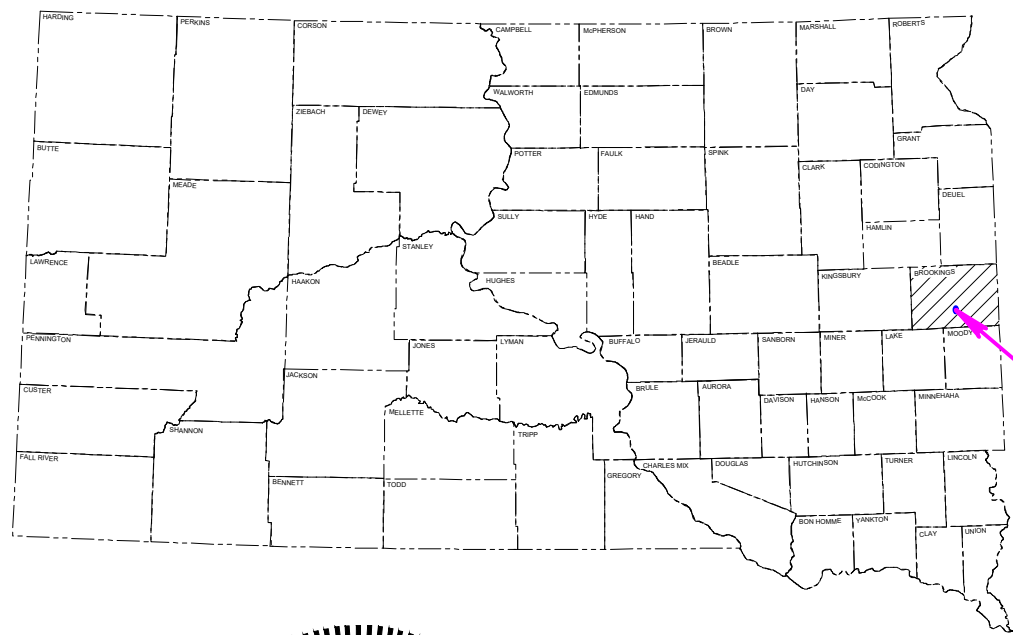


STATE OF SOUTH DAKOTA
 DEPARTMENT OF TRANSPORTATION
 PLANS FOR PROPOSED

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	1	91

PLOTTING DATE: 9/13/2024



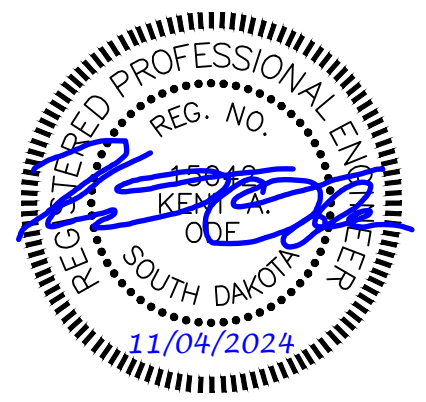
PROJECT

PROJECT P TAPU(40)
 CITY OF BROOKINGS - SHARED USE PATH
 BROOKINGS COUNTY

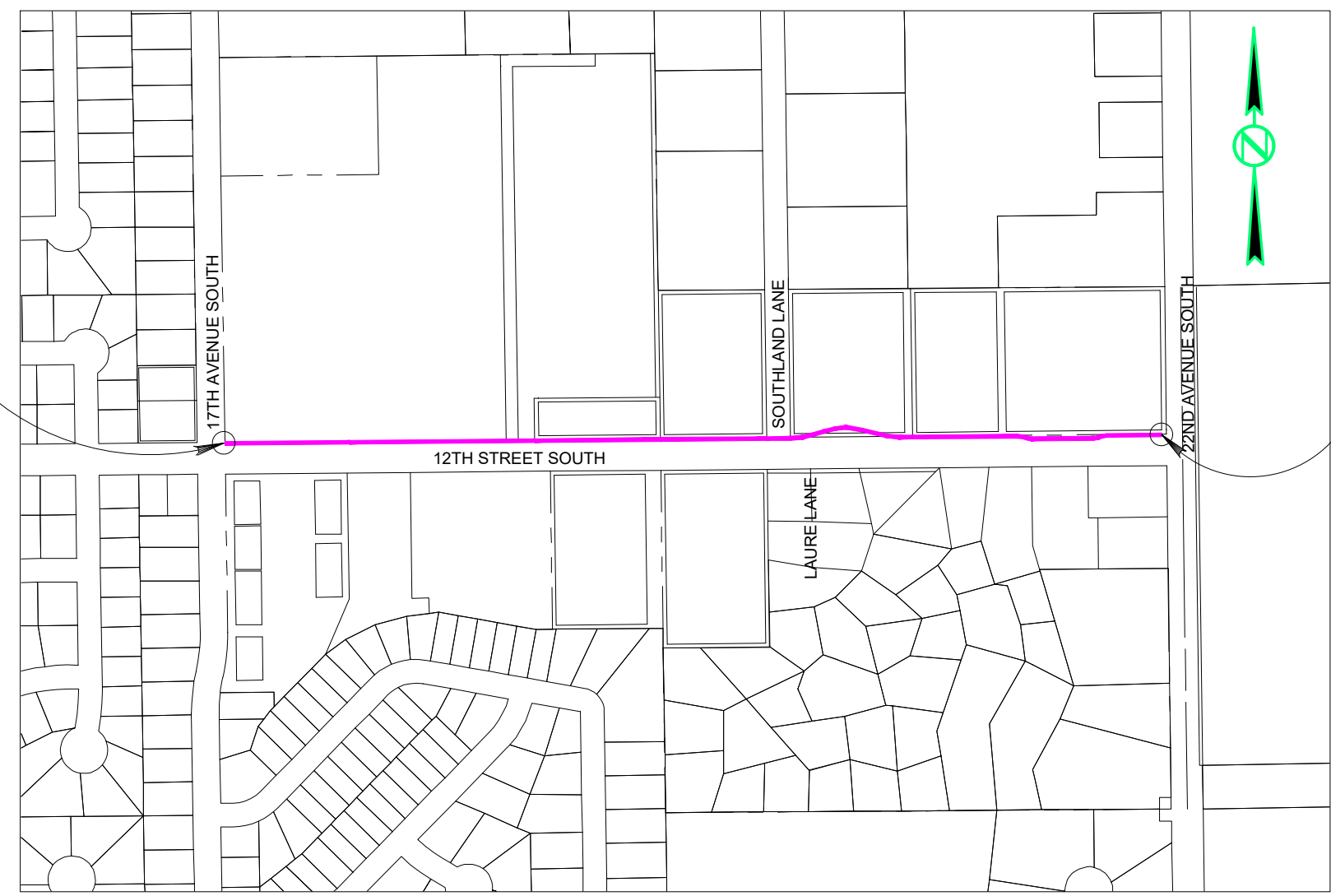
GRADING AND SURFACING
 PCN 09FX

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BEGIN P TAPU(40)
 12TH STREET SHARED USE PATH
 STATION 1+49



END P TAPU (40)
 12TH STREET SHARED USE PATH
 STATION 25+31



STORM WATER PERMIT
 Major Receiving
 Body of Water: Big Sioux River
 Area Disturbed: 1.13 ACRES
 Total Project Area: 1.18 ACRES
 Approx. Begin 44.2923, -96.7776

Gross Length	2382.00 Feet	0.45 Miles
Length of Exceptions	0.00 Feet	0.00 Miles
Net Length	2382.00 Feet	0.45 Miles



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Estimate of Quantities

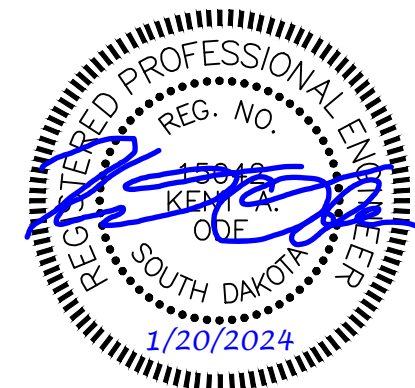
REV DATE: 1/20/2025
INITIAL: KAO

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3230	Grade Staking	0.451	Mile
009E3250	Miscellaneous Staking	0.451	Mile
009E3301	Engineer Directed Surveying/Staking	15.0	Hour
100E0020	Clear and Grub Tree	3	Each
110E0300	Remove Concrete Curb and/or Gutter	439	Ft
110E0400	Remove Drop Inlet	1	Each
110E0530	Remove Storm Sewer Pipe	14	Ft
110E1010	Remove Asphalt Concrete Pavement	31.6	SqYd
110E1100	Remove Concrete Pavement	97.1	SqYd
110E1130	Remove Concrete Driveway Pavement	120.0	SqYd
110E1140	Remove Concrete Sidewalk	1,244.7	SqYd
110E1700	Remove Silt Fence	395	Ft
110E7150	Remove Sign for Reset	5	Each
120E0010	Unclassified Excavation	932	CuYd
120E6200	Water for Granular Material	9.5	MGal
120E6300	Water for Vegetation	213.5	MGal
230E0010	Placing Topsoil	571	CuYd
260E1010	Base Course	129.3	Ton
260E2010	Gravel Cushion	657.2	Ton
260E3500	Temporary Gravel Surfacing	40.0	Ton
320E1200	Asphalt Concrete Composite	63.0	Ton
380E3020	6" PCC Driveway Pavement	102.1	SqYd
380E4010	6" PCC Fillet Section	92.7	SqYd
380E6110	Insert Steel Bar in PCC Pavement	121	Each
450E0122	18" RCP Class 2, Furnish	42	Ft
450E0130	18" RCP, Install	42	Ft
451E6080	Adjust Water Valve Box	1	Each
462E0100	Class M6 Concrete	11.6	CuYd
480E0100	Reinforcing Steel	1,842	Lb
632E1320	2.0"x2.0" Perforated Tube Post	23.0	Ft
632E3500	Reset Sign	5	Each
633E0010	Cold Applied Plastic Pavement Marking, 4"	80	Ft
633E0030	Cold Applied Plastic Pavement Marking, 24"	80	Ft
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	80	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	80	Ft
634E0110	Traffic Control Signs	102.5	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	10	Each
634E0380	Tubular Marker	41	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	80	Ft
634E1002	Detour and Restriction Signing	117.1	SqFt
635E5020	2' Diameter Footing	16.0	Ft

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
635E5302	Type 2 Electrical Junction Box	2	Each
635E5400	Electrical Service Cabinet	1	Each
635E5405	Electrical Service Cabinet with Secondary Disconnect	1	Each
635E5910	Pedestrian Push Button Pole	2	Each
635E5980	Rectangular Rapid Flashing Beacon System	1	Each
635E8050	5" Rigid Galvanized Steel Conduit	15	Ft
635E8120	2" Rigid Conduit, Schedule 40	200	Ft
635E8130	3" Rigid Conduit, Schedule 40	20	Ft
635E8230	3" Rigid Conduit, Schedule 80	60	Ft
635E9016	1/C #6 AWG Copper Wire	1,035	Ft
635E9022	1/C #12 AWG Copper Wire	45	Ft
635E9502	2/C #14 AWG Copper Tray Cable, K2	55	Ft
650E0059	Modified Type B66 Concrete Curb and Gutter	444	Ft
650E6260	6" Concrete Valley Gutter	20.1	SqYd
651E0040	4" Concrete Sidewalk	407	SqFt
651E0060	6" Concrete Sidewalk	18,354	SqFt
651E0160	6" Reinforced Concrete Sidewalk	40	SqFt
651E7000	Type 1 Detectable Warnings	148	SqFt
670E6005	Modify Drop Inlet	2	Each
671E6030	Type S Manhole Frame and Lid	3	Each
671E7020	Connect Into Existing Manhole	1	Each
730E0206	Type D Permanent Seed Mixture	224	Lb
731E0100	Fertilizing	735	Lb
732E0200	Fiber Mulching	1.1	Ton
734E0602	Low Flow Silt Fence	395	Ft
734E0847	Sediment Control at Type S Reinforced Concrete Drop Inlet	104	Ft
734E5010	Sweeping	15	Hour
900E1310	Concrete Washout Facility	1	Each
900E1320	Construction Entrance	1	Each

SPECIFICATIONS

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



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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 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.

The Contractor will not withdraw water directly from streams of the James, Big Sioux, and Vermillion watersheds without prior approval from the SDDOT Environmental Office.

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) >

COMMITMENT D: WATER QUALITY STANDARDS

COMMITMENT D1: SURFACE WATER QUALITY

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

Action Taken/Required:

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

COMMITMENT D2: SURFACE WATER DISCHARGE

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

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

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

Action Taken/Required:

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

<https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR_AddTemplInfoFillable.pdf>

The Contractor will provide a copy of the approved permit or the submitted dewatering information to the Project Engineer prior to proceeding with any

dewatering activities. The approved permit or submitted dewatering information must be kept on-site and as part of the project records.

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

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

COMMITMENT E: STORM WATER

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

Action Taken/Required:

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

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

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

The form can be found at:

<https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR_CGPAAppendixCCA2018Fillable.pdf>

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.



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Storm Water Pollution Prevention Plan

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

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

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

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

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

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

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

COMMITMENT G: DEWATERING AND SEDIMENT COLLECTION

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

Action Taken/Required:

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

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

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.

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:

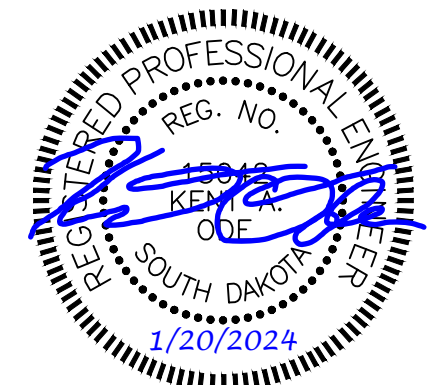
All earth disturbing activities not designated within the plans require a cultural resource review prior to scheduling the pre-construction meeting. This work includes but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, 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. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/ 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



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GRADING OPERATIONS

Water for Embankment is estimated at the rate of 10 gallons of water per cubic yard of Embankment minus Waste. The estimated quantity of Water for Embankment is 9 MGal. No separate payment will be made for the Water for Embankment and all costs associated will be incidental to the contract unit price per cubic yard of "Unclassified Excavation".

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 below.

<p>BMU (Electric) 525 Western Ave Brookings, SD 57006 Attn: Nic Axtell Office: (605) 651-1123 Email: Naxtell@swiftel-bmu.com</p>	<p>BMU (Water/Wastewater) 415 4th Street Brookings, SD 57006 Attn: Chad Bachman Office: (605) 697-8415 Email: Cbachman@swiftel-bmu.com</p>
<p>Mediacom 948 22nd Ave S Brookings, SD 57006 Attn: Mike Klingenberg Cell: (605) 691-3978 Email: Mklingenberg@mediacomcc.com</p>	<p>NorthWestern Energy 1232 22nd Ave S Brookings, SD 57006 Attn: Chad Egeberg Cell: (605) 461-0064 Email: Chad.egeberg@northwestern.com</p>
<p>Swiftel (Communications) 415 4th Street Brookings, SD 57006 Attn: Justin Borns Office: (605) 697-8298 Email: Jborns@swiftel-bmu.com</p>	

Utility Coordination

- BMU (Electric)
 - Street light circuit crossing 12th Street on the east side of Southland Lane (Station 15+75) is approximately 2' deep. Contractor will contact Nic Axtell prior to any excavation in the area.
 - Utility box at station 9+50 will be relocated prior to construction
- BMU (Water/Wastewater)
 - Fire hydrant at station 24+95 will be relocated prior to construction.

CLEAR AND GRUB TREE

Tree removal has been included in the plans do to shallow roots in the vicinity of the proposed shared use path. The Contractor will receive approval from the Engineer prior to removing any tree.

SHRINKAGE FACTOR: +30%
TABLE OF UNCLASSIFIED EXCAVATION

TABLE OF EARTHWORK	
PCN 09FX	(CuYd)
Excavation*	345
Embankment (30% SF)**	124
Waste**	221
Strip Topsoil*	587
Unclassified Excavation Total	932
*Included in Unclassified Excavation Quantity	
**Quantity for reference only	
*Concrete sidewalk removal not included in the unclassified excavation quantity	

PROCEDURES FOR DETERMINING UNCLASSIFIED EXCAVATION QUANTITY

Plans quantity will be used for payment of the Unclassified Excavation quantity. The plans quantity of Topsoil and salvaged surfacing items listed in the Table of Unclassified Excavation will not be adjusted according to field measurements.

REMOVAL OF EXISTING CONCRETE PAVEMENT

Existing asphalt concrete and/or existing asphalt concrete patch work that was placed above the existing concrete pavement is included in the quantity for "Remove Concrete Pavement". The Contractor will dispose of the concrete pavement and asphalt concrete at a site approved by the Engineer.

Concrete removals inside of an existing fillet that are required to be removed for an ADA ramp opening will be paid for under the bid item "Remove Concrete Pavement". Any curb and gutter outside of the fillet that will be required to be removed will be paid for under the bid "Remove Concrete Curb and Gutter". Concrete pavement removals for proposed ADA ramp openings will be approved of by the Engineer.

CONCRETE PIPE CONNECTIONS

Pipe connections to existing pipes, manholes, junction boxes, and drop inlets will be done by breaking a hole into the existing structure and inserting the pipe. A concrete collar will then be poured around the pipe in the area of the connection.

When it is not possible to use a normal pipe joint (male-female ends), connections to existing pipe will be made by placing a 2' wide by 6" thick M6 concrete collar around the outside of the connection. The concrete collar will be reinforced with 6x6 W2.9 x W2.9 wire mesh.

All costs for constructing the concrete collars including materials and labor will be incidental to the contract unit price per foot for the corresponding pipe contract item.

PIPE COVER

The earthen subgrade cover for some pipe installations is less than one foot. The Contractor will take the necessary precautions to ensure the structural properties of the pipes are not damaged after installation and prior to the placement of final surfacing. Any additional costs for preventing damage to these pipes will be incidental to the contract unit price per foot for the corresponding pipe installation contract item.



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STORM SEWER

Reinforced concrete pipe may be bell and spigot. The pipe sections will be adjoined such that the ends are fully entered and the inner surfaces are reasonably flush and even.

Lift holes in the reinforced concrete pipe will be plugged with grout.

Watertight joints are required for reinforced concrete pipe, drop inlets, manholes, and junction boxes where storm sewers run parallel to and within 10 feet horizontally from existing or proposed water mains.

Watertight joints are required where reinforced concrete pipes, drop inlets, manholes, or junction boxes cross water mains and are separated a distance of 18 inches or less, above or below, the water main.

If watertight joints are required then the watertight joints will extend for a distance of 10 feet beyond the water main. This measurement will be from the sealed concrete joint to the outer most surface of the water main.

Watertight joint seals will conform to the following requirements:

1. Reinforced Concrete Pipe (Circular): Gasketed pipe will conform to the requirements of ASTM C443 and the gasket will be in conformance with Section 990 of the Specifications. Non-gasketed concrete pipe will be sealed with a mastic joint seal conforming to the requirements of ASTM C990 and encased with a minimum 2-foot wide by 6-inch thick M6 concrete collar reinforced with 6x6 W2.9 x W2.9 wire mesh.
2. Drop Inlets, Manholes, and Junction Boxes: Joints will be sealed with one of the following methods:
 - A. A flexible strip seal placed in the joints conforming to the requirements of ASTM C990 and the perimeter encased with a minimum 2-foot wide by 6-inch thick M6 concrete collar reinforced with 6x6 W2.9 x W2.9 wire mesh.
 - B. A hydrophilic flexible water stop seal placed in the joints and a 1-foot wide strip of fabric wrapped around the perimeter of the pipe. The fabric will conform to the requirements of Section 831 of the Specifications for Type A Drainage Fabric. The hydrophilic flexible water stop will be from the list below.
 - C. A self-adhesive external joint seal wrap. The seal wrap will be from the list below.

Approved List of Self-adhesive Joint Wrap

Product	Manufacturer
Mar Mac Seal Wrap	Mar Mac Construction Products McBee, SC 843-335-5909 www.marmac.com
ConWrap CS-212	Concrete Sealants, Inc. Tipp City, OH 800-332-7325

Approved List of Hydrophilic Flexible Water Stop Seal:

Product	Manufacturer
Waterstop RX	Cetco Hoffman Estates, IL 800-527-9948 www.cetco.com
Conseal CS-231	Concrete Sealants, Inc. Tipp City, OH 800-332-7325 http://www.conseal.com

Gaskets and seals (mastic, waterstop, and seal wraps) will be installed in accordance with the Manufacturer's recommendations.

The cost for furnishing and installing all gaskets, mastic joint seal, water stop seal, seal wrap, concrete collars, and for plugging the lift holes will be incidental to the contract unit price per foot for the corresponding pipe contract item.

TABLE OF STORM PIPE			
Station	Offset (L/R)	Circular	Connect Into Existing Manhole (Each)
		RCP	
		18"	
		CI 2	
		(Ft)	(Each)
PCN 09FX			
15+90 - 18' R to 16+30 - 25' R		42	1
Total (PCN 09FX)			1

DROP INLETS

The plan shown quantities of the drop inlet components such as Class M6 Concrete, Reinforcing Steel, Type S Drop Inlet Lid will be the basis of payment for these items.

If additions or reductions to the number of drop inlets are ordered by the Engineer, payment for the components required to construct the drop inlets will be made at the contract unit prices for the components of the drop inlets.

TABLE OF STORM SEWER DROP INLETS							
ID	Station	Offset	R	Inlet Type	Class M6 Concrete	Reinforcing Steel	Type S Lid
					(CuYd)	(Lb)	(Each)
DI#01	14+19	17.6	R	10' Type Inlet (6')	6.8	1123	1
DI#02	15+87	53.1	R	6' Type Inlet (3')	2.6	382	1
DI#03	16+33	26.2	R	6' Type Inlet (3')	2.2	336	1
Grand Total					11.6	1842	3

MODIFY DROP INLETS

The Contractor will modify the drop inlets as called out in the plans to the extent necessary for this project. Adjusting the inlets include removing the existing lid, saw cutting the existing walls, installation of a new lid, and installation of a new casting. The elevation of the lid will be set at the same elevation of the adjacent new pavement or surrounding ground, as shown in the plan sheets. See detail 671 SP for additional details. All costs involved in modifying the inlets will be incidental to the contract unit price per each for "Modify Drop Inlets".

Contractor will verify all measurements and make adjustments to the proposed modification if required and with the approval of the Engineer.

TABLE OF EXISTING INLETS			
Station	Offset	Modify (Each)	Remove (Each)
PCN 09FX			
15+20.0	17.6	R	1
15+87.5	57.0	R	1
15+90.0	18.3	R	1
Total (PCN 09FX)			2

TABLE FOR ADJUSTMENT OF WATER VALVES			
Station	Offset	Valve (Each)	
PCN 09FX			
15+65	40.3	R	1
TOTAL (PCN 09FX)			1

CONNECT TO EXISTING MANHOLE

The Contractor will connect to the existing manholes (Storm Inlet) at the locations shown in the plans.

Contractor will core drill or remove the wall as required to install and connect the new storm pipe in the existing structure at the required invert elevation.

All costs including, but not limited to, core drilling, excavation, labor and reconstruction of the connected wall and floor to ensure that the connection is watertight will be included to the bid item "Connect to Existing Manhole" per each.



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	7	91

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MODIFIED TYPE B66 CONCRETE CURB AND GUTTER

The curb and gutter will be installed as shown in detail 650.01 SP, Standard Curb and Gutter.

CONCRETE SIDEWALK

Sidewalk will meet the requirements of Section 651 of the Standard Specifications.

All joints will be sawed in accordance with Section 380.3 P. Max spacing on transverse joints will be 10'. No centerline longitudinal joint will be required.

Due to the extra depth required, the granular cushion material required, as per the typical sections, will be paid for separately at the contract unit price per ton for Gravel Cushion. The gravel cushion will meet the requirements of Section 882. Compaction will be to the satisfaction of the engineer.

REINFORCED CONCRETE SIDEWALK

Reinforced concrete sidewalk will installed at the ADA ramp located at Station 15+13. Reinforced concrete sidewalk will be installed with #4 steel bars spaced at 18" on center. All costs for concrete and steel reinforcement will be included in the bid item "6" Reinforced Concrete Sidewalk".

TYPE 1 DETECTABLE WARNINGS

Detectable warnings will be in compliance with the Americans with Disabilities Act regulations.

The detectable warnings will be installed according to the manufacturer's installation instructions.

A concrete thickness equal to the adjacent concrete sidewalk thickness and 2 inches of granular cushion material will be placed below the Type 1 Detectable Warnings. When concrete is placed below the detectable warnings then the concrete thickness will be transitioned at the rate of 1" per foot to match the adjacent concrete sidewalk thickness.

The detectable warnings will be a brick red color for application in concrete curb ramps. Cast iron plates may be a natural patina (weathered steel).

Type 1 Detectable Warning Panels will be one of the following products:

Type 1 Detectable Warnings

<u>Product</u>	<u>Manufacturer</u>
Detectable Warning Plate Cast Iron Plate	Neenah Foundry Company Neenah, WI 800-558-5075 http://www.neenahfoundry.com/
Detectable Warning Plate Cast Iron Plate	Deeter Foundry Lincoln, NE 800-234-7466 http://www.deeter.com/
Detectable Warning Plate Cast Iron Plate(No Coating)	East Jordan Iron Works, Inc. 301 Spring Street East Jordan, MI 49727 800-626-4653 http://www.ejiw.com
Iron Dome Cast Iron Detectable Warning Tile	ADA Solutions, Inc. 323 Andover Street Suite 3 Wilmington, MA 01887 800-372-0519 https://adatile.com

STEEL BAR INSERTION

The Contractor will insert the Steel Bars (No.5 x 12-inch epoxy coated deformed tie bars) into drilled holes in the existing concrete pavement. Anchoring of the steel bars in the drilled holes will conform to the Specifications.

The steel bars will be cut to the specified length by sawing or shearing and will be free from burring or other deformations.



REV DATE: 1/20/2025
 INITIAL: KAO

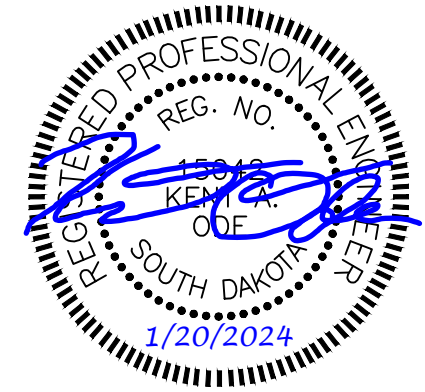
TABLE OF REMOVALS								
Station to	Station	Curb and Gutter (Ft)	Concrete Pavement* (SqYd)	Concrete Driveway (SqYd)	Concrete Sidewalk (SqYd)	Asphalt (SqYd)	Saw Asphalt** (Ft)	Saw Concrete** (Ft)
PCN 09FX								
1+49	4+74	9.0	3.9		176.4			33
4+92	5+61	16.0	16.1		46.9			68
5+84	9+07		19.7		174.7			61
9+31	15+38	134	21.8	56.1	333.6	6.6	177	115
14+18 R	16+12 R	201		63.9	28.9	9.0	206	68
15+38	21+28	69	30.7		309.1	11.0	149	24
21+60	25+31				161.8			12
Field Determined		10	5.0		13.3	5.0		
Total (PCN 09FX)		439	97.1	120.0	1244.7	31.6	532	381

*Removal of curb and gutter in concrete fillet, included in "Remove Concrete Pavement" bid item
 **Incidental to associated pavement bid item.

TABLE OF SURFACING														
Station to	Station	4" Sidewalk (SqFt)	6" Sidewalk (SqFt)	6" Reinforced Sidewalk (SqFt)	6" Fillet (SqYd)	Curb and Gutter (Ft)	Valley Gutter (SqYd)	Driveway (SqYd)	Asphalt (Ton)	Insert Steel Bar #5 (Each)	Base Course* (Ton)	Gravel Cushion* (Ton)	Water for Granular Material** (MGal)	Detectable Warning Type 1 (SqFt)
PCN 09FX														
1+49	4+74		2663		4.4	7				10		71.6	0.9	16
4+92	5+61		599		16.0	16				33		23.8	0.3	32
5+84	9+07		2539		18.7	2				37		72.4	0.9	32
9+31	15+38	30	4918	40	32.3	146		26.8	14.4	31	26.0	173.9	2.4	42
14+18 R	16+12 R	195	40			201		75.3	13.0		23.4	67.4	1.1	10
15+38	21+28	62	4638		21.3	62	20.1		30.5		55.0	146.7	2.4	16
21+60	25+31		2957									76.4	0.9	
Field Determined		120				10			5.0	10	25.0	25.0	0.6	
Total (PCN 09FX)		407	18354	40	92.7	444	20.1	102.1	63.0	121	129.3	657.2	9.5	148

*155 pcf unit weight was used to calculate the quantity.
 **12 gallons per ton was used to calculate the quantity.

TABLE OF CONSTRUCTION STAKING									
	Begin Station	End Station	Number of Lanes	Length (Ft)	Grade Staking			Miscellaneous Staking	
					Length (Mile)	Lane Factor	Sets of Stakes	Staking	Staking
								Quantity (Mile)	Quantity (Mile)
PCN 09FX	1+49	25+31	1	2,382	0.451	1	1	0.451	0.451
Total (PCN 09FX)								0.451	0.451



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.

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.

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

All construction operations will be conducted in the general direction of traffic movement.

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.

GENERAL PERMANENT SIGNING

New sign installations will be staked in the field by the Contractor and checked by the Engineer. The Contractor will give the Engineer a minimum of one week to check staked locations prior to signpost installation. Lateral offset of signs will be as shown in the plans or as directed by the Engineer.

The Contractor will be responsible for contacting South Dakota One Call to locate the utilities at the staked sign installation locations.

When signs are mounted in an assembly, they will be 1-2 inches apart vertically and horizontally.

The height of the post must not exceed the minimum height needed by more than 0.5 feet. Any portion that extends above the sign will be cut off. No separate payment will be made for cutting the post or for that length cut off.

Aluminum U-Channel stiffeners will be used on all signs 36 inches or greater in width and will conform to ASTM B221 Alloy 6063-T6 or 6061-T6. The U-Channel will be 2 inches in width and free of holes. The U-Channel stiffeners will also be used to connect various signs together so that an entire sign assembly can be erected on a single installation. Stiffeners may be fastened to signs by use of 1/4-inch diameter drive rivets.

The Contractor will use 3/8-inch diameter rust proof machine sign bolts, flat metal washers, neoprene washers (against the sign sheeting), lock washers, and nuts to fasten the sign to the channel aluminum and posts. A minimum of two bolts will extend through each post.

Prior to ordering signs, the Contractor will verify dimensions, background, border, and legend of the signs.

Prior to use, the Contractor will provide documentation for the sign support devices showing they meet the applicable NCHRP 350 or MASH requirements.

TEMPORARY GRAVEL SURFACING

To provide interim access to existing business, the Contractor will install a temporary gravel access as instructed by the Engineer.

- At a minimum, the Contractor will provide a 10' wide gravel access road. The ends of the access will have a smooth transition onto the existing proposed pavements.
- Temporary gravel will be a minimum of 6" thick.
- The Contractor will re-grade the access road as directed by the Engineer.
- All costs for furnishing, installing, maintaining, and removing of the temporary gravel road will be incidental to the contract unit price per ton for "Temporary Gravel Surfacing".
- The gravel material installed will be allowed for re-use as gravel base beneath the proposed pavement if it meets the gravel base specifications. All costs to remove and reinstall will be incidental to the bit item "Temporary Gravel Surfacing".



REMOVE SIGN FOR RESET AND RESET SIGN

Signs that are scheduled for reset will be dismantled and reassembled to the extent needed by the Contractor to properly reset the sign. Signs will be handled with care so that the existing signs, posts, and bases are not damaged during the relocation process. The Contractor will replace and pay for any reset signs damaged in their care. The Contractor will remove and dispose of any existing posts for all reset signs that require use of new posts as shown in the Table of Permanent Signing.

All costs for removing, dismantling, and disposing of any existing posts will be incidental to the contract unit price per each for "Remove Sign for Reset". All costs for resetting the existing signs will be incidental to the contract unit price per each for "Reset Sign". All quantities for Remove Sign for Reset and Reset Sign will be per assembly at the contract unit price per each.

PERMANENT SIGN INSTALLATION TABLE										
Sign Data					Post Data			Installation Data		
Station	Offset	Station	Offset	Sign Description	Sign Code	2.0"x2.0" Perforated Tube Post Height (Ft)	2.25"x2.25" Perforated Tube Post Height* (Ft)	2.5"x2.5" Perforated Tube Post Height* (Ft)	Remove Sign for Reset (Each)	Reset Sign (Each)
PCN 09FX										
15+13	Lt	15+86	Rt	STREET NAME SIGN-12TH ST S (existing)	Existing Sign	11.9	3.5	1.5	2	2
				STREET NAME SIGN-SOUTHLAND LN (existing)	Existing Sign				2	2
14+10	Rt	14+00	Rt	SCHOOL SPEED LIMIT 15 (existing)	Existing Sign	11.1	3.5	1.5	1	1
Total (PCN 09FX)						23.0	7.0	3.0	5	5

*Incidental to "2.0"x2.0" Perforated Tube Post" bid item
 **Signs and posts for RFB incidental to corresponding bid item

SQUARE TUBE ANCHOR SLEEVE

The Contractor will furnish and install new 2.5" x 2.5" x 18", 12 Gauge square tube anchor sleeve or equivalent components as approved by the Engineer for 2.0" x 2.0" perforated tube posts. A 2.25" x 2.25" x 4', 12 Gauge perforated tube post will be used as the anchor post for installation with the square tube anchor sleeve.

SQUARE TUBE POST SLEEVE

All 2.5" x 2.5", 10 Gauge perforated tube post will be sleeved with a 2-3/16" x 2-3/16" x 4', 10 Gauge perforated tube post.

WINGED SLIP BASE ANCHOR

The Contractor will furnish and install new winged slip base anchors for 2.5" x 2.5" perforated tube posts as required in the Permanent Signing Table. Winged slip base anchors will be installed using the direct drive method. Winged slip base anchors will consist of a slip base (upper), a 48-inch long winged anchor (lower), and a hardware kit.

COLD APPLIED PLASTIC PAVEMENT MARKING

All materials will be applied as per the manufacturer's recommendations.

Cold Applied Plastic Pavement Markings will be 3M Series 380 AW or an approved equal.

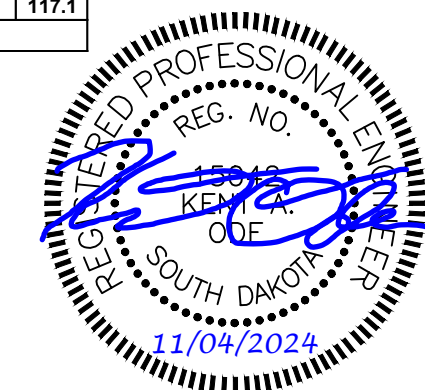
TABLE FOR TRAFFIC CONTROL (SqFt)														
Sign Description	Sign Code	Width (in)	Height (in)	Sign Quantity (SqFt)	634.01		North		South		Field Determined		Max Required*	
					No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt
ROAD CLOSED	R11-2	48	30	10.0			1	10.0					1	10.0
ROAD CLOSED TO THRU	R11-4	60	30	12.5			1	12.5					1	12.5
KEEP RIGHT	R4-7c	18	30	3.8			6	22.5	4	15.0	2	7.5	8	30.0
ROAD WORK AHEAD	W20-1	48	48	16.0	1	16.0	3	48.0	3	48.0	2	32.0	5	80.0
LEFT CURVE ARROW	W1-4L	48	48	16.0			1	16.0	1	16.0			1	16.0
RIGHT CURVE ARROW	W1-4R	48	48	16.0			1	16.0	1	16.0			1	16.0
END ROAD WORK	G20-2	36	18	4.5			3	13.5	3	13.5	2	9.0	5	22.5
Total						16.0		61.5		93.5		41.0		102.5

*Max Required shall be the max number of signs required for the project, plus the amount of field determined signs and shall be the basis for the bid

TABLE FOR DETOUR SIGNING (SqFt)													
Sign Description	Sign Code	Width (in)	Height (in)	Sign Quantity (SqFt)	Ped Detour		Traffic Detour		Field Determined		Max Required*		
					No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt	
SIDEWALK CLOSED	R9-9	24	12	2.0	6	12.0			2	4.0	8	16.0	
PED DETOUR...ARROW LEFT	M4-9b L	30	24	5.0	3	15.0					3	15.0	
PED DETOUR...ARROW RIGHT	M4-9b R	30	24	5.0	3	15.0					3	15.0	
DETOUR LEFT	M4-10L	48	18	6.0			1	6.0			1	6.0	
ARROW LEFT	M6-1L	21	15	2.2			2	4.4	1	2.2	3	6.6	
ARROW RIGHT	M6-1R	21	15	2.2			4	8.8	1	2.2	5	10.9	
ARROW STRAIGHT	M6-3	21	15	2.2			2	4.4	1	2.2	3	6.6	
DETOUR	M4-8	24	12	2.0			7	14.0			7	14.0	
SOUTHLAND LANE	SPECIAL	54	12	4.5			6	27.0			6	27.0	
Total						42.0		64.5		10.6		117.1	

*Max Required shall be the max number of signs required for the project, plus the amount of field determined signs and shall be the basis for the bid

OTHER TRAFFIC CONTROL QUANTITIES					
Item	Unit	North	South	Field Determined	Total Quantity
Tubular Markers	Each	19	17	5	41
Type 3 Double Sided Barricade	Each	4	3	3	10
Temporary Gravel	Tons		25	10	35



FOR BIDDING PURPOSES ONLY

SUPPLYING AS BUILT PLANS

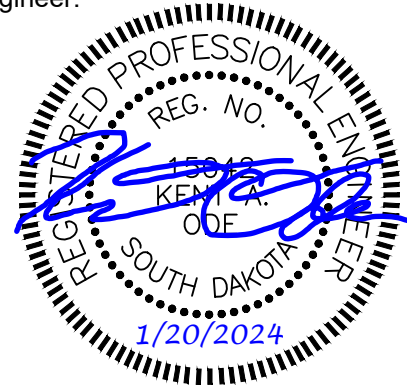
If the traffic signal systems are constructed differently than what is stated in the plans, the Contractor will supply as built plans to the Engineer. The as built plans may include conduit layouts, wiring diagrams, or other drawings depicting the changes from the original plans.

SHOP DRAWING AND CATALOG CUTS SUBMITTALS

The Contractor will submit shop drawings and catalog cuts in accordance with Section 985 of the Specifications. PDF submittals will be sent to the email address LanceMcQueen@hdrinc.com.

ON-SITE INSPECTION

An on-site inspection of the traffic signals will be conducted before acceptance of the project once the traffic signals are completed and operational. The on-site inspection will be conducted by the Project Engineer and the City Engineer.



RECTANGULAR RAPID FLASHING BEACON SYSTEM

A Rectangular Rapid Flashing Beacon (RRFB) system will be in conformance with the current MUTCD and will consist of the following components:

- Individual RRFB displays as shown in the plans
- Pedestrian push buttons as shown in the plans
- W11-2 (pedestrian crossing) signs as shown in the plans
- W16-7P (diagonal arrow) plaques as shown in the plans
- R10-25 (push button) signs as shown in the plans
- All necessary electronic programming and flash units, hardware, and wiring to make the system operational
- A single controller cabinet mounted on one of the poles
- A single disconnect switch will be installed on the side of the AC/DC power supply cabinet, to allow the power to be turned off to the systems. The disconnect switch will be per the **ELECTRICAL SERVICE CABINET WITH SECONDARY DISCONNECT** requirements discussed on the following sheet.

One RRFB system is necessary for each pedestrian crossing location shown in the plans.

The programmed flash time will be per the manufacturer's recommendations, per the plan view layout.

A small light directed at and visible to pedestrians in the crosswalk will be installed integral to the RRFB or push button, to give confirmation that each beacon is in operation.

All enclosures will be aluminum and comply with the requirements for NEMA 3R type.

The systems will be powered by a single AC/DC power supply that will be mounted within a cabinet on one of the poles, which will provide power to both poles. The power supply will accept 120-240VAC from the nearby meter / transformer, which will be converted to 12VDC by the power supply.

The RRFB poles and their transformer bases, the push button poles and their transformer bases, the cabinets and enclosures on the poles will be painted a glossy black color.

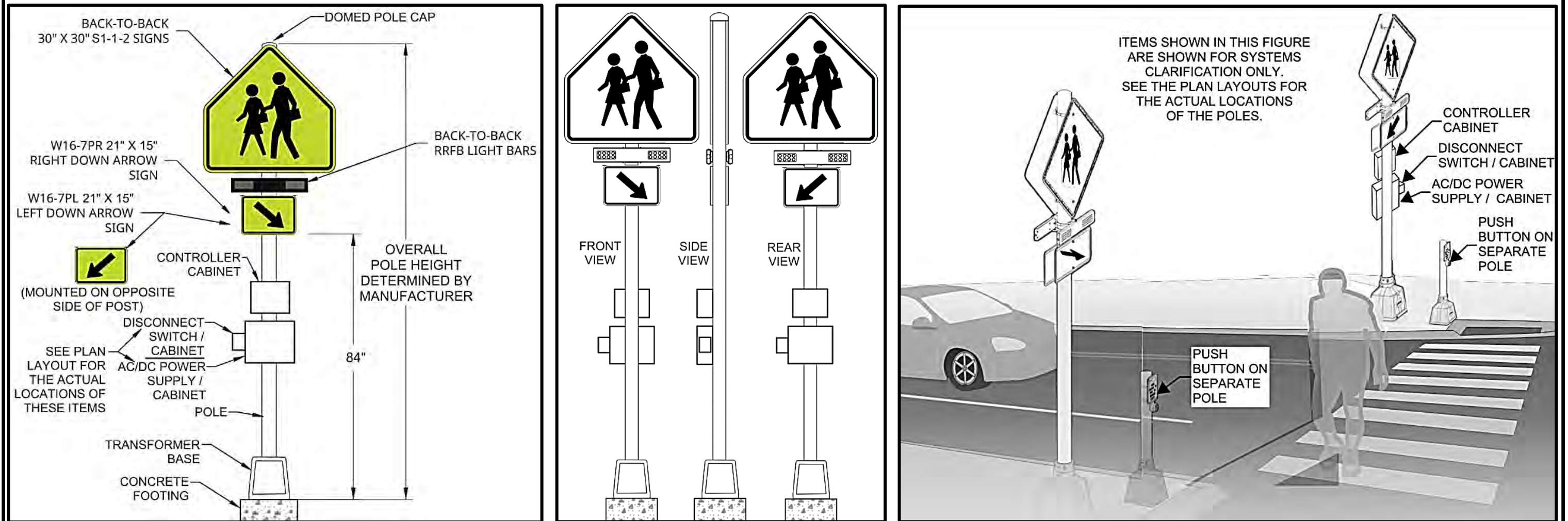
The S1-1 and W16-7P signs will have a fluorescent yellow-green background with a black legend and black border.

The pedestrian push buttons will be Audible Information Devices (AID) to be used at midblock crossings as per the MUTCD. The pedestrian push buttons will be ADA compliant. The pedestrian push buttons housing will be black in color. The pedestrian push buttons will be a self-contained system that includes the push button, LED light, and speaker.

The pedestrian push buttons will have the following AID requirements:

- One yellow LED that flashes when warning lights are flashing.
- Standard Audible Message: "Warning lights are flashing" (repeats twice).
- Locator Tone.
- No vibrotactile or percussive indications.

All materials and installation costs necessary for the operation of each system will be incidental to the contract unit price per each for "Rectangular Rapid Flashing Beacon"



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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	12	91

FOR BIDDING PURPOSES ONLY

PEDESTAL SIGNAL POLES

Pedestal signal poles may be aluminum. Aluminum poles will conform to the following requirements:

Aluminum will conform to ASTM B221, Alloy 6061, and Temper T6.

Poles will be round with a minimum outside pole diameter of 4 inches, and the pole assembly will have a square, cast aluminum base with aluminum access door. The base will conform to the breakaway requirements of NCHRP 350 or MASH. A grounding lug will be provided in the base.

The pole to base connection will be a threaded connection; threads will be 8 TPI, NPT. A collar (integral or non-integral) to prevent wind-induced loosening of pole will be provided. All bolt and connection threads will be coated with a commercially available anti-seize compound intended for use in aluminum-to-aluminum and steel-to-aluminum connections.

The top of the pole will be sealed by the traffic signal head mounting hardware or by an aluminum cap. The pole finish will either be brushed satin or spun. In addition to this pole finish, the poles and their transformer bases will be painted a glossy black color.

MULTICONDUCTOR CONTROL CABLE FOR SIGNAL CIRCUITS

The Conductor Jackets for the multiconductor control cables will be color coded in accordance with ICEA S-73-532 Table E2.

TABLE OF FOOTING DATA

Pole ID	Footing Diameter	* Footing Depth	**Spiral Diameter	**Spiral Length	Vertical Reinforcement
S1, S2	2' - 0"	8' - 0"	1' - 8"	54' - 9"	8-#7 x 7' - 6"

*The size of all spirals will be #3.

During construction of the traffic signal footings, concrete placement operations should closely follow excavation procedures. The longer the excavations are left open the more likely caving may occur. If caving soils are encountered during excavation, casing may be required to construct the cylindrical footings.

Concrete will not be dropped through standing water. If water is present in the excavation it will be removed prior to concrete placement or the concrete will be tremied. If caving occurs during dewatering the concrete will be placed through a tremie or by means of casing.

Any casings installed for installation of the signal footings will be incidental to the signal footing bid items.

PEDESTRIAN PUSH BUTTON POLES

Pedestrian push button poles will be aluminum and will conform to the following requirements:

Aluminum will conform to ASTM B221, Alloy 6061, and Temper T6.

Poles will be round with a minimum outside pole diameter of 4 inches, and the pole assembly will have a square, cast aluminum base with aluminum access door. The base will conform to the breakaway requirements of MASH.

The pole to base connection will be a threaded connection; threads will be 8 TPI, NPT. All bolt and connection threads will be coated with a commercially available anti-seize compound intended for use in aluminum-to-aluminum and steel-to-aluminum connections.

The top of the pole will be sealed by an aluminum cap. The pole finish will either be brushed satin or spun. In addition to this pole finish, the poles and their transformer bases will be painted a glossy black color.

Anchor bolts for pedestrian push button poles may have hooked ends.

ELECTRICAL SERVICE CABINET WITH SECONDARY DISCONNECT

For the disconnect switch installed on the side of the AC/DC power supply cabinet as shown on the plans:

- The disconnect switch cabinet will be plumb and level to the AC/DC power supply cabinet. The Contractor will take precautions when positioning the disconnect switch cabinet to avoid damaging wire or equipment within the AC/DC power supply cabinet while drilling the mounting holes and the access hole. The access hole will be two-inch diameter and will be drilled through the disconnect switch cabinet into the AC/DC power supply cabinet. A grommet or bushing will be installed in the two-inch diameter hole to prevent damage during pull through of the wires.
- The disconnect switch cabinet will be mounted and tightened securely to the AC/DC power supply cabinet using a minimum of four bolts. A bead of clear silicon caulking will be placed in all gaps between the disconnect switch cabinet and AC/DC power supply cabinet to prevent water intrusion into either cabinet.
- The DOT standard plate will be followed for the disconnect switch cabinet, however, the disconnect switch cabinet is to be installed on the side of the AC/DC power supply cabinet, so no posts or meter sockets will be installed.
- The breakers installed within the disconnect switch cabinet will act as disconnects for the power to the Rectangular Rapid Flashing Beacon (RRFB) System.
- All costs, labor and materials for the furnishing and installing the disconnect switch, cabinet and related items as noted on the standard plate and as discussed above will be included in the bid item "Electrical Service Cabinet with Secondary Disconnect".

ELECTRICAL SERVICE CABINET

For the meter pedestal installed nearby the existing BMU transformer as shown on the plans:

- The meter pedestal will be Milbank Catalogue Number 06220-O-200-10GR or approved equal. The DOT standard plate will be followed for installation of the meter pedestal.
- The meter socket installed within the meter pedestal will be a lever bypass meter socket with locking jaws.
- When installing the PVC conduit from the BMU transformer to the meter pedestal, the Contractor will install the conduit within RGSC from the 90-degree bend in the ground to the meter pedestal. The RGSC will be fully sealed at the meter pedestal. Quantity has been included in the plans for this RGSC.
- Brookings Municipal Utilities (BMU) will be contacted prior to connecting to their transformer. Contact Todd VanderWal (#605-695-5003) of BMU prior to this work.
- All costs, labor and materials for the furnishing and installing the meter pedestal, connecting to the transformer and related items as noted on the standard plate and as discussed above will be included in the bid item "Electrical Service Cabinet".



REV DATE: 1/20/2025
INITIAL: KAO

TABLE FOR TYPE 2 ELECTRICAL JUNCTION BOX	
Location	Quantity (Each)
JB1	1
JB2	1
Total:	2

TABLE FOR ELECTRICAL SERVICE CABINET	
Location	Quantity (Each)
M1 (meter pedestal @ BMU transformer)	1
Total:	1

TABLE FOR ELECTRICAL SERVICE CABINET WITH SECONDARY DISCONNECT	
Location	Quantity (Each)
S2 (south ped crossing / flashing sign pole)	1
Total:	1

TABLE FOR PEDESTRIAN PUSH BUTTON POLE	
Location	Pole (Each)
PB1 (north side)	1
PB2 (south side)	1
Total:	2

TABLE FOR RECTANGULAR RAPID FLASHING BEACON SYSTEM	
Location	Quantity (Each)
S1 (north side)	1
S2 (south side)	1
Total:	1

TABLE FOR CONDUIT & CABLE QUANTITIES										
Location to Location		RGSC	PVC Conduit				Cable ¹			Conduit ² Boring (Ft)
			Sch 40	Sch 80	1C #6	1C #12	2/C #14			
		5" (Ft)	2" (Ft)	3" (Ft)	3" (Ft)	(Ft)	(Ft)	(Ft)	(Ft)	
Transformer	M1	15	15			90				
M1	JB2		10			60				
JB2	JB1		140			450			140	
JB1	S2			20		210				
S2	PB2		15				20	25		
JB2	S1				60	225			60	
S1	PB1		20				25	30		
Total:		15	200	20	60	1035	45	55	200	

1 - All cable quantities shown include 6' of slack/coil installed in each junction box, unless shown otherwise.
2 - Incidental to conduit bid items.



SALVAGE AND PLACE TOPSOIL

Prior to beginning of surfacing operations, a 6" depth of topsoil will be removed or bladed away from the construction area. Following completion of construction, topsoil will be spread evenly over the disturbed areas.

The estimated amount of topsoil to be salvaged is 587 CuYd. Topsoil that is salvaged will be paid for once as "Unclassified Excavation".

The estimated amount of topsoil to be placed based on a shrinkage factor of 40% is 571 CuYd. Salvaged topsoil that is placed by the Contractor will be paid for once as "Placing Topsoil". Any excess topsoil will be disposed of by the Contractor or spread out evenly across the project as directed by the Engineer. All cost for disposing of or spreading out additional topsoil will be incidental to the bid item "Placing Topsoil" and no additional quantity will be paid for.

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.

Type G 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 unit price per pound for the corresponding permanent seed mixture.

Type D seed will be inoculated by the seed supplier with a minimum of 20,000 live propagules of mycorrhizal fungi per 1,000 square feet. All costs of inoculating the seed will be incidental to the contract unit price per pound for the corresponding permanent seed mixture.

The mycorrhizal inoculum will be as shown below or an approved equal:

Product	Manufacturer
MycoApply	Mycorrhizal Applications, Inc. Grants Pass, OR Phone: 1-866-476-7800 www.mycorrhizae.com
AM 120 Multi Species Blend	Reforestation Technologies Int. Gilroy, CA Phone: 1-800-784-4769 www.reforest.com
LALRISE Prime and Max WP	Lallemand Specialties Inc. Milwaukee, WI Phone: 1-844-590-7781 www.lallemandplantcare.com

FERTILIZING

The Contractor will apply an all-natural slow release fertilizer prior to seeding or placing sod. The all-natural fertilizer will have a minimum guaranteed analysis of 4-4-4 and be USDA Certified BioBased. It should provide a minimum of 4% (N) nitrogen with a minimum water insoluble nitrogen (WIN) fraction of 2.07%, a minimum of 4% (P2O5) available phosphate, a minimum of 4% (K2O) soluble potash, and a maximum carbon to nitrogen ratio (C:N ratio) of 5:1. The all-natural fertilizer will be free of weed-seed and pathogens accomplished through thermophilic composting, and not mechanical or chemical sterilization, to assure presence of beneficial soil microbiology. The fertilizer will have a near neutral pH, a low salt index, a low biological oxygen demand, contain organic humic and fulvic acids, and have high aerobic organism counts. The fertilizer will also be stable, free of bad odors, and be unattractive as a food source for animals. It should also be in a granular form that is easily spread.

The fertilizer will be applied at a rate of 1,000 pounds per acre in accordance with the manufacturer's recommended method of application.

The all-natural slow release fertilizer will be as shown below or an approved equal:

Product	Manufacturer
Sustane	Sustane Corporate Headquarters Cannon Falls, Minnesota Phone: 1-800-352-9245 www.sustane.com
Perfect Blend	Perfect Blend, LLC Bellevue, WA Phone: 1-866-456-8890 www.perfect-blend.com
Nature Safe	Nature Safe Fertilizers Irving, TX Phone: 1-605-759-5622 www.naturesafe.com

PERMANENT SEEDING

The areas to be seeded consist of all newly graded areas within the project limits except for the top of the shared use path.

Type D Permanent Seed Mixture will consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/1000 SqFt)
Kentucky Bluegrass	Avalanche, Appalachian, Wildhorse, Blue Bonnet, Action	1.4
Perennial Ryegrass	Turf Type Varieties	1.4
Creeping Red Fescue	Epic, Boreal, Chantilly	1.4
Chewings Fescue	Ambrose, K2, Zodiac, Shadow III	1.4
Alkali Grass	Fults, Fults II, Quill, Salty	1.4
Total:		7

WATER FOR VEGETATION

Water for vegetation consists of applying water to seeded areas to enhance germination and/or root growth. When watering, use the following guidelines:

Immediately after seeding:

- Keep the topsoil moist but not excessively wet until the seed has germinated.
- Water a minimum of 3 days a week for 2 weeks preferably watering 2 or 3 times a day in small quantities.
- Use fine spray and low pressure to avoid topsoil wash and to prevent uncovering buried seeds.

After emergence:

- Topsoil will be kept thoroughly moistened by sprinkling, as necessary, for 6 weeks. After the 6-week period, an inspection will be made to determine if grass is established enough to suspend watering. Continue watering until grass has been thoroughly established.
- Never apply water at a rate faster than the topsoil can absorb.
- Water during early morning hours or early evening hours.
- Do not water when rain is forecasted for the area.
- If rainfall occurs, suspend watering according to rainfall amount.



WATER FOR VEGETATION (Cont.)

An estimated 60 Gallons of water per square yard of seeding area was used to compute the quantity for the bid item "Water for Vegetation".

All costs for furnishing and applying the water including hauling, materials, equipment, labor, and incidentals necessary will be paid for at the contract unit price per MGal for "Water for Vegetation".

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.

Fiber mulch will be applied at the rate of 2,000 pounds per acre.

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 unit price per ton for "Fiber Mulching".

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>

TABLE OF SEEDING, FERTILIZING AND MULCHING						
Station	to Station	Area Type D (SqYd)	Type D Seed Mix 1 ¹ (Lb)	Fertilizer ³ (Lb)	Fiber Mulch ⁴ (Ton)	Water ⁵ (MGal)
PCN 09FX						
1+49	4+74	350	22	72	0.1	21.0
4+92	5+61	73	5	15	0.1	4.4
5+84	9+07	387	24	80	0.1	23.3
9+31	15+38	812	51	168	0.2	48.8
14+18 R	16+12 R	205	13	42	0.1	12.3
15+38	21+28	1174	74	243	0.3	70.5
21+60	25+31	552	35	114	0.2	33.2
Total (PCN 09FX)		3553	224	735	1.1	213.5
1 - Type D Seed Mix rate = 7 Lbs/1,000 sq ft						
2 - Special Permant Seed Mixture = 195 Lb/acre						
3 - Fertilizer rate = 1000 Lb/acre						
4 - Fiber Mulching rate = 1.00 Ton/acre						
5 - Watering = 60 gal/sqyd						

LOW FLOW SILT FENCE

The low flow silt fence fabric provided will be from the approved product list. The approved product list for low flow silt fence may be viewed at the following internet site:

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

Low flow silt fence will be placed at the locations noted in the table and at locations that will minimize siltation of adjacent streams, lakes, dams, or drainage areas as determined by the Engineer during construction. Refer to Standard Plate 734.04 for details.

An additional quantity of Low Flow Silt Fence has been added to the Estimate of Quantities for temporary sediment control.

SEDIMENT CONTROL AT TYPE S REINFORCED CONCRETE DROP INLETS

The sediment control device provided will be from the list shown below. Refer to Standard Plate 734.11 for details.

Product	Manufacturer
Dandy Curb	Dandy Products Inc. Powell, OH Phone: 1-800-591-2284 www.dandyproducts.com
Gutterbuddy	ACF Environmental Richmond, VA Phone: 1-800-448-3636 www.acfenvironmental.com
Curb Inlet Guard	ECTEC Environmental Systems LLC Alameda, CA Phone: 1-866-521-0724 www.ertecsystems.com
EZ-ClipGuard	Flo-Water, LLC West Des Moines, IA Phone: 1-515-577-6763 www.flo-water.net
TSL E-Sock	Three Sons Landscaping Rapid City, SD Phone: 1-605-391-1903
12" Silt Sock	Aspen Ridge Lawn and Landscaping,LLC Rapid City, SD Phone: 1-605-716-4080 https://aspenridgelandscaping.com/
GeoCurve	GeoSolutions, Inc. Austin, TX Phone: 1-512-330-0796 www.geosolutionsinc.com
Smart Curb Filter	NoFlood, Inc. Fort Myers, FL Phone: 1-239-776-1671 http://www.noflood.com



TABLE OF INLET PROTECTION					
Station	Offset		Inlet Protection		Perimeter
			Type S (Ft)	Silt Fence (Ft)	Silt Fence (Ft)
PCN 09FX					
3+26	20'	R	8		
8+74	20'	R	8		
12+57	18'	R	8		
14+19	18'	R	12	25	
15+20	18'	R	12	25	
15+72	7'	L	8		
15+87	56'	R	8		
15+87	53'	R	8	25	
15+89	19'	R	12	25	
16+33	26'	R	12	25	
16+21 to 18+82	Varies	L			270
25+43	3'	L	8		
Total (PCN 09FX)			104	125	270

STREET SWEEPING

Vehicle tracking of sediment from the construction site will be minimized. Street sweeping will be used if erosion and sediment control best management practices are not adequate to prevent sediment from being tracked onto the street.

The Contractor will use a pickup broom having integral self-contained storage to clean the roadway. The pickup broom used will be a minimum of 6 feet wide and have working gutter brooms.

All costs for cleaning the roadway with a pickup broom will be included in the bid item "Sweeping". Sweeping will be conducted as determined by the Engineer.

CONSTRUCTION ENTRANCE

The Contractor will install a Construction Entrance at locations where there is a potential for mud tracking and sediment flow from the construction site and work area onto a paved public roadway.

It is the Contractor's option to use the SDDOT Construction Entrance (See SDDOT Construction Entrance notes and details), a product from the list provided in these notes, or other products or processes as approved by the Engineer during construction.

If the Contractor elects to use one of the products listed in the table, then the Contractor will install the construction entrance product in accordance with the manufacturer's installation instructions or as directed by the Engineer.

The Contractor will maintain the construction entrance such that mud tracking and sediment flow will not enter the roadway or adjacent drainage areas. The construction entrance will be routinely inspected, and the Contractor will repair or replace material as deemed necessary by the Engineer.

All costs for furnishing, installing, maintaining, and removal of the construction entrance including equipment, labor, materials, and incidentals

will be included in the contract unit price per each for "Construction Entrance".

The following table is a list of known construction entrance products available for use:

Product	Manufacturer
Grizzly Rumble Grate (10' width and 24' length required)	Trackout Control, LLC Tempe, AZ Phone: 1-800-761-0056 www.trackoutcontrol.com
Pro Grid (12' width and 24' length including combination of grids and ramps required)	Pro-Tec Equipment, Inc. Charlotte, MI Phone: 1-800-292-1225 www.pro-tecequipment.com
Tracking Pad (12' width and 24' length (2 – 12'x12' pads) and 2 – 4'x4' turning flares)	Tracking Pads LLC Commerce City, CO Phone: 1-303-501-5640 www.trackingpads.com
FODS Trackout Control Mat (12' width and 5 mats to get a 35' length)	FODS, LLC Denver, CO Phone: 1-844-200-3637 http://www.getfods.com
DuraDeck and MegaDeck HD An adequate quantity is needed to prevent tires from becoming muddy (does not remove mud)	Signature Systems Group, LLC Flower Mound, TX Phone: 1-800-931-7301 https://www.signature-systems.com/
Track-Out Control Mat (10' width and 24' length required)	RubberForm Recycled Products, LLC Lockport, NY Phone: 1-716-478-0408 www.rubberform.com

SDDOT CONSTRUCTION ENTRANCE

If the SDDOT Construction Entrance is utilized, then the Contractor will install the SDDOT Construction Entrance in accordance with these notes and the detail drawings.

Pit run material will be obtained from a granular source and will conform to the following gradation:

Sieve Size	Percent Passing
6"	100%
#4	0-60%
#200	0-20%

The pit run material will be compacted to the satisfaction of the Engineer.

The aggregate for the granular material will conform to the following gradation requirements:

Sieve Size	Percent Passing
3"	100%
2 1/2"	90-100%
1 1/2"	25-60%
3/4"	0-10%
1/2"	0-5%

The granular material will be placed in 6" maximum lifts.

It is anticipated that the granular material will need to be periodically removed and replaced as it becomes inundated with mud and sediment.

The Reinforcement Fabric (MSE) will be in conformance with Section 831 of the Specifications. The Reinforcement Fabric (MSE) will be on the Approved

Products List for this material or will be certified by the supplier to meet this specification prior to installation.

The Reinforcement Fabric (MSE) should be kept as taut as possible prior to placing.

Equipment will not be allowed on the Reinforcement Fabric (MSE) until the first lift of granular material is in place.

All seams in the Reinforcement Fabric (MSE) will be overlapped at least 2' and shingled.



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	17	91

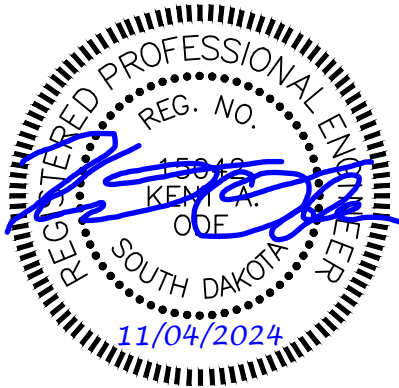
CONCRETE WASHOUT AREA

A concrete washout area will be installed on the project site at a location approved by the Engineer if concrete trucks deliver concrete to the site. No washout area is necessary if all concrete trucks will wash out at approved site constructed by the concrete supplier.

SPRINKLER SYSTEM

Private sprinkler systems may be located within the construction limits. When found, the Contractor will notify the Engineer and take reasonable measures to minimize any damage to the system. It will be the responsibility of the City to pay the property owner's sprinkler contractor directly for repairs. The Contractor will be responsible for any damaged due to the Contractor's negligence.

The Contractor will notify the Engineer when the sprinkler system can be restored and the Engineer or the City will coordinate with the property owner and sprinkler contractor. The system should be restored before seed placement and the Contractor will make reasonable accommodations to allow for the homeowner's sprinkler contractor to make final repairs and adjustments.



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** 1.18 acres
- **5.3 (3b): Total Area to be Disturbed** 1.13 acres
- **5.3 (3c): Maximum Area Disturbed at One Time** 1.13 acres
- **5.3 (3d): Existing Vegetative Cover (%)** 100%
- **5.3 (3d): Description of Vegetative Cover** Grass
- **5.3 (3e): Soil Properties:** Silt-Clay to Clay-Silt
- **5.3 (3f): Name of Receiving Water Body/Bodies** Big Sioux River
- **5.3 (3g): Location of Construction Support Activity Areas** on-site

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 stabilized construction entrance(s).	
Install perimeter protection where runoff may exit site.	
Install perimeter protection around stockpiles.	
Install channel and ditch bottom protection.	
Clearing and grubbing.	
Remove and stockpile topsoil.	
Stabilize disturbed areas.	
Install utilities, storm sewers, curb and gutter.	
Install inlet and culvert protection after completing storm drainage and other utility installations.	
Final grading.	
Final paving.	
Removal of protection devices.	
Reseed areas disturbed by removal activities.	

5.3 (5): DESCRIPTION AND MAINTENANCE OF CONTROL MEASURES

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 checked="" type="checkbox"/> Silt Fence	
<input type="checkbox"/> Erosion Control Wattles	
<input type="checkbox"/> Temporary Berm / Windrow	
<input type="checkbox"/> Floating Silt Curtain	
<input checked="" 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 checked="" type="checkbox"/> Silt Fence	
<input type="checkbox"/> Temporary Berm/Windrow	
<input 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 type="checkbox"/> Riprap	
<input 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 checked="" type="checkbox"/> Curb Inlet Protection	
<input type="checkbox"/> Interceptor Ditch	
<input checked="" 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	

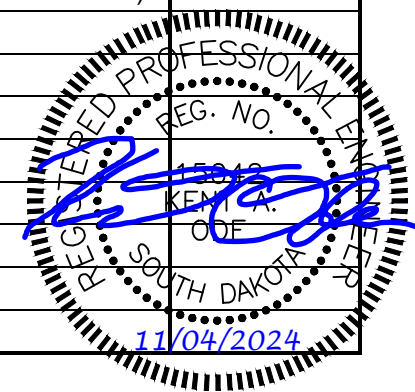
Dewatering BMPs

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.

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 $\frac{1}{3}$ 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 $\frac{1}{2}$ 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, degreasing 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.

➤ **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



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.

CONTROL DATA

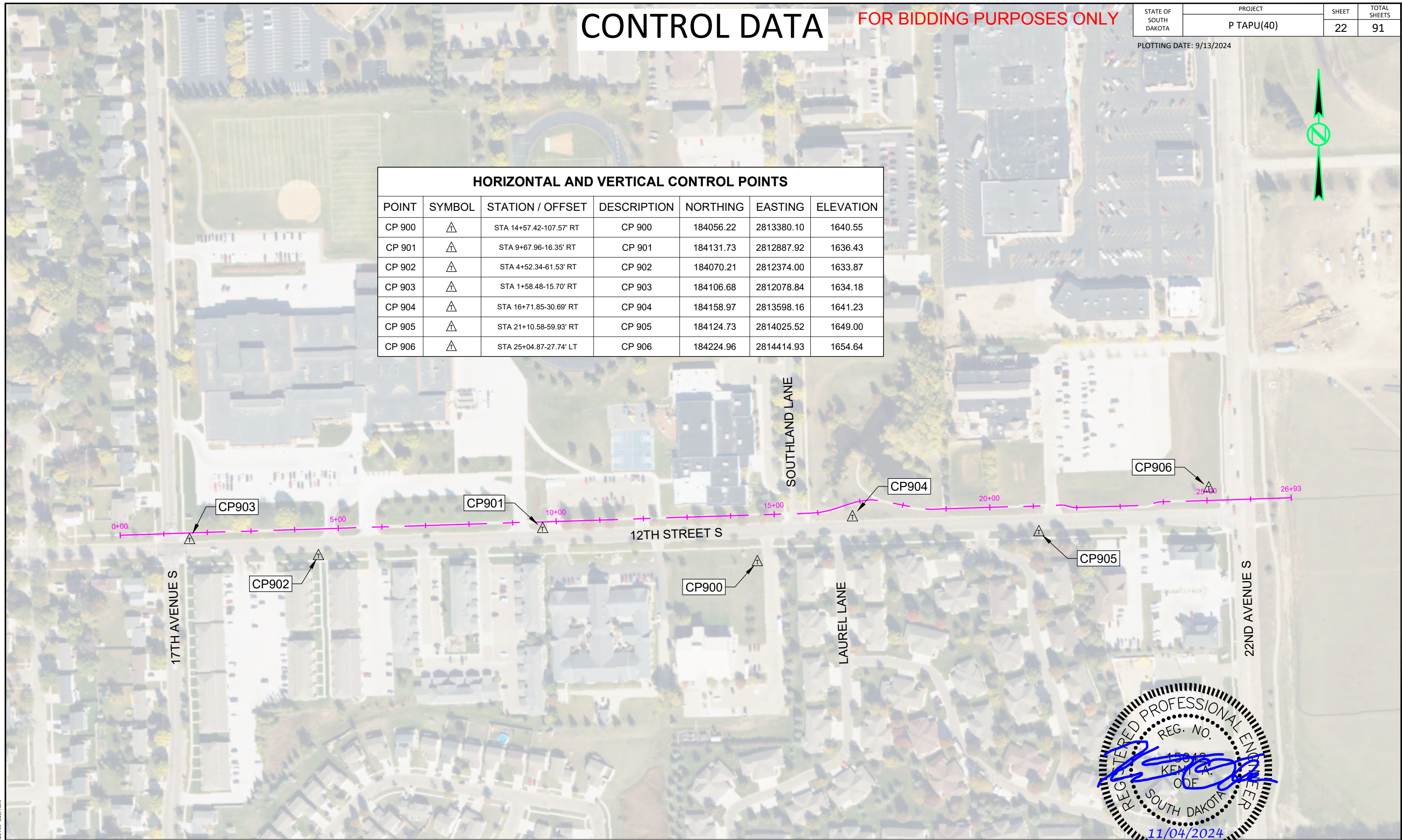
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	22	91

PLOTTING DATE: 9/13/2024



HORIZONTAL AND VERTICAL CONTROL POINTS						
POINT	SYMBOL	STATION / OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP 900	△	STA 14+57.42-107.57' RT	CP 900	184056.22	2813380.10	1640.55
CP 901	△	STA 9+67.96-16.35' RT	CP 901	184131.73	2812887.92	1636.43
CP 902	△	STA 4+52.34-61.53' RT	CP 902	184070.21	2812374.00	1633.87
CP 903	△	STA 1+58.48-15.70' RT	CP 903	184106.68	2812078.84	1634.18
CP 904	△	STA 16+71.85-30.69' RT	CP 904	184158.97	2813598.16	1641.23
CP 905	△	STA 21+10.58-59.93' RT	CP 905	184124.73	2814025.52	1649.00
CP 906	△	STA 25+04.87-27.74' LT	CP 906	184224.96	2814414.93	1654.64



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HORIZONTAL ALIGNMENT DATA

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	23	91

PLOTTING DATE: 9/13/2024

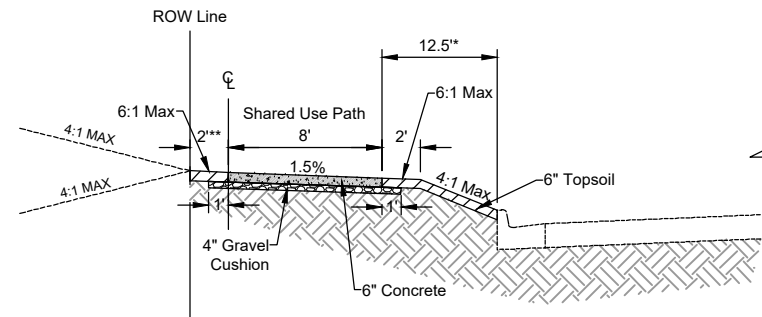
HORIZONTAL ALIGNMENT: 12th St Path					
DESCRIPTION	STATION	LENGTH	COURSE	NORTHING	EASTING
1L	BEG:0+00.00 END:4+66.07	466.07'	N88°10'50.41"E'	BEG:184117.34 END:184132.14	BEG:2811919.93 END:2812385.77
2L	BEG:4+66.07 END:9+35.30	469.23'	N88°10'50.41"E'	BEG:184132.14 END:184147.04	BEG:2812385.77 END:2812854.76
3L	BEG:9+35.30 END:12+53.22	317.92'	N88°10'50.41"E'	BEG:184147.04 END:184157.13	BEG:2812854.76 END:2813172.52
4L	BEG:12+53.22 END:15+23.03	269.81'	N88°08'43.99"E'	BEG:184157.13 END:184165.86	BEG:2813172.52 END:2813442.20
5L	BEG:15+23.03 END:15+82.95	59.92'	N88°09'15.00"E'	BEG:184165.86 END:184167.79	BEG:2813442.20 END:2813502.08
1C	BEG:15+82.95 END:16+42.64	CL=59.46'	CL=N79°36'17.43"E' R=200.00'	BEG:184167.79 END:184178.52	BEG:2813502.08 END:2813560.57
6L	BEG:16+42.64 END:16+71.80	29.16'	N71°03'19.86"E'	BEG:184178.52 END:184187.99	BEG:2813560.57 END:2813588.15
2C	BEG:16+71.80 END:17+27.57	CL=55.60'	CL=N79°02'42.31"E' R=200.00'	BEG:184187.99 END:184198.55	BEG:2813588.15 END:2813642.73
3C	BEG:17+27.57 END:17+69.69	CL=42.05'	CL=S81°35'01.17"E' R=221.60'	BEG:184198.55 END:184192.40	BEG:2813642.73 END:2813684.33
7L	BEG:17+69.69 END:18+33.38	63.69'	S78°25'03.49"E'	BEG:184192.40 END:184179.61	BEG:2813684.33 END:2813746.73
4C	BEG:18+33.38 END:18+66.69	CL=33.23'	CL=S85°08'12.65"E' R=142.00'	BEG:184179.61 END:184176.79	BEG:2813746.73 END:2813779.84
8L	BEG:18+66.69 END:18+98.67	31.99'	N88°08'38.20"E'	BEG:184176.79 END:184177.83	BEG:2813779.84 END:2813811.81
9L	BEG:18+98.67 END:21+64.16	265.48'	N88°09'34.59"E'	BEG:184177.83 END:184186.35	BEG:2813811.81 END:2814077.15
5C	BEG:21+64.16 END:21+80.49	CL=16.26'	CL=S82°05'22.27"E' R=48.00'	BEG:184186.35 END:184184.12	BEG:2814077.15 END:2814093.26
10L	BEG:21+80.49 END:21+87.71	7.22'	S72°20'19.14"E'	BEG:184184.12 END:184181.93	BEG:2814093.26 END:2814100.14
6C	BEG:21+87.71 END:21+98.61	CL=10.84'	CL=S82°05'22.27"E' R=32.00'	BEG:184181.93 END:184180.43	BEG:2814100.14 END:2814110.87
11L	BEG:21+98.61 END:23+58.34	159.74'	N88°09'34.59"E'	BEG:184180.43 END:184185.56	BEG:2814110.87 END:2814270.53
7C	BEG:23+58.34 END:23+69.23	CL=10.84'	CL=N78°24'31.46"E' R=32.00'	BEG:184185.56 END:184187.74	BEG:2814270.53 END:2814281.15
12L	BEG:23+69.23 END:23+76.45	7.22'	N68°39'28.32"E'	BEG:184187.74 END:184190.37	BEG:2814281.15 END:2814287.87
8C	BEG:23+76.45 END:23+92.79	CL=16.26'	CL=N78°24'31.46"E' R=48.00'	BEG:184190.37 END:184193.64	BEG:2814287.87 END:2814303.80
13L	BEG:23+92.79 END:26+93.34	300.55'	N88°09'34.59"E'	BEG:184193.64 END:184203.29	BEG:2814303.80 END:2814604.19



TYPICAL SECTIONS FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	24	91

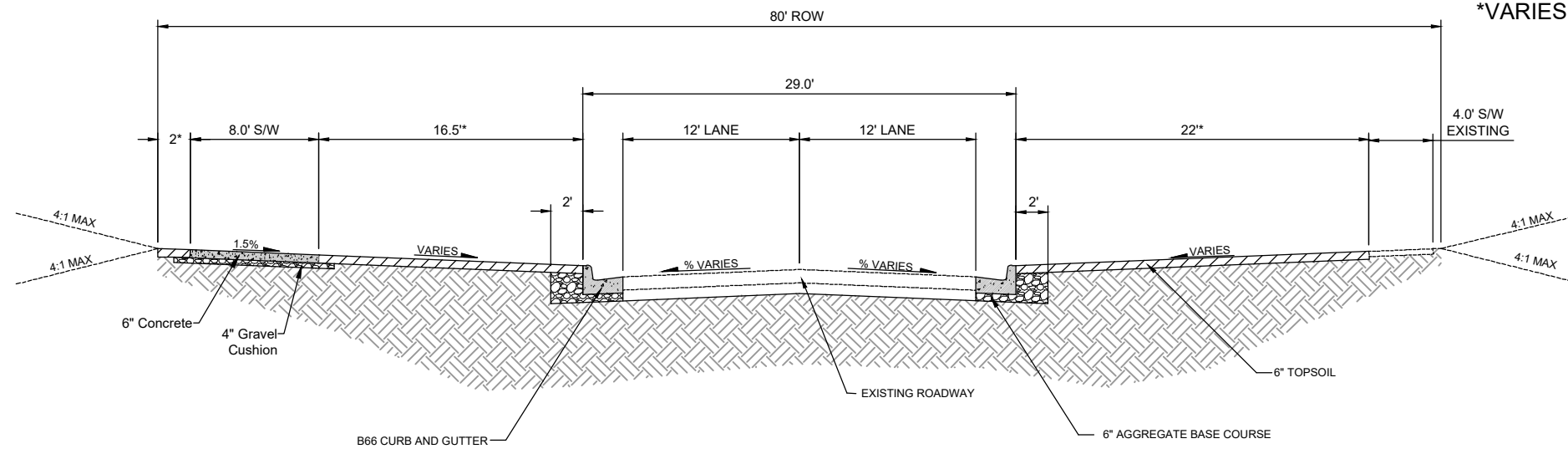
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NOTES:
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 **VARIES 15+53 TO 18+67 AND 21+64 TO 23+93

TYPICAL SECTION 1 - SHARED USE PATH

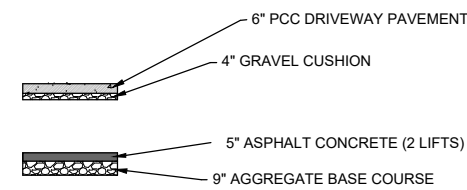
STA 1+49 to 25+31



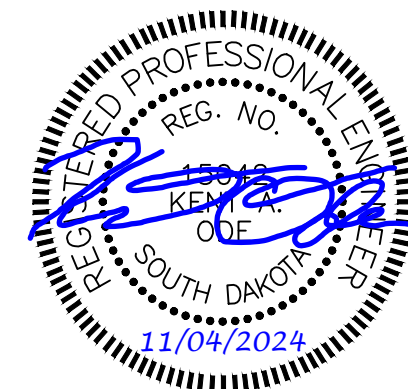
NOTES:
 *VARIES 14+18 TO 14+58 AND 15+90 TO 16+37

TYPICAL SECTION 2 - ROADWAY

STA 14+57 to 15+90



MISC. SECTIONS



LEGEND

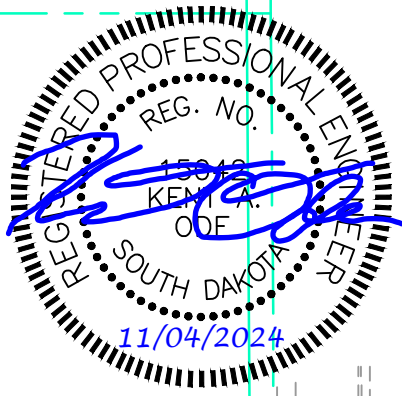
Anchor		Mailbox		Subsurface Utility Exploration Test Hole		State and National Line	
Antenna		Manhole Electric		Telephone Fiber Optics		County Line	
Approach		Manhole Gas		Telephone Junction Box		Section Line	
Assumed Corner		Manhole Miscellaneous		Telephone Pole		Quarter Line	
Azimuth Marker		Manhole Sanitary Sewer		Television Cable Jct Box		Sixteenth Line	
BBQ Grill/ Fireplace		Manhole Storm Sewer		Television Tower		Property Line	
Bearing Tree		Manhole Telephone		Test Wells/Bore Holes		Construction Line	
Bench Mark		Manhole Water		Traffic Sign Double Face		ROW Line	
Box Culvert		Merry-Go-Round		Traffic Sign One Post		New ROW Line	
Bridge		Microwave Radio Tower		Traffic Sign Two Post		Cut and Fill Limits	
Brush/Hedge		Miscellaneous Line		Traffic Signal		Control of Access	
Buildings		Miscellaneous Property Corner		Trash Barrel		New Control of Access	
Bulk Tank		Miscellaneous Post		Tree Belt		Proposed ROW	
Cattle Guard		Overhang Or Encroachment		Tree Coniferous		(After Property Disposal)	
Cemetery		Overhead Utility Line		Tree Deciduous			
Centerline		Parking Meter		Tree Stumps			
Cistern		Pedestrian Push Button Pole		Triangulation Station		Drainage Arrow	
Clothes Line		Pipe With End Section		Underground Electric Line		Remove Concrete Pavement	
Concrete Symbol		Pipe With Headwall		Underground Gas Line		Remove Concrete Driveway Pavement	
Control Point		Pipe Without End Section		Underground High Pressure Gas Line		Remove Asphalt Concrete Pavement	
Creek Edge		Playground Slide		Underground Sanitary Sewer		Remove Concrete Sidewalk	
Curb/Gutter		Playground Swing		Underground Storm Sewer		Remove Concrete Median Pavement	
Curb		Power And Light Pole		Underground Tank		Remove Concrete Curb and/or Gutter	
Dam Grade/Dike/Levee		Power And Telephone Pole		Underground Telephone Line		Mill and Overlay Asphalt Pavement	
Deck Edge		Power Meter		Underground Television Cable		Detectable Warning	
Ditch Block		Power Pole		Underground Water Line		Pedestrian Push Button Pole	
Doorway Threshold		Power Pole And Transformer		Water Fountain		and 30" x 48" Clear Space	
Drainage Profile		Power Tower Structure		Water Hydrant		with 1.5% slope	
Drop Inlet		Propane Tank		Water Meter			
Edge Of Asphalt		Property Pipe		Water Tower			
Edge Of Concrete		Property Pipe With Cap		Water Valve			
Edge Of Gravel		Property Stone		Water Well			
Edge Of Other		Public Telephone		Weir Rock			
Edge Of Shoulder		Railroad Crossing Signal		Windmill			
Electric Transformer/Power Junction Box		Railroad Milepost Marker		Wingwall			
Fence Barbwire		Railroad Profile		Witness Corner			
Fence Chainlink		Railroad ROW Marker					
Fence Electric		Railroad Signs					
Fence Miscellaneous		Railroad Switch					
Fence Rock		Railroad Track					
Fence Snow		Railroad Trestle					
Fence Wood		Rebar					
Fence Woven		Rebar With Cap					
Fire Hydrant		Reference Mark					
Flag Pole		Retaining Wall					
Flower Bed		Riprap					
Gas Valve Or Meter		River Edge					
Gas Pump Island		Rock And Wire Baskets					
Grain Bin		Rockpiles					
Guardrail		Satellite Dish					
Gutter		Septic Tank					
Guy Pole		Shrub Tree					
Haystack		Sidewalk					
Highway ROW Marker		Sign Face					
Interstate Close Gate		Sign Post					
Iron Pin		Slough Or Marsh					
Irrigation Ditch		Spring					
Lake Edge		Stream Gauge					
Lawn Sprinkler		Street Marker					



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	26	91

PLOTTING DATE: 9/13/2024



MORIARTY FOURTH ADDN
BLOCK 5 EXC LOT 1

Brookings School District
Parcel 1

17TH AVENUE

BEGIN P TAPU (40)
12th St Path
Station 1+49

1+00

2+00

3+00

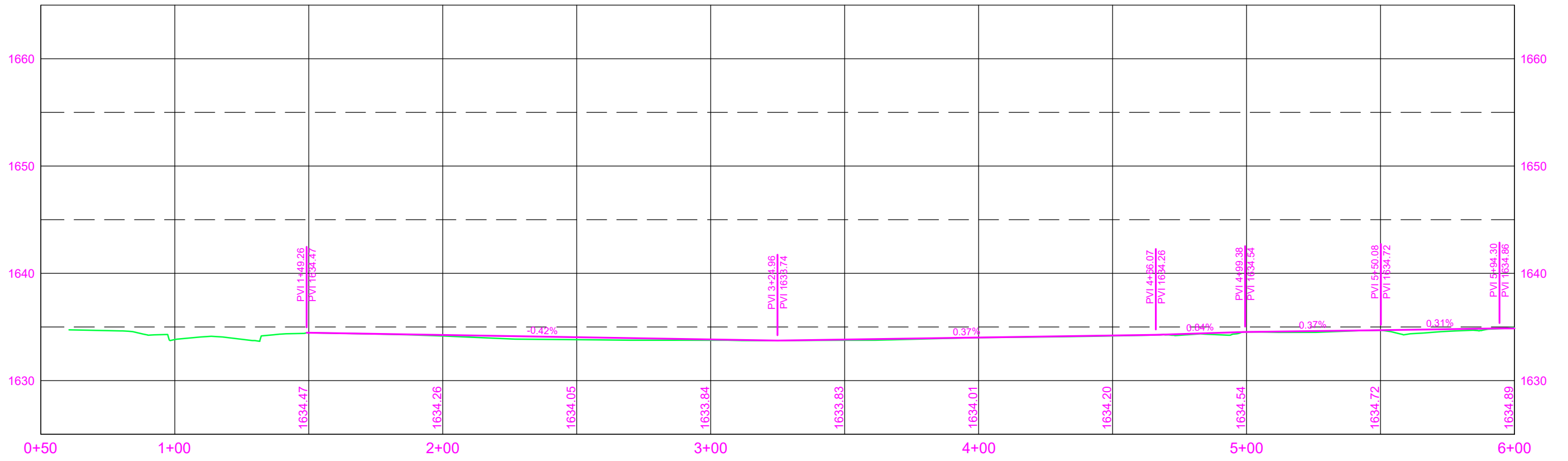
4+00

5+00

6+00

12TH STREET

Parcel 1
4+66 to 4+99 L, 5+45 to 5+92 L, and 8+99 to 9+35 L
Temporary Easement containing
0.03 ac (1,207sq ft), more or less



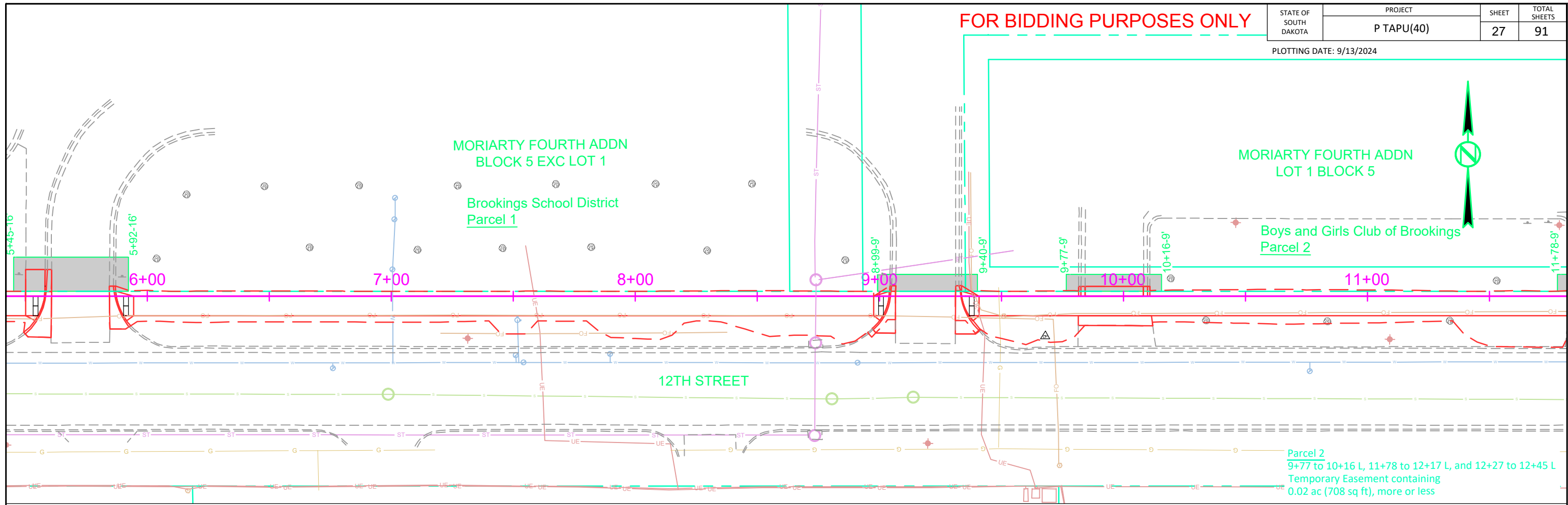
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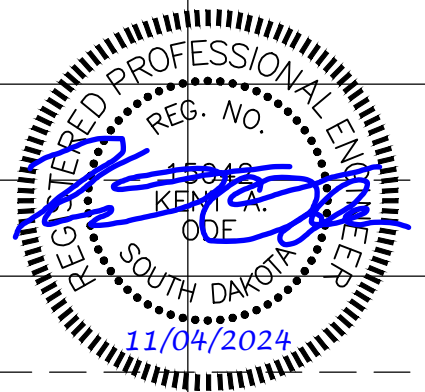
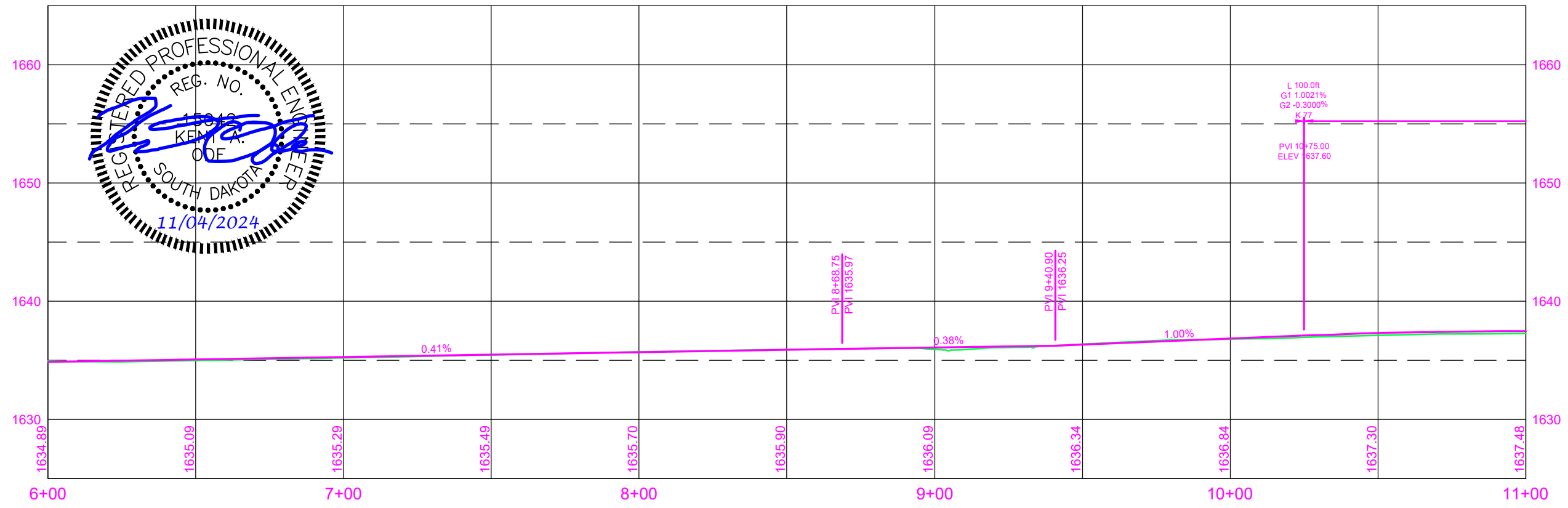
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	27	91

PLOTTING DATE: 9/13/2024



Parcel 2
 9+77 to 10+16 L, 11+78 to 12+17 L, and 12+27 to 12+45 L
 Temporary Easement containing
 0.02 ac (708 sq ft), more or less



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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	28	91

PLOTTING DATE: 9/13/2024

MORIARTY FOURTH ADDN LOT 1 BLOCK 5

HYLAND ADDN BLOCK 7

15+89.85 - 18.31' R to 16+30.17 - 25.09' R
Install 42" - 18" RCP

Boys and Girls Club of Brookings
Install 6'x10' Type S
Drop Inlet at the Following Locations:
14+19.29 - 17.61' R

Install 3'x6' Type S
Drop Inlets at the Following Locations:
15+86.57 - 53.07' R
16+32.67 - 26.18' R

Modify Drop Inlet
15+20.03 - 17.63' R
15+89.61 - 18.27' R

Adjust Water Valve
15+65.10 - 40.27' R

SOUTHLAND LANE

Boys and Girls Club of Brookings Parcel 2

11+00

12+00

13+00

14+00

15+00

16+00

12TH STREET

Parcel 3
14+35 to 14+80 R
Temporary Easement containing
0.02 ac (900 sq ft), more or less

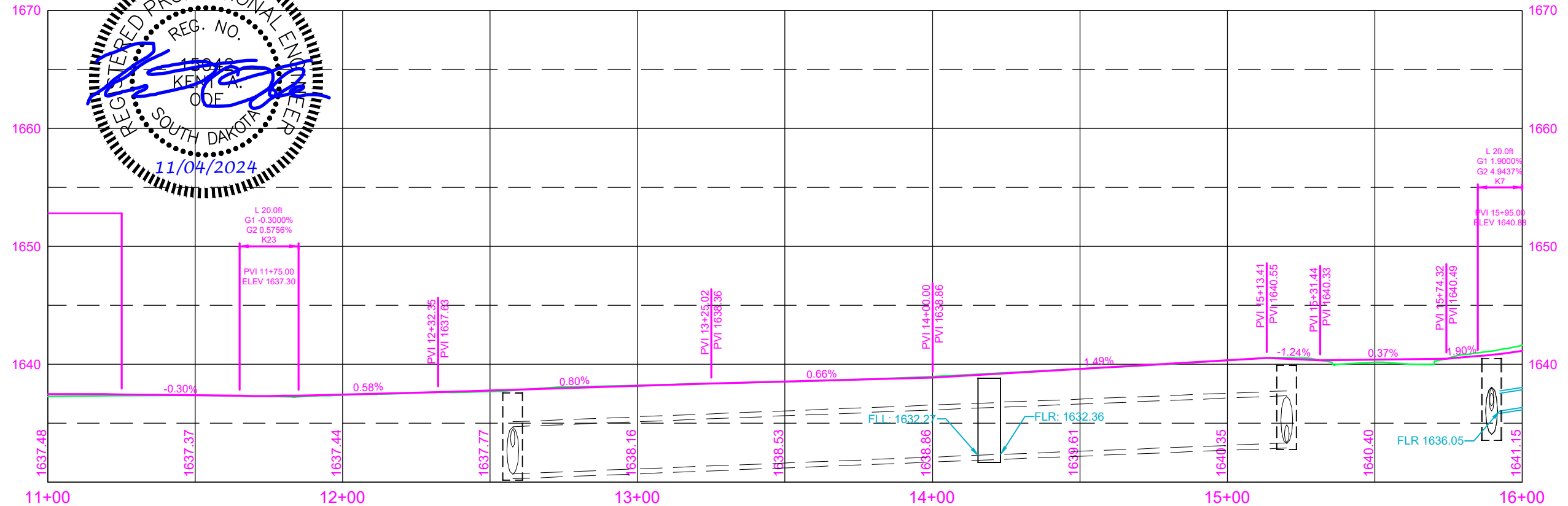
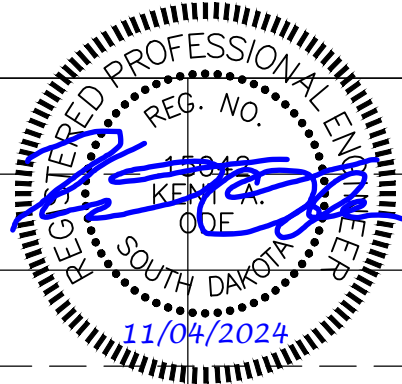
Boys and Girls Club of Brookings Parcel 3

HYLAND ADDN BLOCK 6

Remove Drop Inlet
15+87.54 - 56.96' R

15+87.40 - 55.08' R to 15+87.57 - 51.59' R
Take Out 18" - 4' RC Pipe

14+14.30 - 17.66' R to 14+24.29 - 17.61' R
Take Out 48" - 10' RC Pipe



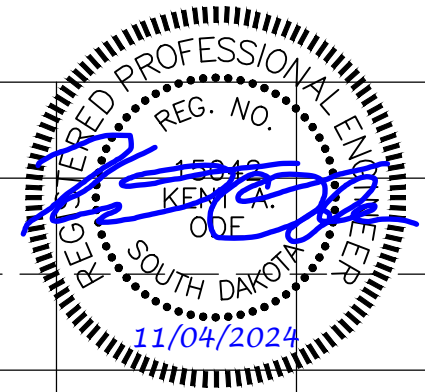
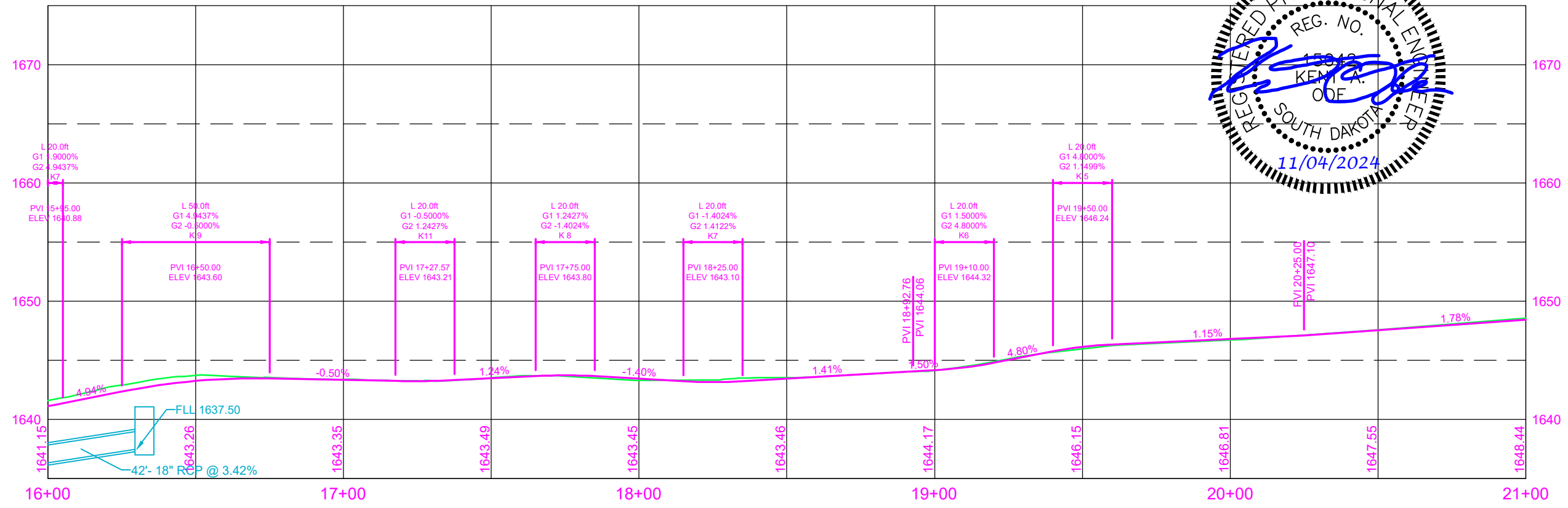
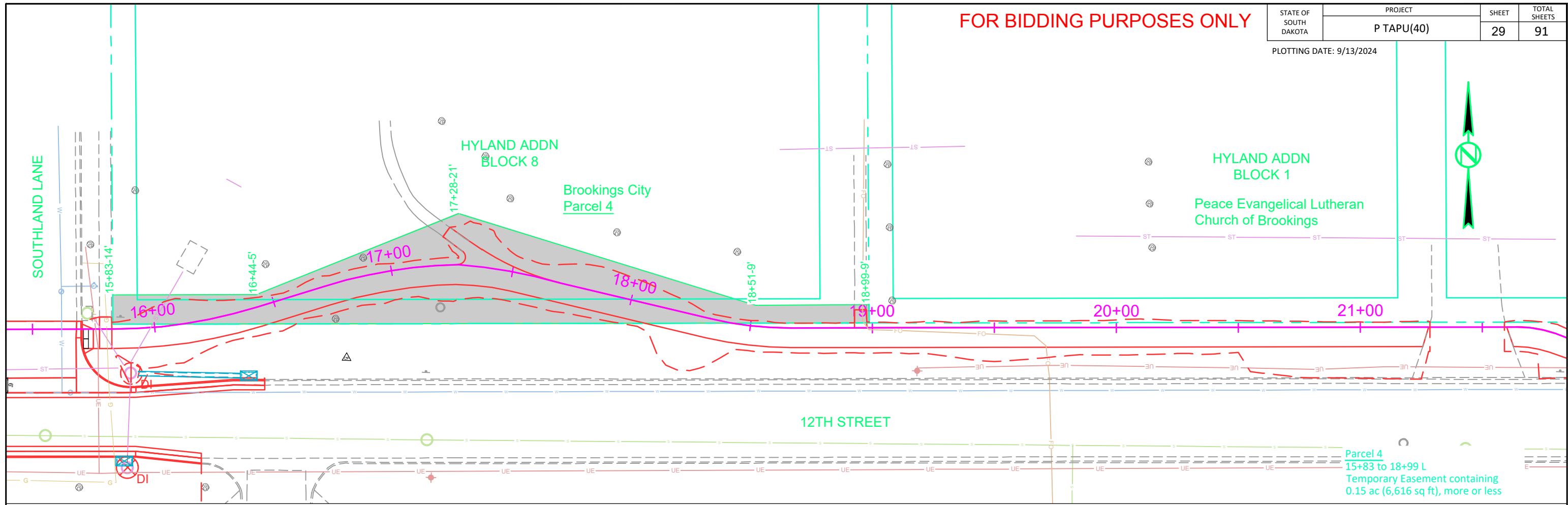
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FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	29	91

PLOTTING DATE: 9/13/2024



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FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA

PROJECT
P TAPU(40)

SHEET
30

TOTAL SHEETS
91

PLOTTING DATE: 9/13/2024

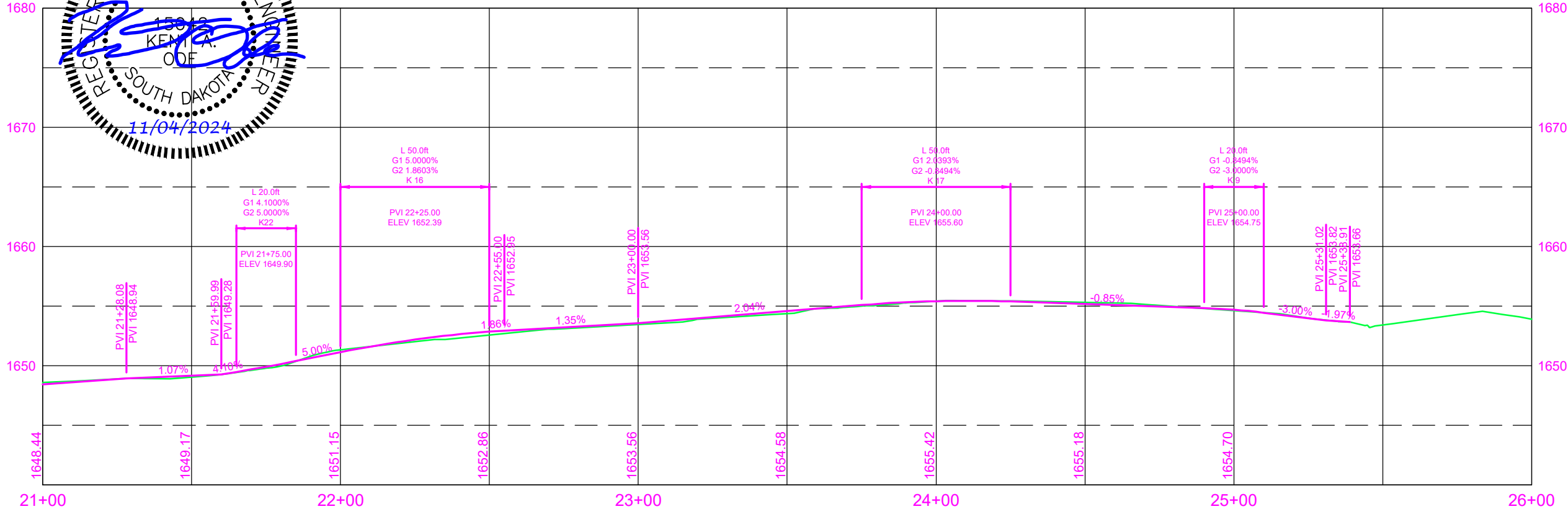
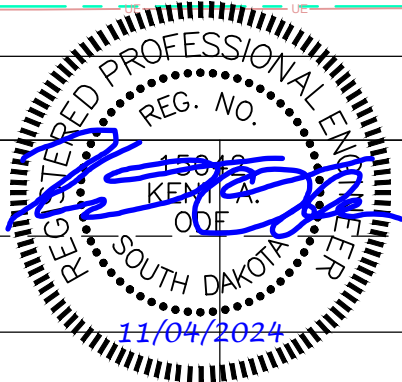
HYLAND ADDN
BLOCK 1
Peace Evangelical Lutheran
Church of Brookings

HYLAND ADDN
BLOCK 1
Peace Evangelical Lutheran
Church of Brookings

22ND AVENUE

12TH STREET

END P TAPU (40)
12th St Path
Station 25+31



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PLOT DATE: 9/13/2024 1:28 PM Obs: Kent

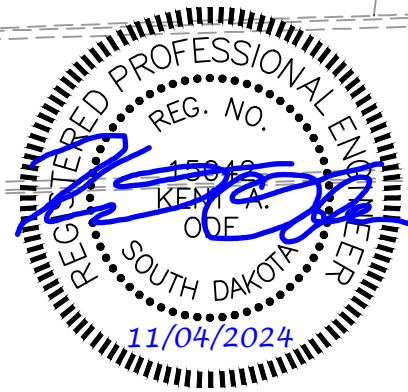
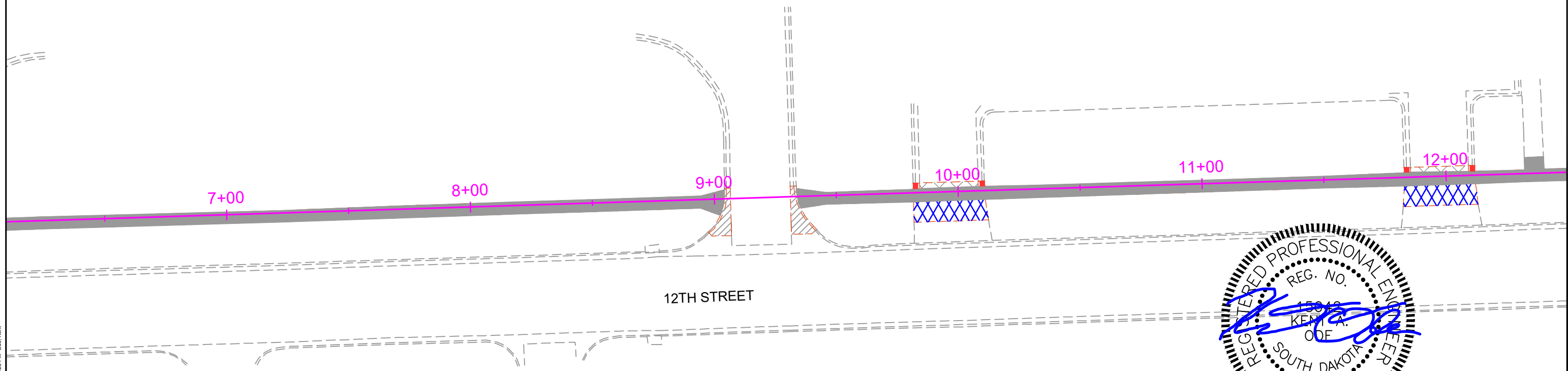
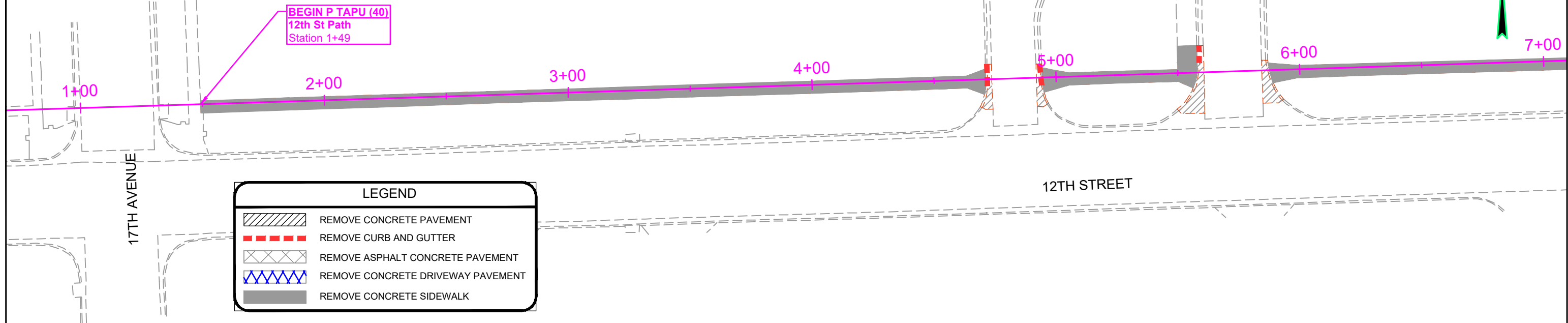


PAVEMENT REMOVALS

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	31	91

PLOTTING DATE: 9/13/2024

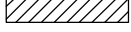






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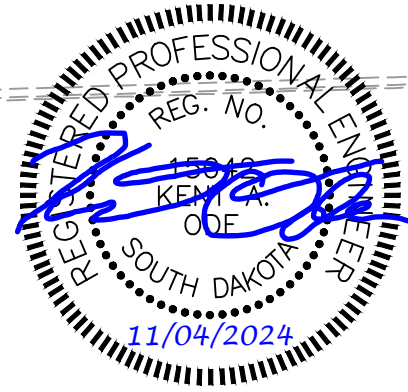
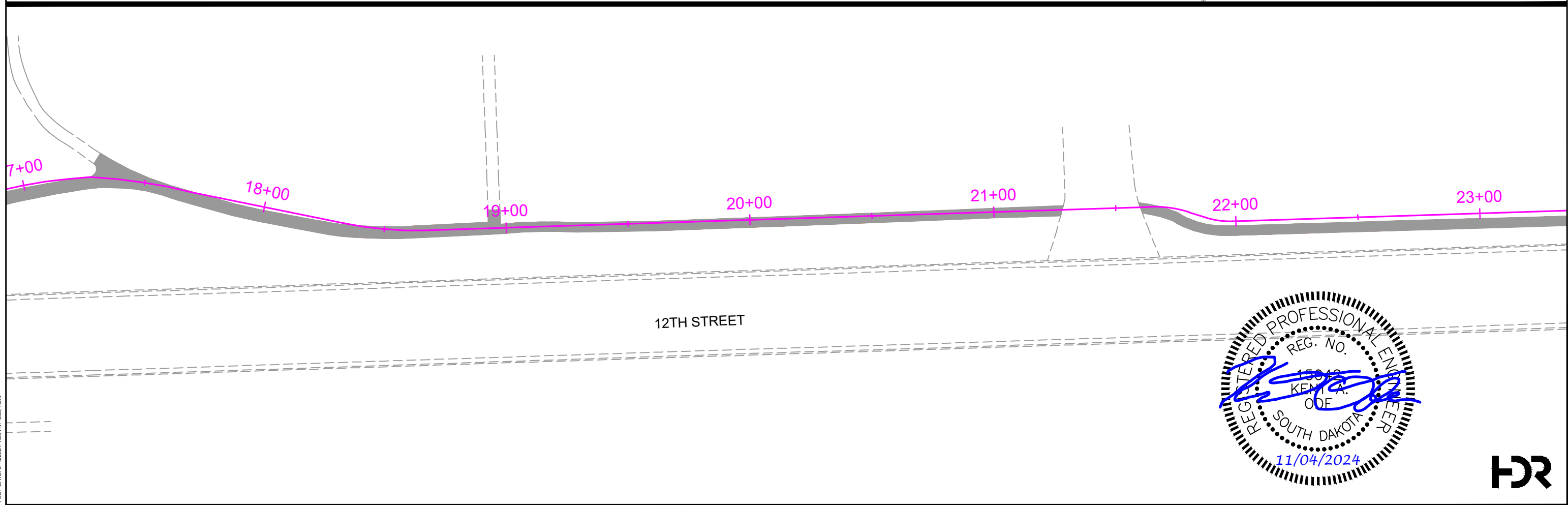
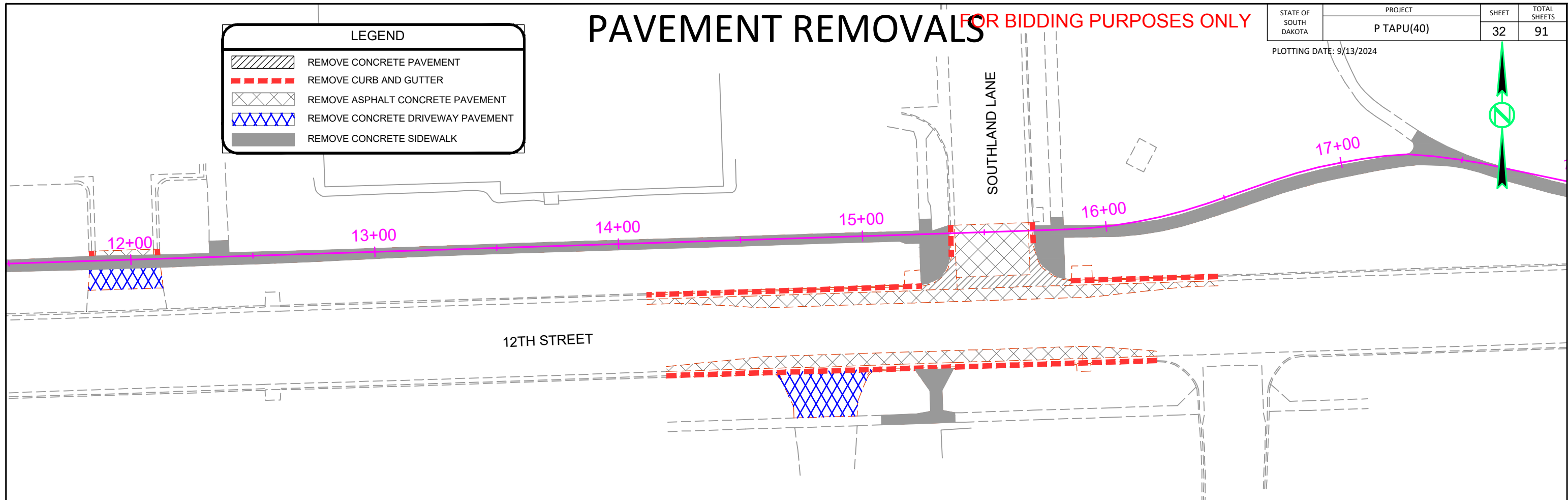
PAVEMENT REMOVALS

FOR BIDDING PURPOSES ONLY

LEGEND	
	REMOVE CONCRETE PAVEMENT
	REMOVE CURB AND GUTTER
	REMOVE ASPHALT CONCRETE PAVEMENT
	REMOVE CONCRETE DRIVEWAY PAVEMENT
	REMOVE CONCRETE SIDEWALK

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	32	91

PLOTTING DATE: 9/13/2024



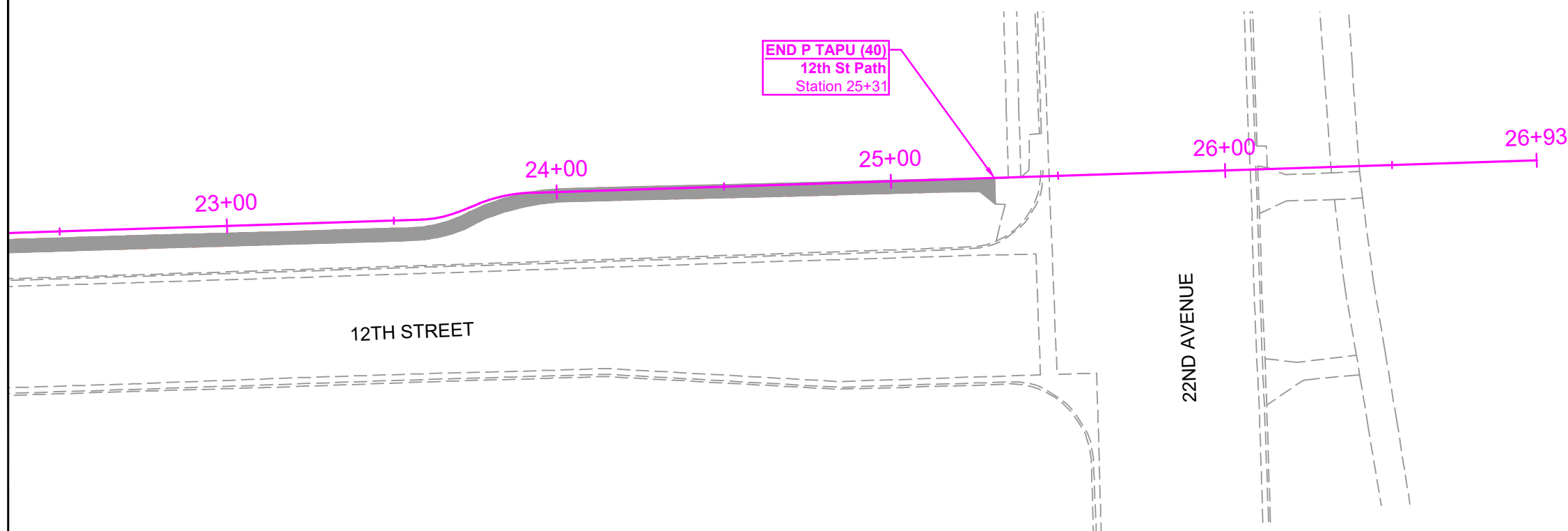
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PLOT DATE: 9/13/2024 1:28 PM Obj: Kent

PAVEMENT REMOVALS

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	33	91

PLOTTING DATE: 9/13/2024



LEGEND	
	REMOVE CONCRETE PAVEMENT
	REMOVE CURB AND GUTTER
	REMOVE ASPHALT CONCRETE PAVEMENT
	REMOVE CONCRETE DRIVEWAY PAVEMENT
	REMOVE CONCRETE SIDEWALK



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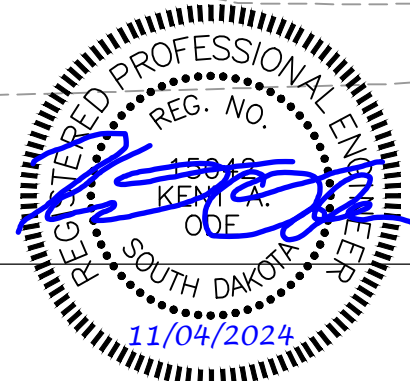
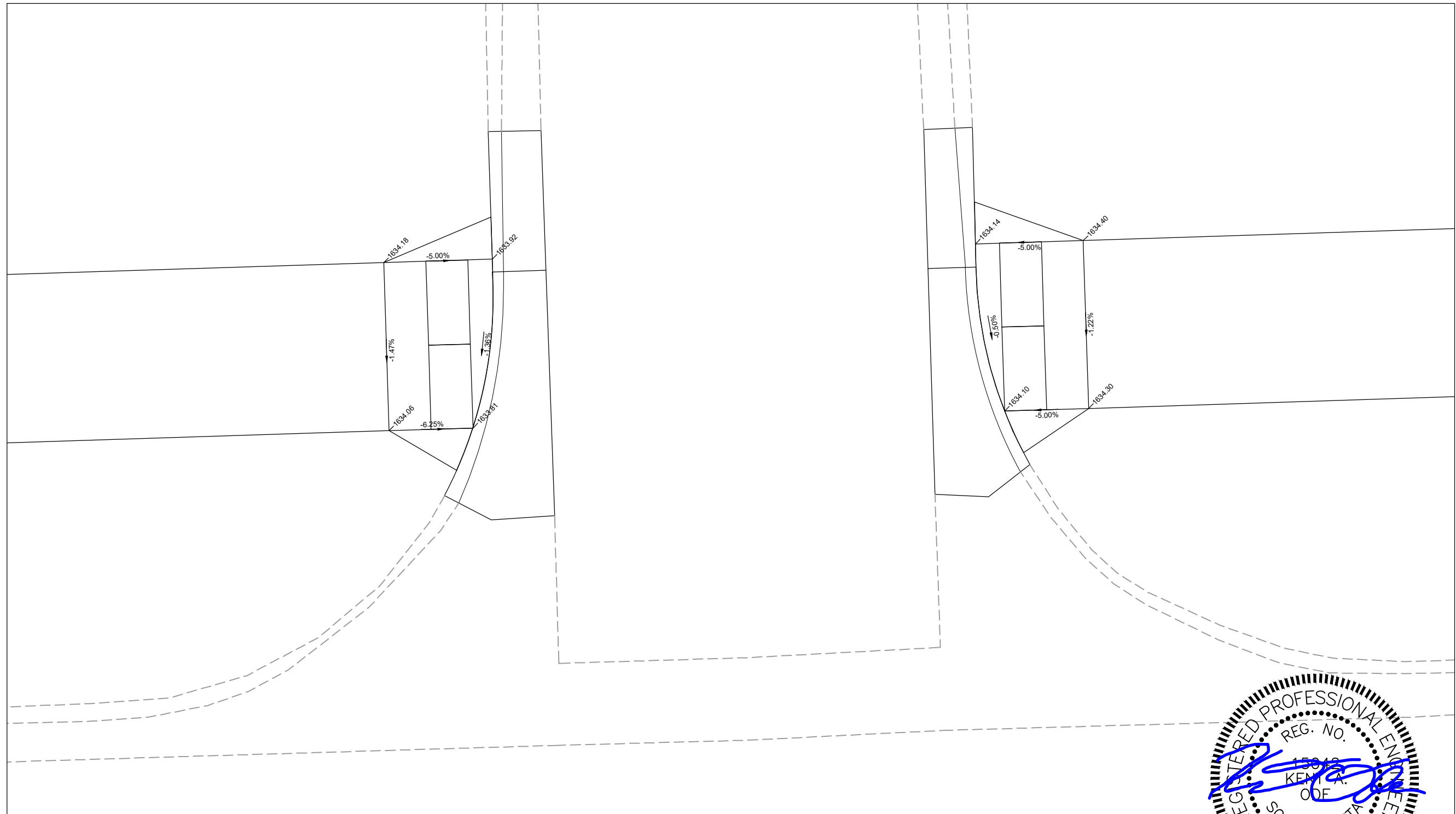


STA 4+83 CURB RAMP DETAILS

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	34	91

PLOTTING DATE: 9/18/2024



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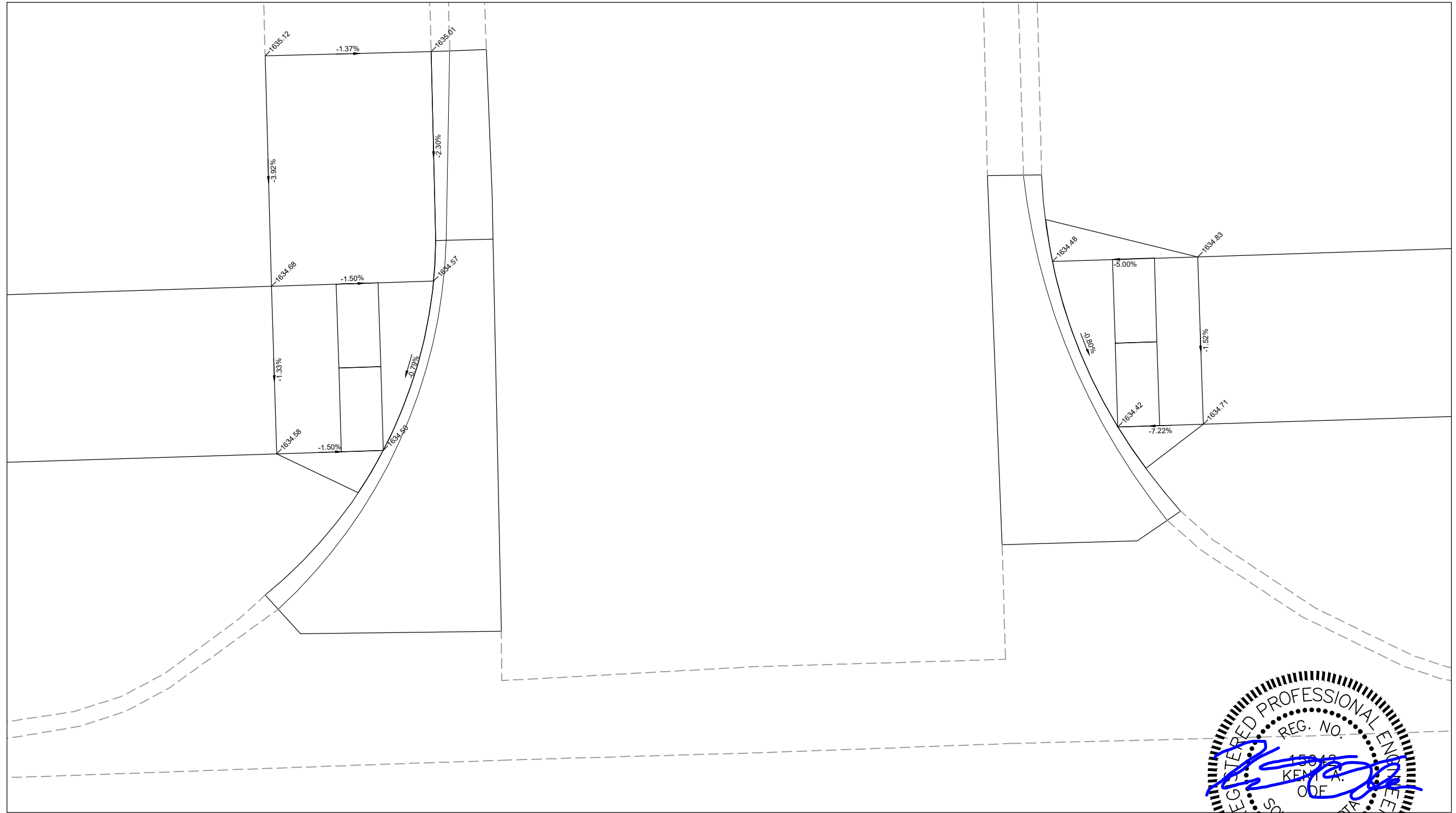


STA 5+73 CURB RAMP DETAILS

FOR BIDDING PURPOSES ONLY

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	P TAPU(40)	35	91

PLOTTING DATE: 9/18/2024

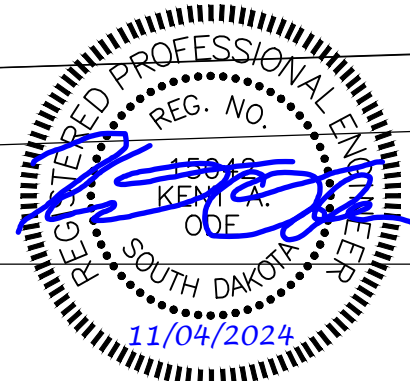
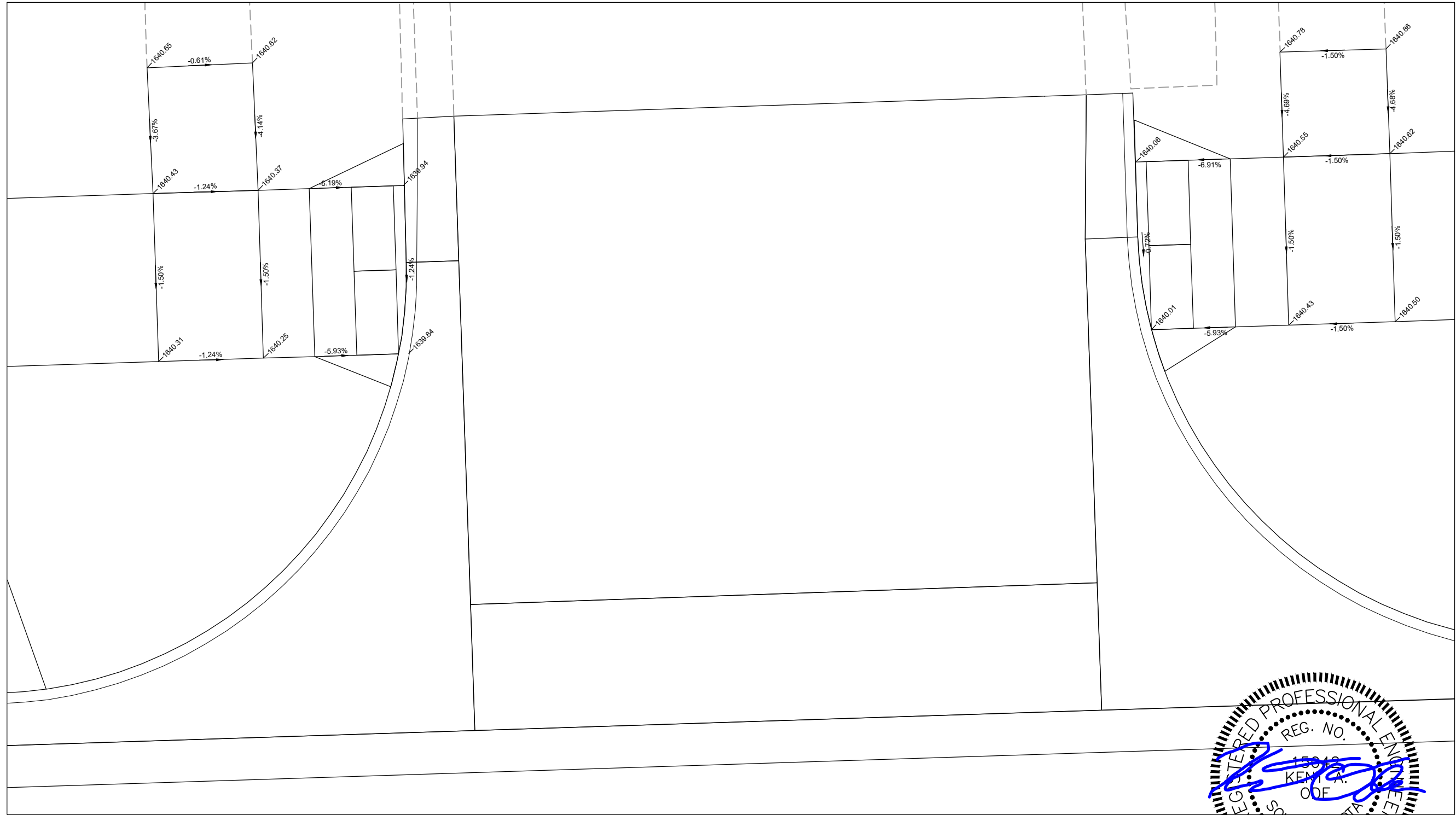


STA 15+53 CURB RAMP DETAILS

FOR BIDDING PURPOSES ONLY

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	P TAPU(40)	37	91

PLOTTING DATE: 9/18/2024

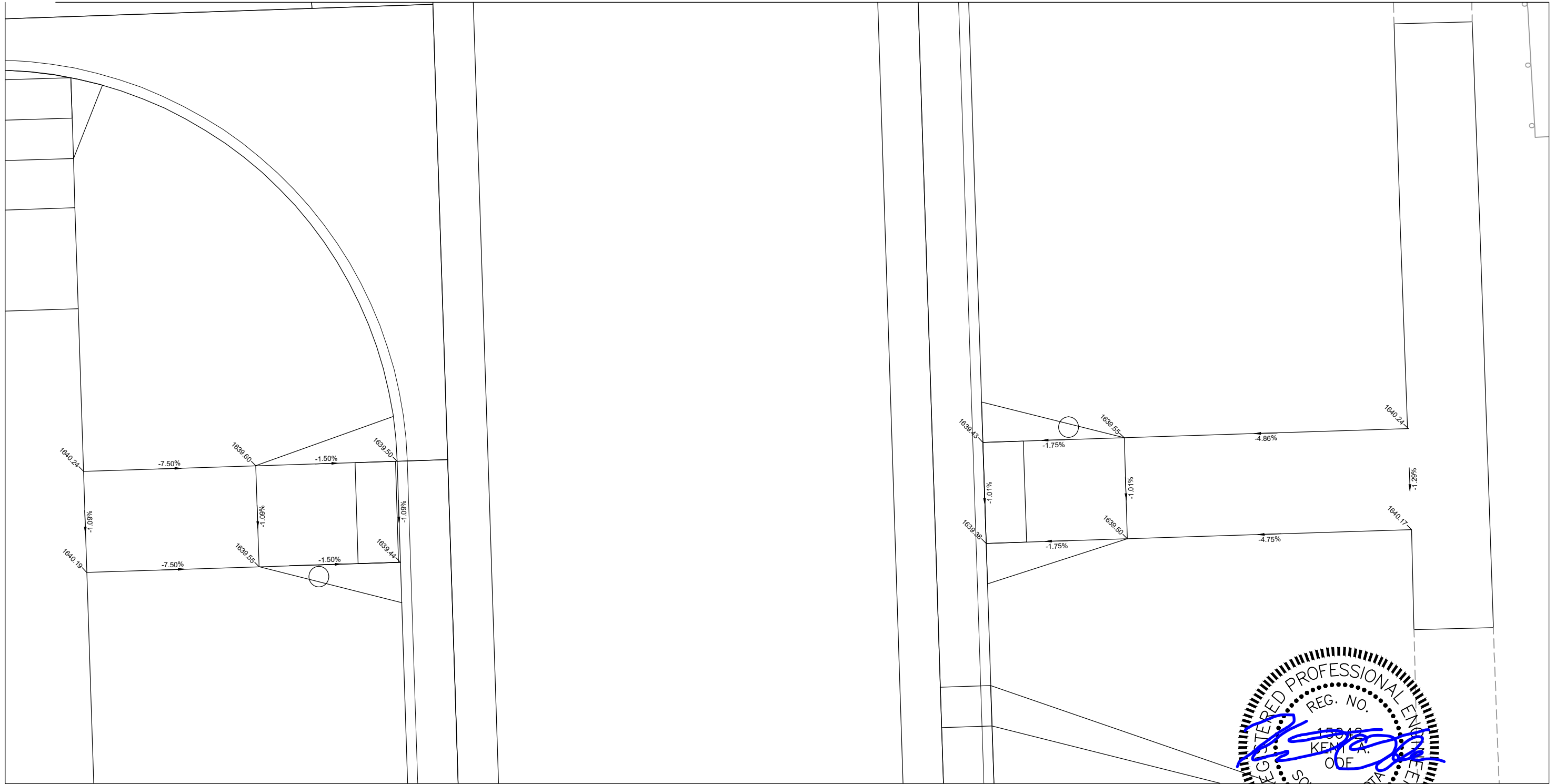


STA 15+25 CURB RAMP DETAILS

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	38	91

PLOTTING DATE: 9/18/2024



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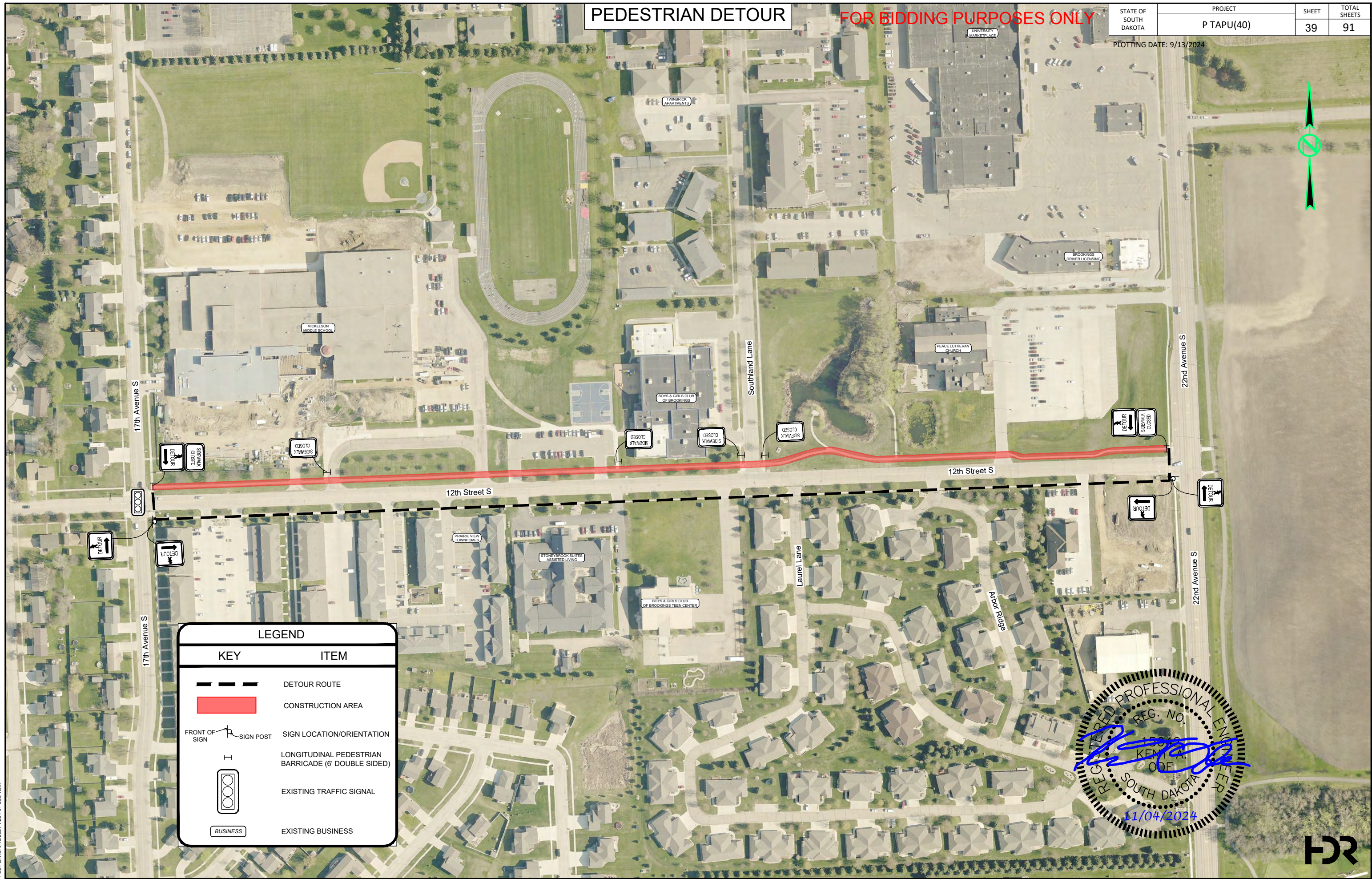


PEDESTRIAN DETOUR

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P TAPU(40)	SHEET 39	TOTAL SHEETS 91
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PLOTTING DATE: 9/13/2024



LEGEND	
KEY	ITEM
	DETOUR ROUTE
	CONSTRUCTION AREA
	SIGN LOCATION/ORIENTATION
	LONGITUDINAL PEDESTRIAN BARRICADE (6' DOUBLE SIDED)
	EXISTING TRAFFIC SIGNAL
	EXISTING BUSINESS



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 PLOT DATE: 9/13/2024 1:28 PM Cbr, Kent

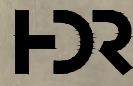
SOUTHLAND LANE DETOUR

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P TAPU(40)	SHEET 40	TOTAL SHEETS 91
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PLOTTING DATE: 04/13/2024

LEGEND	
KEY	ITEM
	DETOUR ROUTE
	CONSTRUCTION AREA
	SIGN LOCATION/ORIENTATION
	TYPE III BARRICADE
	EXISTING TRAFFIC SIGNAL
	EXISTING BUSINESS



TRAFFIC CONTROL - NORTH

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	41	91

PLOTTING DATE: 9/13/2024



LEGEND		
KEY	ITEM	KEY
	TRAFFIC FLOW	
	CONSTRUCTION AREA	
	SIGN LOCATION/ORIENTATION	
	TYPE 3 BARRICADE (DOUBLE SIDED)	
	EXISTING BUSINESS	

1. TRAFFIC DRUMS/CONES SHALL BE SPACED AT 25' UNLESS SHOWN OTHERWISE
 5' BARREL SPACING = ●●●●●●●●
 10' BARREL SPACING = ●●●●●●●●

2. TUBULAR MARKERS SHALL BE SPACED AT 25' UNLESS SHOWN OTHERWISE
 5' TUBULAR MARKER SPACING = ○○○○○○○○

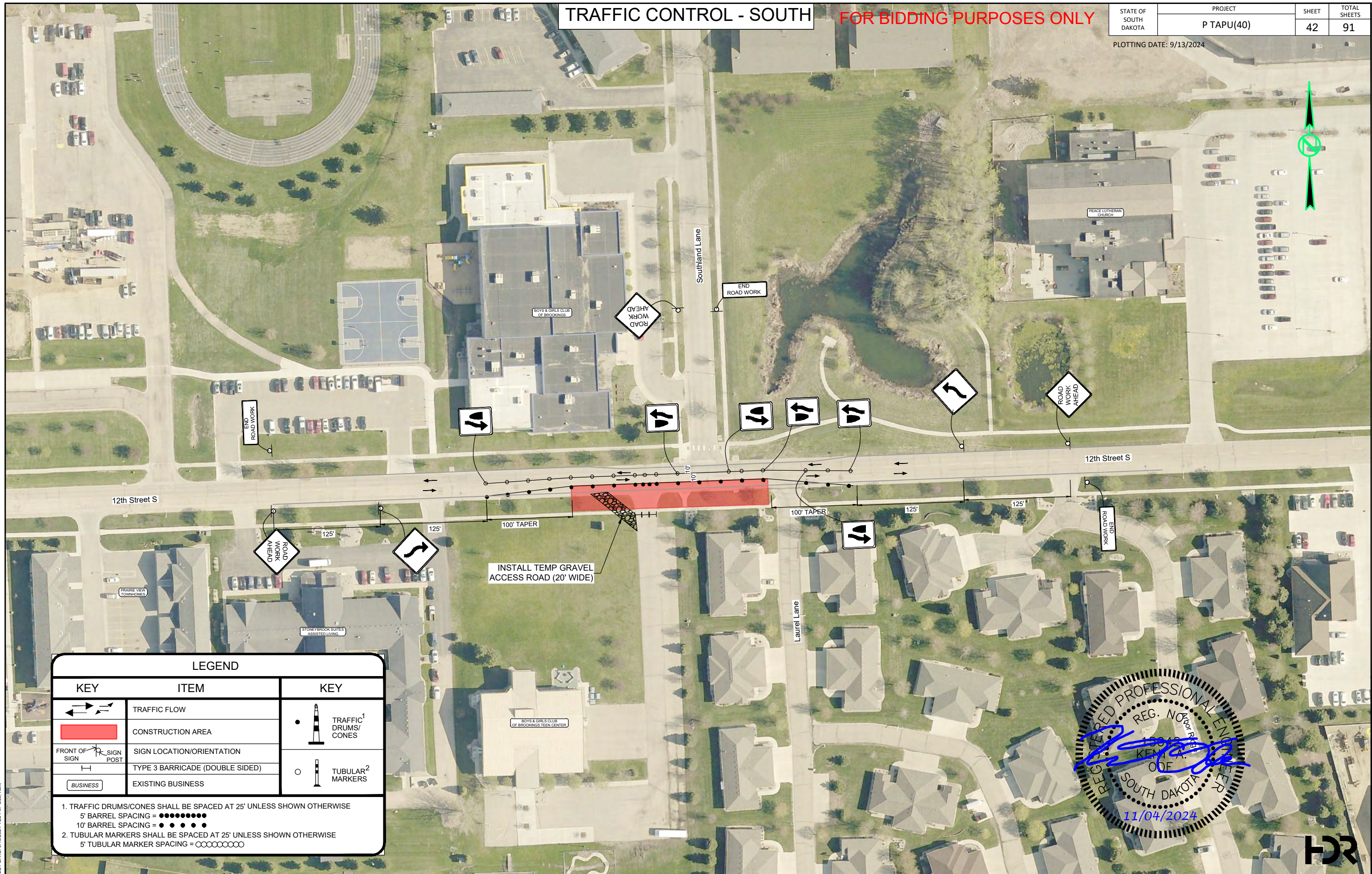


TRAFFIC CONTROL - SOUTH

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	42	91

PLOTTING DATE: 9/13/2024



LEGEND		
KEY	ITEM	KEY
	TRAFFIC FLOW	
	CONSTRUCTION AREA	
	SIGN LOCATION/ORIENTATION	
	TYPE 3 BARRICADE (DOUBLE SIDED)	
	EXISTING BUSINESS	

1. TRAFFIC DRUMS/CONES SHALL BE SPACED AT 25' UNLESS SHOWN OTHERWISE
 5' BARREL SPACING = ●●●●●●●●
 10' BARREL SPACING = ●●●●●●●●

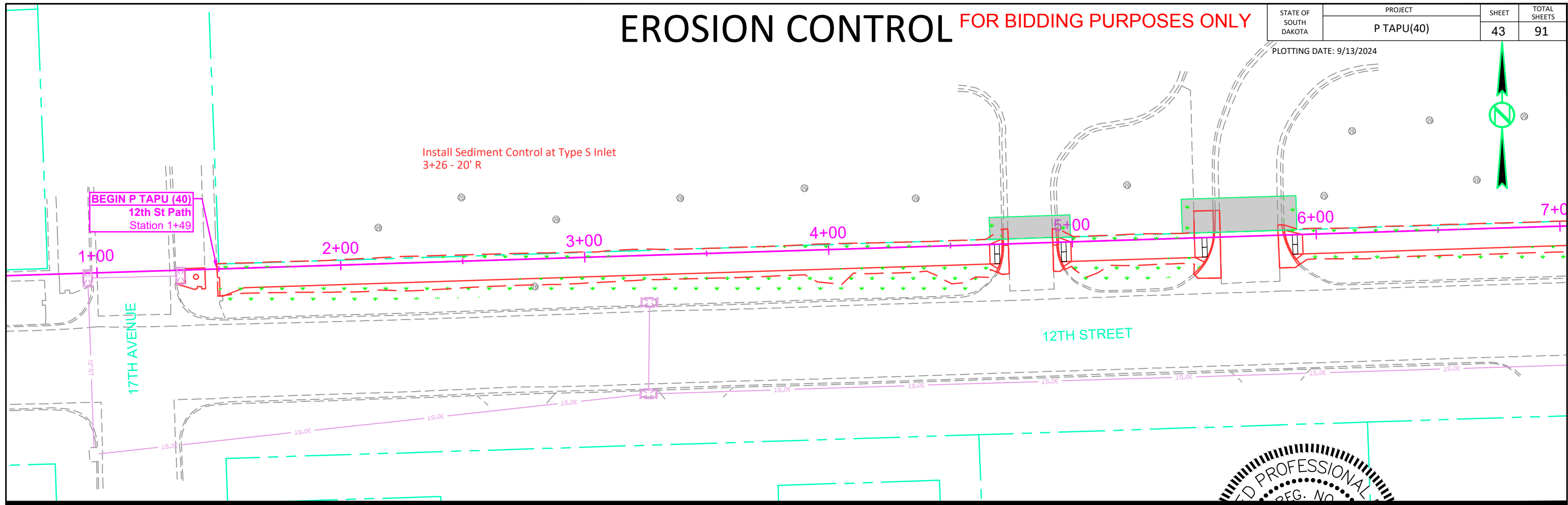
2. TUBULAR MARKERS SHALL BE SPACED AT 25' UNLESS SHOWN OTHERWISE
 5' TUBULAR MARKER SPACING = ○○○○○○○○



EROSION CONTROL FOR BIDDING PURPOSES ONLY

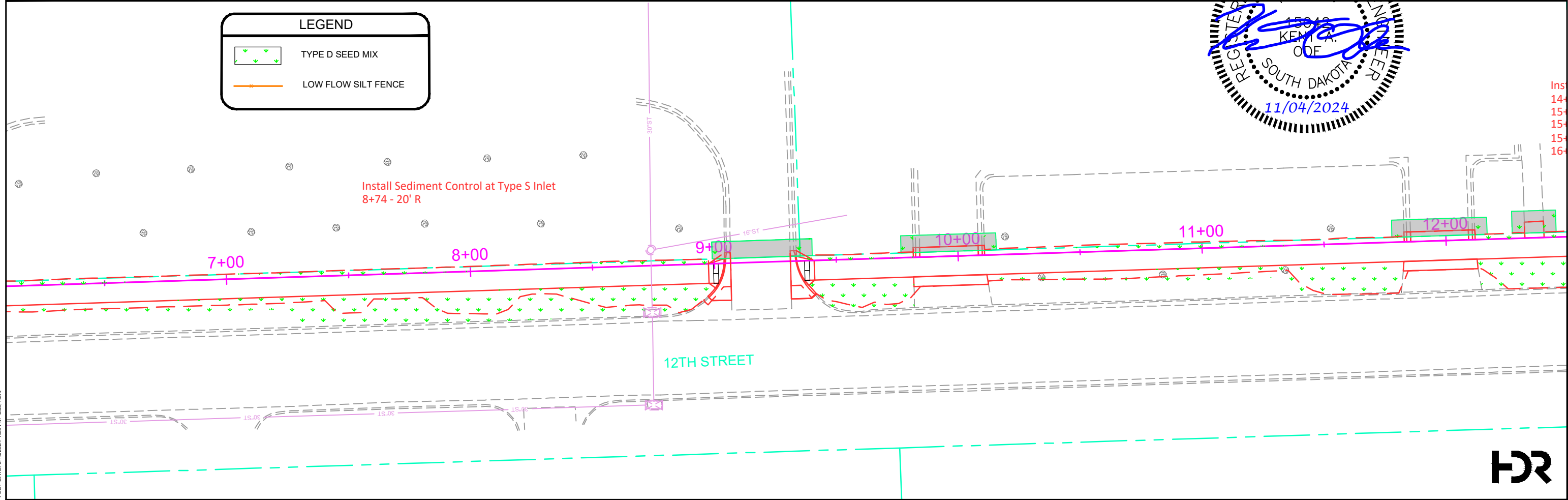
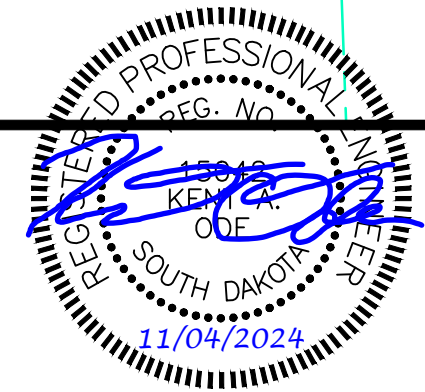
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	43	91

PLOTTING DATE: 9/13/2024



LEGEND

- TYPE D SEED MIX
- LOW FLOW SILT FENCE



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PLOT DATE: 9/13/2024 1:29 PM Obj: Kent

Ins
14-
15-
15-
15-
16-



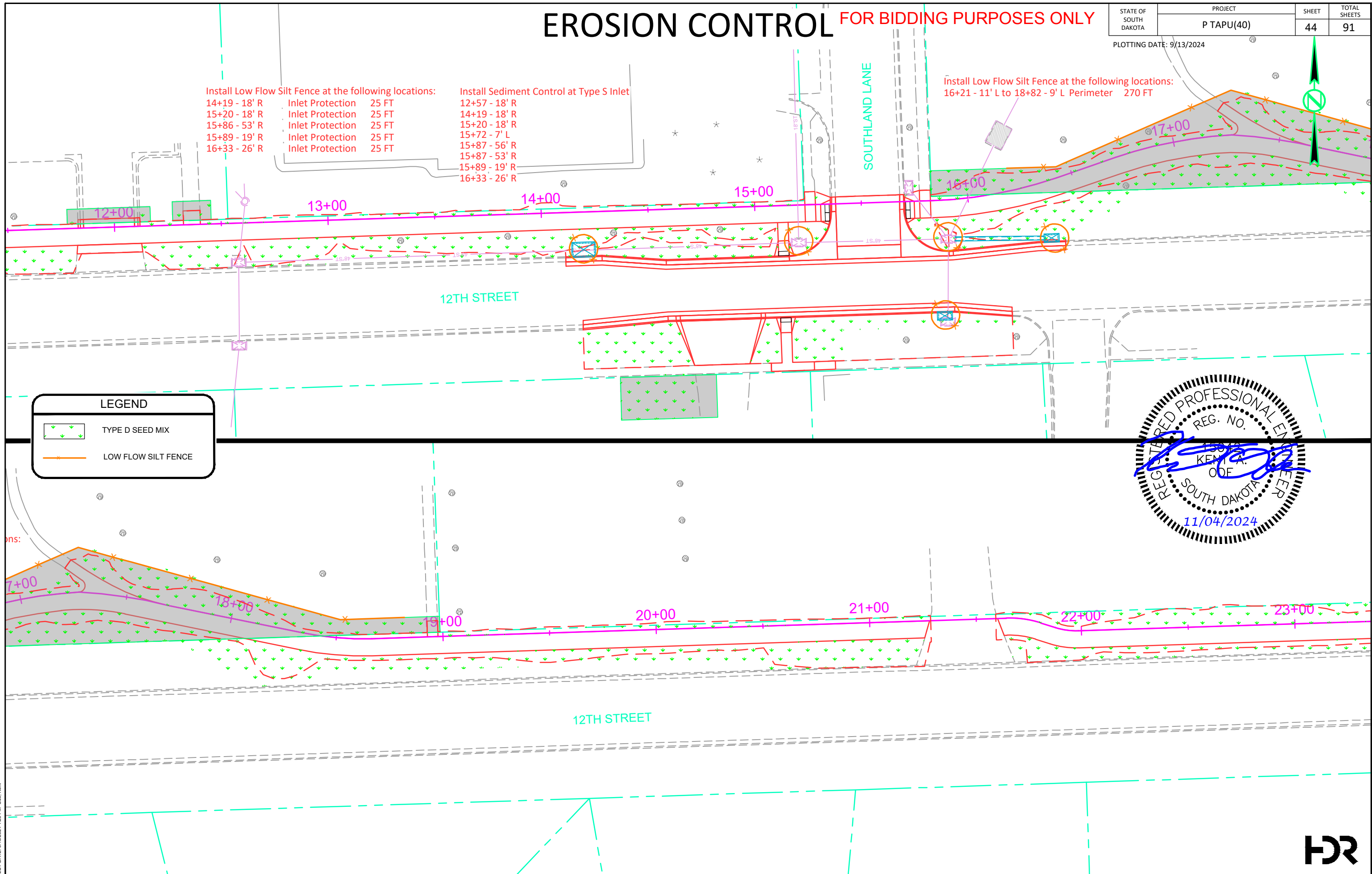
EROSION CONTROL FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	44	91

PLOTTING DATE: 9/13/2024

- | | |
|---|--|
| Install Low Flow Silt Fence at the following locations: | Install Sediment Control at Type S Inlet |
| 14+19 - 18' R | 12+57 - 18' R |
| 15+20 - 18' R | 14+19 - 18' R |
| 15+86 - 53' R | 15+20 - 18' R |
| 15+89 - 19' R | 15+72 - 7' L |
| 16+33 - 26' R | 15+87 - 56' R |
| | 15+87 - 53' R |
| | 15+89 - 19' R |
| | 16+33 - 26' R |

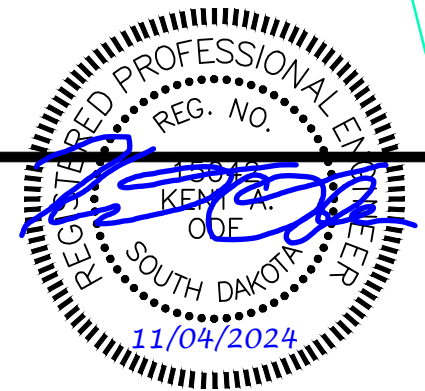
Install Low Flow Silt Fence at the following locations:
16+21 - 11' L to 18+82 - 9' L Perimeter 270 FT



LEGEND

TYPE D SEED MIX

LOW FLOW SILT FENCE



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PLOT DATE: 9/13/2024 1:29 PM Obj: Kent



EROSION CONTROL FOR BIDDING PURPOSES ONLY

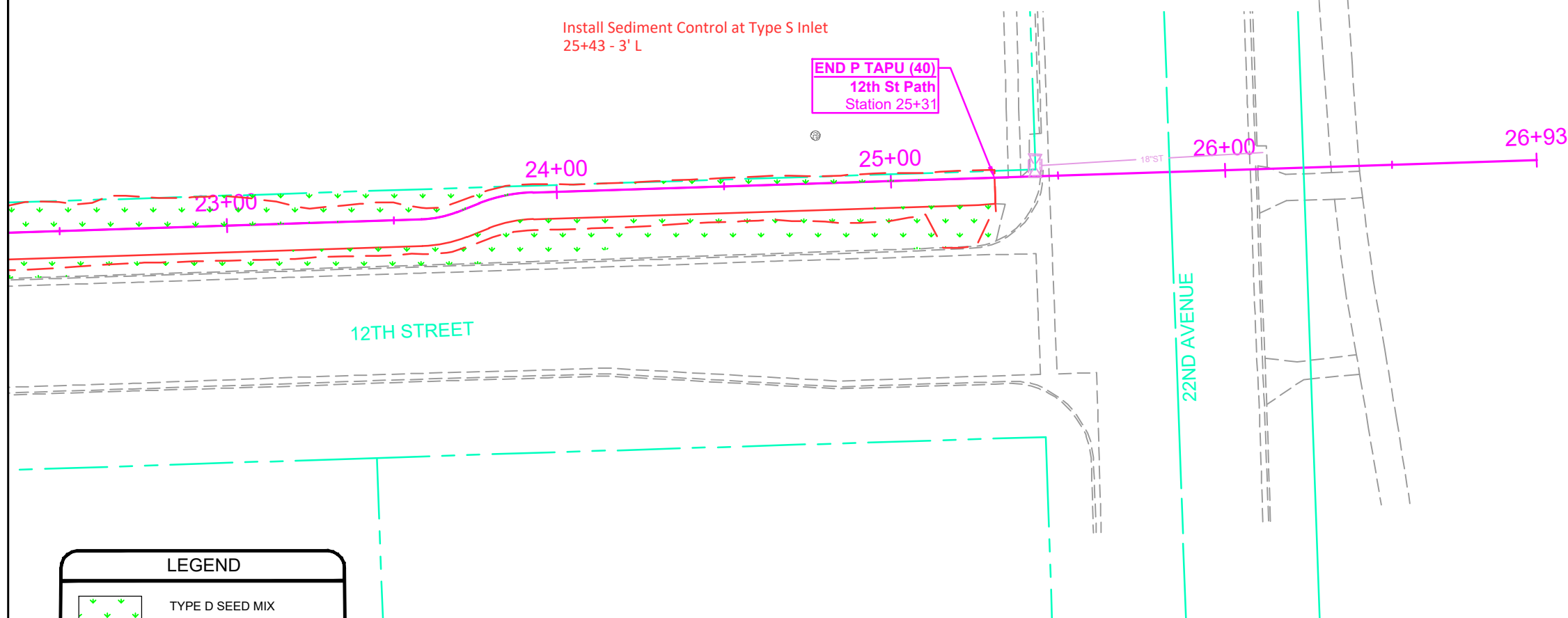
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	45	91

PLOTTING DATE: 9/13/2024





Install Sediment Control at Type S Inlet
25+43 - 3' L

END P TAPU (40)
12th St Path
Station 25+31



LEGEND

-  TYPE D SEED MIX
-  LOW FLOW SILT FENCE



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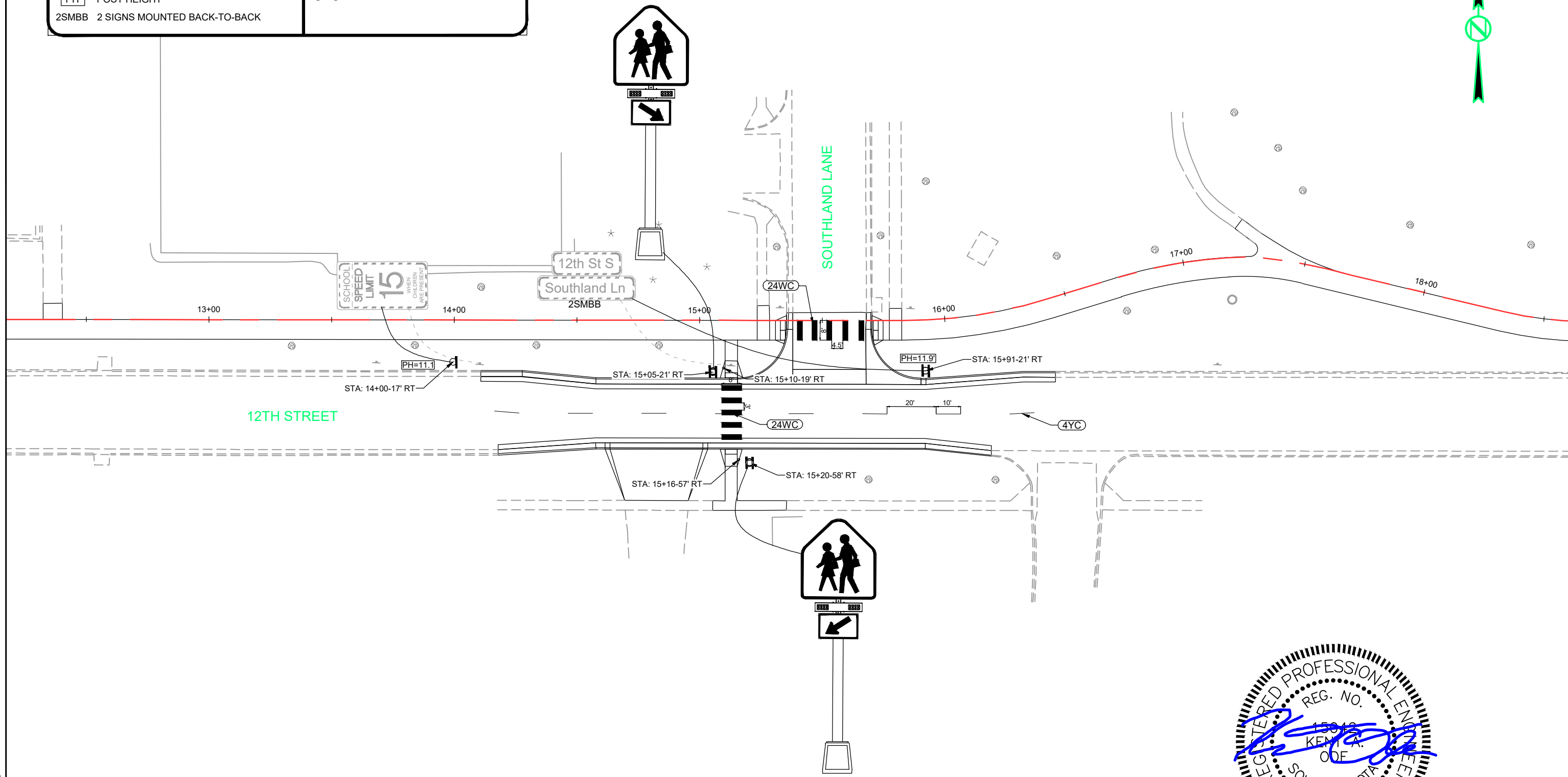


FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	46	91

PLOTTING DATE: 9/13/2024

LEGEND	
SIGNING	MARKINGS
[SIGN] EXISTING TRAFFIC SIGN TO BE REMOVED, SALVAGED, AND REINSTALLED	(4WC) OR (4YC) COLD APPLIED PLASTIC PAVEMENT MARKING, 4" WHITE OR YELLOW
[PH] POST HEIGHT	(24WC) OR (24YC) COLD APPLIED PLASTIC PAVEMENT MARKING, 24" WHITE OR YELLOW
2SMBB 2 SIGNS MOUNTED BACK-TO-BACK	



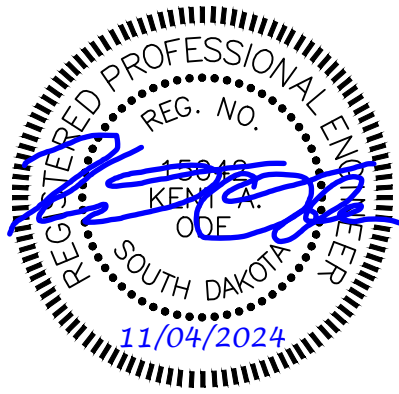
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FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P TAPU(40)	SHEET 47	TOTAL SHEETS 91
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PLOTTING DATE: 9/17/2024

LEGEND	
	PROPOSED RRFB POLE (S)
	PROPOSED PEDESTRIAN PUSH BUTTON POLE (PB)
	PROPOSED TYPE 2 JUNCTION BOX (JB)
	PROPOSED METER PEDESTAL (M)
	PROPOSED TRAFFIC SIGNAL CONDUIT
	PROPOSED CABLE / CONDUIT



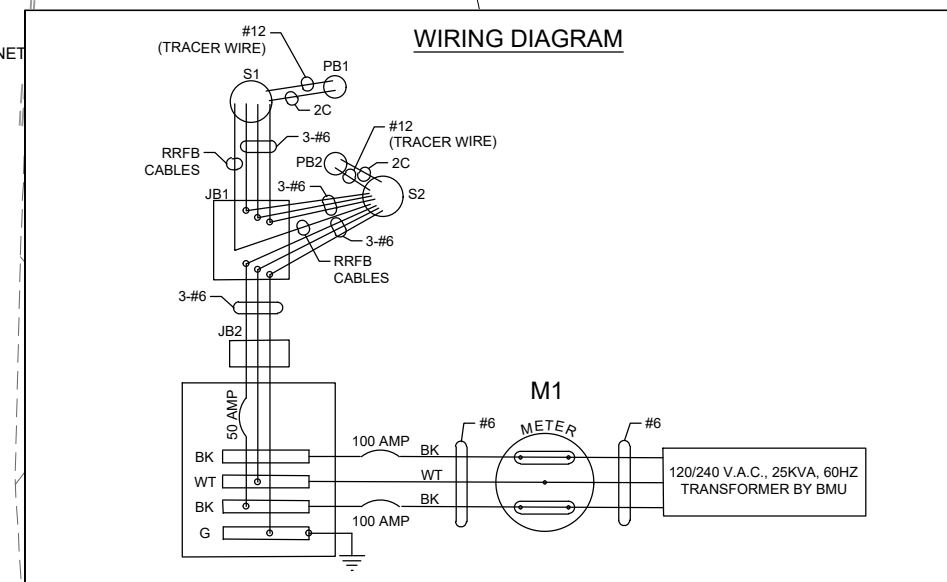
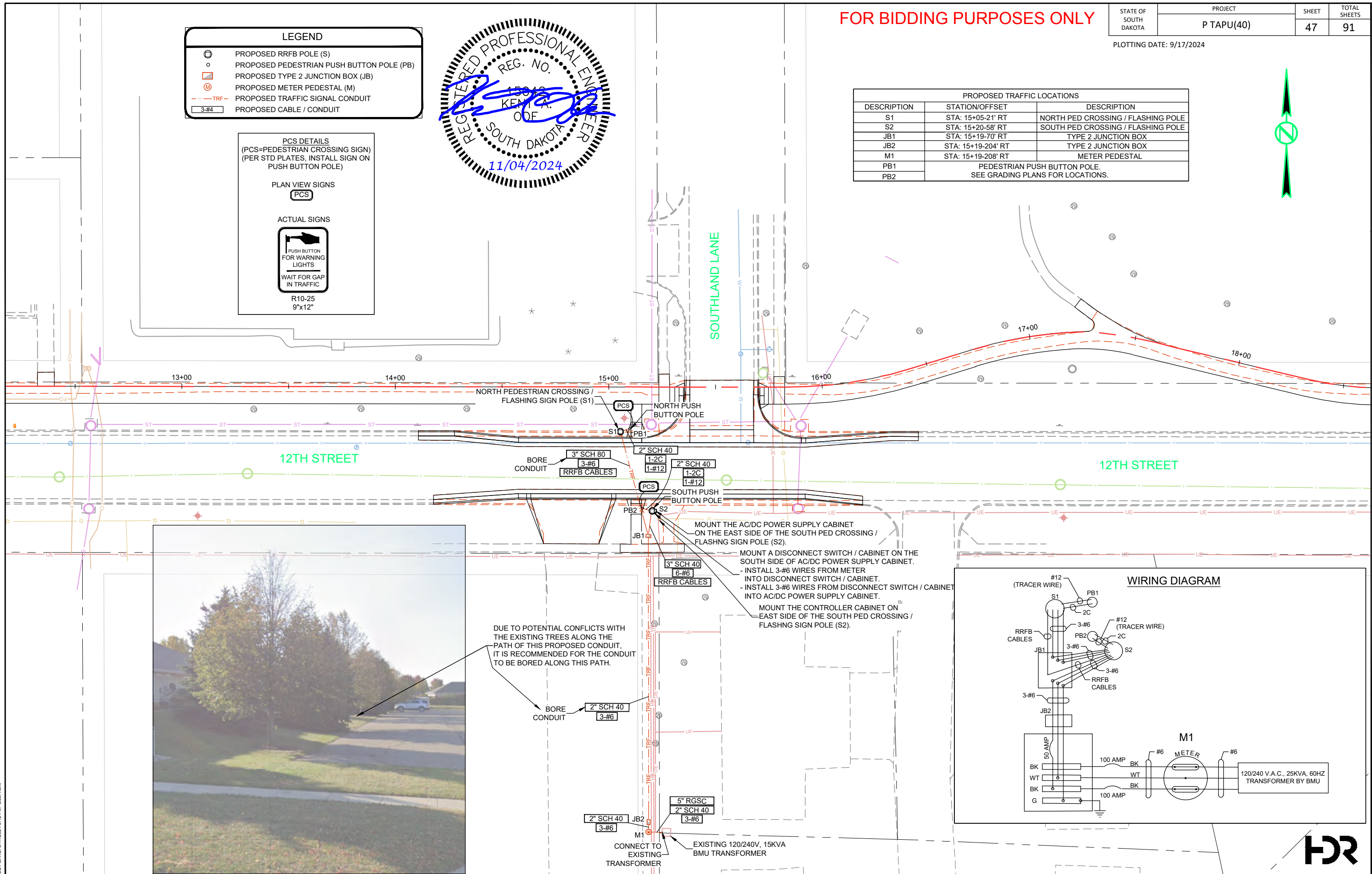
PCS DETAILS
(PCS=PEDESTRIAN CROSSING SIGN)
(PER STD PLATES, INSTALL SIGN ON PUSH BUTTON POLE)

PLAN VIEW SIGNS

ACTUAL SIGNS

R10-25
9"x12"

PROPOSED TRAFFIC LOCATIONS		
DESCRIPTION	STATION/OFFSET	DESCRIPTION
S1	STA: 15+05-21' RT	NORTH PED CROSSING / FLASHING POLE
S2	STA: 15+20-58' RT	SOUTH PED CROSSING / FLASHING POLE
JB1	STA: 15+19-70' RT	TYPE 2 JUNCTION BOX
JB2	STA: 15+19-204' RT	TYPE 2 JUNCTION BOX
M1	STA: 15+19-208' RT	METER PEDESTAL
PB1	PEDESTRIAN PUSH BUTTON POLE.	
PB2	SEE GRADING PLANS FOR LOCATIONS.	



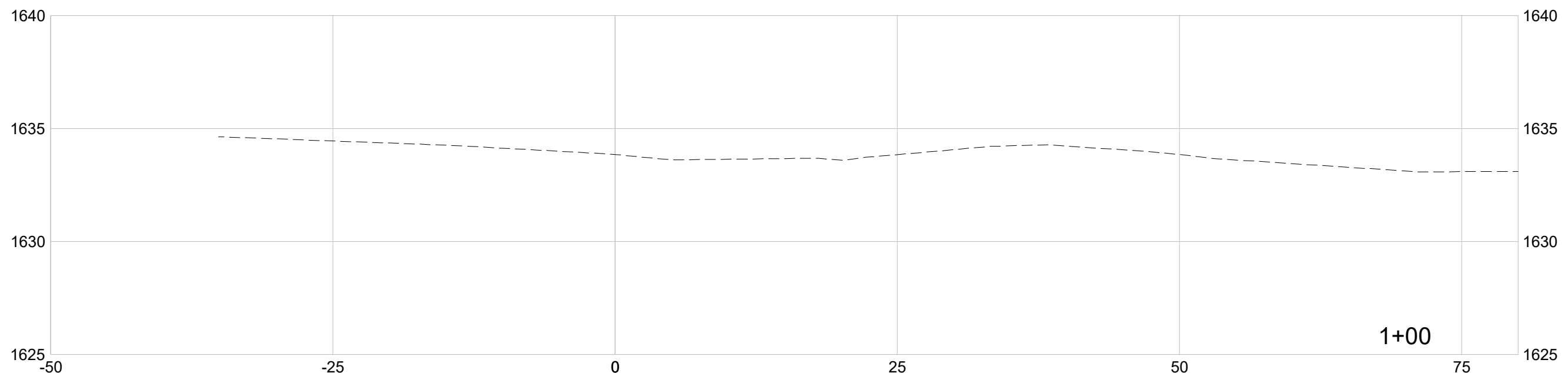
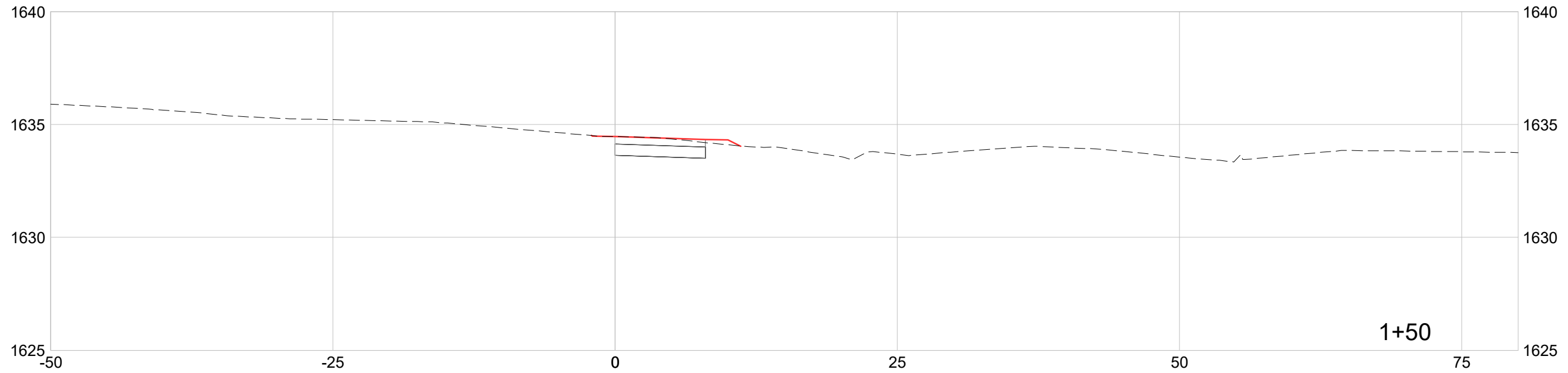
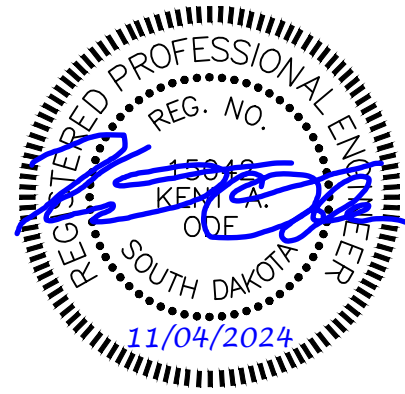
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	48	91

PLOTTING DATE: 9/17/2024



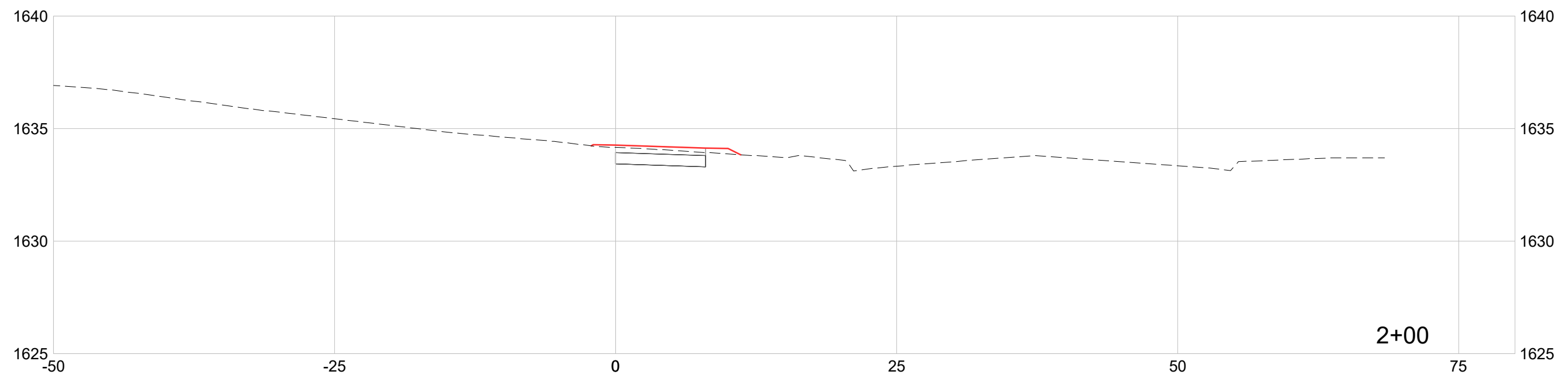
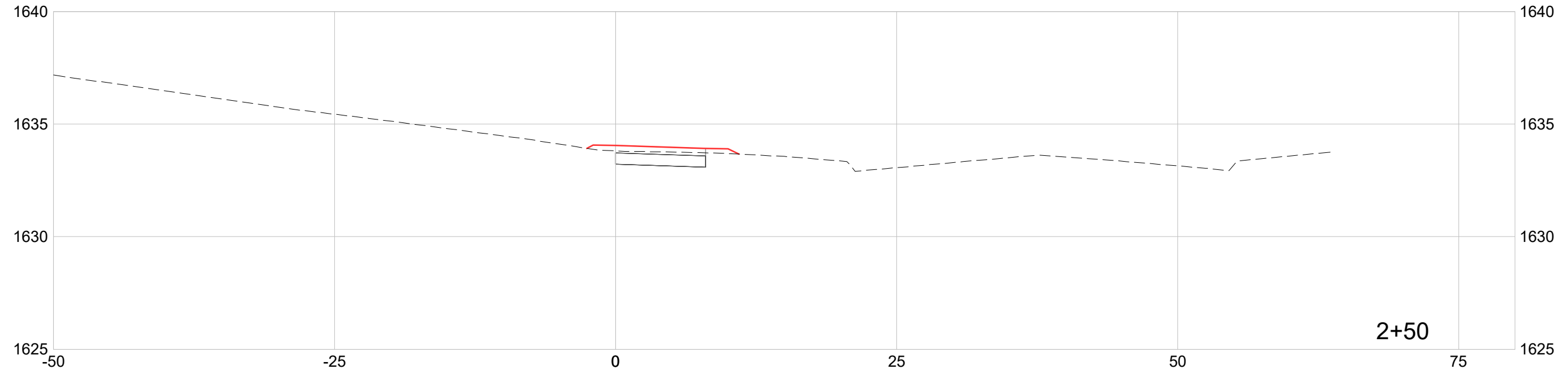
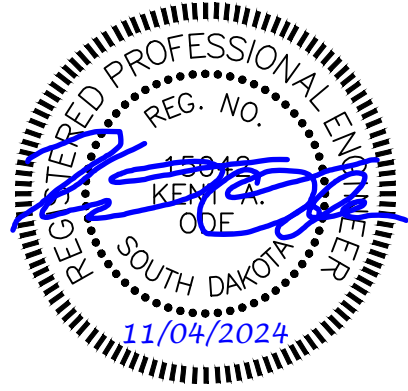
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FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	49	91

PLOTTING DATE: 9/17/2024



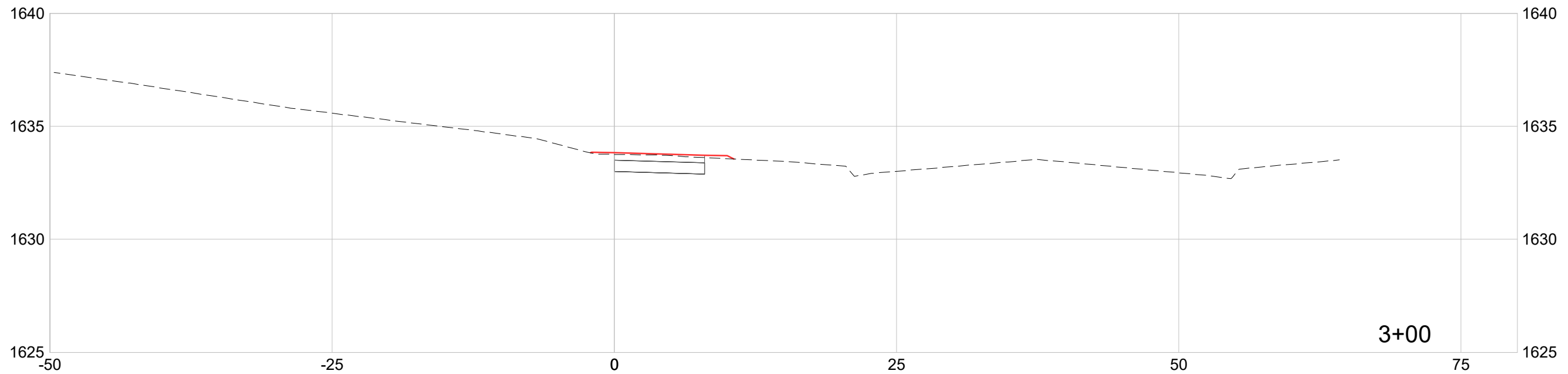
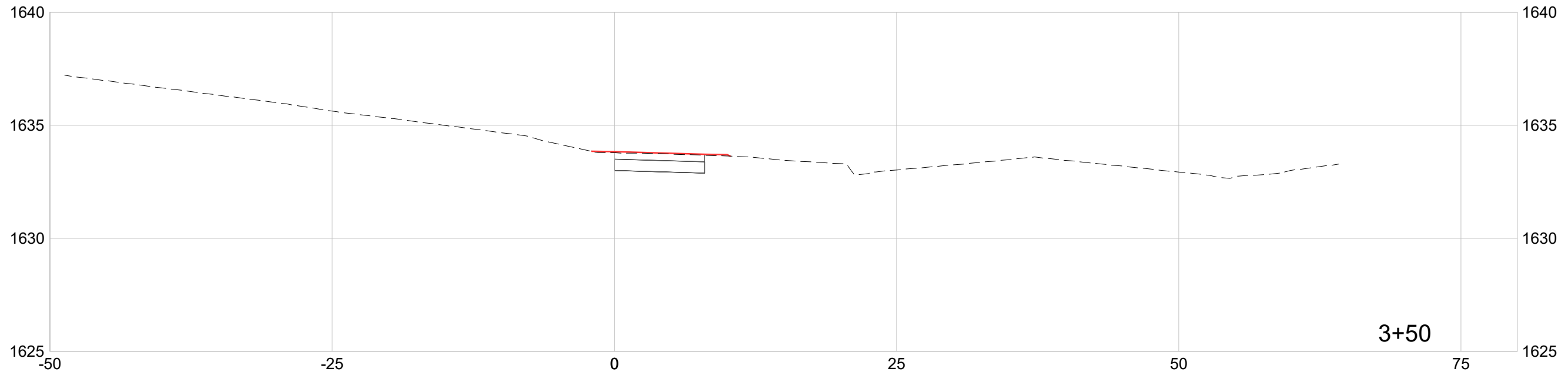
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FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	50	91

PLOTTING DATE: 9/17/2024



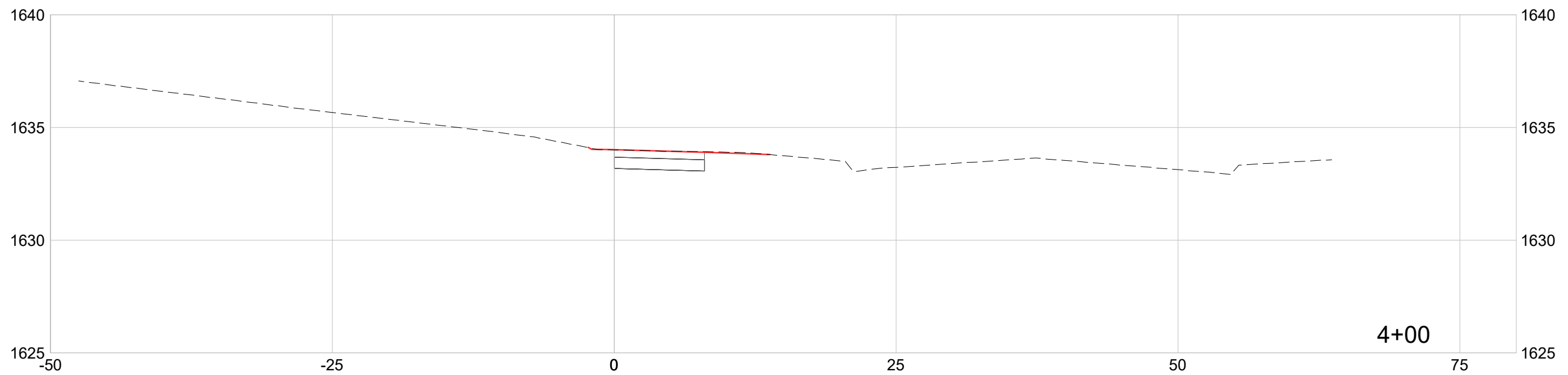
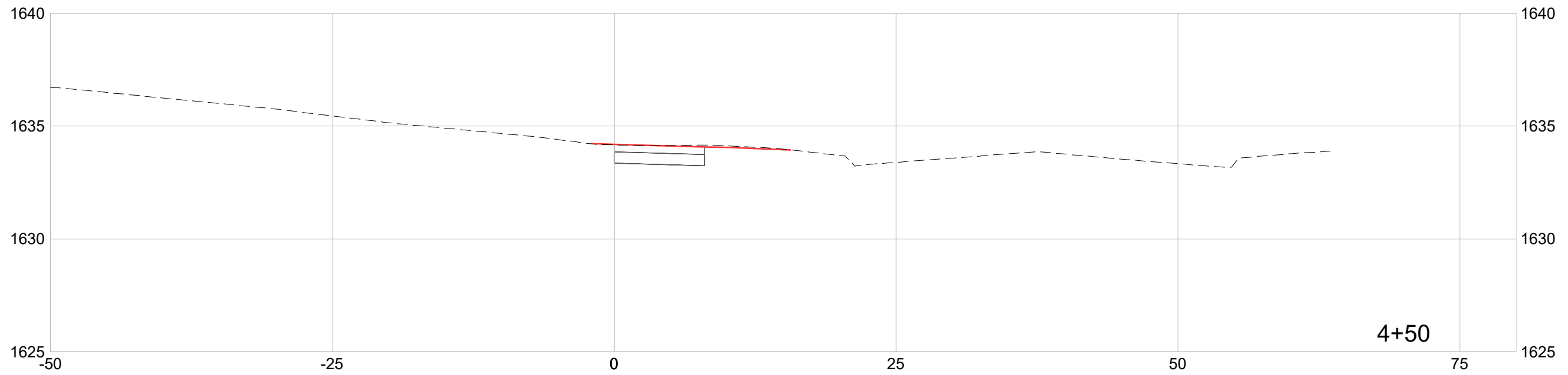
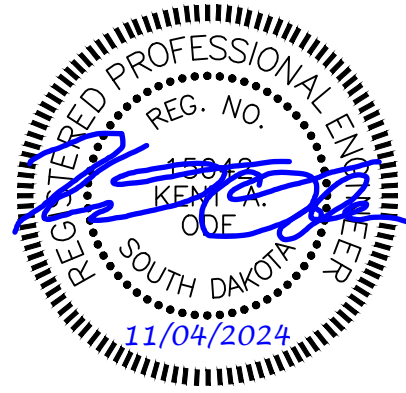
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FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	51	91

PLOTTING DATE: 9/17/2024



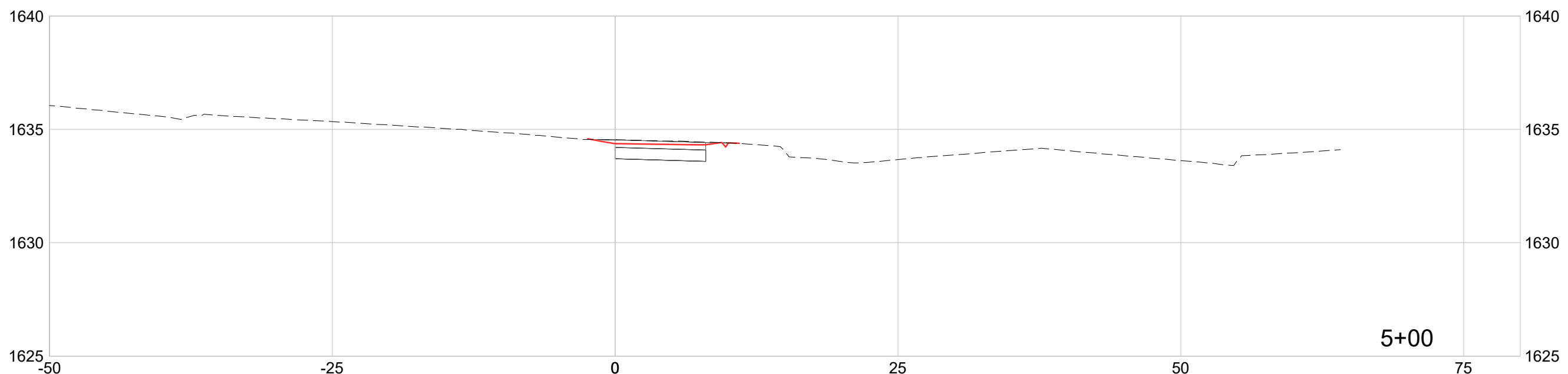
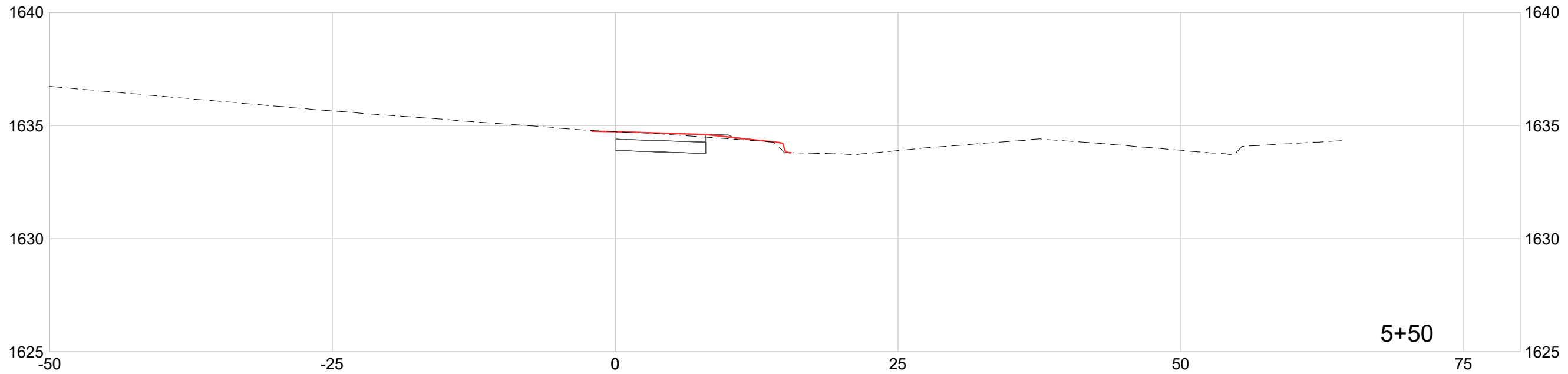
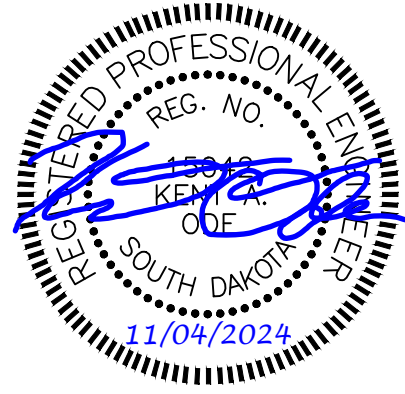
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FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	52	91

PLOTTING DATE: 9/17/2024



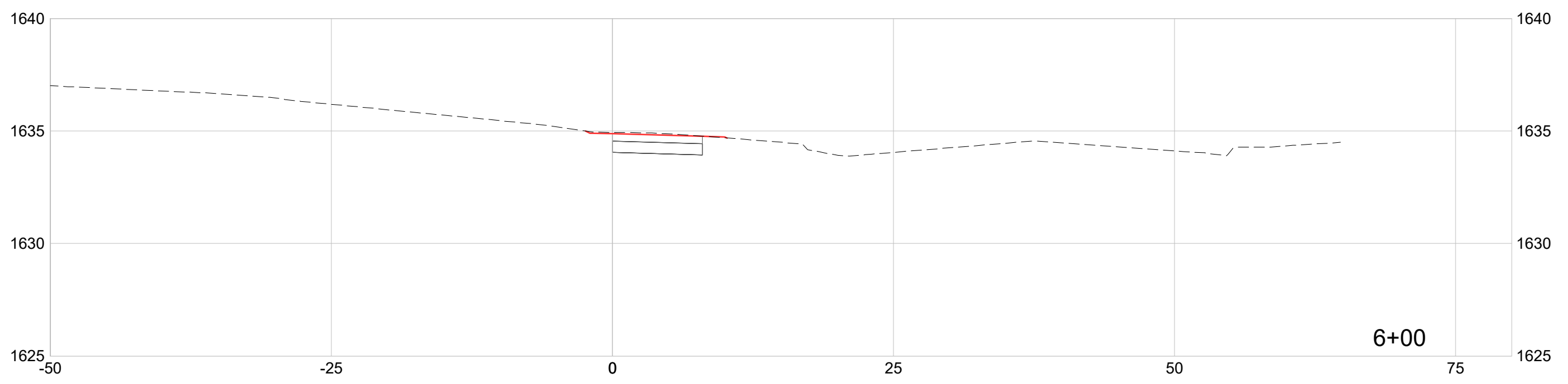
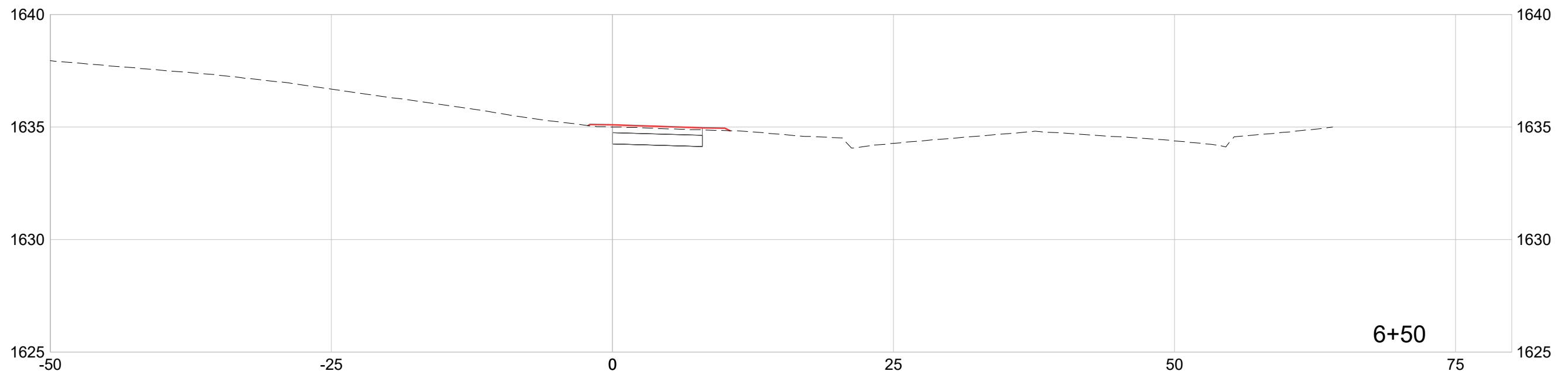
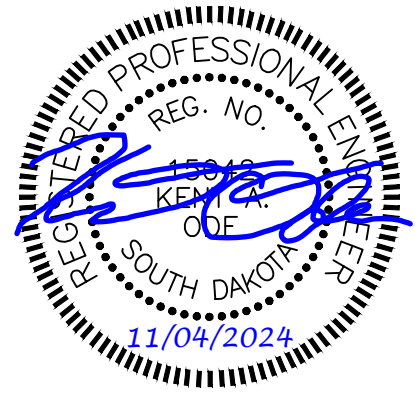
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FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	53	91

PLOTTING DATE: 9/17/2024



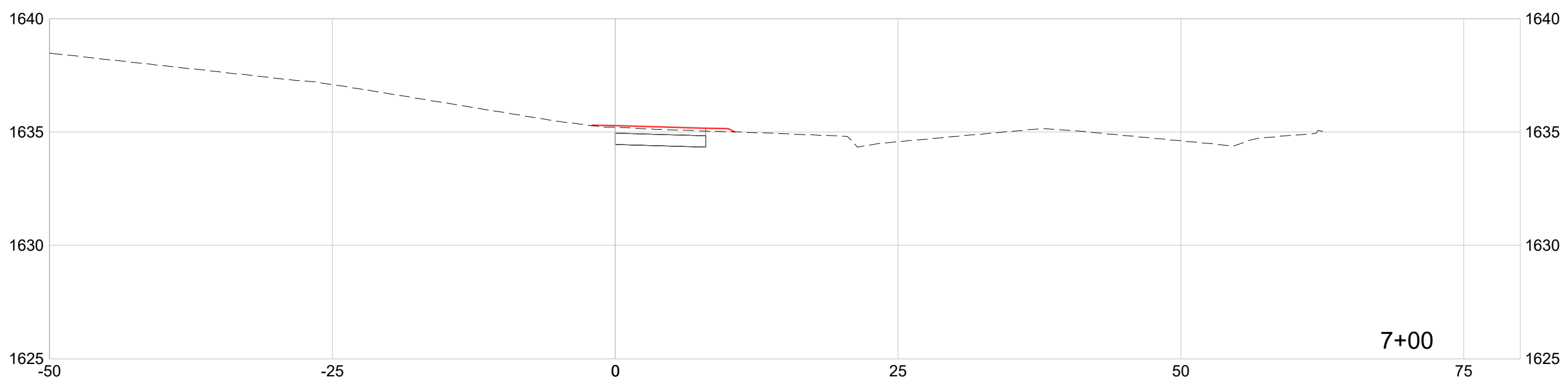
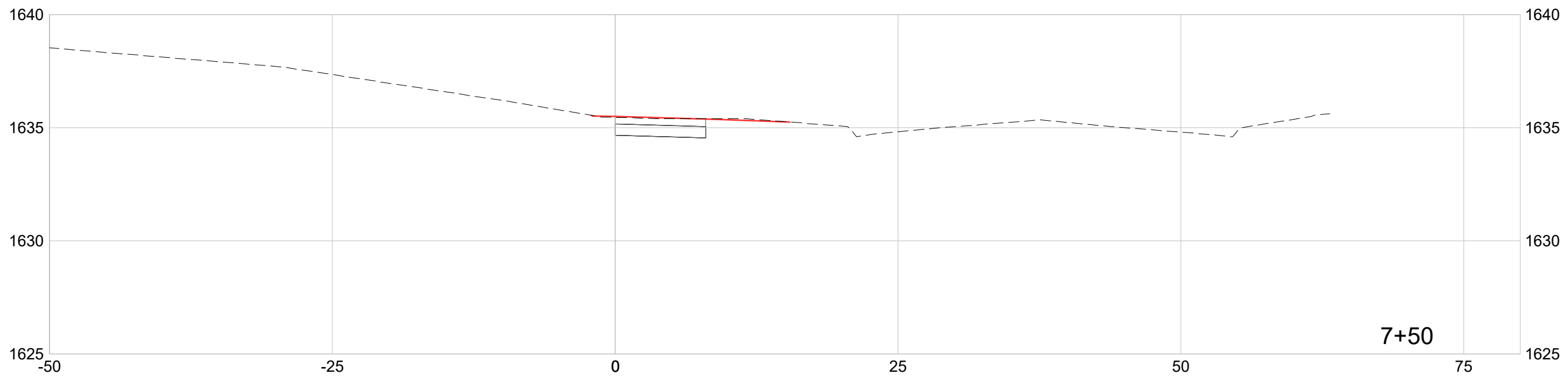
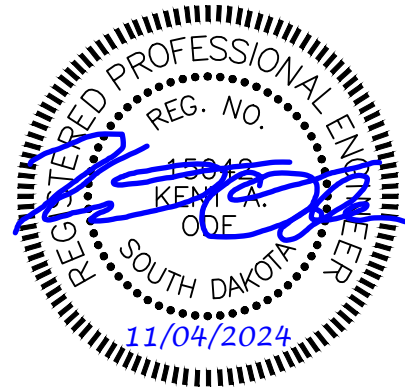
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FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	54	91

PLOTTING DATE: 9/17/2024



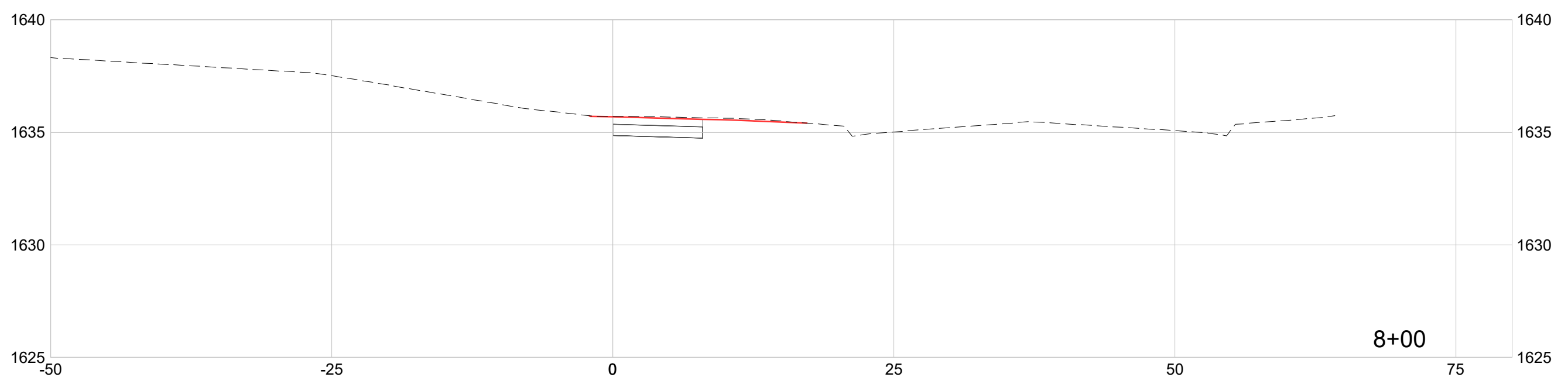
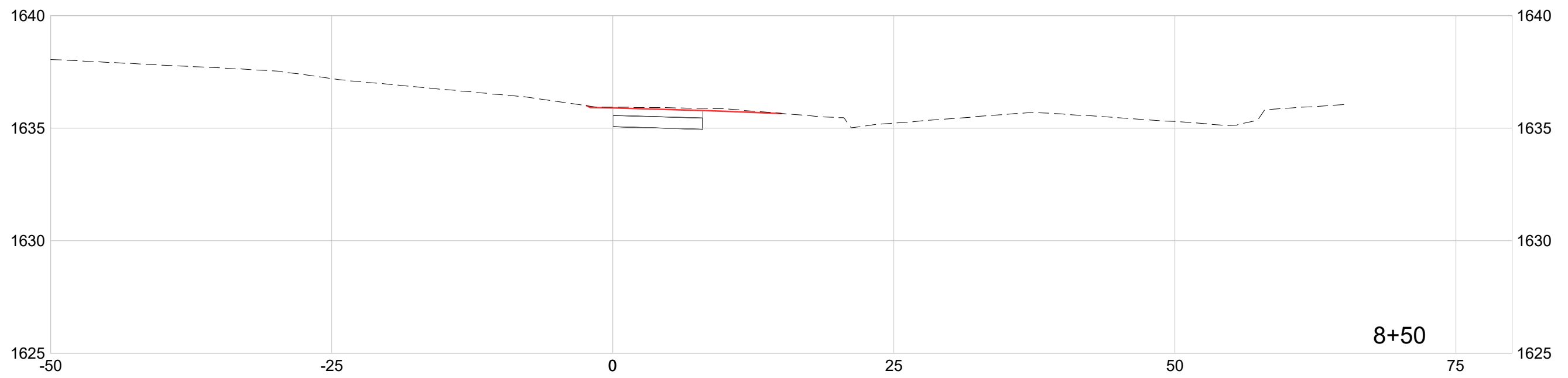
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PLOT DATE: 9/17/2024 8:03 AM Sinner, Michael



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	55	91

PLOTTING DATE: 9/17/2024



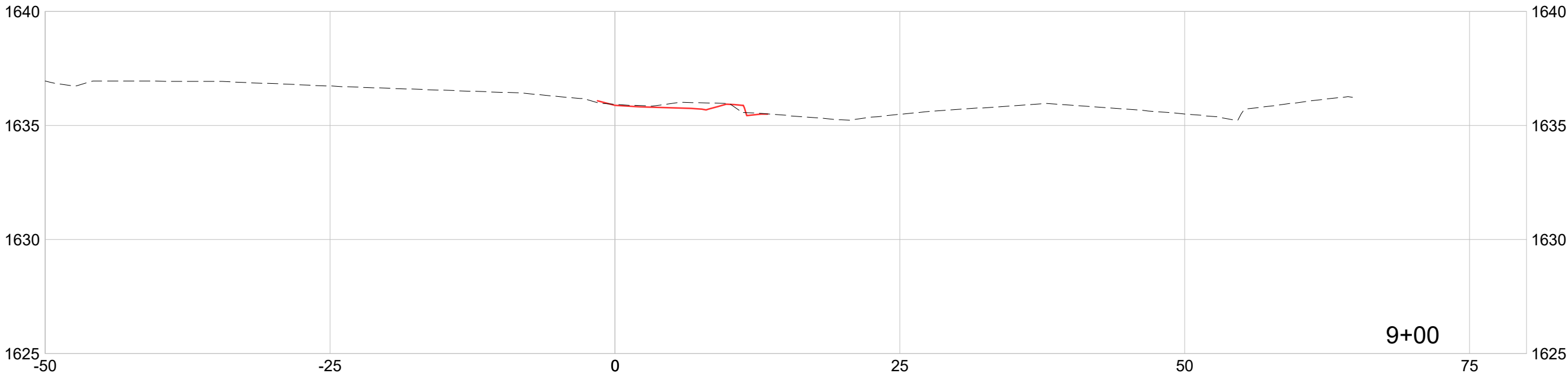
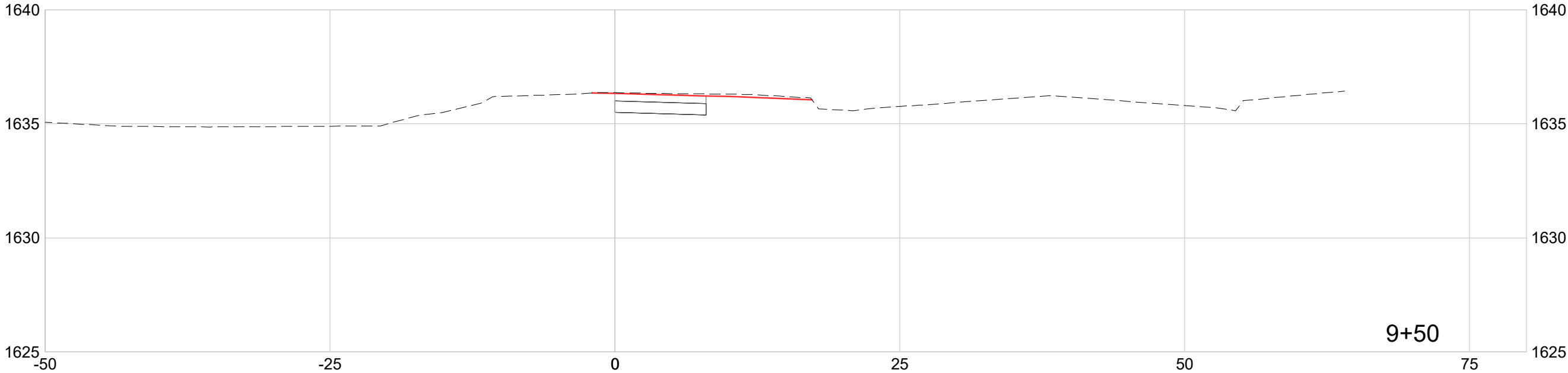
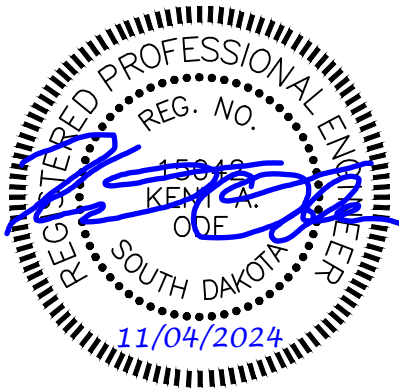
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FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	56	91

PLOTTING DATE: 9/17/2024



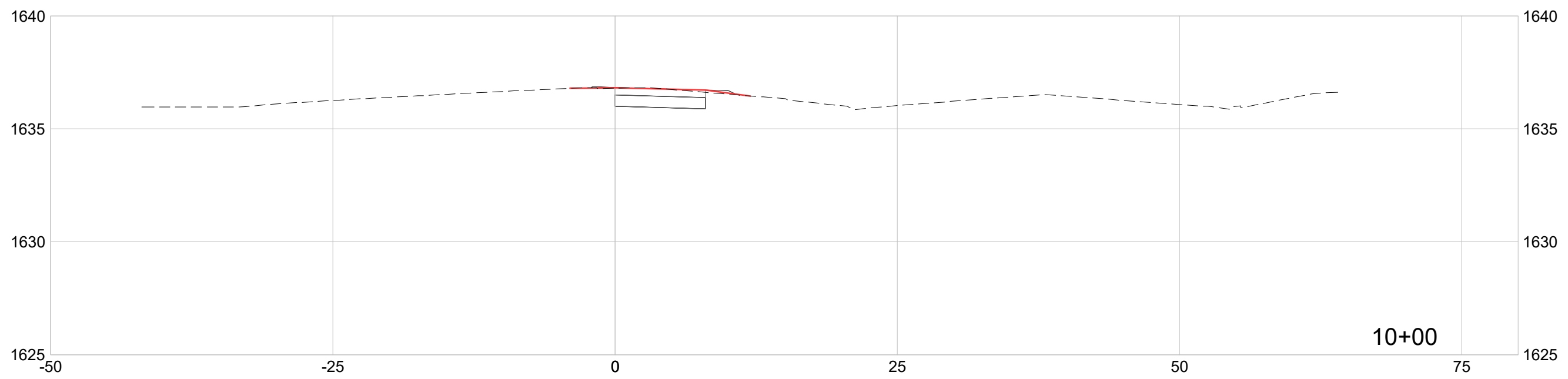
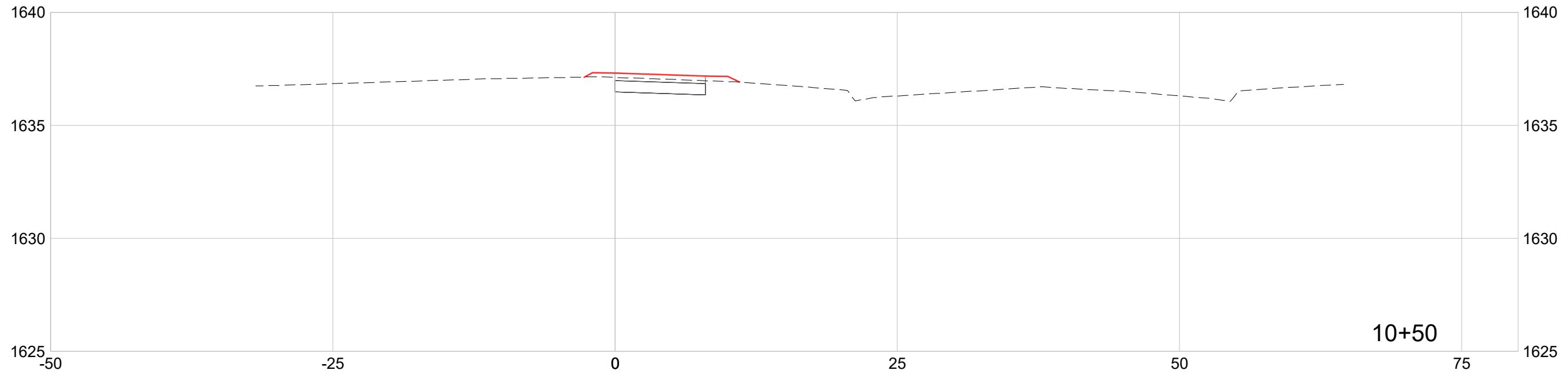
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	57	91

PLOTTING DATE: 9/17/2024



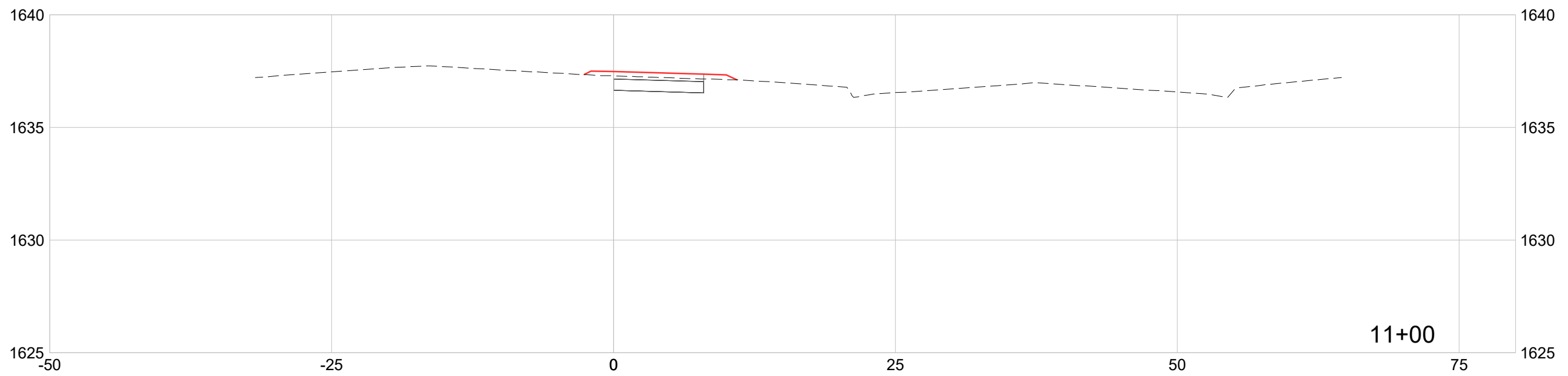
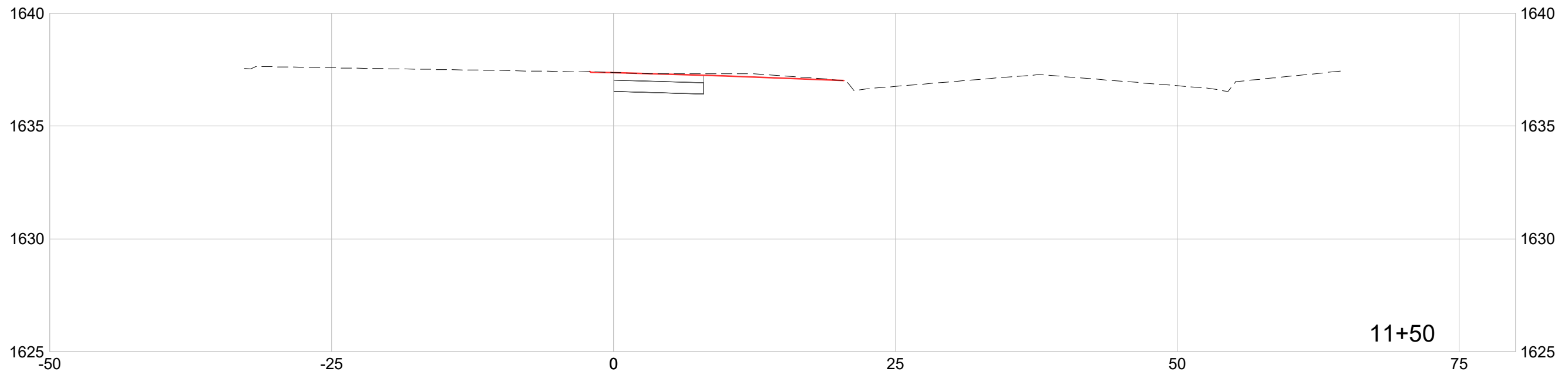
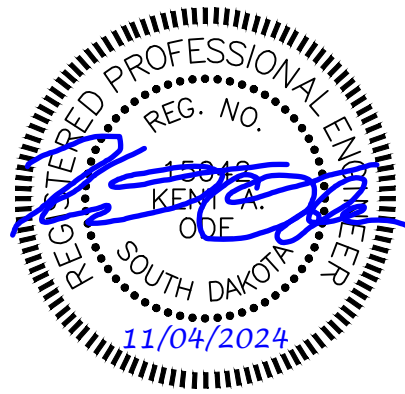
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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PLOTTING DATE: 9/17/2024



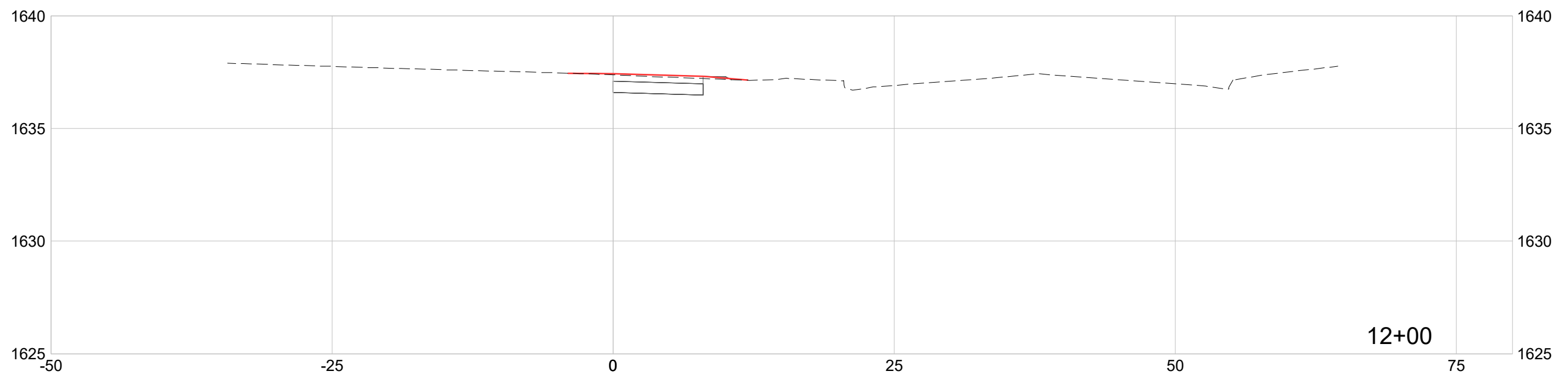
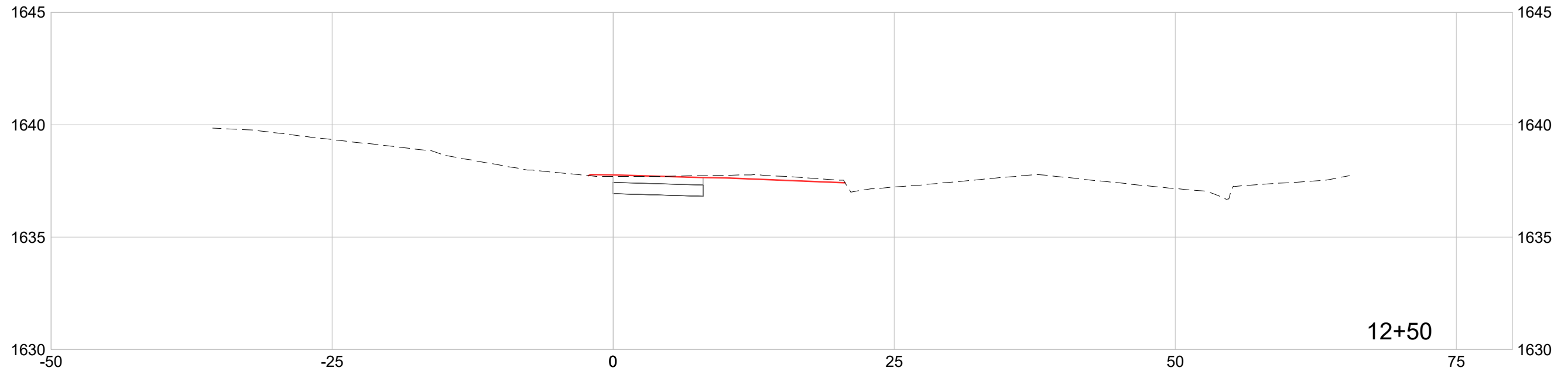
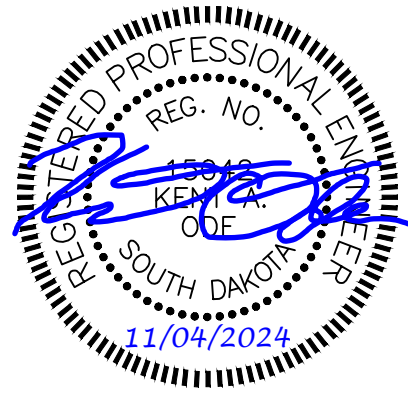
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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PLOTTING DATE: 9/17/2024



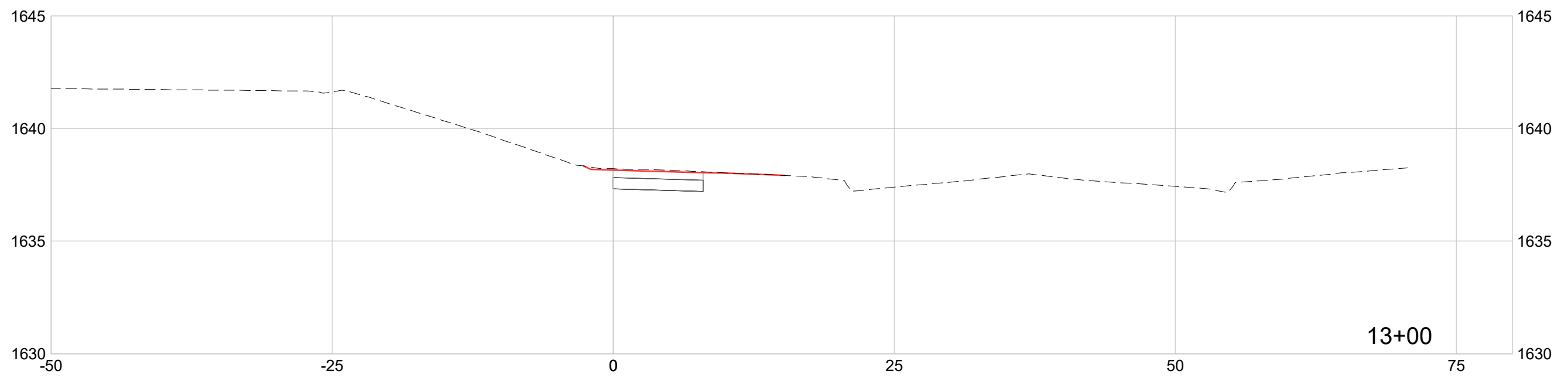
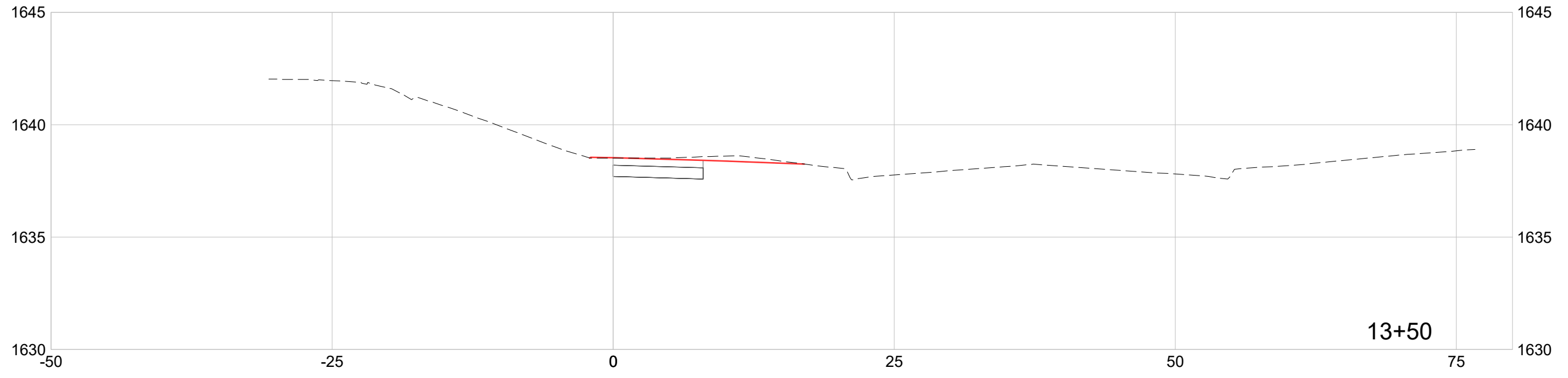
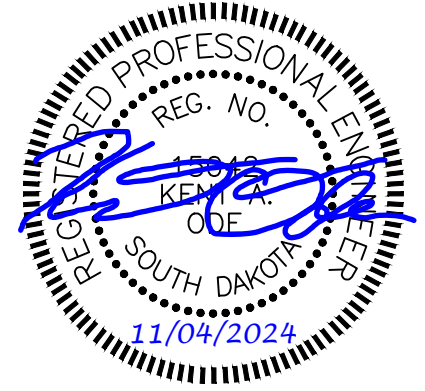
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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PLOTTING DATE: 9/17/2024



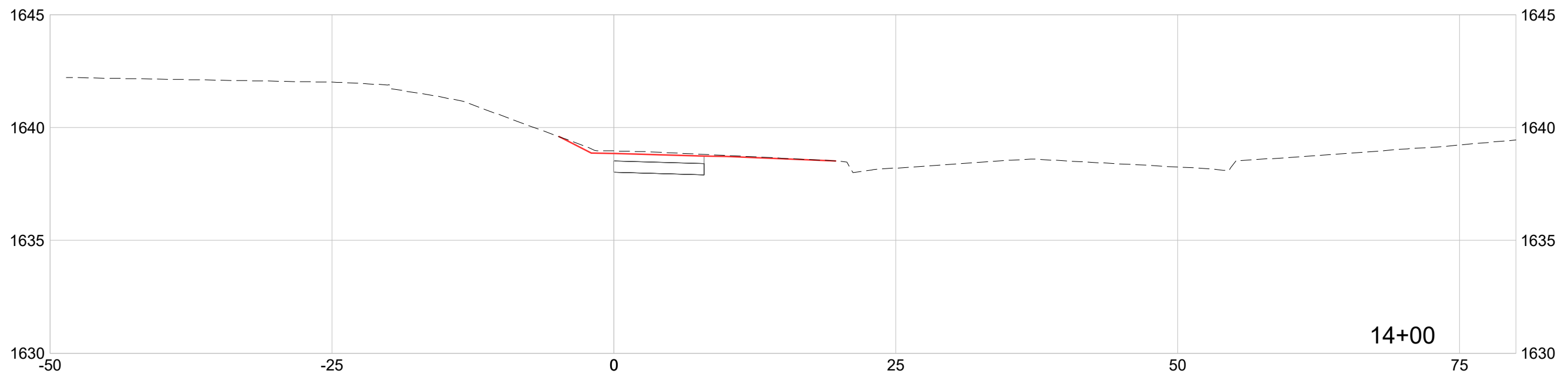
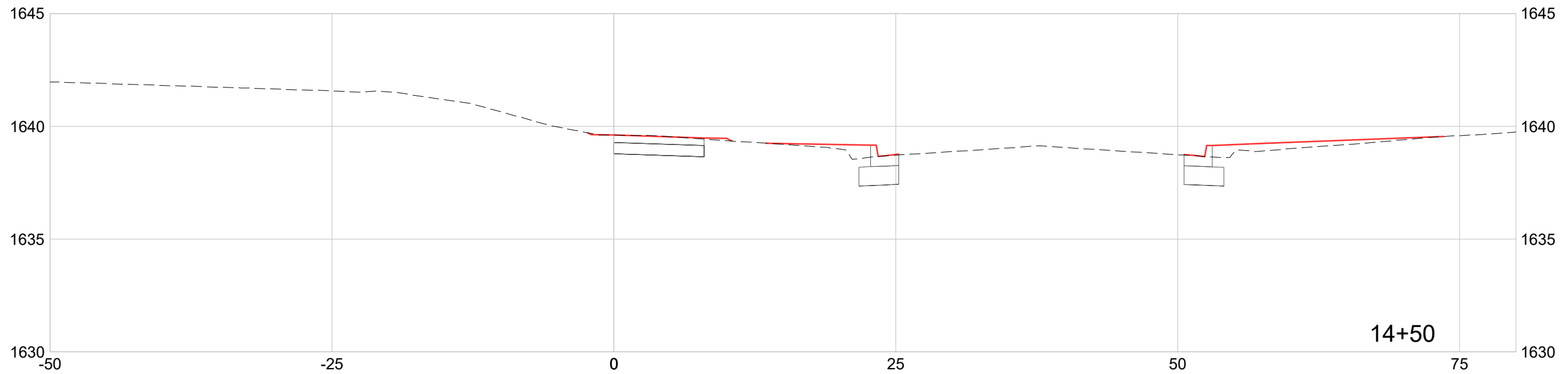
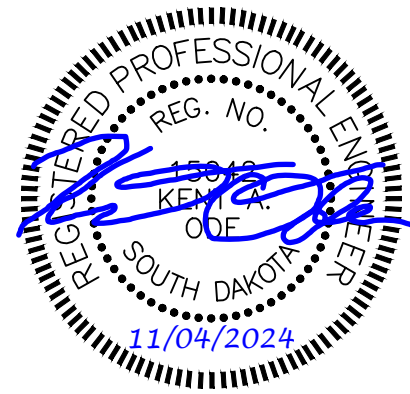
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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PLOTTING DATE: 9/17/2024



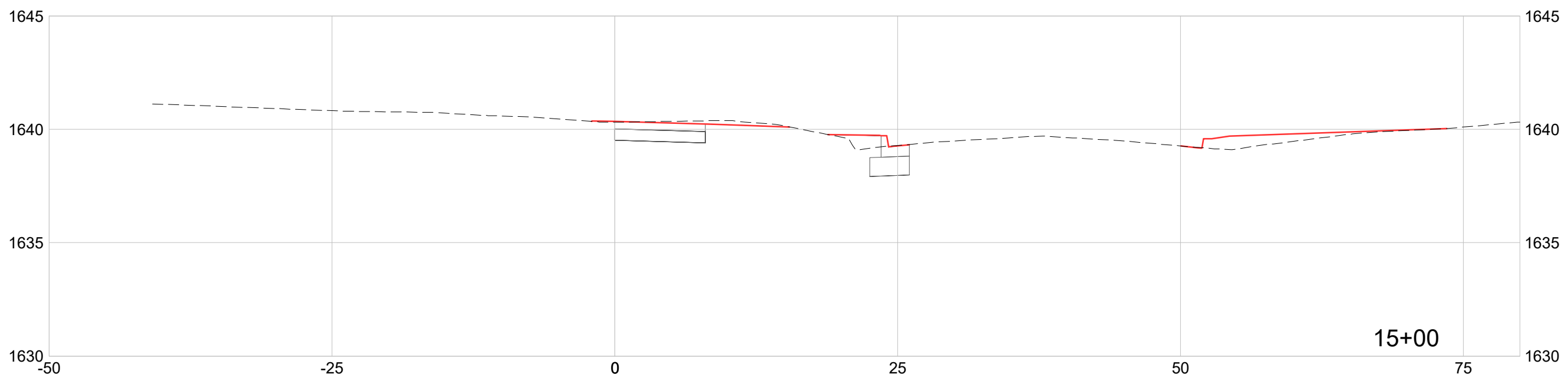
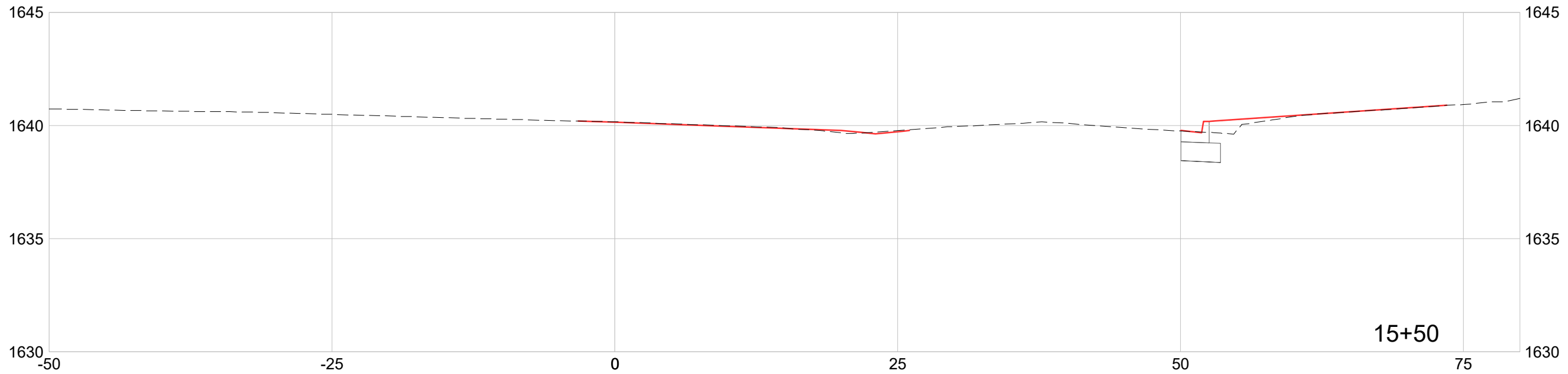
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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PLOTTING DATE: 9/17/2024



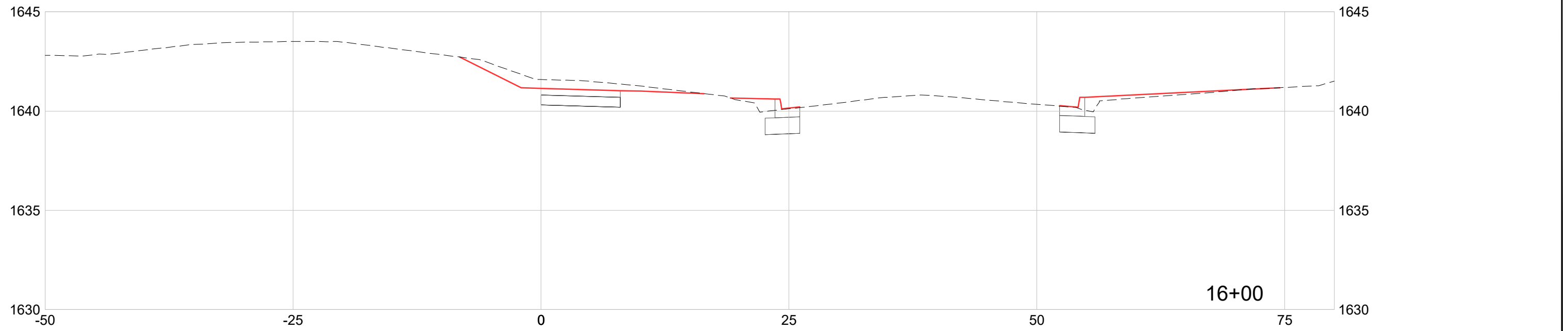
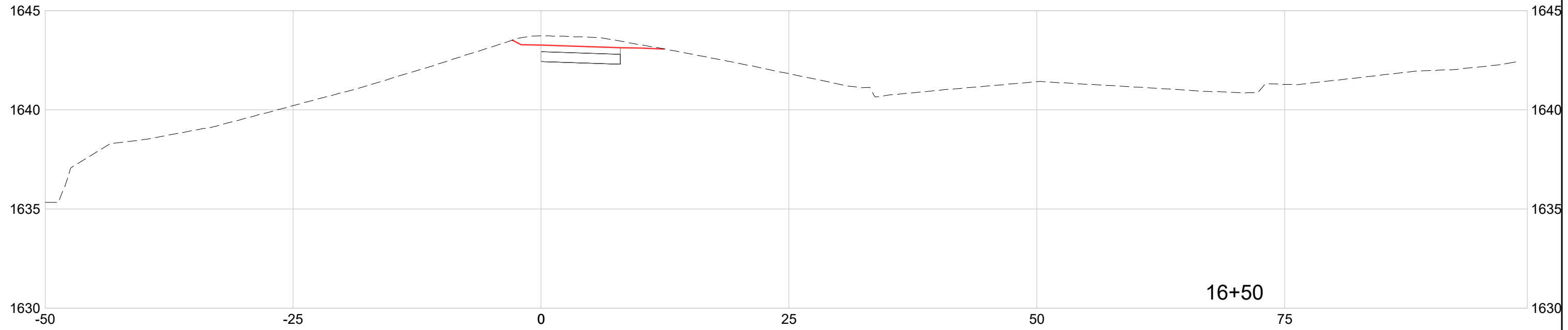
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(40)	63	91

PLOTTING DATE: 9/17/2024



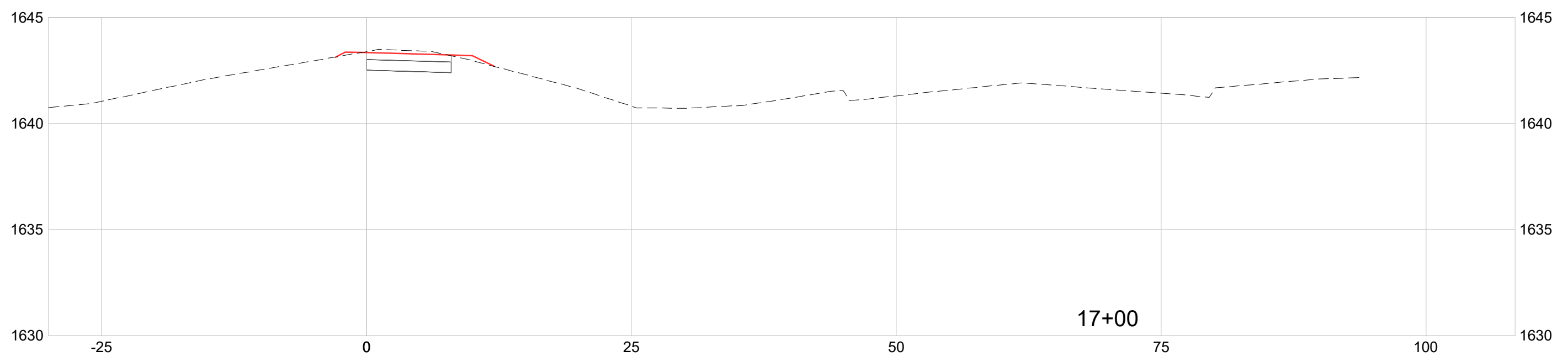
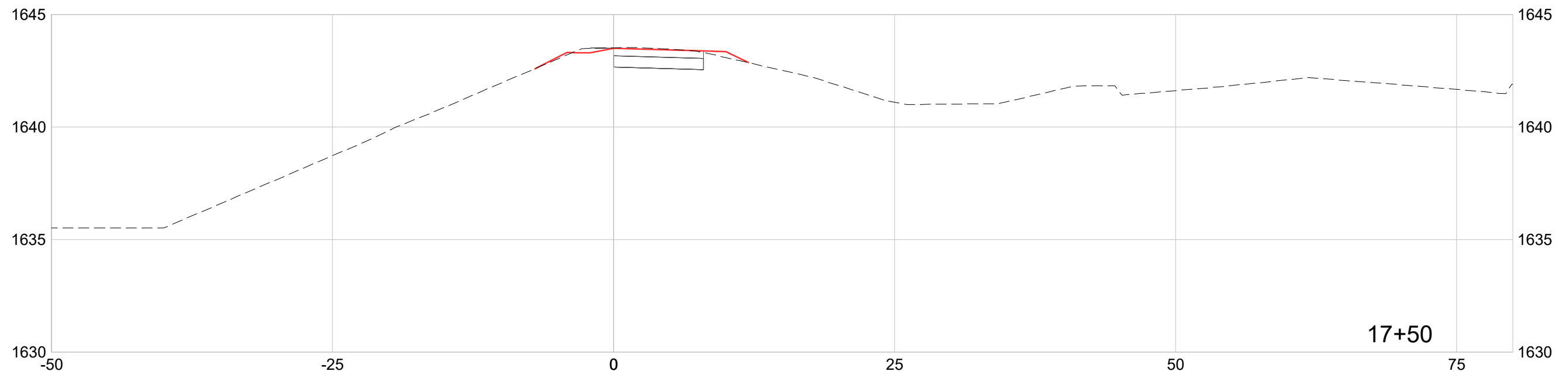
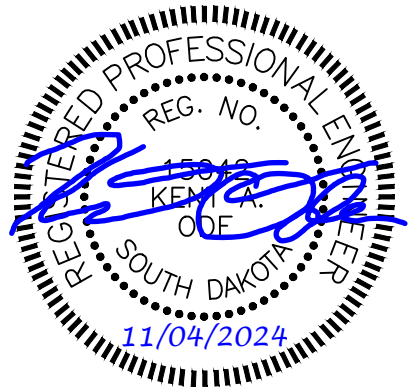
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PLOTTING DATE: 9/17/2024



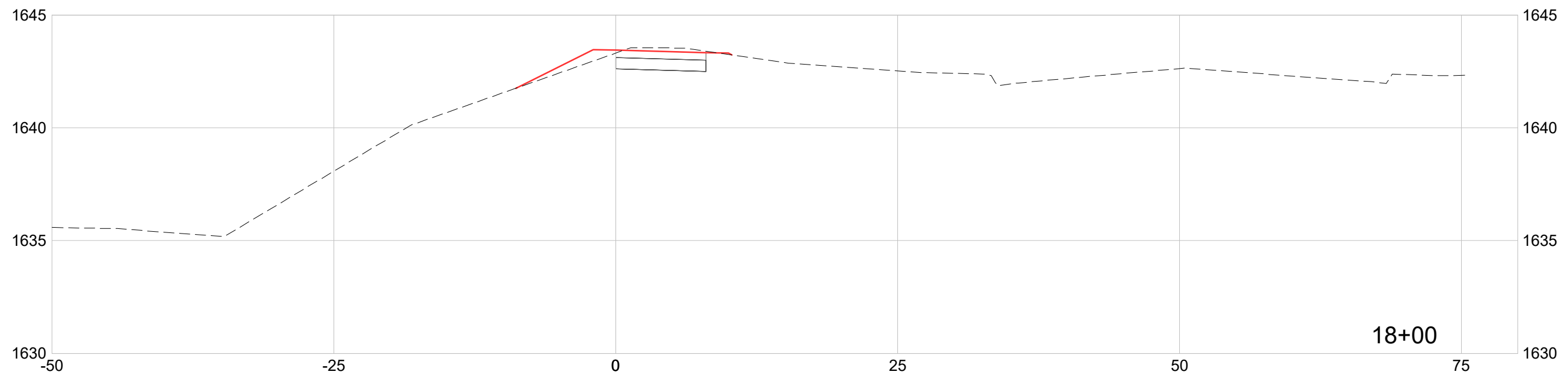
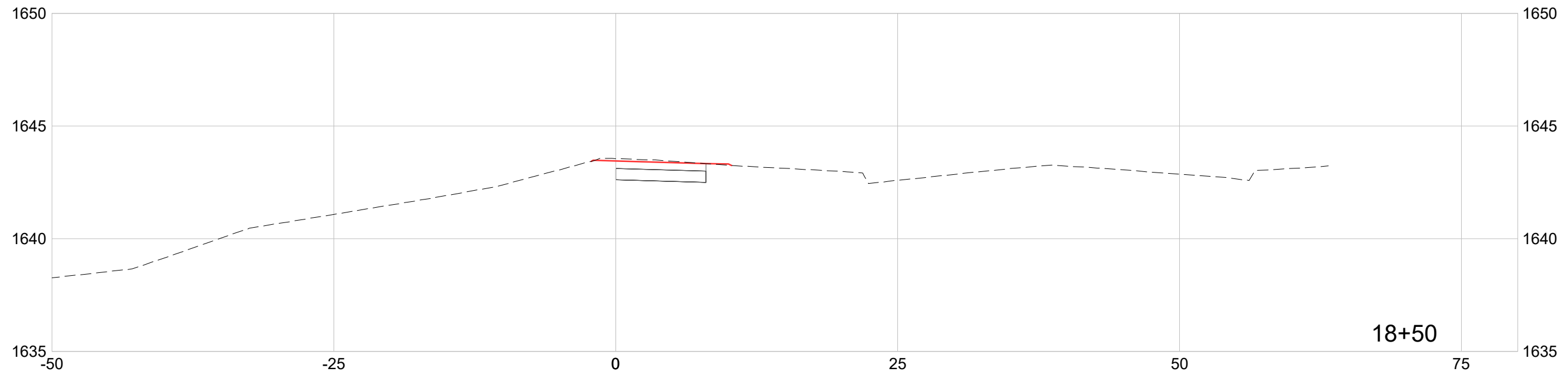
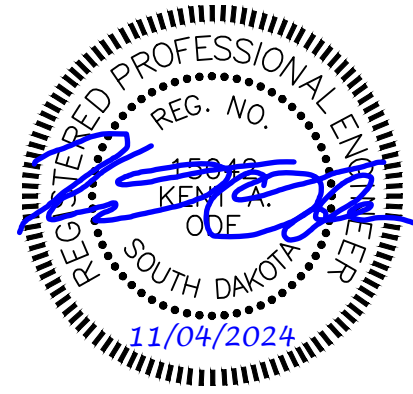
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PLOTTING DATE: 9/17/2024



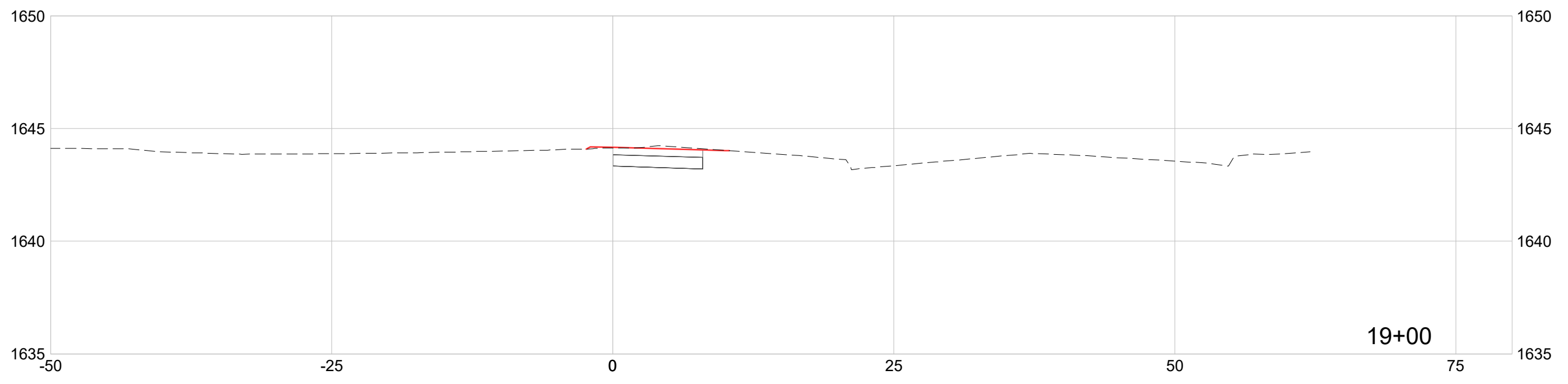
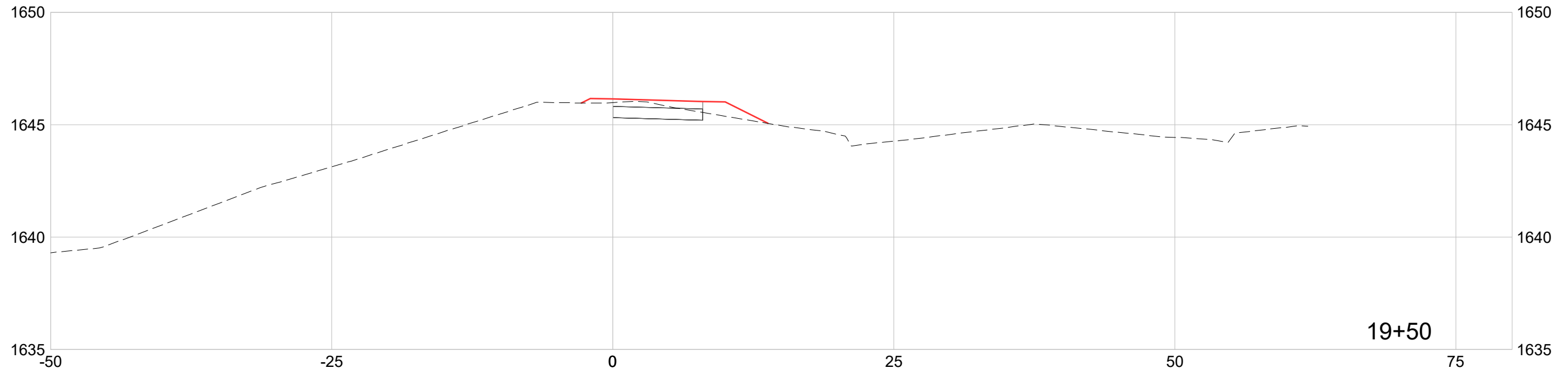
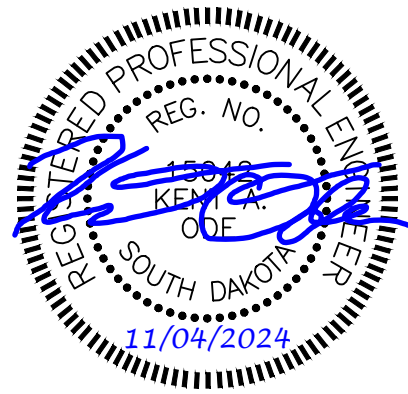
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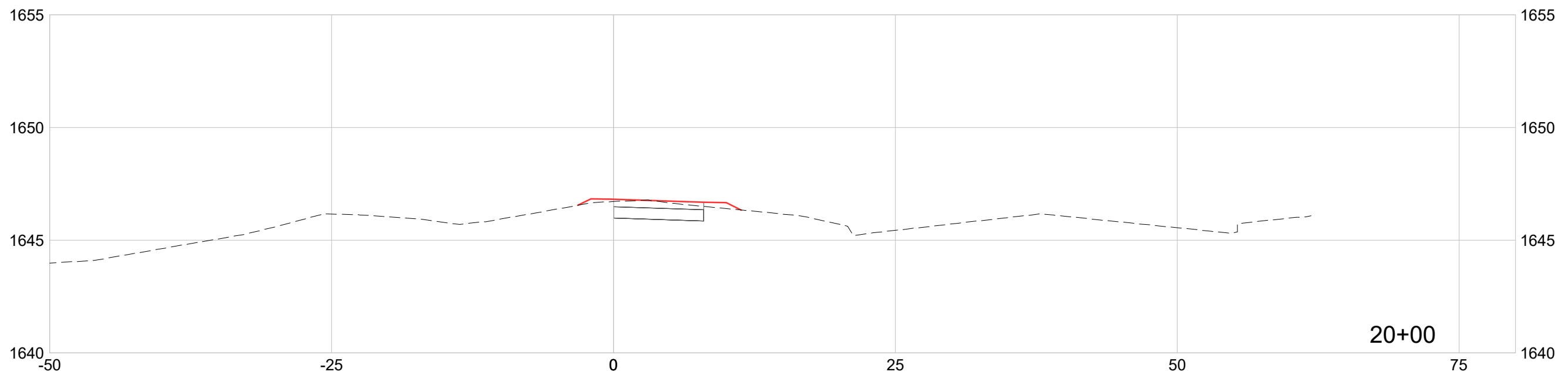
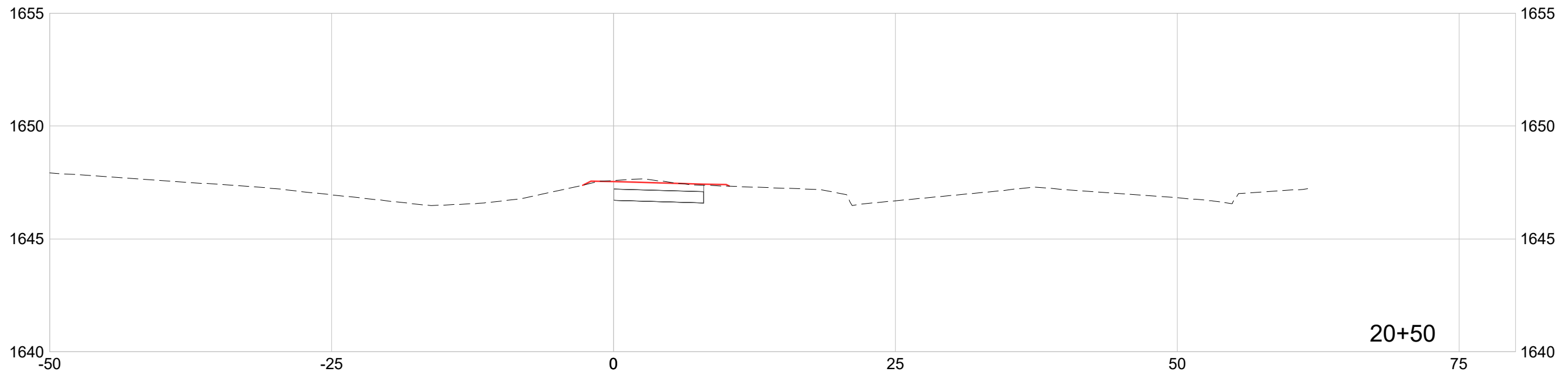
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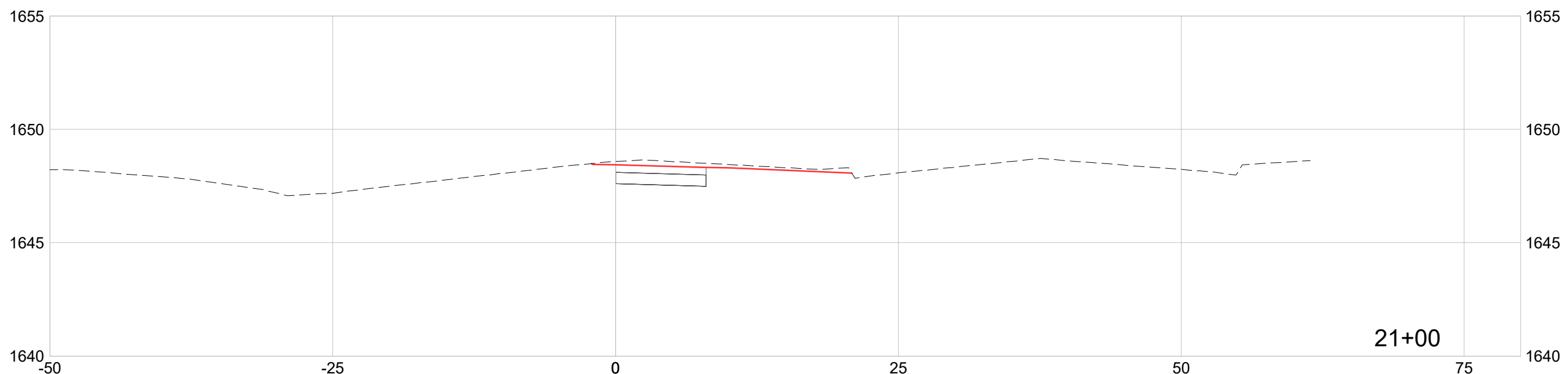
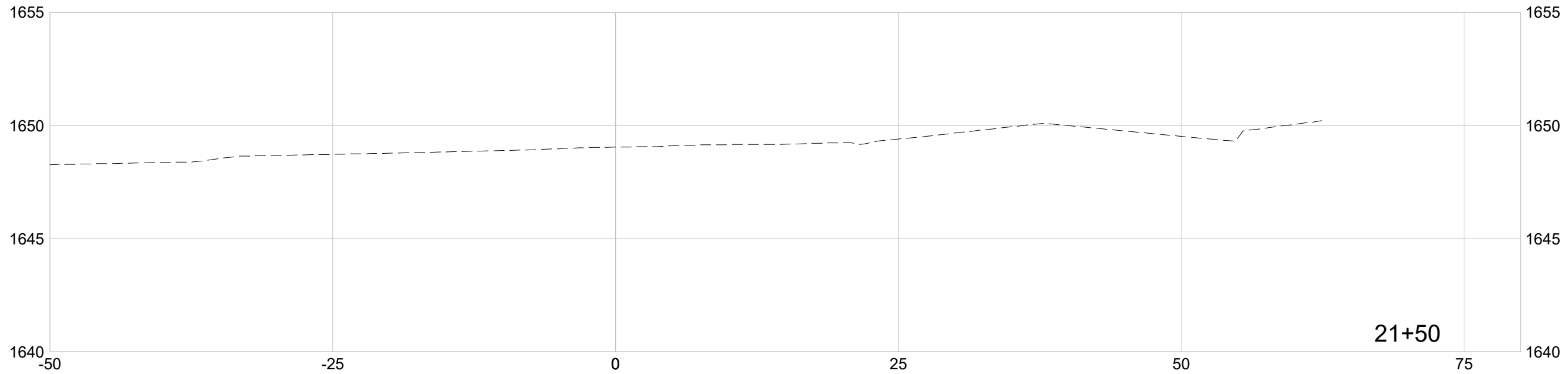
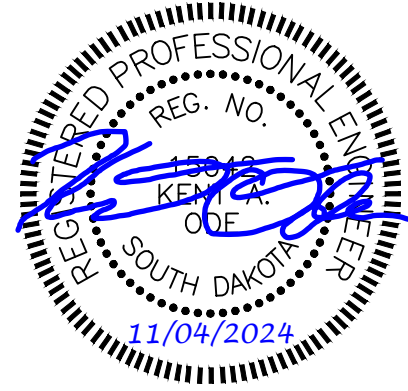
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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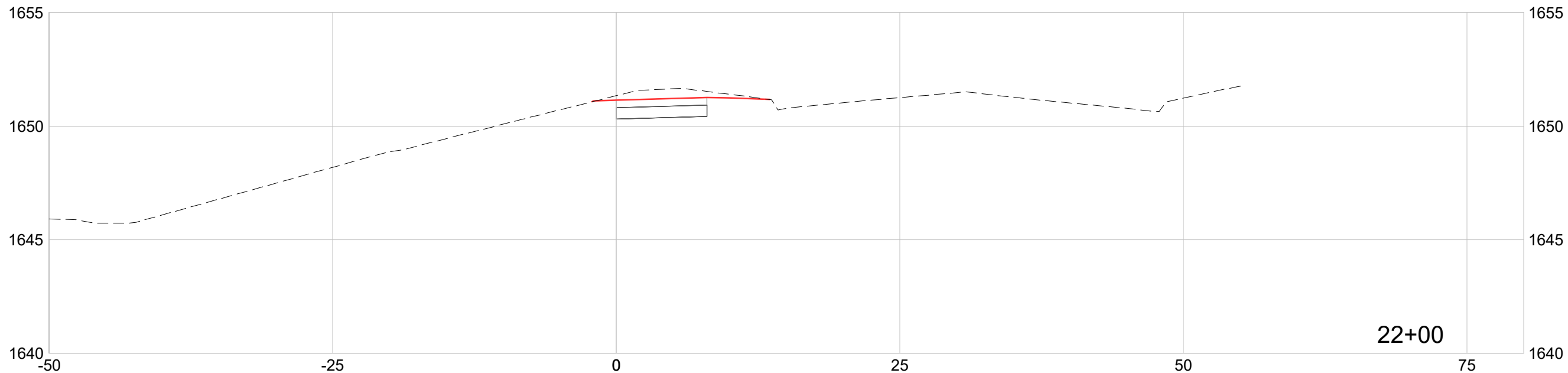
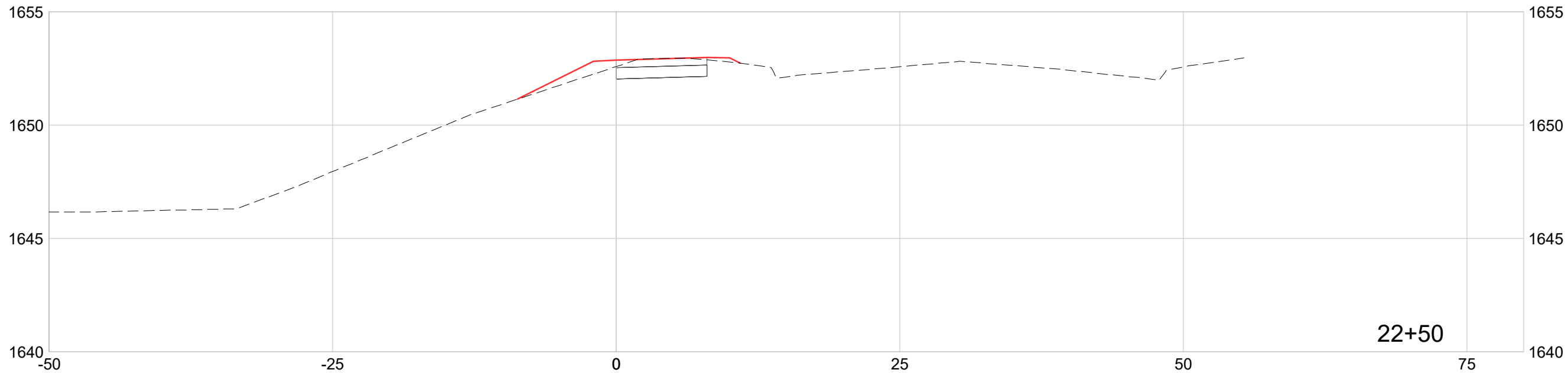
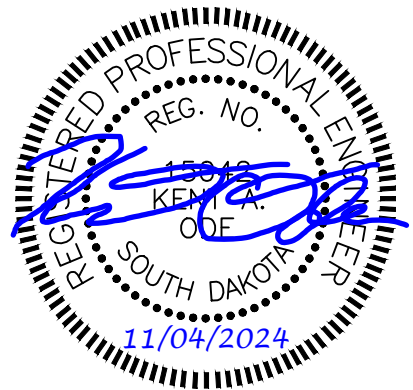
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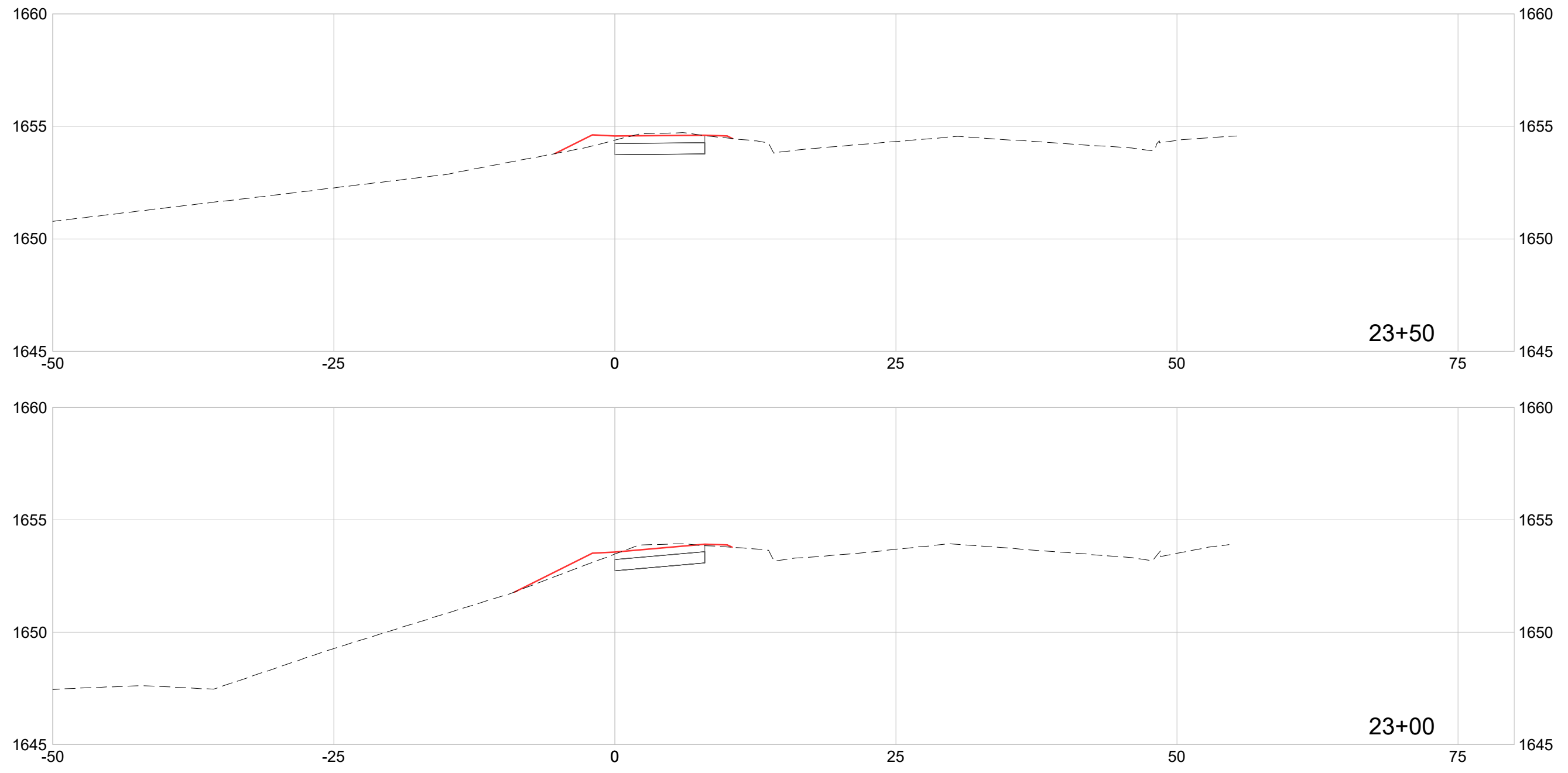
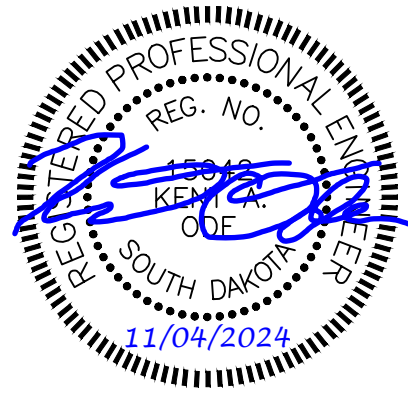
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	P TAPU(40)	70	91

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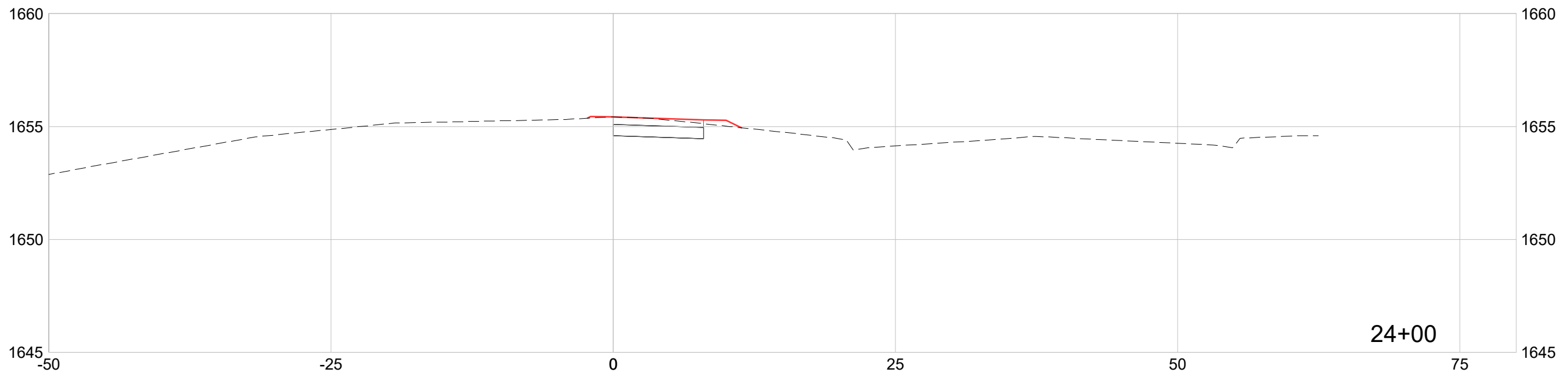
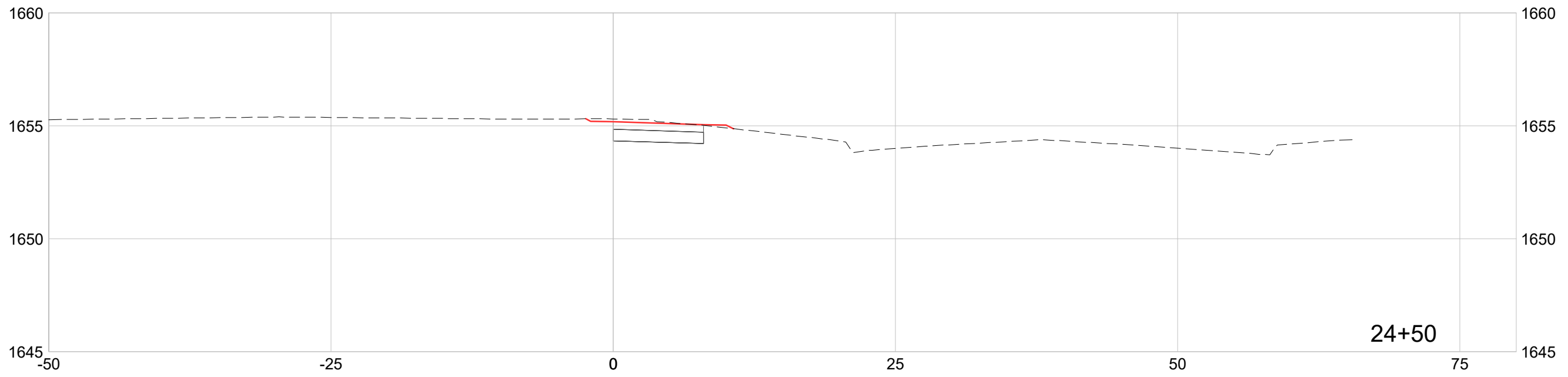
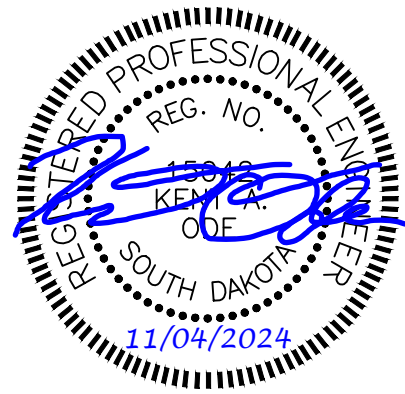
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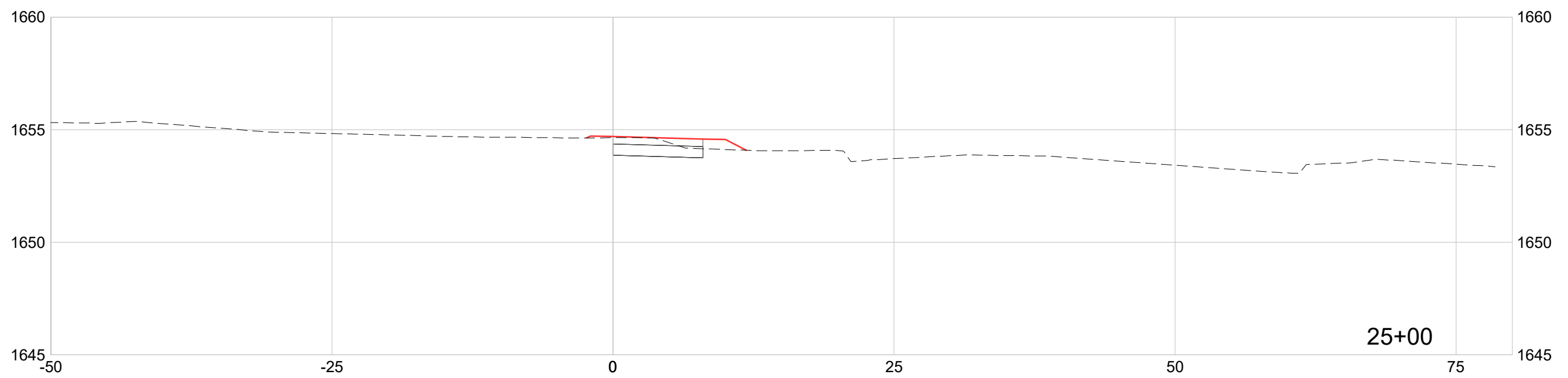
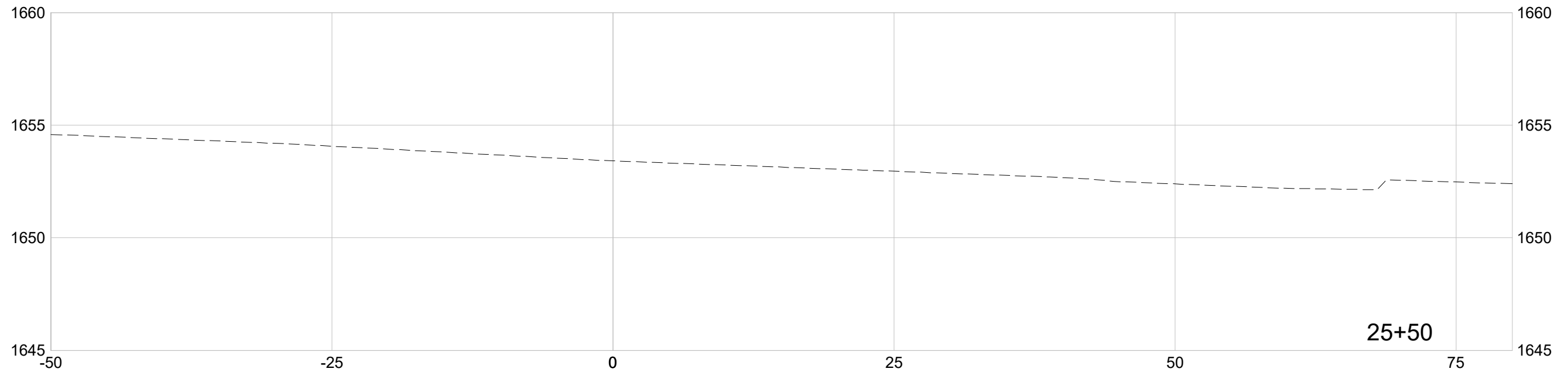
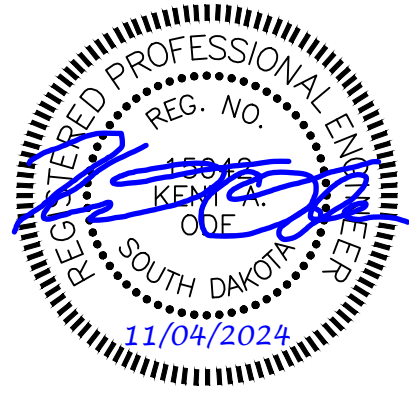
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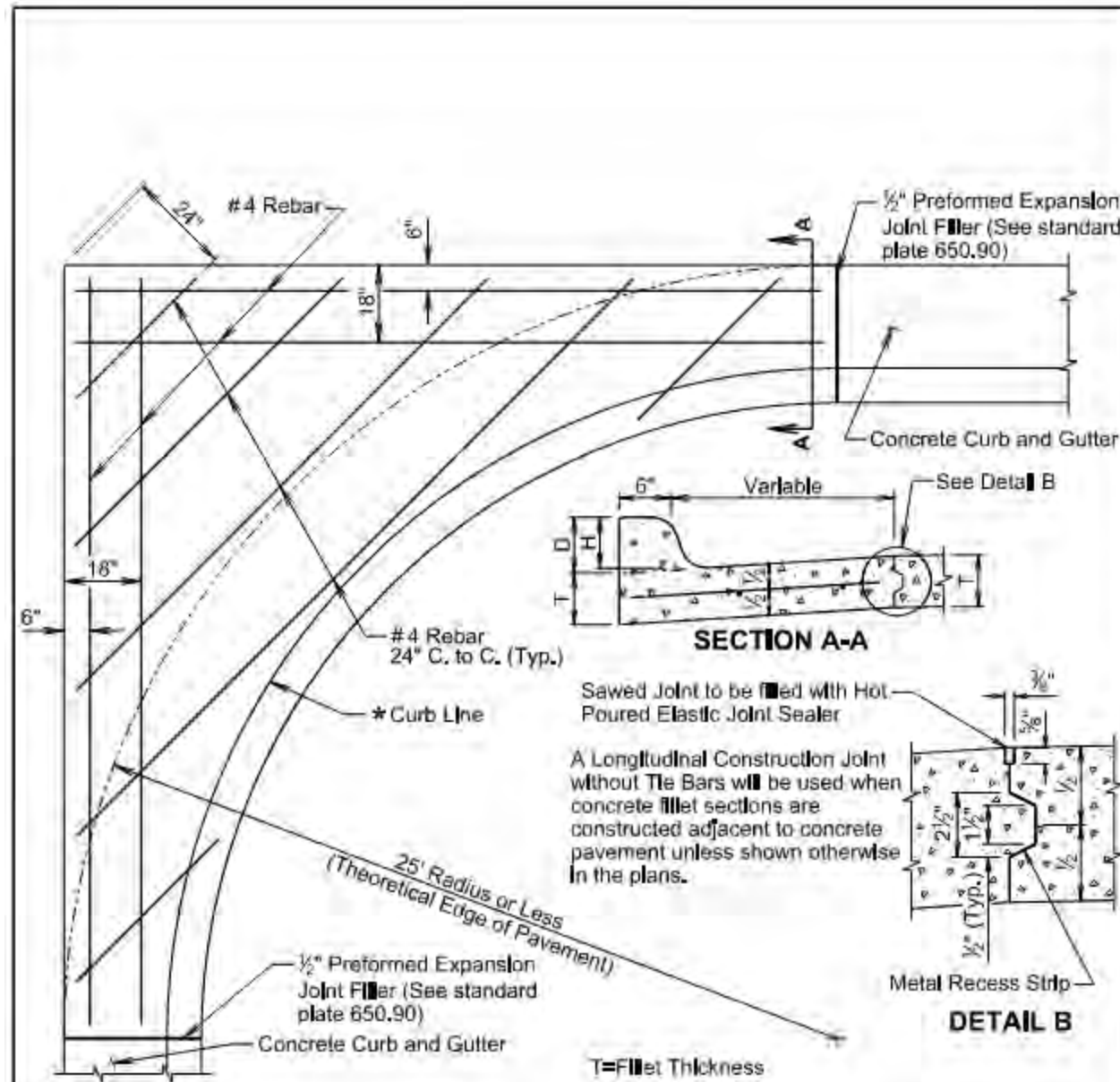
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* If a curb ramp is constructed adjacent to a PCC fillet section, the curb will need to be modified. Refer to the corresponding curb ramp standard plate or other special details in the plans for modification of the PCC fillet section.

March 31, 2024

Published Date: 2025	S D D O T	PCC FILLET SECTION WITH TYPE B CURB AND GUTTER	PLATE NUMBER 380.30
			Sheet 1 of 2

GENERAL NOTES:

For fillets with irregular shapes or bump outs:

- 1) The 6" and 18" offset #4 rebar will be included on any side next to pavement or driveways (not along the Curb and Gutter).
- 2) All remaining area will have #4 rebar spaced 24" center to center in a square pattern.

Dimensions D, H, and T will conform to those shown on the appropriate curb and gutter standard plate.

All rebar will be in conformance with Sections 480 and 1010 of the Specifications. All rebar will have a minimum of 3 inches of clear cover.

Class M6 Concrete will be used in construction of the fillets.

The concrete curb will be monolithic with the concrete fillet. No separate payment for this curb will be made as the curb is considered a part of the fillet.

Joints will be constructed at 10-foot intervals except when fillets are constructed adjacent to PCC Pavement. If there is adjacent PCC Pavement the joints will be extended from edge of pavement through the fillet section as directed by the Engineer.

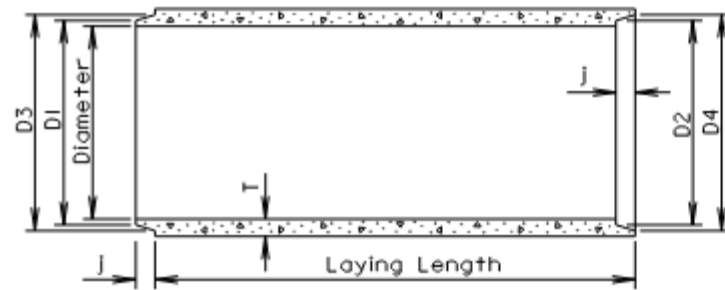
The cost for all materials, labor, and incidentals necessary to construct the PCC fillet section with curb and gutter will be incidental to the contract unit price per square yard for the corresponding PCC fillet section contract item.

March 31, 2024

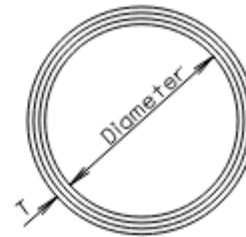
Published Date: 2025	S D D O T	PCC FILLET SECTION WITH TYPE B CURB AND GUTTER	PLATE NUMBER 380.30
			Sheet 2 of 2

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 3/8	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 1/8
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 1/8	58 3/8	59 3/8	59 1/8
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 3/8	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

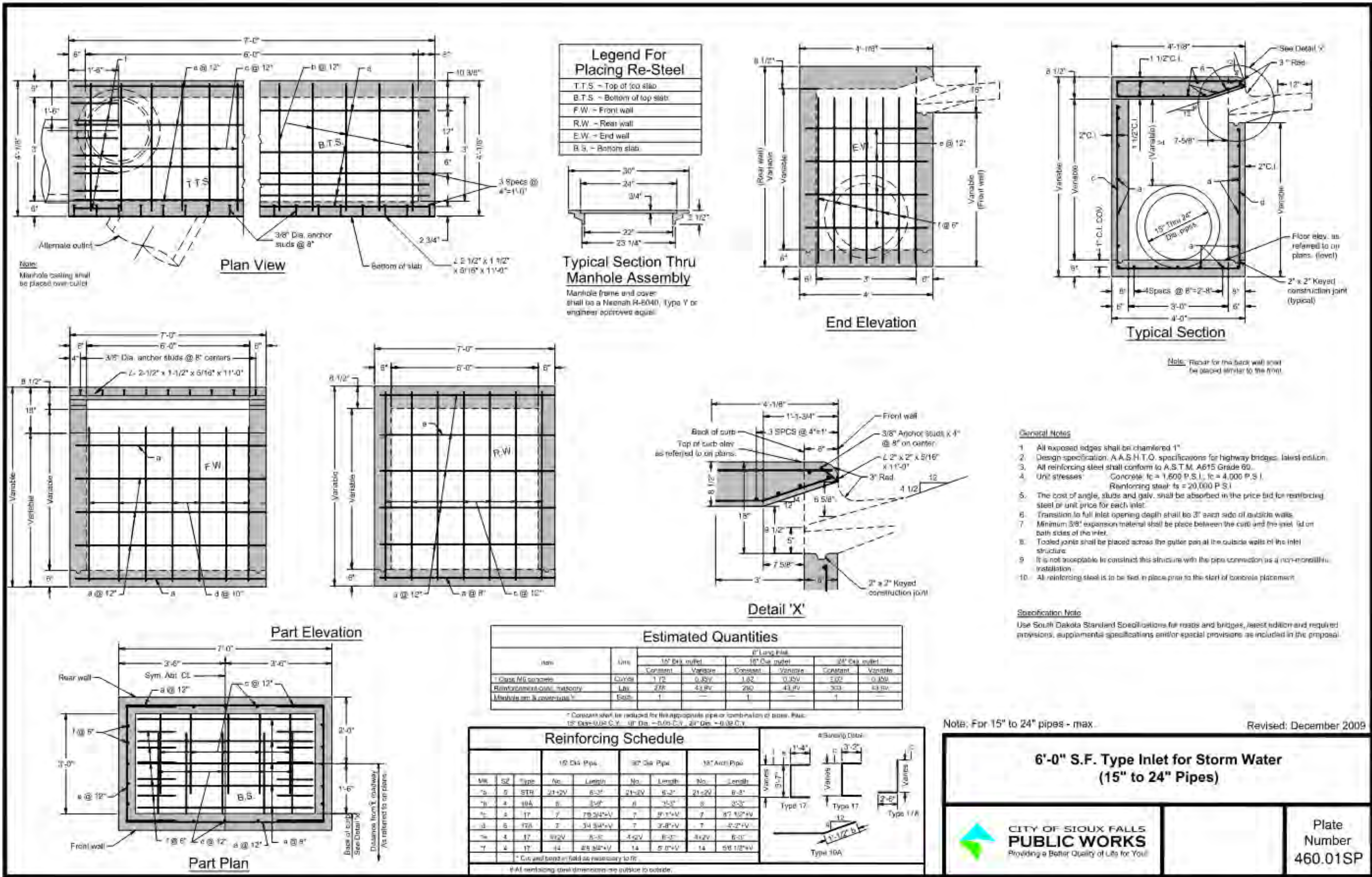
Published Date: 2025

S
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D
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REINFORCED CONCRETE PIPE

PLATE NUMBER
450.01

Sheet 1 of 1



Legend For Placing Re-Steel

T.T.S. - Top of top slab
 B.T.S. - Bottom of top slab
 F.W. - Front wall
 R.W. - Rear wall
 E.W. - End wall
 B.S. - Bottom slab

Typical Section Thru Manhole Assembly

Manhole frame and cover shall be a Neenah R-8040, Type Y or engineer approved equal.

- General Notes**
- All exposed edges shall be chamfered 1".
 - Design specification, A.A.S.H.T.O. specifications for highway bridges, latest edition.
 - All reinforcing steel shall conform to A.S.T.M. A615 Grade 60.
 - Unit stresses: Concrete: $f_c = 1,600$ P.S.I., $f_c = 4,000$ P.S.I. Reinforcing steel: $f_s = 20,000$ P.S.I.
 - The cost of angle, studs and galv. shall be absorbed in the price bid for reinforcing steel or unit price for each inlet.
 - Transition to full inlet opening depth shall be 3' each side of outside walls.
 - Minimum 3/8" expansion material shall be placed between the curb and the pipe, laid on both sides of the inlet.
 - Tooled joints shall be placed across the gutter pan at the outside walls of the inlet structure.
 - It is not acceptable to construct this structure with the pipe connection as a non-monolithic installation.
 - All reinforcing steel is to be tied in place prior to the start of concrete placement.

Specification Note

Use South Dakota Standard Specifications for roads and bridges, latest edition and required provisions, supplemental specifications and/or special provisions as included in the proposal.

Estimated Quantities

Item	Units	15" Dia. inlet				18" Dia. inlet		24" Dia. inlet	
		Constant	Variable	Constant	Variable	Constant	Variable		
1. Class III concrete	Cu.Yd.	1.12	0.35V	1.82	0.45V	3.02	0.45V		
Reinforcement-concrete	Lbs.	228	43.8V	290	43.8V	303	43.8V		
Manhole rim & cover-type Y	Each	1		1		1			

* Constant steel, be reduced for the appropriate pipe or combination of sizes. Ref: 15" Dia. = 0.94 C.Y., 18" Dia. = 0.95 C.Y., 24" Dia. = 0.98 C.Y.

Reinforcing Schedule

No.	SZ	Type	15" Dia. Pipe		18" Dia. Pipe		24" Dia. Pipe	
			No.	Length	No.	Length	No.	Length
1	5	STR	21+2V	8'-2"	21+2V	8'-2"	21+2V	8'-2"
2	4	10A	8	3'-0"	8	3'-0"	8	3'-0"
3	4	17	7	28.5/2+V	7	40.1+V	7	47.1/2+V
4	6	10A	7	34.5/2+V	7	37.8+V	7	42.2+V
5	4	17	8+2V	8'-0"	4+2V	8'-0"	4+2V	8'-0"
7	4	17	14	48.5/2+V	14	57.0+V	14	66.1/2+V

* Cut and bend as field as necessary to fit.
 † All reinforcing steel dimensions are outside to outside.

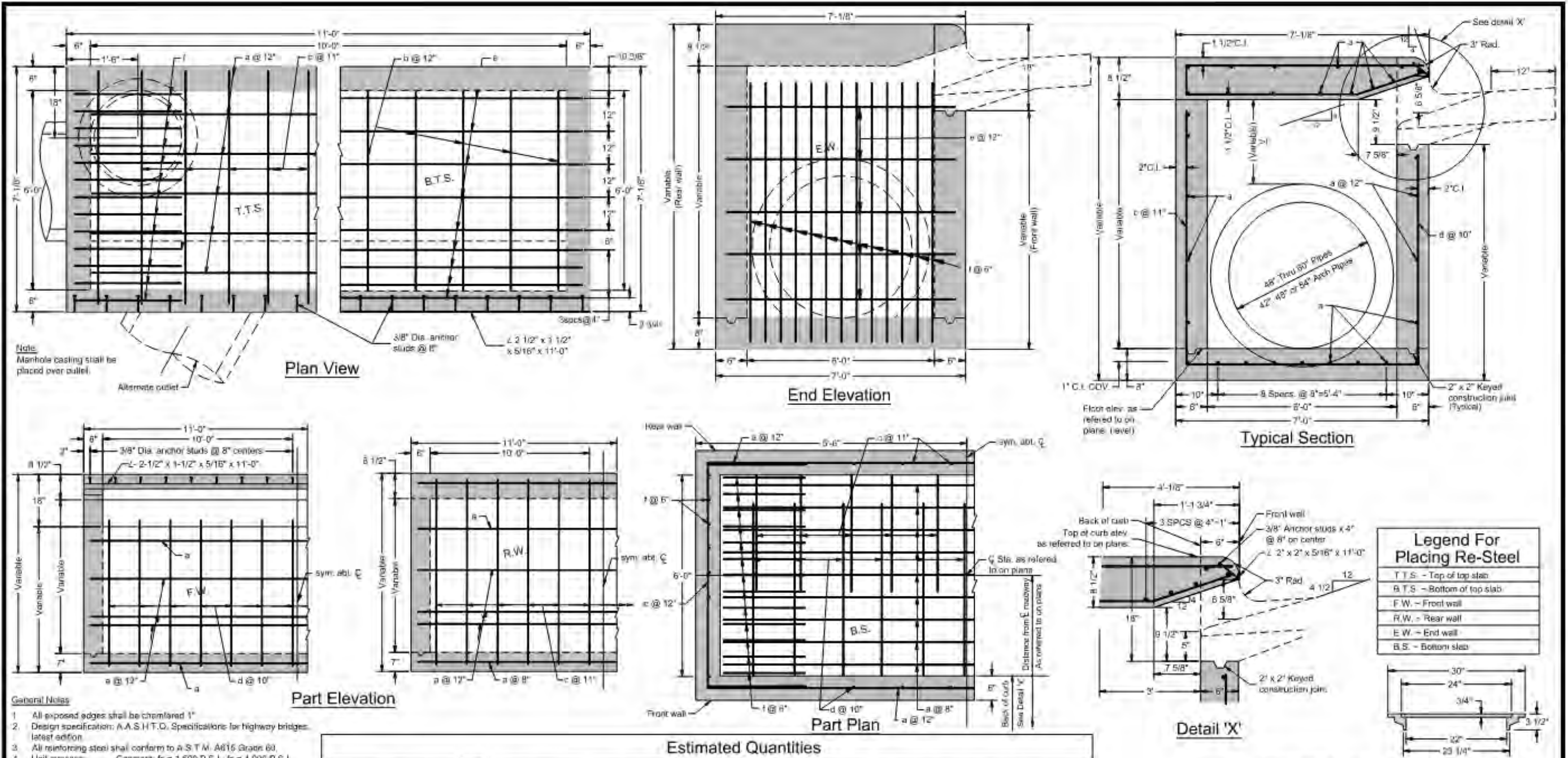
Note: For 15" to 24" pipes - max. Revised: December 2009

**6'-0" S.F. Type Inlet for Storm Water
(15" to 24" Pipes)**

**CITY OF SIOUX FALLS
PUBLIC WORKS**

Providing a Better Quality of Life for You!

Plate
Number
460.01SP



Note: Manhole casting shall be placed over outlet.

- General Notes**
- All exposed edges shall be chamfered 1"
 - Design specification: A.A.S.H.T.O. Specifications for Highway bridges, latest edition
 - All reinforcing steel shall conform to A.S.T.M. A615 Grade 60
 - Unit stresses: Concrete: $f_c = 1,600$ P.S.I., $f_c = 4,000$ P.S.I. Reinforcing steel: $f_s = 20,000$ P.S.I.
 - The cost of angle, studs and galv. shall be absorbed in the price bid for reinforcing steel or unit price for each inlet.
 - Transition to full inlet opening depth shall be 3" each side of outside walls.
 - Minimum 3/8" expansion material shall be placed between the curb and the inlet on both sides of the inlet.
 - Tooled joints shall be placed across the gutter pan at the outside walls of the inlet structure.
 - It is not acceptable to construct this structure with the pipe connection as a non-monolithic installation.
 - All reinforcing steel is to be tied in place prior to the start of concrete placement.

Specification Note
Use South Dakota Standard Specifications for roads and bridges, latest edition and required provisions; supplemental specifications and/or special provisions as included in the proposal.
* Constant shall be reduced for the appropriate pipe or combination of pipes: thus: 48" Dia = 0.34 C.Y., 54" Dia = 0.43 C.Y., 60" Dia = 0.52 C.Y., 42" arch = 0.25 C.Y., 48" arch = 0.32 C.Y., 54" arch = 0.40 C.Y.

Estimated Quantities

Item	Unit	48" Dia. Curb		54" Dia. Curb		60" Dia. Curb		42" Arch Curb		48" Arch Curb		54" Arch Curb	
		Constant	Variable	Constant	Variable	Constant	Variable	Constant	Variable	Constant	Variable	Constant	Variable
* Class MB concrete	CuYds	8.60	0.62V	9.34	0.65V	10.20	0.68V	5.86	0.60V	6.10	0.60V	6.35	0.60V
Reinforcing-steel masonry	RS	1064	66.7V	1000	30.7V	1000	20.7V	660	30.7V	660	30.7V	660	30.7V
Manhole curb cover, D=4' Y	Each	-	-	-	-	-	-	-	-	-	-	-	-

Reinforcing Schedule

MIC	SZ	Type	48" Dia. Pipe		54" Dia. Pipe		60" Dia. Pipe		42" Arch Pipe		48" Arch Pipe		54" Arch Pipe	
			No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length
1	4	STR	26+20	10'-0"	30+20	10'-0"	38+20	10'-0"	32+20	10'-0"	34+20	10'-0"	34+20	10'-0"
2	4	SW	1	9'-0"	1	9'-0"	1	9'-0"	1	9'-0"	1	9'-0"	1	9'-0"
3	6	1"	12	18'-0"	12	18'-0"	12	18'-0"	12	18'-0"	12	18'-0"	12	18'-0"
4	7	1/2"	11	7'-10"	11	8'-0"	11	8'-0"	11	8'-0"	11	8'-0"	11	7'-7"
5	4	1"	10+20	10'-0"	10+20	10'-0"	10+20	10'-0"	10+20	10'-0"	10+20	10'-0"	10+20	10'-0"
6	4	1"	20	12'-0"	20	12'-0"	20	12'-0"	20	12'-0"	20	12'-0"	20	12'-0"

* Cut and bend in field as necessary to fit

All reinforcing steel dimensions are outside to outside

Note: For 48" to 60" pipes - max.

10'-0" S.F. Type Inlet for Storm Water (48" to 60" Pipes)

Revised: December 2009

**CITY OF SIOUX FALLS
PUBLIC WORKS**
Providing a Better Quality of Life for You!

Plate
Number
460.04SP

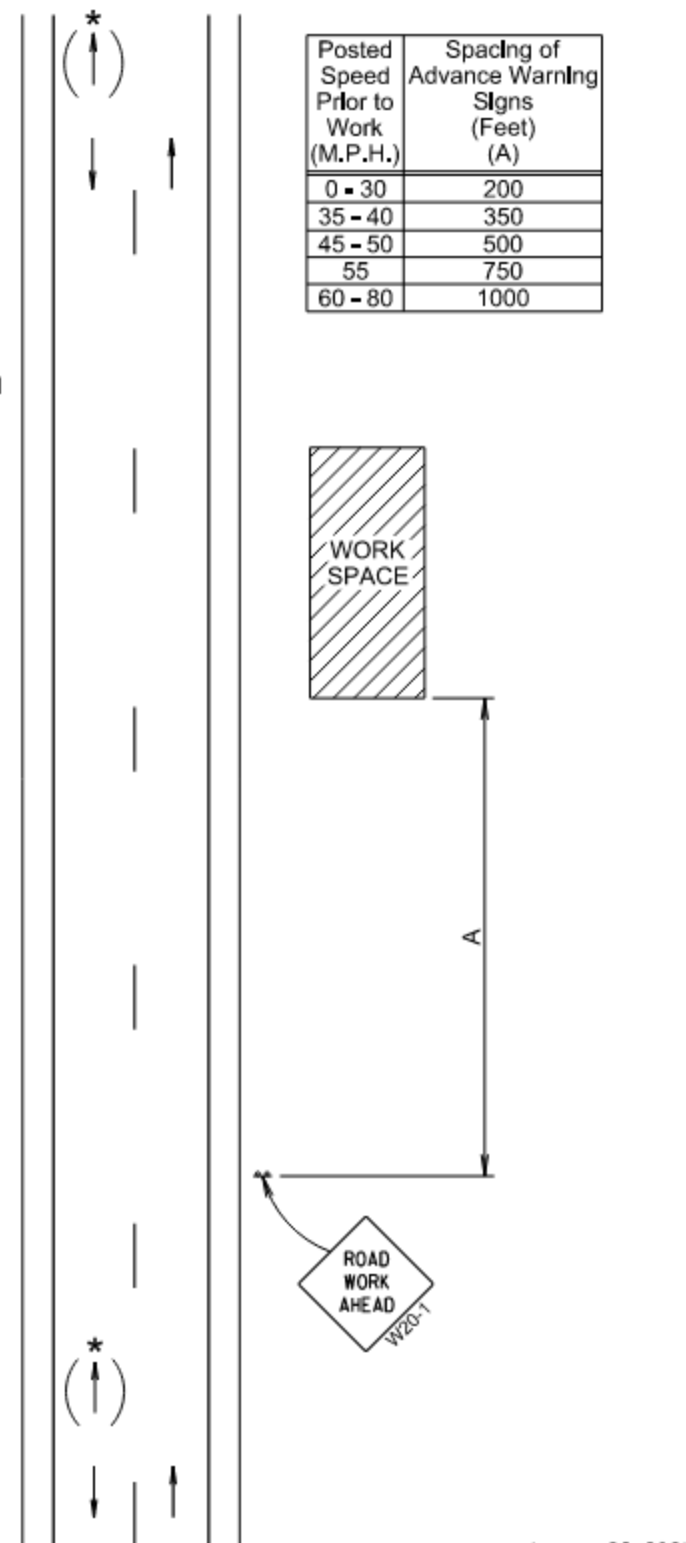
The signs illustrated are not required if the work space is behind a barrier, more than 2 feet behind the curb, or 15 feet or more from the edge of any roadway.

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

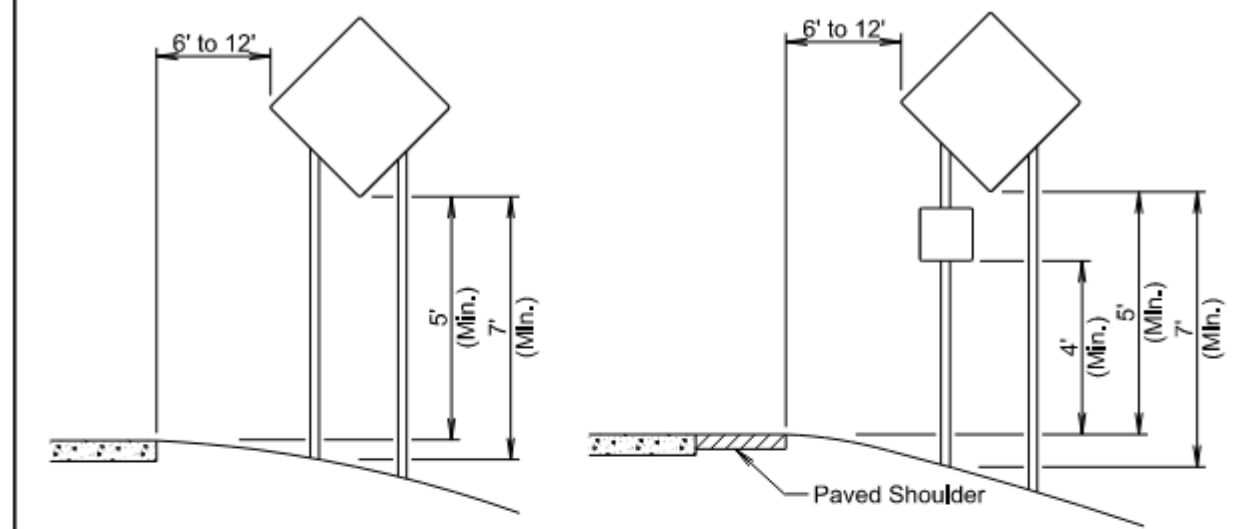
The ROAD WORK AHEAD sign may be replaced with other appropriate signs, such as the SHOULDER WORK sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.

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

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

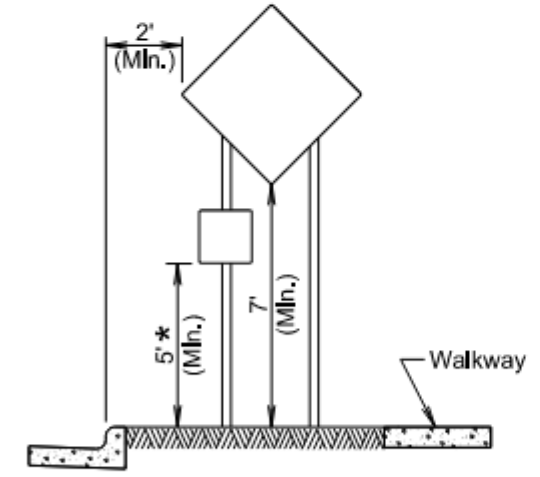


January 22, 2021

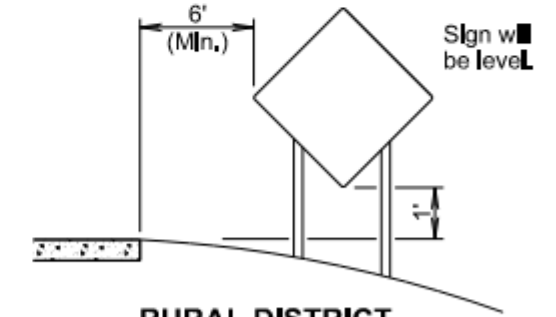


RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT

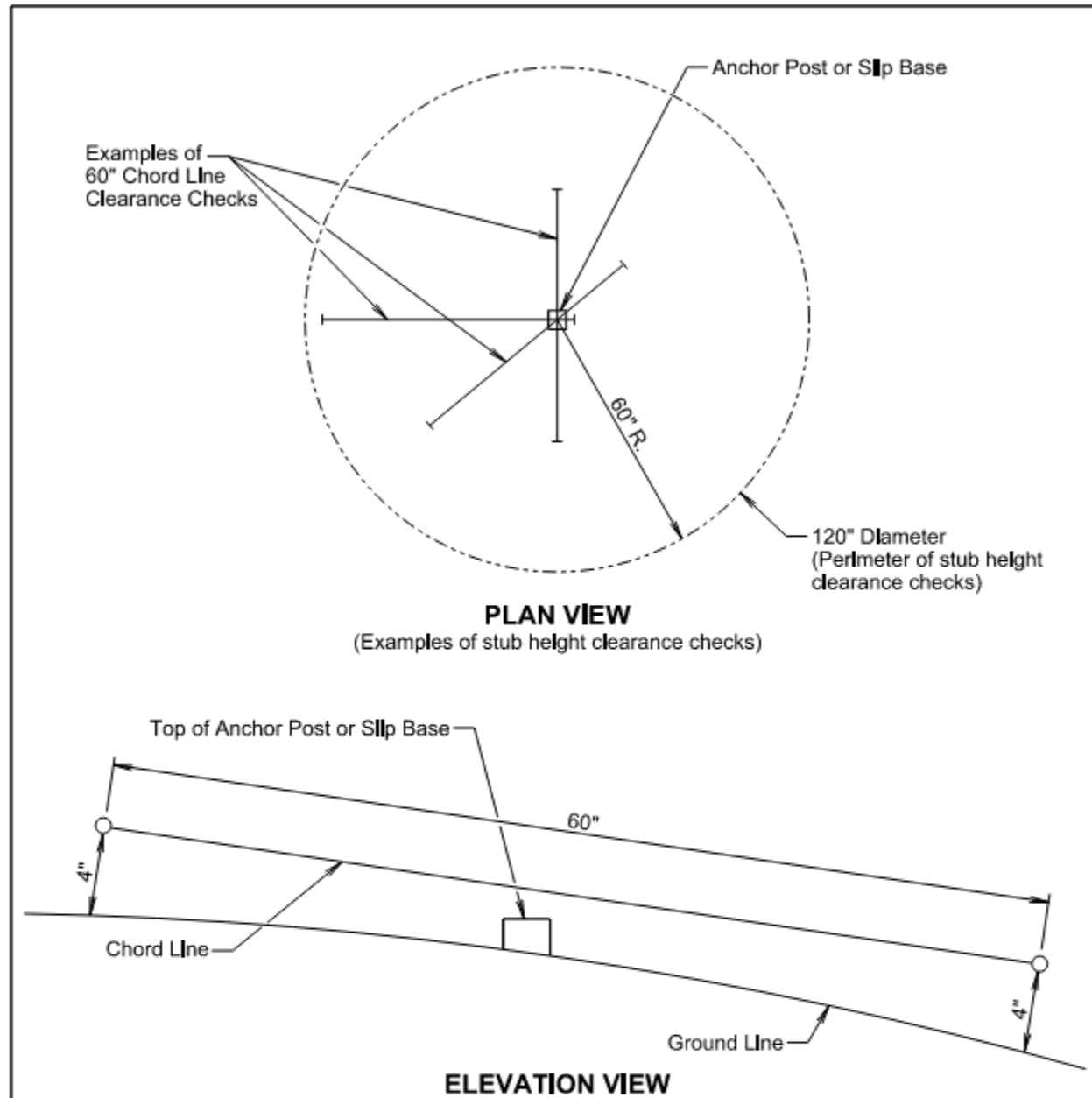


RURAL DISTRICT 3 DAY MAXIMUM

(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



GENERAL NOTES:

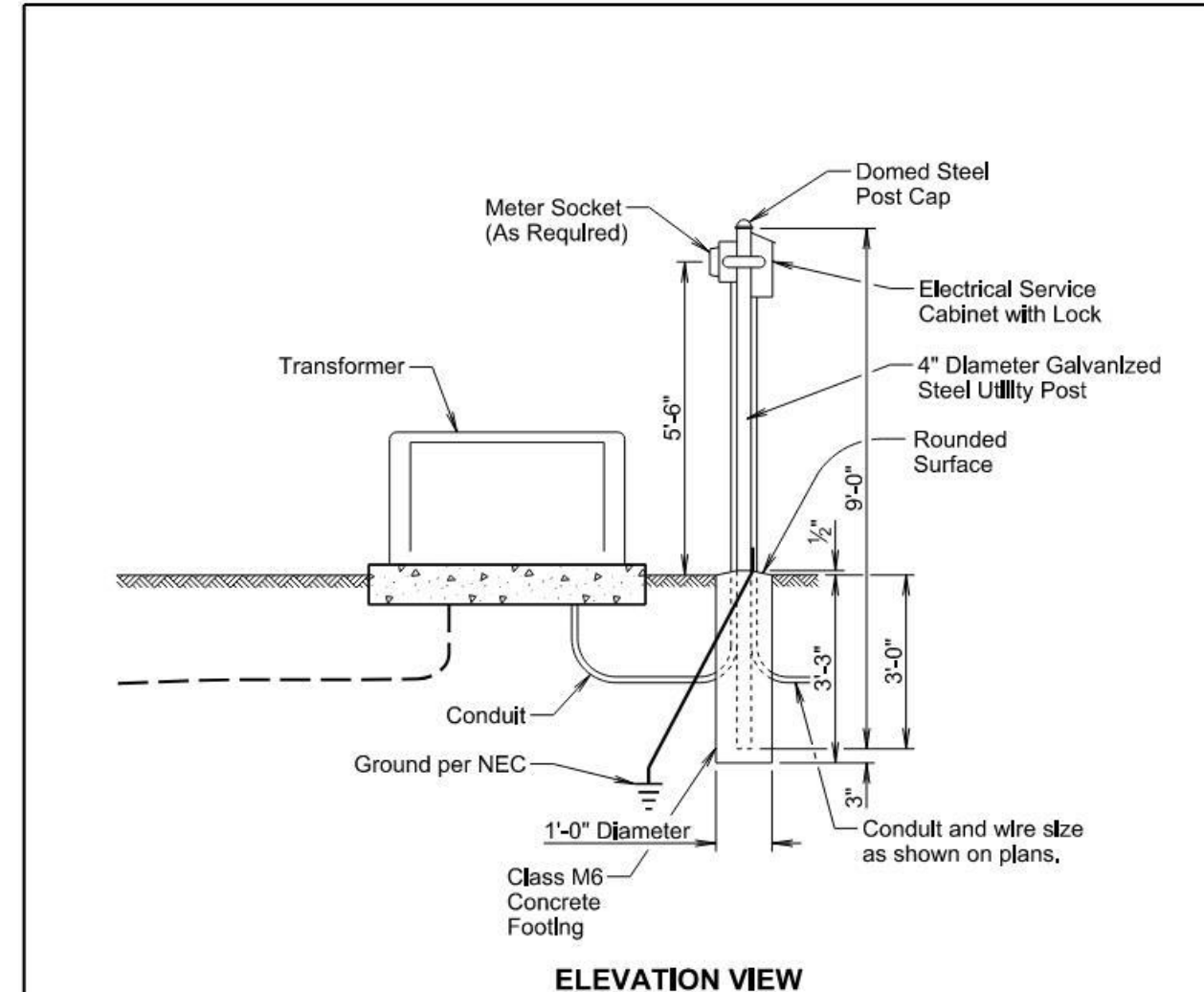
The top of anchor posts and slip bases WILL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

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

Published Date: 2025	S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER
			634.99
			Sheet 1 of 1



ELEVATION VIEW

GENERAL NOTES:

The concrete for the post footing will be class M6 concrete.

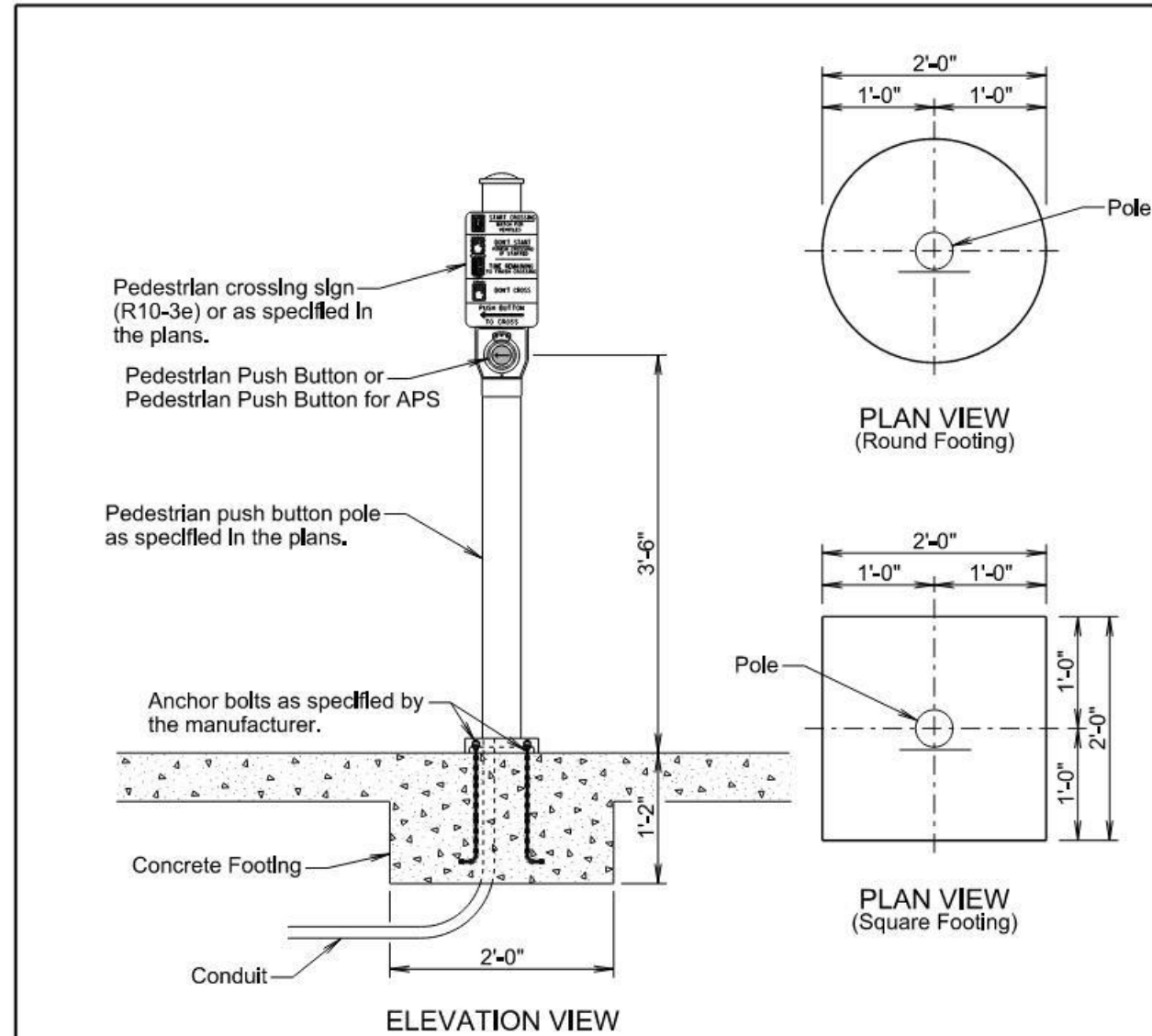
The 4" diameter galvanized steel utility post will be 9' long and will be in conformance with AASHTO Standard Specifications M181. The post will be Type 1 and either Grade 1 or Grade 2. The domed steel post cap will be in conformance with AASHTO Standard Specifications M181 and will be Type 1.

The Contractor will contact and coordinate his/her work with the Utility Companies regarding hookup requirements, fees, materials, and equipment necessary.

All costs for furnishing and installing all materials from the electrical service cabinet to the transformer including labor, equipment, hookup fees, all items within the cabinet, lockable enclosure with receptacle outlet, lock and keys, post, concrete footing, post cap, meter socket if required, conduit, and incidentals will be incidental to the contract unit price per each for "Electrical Service Cabinet".

March 31, 2024

Published Date: 2025	S D D O T	SERVICE FROM PAD MOUNTED TRANSFORMER WITH METER ON A GALVANIZED STEEL UTILITY POST	PLATE NUMBER
			635.41
			Sheet 1 of 1



GENERAL NOTES:

The pedestrian push button pole will be as specified in the plans.

The Contractor will install either the round or the square concrete footing. For informational purpose, the quantity of concrete for one footing is 0.14 cubic yards for the round footing and 0.17 cubic yards for the square footing.

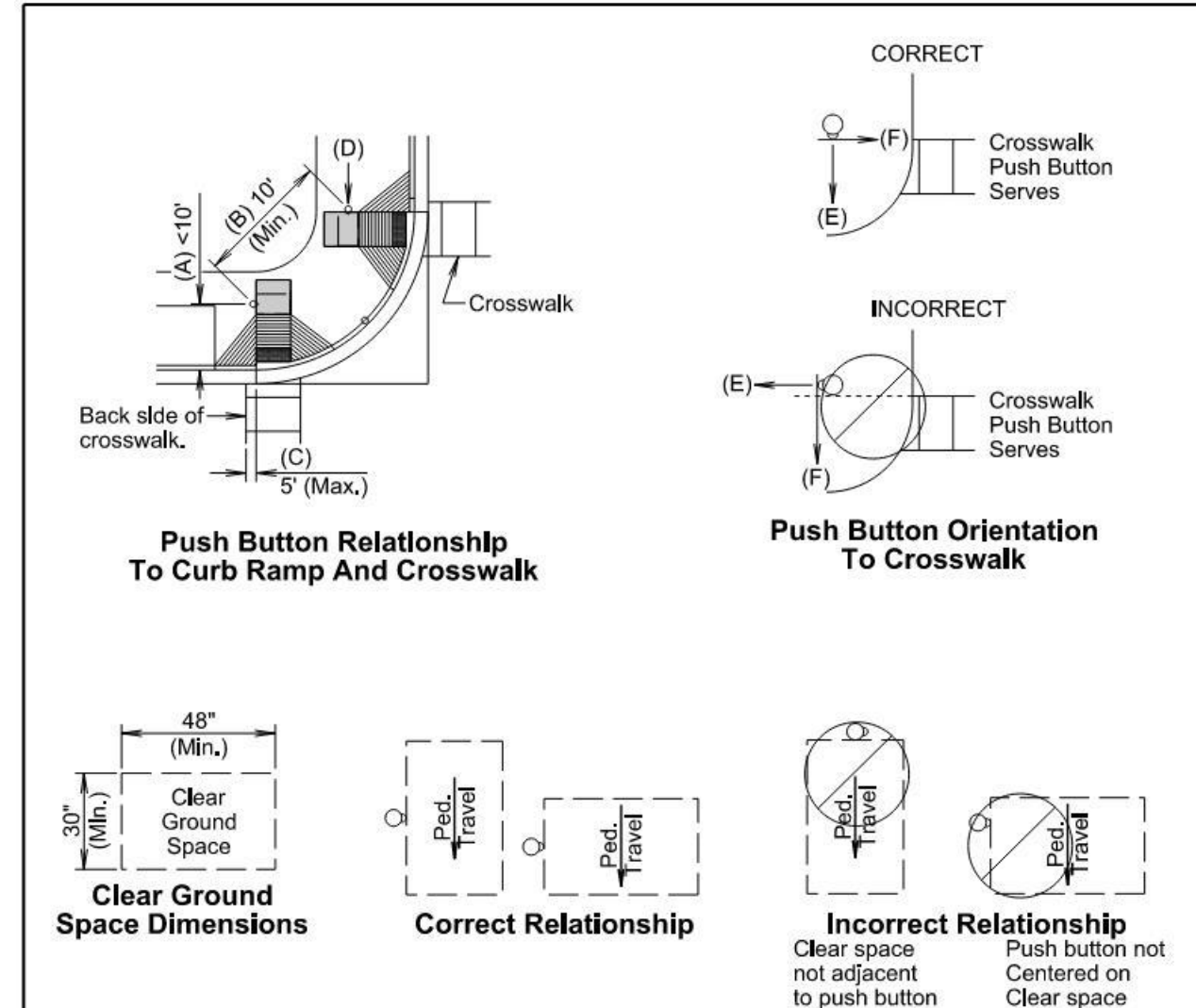
The concrete for the footing will be class M6 concrete.

All costs for furnishing and installing the concrete footing will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk bid item.

All costs for furnishing and installing the pedestrian push button pole including labor, equipment, and materials including the pole, cap, and the conduit in the footing will be incidental to the contract unit price per each for "Pedestrian Push Button Pole".

May 9, 2020

Published Date: 2025	S D D O T	PEDESTRIAN PUSH BUTTON POLE	PLATE NUMBER 635.57
			Sheet 1 of 2



General Notes:

Pedestrian Push Buttons Location and Orientation Requirements:

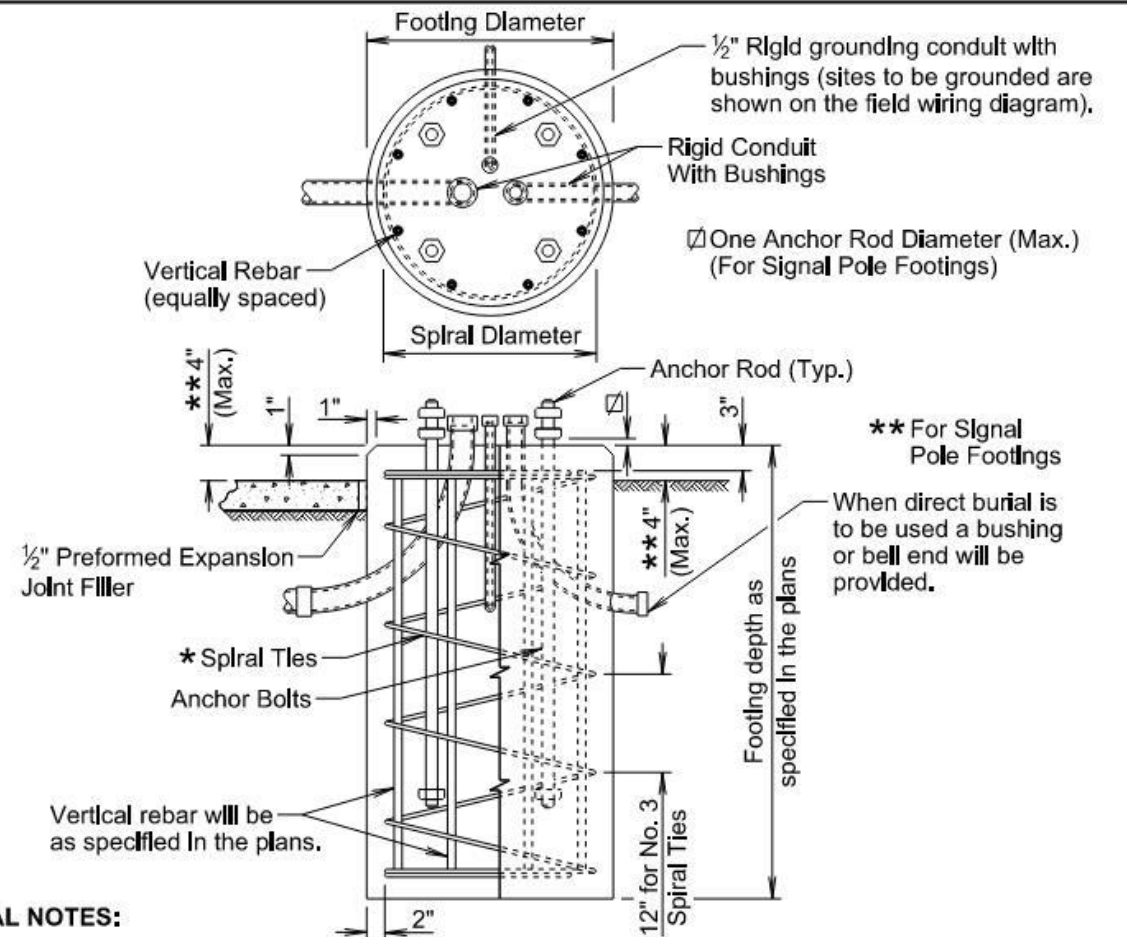
- (A) Within 10 feet from the front face of curb.
- (B) Where two push buttons are provided, the push buttons should have at least 10 feet of separation from each other.
- (C) If two curb ramps are used, the push button should be within 5 feet of the backside of the crosswalk.
- (D) The push button should be mounted adjacent to a clear ground space (within 10 inches maximum reach). The clear ground space will be a least 30 inches x 48 inches and will slope no more than 50:1 (2%) in any direction. The push button will be centered on either side of the clear ground space (either the 30 inch or 48 inch side). The 30 inch x 48 inch clear ground space shouldn't touch the detectable warning panel.
- (E) The push button should face the edge of roadway.
- (F) The push button face should be parallel to the crosswalk being used.

The push button poles will not interfere with the minimum clear width of the Pedestrian Access Route.

May 9, 2020

Published Date: 2025	S D D O T	PEDESTRIAN PUSH BUTTON POLE	PLATE NUMBER 635.57
			Sheet 2 of 2

Plotting Date: 9/13/2024



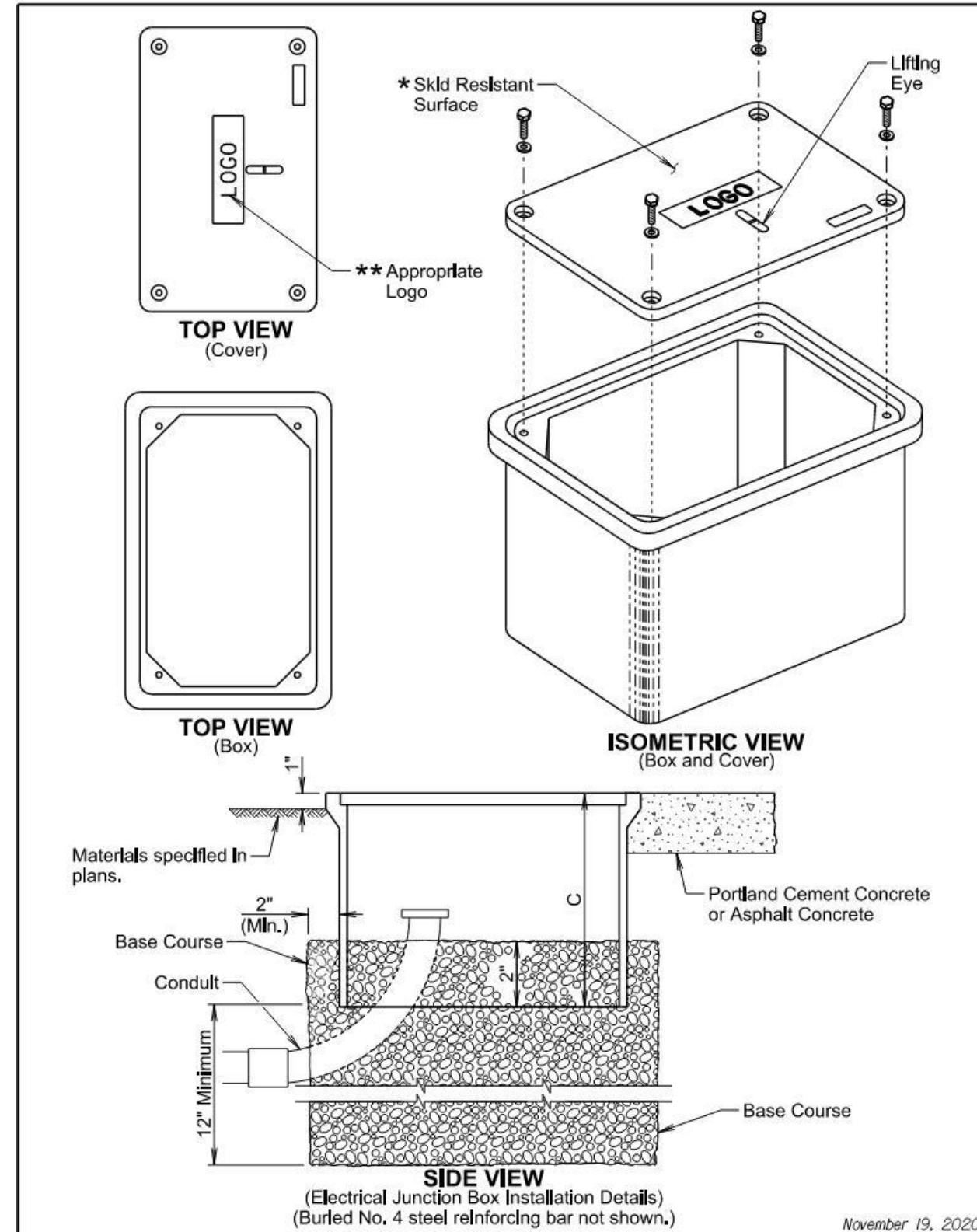
GENERAL NOTES:

- * Circular ties may be used in lieu of the spiral ties. The No. 3 ties will be spaced 12 inches apart except for the top two which will be spaced 6 inches apart. The ties will be lapped 18 inches and the laps will be staggered around the cage.
- Spiral ties will have 1-1/2 extra turns at each end.
- See Section 985 of the Specifications for footing materials.
- Conduits and bushings may project 2 1/2 inches to 6 inches above footing for fixed base poles but will not project above the slip plane or fracture plane for breakaway poles.
- Conduits will be sealed water-tight during all phases of construction until poles are in place.
- The anchor rods will fit inside the reinforcing steel cage. If the anchor rods designed by the Pole Manufacturer do not fit, contact the Office of Bridge Design for footing redesign. No additional payment will be made for the redesigned footing.
- Costs of conduit and conduit bushings shown on footing detail will be incidental to the footing bid item(s).
- The pole will not be installed until the concrete has attained design strength (4000 psi).
- The contour of the area surrounding the breakaway pole will be flat, though not necessarily level for a distance of 5 feet in all directions. The Contractor may be required to provide finish grading at some breakaway pole locations.

November 19, 2022

S D D O T	POLE FOOTING	PLATE NUMBER 635.55
		Sheet 1 of 1

Published Date: 2025



November 19, 2020

S D D O T	ELECTRICAL JUNCTION BOXES TYPE 1 THROUGH TYPE 4	PLATE NUMBER 635.65
		Sheet 1 of 2

Published Date: 2025

ELECTRICAL JUNCTION BOX			
TYPE	DESCRIPTION	APPROXIMATE COVER SIZE	MINIMUM DEPTH (C)
1	Open Bottom with Gasket	11"x18"	18"
2	Open Bottom with Gasket	13"x24"	18"
3	Open Bottom with Gasket	17"x30"	18"
3A	Open Bottom with Gasket	24"x36"***	24"
4	Open Bottom with Gasket	30"x48"***	24"

GENERAL NOTES:

The cover will be gasketed with a minimum of two stainless steel bolts and washers.

The cover will have a lifting eye.

* The surface of the cover will have a minimum wet and dry coefficient of friction value of 0.5 as determined by ASTM F609.

** The cover of the junction box will have the appropriate logo in one inch size letters and will be recessed. When the junction box contains cables or wires for a traffic signal then the logo will be "Signal". When the junction box contains lighting conductors then the logo will be "Lighting".

*** Two piece covers will be used for Type 3A and Type 4 junction boxes.

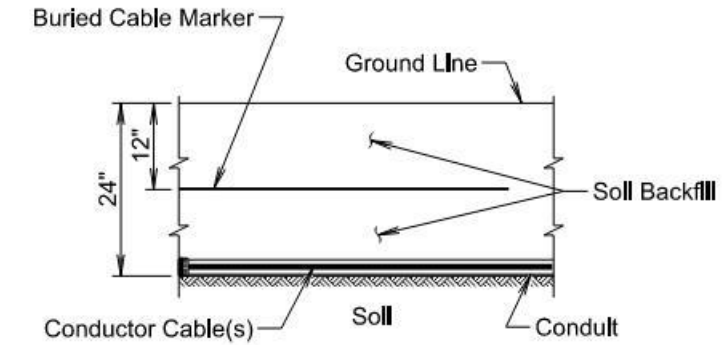
The electrical junction boxes will comply with the American National Standards Institute (ANSI)/Society of Cable Telecommunications Engineers (SCTE) 77 2007 Specification for Underground Enclosure Integrity. The loading requirement for all electrical junction boxes and covers will be Tier 22 of ANSI/SCTE 77 2007.

The electrical junction boxes will be UL listed.

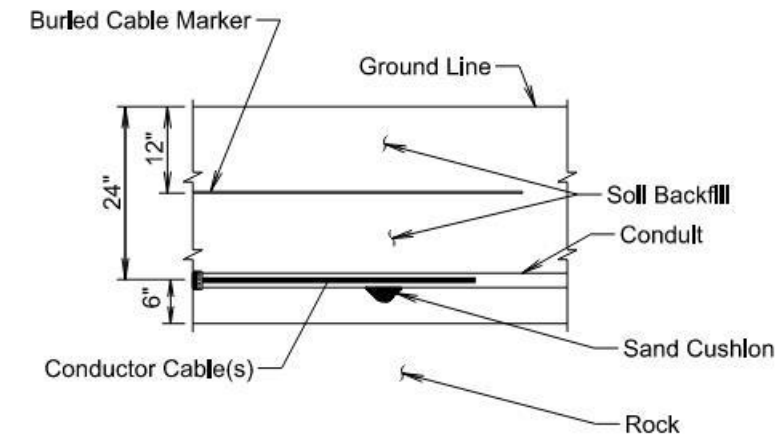
For junction boxes located outside of pavement, a No. 4 steel reinforcing bar with a minimum length of 18" will be buried adjacent to the long side of the junction box. All costs associated with furnishing and placing the steel reinforcing bar will be incidental to the contract unit price per each for "Type _ Electrical Junction Box".

November 19, 2020

Published Date: 2025	S D D O T	ELECTRICAL JUNCTION BOXES TYPE 1 THROUGH TYPE 4	PLATE NUMBER 635.65
			Sheet 2 of 2



SECTION VIEW



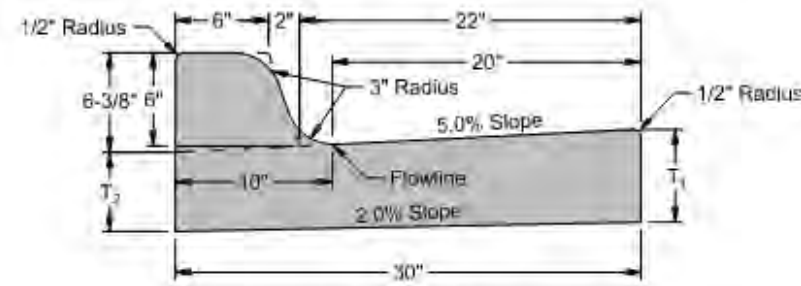
SECTION VIEW

GENERAL NOTE:

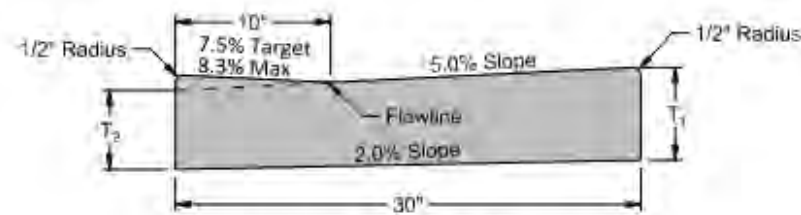
The Buried Cable Marker will be plastic, approximately 6" wide, and will be capable of sustaining a minimum of a 350% tolerance of elongation without tearing. The Buried Cable Marker will have a life expectancy approximately equal to that of the conductor(s) beneath it. A phrase indicating the presence of a buried electric circuit below will be printed in a contrasting color on the cable marker. The Buried Cable Marker will be subject to approval by the Engineer. All costs associated with furnishing and installing the Buried Cable Marker will be incidental to the contract unit price per foot for the bid item used for the electrical conductor.

November 19, 2022

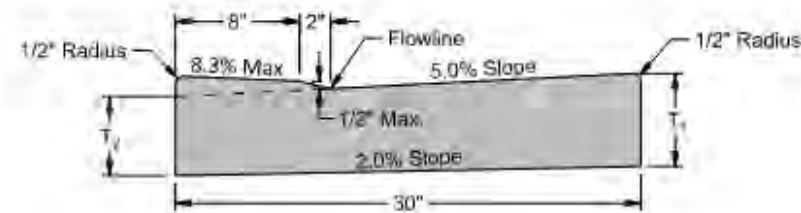
Published Date: 2025	S D D O T	CONDUIT INSTALLATION	PLATE NUMBER 635.76
			Sheet 1 of 1



Standard Curb and Gutter



Drop Curb for ADA Curb Ramps



Drop Curb for Driveway Approach

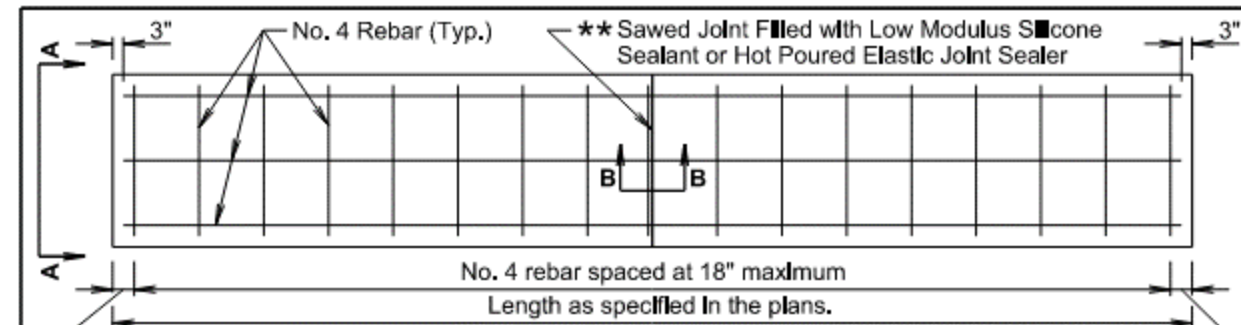
T₁ = Thickness shall be equal to the depth of the adjacent pavement but not less than 6"
 T₂ = T₁ - 7/8"

GENERAL NOTES:

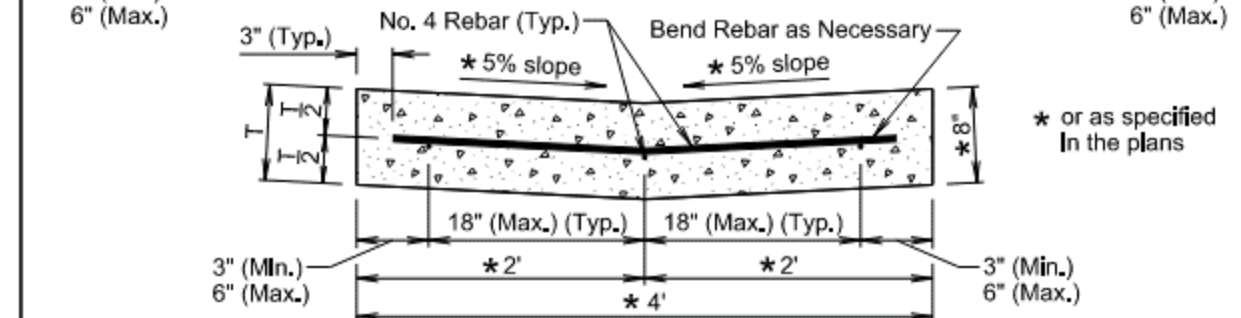
- 1) On PCC pavement a keyway longitudinal joint with tie bars shall be used when curb and gutter is poured separately.
- 2) Curb and gutter shall be constructed using M-6 concrete unless monolithically constructed with the adjacent pavement. In monolithic paving, concrete mix for the curb and gutter may be the same as the adjacent concrete pavement.
- 3) The curb transition length at ADA curb ramps will be dependent on the type of curb ramp being installed. The plans should call out the length of the transitions. Refer to plate 651.02 for additional curb transition information.

Issued: January 2017

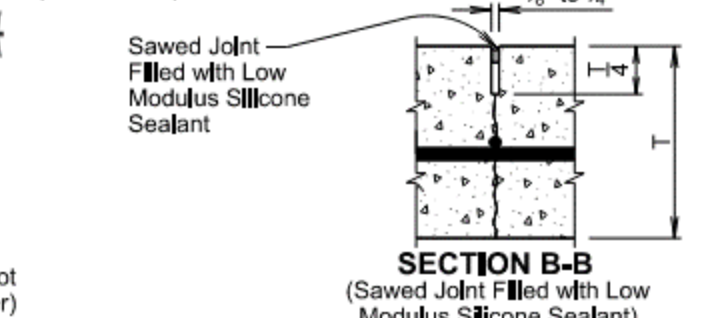
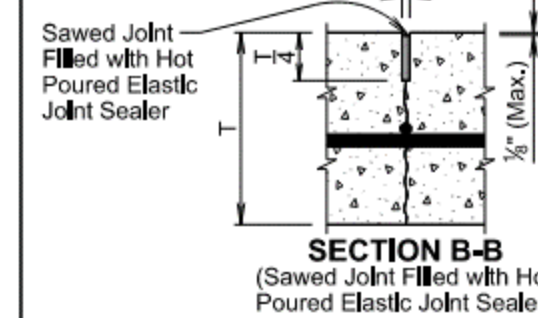
<p>CITY OF SIOUX FALLS PUBLIC WORKS Providing a Better Quality of Life for You!</p>	<p>Concrete Curb and Gutter</p>	<p>Plate Number</p>
		<p>650.01SP</p>



PLAN VIEW



VIEW A-A (Not to scale)

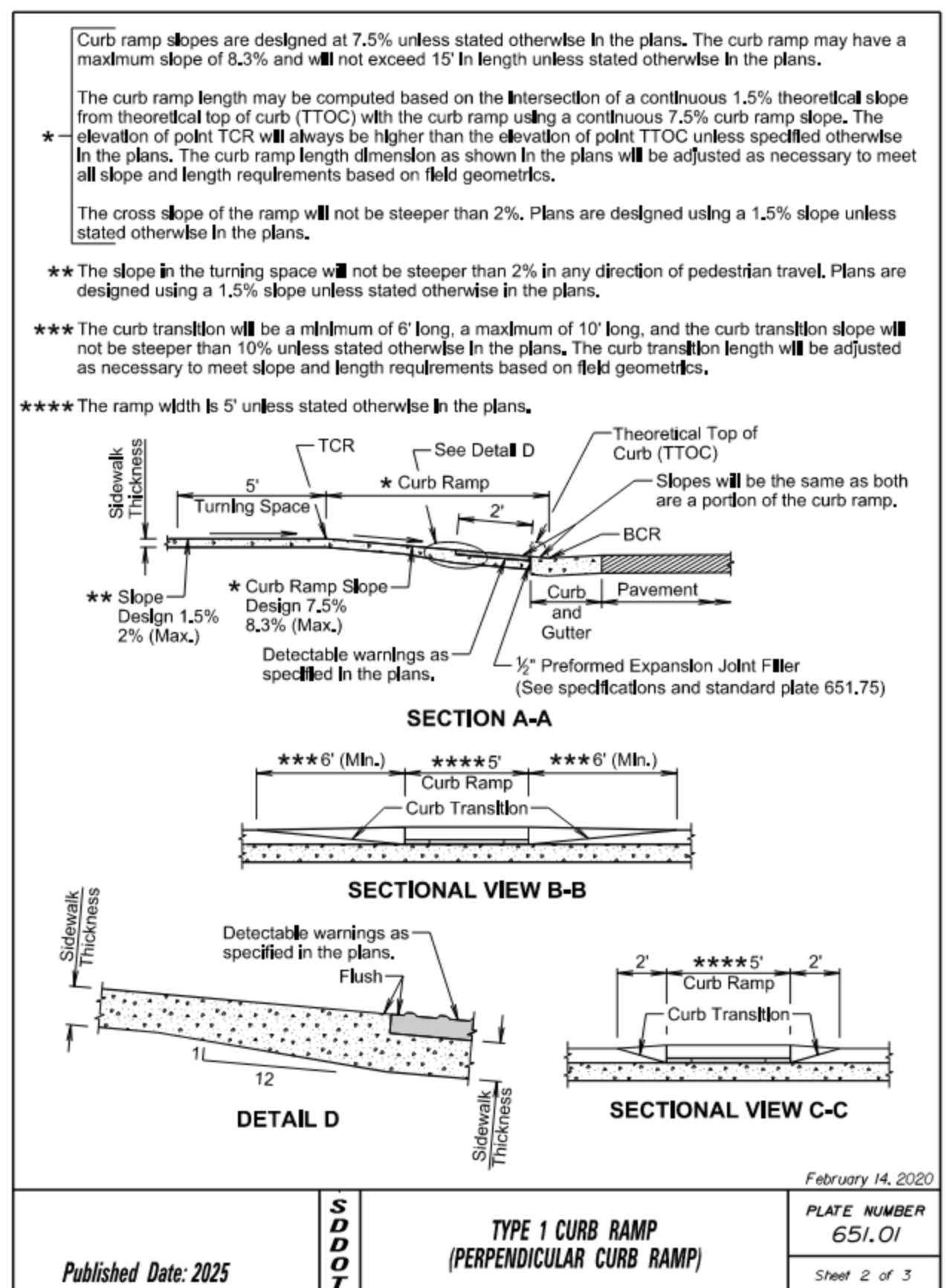
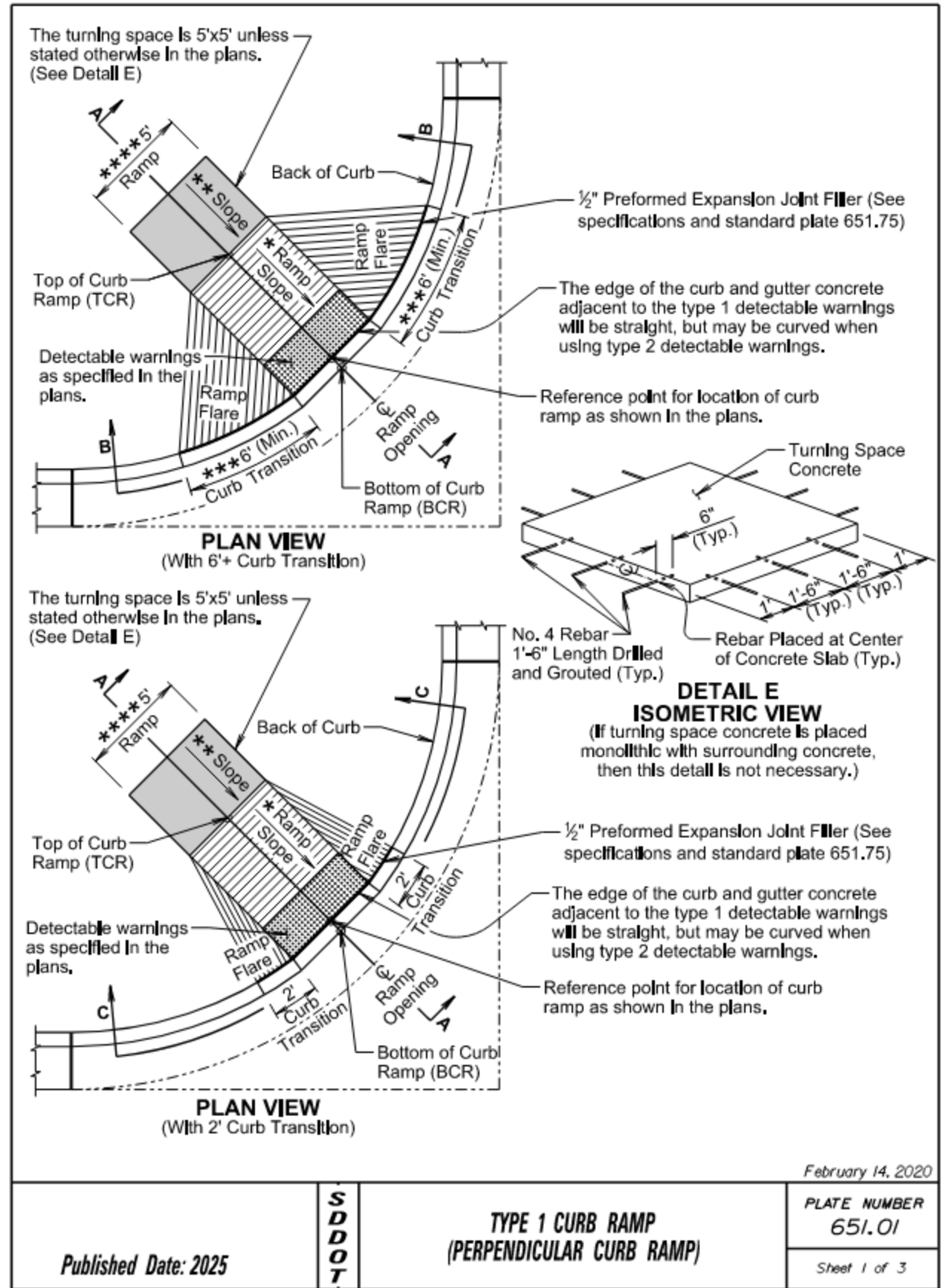


GENERAL NOTES:

- The concrete will comply with the specifications for class M6 concrete.
- The reinforcing steel will comply with the requirements of specification sections 480 and 1010.
- If a lap splice is provided the No. 4 rebar will be lapped a minimum of 12 inches.
- ** The sawed joints will be spaced at 12 feet; however, when the length of the valley gutter is 12 feet to 24 feet there will be a joint at the midpoint of the length. The saw cut to control cracking will be a minimum of 1/4 the thickness of the pavement.
- All hot poured elastic joint sealer material spilled on the surface of the concrete pavement will be removed as soon as the material has cooled. The extent of removal of material will be to the satisfaction of the Engineer. All costs for removal of the spilled joint sealer material will be borne by the Contractor.
- The silicone sealant will be bonded to the sides of a clean joint to completely seal the joint as approved by the Engineer.
- All costs for furnishing and installing the valley gutter including materials, equipment, labor, and incidentals will be included in the contract unit price per square yard for the corresponding Valley Gutter contract item.

December 23, 2019

<p>Published Date: 2025</p>	<p>S D D O T</p>	<p>VALLEY GUTTER</p>	<p>PLATE NUMBER</p>
		<p>650.40</p>	<p>Sheet 1 of 1</p>

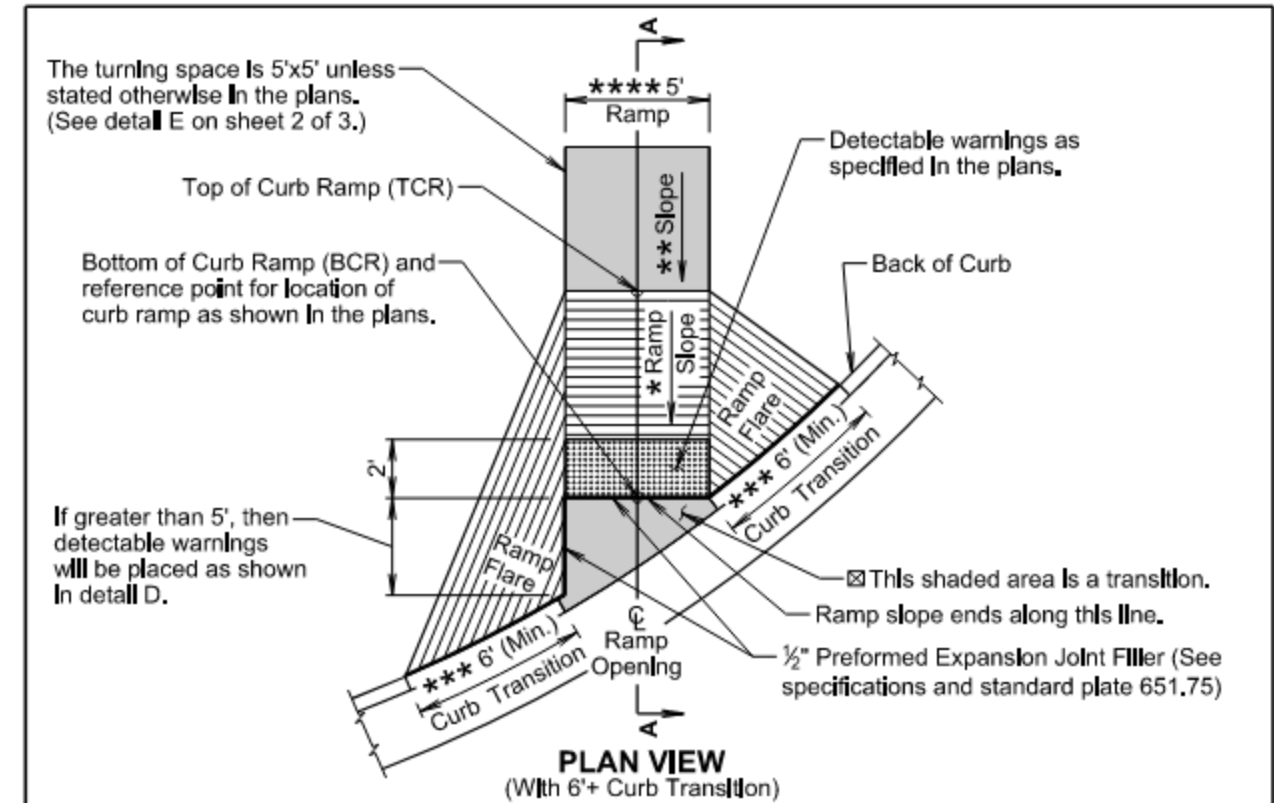


GENERAL NOTES:

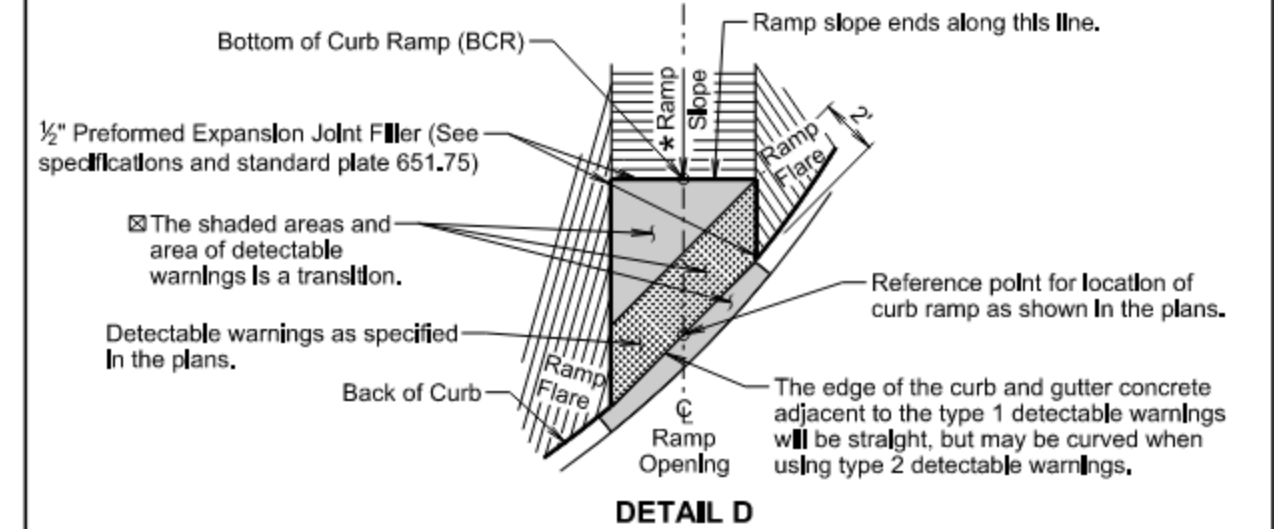
- For illustrative purpose only, type 1 detectable warnings are shown in the drawings.
- For illustrative purpose only, PCC fillet sections are shown in the drawings. The curb ramp depicted on this standard plate may be used with a PCC fillet section or curb and gutter.
- For illustrative purpose only, the curb ramp location is shown at the center of a PCC fillet section. The curb ramp will be placed at the location stated in the plans.
- Sidewalk will not be placed adjacent to the curb ramp flares when a 2-foot curb transition is used unless shown otherwise in the plans.
- * Care will be taken to ensure a uniform grade on the curb ramp, free of sags and short grade changes.
- Surface texture of the curb ramp will be obtained by coarse brooming transverse to the slope of the curb ramp.
- The normal gutter line profile will be maintained through the area of the ramp opening.
- Joints will be sawed or tooled into the concrete adjacent to the detectable warnings to alleviate possible corner cracking.
- Care will be taken to ensure that the surface of the detectable warnings are clean and maintains a uniform color.
- The detectable warnings will be cut as necessary to fit the plan specified limits of the detectable warnings. Cost for cutting the detectable warnings will be incidental to the corresponding detectable warning contract item.
- There will be no separate payment for curb ramps. The curb ramp will be measured and paid for at the contract unit price per square foot for the corresponding concrete sidewalk contract item. The square foot area of the detectable warnings will be included in the measured and paid for quantity of sidewalk.
- If rebar is placed in the turning space as depicted in detail E, the cost of the materials, labor, and equipment to furnish and install the rebar will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk contract item.
- The curb transitions and ramp opening will be measured and paid for at the contract unit price per foot for the corresponding curb and gutter contract item when curb and gutter is used. The curb transitions and ramp opening will be measured and paid for at the contract unit price per square yard for the corresponding PCC fillet section contract item when a PCC fillet section is used.
- The type 1 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 1 detectable warnings including labor, equipment, materials, and incidentals will be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".
- The type 2 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding will be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".

February 14, 2020

Published Date: 2025	S D D O T	TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)	PLATE NUMBER 651.01
			Sheet 3 of 3

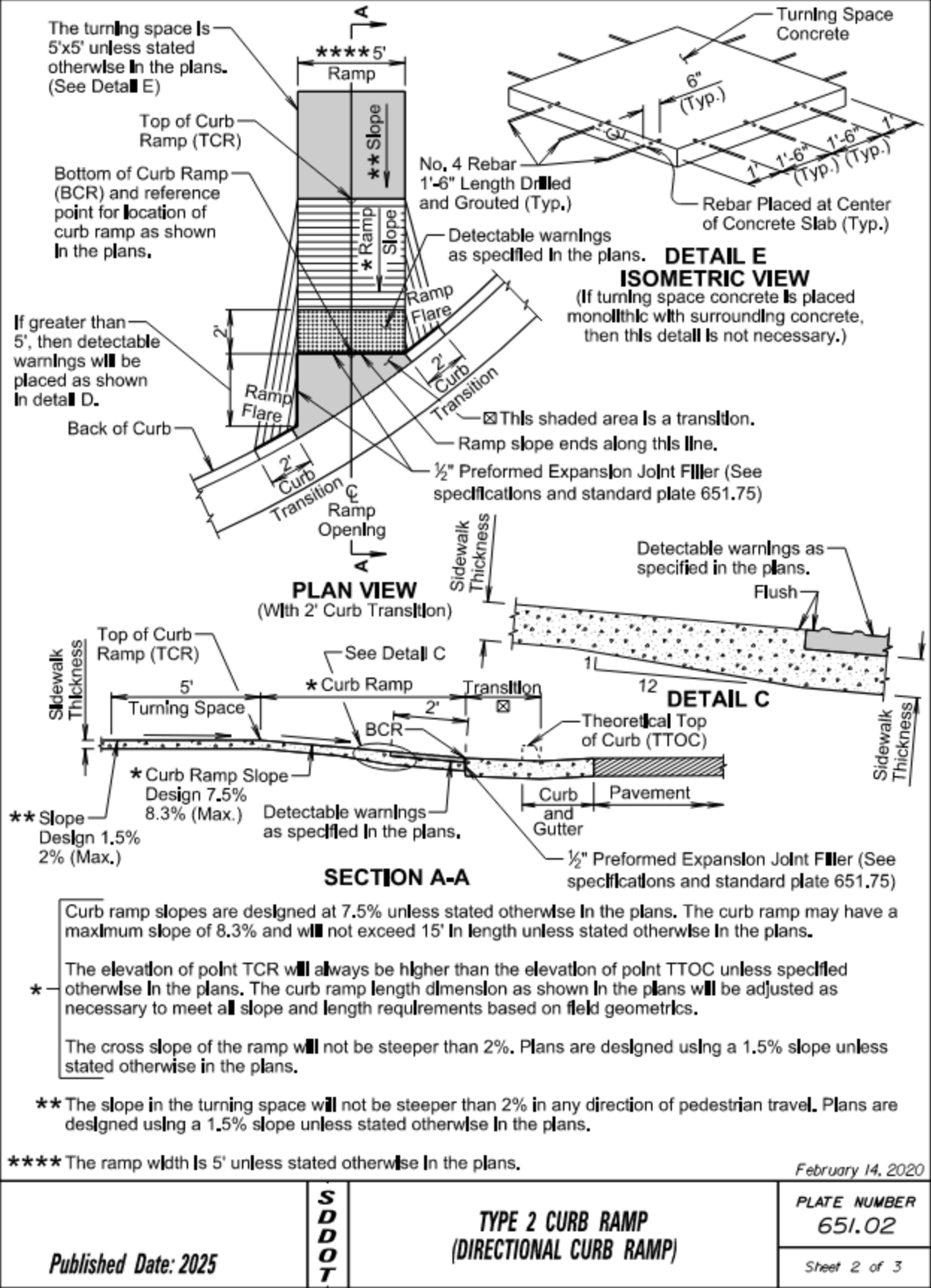


- ☒ The slope within the transition area will not be steeper than 5%. The concrete within the transition will be placed monolithic with the curb and gutter or fillet section concrete. The concrete thickness within the transition will be the same as the curb and gutter or fillet section concrete thickness.
- *** The curb transition will be a minimum of 6' long, a maximum of 10' long, and the curb transition slope will not be steeper than 10% unless stated otherwise in the plans. The curb transition length will be adjusted as necessary to meet slope and length requirements based on field geometrics.



February 14, 2020

Published Date: 2025	S D D O T	TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)	PLATE NUMBER 651.02
			Sheet 1 of 3



GENERAL NOTES:

For illustrative purpose only, type 1 detectable warnings are shown in the drawings.

The curb ramp depicted on this standard plate may be used with a PCC fillet section or curb and gutter. The curb ramp will be placed at the location stated in the plans.

Sidewalk will not be placed adjacent to the curb ramp flares when a 2-foot curb transition is used unless shown otherwise in the plans.

* Care will be taken to ensure a uniform grade on the curb ramp, free of sags and short grade changes.

Surface texture of the curb ramp will be obtained by coarse brooming transverse to the slope of the curb ramp.

The normal gutter line profile will be maintained through the area of the ramp opening.

Joints will be sawed or tooled into the concrete adjacent to the detectable warnings to alleviate possible corner cracking.

Care will be taken to ensure that the surface of the detectable warnings are clean and maintains a uniform color.

The detectable warnings will be cut as necessary to fit the plan specified limits of the detectable warnings. Cost for cutting the detectable warnings will be incidental to the corresponding detectable warning contract item.

There will be no separate payment for curb ramps. The curb ramp will be measured and paid for at the contract unit price per square foot for the corresponding concrete sidewalk contract item. The square foot area of the detectable warnings will be included in the measured and paid for quantity of sidewalk.

If rebar is placed in the Turning Space as depicted in DETAIL E, the cost of the materials, labor, and equipment to furnish and install the rebar will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk contract item.

The curb transitions and ramp opening will be measured and paid for at the contract unit price per foot for the corresponding curb and gutter contract item when curb and gutter is used. The curb transitions and ramp opening will be measured and paid for at the contract unit price per square yard for the corresponding PCC fillet section contract item when a PCC fillet section is used.

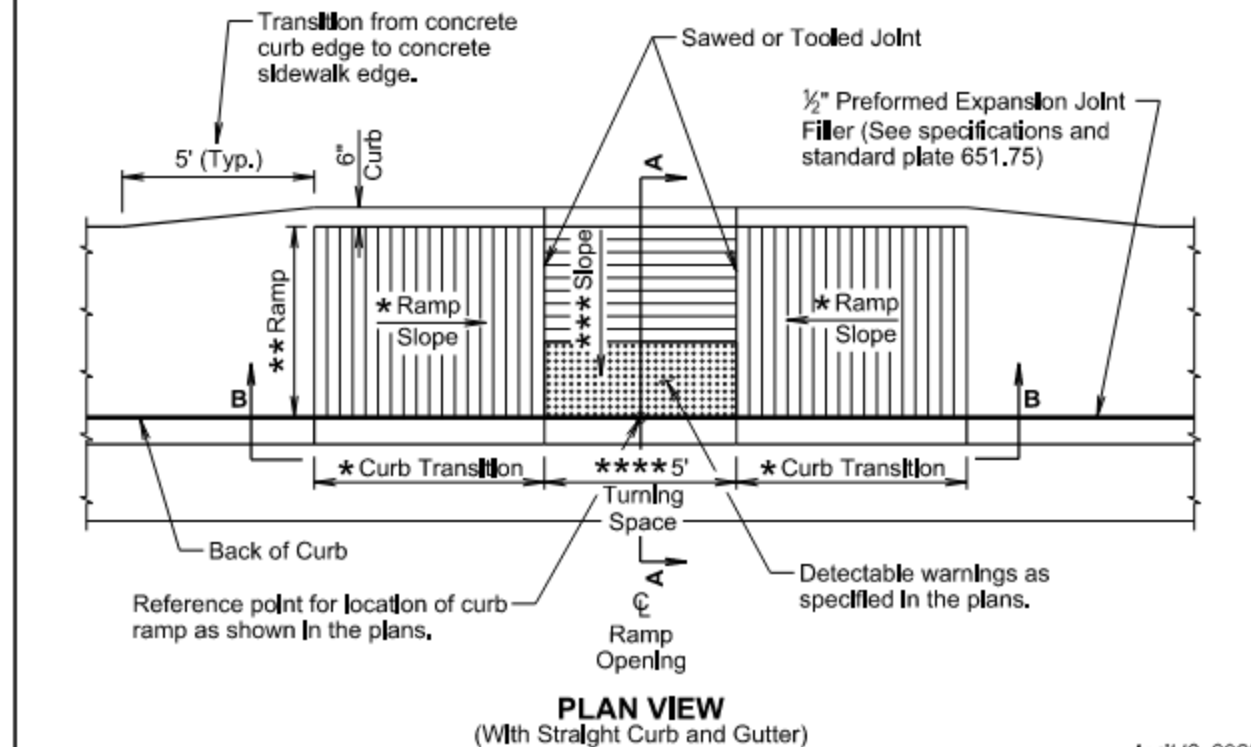
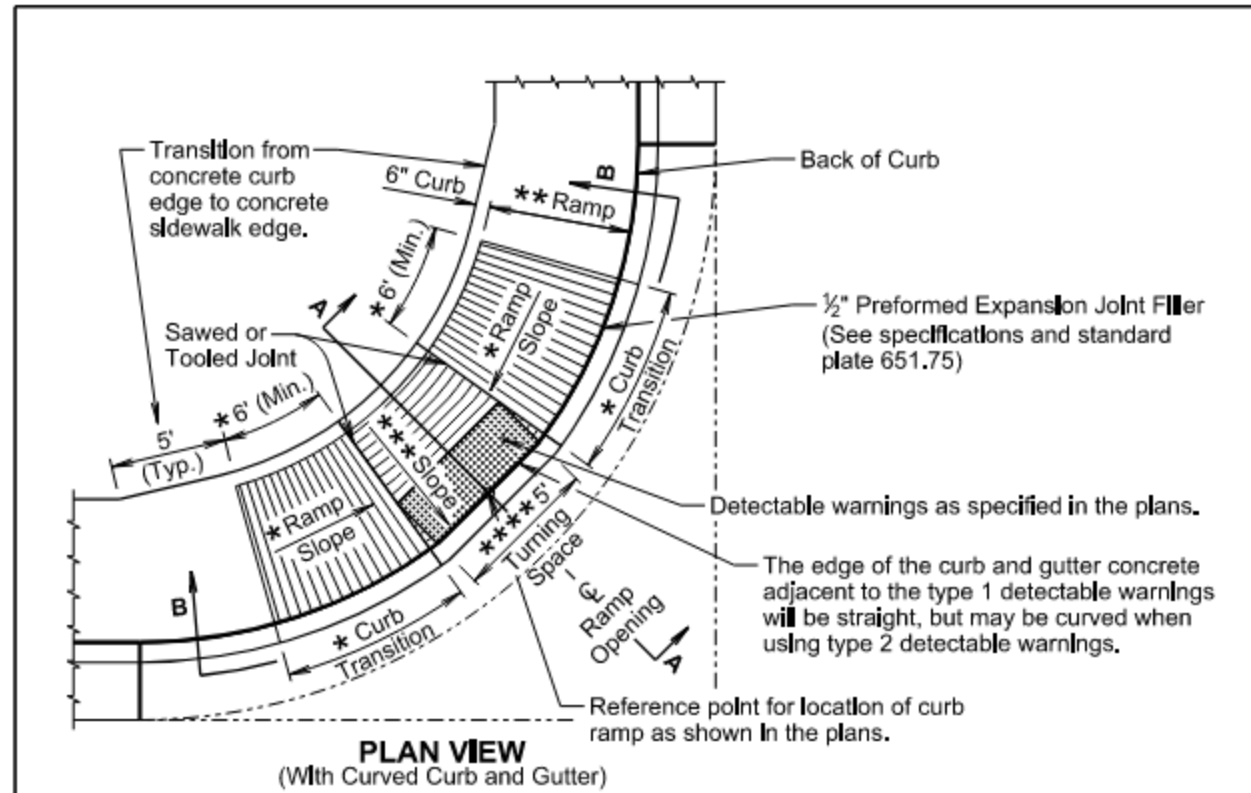
All costs for furnishing and installing the transition area at the base of the curb ramp will be incidental to the contract unit price per foot for the corresponding curb and gutter contract item when curb and gutter is used and will be incidental to the contract unit price per square yard for the corresponding PCC fillet section contract item when a PCC fillet section is used.

The type 1 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 1 detectable warnings including labor, equipment, materials, and incidentals will be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".

The type 2 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding will be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".

February 14, 2020

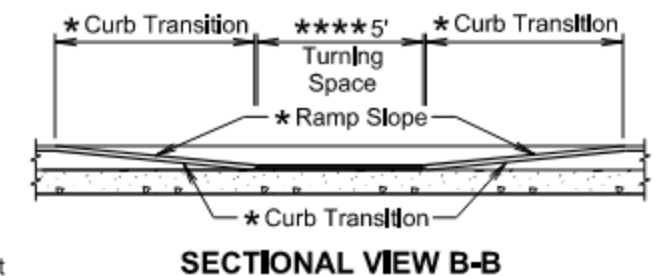
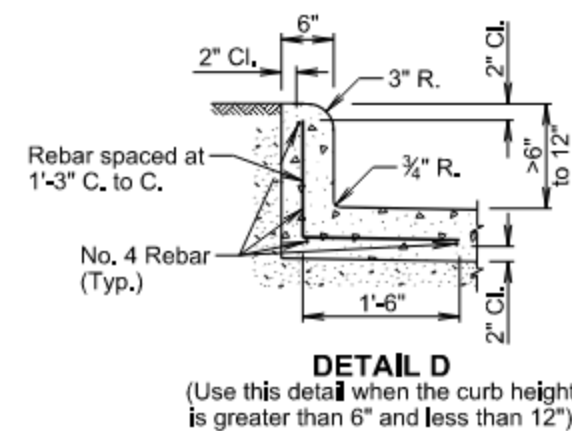
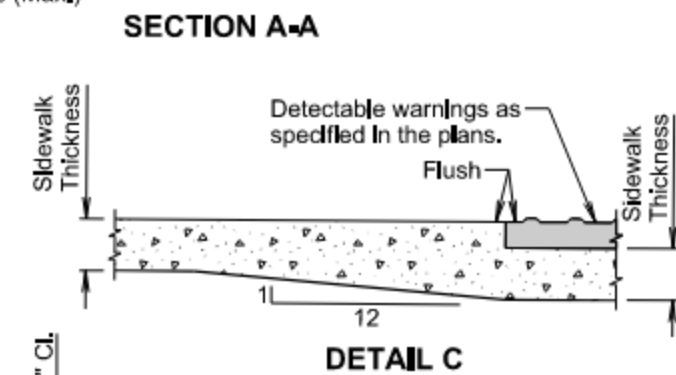
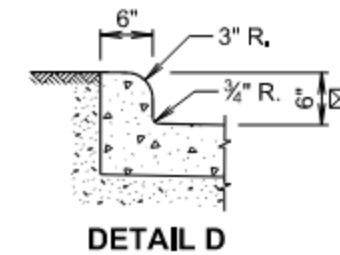
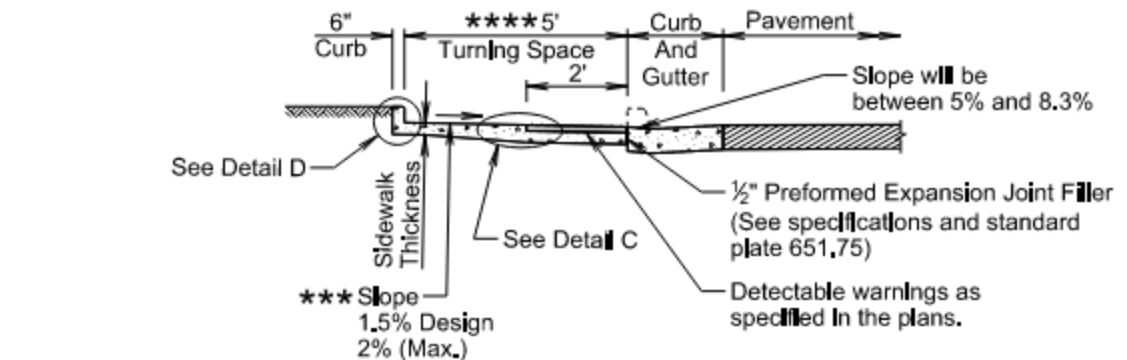
Published Date: 2025	S D D O T	TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)	PLATE NUMBER
			651.02
			Sheet 3 of 3



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- * The curb transition slope will match the curb ramp slope. Curb ramp slopes are designed at 7.5% unless stated otherwise in the plans. The curb ramp may have a maximum slope of 8.3% at any location of the curb ramp and will not exceed 15' in length unless stated otherwise in the plans. The curb transitions and curb ramp lengths will be adjusted as necessary to meet all slope and length requirements based on field geometrics.
- ** The cross slope of the ramp will not be steeper than 2% and the ramp width is 5' unless stated otherwise in the plans. Plans are designed using a 1.5% cross slope for the ramp unless stated otherwise in the plans.
- *** The slope in the turning space will not be steeper than 2% in any direction of pedestrian travel. Plans are designed using a 1.5% slope unless stated otherwise in the plans.
- **** The turning space is 5'x5' unless stated otherwise in the plans.
- ☒ The curb height will be 6" unless stated otherwise in the plans.



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GENERAL NOTES:

- For illustrative purpose only, type 1 detectable warnings are shown in the drawings.
- For illustrative purpose only, a PCC fillet section is shown in one of the drawings. The curb ramp depicted on this standard plate may be used with a PCC fillet section or with curb and gutter.
- The curb ramp will be placed at the location stated in the plans.
- Sidewalk adjacent to the curb ramp will be as shown in the plans.
- Care will be taken to ensure a uniform grade on the curb ramp, free of sags and short grade changes.
- Surface texture of the curb ramp will be obtained by coarse brooming transverse to the slope of the curb ramp.
- The normal gutter line profile will be maintained through the area of the ramp opening.
- Joints will be sawed or tooled into the concrete adjacent to the detectable warnings to alleviate possible corner cracking (see plan view for joint location).
- Care will be taken to ensure that the surface of the detectable warnings are clean and maintains a uniform color.
- The detectable warnings will be cut as necessary to fit the plan specified limits of the detectable warnings. Cost for cutting the detectable warnings will be incidental to the corresponding detectable warning contract item.
- When curb height is greater than 6" and less than 12", reinforcing steel is required in accordance with the detail on sheet 2 of 3. The reinforcing steel will conform to ASTM A615, Grade 60. Cost for furnishing and installing the reinforcing steel will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk contract item.
- There will be no separate payment for curb ramps. The curb ramp will be measured and paid for at the contract unit price per square foot for the corresponding concrete sidewalk contract item. The square foot area of the detectable warnings and the curb along the short radius will be included in the measured and paid for quantity of sidewalk.
- The curb transitions and ramp opening will be measured and paid for at the contract unit price per foot for the corresponding curb and gutter contract item when curb and gutter is used. The curb transitions and ramp opening will be measured and paid for at the contract unit price per square yard for the corresponding PCC fillet section contract item when a PCC fillet section is used.
- The type 1 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 1 detectable warnings including labor, equipment, materials, and incidentals will be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".
- The type 2 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding will be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".

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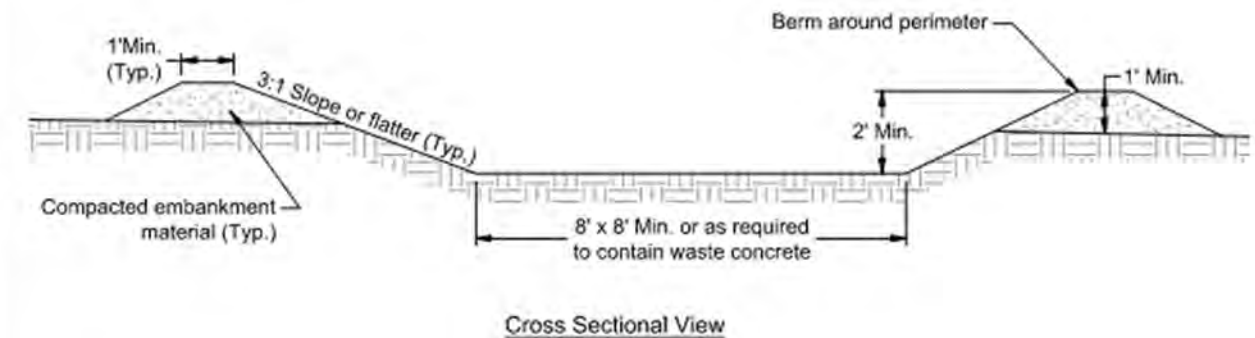
S D D O T Published Date: 2025	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
		Sheet 3 of 3

Concrete Washout Facility

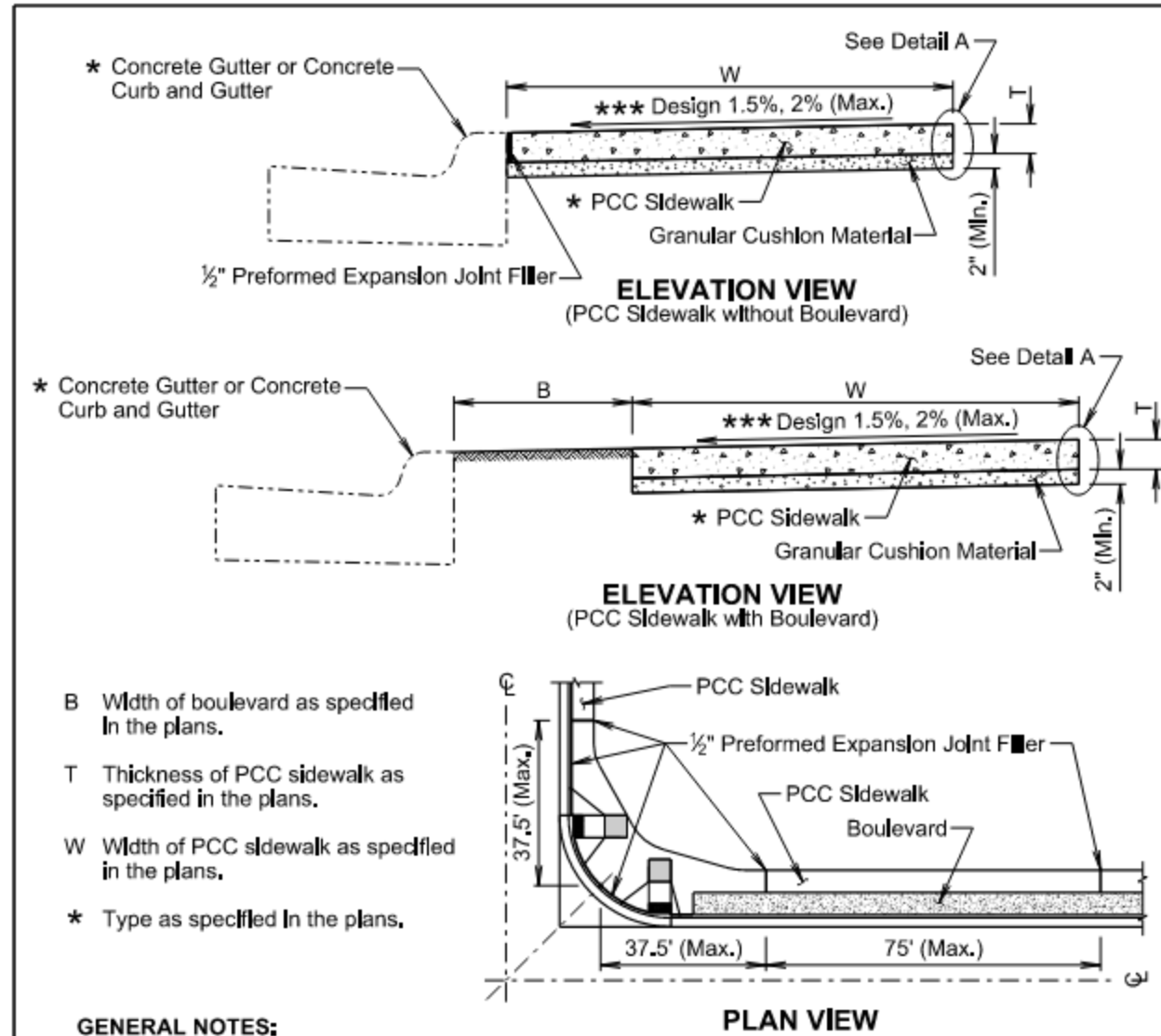


Notes:

- Concrete washout facility shall be installed prior to any concrete placement on site.
- A sign shall be installed adjacent to each washout facility to inform concrete equipment operators to utilize the CWF.
- The concrete washout facility shall be repaired and enlarged or cleaned out as necessary to maintain capacity for wasted concrete.
- When CWF are no longer required for the work, the hardened concrete and materials used to construct the CWF shall be removed and disposed of.
- When the concrete washout facility is removed, the holes, depressions or other ground disturbance shall be backfilled, repaired and stabilized.



	Concrete Washout Facility	
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- B Width of boulevard as specified in the plans.
- T Thickness of PCC sidewalk as specified in the plans.
- W Width of PCC sidewalk as specified in the plans.
- * Type as specified in the plans.

GENERAL NOTES:

The PCC sidewalk will be constructed in accordance with Section 651 of the Specifications.

*** The cross slope of the sidewalk is designed at 1.5% and the maximum slope allowed is 2% unless specified otherwise in the plans.

The maximum length between expansion joints in the PCC sidewalk is 75 feet.

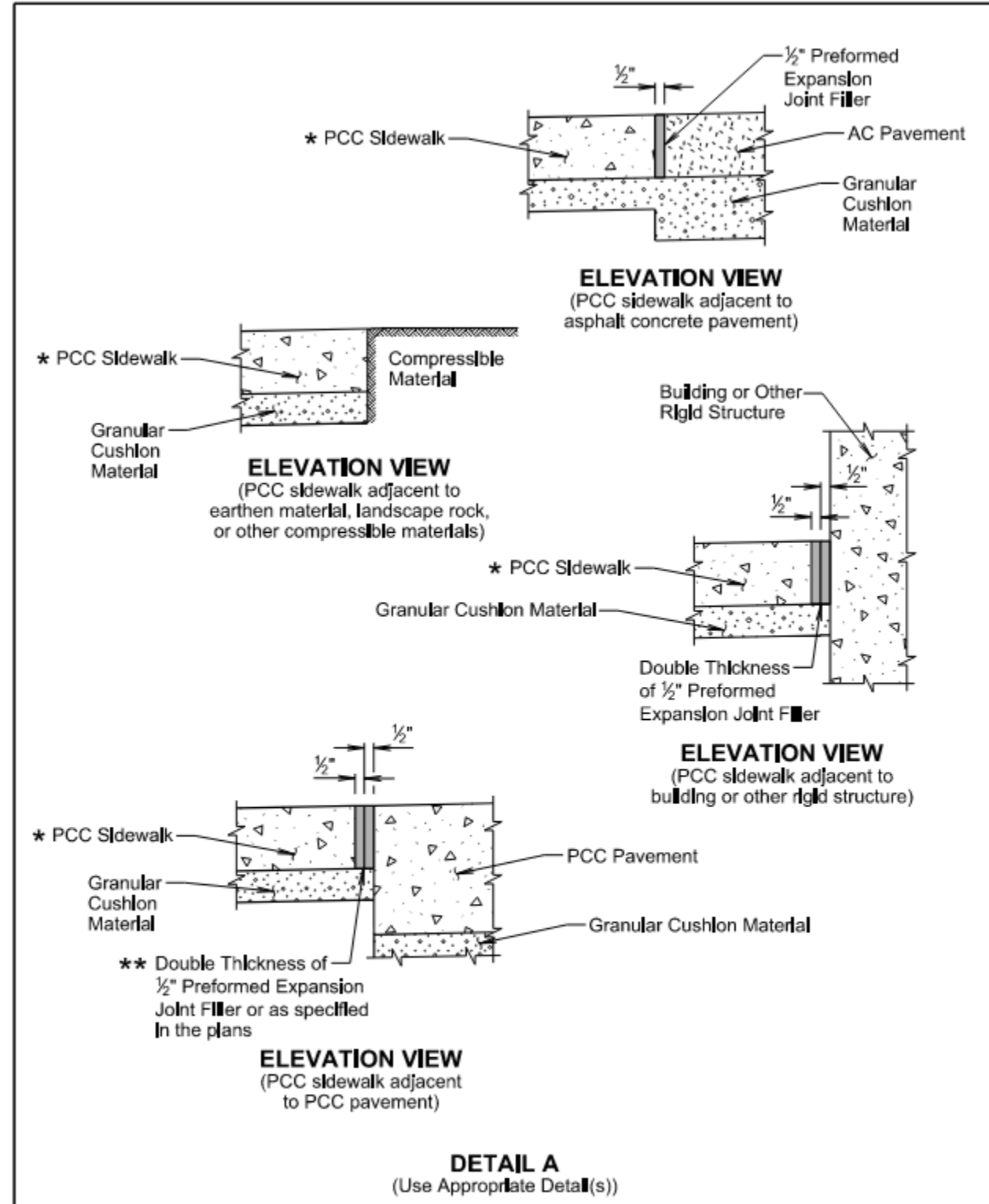
PCC sidewalk placed adjacent to intersection of roadways will have an expansion joint placed transversely a maximum of 37.5 feet from the intersection. See Plan View.

An expansion joint in the PCC sidewalk will consist of a 1/2 inch thick preformed expansion joint filler material placed full depth and width of the PCC sidewalk.

** Large areas of PCC pavement adjacent to the PCC sidewalk may require a different joint treatment than shown in the detail. If a different joint detail is necessary, plans will contain the joint detail and the Contractor will construct the joint treatment in accordance with the plans.

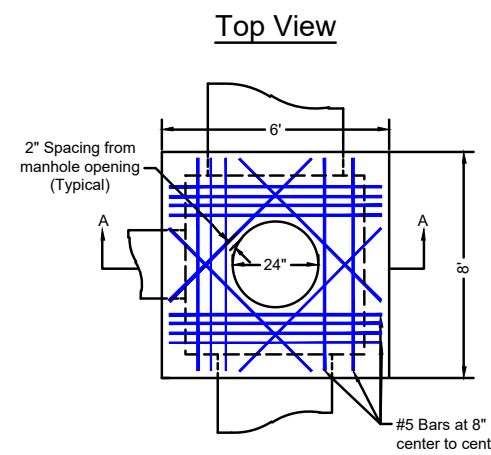
February 14, 2020

Published Date: 2025	S D D O T	PCC SIDEWALK	PLATE NUMBER
			651.75
			Sheet 1 of 2



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Published Date: 2025	S D D O T	PCC SIDEWALK	PLATE NUMBER
			651.75
			Sheet 2 of 2



General Notes

Use South Dakota Standard Specifications for Roads and Bridges, latest edition and required provisions, supplemental specifications and/or special provisions.

All reinforcing steel shall conform to A.S.T.M. A615, Grade 60.

All reinforcing steel shall be cut and/or bent in the field to maintain a minimum of 2" cover on all reinforcing steel.

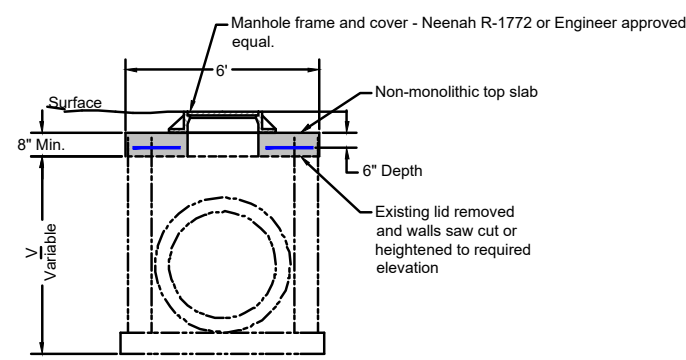
No vertical construction joints are allowed.

All concrete shall be class M-6 (4,000 P.S.I.).

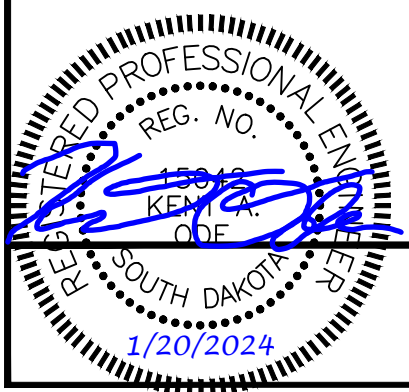
Top of manhole cover to be set flush with finished surface elevation.

Top slab steel reinforcement requires 18-#5 bars to be placed as shown. 2" From manhole opening and 8" center to center at a depth of 6".

All excavating, saw cutting, rebar, concrete, and required casting will be included in the "Modify Drop Inlet" bid item.

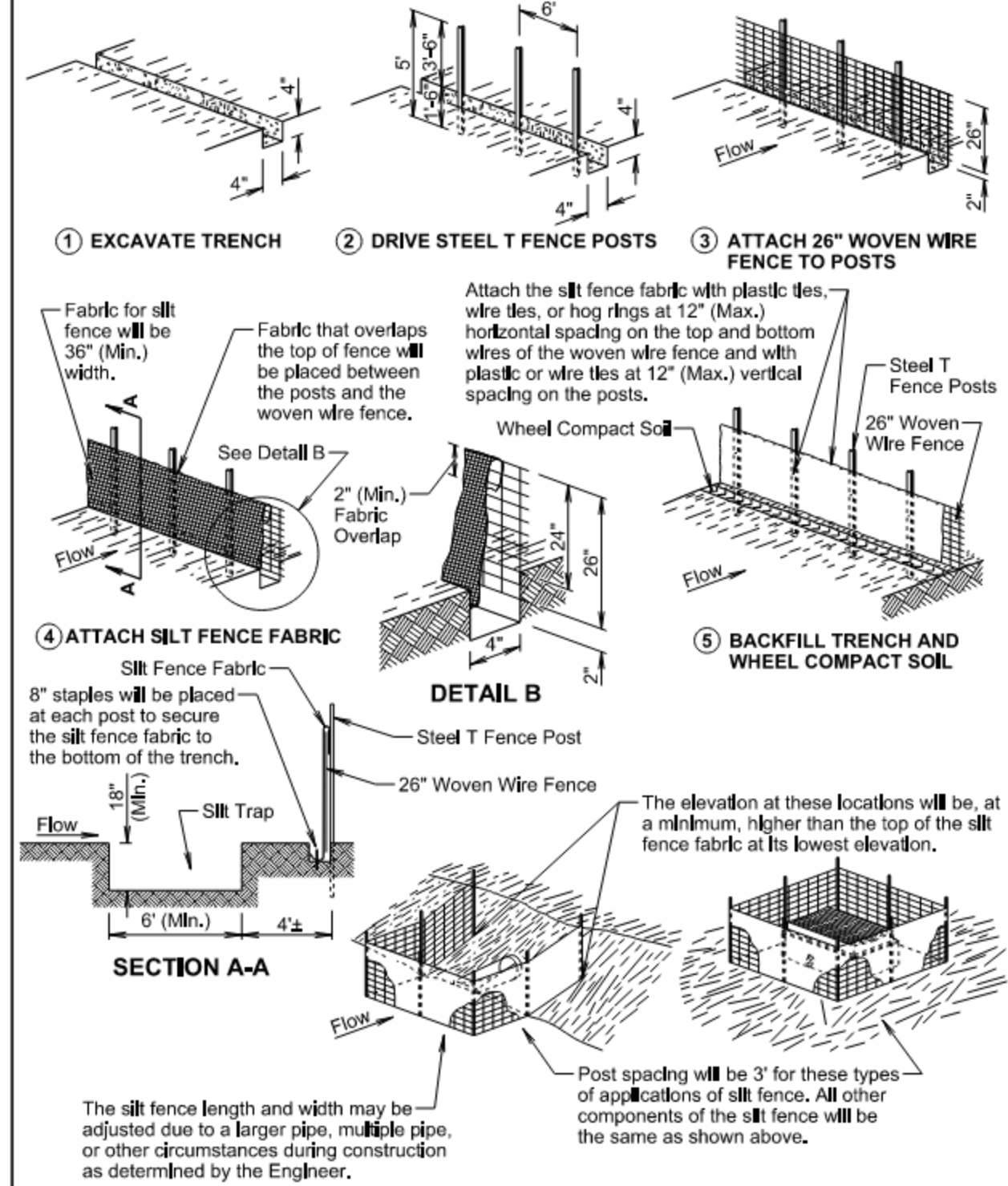


Section A-A

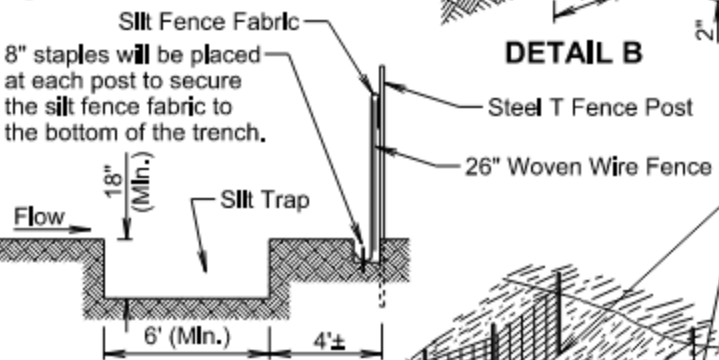


Modify Drop Inlet	671 SP
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MANUAL LOW FLOW SILT FENCE INSTALLATION



4 ATTACH SILT FENCE FABRIC



SECTION A-A

5 BACKFILL TRENCH AND WHEEL COMPACT SOIL



The silt fence length and width may be adjusted due to a larger pipe, multiple pipe, or other circumstances during construction as determined by the Engineer.

Post spacing will be 3' for these types of applications of silt fence. All other components of the silt fence will be the same as shown above.

Published Date: 2025

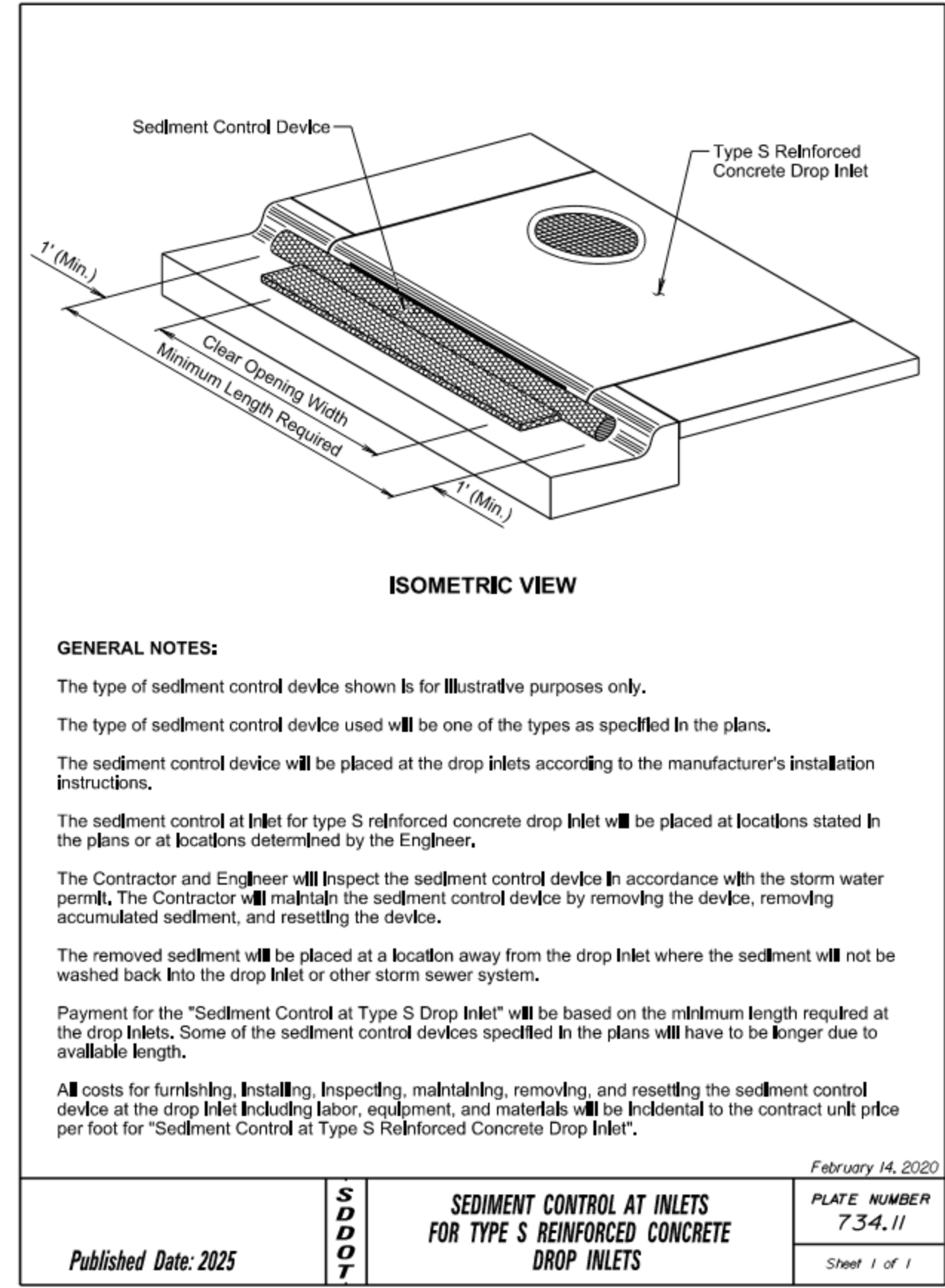
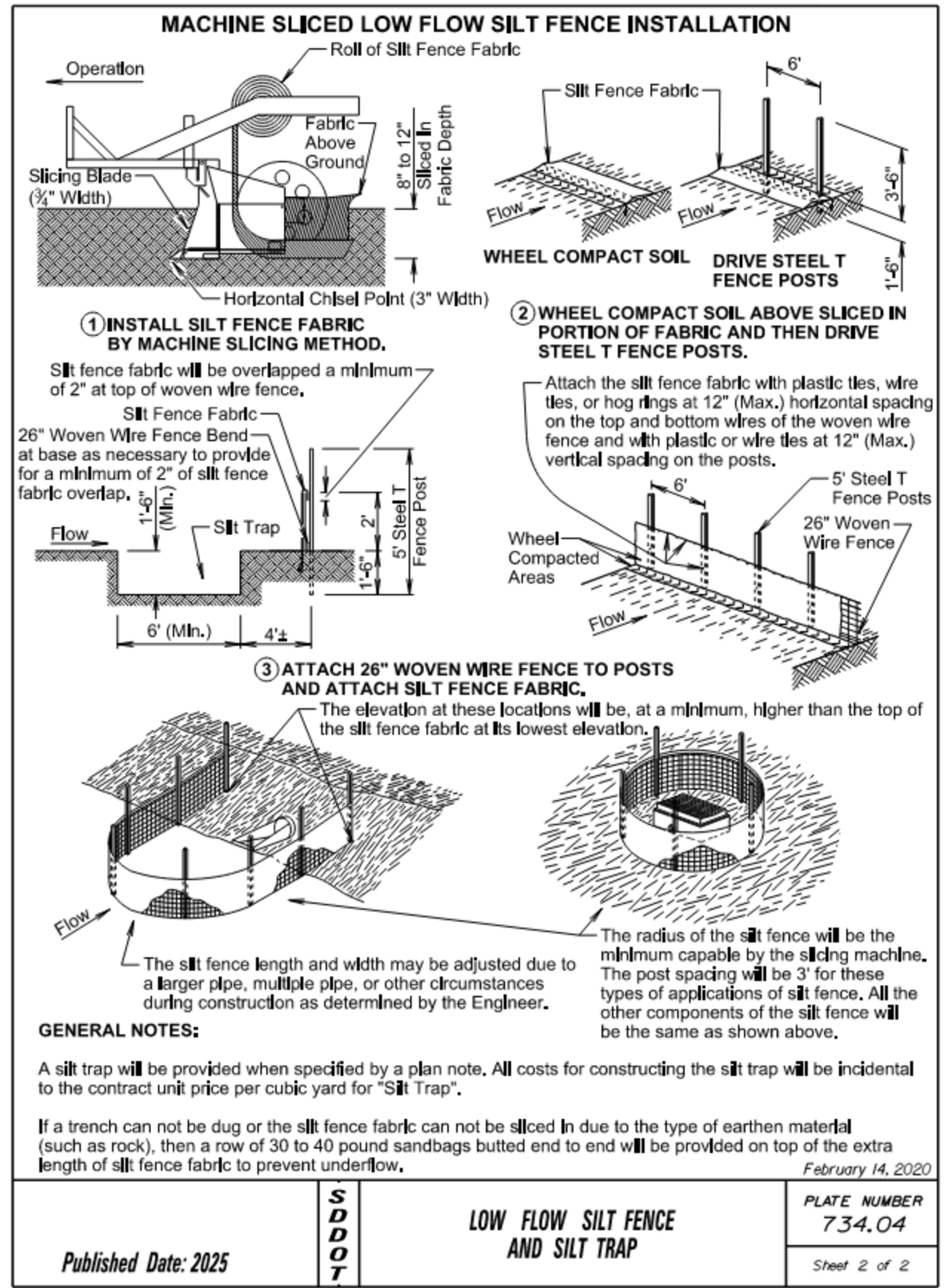
SDDOT

LOW FLOW SILT FENCE AND SILT TRAP

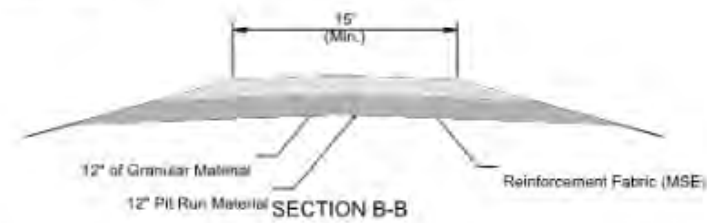
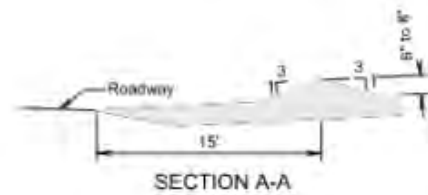
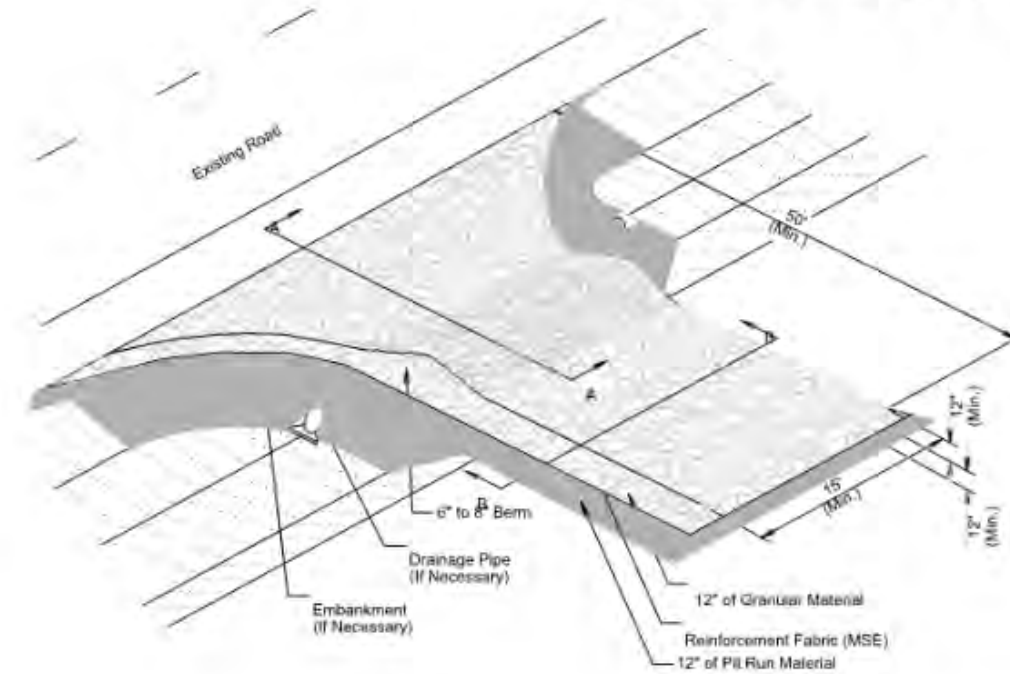
February 14, 2020

PLATE NUMBER
734.04

Sheet 1 of 2



SDDOT CONSTRUCTION ENTRANCE



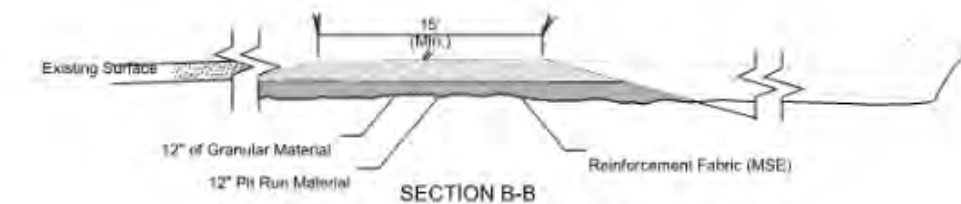
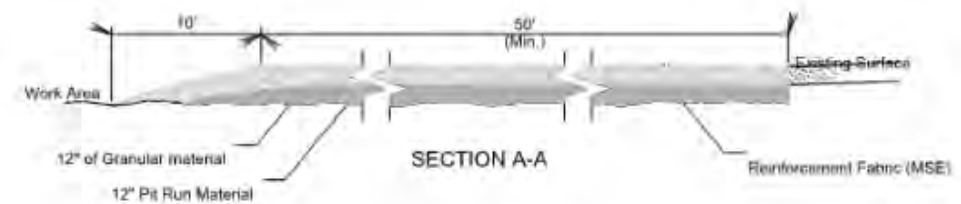
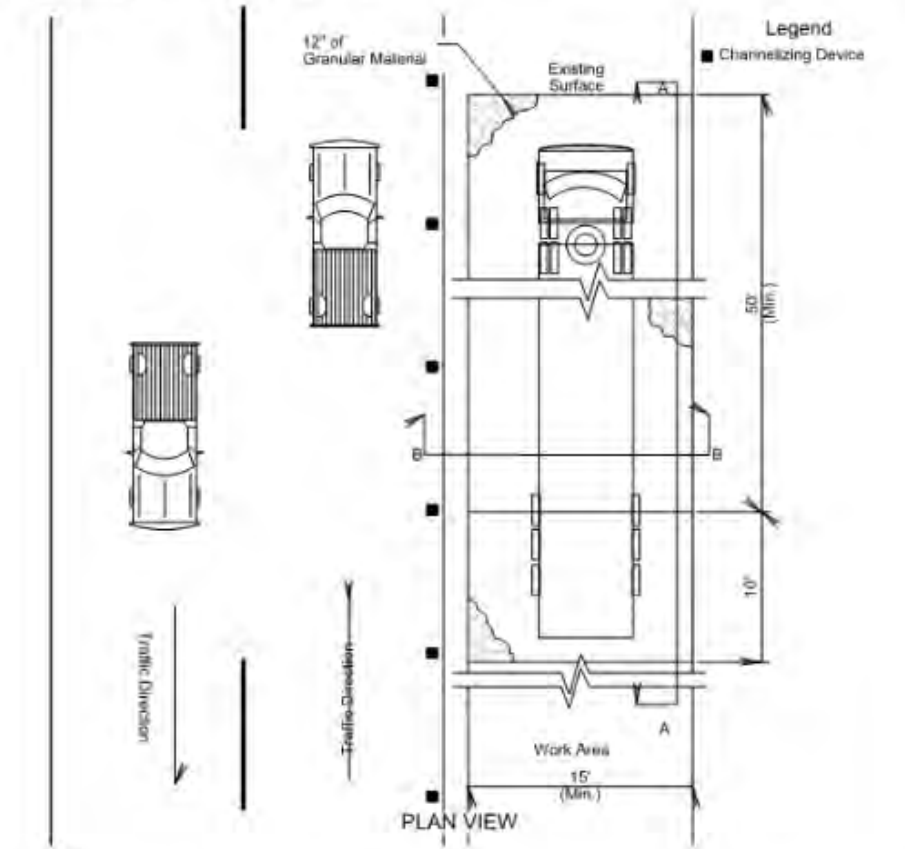
GENERAL NOTES:

If the grade of the entrance slopes down to the roadway, a berm of extra rock shall be used to prevent sediment or mud from being deposited on the roadway. See SECTION A-A.

If a drainage pipe is necessary the size and type shall be determined by the Contractor to meet field conditions. All cost shall be incidental to the various contract items.

If embankment is necessary it shall be pit run material.

TRANSVERSE TO ROADWAY



PARALLEL TO ROADWAY