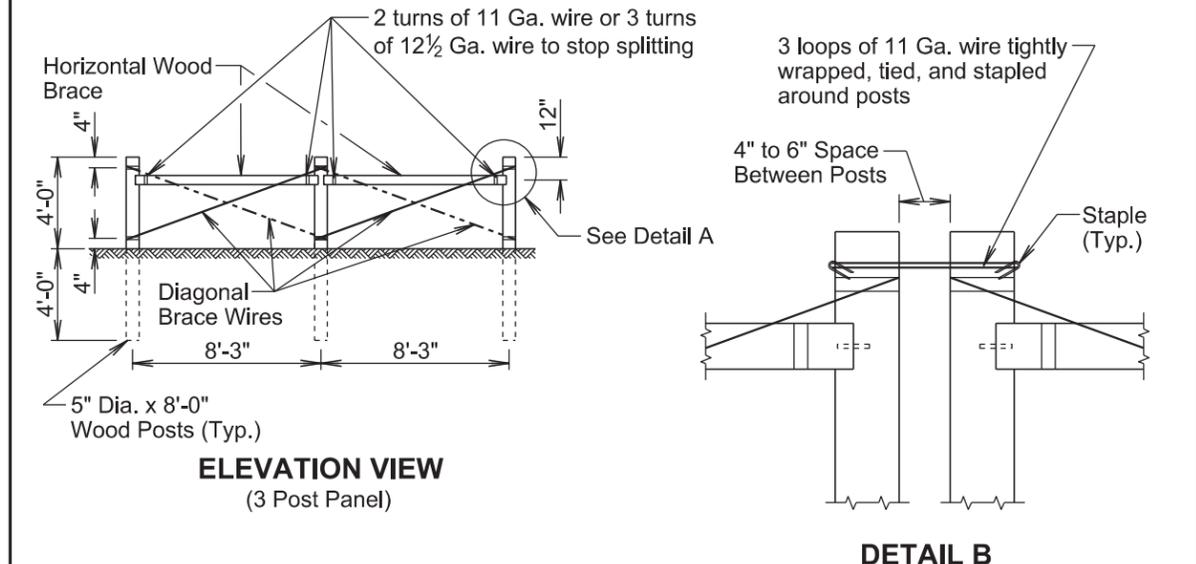
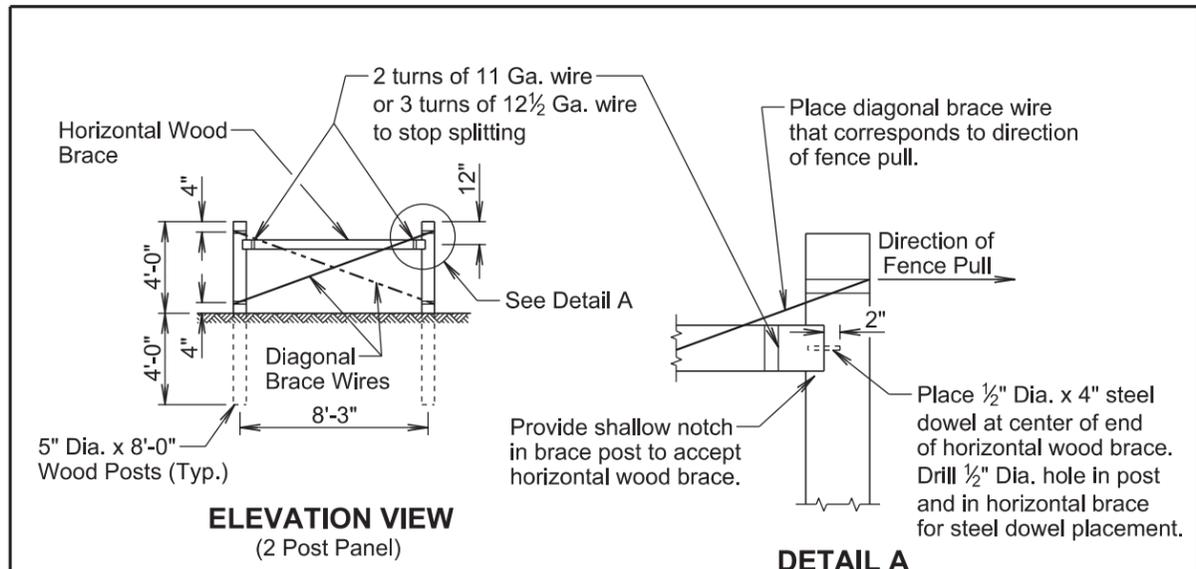
Right-of-Way fence on Interstate Projects will be constructed one foot within the Interstate Right-of-Way lines except at bridge openings, cattle passes, and as otherwise directed by the Engineer.

Right-of-Way fence other than on Interstate Projects will be constructed within one foot of the Right-of-Way on the Landowner's side except at bridge openings, cattle passes, and as otherwise directed by the Engineer.

Barbs will be fabricated from zinc coated 14 ga. wire. Two point barbs will be wrapped twice around one main strand at four-inch spacings and the four point barbs will be interlocked and wrapped around both main strands at five-inch spacings.

The gages of wire and wood post lengths and sizes are the minimum acceptable unless otherwise specified in the plans. The tolerances for steel posts will be as stated in AASHTO M281. Woven wire will conform to design and specifications of ASTM A116 and barbed wire will conform to ASTM A121.

<b>Published Date: 2026</b>	<b>SDDOT</b>	<b>STAPLE INSTALLATION AND GENERAL RIGHT-OF-WAY FENCE NOTES</b>	PLATE NUMBER <b>620.02</b>  Sheet 1 of 1
-----------------------------	--------------	---	---



**GENERAL NOTES:**

Two Post Panels will be installed at least every 1320' between corners.

Two Post Panels will be installed at any sharp vertical angle crest points and as directed by the Engineer.

Horizontal wood braces will consist of 4" dia. x 8' wood posts or rough 4" x 4" x 8' timbers.

Diagonal brace wires will be fabricated with 4 strands of 9 Ga. galvanized wire twisted tight. The diagonal brace wires will be installed in accordance with the direction of the fence pull. Two diagonal brace wires are required if fence pull is in both directions.

March 31, 2024

<b>SD DOT</b>	<b>BRACE PANELS AND APPLICATIONS OF BRACE PANELS</b>	PLATE NUMBER <b>620.03</b>
		Sheet 1 of 3

*Published Date: 2026*

SPACING OF 2 POST PANELS WITHIN CURVES	SPACING OF 2 POST PANEL
Greater than 1800 Ft.	** 1320'
Less than 1800 Ft.	** At P.C., P.T., and at every 1320' between P.C. and P.T.

**GENERAL NOTE:**

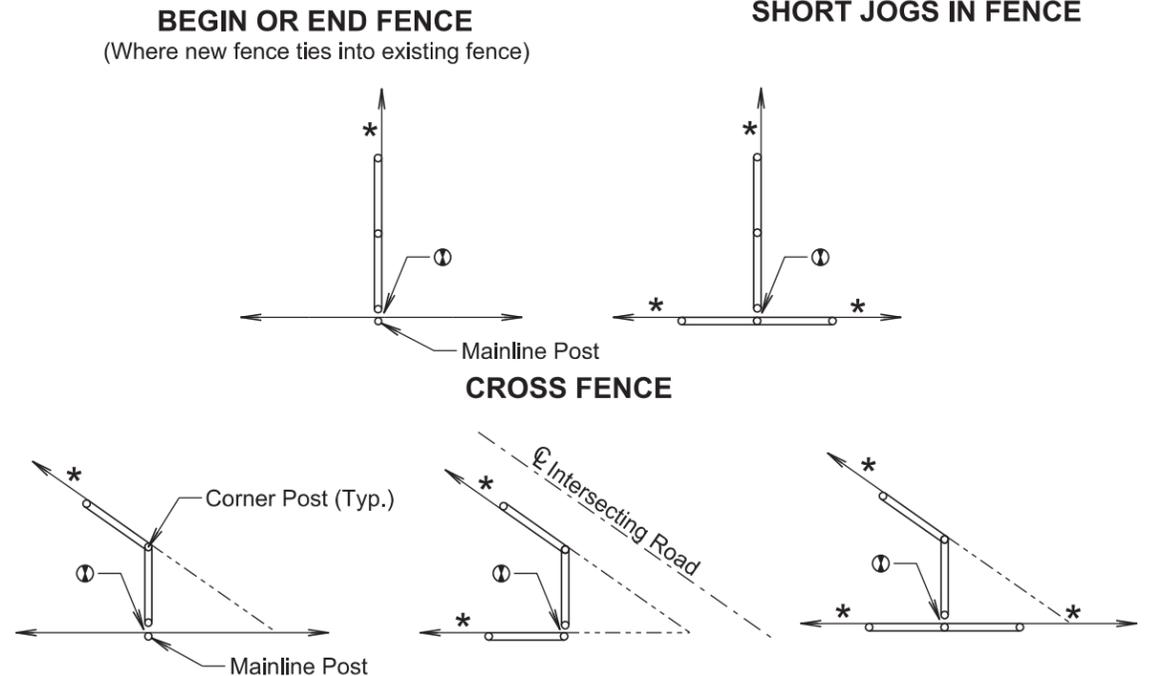
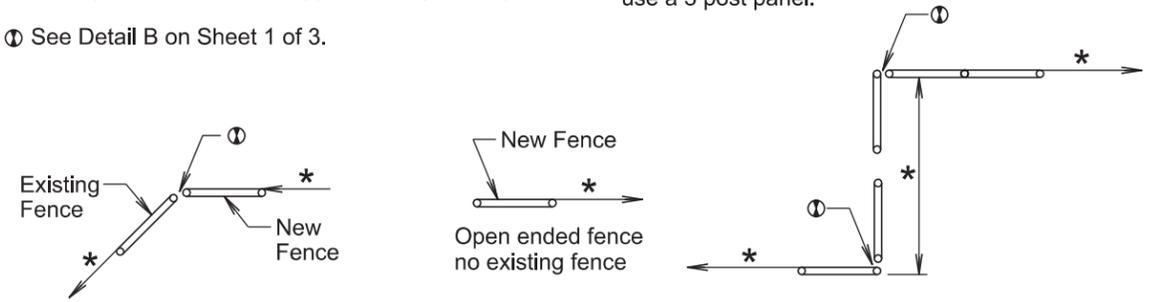
All radius of curvature stated for fence are at centerline of roadway.

If fence length is less than 600' to next corner use a 2 post panel.

If fence length is greater than 600' to next corner use a 3 post panel.

\*\* Fence lengths greater than 1320' and less than 2640' place 2 Post Panel approximately at midpoint.

① See Detail B on Sheet 1 of 3.



Additional fence panel is NOT required when an angle in the mainline fence is 10° and less.

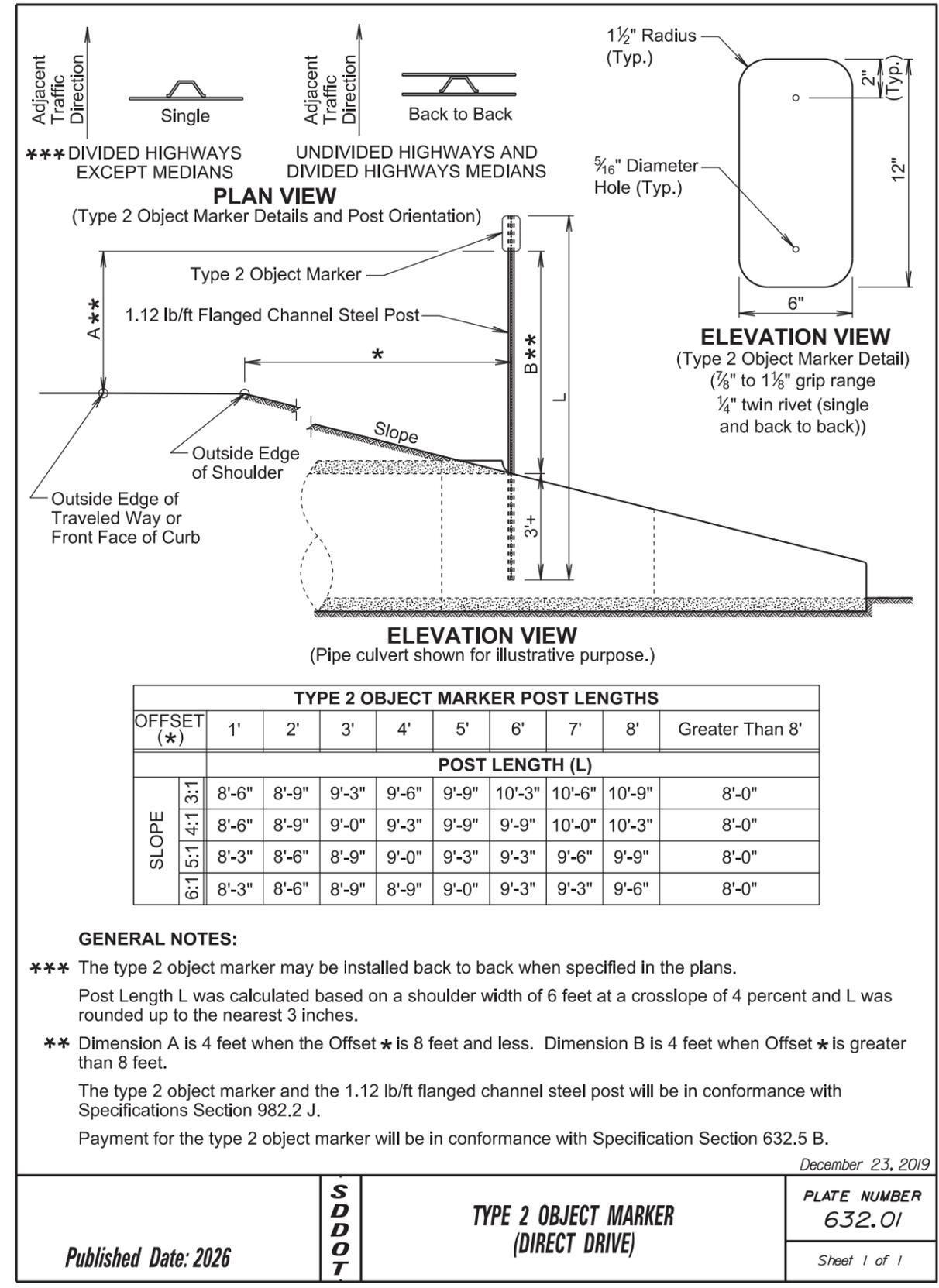
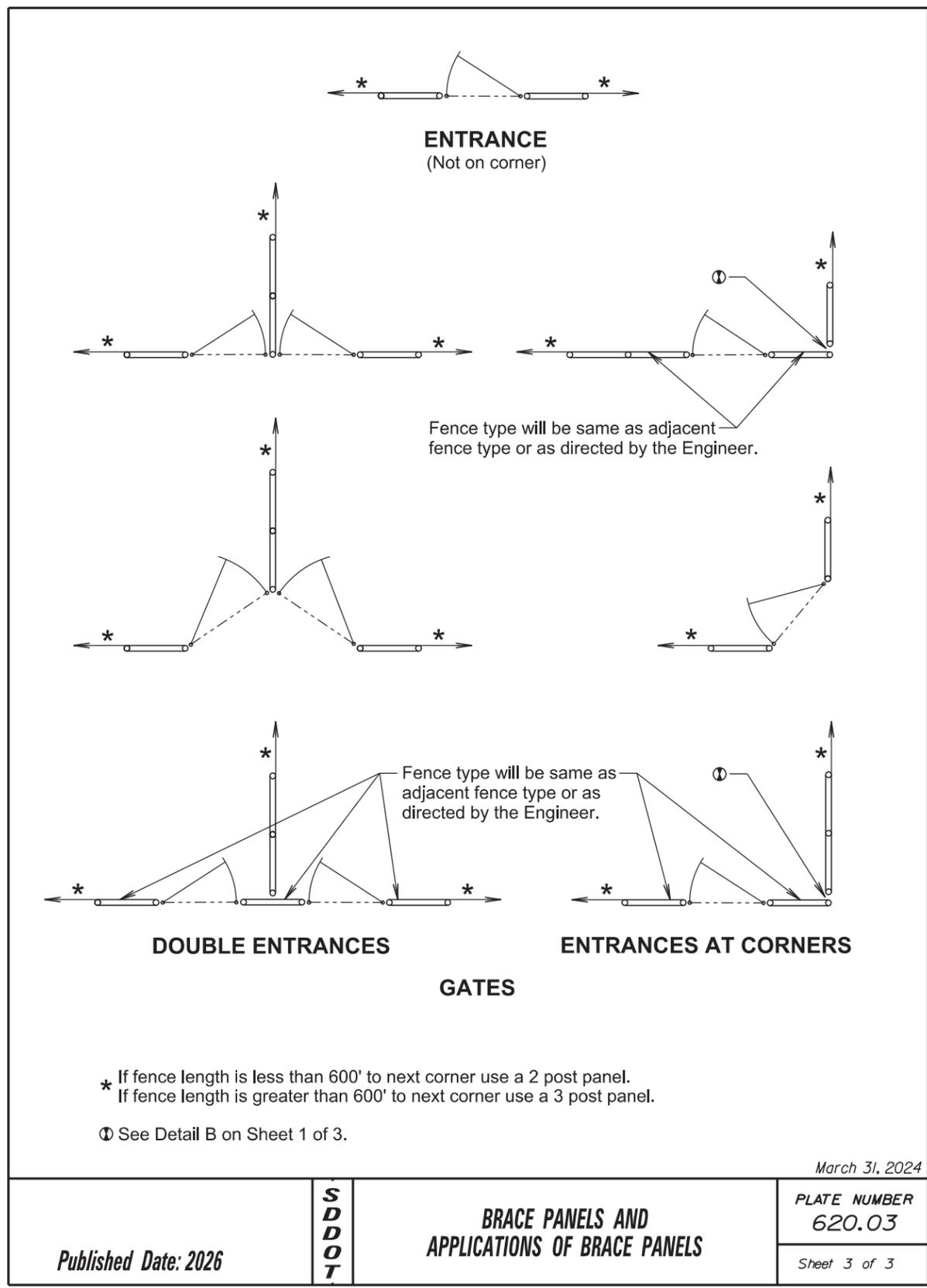
Additional fence panel is required when an angle in the mainline fence is greater than 10°.

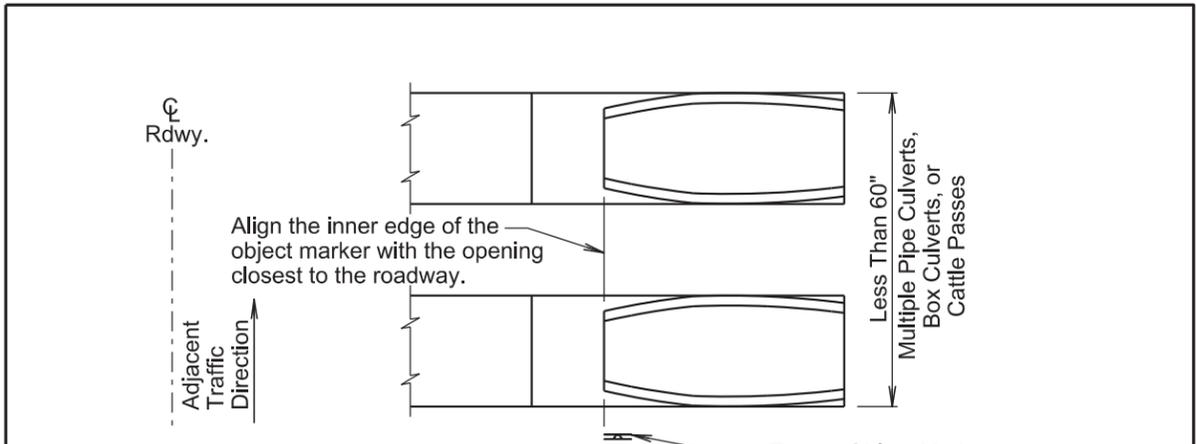
**ANGLES IN MAINLINE FENCE**

March 31, 2024

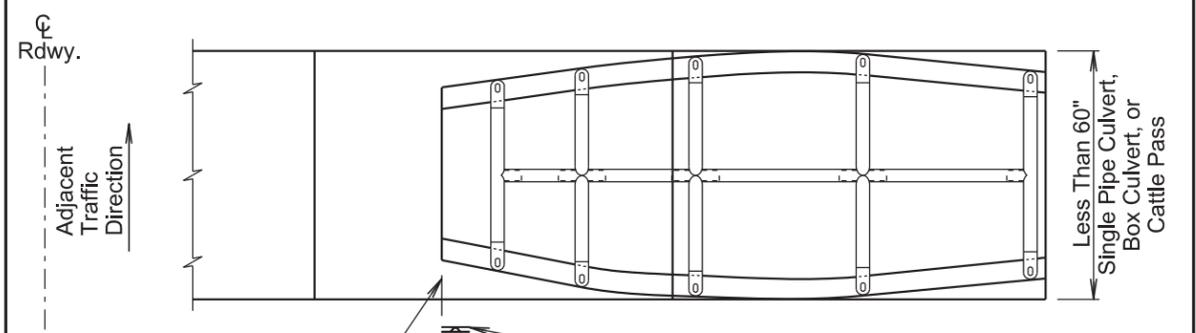
<b>SD DOT</b>	<b>BRACE PANELS AND APPLICATIONS OF BRACE PANELS</b>	PLATE NUMBER <b>620.03</b>
		Sheet 2 of 3

*Published Date: 2026*





**PLAN VIEW**  
 (For Multiple Pipe Culverts, Box Culverts, and Cattle Passes)  
 (Pipe culverts shown for illustrative purpose.)  
 (Embankment is not shown.)



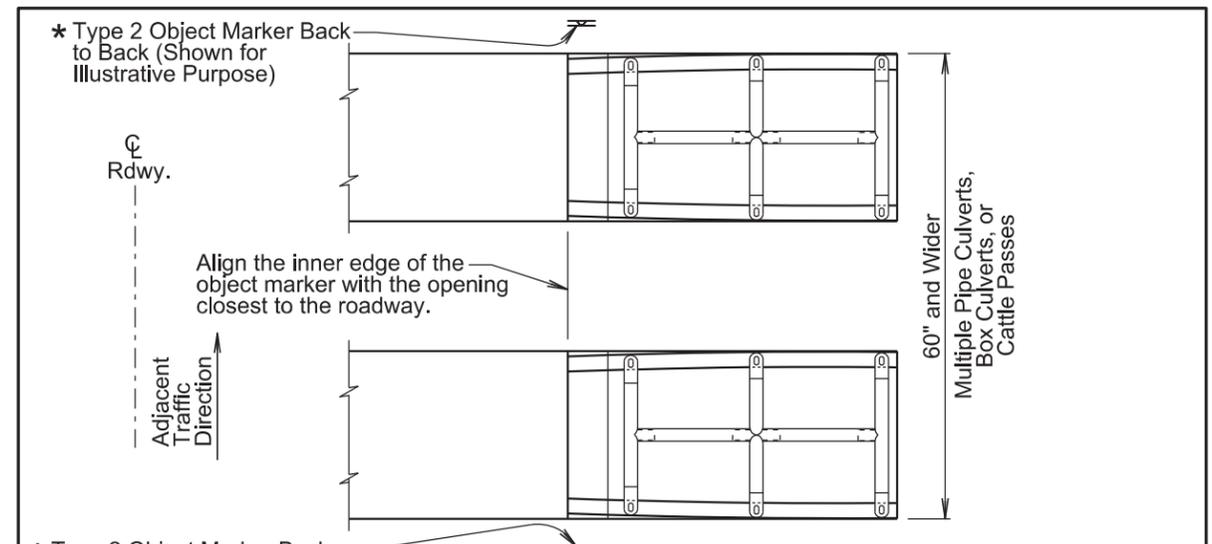
**PLAN VIEW**  
 (For Single Pipe Culvert, Box Culvert, and Cattle Pass)  
 (Pipe culvert shown for illustrative purpose.)  
 (Embankment is not shown.)

**GENERAL NOTES:**

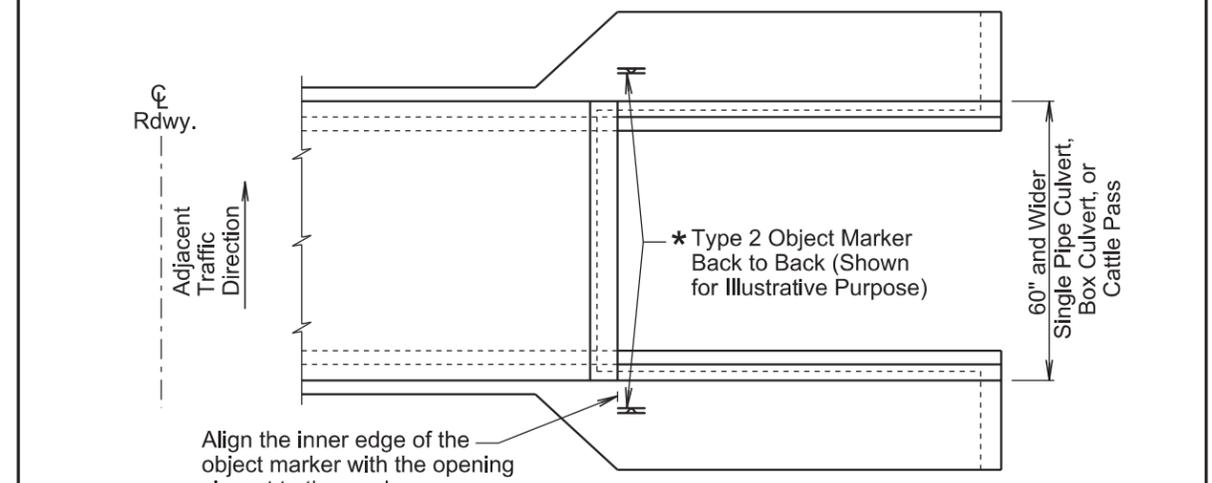
This standard plate will be used in conjunction with standard plate 632.01.  
 \* The type 2 object markers will be installed at the locations shown above. The type 2 object markers, single faced or back to back, will be as specified in the plans.

December 23, 2019

<b>SD DOT</b>	<b>TYPE 2 OBJECT MARKER AT PIPE CULVERTS, BOX CULVERTS, AND CATTLE PASSES (Less than 60" Overall Width)</b>	PLATE NUMBER <b>632.03</b>
	<i>Published Date: 2026</i>	Sheet 1 of 1



**PLAN VIEW**  
 (For Multiple Pipe Culverts, Box Culverts, and Cattle Passes)  
 (Pipe culverts shown for illustrative purpose.)  
 (Embankment is not shown.)



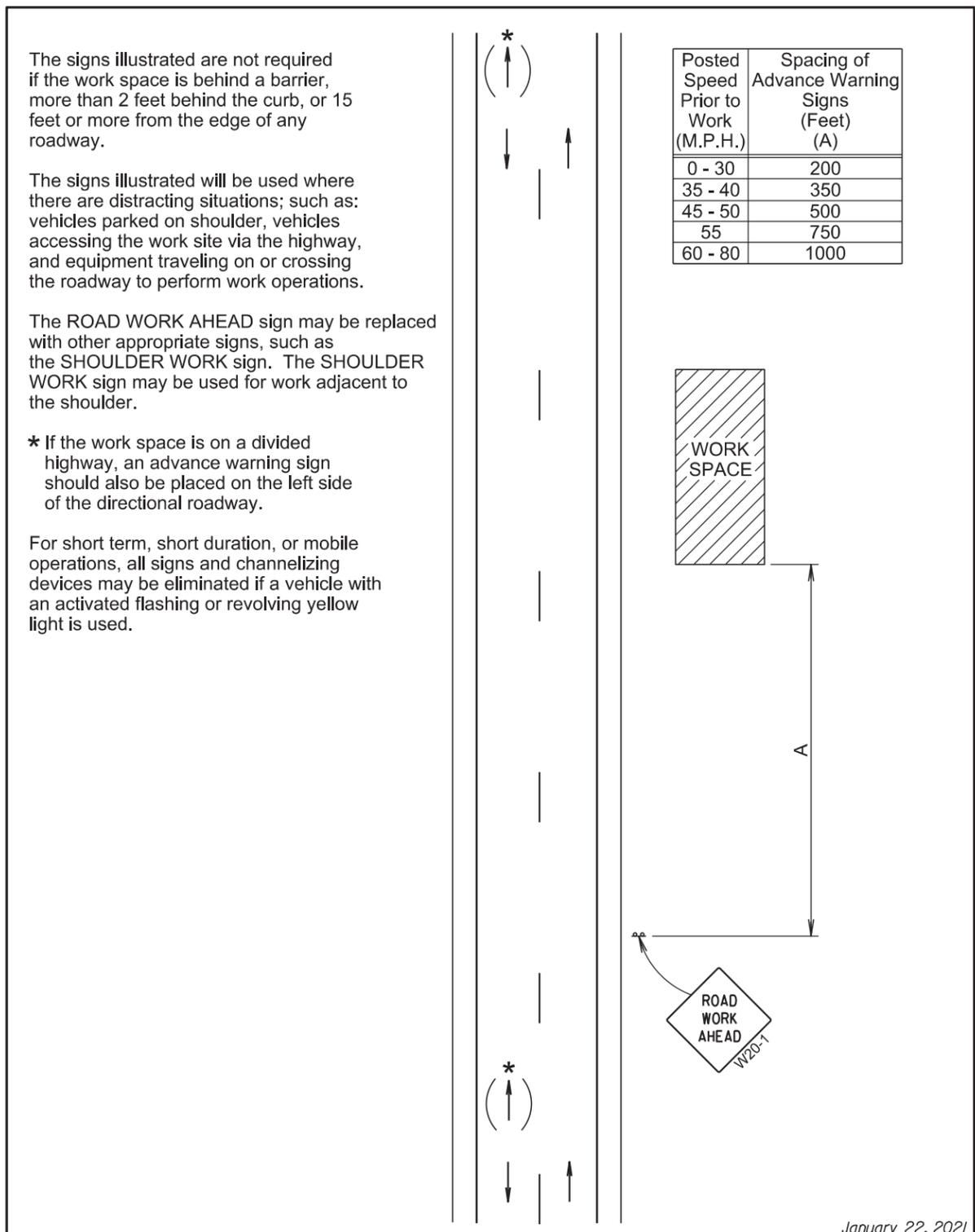
**PLAN VIEW**  
 (For Single Pipe Culvert, Box Culvert, and Cattle Pass)  
 (Box culvert shown for illustrative purpose.)  
 (Embankment is not shown.)

**GENERAL NOTES:**

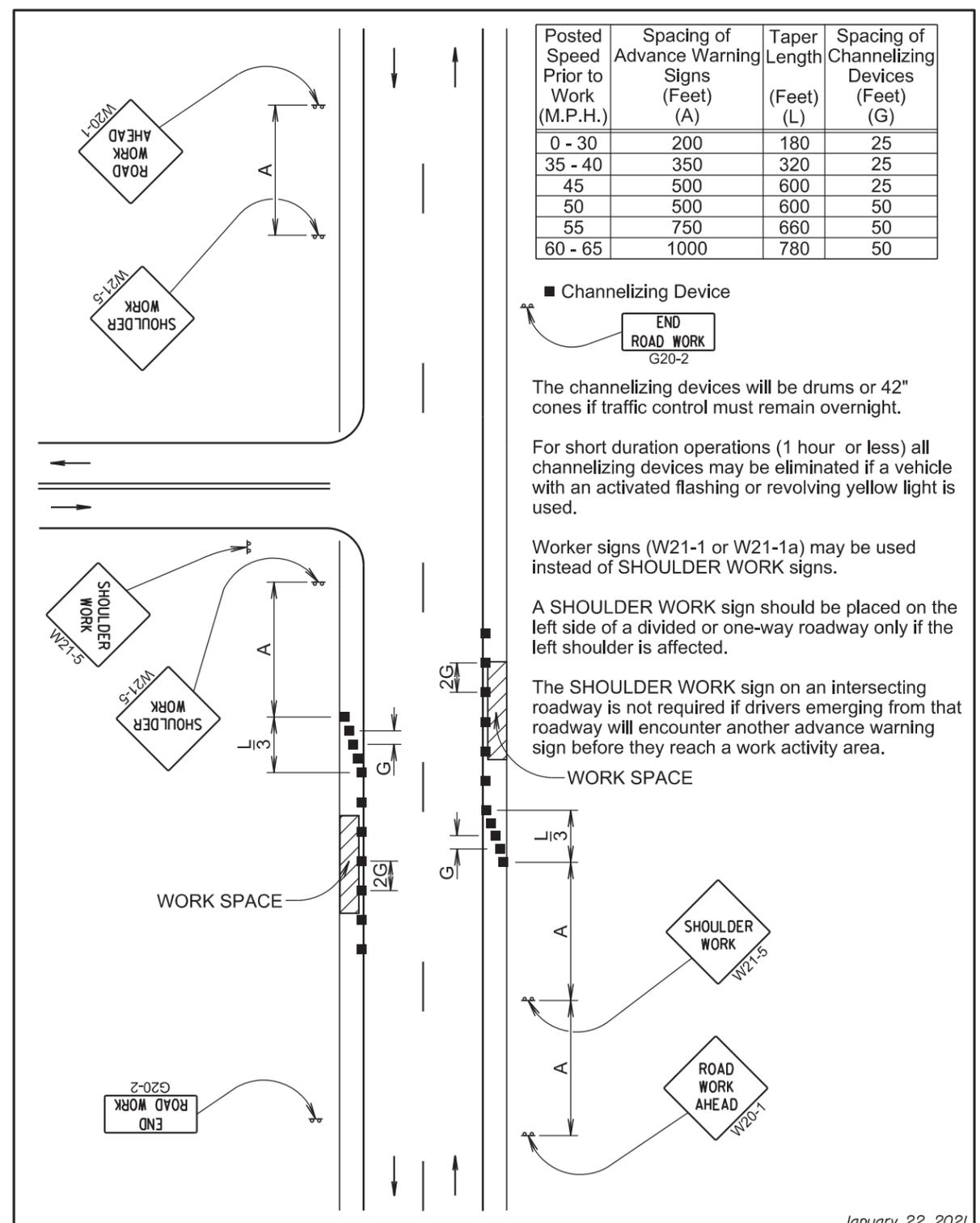
This standard plate will be used in conjunction with standard plate 632.01.  
 \* The type 2 object markers will be installed at the locations shown above. The type 2 object markers, single faced or back to back, will be as specified in the plans.

December 23, 2019

<b>SD DOT</b>	<b>TYPE 2 OBJECT MARKER AT PIPE CULVERTS, BOX CULVERTS, AND CATTLE PASSES (60" and Greater Overall Width)</b>	PLATE NUMBER <b>632.04</b>
	<i>Published Date: 2026</i>	Sheet 1 of 1



<b>S D D O T</b>	<b>WORK BEYOND THE SHOULDER</b>	PLATE NUMBER <b>634.01</b> <hr/> Sheet 1 of 1
Published Date: 2026		



<b>S D D O T</b>	<b>WORK ON SHOULDERS</b>	PLATE NUMBER <b>634.03</b> <hr/> Sheet 1 of 1
Published Date: 2026		

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	25
35 - 40	350	25
45	500	25
50	500	50
55	750	50
60 - 65	1000	50

- Flagger
- Channelizing Device

For low-volume traffic situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger may be used.

The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) will be displayed in advance of the liquid asphalt areas.

Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

The channelizing devices will be drums or 42" cones.

Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.

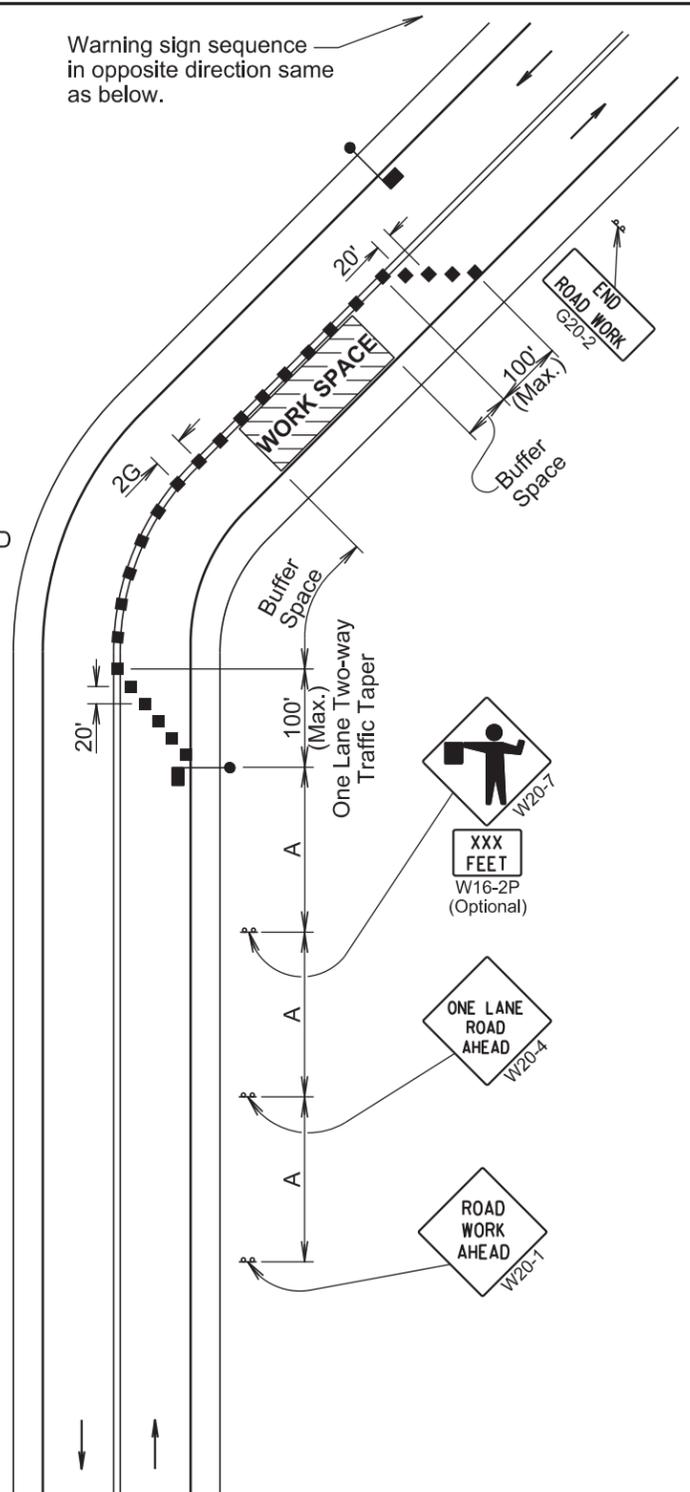
END ROAD WORK  
G20-2

Channelizing devices and flaggers will be used at intersecting roads to control intersecting road traffic as required.

The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

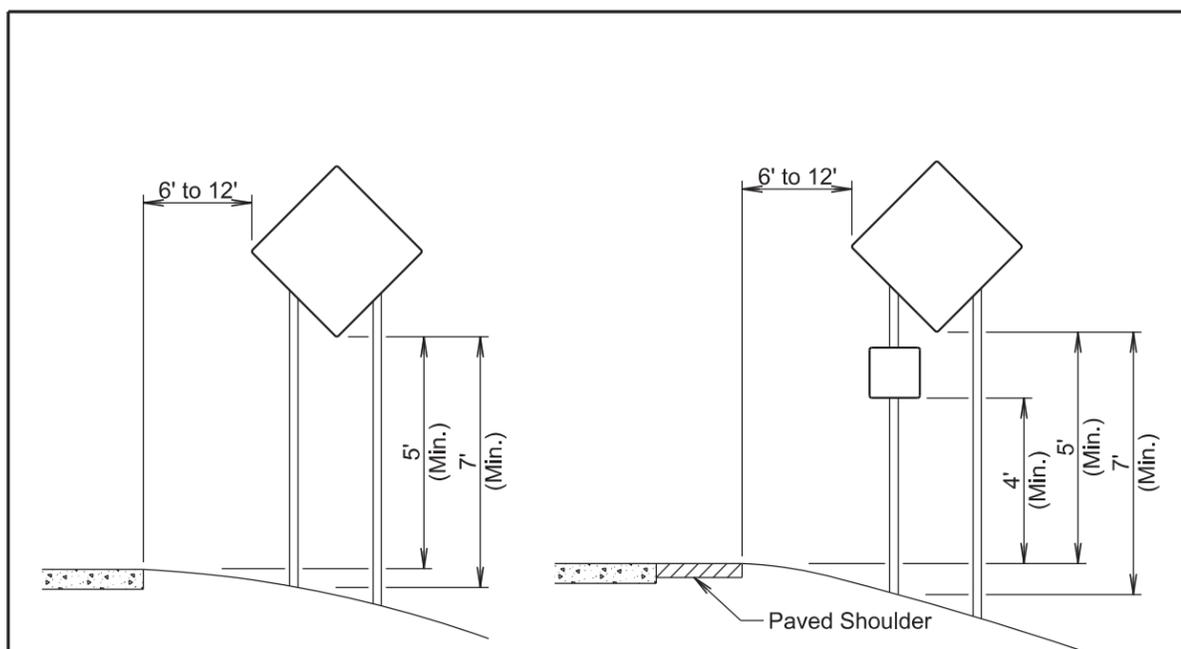
The length of A may be adjusted to fit field conditions.

Warning sign sequence in opposite direction same as below.



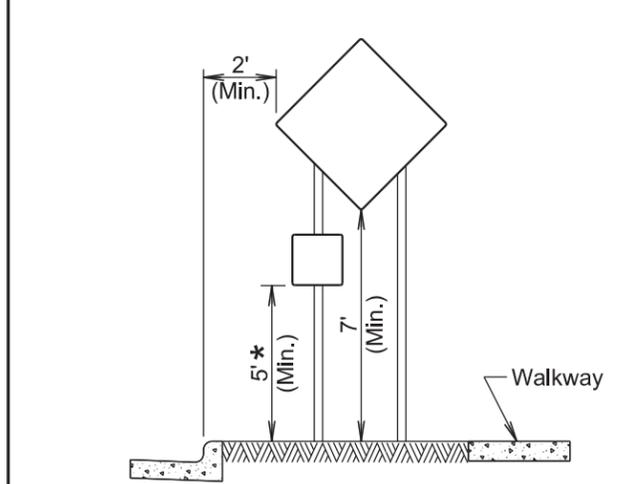
January 22, 2021

<b>SD DOT</b>	<b>LANE CLOSURE WITH FLAGGER PROVIDED</b>	PLATE NUMBER <b>634.23</b>
	<i>Published Date: 2026</i>	Sheet 1 of 1

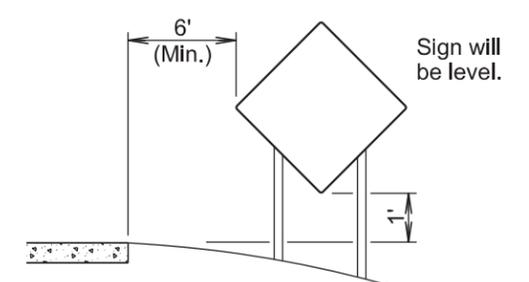


**RURAL DISTRICT**

**RURAL DISTRICT WITH SUPPLEMENTAL PLATE**



**URBAN DISTRICT**

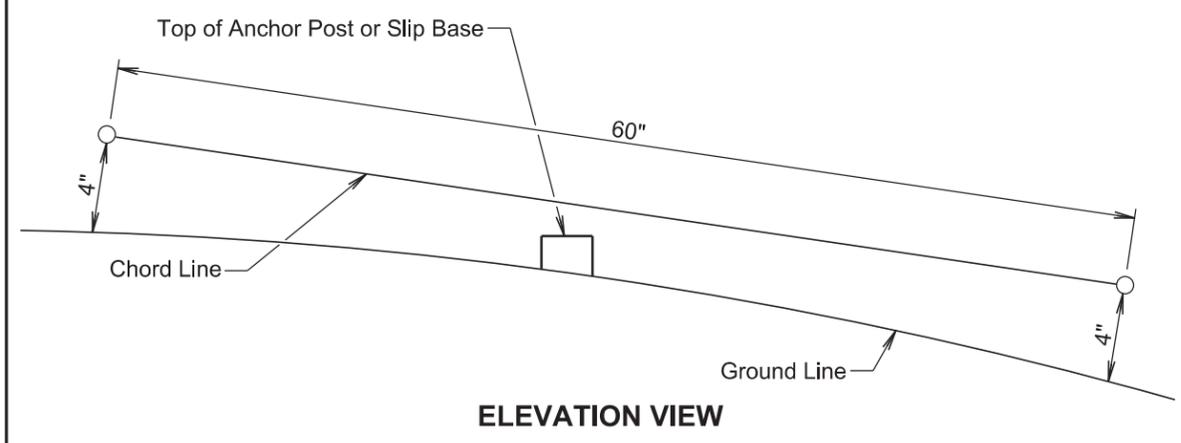
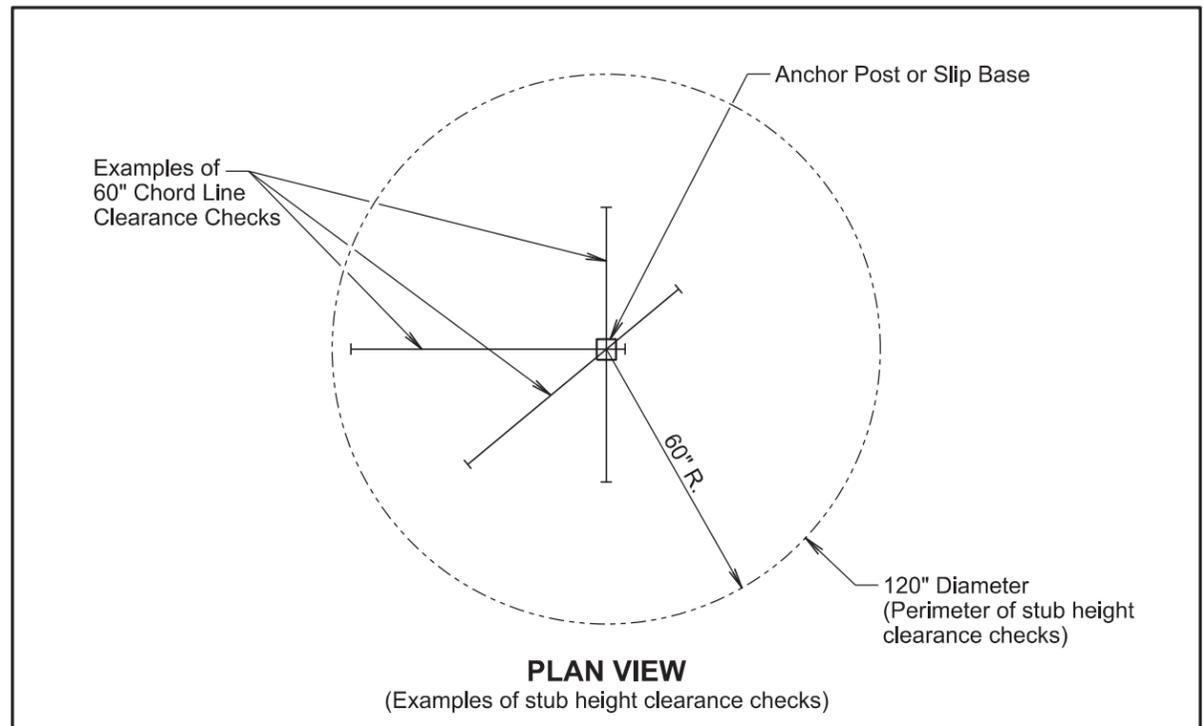


**RURAL DISTRICT 3 DAY MAXIMUM**  
(Not applicable to regulatory signs)

\* 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.

January 22, 2021

<b>SD DOT</b>	<b>CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)</b>	PLATE NUMBER <b>634.85</b>
	<i>Published Date: 2026</i>	Sheet 1 of 1



**GENERAL NOTES:**

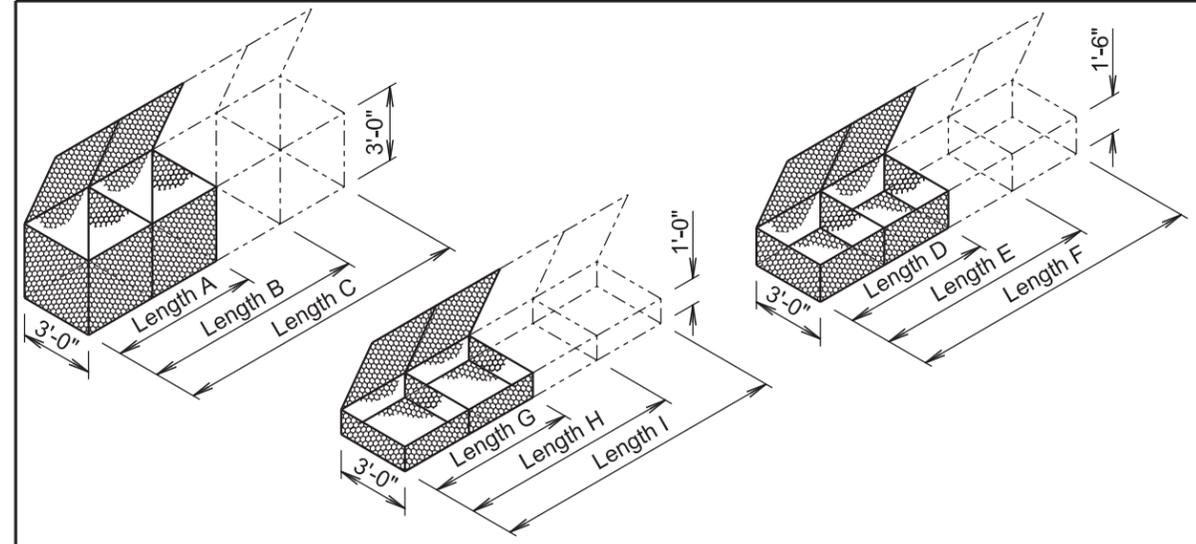
The top of anchor posts and slip bases WILL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height will be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

January 22, 2021

<b>SD DOT</b>	<b>BREAKAWAY SUPPORT STUB CLEARANCE</b>	PLATE NUMBER <b>634.99</b>	Sheet 1 of 1
<i>Published Date: 2026</i>			



STANDARD SIZES					
SIZE	LENGTH	WIDTH	HEIGHT	NUMBER OF CELLS	CAPACITY (Cu. Yd.)
A	6'-0"	3'-0"	3'-0"	2	2.0
B	9'-0"	3'-0"	3'-0"	3	3.0
C	12'-0"	3'-0"	3'-0"	4	4.0
D	6'-0"	3'-0"	1'-6"	2	1.0
E	9'-0"	3'-0"	1'-6"	3	1.5
F	12'-0"	3'-0"	1'-6"	4	2.0
G	6'-0"	3'-0"	1'-0"	2	0.7
H	9'-0"	3'-0"	1'-0"	3	1.0
I	12'-0"	3'-0"	1'-0"	4	1.3

**GENERAL NOTES:**

Above dimensions subject to mill tolerances.

Lacing and internal connecting wire will be 0.0866 inch diameter steel wire ASTM A641, Class 3 soft temper measured after galvanizing and for PVC coated gabions will be 0.0866 inch diameter steel wire measured after galvanizing but before PVC coating.

The lacing procedure is as follows:

1. Cut a length of lacing wire approximately 1½ times the distance to be laced but not exceeding 5 feet.
2. Secure the wire terminal at the corner by looping and twisting.
3. Proceed lacing with alternating single and double loops at a spacing not to exceed 6 inches.
4. Securely fasten the other lacing wire terminal.

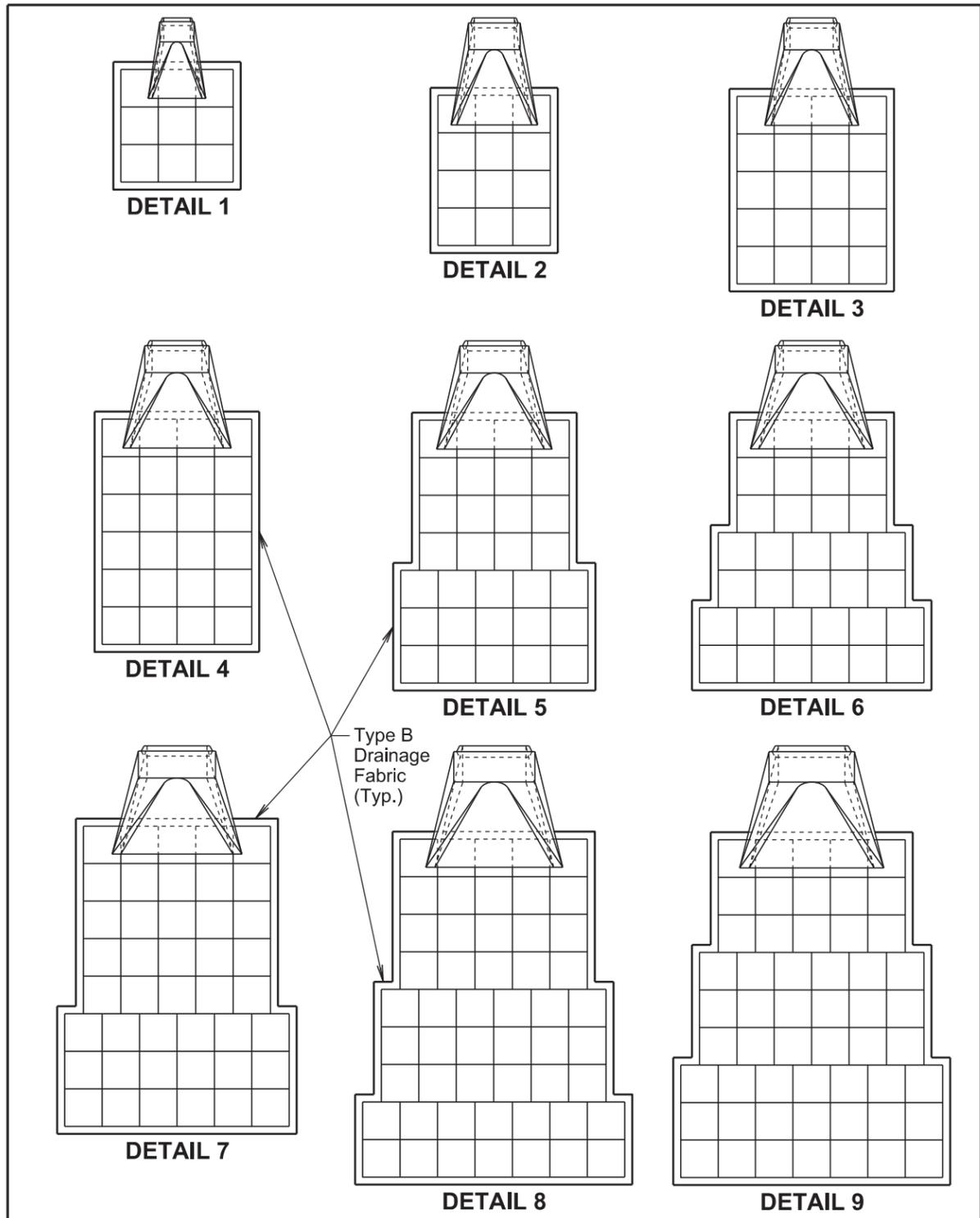
Wire lacing or interlocking type fasteners will be used for gabion assembly and final construction of gabion structures. Interlocking fasteners for galvanized gabions will be high tensile 0.120 inch diameter galvanized steel wire measured after galvanizing. The galvanizing will conform to ASTM A641-92, Class 3 coating. Fasteners will also be in accordance with ASTM A764, Class II, Type III.

Interlocking fasteners for PVC coated gabions will be high tensile 0.120 inch diameter stainless steel wire conforming to ASTM A313, Type 302, Class 1. The spacing of the interlocking fasteners during all phases of assembly and construction will not exceed 6 inches.

All fasteners will be placed where the mesh weaves around the selvage wire at the vertical and horizontal joints.

February 14, 2020

<b>SD DOT</b>	<b>BANK AND CHANNEL PROTECTION GABIONS</b>	PLATE NUMBER <b>720.01</b>	Sheet 1 of 1
<i>Published Date: 2026</i>			



February 14, 2020

<b>S D D O T</b>	<b>BANK AND CHANNEL PROTECTION GABION PLACEMENT UNDER PIPE END SECTIONS</b>	PLATE NUMBER <b>720.03</b>
		Sheet 1 of 2

Published Date: 2026

* ESTIMATED QUANTITIES			
Detail	Pipe Diameter (Inches)	Gabion (Cu. Yd.)	Type B Drainage Fabric (Sq. Yd.)
1	12, 18, and 24	4.5	15
2	30 and 36	6.0	19
3	42	10.0	29
4	48 and 54	12.0	34
5	60	15.5	43
6	66	17.0	47
7	72	21.5	57
8	78	26.0	68
9	84	27.0	70

**GENERAL NOTES:**

Gabions at outlets of CMP and RCP will be placed under the end section a distance of 2 feet from the outlet end. For CMP end section installations, the upper fabric of the gabions will be modified to accommodate the metal end section as approved by the Engineer.

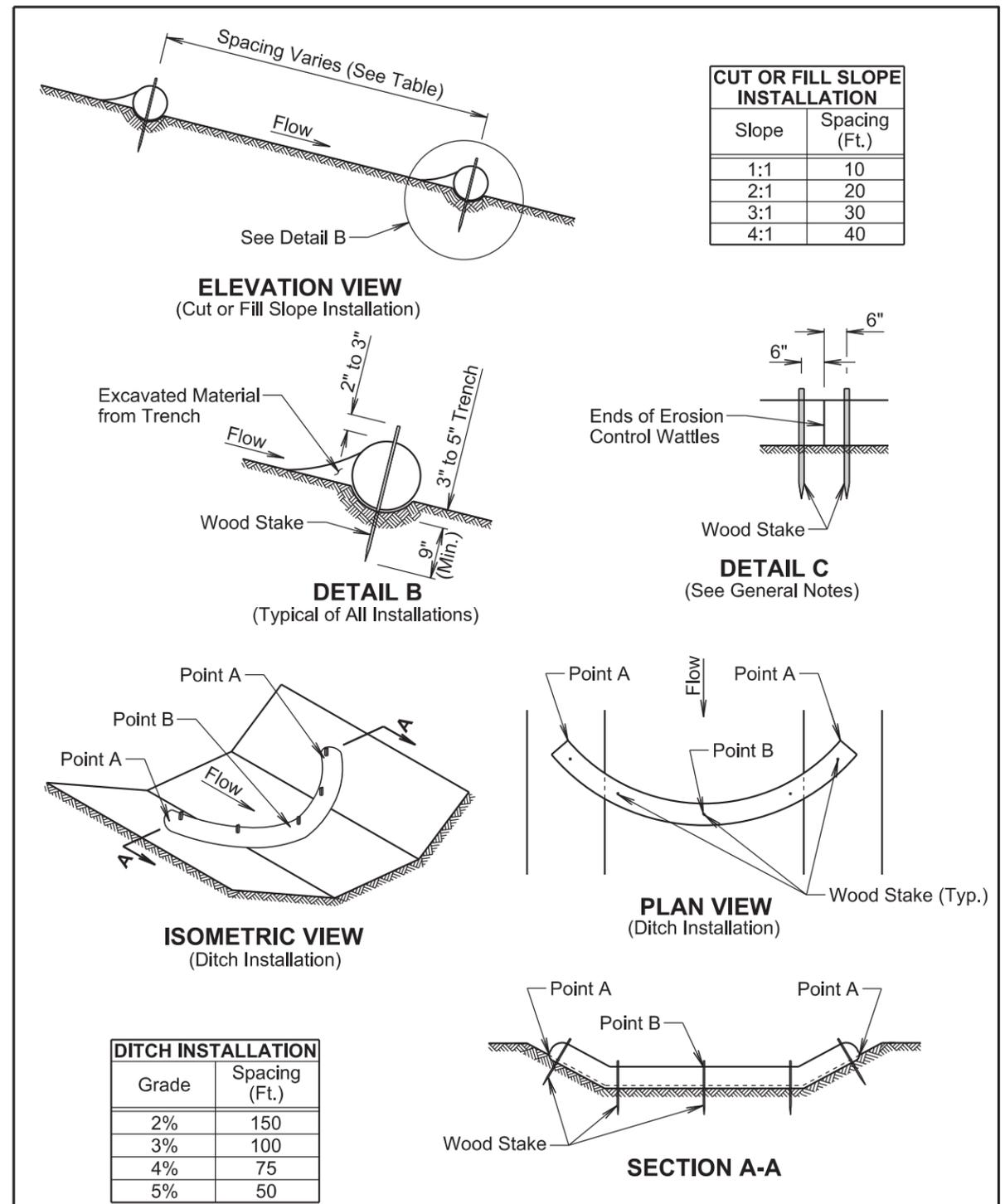
\* Gabion and type B drainage fabric quantities on this standard plate are based on standard gabion sizes D, E, and F as depicted on standard plate 720.01.

Type B drainage fabric will be placed under the gabions and around the exterior sides (perimeter) of the gabions as approved by the Engineer. The type B drainage fabric will be in conformance with Section 831 of the Specifications. Measurement and payment of the type B drainage fabric will be in conformance with Section 720 of the Specifications.

February 14, 2020

<b>S D D O T</b>	<b>BANK AND CHANNEL PROTECTION GABION PLACEMENT UNDER PIPE END SECTIONS</b>	PLATE NUMBER <b>720.03</b>
		Sheet 2 of 2

Published Date: 2026



**GENERAL NOTES:**

At cut or fill slope installations, wattles will be installed along the contour and perpendicular to the water flow.

At ditch installations, point A must be higher than point B to ensure that water flows over the wattle and not around the ends.

The Contractor will dig a 3" to 5" trench, install the wattle tightly in the trench so that daylight can not be seen under the wattle, and then compact the soil excavated from the trench against the wattle on the uphill side. See Detail B.

The stakes will be 1"x2" or 2"x2" wood stakes, however, other types of stakes such as rebar may be used only if approved by the Engineer. The stakes will be placed 6" from the ends of the wattles and the spacing of the stakes along the wattles will be 3' to 4'.

Where installing running lengths of wattles, the Contractor will butt the second wattle tightly against the first and will not overlap the ends. See Detail C.

The Contractor and Engineer will inspect the erosion control wattles in accordance with the storm water permit. The Contractor will remove, dispose, or reshape the accumulated sediment when necessary as determined by the Engineer.

Sediment removal, disposal, or necessary shaping will be as directed by the Engineer. All costs for removing accumulated sediment, disposal of sediment, and necessary shaping will be incidental to the contract unit price per cubic yard for "Remove Sediment".

All costs for furnishing and installing the erosion control wattles including labor, equipment, and materials will be incidental to the contract unit price per foot for the corresponding erosion control wattle contract item.

All costs for removing the erosion control wattle from the project including labor, equipment, and materials will be incidental to the contract unit price per foot for "Remove Erosion Control Wattle".

February 14, 2020

<b>Published Date: 2026</b>	<b>SD DOT</b>	<b>EROSION CONTROL WATTLE</b>	PLATE NUMBER 734.06
			Sheet 1 of 2

February 14, 2020

<b>Published Date: 2026</b>	<b>SD DOT</b>	<b>EROSION CONTROL WATTLE</b>	PLATE NUMBER 734.06
			Sheet 2 of 2



PROJECT	SHEET	TOTAL SHEETS
NH-P 0031(57)	77	77

Plotting Date: 12/5/2025

