

STATE OF SOUTH DAKOTA
 DEPARTMENT OF TRANSPORTATION
 PLANS FOR PROPOSED

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	1	70

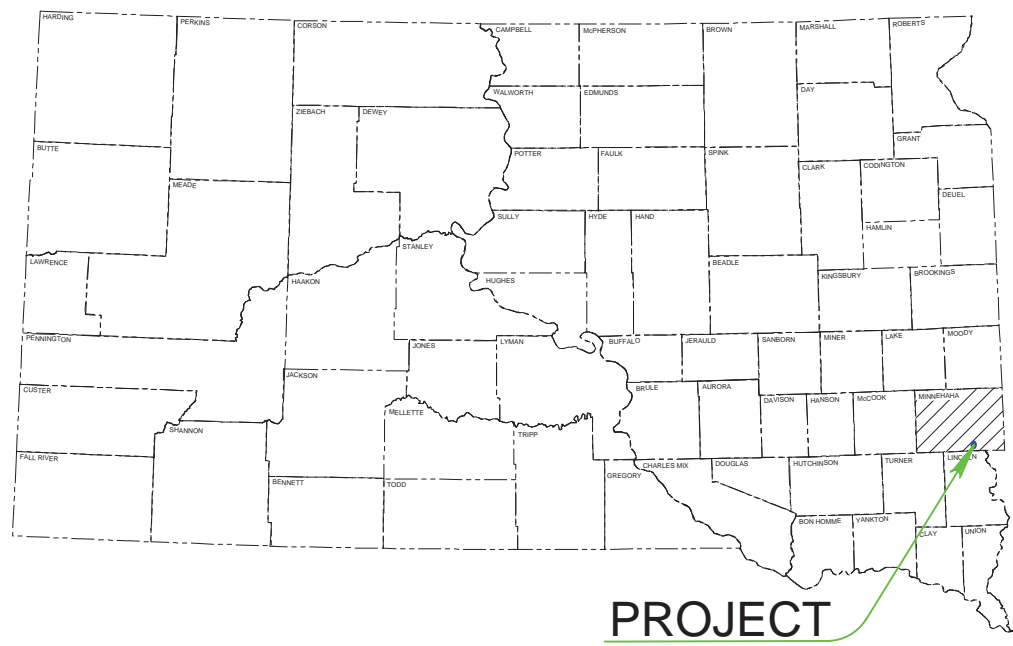
FILE: A.1-TITLE PLOTTING DATE: 7/10/2024 REV DATE: INITIAL:

PROJECT P TAPU(38)
 CITY OF SIOUX FALLS - 26TH STREET
 SHARED USE PATH
 MINNEHAHA COUNTY

GRADING AND SURFACING
 PCN 09FV

INDEX OF SECTIONS

- Sheet 1: Title Sheet and Overview Map
- Sheet 2: Estimate of Quantities
- Sheets 3-5: Environmental Commitments
- Sheets 6-20: General Notes and Tables
- Sheet 21: Control Data
- Sheet 22: Horizontal Alignment Table
- Sheet 23: Typical Sections
- Sheet 24: Legend
- Sheets 25-33: Plan and Profile Sheets
- Sheets 34-35: Pavement Removals
- Sheets 36-38: Detailed Ramp Layouts
- Sheets 39-40: Traffic Control
- Sheets 41-42: Erosion and Sediment Control
- Sheets 43-44: Pipe Sections
- Sheets 45-60: Cross Sections
- Sheets 61-70: Standard Plates

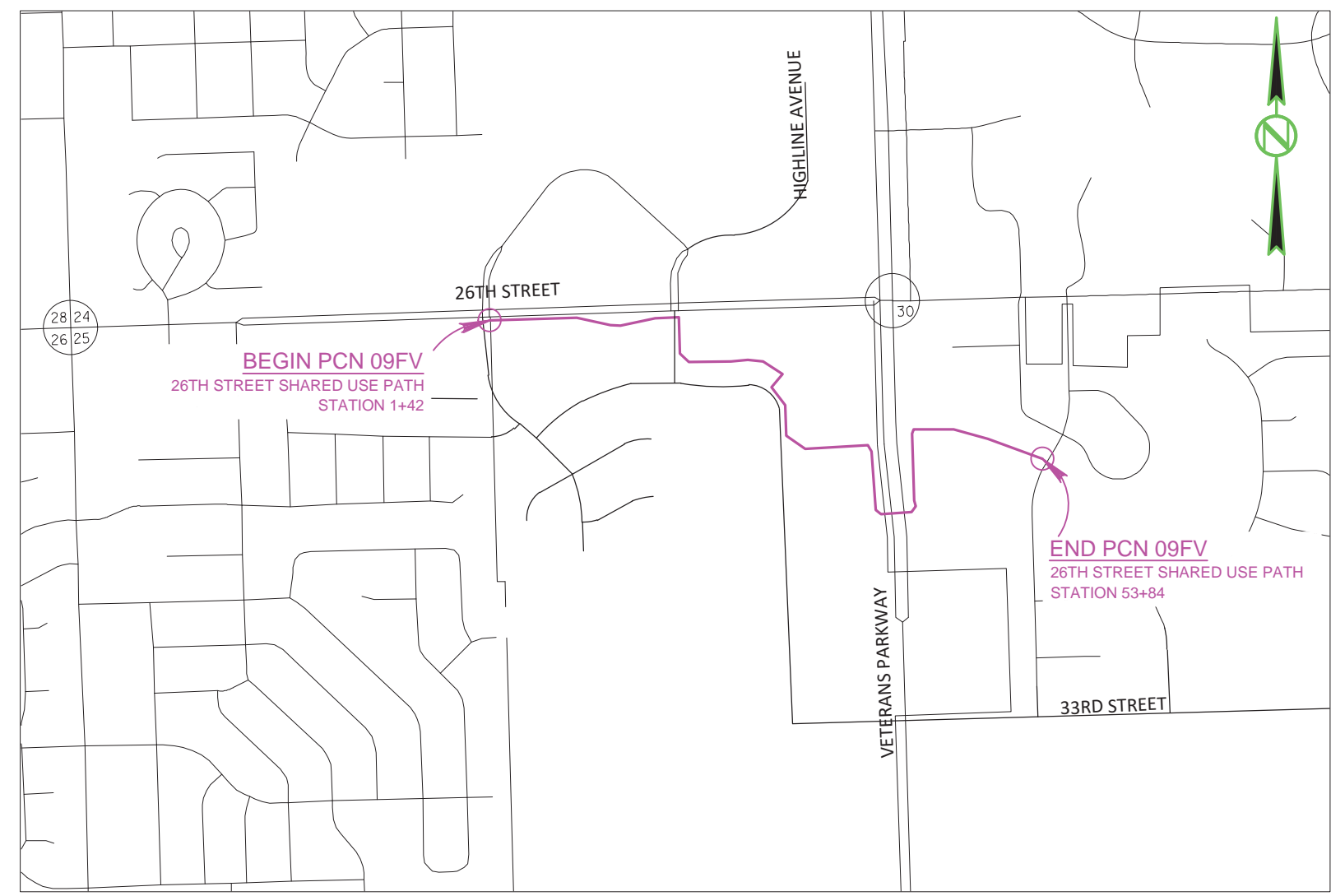


PROJECT



City of Sioux Falls
 PUBLIC WORKS - DIVISION OF ENGINEERING
 231 N. DAKOTA AVENUE
 SIOUX FALLS, SD 57117 (605) 367-8601

Approved _____
 City Engineer Date



Gross Length	5200.00 Feet	0.98 Miles
Length of Exceptions	0.00 Feet	0.00 Miles
Net Length	5200.00 Feet	0.98 Miles

Major Receiving
 Body of Water: Big Sioux River
 Area Disturbed: 2.26 ACRES
 Total Project Area: 2.97 ACRES
 Approx. Begin 43.5293, -96.6614



5

October 16, 2024

C:\work\p\central\10261048\A.1-Title.dwg PLOT DATE: 7/10/2024 11:14 AM Ode, Kent

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	2	70

Plotting Date: 8/12/2024

Estimate of Quantities

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
100E0020	Clear and Grub Tree	6	Each
100E0100	Clearing	Lump Sum	LS
110E0300	Remove Concrete Curb and/or Gutter	35	Ft
110E1010	Remove Asphalt Concrete Pavement	15.5	SqYd
110E1100	Remove Concrete Pavement	9.1	SqYd
110E1140	Remove Concrete Sidewalk	308.1	SqYd
110E1600	Remove Riprap	10.0	SqYd
110E1700	Remove Silt Fence	623	Ft
110E7510	Remove Pipe End Section for Reset	4	Each
120E0010	Unclassified Excavation	3,046	CuYd
120E0600	Contractor Furnished Borrow	150	CuYd
120E6200	Water for Granular Material	23.5	MGal
120E6300	Water for Vegetation	574.5	MGal
230E0010	Placing Topsoil	1,510	CuYd
250E0020	Incidental Work, Grading	Lump Sum	LS
260E2010	Gravel Cushion	1,949.1	Ton
260E6010	Granular Material	79.2	Ton
320E1200	Asphalt Concrete Composite	4.5	Ton
380E4010	6" PCC Fillet Section	9.1	SqYd
421E0100	Pipe Culvert Undercut	40	CuYd
450E3062	54" RCP Arch Class 2, Furnish	64	Ft
450E3070	54" RCP Arch, Install	64	Ft
450E9001	Reset Pipe End Section	4	Each
451E7510	Verify Utilities	1	Each
464E0100	Controlled Density Fill	12.9	CuYd
632E4000	Type 3 Double Sided Barricade	2.0	Ft
634E0010	Flagging	20.0	Hour
634E0110	Traffic Control Signs	216.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Board	1	Each
634E1002	Detour and Restriction Signing	100.0	SqFt
634E2000	Longitudinal Pedestrian Barricade	48	Ft
650E0059	Modified Type B66 Concrete Curb and Gutter	40	Ft
651E0040	4" Concrete Sidewalk	1,269	SqFt
651E0060	6" Concrete Sidewalk	34,124	SqFt
651E0560	6" Colored Concrete Sidewalk	1,417	SqFt
651E7000	Type 1 Detectable Warnings	72	SqFt
700E0210	Class B Riprap	143.7	Ton
730E0206	Type D Permanent Seed Mixture	380	Lb
730E0212	Type G Permanent Seed Mixture	18	Lb
731E0100	Fertilizing	2,676	Lb
732E0200	Fiber Mulching	2.9	Ton

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
733E0100	Sodding	3,555	SqYd
734E0602	Low Flow Silt Fence	2,591	Ft
734E0610	Mucking Silt Fence	173	CuYd
734E0620	Repair Silt Fence	623	Ft
734E0847	Sediment Control at Type S Reinforced Concrete Drop Inlet	96	Ft
734E5010	Sweeping	20	Hour
831E0110	Type B Drainage Fabric	103	SqYd
900E1310	Concrete Washout Facility	2	Each
900E1320	Construction Entrance	2	Each

SPECIFICATIONS

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



ENVIRONMENTAL COMMITMENTS

The SDDOT is committed to protecting the environment and uses Environmental Commitments as a communication tool for the Engineer and Contractor to ensure that attention is given to avoid, minimize, and/or mitigate an environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency with permitting authority can delay a project if identified environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. During construction, the Project Engineer will verify that the Contractor has met Environmental Commitment requirements. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office.

Additional guidance on SDDOT's Environmental Commitments can be accessed through the Environmental Procedures Manual found at: <<https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf>>

For questions regarding change orders in the field that may have an effect on an Environmental Commitment, the Project Engineer will contact the Environmental Engineer at 605-773-3180 or 605-773-4336 to determine whether an environmental analysis and/or resource agency coordination is necessary.

Once construction is complete, the Project Engineer will review all environmental commitments for the project and document their completion.

COMMITMENT A: AQUATIC RESOURCES

COMMITMENT A1: WETLANDS

All efforts to avoid and minimize wetland impacts from the project have resulted in approximately 0.171 acre of wetlands (includes temporary and permanent) becoming impacted. Refer to the plans for location and boundaries of the impacted wetlands.

Table of Impacted Wetlands

Wetland No.	Station	Perm. Impact Left (Acres)	Perm. Impact Right (Acres)	Temp. Impact Left (Acres)	Temp. Impact Right (Acres)	Total Impact (Acres)
1	17+00 to 20+00	0.104	0.00	0.00	0.00	0.104
2	45+50 to 47+50	0.023	0.00	0.00	0.00	0.023
2	51+00 to 52+50	0.044	0.00	0.00	0.00	0.044

Action Taken/Required:

The City of Sioux Falls has previously acquired 1.8 Functional Units required for this project per the USACE Section 404 Permit to mitigate permanent impacts.

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

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://sdeastwanted.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:

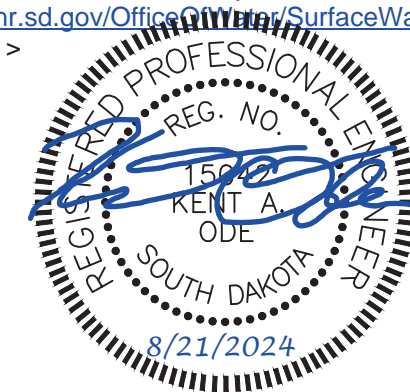
If construction dewatering is required and this project is currently covered under a General Permit for Stormwater Discharges Associated with Construction Activities, the contractor will need to submit the dewatering information to the SDDANR using the following form:

<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_CGPA_ppendixCCA2018Fillable.pdf>

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

Storm Water Pollution Prevention Plan

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

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

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

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

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

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

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

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor will furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

Action Taken/Required:

Construction and/or demolition debris may not be disposed of within the Public ROW.

The waste disposal site(s) will be managed and reclaimed in accordance with the following from the General Permit for Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Agriculture and Natural Resources.

The waste disposal site(s) will not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Environmental Office and the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements will apply:

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials will be buried in a trench separate from wood debris. The final cover over the construction and/or demolition debris will consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public ROW will be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor will control the access to waste disposal sites not within the Public ROW with fences, gates, and placement of a sign or signs at the entrance to the site stating, "No Dumping Allowed".

2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period not to exceed the duration of the project. Prior to project completion, the waste will be removed from view of the ROW or buried, and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) will be incidental to the various contract items.

COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historic Preservation Office (SHPO) for all work included within the project limits and all department designated sources and designated option material sources, stockpile sites, storage areas, and waste sites provided within the plans.

Action Taken/Required:

All earth disturbing activities not designated within the plans require a cultural resource review prior to scheduling the pre-construction meeting. This work includes but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

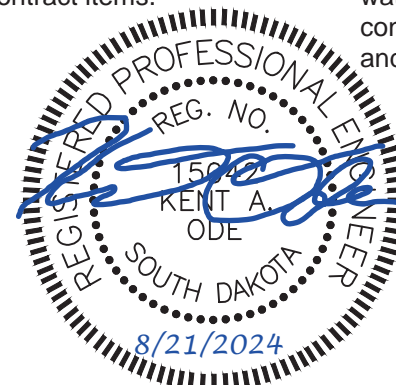
The Contractor will arrange and pay for a record search and when necessary, a cultural resource survey. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review if the site was previously surveyed; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor will provide ARC with the following: a topographical map or aerial view in which the site is clearly outlined, site dimensions, project number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that artifacts have not been found on the site.

The Contractor will submit the cultural resources survey report to SDDOT Environmental Office, 700 East Broadway Avenue, Pierre, SD 57501-2586. SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

In the event of an inadvertent discovery of human remains, funerary objects, or if evidence of cultural resources is identified during project construction activities, then such activities within 150 feet of the inadvertent discovery will immediately cease and the Project Engineer will be immediately notified. The Project Engineer will contact the SDDOT Environmental Office, who will contact the appropriate SHPO/THPO within 48 hours of the discovery to determine an appropriate course of action.

SHPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered species, or waterways. The Contractor will not utilize a site known or suspected of having contaminated soil or water. The Contractor will provide the required permits and clearances to the Project Engineer at the preconstruction meeting.



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	5	70

Plotting Date: 7/10/2024

COMMITMENT N: SECTION 404 PERMIT

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

Action Taken/Required:

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

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



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 12 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".

NOISE PERMIT

A noise permit will not be approved on this project as it has deemed night work to be a disturbance to the surrounding neighborhood. No work between 10:30 PM and 6:00 AM will be allowed.

COORDINATION MEETINGS

The Contractor will conduct coordination meetings with the subcontractors, utilities, the Engineer, and the public. These meetings will be held weekly at a location on or near the project. The Contractor will determine the time and location and as approved by the Engineer.

Landowners, business owners, and the general public will be invited to the first half of the meeting. The Contractor will give a brief summary of the project schedule and will answer any questions. The public will then be dismissed and the Contractor can discuss construction coordination and other issues as needed.

All costs to conduct the coordination meetings will be incidental to the project.

PORTABLE TOILET FACILITES

The Contractor will be responsible for providing portable toilet facilities for the project at no cost to the DOT.

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.

The Contractor will be responsible for notifying South Dakota One Call 1-800-781-7474 to have utilities field located.

The following utility companies are known to have facilities on the project:

<u>Sioux Falls Water Maintenance</u> 668 W. Algonquin Street Sioux Falls, SD 57104 Darin McDonnel (605) 360-6376	<u>Sioux Falls Water Reclamation - Sanitary</u> Shad Hochstein 4500 N Sycamore Ave Sioux Falls, SD 57117 (605) 941-1163
<u>Sioux Falls Water Reclamation - Storm</u> Austin Waldron 4500 N Sycamore Ave Sioux Falls, SD 57117 (605) 367-3547	<u>Municipal Light & Power</u> Jerry Jongeling 2000 North Minnesota Sioux Falls, SD 57104 (605) 373-6979
<u>Lincoln County Rural Water</u> 27066 Henry Pl Sioux Falls, SD 57108 Attn: Robin Dykstra Office: (605) 767-2966	<u>MidAmerican Energy Company, Inc.</u> 1200 S Blauvelt Avenue Sioux Falls, SD 57105 Attn: Ryan Hendriks Cell: (605) 373-6061
<u>Midcontinent Communications</u> 1305 N Terry Avenue Sioux Falls, SD 57107 Attn: Dylan Haas Office: (605) 231-0340	<u>SDN Communications</u> Address: 2900 W 10 th Street Sioux Falls, SD 57104 Attn: Matt Burton Office: (605) 978-1050
<u>Sioux Valley Energy</u> P.O. Box 857 108 N Heritage Rd. Brandon, SD 57005 Attn: Ryan Gruber Office: (605) 582-3158	<u>XCEL Energy</u> 500 West Russell St Sioux Falls, SD 57104 Attn: Chad Peterson Office: (612) 330-7825
<u>Century Link / Lumen</u> 125 S Dakota Ave Sioux Falls, SD 57104 Attn: Andrew Wixon Office: (605) 681-2049	

VERIFY UTILITY

This work consists of excavating material to verify the depth of an existing utility line, (Private or Public), to avoid possible conflicts, when directed by the Engineer. Payment for this item will be at the contract unit price per each.

The Contractor will verify the depths of the following utilities:

Sta 39+69, 22' R – Sioux Valley Energy

After verification, the Contractor will coordinate information with the Engineer and Sioux Valley Energy. Primary cable will require 30" of ground cover and any adjustments to the cable will be coordinated with Sioux Valley Energy by the Contractor.



PRIVATE SPRINKLER SYSTEM

Private sprinkler systems are located within the construction limits. The City will notify all property owners about the expected construction and the procedures for preparing their systems for construction. 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 City will coordinate with the property owner and sprinkler contractor. The system should be restored before seed or sod placement and the Contractor will make reasonable accommodations to allow for the homeowner's sprinkler contractor to make final repairs and adjustments.

PROTECTION OF EXISTING WATER MAIN, SANITARY SEWER, AND STORM SEWER SYSTEMS

For the protection of existing public underground utilities and the surrounding work area, consideration will be given to isolating portions of the existing water distribution system within the construction limits while maintaining fire protection. During underground utility installation such as, but not limited to, sanitary sewer, water main, storm sewer, sump pump drain, etc., in the proximity of existing water main and/or water services, the existing water main distribution will be isolated within the work area. Upon receiving notice from the Contractor 24 hours in advance of any work, City staff will operate designated water valves, where appropriate, to isolate the work area as much as reasonably possible. The Contractor will become aware of the location and status (open/closed) of any designated isolation valve(s). Sioux Falls Water Maintenance staff will be notified immediately in the event of a water service emergency or interruption. It will be permissible for the Contractor to operate the designated valve(s) in the event of a water main or water service failure within the construction area. The Contractor is required to have a valve operating key on site in the event of such a failure. Sioux Falls Water Maintenance (367-8810) will be notified immediately after the shutdown. City crews will operate the valves after repairs have been made and inspections have been completed.

Existing sanitary sewer lines and manholes within the construction limits will be protected at all times during construction. The upstream ends of existing sanitary sewer lines downstream from new sanitary sewer construction will be plugged at locations to be approved by the Engineer. Water, stone, dirt, gravel, asphalt, concrete or any other debris will not be allowed to enter the City's sanitary sewer system during flushing operations or at any other time. Construction taking place in the vicinity of any existing City sanitary sewer lines or manholes will not cause any inflow of surface water, ground water, water from damaged water lines, or debris to enter the City's sanitary sewer system. The Contractor will be responsible for any damages or costs incurred to the City's sanitary sewer system, Water Reclamation Division, and/or private property, and any actions imposed by SDDANR due to spills, overflows, inflows, lift station surcharges, City Water discharge, sanitary sewer discharges to surface waters, sanitary sewer backups into homes, etc.

Existing storm sewer inlets and pipes within the construction limits will be protected from the entrance of stone, dirt, gravel, asphalt, concrete or any other debris during construction. The SWPPP must be followed at all times.

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.

TABLE OF UNCLASSIFIED EXCAVATION

TABLE OF EARTHWORK	
West of Veterans Parkway (1+42 to 37+60)	(CuYd)
Excavation	864
Embankment (30% SF)	993
Waste	-129
SalvageTopsoil	897
East of Veterans Parkway (39+23 to 53+84)	(CuYd)
Excavation	672
Embankment (30% SF)	156
Waste	516
SalvageTopsoil	613
Totals	(CuYd)
Excavation*	1536
Embankment (30% SF)**	1149
Waste**	387
SalvageTopsoil*	1510
*Included in Unclassified Excavation Quantity	
**Quantity for reference only	

PROCEDURES FOR DETERMINING UNCLASSIFIED EXCAVATION QUANTITY

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

CONTRACTOR FURNISHED BORROW EXCAVATION

The Contractor will provide a suitable site for Contractor furnished borrow excavation material. The Contractor is responsible for obtaining all required permits and clearances for the borrow site. The borrow material will be approved by the Engineer. The quantity for "Contractor Furnished Borrow Excavation" will be based on field measurements.

"Contractor Furnished Borrow" has been included in the plans due to the time and construction constraints required with the coordination of the separate City of Sioux Falls utility project (PS 240) within the project limits. Any use of "Contractor Furnished Borrow" will be approved of by the Engineer.

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

INCIDENTAL WORK, GRADING

TABLE OF INCIDENTAL WORK, GRADING			
East of Veterans			
Station to	Station	Offset	Description
33+11	33+15	R	Remove 10" PVC Pipe
52+50	53+25	L	Ditch Grading

DITCH GRADING

Ditch grading will be completed where shown in the table. Existing ditches will be regraded with the installation of the shared use path and the extension on the existing storm sewer culverts. Contractor will regrade the ditch so that flow is maintained in the same direction as it was prior to the construction of the project.

All costs associated with regrading the ditch will be incidental to the bid item "Incidental Work, Grading".



PIPE CULVERT UNDERCUT

Pipe culvert undercut may be required for this project. The Engineer will determine which pipe will be undercut in accordance with Section 421 of the Specifications.

If pipe culvert undercut is required, the table below contains the rate for one-foot depth of pipe culvert undercut per foot of pipe length. When calculating pipe culvert undercut, the length of pipe ends should be included in the overall pipe length.

The table includes undercut for 36 inch and larger pipe culverts. The depth of undercut is an estimate and the actual depth necessary will be determined during construction. Pipes listed may or may not require undercutting and pipes not listed may require undercutting. The Engineer will determine which pipe will be undercut in accordance with Section 421 of the Specifications.

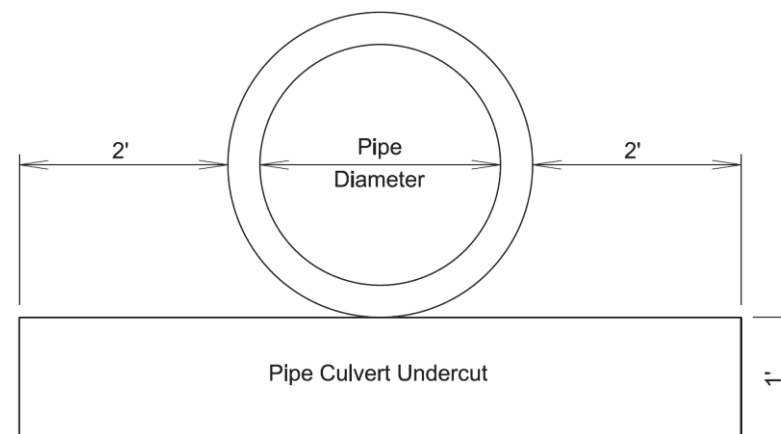
TABLE OF PIPE CULVERT UNDERCUT AND GRANULAR MATERIAL			
Station	Undercut Depth (Ft)	Pipe Culvert Undercut (CuYd)	Granular Material (Ton)
East of Veterans			
52+71.08 - 27.10' L to 52+90.55 - 13.20' L	1	10	19.8
52+73.16 - 37.49' L to 52+92.73 - 23.59' L	1	10	19.8
52+75.46 - 47.42' L to 52+94.85 - 33.30' L	1	10	19.8
52+78.46 - 57.13' L to 52+97.53 - 42.48' L	1	10	19.8
Total Project		40	79.2

Granular material may be required for backfilling the pipe culvert undercut areas where site conditions warrant. Granular material will conform to the gradation requirements in Section 421.2.A of the Specifications and will be paid for at the contract unit price per ton for "Granular Material". The quantity will be adjusted or eliminated by construction change order, depending on field conditions.

The table below contains the rate for one-foot depth of pipe culvert undercut per foot of pipe length and should be used as an aid in determining the actual amount of undercut to be performed during construction. The table is derived from the drawing below and conforms to the Specifications. When calculating pipe culvert undercut, the length of pipe ends should be included in the overall pipe length.

Storm sewer and approach pipes do not require undercutting unless specified otherwise in these plans.

Pipe Diameter (In)	Round Pipe Undercut Rate for 1' Depth (CuYd/Ft)	Arch Pipe Undercut Rate for 1' Depth (CuYd/Ft)
24	0.2407	0.2577
30	0.2623	0.2847
36	0.2840	0.3110
42	0.3056	0.3337
48	0.3272	0.3596
54	0.3488	0.3827
60	0.3704	0.4105
66	0.3920	---
72	0.4136	0.4630
78	0.4352	---
84	0.4568	0.5123
90	0.4784	---



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.

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	8	70

Plotting Date: 7/10/2024

CONTROLLED DENSITY FILL FOR PIPE

Controlled density fill will be in conformance with Section 464 of the Specifications.

The controlled density fill will be placed between the pipes from the base of pipe elevation to the haunch of the pipes and extend to the end of the end section.

TABLE OF CONTROLLED DENSITY FILL FOR PIPE	
Station	Quantity (CuYd)
East of Veterans	
52+71.08 - 27.10' L to 52+90.55 - 13.20' L	4.3
52+73.16 - 37.49' L to 52+92.73 - 23.59' L	4.3
52+75.46 - 47.42' L to 52+94.85 - 33.30' L	4.3
Total	12.9

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 are prohibited for pipe or culverts. The Contractor will be responsible for developing and utilizing procedures and equipment for handling and installing storm drainage pipe or culvert without penetrations through the wall. The Contractor is allowed to utilize lifting devices which are incorporated or cast into the pipe or culvert upon shop drawing approval by the Engineer.

All culvert joints will be tied. Tie bolts will be incidental to the bid item "54" RCP Arch, Install".

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.

Reinforced concrete pipe will be provided with gasketed joints. Gasketed RCP will comply with ASTM C443. All costs associated with providing gasketed joints will be incidental to the "54" RCP Arch Class 2, Furnish" bid item.



STORM SEWER (cont.)

Approved List of Hydrophilic Flexible Water Stop Seal:

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	9	70

Plotting Date: 7/10/2024

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. **Reinforced Concrete Pipe (Arch):** 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 joints will be sealed with a hydrophilic flexible water stop seal and wrapped with a 1-foot wide strip of fabric above the cradle. 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.
3. **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.

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 REINFORCED CONCRETE PIPE		
Station Offset (L/R)	54" Arch CI 2 (Ft)	Flared End
		54" Arch Remove and Reset (EA)
East of Veterans		
52+71.08 - 27.10' L to 52+90.55 - 13.20' L	16	1
52+73.16 - 37.49' L to 52+92.73 - 23.59' L	16	1
52+75.46 - 47.42' L to 52+94.85 - 33.30' L	16	1
52+78.46 - 57.13' L to 52+97.53 - 42.48' L	16	1
Total Project	64	4

COLORED CONCRETE FOR SIDEWALK

The colored concrete will have the integral color Solomon Brick Red #417 or an equal approved by the Engineer.

ColorFlo Liquid Color
Color #417 Red
Solomon Colors, Inc.
www.solomoncolors.com

Brick Red requires a rate of 12.50 pounds of Solomon ColorFlo #417 Red per cubic yard of concrete. The colored concrete must be cured according to the manufacturer's recommendations with two coats of a non-yellowing acrylic curing and sealing compound. The curing and sealing compound will meet ASTM C309. The curing and sealing product will be DECRA-SEAL or an equal approved by the Engineer.

DECRA-SEAL
W.R. Meadows, Inc.
1-800-342-5976
www.wrmeadows.com

White pigmented cure will not be used. The Contractor will protect the colored concrete to ensure white pigmented curing compound will not come in contact with the colored concrete. All costs for furnishing, handling, applying the curing and sealing compound, and liquid integral color, including the materials, equipment, labor, and incidentals necessary will be incidental to the contract unit price for "6" Colored Concrete Sidewalk".

MODIFIED TYPE B66 CONCRETE CURB AND GUTTER

The concrete curb and gutter will be installed as shown in detail 650.01 – Standard Curb and Gutter

CONCRETE SIDEWALK

The concrete sidewalk will be constructed in accordance with Section 651. 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.

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

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 http://www.conseal.com



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 St., Suite 3 Wilmington, MA 01887 800-372-0519 https://adatile.com
TufTile (wet-set) Cast Iron Replaceable Tile	TufTile 1200 Flex Court Lake Zurich, IL 60047 888-960-8897 http://www.tuftile.com/

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	10	70

Plotting Date: 7/10/2024

TABLE OF REMOVALS							
Station to	Station	Curb and Gutter	Asphalt Pavement	Concrete Pavement*	Concrete Sidewalk	Saw Asphalt**	Saw Concrete**
		(Ft)	(SqYd)	(SqYd)	(SqYd)	(Ft)	(Ft)
West of Veterans Pkwy							
1+42	6+56				287.7		26
13+19	23+79		2.7	4.4		16	8
24+00	37+41		3.1	4.7	13.6	18	13
East of Veterans Pkwy							
39+05	53+84	30	6.7			45	20
Silverthorne Ave							
200+50	202+31				1.8		4
Field Determined		5	3.0		5.0		
Total		35	15.5	9.1	308.1	79	71

**Incidental to associated pavement bid item.
*Removal of Concrete Fillet, paid for as "Remove Concrete Pavement".

TABLE OF SURFACING											
Station to	Station	Asphalt*		4" Sidewalk	6" Sidewalk	6" Colored Sidewalk	6" Fillet	Modified B66 Curb and Gutter	Gravel Cushion*	Water for Granular Material**	Detectable Warning Type 1
		Area (SqYd)	Depth* (Ton)	(SqFt)	(SqFt)	(SqFt)	(SqYd)	(Ft)	(Ton)	(MGal)	(SqFt)
West of Veterans Pkwy											
1+42	6+56				4125	1417			234.2	2.8	
16+00	24+00	3	0.8		6445		4.4		313.7	3.8	16
24+00	37+75	3	0.9	93	10845		4.7		530.4	6.4	16
East of Veterans Pkwy											
39+05	53+97	7	1.9	504	12629			30	631.2	7.6	32
Silverthorne Ave											
200+50	202+31			622	80				39.6	0.5	8
Field Determined		3	0.9	50				10	200.0	2.4	
Total		15	4.5	1269	34124	1417	9.1	40	1949.1	23.5	72

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



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.

COORDINATION BETWEEN CONTRACTORS

A separate utility project (PS 240) will be constructed along Veterans Parkway in 2025. The project consists of sanitary sewer installation on the east side of Veterans Parkway. The construction limits for this project begin at approximately Station 39+25 and end at Station 45+00. See plan and profile sheets for location.

The Contractor will schedule work so as not to interfere with or hinder the progress of the work performed by the other Contractor. The Contractor will not install the proposed shared use path or conduct any grading activities within the outlined stationing limits until the utility work has been completed with the separate utility project. Conflicting traffic control devices may need to be temporarily adjusted or removed as directed by the Engineer and at no additional cost to the contract.

All costs for coordination between the projects will be incidental to the project cost.

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.

26th STREET LANE CLOSURE

The south most eastbound lane on 26th Street will be allowed to be closed once as shown in the plans. The 26th Street lane closure will be allowed to be closed for no more than fourteen (14) calendar days.

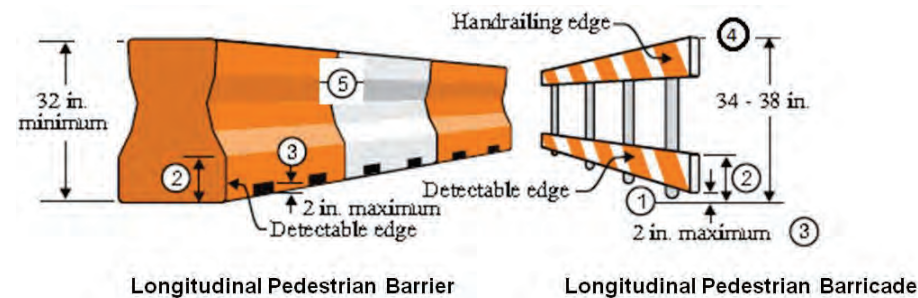
All costs associated with the lane closure will be included in the appropriate bid items.

TEMPORARY PEDESTRIAN ACCESS ROUTE

A Temporary Pedestrian Access Route (TPAR) will be provided when crosswalks, sidewalks, or other pedestrian facilities are blocked, closed, or relocated. A TPAR may consist of a combination of existing and/or temporary pedestrian facilities. The TPAR will be kept free of any obstructions and hazards, such as holes, debris, mud, snow, construction equipment, traffic control signing, stored materials, etc.

The Contractor will notify the Engineer at least 72 hours prior to start of any construction operation that will necessitate a change in pedestrian access. Pedestrian traffic signal displays controlling a crosswalk that is closed will be covered or removed.

PEDESTRIAN CHANNELIZING DEVICE DETAILS



1. Barricade rail supports may not extend into the pedestrian walkway more than 4 inches from the face of the barricade.
2. The top edge of the bottom portion will be a minimum of 8 inches above the walkway.
3. Devices will not block water drainage from the walkway. A gap height or opening from the walkway surface up to a maximum of 2 inches in height is allowed for drainage purposes.
4. The top edge of the longitudinal pedestrian barricade is to be used as a guiderail to provide visual and tactile guidance to pedestrians along a designated route. The top surface should have a minimum width of 0.5 inches to allow the hand to feel the surface. The surface should be smooth and free of any sharp or abrasive elements to allow safe hand trailing.
5. Longitudinal pedestrian barrier used to provide positive protection from traffic to pedestrians should be crashworthy.

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	11	70

Plotting Date: 7/10/2024

CHANNELIZING DEVICES

In transition and taper sections, channelizing devices will be reflectorized drums. In tangent sections, 42" tall grabber cones may be used instead of reflectorized drums. Payment for channelizing devices will be incidental to the lump sum bid price for "Traffic Control, Miscellaneous".

STANDARD SPACING FOR SIGNS, TAPERS, AND CHANNELIZING DEVICES

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet)				Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
	(A)	(B)	(C)	(D)		
0 - 30			200		180	25
35 - 40			350		320	25
45 - 50			500		600	50
55			500		660	50
	(A)	(B)	(C)	(D)		
60 - 65	500	1000	1300	1600	780	50
75	500	1000	1300	1600	1125	50



Traffic Control Tables

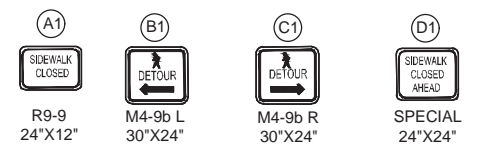
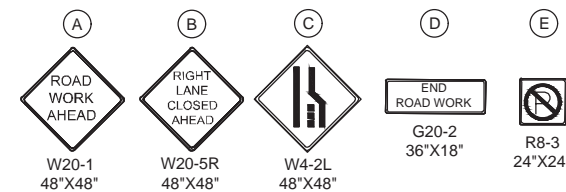
FILE: TRAFFIC CONTROL
PLOT DATE: 7/10/2024

REV DATE:
INITIAL:

TABLE FOR TRAFFIC CONTROL (SqFt)									
Sign Description	Symbol	Sign Code	Width (in)	Height (in)	Sign Quantity (SqFt)	26th Street Lane Closure		Field Determined	
						No. of Signs	Total SqFt	No. of Signs	Total SqFt
ROAD WORK AHEAD	A	W20-1	48	48	16.0	3	48.0	5	80.0
RIGHT LANE CLOSED AHEAD	B	W20-5R	48	48	16.0	1	16.0		
MERGE LEFT	C	W4-2L	48	48	16.0	1	16.0		
END ROAD WORK	D	G20-2	36	18	4.5	3	13.5	5	22.5
NO PARKING	E	R8-3	24	24	4.0			5	20.0
Total							93.5		122.5
Grand Total									216.0

OTHER TRAFFIC CONTROL QUANTITIES					
Item	Unit	26th Street Lane Closure	26th Street PED Detour	Field Determined	Total Quantity
Flagging	Hour			20	20
Type C Advance Warning Arrow Panel	Each	1			1
Longitudinal Pedestrian Barricade	Ft		18	30	48
Type 3 Double Sided Barricade	Each			2	2

TABLE FOR DETOUR SIGNING (SqFt)									
Sign Description	Symbol	Sign Code	Width (in)	Height (in)	Sign Quantity (SqFt)	26th Street PED Detour		Field Determined	
						No. of Signs	Total SqFt	No. of Signs	Total SqFt
SIDEWALK CLOSED	A1	R9-9	24	12	2.0	3	6.0	5	10.0
PED DETOUR...ARROW LEFT	B1	M4-9b L	30	24	5.0	7	35.0		
PED DETOUR...ARROW RIGHT	C1	M4-9b R	30	24	5.0	5	25.0		
SIDEWALK CLOSED AHEAD	D1	Special	24	24	4.00	1	4.0	5	20.0
Total							70.0		30.0
Grand Total									100.0



3" LETTERS, TYPE D
2" SPACING
BLACK ON WHITE



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 1,510 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 50% is 1,510 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.

Prior to placing sod, apply a minimum of 25,000 live propagules of inoculum per 1,000 square feet on bare soil. All costs of inoculating for the sod will be incidental to the contract unit price per square yard for "Sodding".

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

<u>Product</u>	<u>Manufacturer</u>
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:

<u>Product</u>	<u>Manufacturer</u>
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

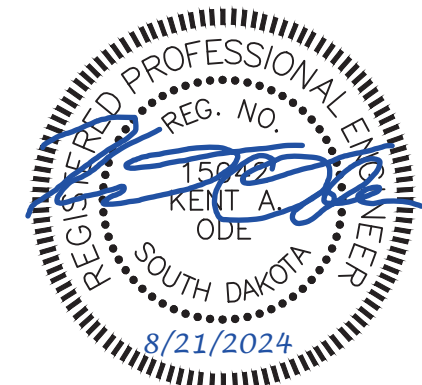
The areas to be seeded consist of all newly graded areas within the project limits except for the top of the shared use path and sidewalk.

Type D Permanent Seed Mixture will be used on mowed areas and consists 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

Type G Permanent Seed Mixture will be used in non-maintained areas and consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Arriba, Flintlock, Rodan, Rosana, Walsh	7
Switchgrass	Dacotah, Forestburg, Nebraska 28, Pathfinder, Summer, Sunburst, Trailblazer	3
Indiangrass	Holt, Tomahawk, Chief, Nebraska 54	3
Big Bluestem	Bison, Bonilla, Champ, Sunnyview, Rountree, Bonanza	3
Oats or Spring Wheat: April through May; Winter Wheat: August through November		10
Total:		26



SODDING

Sod will be placed at locations specified in the plans and at locations determined by the Engineer during construction.

Contractor will be responsible for watering the sod at the time of placement. After initial placement and watering of sod, property owner will be responsible for the establishment and continuing maintenance of the sod.

An estimated 3 Gallons of water per square yard of sod was used to compute the quantity for the bid item "Water for Vegetation". All costs involved for watering the sod at time of placement will be incidental to the contract unit price per MGal for "Water for Vegetation".

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.

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>

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



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 incidental to the contract unit price per hour for "Sweeping".

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:

<u>Product</u>	<u>Manufacturer</u>
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)

Track-Out Control Mat
(10' width and 24' length required)

Signature Systems Group, LLC
Flower Mound, TX
Phone: 1-800-931-7301
<https://www.signature-systems.com/>

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:

<u>Sieve Size</u>	<u>Percent Passing</u>
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:

<u>Sieve Size</u>	<u>Percent Passing</u>
3"	100%
2 ½"	90-100%
1 ½"	25-60%
¾"	0-10%
½"	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.

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.



QUANTITY TABLES

TABLE OF SEEDING, FERTILIZING AND MULCHING										
Station	to	Station	Area Type D (SqYd)	Area Type G (SqYd)	Type D Seed Mix 1 ¹ (Lb)	Type G Seed Mix 2 ² (Lb)	Sodding (SY)	Fertilizer ³ (Lb)	Fiber Mulch ⁴ (Ton)	Water ⁵ (MGal)
West of Veterans Pkwy										
1+35		6+70	215		14			44	0.1	12.9
13+15		23+75	2902	730	183	4		751	0.8	218.0
24+00		37+50	392	261	25	2	3369	831	0.9	49.3
East of Veterans Pkwy										
39+25		53+65	2512	2383	158	13	186	1050	1.1	294.3
Total			6021	3374	380	18	3555	2676	2.9	574.5
1 - Type D Seed Mix rate = 305 Lb/acre										
2 - Type G Seed Mix = 26 Lb/acre										
3 - Fertilizer rate = 1000 Lb/acre										
4 - Fiber Mulching rate = 1.00 Ton/acre										
5 - Watering = 60 gal/sqyd for seeding and 3 gal/sqyd for sodding										
Weed Control will be incidental to the various erosion control bid items										

TABLE OF INLET PROTECTION				
Station	Offest	L/R	Inlet Protection	
			Type S (Ft)	Silt Fence (Ft)
West of Veterans Pkwy				
5+62	6'	L	12	
15+90	114'	R	12	
16+03	94'	R	12	
24+45	57'	R	12	
24+46	13'	R	12	
37+16	17'	R		24
West of Veterans Pkwy				
53+19	28'	L	12	
53+56	3'	L	12	
53+42	136'	L	12	
Total			96	24

TABLE OF SILT FENCE							
Station to	Station	L/R	Location	Low Flow	Mucking	Repair	Remove
				(Ft)	(CuYd)	(Ft)	(Ft)
West of Veterans Pkwy							
13+28	22+44	L	Perimeter	900	62	225	225
24+04	32+76	L	Perimeter	682	47	171	171
37+16	37+16	R	Inlet Protection	24	2	6	6
East of Veterans Pkwy							
44+61	52+50	L	Perimeter	810	56	203	203
	52+63	L	Inlet end pipe	75	5	19	19
			Field Determined	100	7	25	25
Total Project				2,591	173	623	623

TABLE OF RIPRAP AND DRAINAGE FABRIC							
Station to	Station	L/R	Length	Width	Depth	Class B Riprap	Type B Drainage Fabric
			(ft)	(ft)	(ft)	(ton)	(SqYd)
Silverthorne Ave							
200+69	201+21	46' L	20	42	3	143.7	103
Total						143.7	103



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** 2.97 Acres
- **5.3 (3b): Total Area to be Disturbed** 2.26 Acres
- **5.3 (3c): Maximum Area Disturbed at One Time** 2.26 Acres
- **5.3 (3d): Existing Vegetative Cover (%)** 100%
- **5.3 (3d): Description of Vegetative Cover** Grass

- **5.3 (3e): Soil Properties:** USDA-NRCS Soil Series Classification Silty Clays
- **5.3 (3f): Name of Receiving Water Body/Bodies** Big Sioux River
- **5.3 (3g): Location of Construction Support Activity Areas** N/A

5.3 (3h): ORDER OF CONSTRUCTION ACTIVITIES

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 checked="" 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:	

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	17	70

Plotting Date: 7/10/2024

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	

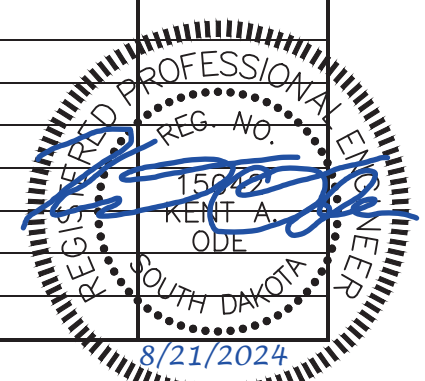
Dewatering BMPs

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 checked="" 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 1/3 of the height of the silt fence.
- Sediment basins and traps will be checked. Sediment will be removed when depth reaches approximately 50 percent of the structure's capacity, and at the conclusion of the construction.
- Check dams will be inspected for stability. Sediment will be removed when depth reaches 1/2 the height of the dam.
- All seeded areas will be checked for bare spots, washouts, and vigorous growth free of significant weed infestations.
- Inspection and maintenance reports will be prepared on form DOT 298 for each site inspection, this form will also be used to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents.
- The SDDOT Project Engineer and Contractor's Erosion Control Supervisor are responsible for inspections. Maintenance and repair activities are the responsibility of the Contractor. The SDDOT Project Engineer will complete the inspection and maintenance reports and distribute copies per the distribution instructions on DOT 298.

5.3 (7): POST CONSTRUCTION STORMWATER MANAGEMENT

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

5.3 (8): POLLUTION PREVENTION PROCEDURES

5.3 (8a): Spill Prevention and Response Procedures

➤ **Material Management**

- Housekeeping
 - Only needed products will be stored on-site by the Contractor.
 - Except for bulk materials the contractor will store all materials under cover and/or in appropriate containers.
 - Products must be stored in original containers and labeled.
 - Material mixing will be conducted in accordance with the manufacturer's recommendations.
 - When possible, all products will be completely used before properly disposing of the container off-site.
 - The manufacturer's directions for disposal of materials and containers will be followed.
 - The Contractor's site superintendent will inspect materials storage areas regularly to ensure proper use and disposal.
 - Dust generated will be controlled in an environmentally safe manner.
- Hazardous Materials
 - Products will be kept in original containers unless the container is not resealable and provide secondary containment as applicable.
 - Original labels and material safety data sheets will be retained in a safe place to relay important product information.

- If surplus product must be disposed of, manufacturer's label directions for disposal will be followed.
- Maintenance and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, de-greasing operations, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants will be conducted on an impervious surface and under cover during wet weather to prevent the release of contaminants onto the ground.
- Wheel wash water will be collected and allowed to settle out suspended solids prior to discharge. Wheel wash water will not be discharged directly into any stormwater system or stormwater treatment system.
- Potential pH-modifying materials such as: bulk cement, cement kiln dust, fly ash, new concrete washings, concrete pumping, residuals from concrete saw cutting (either wet or dry), and mixer washout waters will be collected on site and managed to prevent contamination of stormwater runoff.

➤ **Spill Control Practices**

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

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

➤ **Spill Response**

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

- The Contractor's site superintendent will be notified immediately when a spill or the threat of a spill is observed. The superintendent will assess the situation and determine the appropriate response.
- If spills represent an imminent threat of escaping erosion and sediment controls and entering receiving waters, personnel will be directed to respond immediately to contain the release and notify the superintendent after the situation has been stabilized.

- Spill kits containing appropriate materials and equipment for spill response and cleanup will be maintained by the Contractor at the site.
- If oil sheen is observed on surface water (e.g. settling ponds, detention ponds, swales), action will be taken immediately to remove the material causing the sheen. The Contractor will use appropriate materials to contain and absorb the spill. The source of the oil sheen will also be identified and removed or repaired as necessary to prevent further releases.
- If a spill occurs the superintendent or the superintendent's designee will be responsible for completing the spill reporting form and for reporting the spill to SDDANR.
- Personnel with primary responsibility for spill response and cleanup will receive training by the Contractor's site superintendent or designee. The training must include identifying the location of the spill kits and other spill response equipment and the use of spill response materials.
- Spill response equipment will be inspected and maintained as necessary to replace any materials used in spill response activities.

5.3 (8b): WASTE MANAGEMENT PROCEDURES

➤ **Waste Disposal**

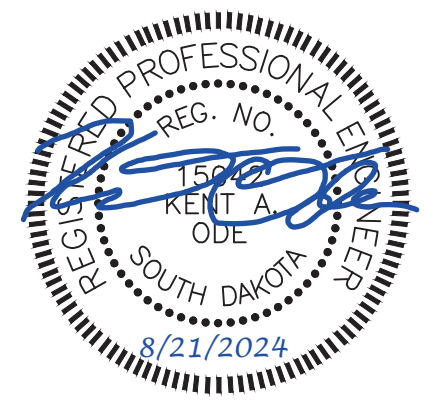
- All liquid waste materials will be collected and stored in approved sealed containers. All trash and construction debris from the site will be deposited in the approved containers. Containers will be serviced as necessary, and the trash will be hauled to an approved disposal site or licensed landfill.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

➤ **Hazardous Waste**

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

➤ **Sanitary Waste**

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



5.3 (9): CONSTRUCTION SITE POLLUTANTS

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

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

Product Specific Practices

- **Petroleum Products**

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

- **Fertilizers**

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

- **Paints**

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

- **Concrete Trucks**

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

5.3 (10): NON-STORMWATER DISCHARGES

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

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

5.3 (11): INFEASIBILITY DOCUMENTATION

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

7.0: SPILL NOTIFICATION

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

- A release or spill of a regulated substance (includes petroleum and petroleum products) must be reported to SDDANR immediately **if any one of the following** conditions exists:
 - The release or spill threatens or is able to threaten waters of the state (surface water or ground water)
 - The release or spill causes an immediate danger to human health or safety
 - The release or spill exceeds 25 gallons
 - The release or spill causes a sheen on surface water
 - The release or spill of any substance that exceeds the ground water quality standards of ARSD Chapter 74:54:01
 - The release or spill of any substance that exceeds the surface water quality standards of ARSD Chapter 74:51:01
 - The release or spill of any substance that harms or threatens to harm wildlife or aquatic life
 - The release or spill is required to be reported according to Superfund Amendments and Reauthorization Act (SARA) Title III List of Lists, Consolidated List of Chemicals Subject to Reporting Under the Emergency Planning and Community Right to Know Act, US Environmental Protection Agency.
- To report a release or spill, call SDDANR at 605-773-3296 during regular office hours (8 a.m. to 5 p.m. Central Standard Time). To report the release after hours, on weekends or holidays, call South Dakota Emergency Management at 605-773-3231. Reporting the release to SDDANR does not meet any obligation for reporting to other state, local, or federal agencies. Therefore, you must also contact local authorities to determine the local reporting requirements for releases. A written report of the unauthorized release of any regulated substance, including quantity discharged, and the location of the discharge will be sent to SDDANR within 14 days of the discharge.



5.4: SWPPP CERTIFICATIONS

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

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

➤ **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.



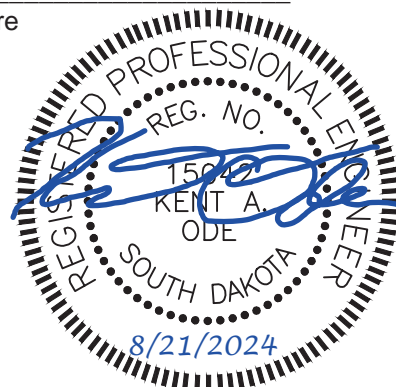
Authorized Signature (See the General Permit, Section 7.4 (1))

➤ **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.

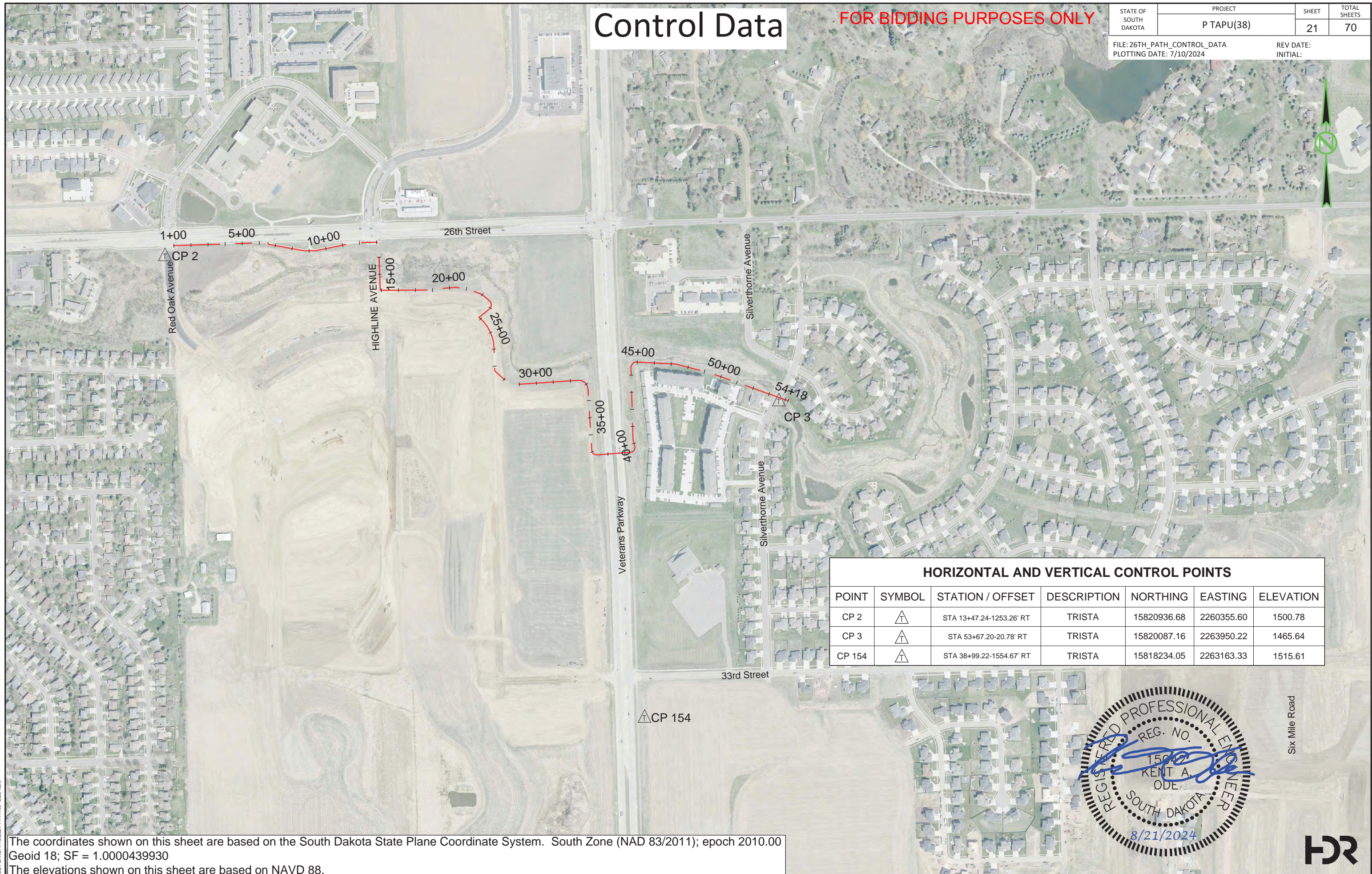
When modifications as described above occur, the SWPPP will be modified to provide appropriate protection to disturbed areas, all storm water structures, and adjacent waters. The SDDOT Project Engineer will modify the SWPPP using the DOT 298 form and drawings on the plan will be modified to reflect the 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(38)	21	70

FILE: 26TH_PATH_CONTROL_DATA
 PLOTTING DATE: 7/10/2024
 REV DATE: INITIAL:



HORIZONTAL AND VERTICAL CONTROL POINTS						
POINT	SYMBOL	STATION / OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP 2	△	STA 13+47.24-1253.26' RT	TRISTA	15820936.68	2260355.60	1500.78
CP 3	△	STA 53+67.20-20.78' RT	TRISTA	15820087.16	2263950.22	1465.64
CP 154	△	STA 38+99.22-1554.67' RT	TRISTA	15818234.05	2263163.33	1515.61



Six Mile Road



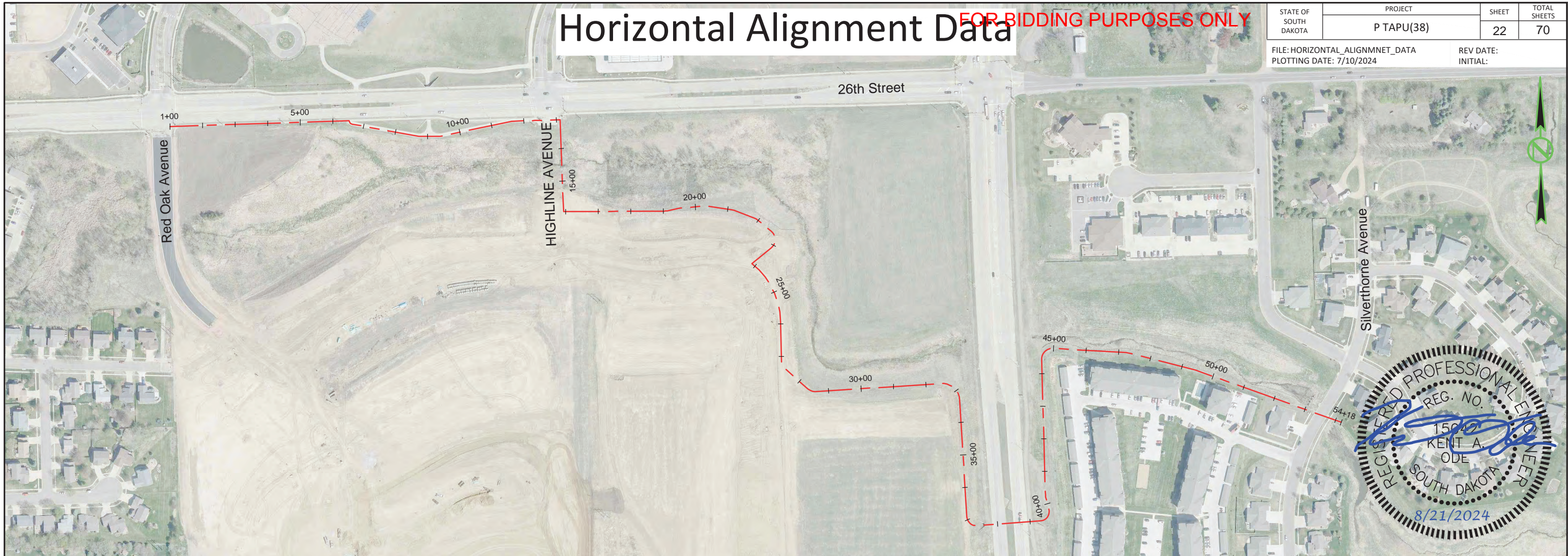
The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. South Zone (NAD 83/2011); epoch 2010.00
 Geoid 18; SF = 1.0000439930
 The elevations shown on this sheet are based on NAVD 88.

Horizontal Alignment Data

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	22	70

FILE: HORIZONTAL_ALIGNMNET_DATA
 PLOTTING DATE: 7/10/2024
 REV DATE: INITIAL:



HORIZONTAL ALIGNMENT: 26th Path CL					
DESCRIPTION	STATION	LENGTH	COURSE	NORTHING	EASTING
1L	BEG:1+00.00 END:6+49.87	549.87'	N88°12'36.31"E	BEG:15820997.50 END:15821014.68	BEG:2260408.58 END:2260958.19
1C	BEG:6+49.87 END:6+65.53	CL=14.81'	CL=S45°44'37.30"E R=13.63	BEG:15821014.68 END:15821004.34	BEG:2260958.19 END:2260968.79
2L	BEG:6+65.53 END:8+72.58	207.05'	S79°41'12.16"E	BEG:15821004.34 END:15820967.27	BEG:2260968.79 END:2261172.50
3L	BEG:8+72.58 END:9+37.56	64.98'	S89°40'51.62"E	BEG:15820967.27 END:15820966.91	BEG:2261172.50 END:2261237.47
4L	BEG:9+37.56 END:11+62.60	225.04'	N78°02'09.95"E	BEG:15820966.91 END:15821013.56	BEG:2261237.47 END:2261457.62
5L	BEG:11+62.60 END:12+33.73	71.13'	N88°15'21.29"E	BEG:15821013.56 END:15821015.72	BEG:2261457.62 END:2261528.73
6L	BEG:12+33.73 END:13+11.76	78.03'	N88°15'21.29"E	BEG:15821015.72 END:15821018.10	BEG:2261528.73 END:2261606.72
7L	BEG:13+11.76 END:15+93.91	282.15'	S02°06'05.93"E	BEG:15821018.10 END:15820736.14	BEG:2261606.72 END:2261617.06
8L	BEG:15+93.91 END:19+02.19	308.29'	N89°43'15.42"E	BEG:15820736.14 END:15820737.64	BEG:2261617.06 END:2261925.35
3C	BEG:19+02.19 END:19+12.60	CL=10.39'	CL=N83°52'33.19"E R=51.00	BEG:15820737.64 END:15820738.75	BEG:2261925.35 END:2261935.67
9L	BEG:19+12.60 END:19+49.30	36.71'	N78°01'50.96"E	BEG:15820738.75 END:15820746.36	BEG:2261935.67 END:2261971.58
4C	BEG:19+49.30 END:19+55.53	CL=6.22'	CL=N81°43'59.64"E R=48.16	BEG:15820746.36 END:15820747.26	BEG:2261971.58 END:2261977.74
10L	BEG:19+55.53 END:20+28.07	72.54'	N85°26'08.32"E	BEG:15820747.26 END:15820753.03	BEG:2261977.74 END:2262050.05
5C	BEG:20+28.07 END:20+38.71	CL=10.63'	CL=S88°12'30.37"E R=48.00	BEG:15820753.03 END:15820752.70	BEG:2262050.05 END:2262060.67

HORIZONTAL ALIGNMENT: 26th Path CL					
DESCRIPTION	STATION	LENGTH	COURSE	NORTHING	EASTING
11L	BEG:20+38.71 END:21+08.60	69.89'	S81°51'09.06"E	BEG:15820752.70 END:15820742.79	BEG:2262060.67 END:2262129.85
6C	BEG:21+08.60 END:21+19.25	CL=10.63'	CL=S75°29'47.28"E R=48.00	BEG:15820742.79 END:15820740.13	BEG:2262129.85 END:2262140.14
12L	BEG:21+19.25 END:21+85.93	66.67'	S69°08'25.50"E	BEG:15820740.13 END:15820716.39	BEG:2262140.14 END:2262202.44
7C	BEG:21+85.93 END:22+01.51	CL=15.52'	CL=S59°50'15.40"E R=48.00	BEG:15820716.39 END:15820708.59	BEG:2262202.44 END:2262215.86
13L	BEG:22+01.51 END:22+51.42	49.90'	S50°32'05.30"E	BEG:15820708.59 END:15820676.87	BEG:2262215.86 END:2262254.39
8C	BEG:22+51.42 END:23+12.03	CL=52.93'	CL=S00°25'17.03"W R=34.08	BEG:15820676.87 END:15820623.94	BEG:2262254.39 END:2262254.00
14L	BEG:23+12.03 END:23+87.32	75.29'	S51°22'39.36"W	BEG:15820623.94 END:15820576.95	BEG:2262254.00 END:2262195.17
9C	BEG:23+87.32 END:25+92.52	CL=198.70'	CL=S26°26'22.01"E R=234.15	BEG:15820576.95 END:15820399.03	BEG:2262195.17 END:2262283.65
15L	BEG:25+92.52 END:27+17.43	124.91'	S01°19'59.15"E	BEG:15820399.03 END:15820274.16	BEG:2262283.65 END:2262392.41
10C	BEG:27+17.43 END:27+37.19	CL=19.20'	CL=S24°55'03.30"E R=24.00	BEG:15820274.16 END:15820256.74	BEG:2262392.41 END:2262294.64
16L	BEG:27+37.19 END:28+34.73	97.54'	S48°30'07.46"E	BEG:15820256.74 END:15820192.11	BEG:2262294.64 END:2262367.70
11C	BEG:28+34.73 END:28+61.54	CL=26.12'	CL=S71°07'07.66"E R=33.96	BEG:15820192.11 END:15820183.66	BEG:2262367.70 END:2262392.41
17L	BEG:28+61.54 END:32+46.28	384.75'	N86°15'52.13"E	BEG:15820183.66 END:15820208.72	BEG:2262392.41 END:2262776.34
12C	BEG:32+46.28 END:33+31.33	CL=76.52'	CL=S48°36'38.47"E R=53.99	BEG:15820208.72 END:15820158.13	BEG:2262776.34 END:2262833.75

HORIZONTAL ALIGNMENT: 26th Path CL					
DESCRIPTION	STATION	LENGTH	COURSE	NORTHING	EASTING
18L	BEG:33+31.33 END:36+90.42	359.09'	S03°29'09.06"E	BEG:15820158.13 END:15819799.71	BEG:2262833.75 END:2262855.58
13C	BEG:36+90.42 END:37+36.34	CL=41.27'	CL=S48°50'59.44"E R=29.00	BEG:15819799.71 END:15819772.55	BEG:2262855.58 END:2262886.66
19L	BEG:37+36.34 END:39+31.83	195.49'	N85°47'10.17"E	BEG:15819772.55 END:15819786.91	BEG:2262886.66 END:2263081.62
14C	BEG:39+31.83 END:39+83.15	CL=44.88'	CL=N35°05'20.88"E R=29.00	BEG:15819786.91 END:15819823.64	BEG:2263081.62 END:2263107.42
20L	BEG:39+83.15 END:40+14.81	31.66'	N15°36'28.42"W	BEG:15819823.64 END:15819854.13	BEG:2263107.42 END:2263098.90
15C	BEG:40+14.81 END:40+27.97	CL=13.13'	CL=N08°37'33.93"W R=54.00	BEG:15819854.13 END:15819867.11	BEG:2263098.90 END:2263096.93
21L	BEG:40+27.97 END:44+42.67	414.70'	N01°38'39.44"W	BEG:15819867.11 END:15820281.64	BEG:2263096.93 END:2263085.03
16C	BEG:44+42.67 END:44+99.04	CL=50.13'	CL=N45°51'08.73"E R=34.00	BEG:15820281.64 END:15820316.55	BEG:2263085.03 END:2263121.00
22L	BEG:44+99.04 END:47+22.33	223.29'	S86°39'03.09"E	BEG:15820316.55 END:15820303.51	BEG:2263121.00 END:2263343.91
17C	BEG:47+22.33 END:47+32.55	CL=10.20'	CL=S81°07'38.66"E R=53.00	BEG:15820303.51 END:15820301.93	BEG:2263343.91 END:2263353.99
23L	BEG:47+32.55 END:49+43.29	210.74'	S75°36'14.22"E	BEG:15820301.93 END:15820249.54	BEG:2263353.99 END:2263558.12
18C	BEG:49+43.29 END:49+48.21	CL=4.92'	CL=S72°56'30.87"E R=53.00	BEG:15820249.54 END:15820248.09	BEG:2263558.12 END:2263562.83
24L	BEG:49+48.21 END:54+18.20	469.99'	S70°16'47.53"E	BEG:15820248.09 END:15820089.51	BEG:2263562.83 END:2264005.25



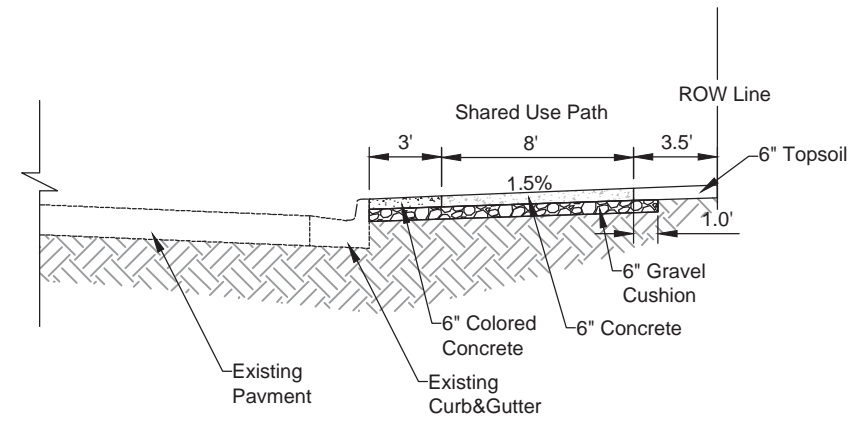
TYPICAL SECTIONS

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	23	70

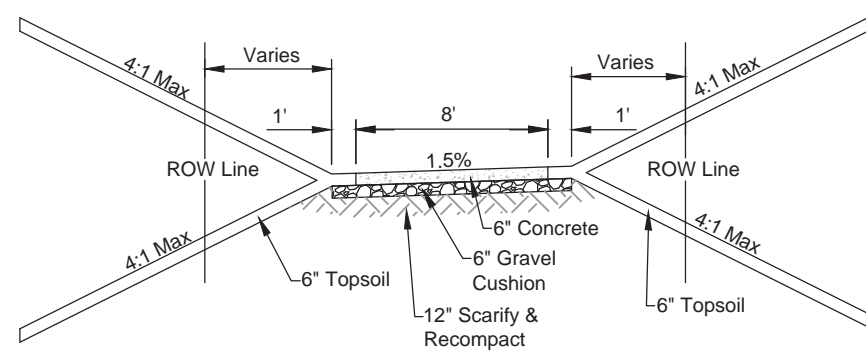
FILE: TYPICALS
PLOT DATE: 7/10/2024

REV DATE:
INITIAL:



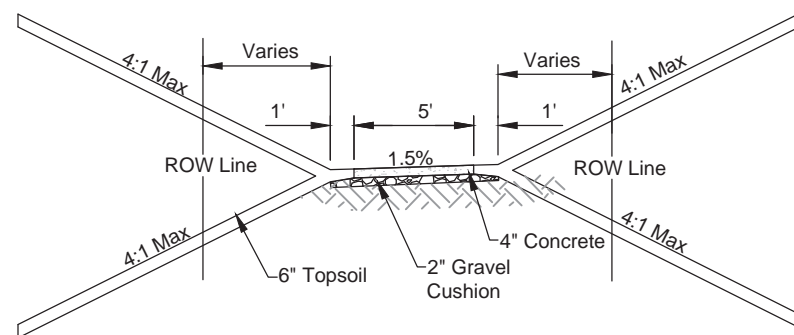
TYPICAL SECTION 1

STA 1+51 TO 6+45



TYPICAL SECTION 2

STA 16+20 TO 53+84



TYPICAL SECTION 3

STA 200+50 TO 202+20



Legend

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	24	70

FILE: LEGEND
PLOT DATE: 7/10/2024

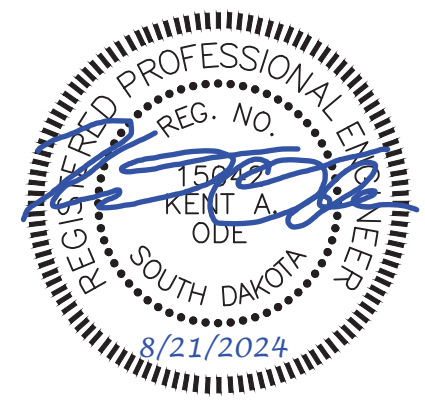
REV DATE:
INITIAL:

- Anchor
- Antenna
- Approach
- Assumed Corner
- Azimuth Marker
- BBQ Grill/ Fireplace
- Bearing Tree
- Bench Mark
- Box Culvert
- Bridge
- Brush/Hedge
- Buildings
- Bulk Tank
- Cattle Guard
- Cemetery
- Centerline
- Cistern
- Clothes Line
- Concrete Symbol
- Control Point
- Creek Edge
- Curb/Gutter
- Curb
- Dam Grade/Dike/Levee
- Deck Edge
- Ditch Block
- Doorway Threshold
- Drainage Profile
- Drop Inlet
- Edge Of Asphalt
- Edge Of Concrete
- Edge Of Gravel
- Edge Of Other
- Edge Of Shoulder
- Electric Transformer/Power Junction Box
- Fence Barbwire
- Fence Chainlink
- Fence Electric
- Fence Miscellaneous
- Fence Rock
- Fence Snow
- Fence Wood
- Fence Woven
- Fire Hydrant
- Flag Pole
- Flower Bed
- Gas Valve Or Meter
- Gas Pump Island
- Grain Bin
- Guardrail
- Gutter
- Guy Pole
- Haystack
- Highway ROW Marker
- Interstate Close Gate
- Iron Pin
- Irrigation Ditch
- Lake Edge
- Lawn Sprinkler

- Mailbox
- Manhole Electric
- Manhole Gas
- Manhole Miscellaneous
- Manhole Sanitary Sewer
- Manhole Storm Sewer
- Manhole Telephone
- Manhole Water
- Merry-Go-Round
- Microwave Radio Tower
- Miscellaneous Line
- Miscellaneous Property Corner
- Miscellaneous Post
- Overhang Or Encroachment
- Overhead Utility Line
- Parking Meter
- Pedestrian Push Button Pole
- Pipe With End Section
- Pipe With Headwall
- Pipe Without End Section
- Playground Slide
- Playground Swing
- Power And Light Pole
- Power And Telephone Pole
- Power Meter
- Power Pole
- Power Pole And Transformer
- Power Tower Structure
- Propane Tank
- Property Pipe
- Property Pipe With Cap
- Property Stone
- Public Telephone
- Railroad Crossing Signal
- Railroad Milepost Marker
- Railroad Profile
- Railroad ROW Marker
- Railroad Signs
- Railroad Switch
- Railroad Track
- Railroad Trestle
- Rebar
- Rebar With Cap
- Reference Mark
- Retaining Wall
- Riprap
- River Edge
- Rock And Wire Baskets
- Rockpiles
- Satellite Dish
- Septic Tank
- Shrub Tree
- Sidewalk
- Sign Face
- Sign Post
- Slough Or Marsh
- Spring
- Stream Gauge
- Street Marker

- Subsurface Utility Exploration Test Hole
- Telephone Fiber Optics
- Telephone Junction Box
- Telephone Pole
- Television Cable Jct Box
- Television Tower
- Test Wells/Bore Holes
- Traffic Sign Double Face
- Traffic Sign One Post
- Traffic Sign Two Post
- Traffic Signal
- Trash Barrel
- Tree Belt
- Tree Coniferous
- Tree Deciduous
- Tree Stumps
- Triangulation Station
- Underground Electric Line
- Underground Gas Line
- Underground High Pressure Gas Line
- Underground Sanitary Sewer
- Underground Storm Sewer
- Underground Tank
- Underground Telephone Line
- Underground Television Cable
- Underground Water Line
- Water Fountain
- Water Hydrant
- Water Meter
- Water Tower
- Water Valve
- Water Well
- Weir Rock
- Windmill
- Wingwall
- Witness Corner

- State and National Line
- County Line
- Section Line
- Quarter Line
- Sixteenth Line
- Property Line
- Construction Line
- ROW Line
- New ROW Line
- Cut and Fill Limits
- Control of Access
- New Control of Access
- Proposed ROW (After Property Disposal)
- Drainage Arrow
- Remove Concrete Pavement
- Remove Concrete Driveway Pavement
- Remove Asphalt Concrete Pavement
- Remove Concrete Sidewalk
- Remove Concrete Median Pavement
- Remove Concrete Curb and/or Gutter
- Mill and Overlay Asphalt Pavement
- Detectable Warning
- Pedestrian Push Button Pole and 30" x 48" Clear Space with 1.5% slope



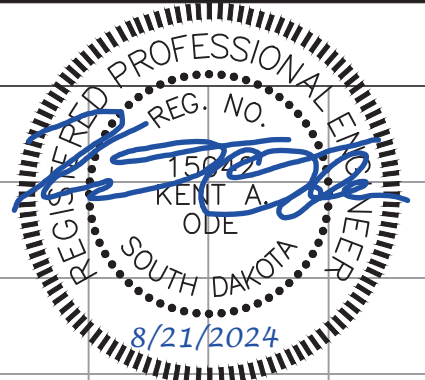
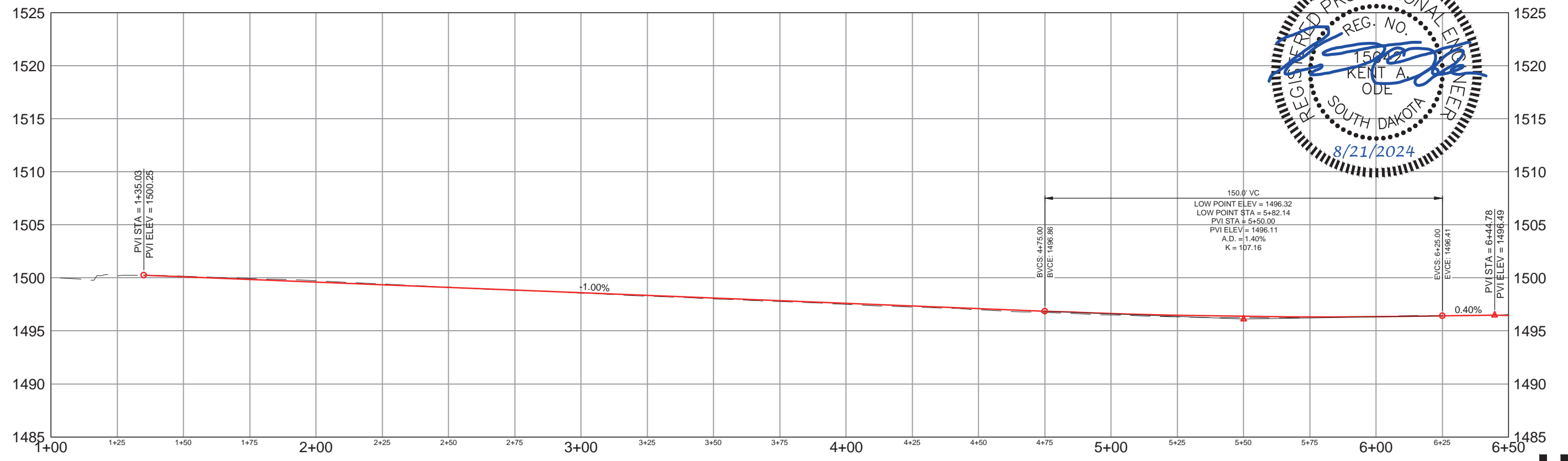
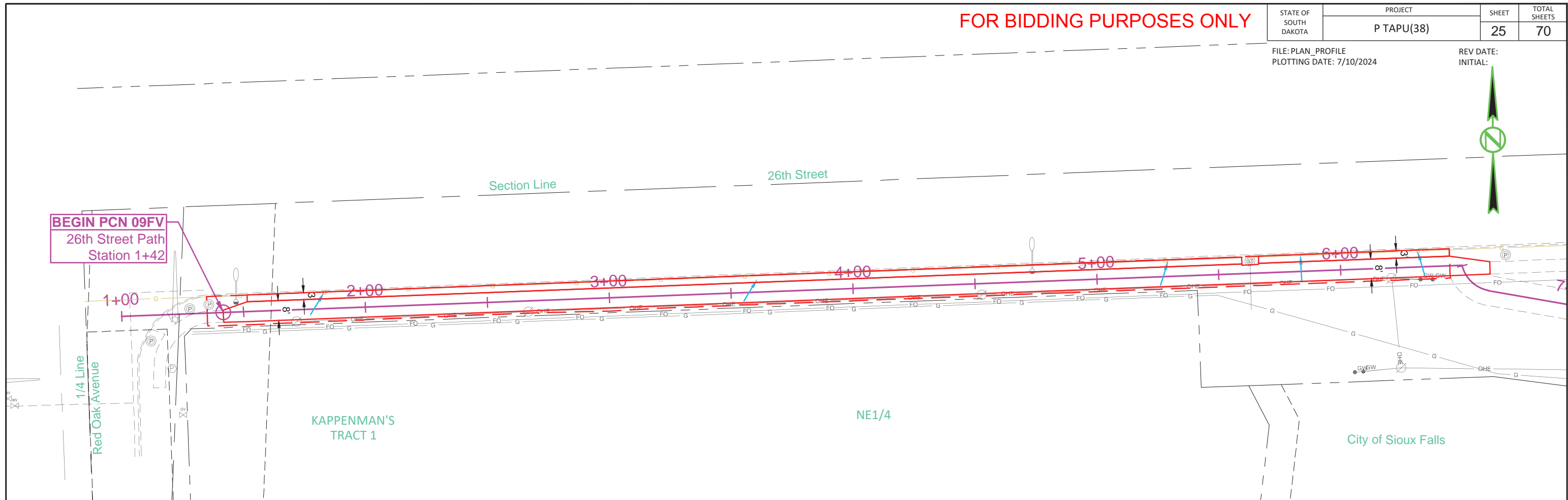
C:\work\leg\central\10261051\Legend.dwg
PLOT DATE: 7/10/2024 11:14 AM Ode, Kent

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	25	70

FILE: PLAN_PROFILE
PLOT DATE: 7/10/2024

REV DATE:
INITIAL:



C:\work\central\10261051\Plan_Profile.dwg
PLOT DATE: 7/10/2024 11:15 AM Ode, Kent

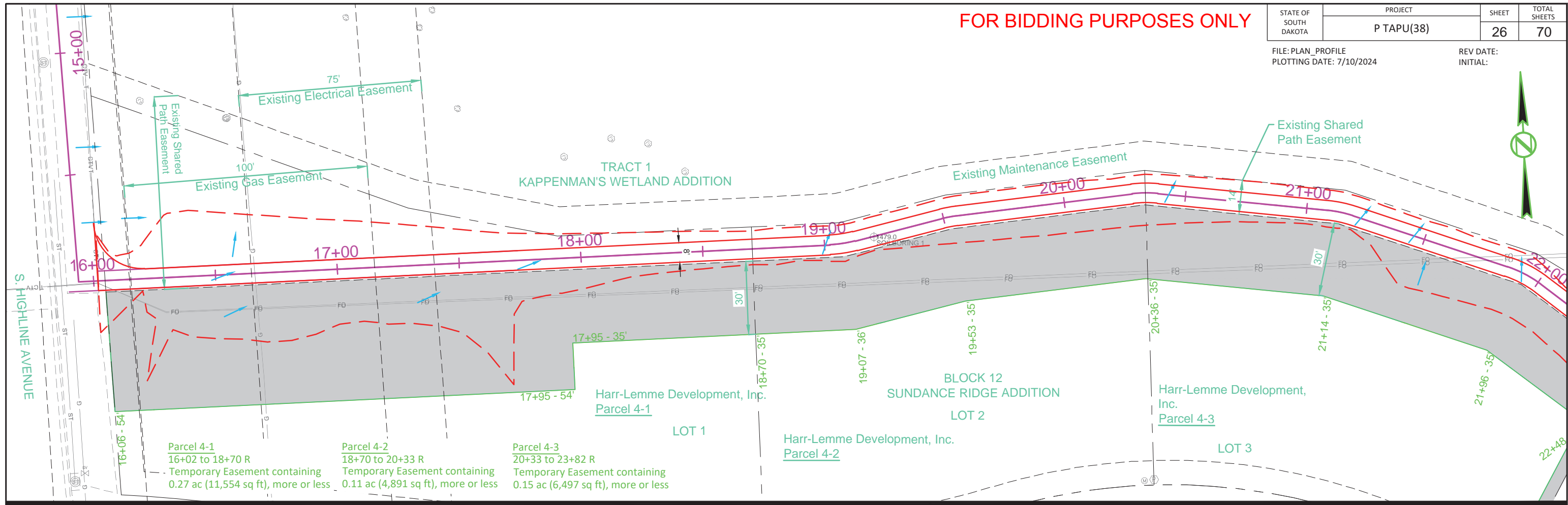


FOR BIDDING PURPOSES ONLY

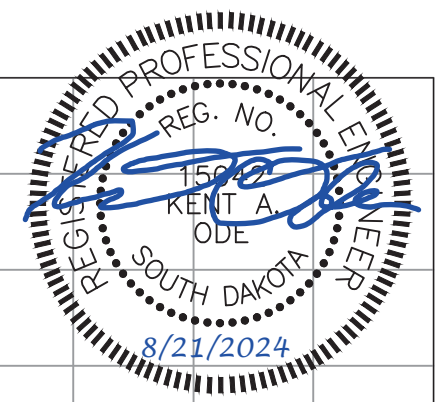
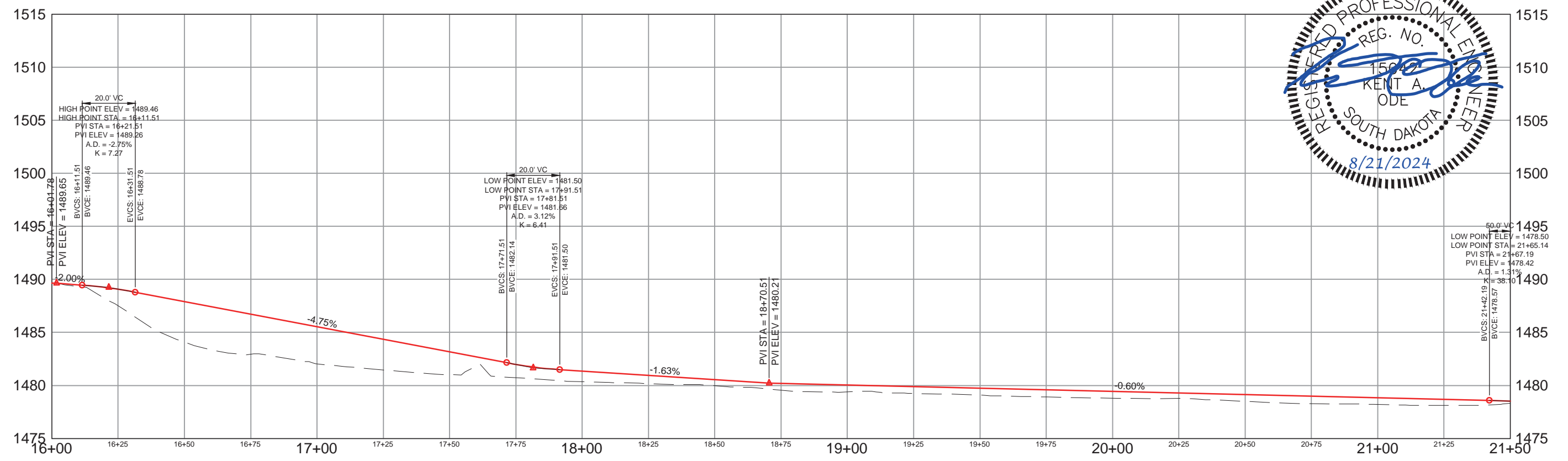
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	26	70

FILE: PLAN_PROFILE
PLOT DATE: 7/10/2024

REV DATE:
INITIAL:



- Parcel 4-1
16+02 to 18+70 R
Temporary Easement containing
0.27 ac (11,554 sq ft), more or less
- Parcel 4-2
18+70 to 20+33 R
Temporary Easement containing
0.11 ac (4,891 sq ft), more or less
- Parcel 4-3
20+33 to 23+82 R
Temporary Easement containing
0.15 ac (6,497 sq ft), more or less



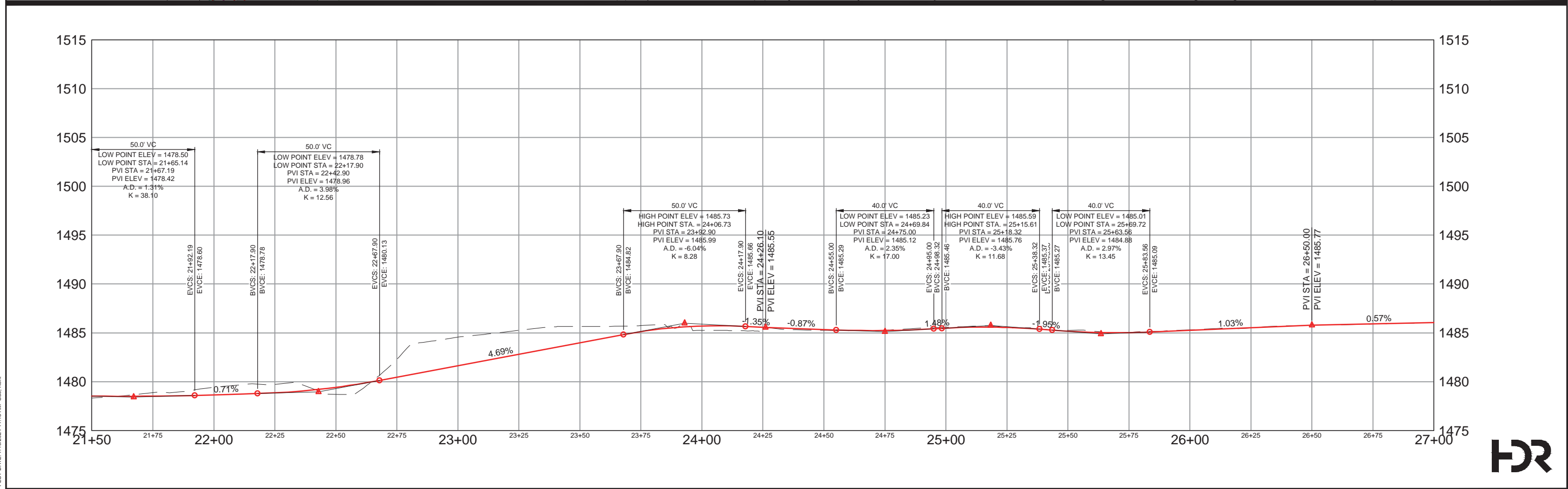
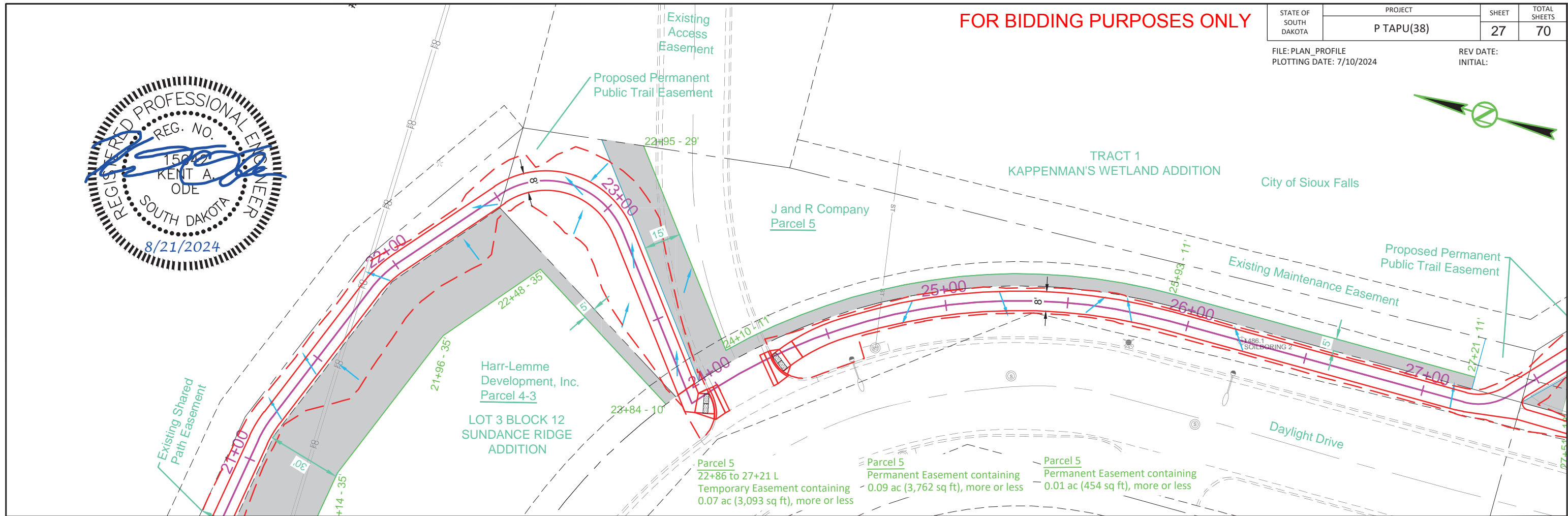
C:\work\central\15261051\Plan_Profile.dwg
PLOT DATE: 7/10/2024 11:15 AM Ode, Kent



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	27	70

FILE: PLAN_PROFILE
PLOT DATE: 7/10/2024
REV DATE: INITIAL:



C:\work\p\central\1\2024\051\Plan_Profile.dwg
PLOT DATE: 7/10/2024 11:15 AM Ode, Kent

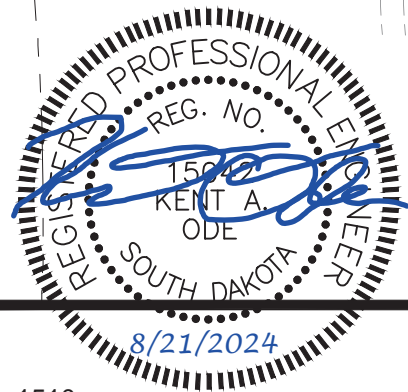
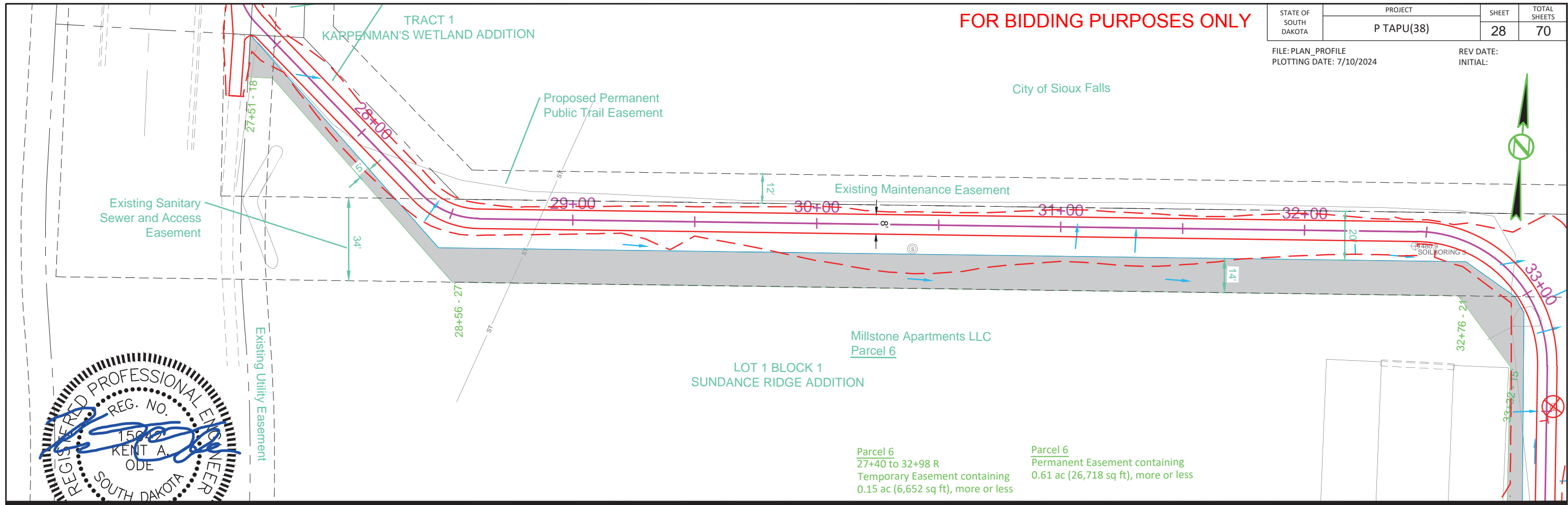


FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	28	70

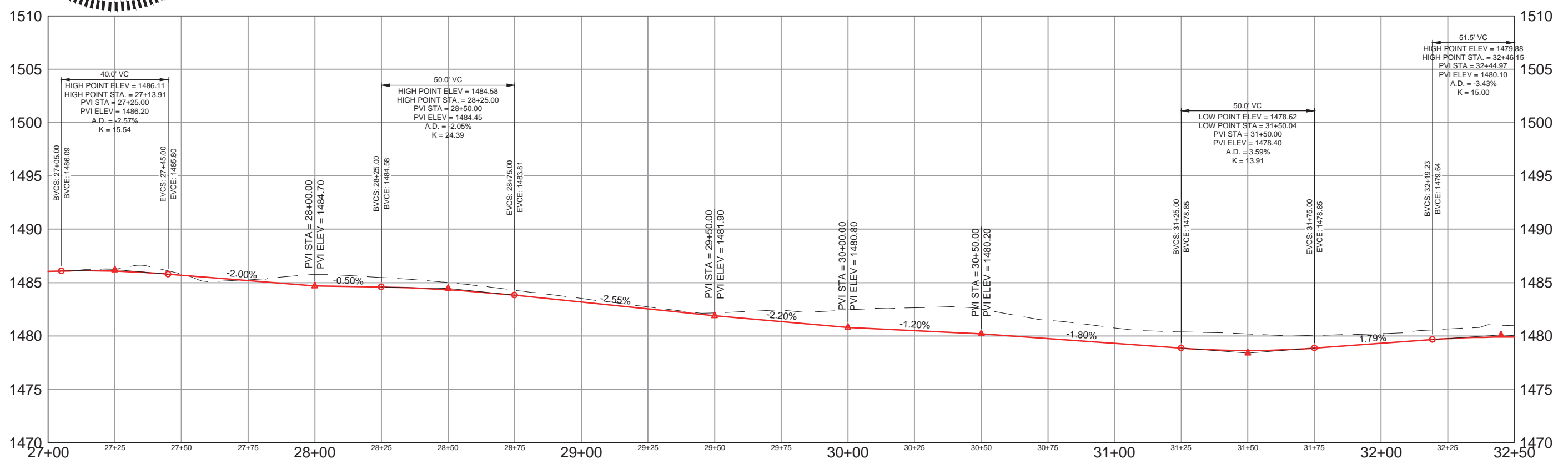
FILE: PLAN_PROFILE
PLOT DATE: 7/10/2024

REV DATE: INITIAL:



Parcel 6
27+40 to 32+98 R
Temporary Easement containing
0.15 ac (6,652 sq ft), more or less

Parcel 6
Permanent Easement containing
0.61 ac (26,718 sq ft), more or less



C:\work\plan\1\2024\05\1\Plan_Profile.dwg
PLOT DATE: 7/10/2024 11:16 AM Ode, Kent

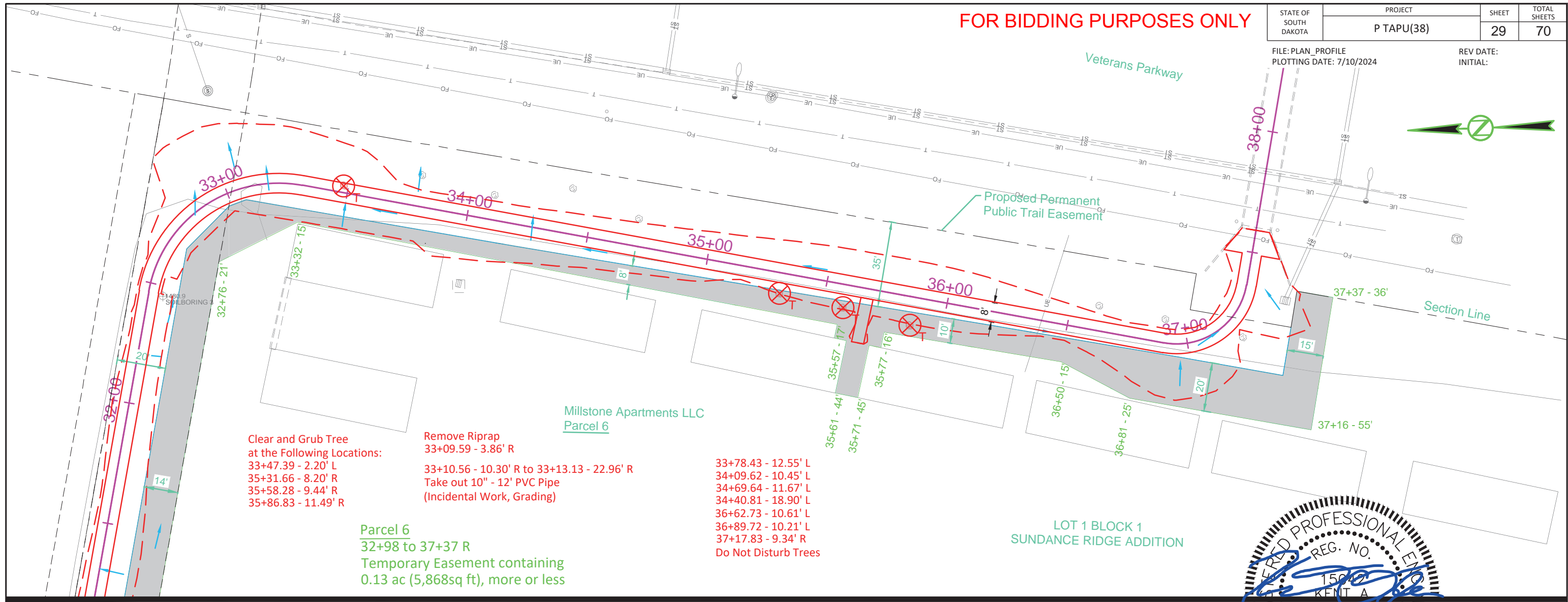


FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P TAPU(38)	SHEET 29	TOTAL SHEETS 70
-----------------------	-----------------------	-------------	--------------------

FILE: PLAN_PROFILE
PLOT DATE: 7/10/2024

REV DATE:
INITIAL:



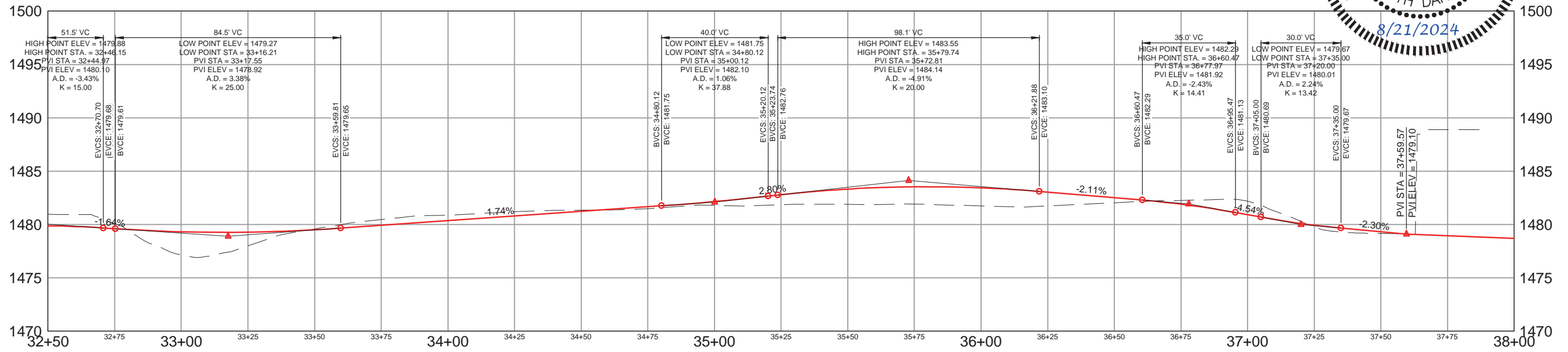
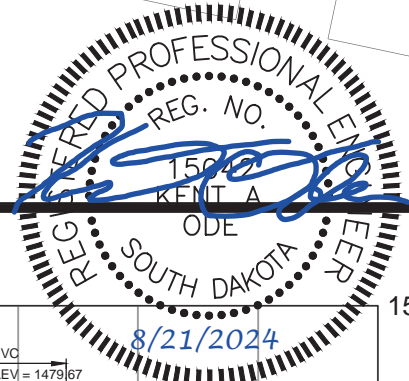
Clear and Grub Tree
at the Following Locations:
33+47.39 - 2.20' L
35+31.66 - 8.20' R
35+58.28 - 9.44' R
35+86.83 - 11.49' R

Remove Riprap
33+09.59 - 3.86' R
33+10.56 - 10.30' R to 33+13.13 - 22.96' R
Take out 10" - 12' PVC Pipe
(Incidental Work, Grading)

33+78.43 - 12.55' L
34+09.62 - 10.45' L
34+69.64 - 11.67' L
34+40.81 - 18.90' L
36+62.73 - 10.61' L
36+89.72 - 10.21' L
37+17.83 - 9.34' R
Do Not Disturb Trees

Parcel 6
32+98 to 37+37 R
Temporary Easement containing
0.13 ac (5,868sq ft), more or less

LOT 1 BLOCK 1
SUNDANCE RIDGE ADDITION



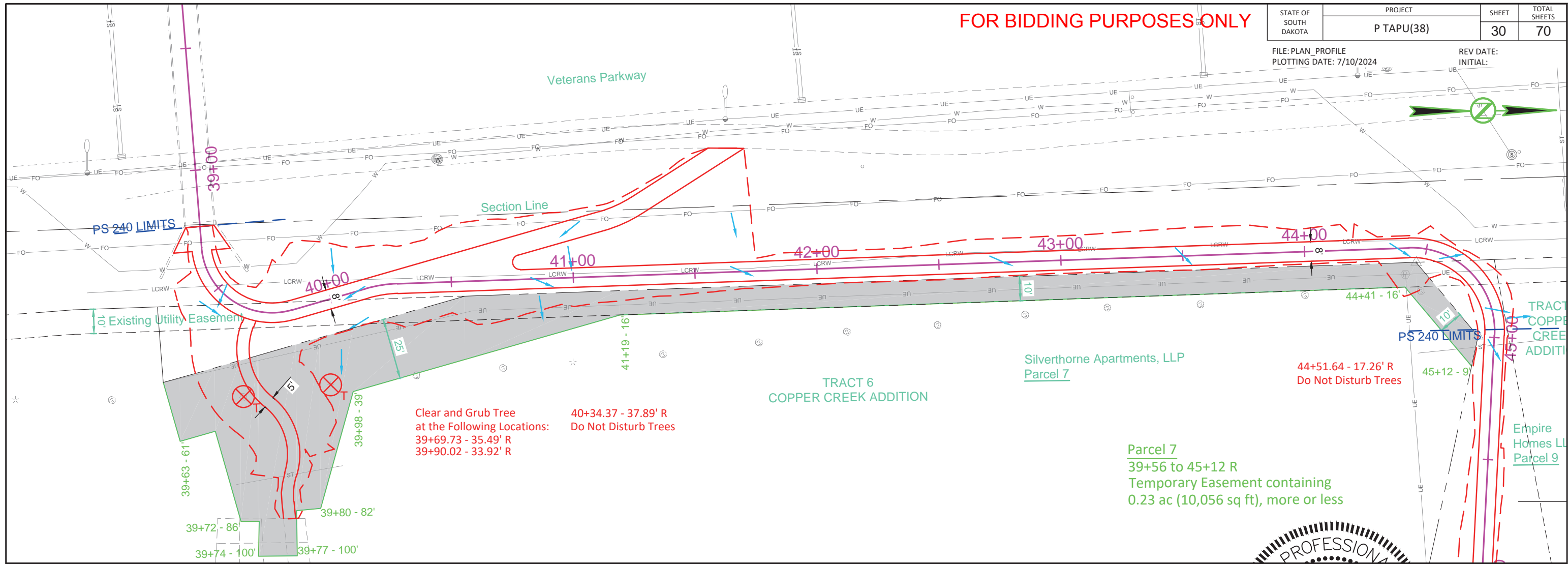
C:\work\central\10261051\Plan_Profile.dwg
PLOT DATE: 7/10/2024 11:16 AM Ode, Kent



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P TAPU(38)	SHEET 30	TOTAL SHEETS 70
-----------------------	-----------------------	-------------	--------------------

FILE: PLAN_PROFILE
 PLOTTING DATE: 7/10/2024
 REV DATE: INITIAL:

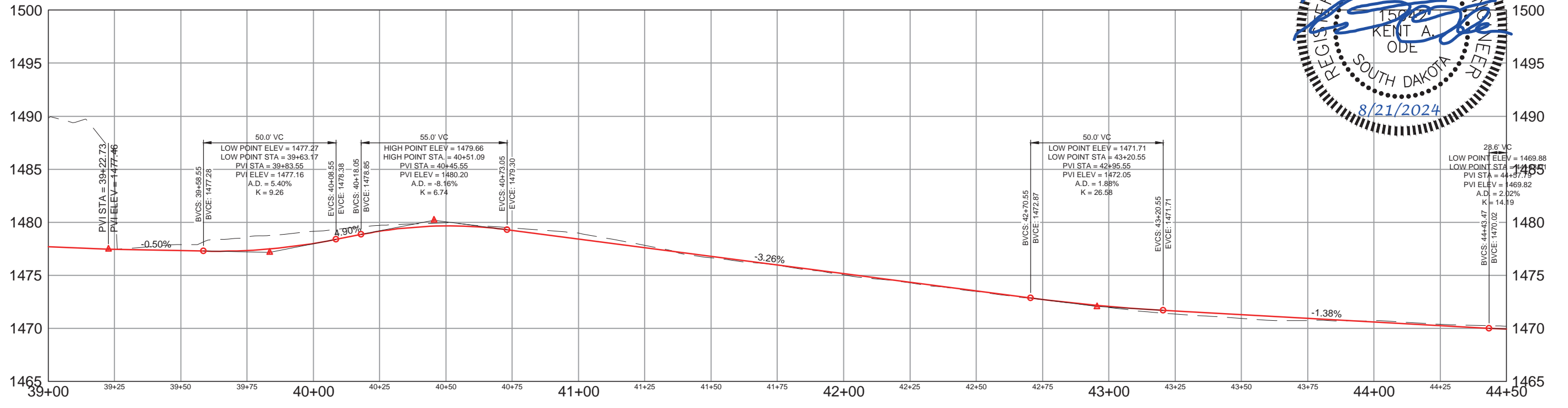
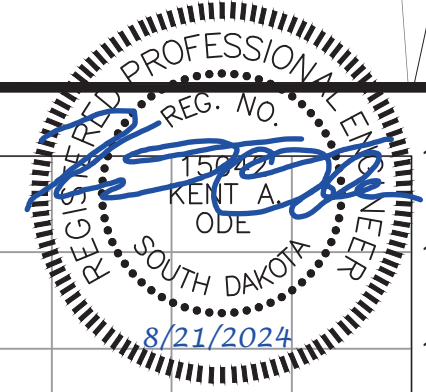


Clear and Grub Tree at the Following Locations:
 39+69.73 - 35.49' R
 39+90.02 - 33.92' R

40+34.37 - 37.89' R
 Do Not Disturb Trees

Parcel 7
 39+56 to 45+12 R
 Temporary Easement containing
 0.23 ac (10,056 sq ft), more or less

44+51.64 - 17.26' R
 Do Not Disturb Trees



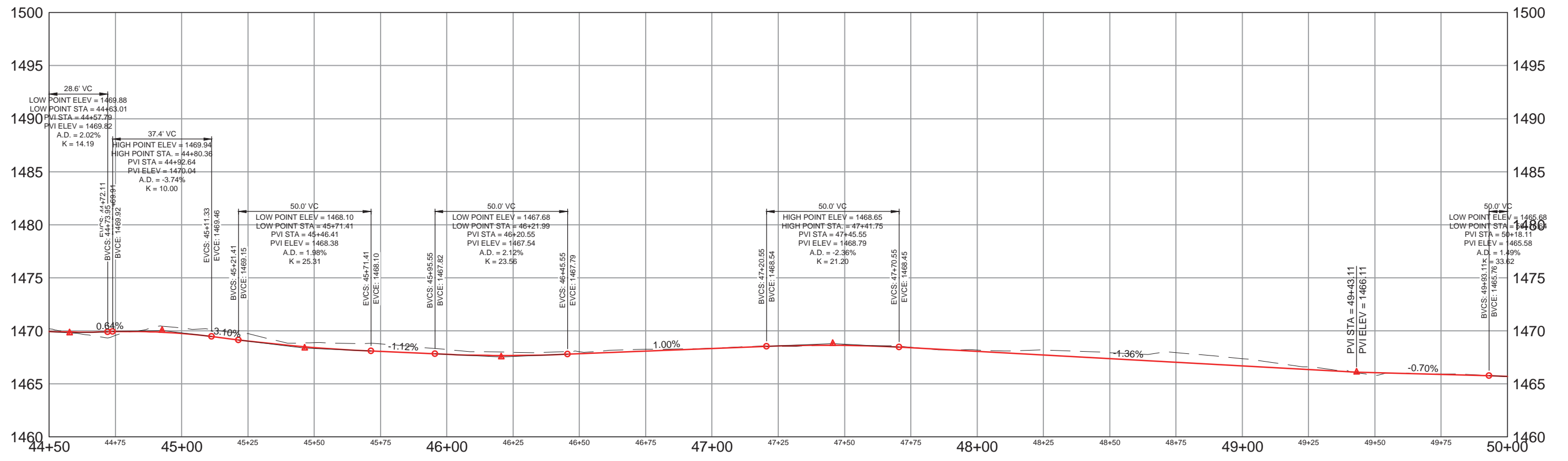
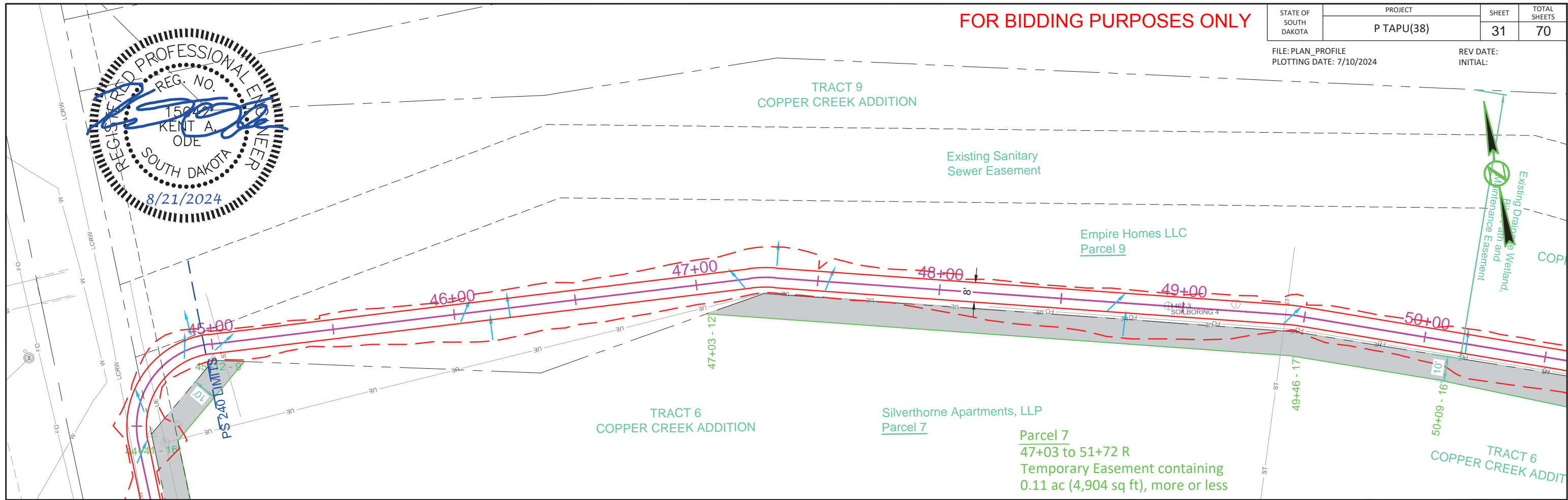
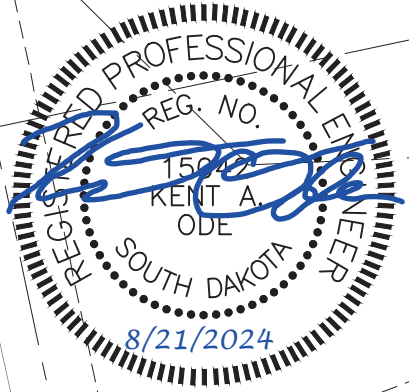
C:\working\external\1\32020519\Plan_Profile.dwg
 PLOT DATE: 7/10/2024 11:28 AM Ode, Kent



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	31	70

FILE: PLAN_PROFILE
 PLOTTING DATE: 7/10/2024
 REV DATE: INITIAL:



C:\work\p\central\10261051\Plan_Profile.dwg
 PLOT DATE: 7/10/2024 11:16 AM Ode, Kent



FOR BIDDING PURPOSES ONLY

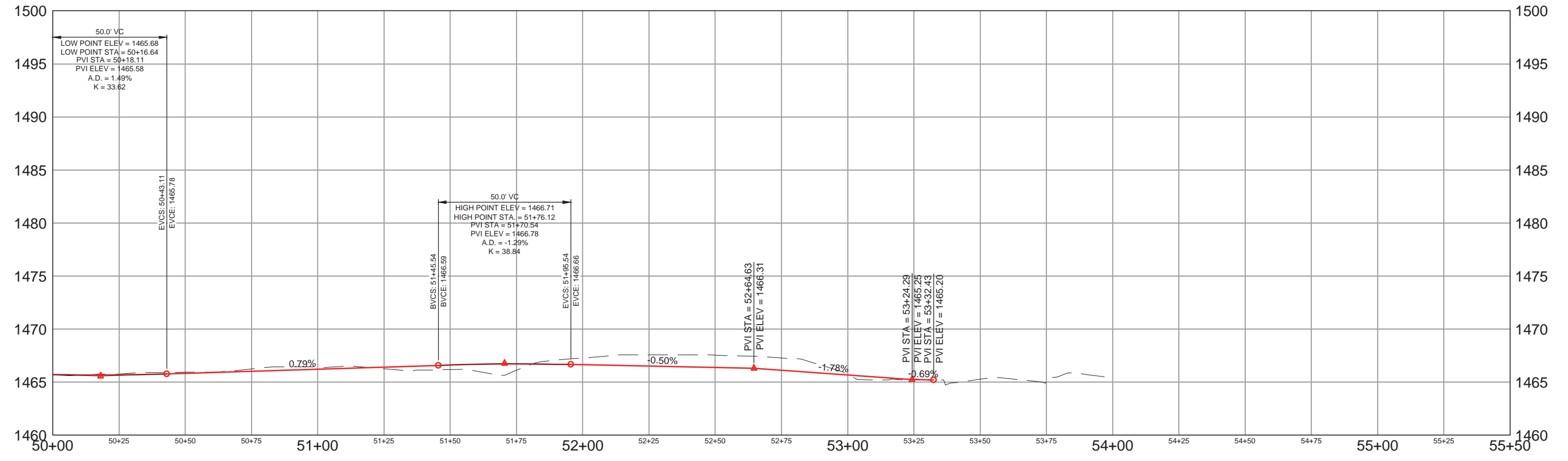
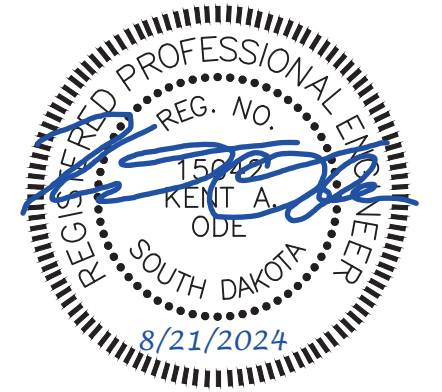
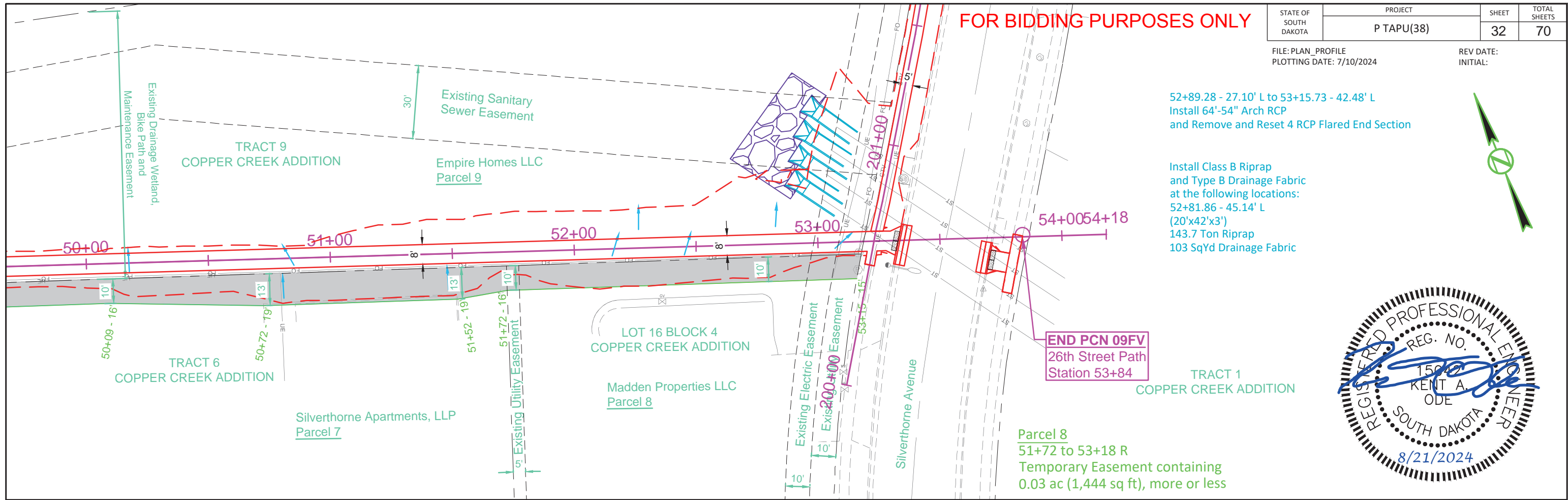
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	32	70

FILE: PLAN_PROFILE
PLOT DATE: 7/10/2024

REV DATE: INITIAL:

52+89.28 - 27.10' L to 53+15.73 - 42.48' L
Install 64'-54" Arch RCP
and Remove and Reset 4 RCP Flared End Section

Install Class B Riprap
and Type B Drainage Fabric
at the following locations:
52+81.86 - 45.14' L
(20'x42'x3')
143.7 Ton Riprap
103 SqYd Drainage Fabric



C:\work\plan\10261051\Plan_Profile.dwg
PLOT DATE: 7/10/2024 11:16 AM Ode, Kent

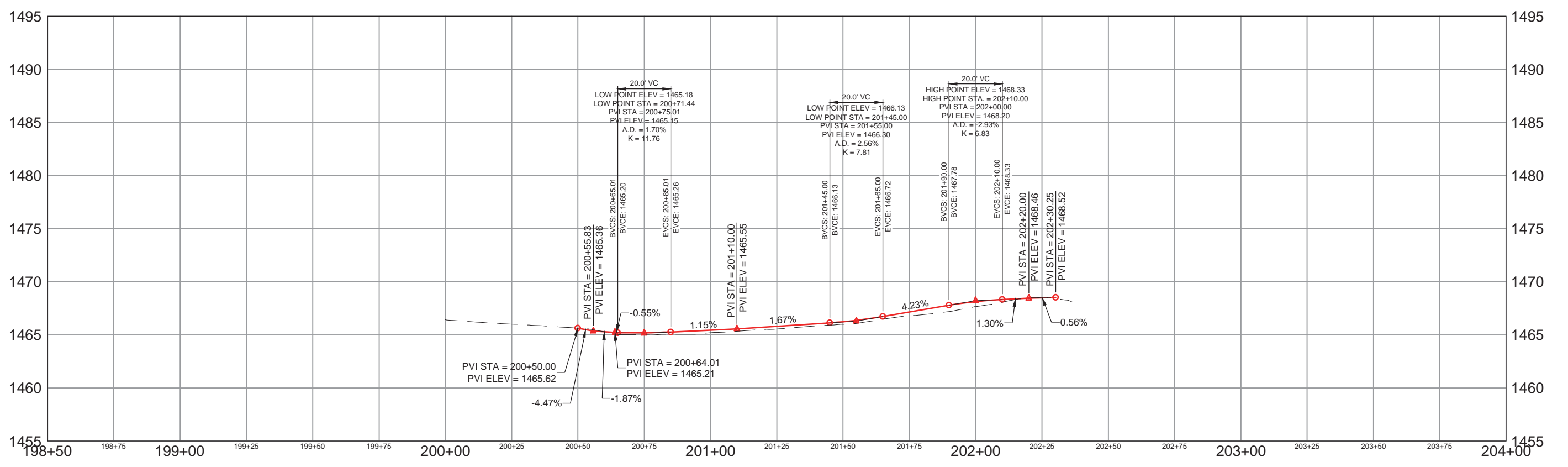
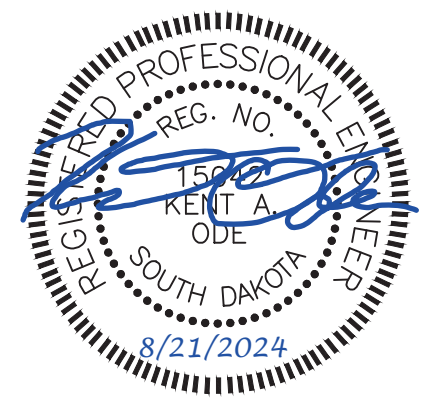
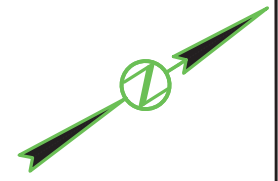
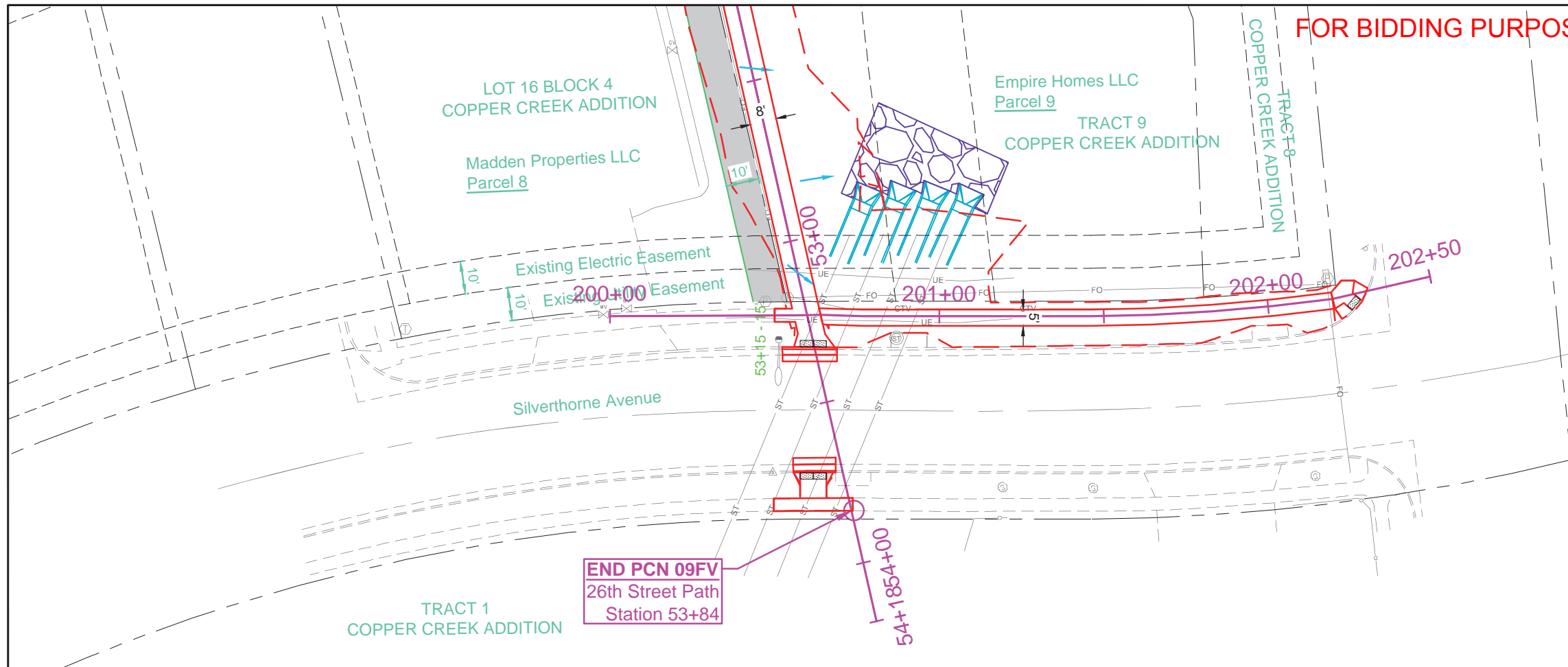


FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	33	70

FILE: PLAN_PROFILE
PLOT DATE: 7/10/2024

REV DATE: INITIAL:



C:\work\p\central\10261051\Plan_Profile.dwg
PLOT DATE: 7/10/2024 11:16 AM Ode, Kent



Pavement Removals FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	34	70

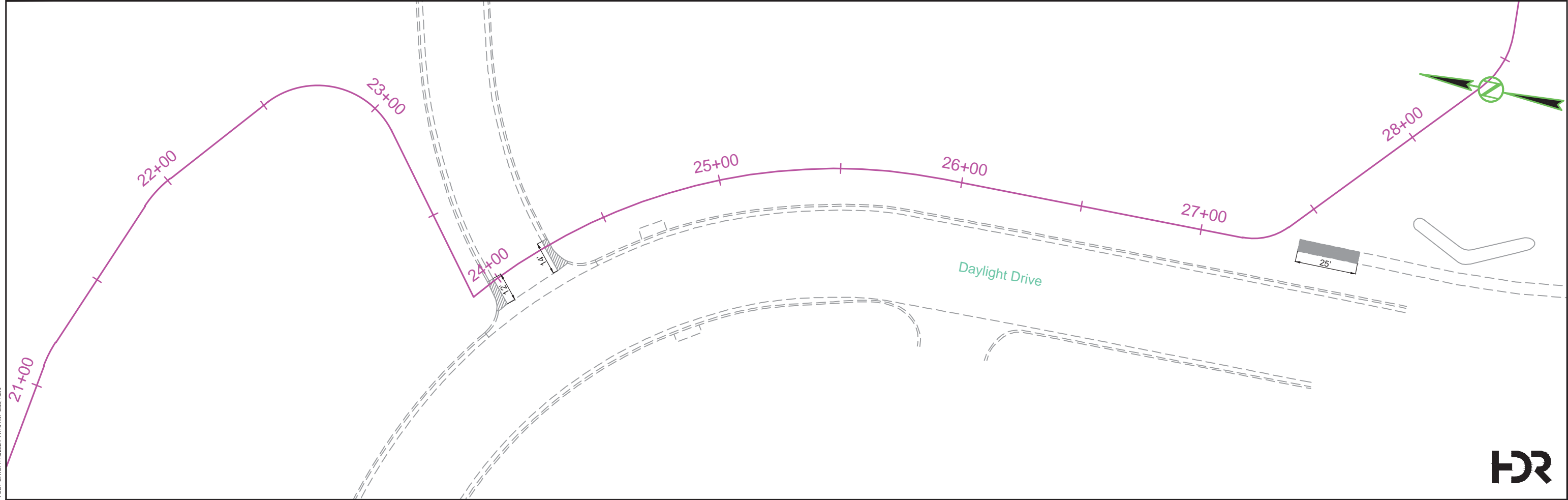
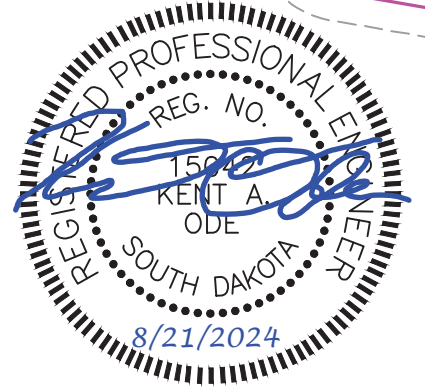
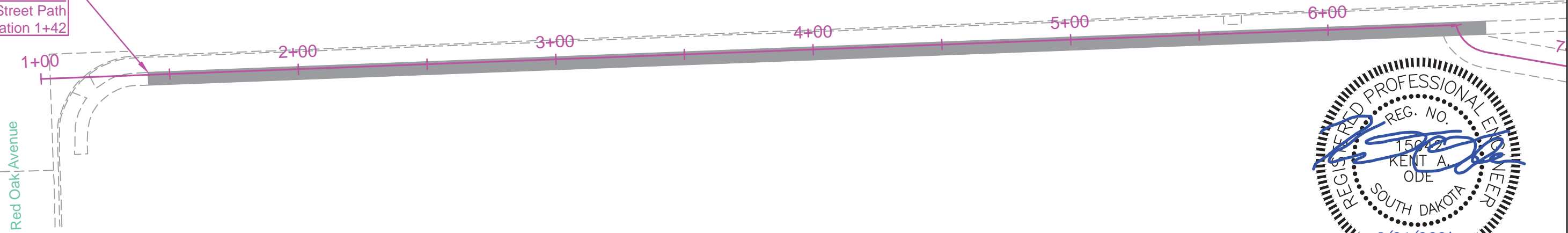
FILE: PAVEMENT REMOVALS
PLOT DATE: 7/10/2024

REV DATE:
INITIAL:



26th Street

BEGIN PCN 09FV
26th Street Path
Station 1+42



C:\work\central\142061051\Pavement Removals.dwg
PLOT DATE: 7/10/2024 11:16 AM Ode, Kent

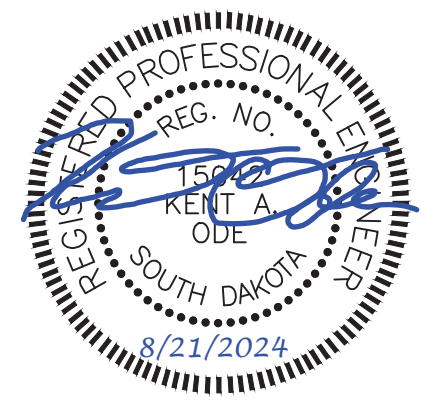
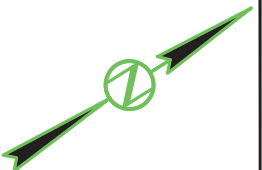
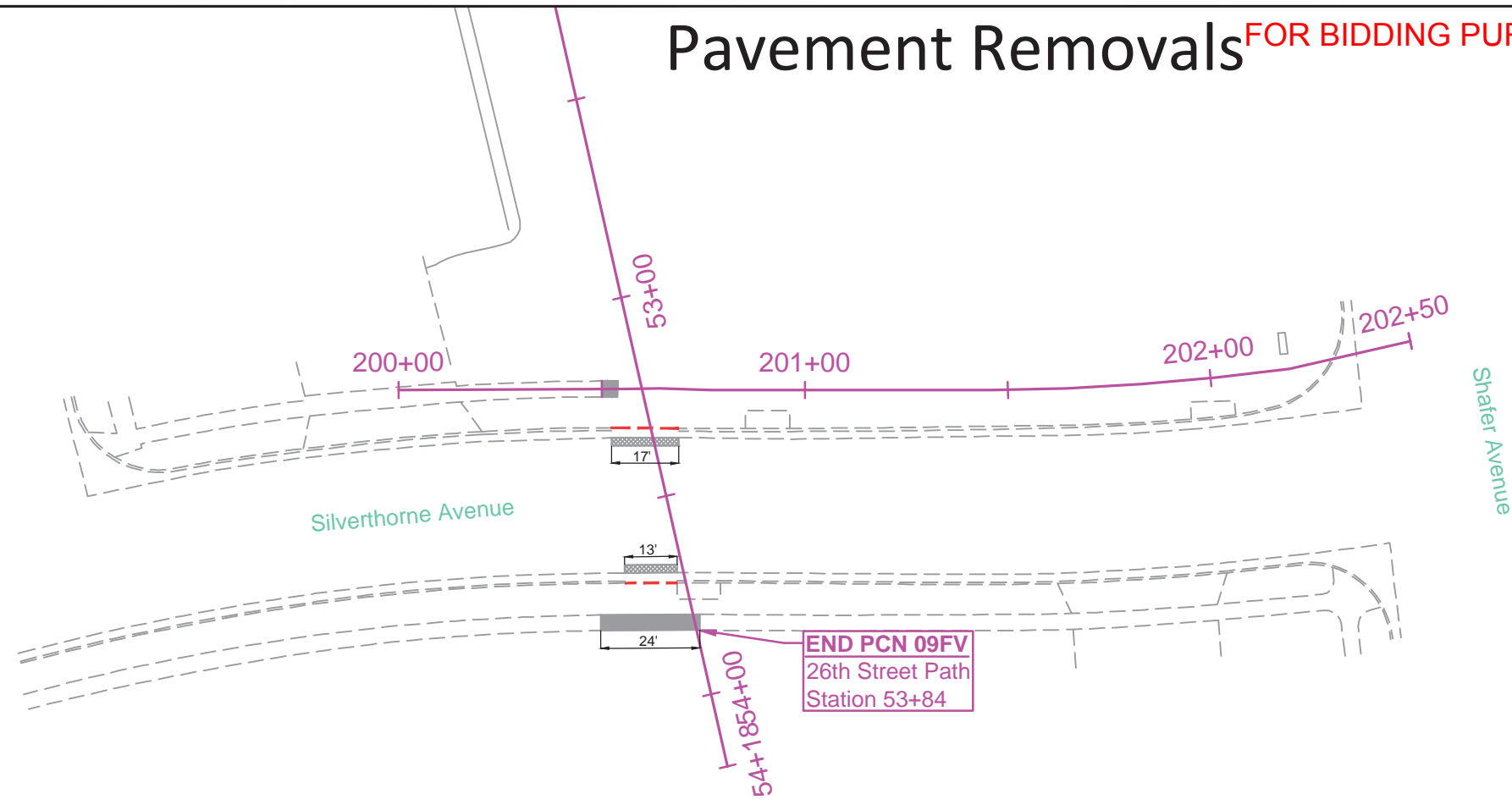


Pavement Removals FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	35	70

FILE: PAVEMENT REMOVALS
PLOT DATE: 7/10/2024

REV DATE:
INITIAL:



S. DAYLIGHT DRIVE CURB RAMP DETAILS

FOR BIDDING PURPOSES ONLY

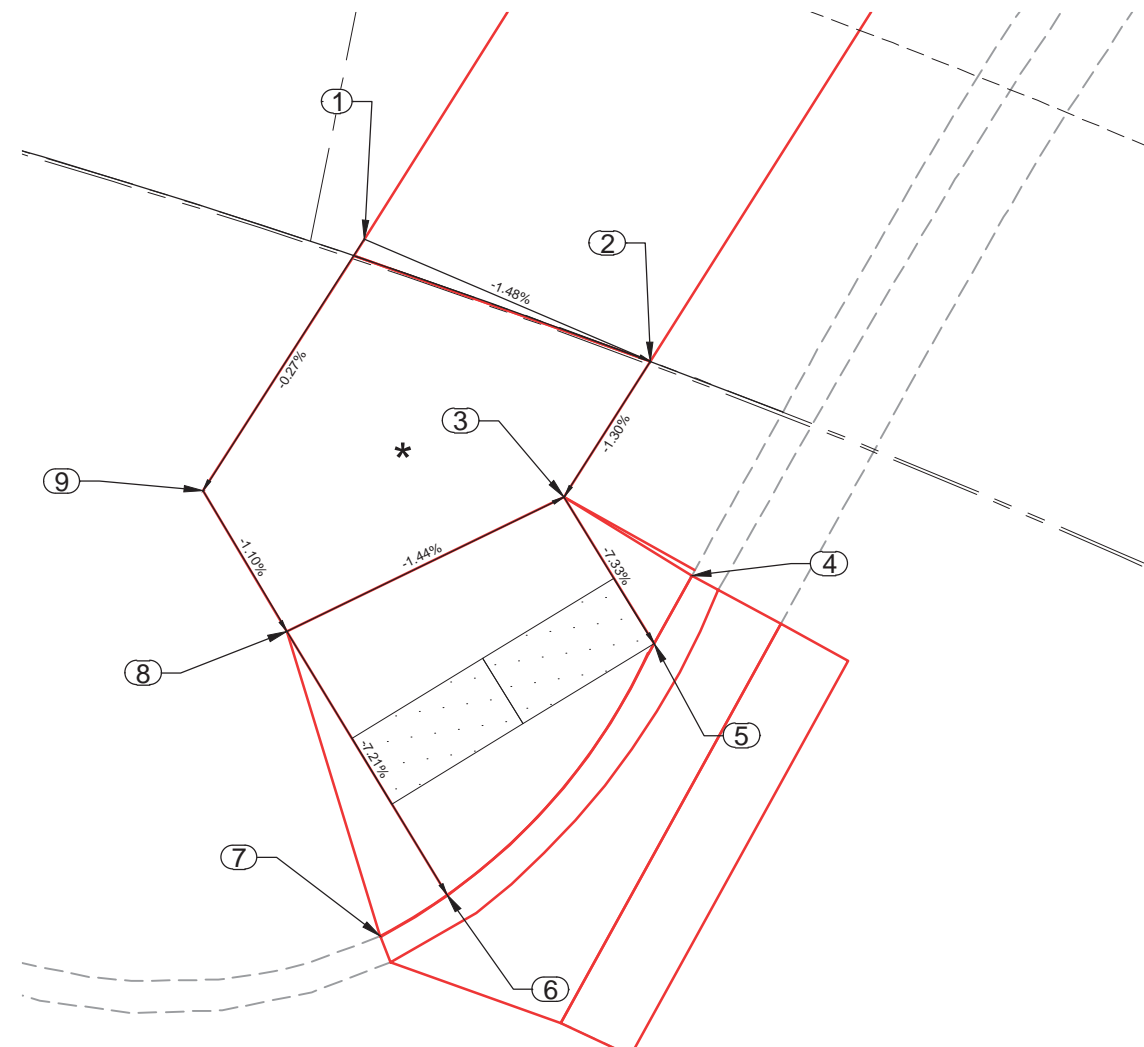
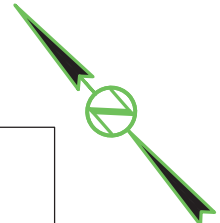
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	36	67

FILE: RAMP_GRADING
PLOT DATE: 7/10/2024

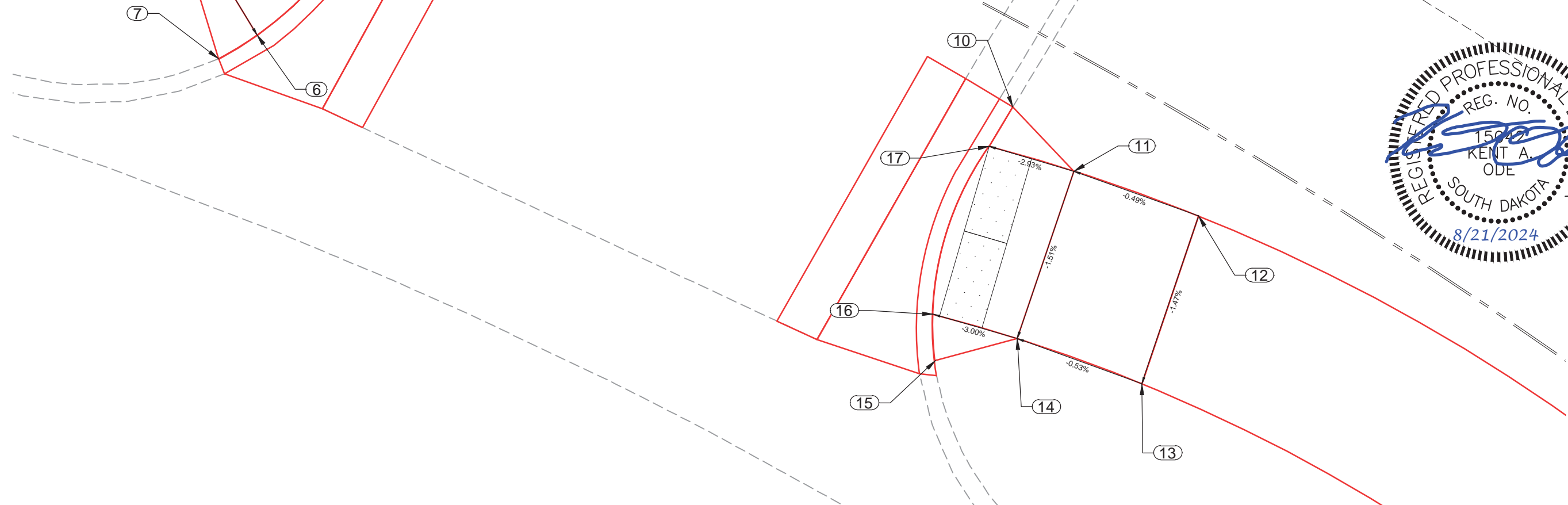
REV DATE:
INITIAL:

LEGEND

* TURNING SPACE WITH 1.5% (2% MAX.) SLOPE



① STA 23+81.51-4.00' RT TS ELEV = 1485.76	⑥ STA 23+92.60-8.77' RT END TAPER TC ELEV = 1485.11	⑫ STA 24+35.19-2.46' LT TS ELEV = 1485.17
② STA 23+80.22-4.00' LT TS ELEV = 1485.64	⑦ STA 23+91.30-10.39' RT BGN TAPER TC ELEV = 1485.55	⑬ STA 24+36.94-5.36' RT TS ELEV = 1485.05
③ STA 23+91.81-1.98' LT TS ELEV = 1485.57	⑧ STA 23+87.32-3.91' RT TS ELEV = 1485.69	⑭ STA 24+30.89-6.49' RT TS ELEV = 1485.02
④ STA 23+95.63-1.26' LT BGN TAPER TC ELEV = 1485.61	⑨ STA 23+87.32-4.51' RT TS ELEV = 1485.74	⑮ STA 24+28.08-9.17' RT BGN TAPER TC ELEV = 1485.40
⑤ STA 23+95.35-0.74' RT END TAPER TC ELEV = 1485.25	⑩ STA 24+25.54-2.56' LT BGN TAPER TC ELEV = 1485.52	⑯ STA 24+26.93-7.40' RT END TAPER TC ELEV = 1484.90
	⑪ STA 24+29.34-1.37' LT TS ELEV = 1485.14	⑰ STA 24+25.46-0.48' LT END TAPER TC ELEV = 1485.02



C:\work\central\10261051\Bamp_Gradg.dwg
PLOT DATE: 7/10/2024 11:16 AM Ode, Kent



S. SILVERTHORNE AVENUE CURB RAMP DETAILS

FOR BIDDING PURPOSES ONLY

LEGEND

* TURNING SPACE WITH 1.5% (2% MAX.) SLOPE



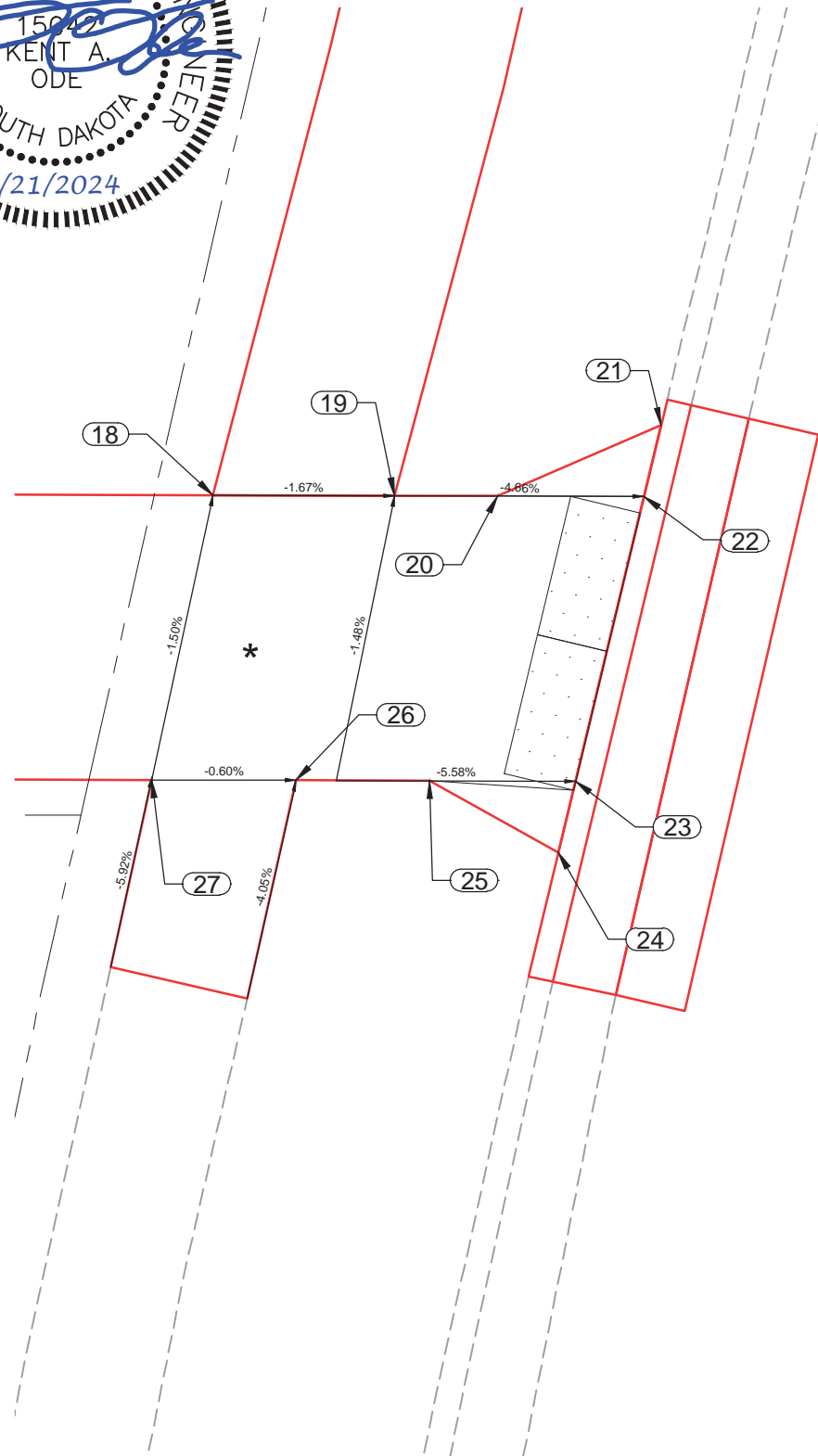
STATE OF SOUTH DAKOTA	PROJECT P TAPU(38)	SHEET 37	TOTAL SHEETS 67
-----------------------	-----------------------	-------------	--------------------

FILE: RAMP_GRADING
PLOT DATE: 7/10/2024

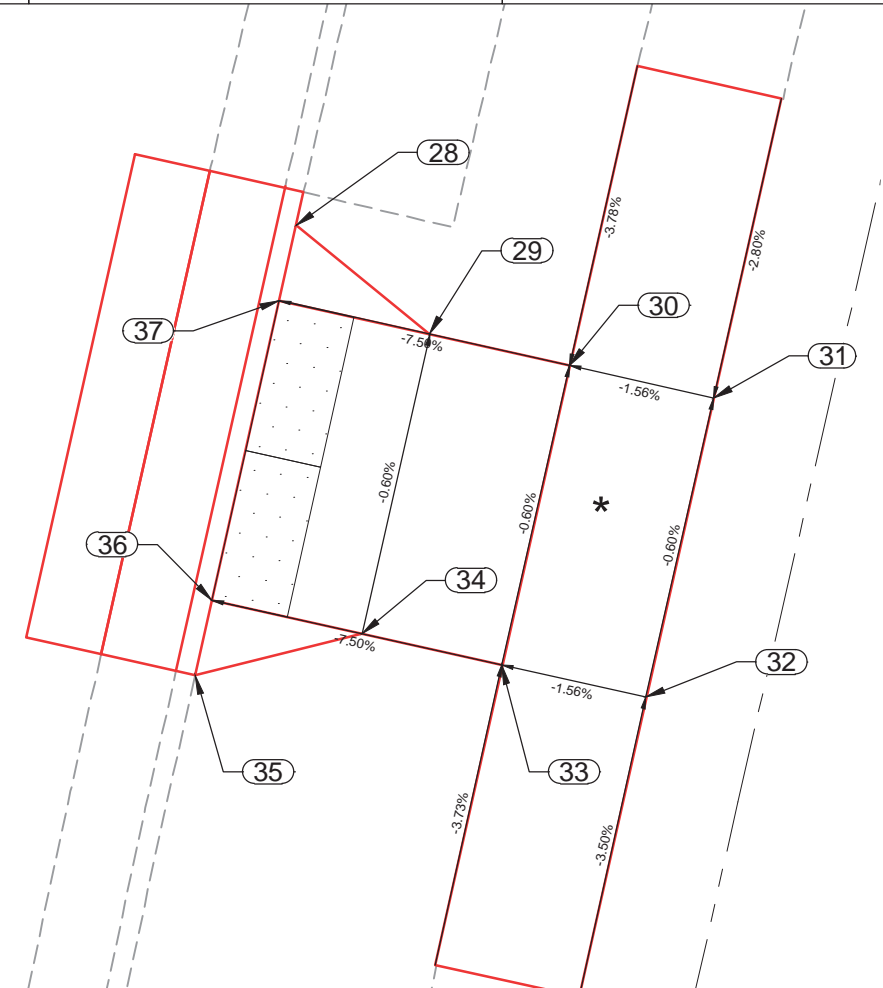
REV DATE:
INITIAL:



(18) STA 53+21.74-4.00' LT TS ELEV = 1465.25	(23) STA 53+31.95-4.00' RT END TAPER TC ELEV = 1464.88	(28) STA 53+71.25-2.96' RT BGN TAPER TC ELEV = 1465.42	(33) STA 53+76.64-14.39' RT TS ELEV = 1465.61
(19) STA 53+26.84-4.00' LT TS ELEV = 0.00	(24) STA 53+31.47-6.00' RT BGN TAPER TC ELEV = 1465.04	(29) STA 53+74.72-5.78' RT TS ELEV = 1465.28	(34) STA 53+73.00-13.59' RT TS ELEV = 1465.33
(20) STA 53+29.73-4.00' LT TS ELEV = 1465.00	(25) STA 53+27.84-4.00' RT TS ELEV = 1465.12	(30) STA 53+78.38-6.59' RT TS ELEV = 1465.56	(35) STA 53+68.66-14.68' RT BGN TAPER TC ELEV = 1465.49
(21) STA 53+34.32-6.00' LT BGN TAPER TC ELEV = 1465.07	(26) STA 53+24.10-4.00' RT TS ELEV = 1465.34	(31) STA 53+82.14-7.42' RT TS ELEV = 1465.62	(36) STA 53+69.10-12.73' RT END TAPER TC ELEV = 1465.03
(22) STA 53+33.84-4.00' LT END TAPER TC ELEV = 1464.81	(27) STA 53+20.04-4.00' RT TS ELEV = 1465.41	(32) STA 53+80.40-15.21' RT TS ELEV = 1465.67	(37) STA 53+70.82-4.92' RT END TAPER TC ELEV = 1464.98



Silverthorne Avenue



S. SILVERTHORNE AVENUE CURB RAMP DETAIL

FOR BIDDING PURPOSES ONLY

LEGEND

* TURNING SPACE WITH 1.5% (2% MAX.) SLOPE

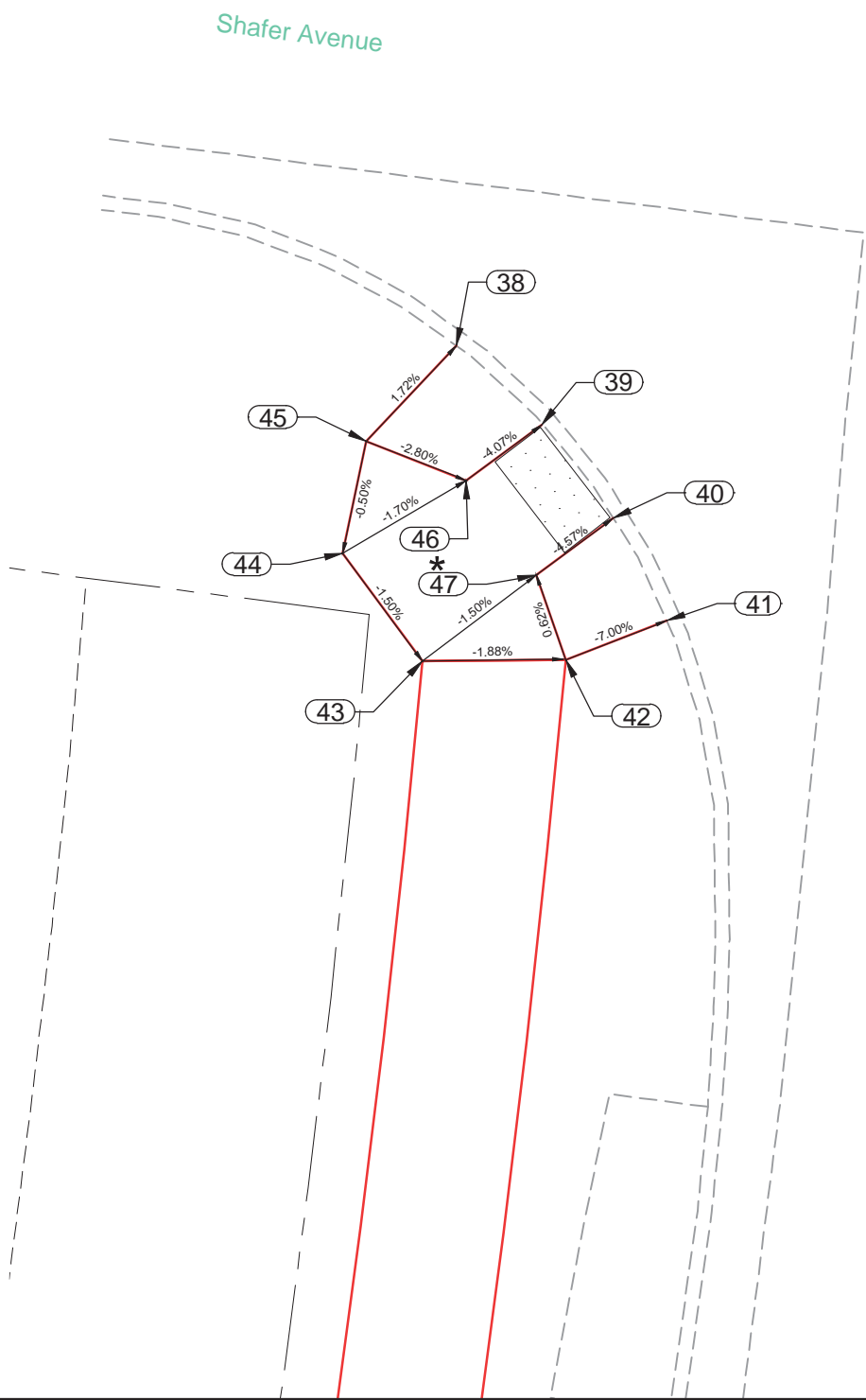
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	38	67

FILE: RAMP_GRADING
PLOT DATE: 7/10/2024

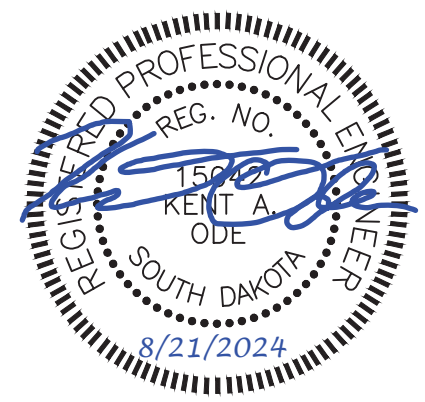
REV DATE:
INITIAL:



38 STA 53+52.61-167.74' LT BGN TAPER TC ELEV = 1468.59	43 STA 53+51.45-156.68' LT TS ELEV = 1468.42
39 STA 53+55.61-164.99' LT END TAPER TC ELEV = 1468.27	44 STA 53+48.64-160.46' LT TS ELEV = 1468.49
40 STA 53+58.13-161.72' LT BGN TAPER TC ELEV = 1468.19	45 STA 53+49.46-164.39' LT TS ELEV = 1468.51
41 STA 53+60.01-158.14' LT END TAPER TC ELEV = 1468.06	46 STA 53+52.97-163.02' LT TS ELEV = 1468.40
42 STA 53+56.48-156.76' LT TS ELEV = 1468.32	47 STA 53+55.43-159.72' LT TS ELEV = 1468.34



Silverthorne Avenue

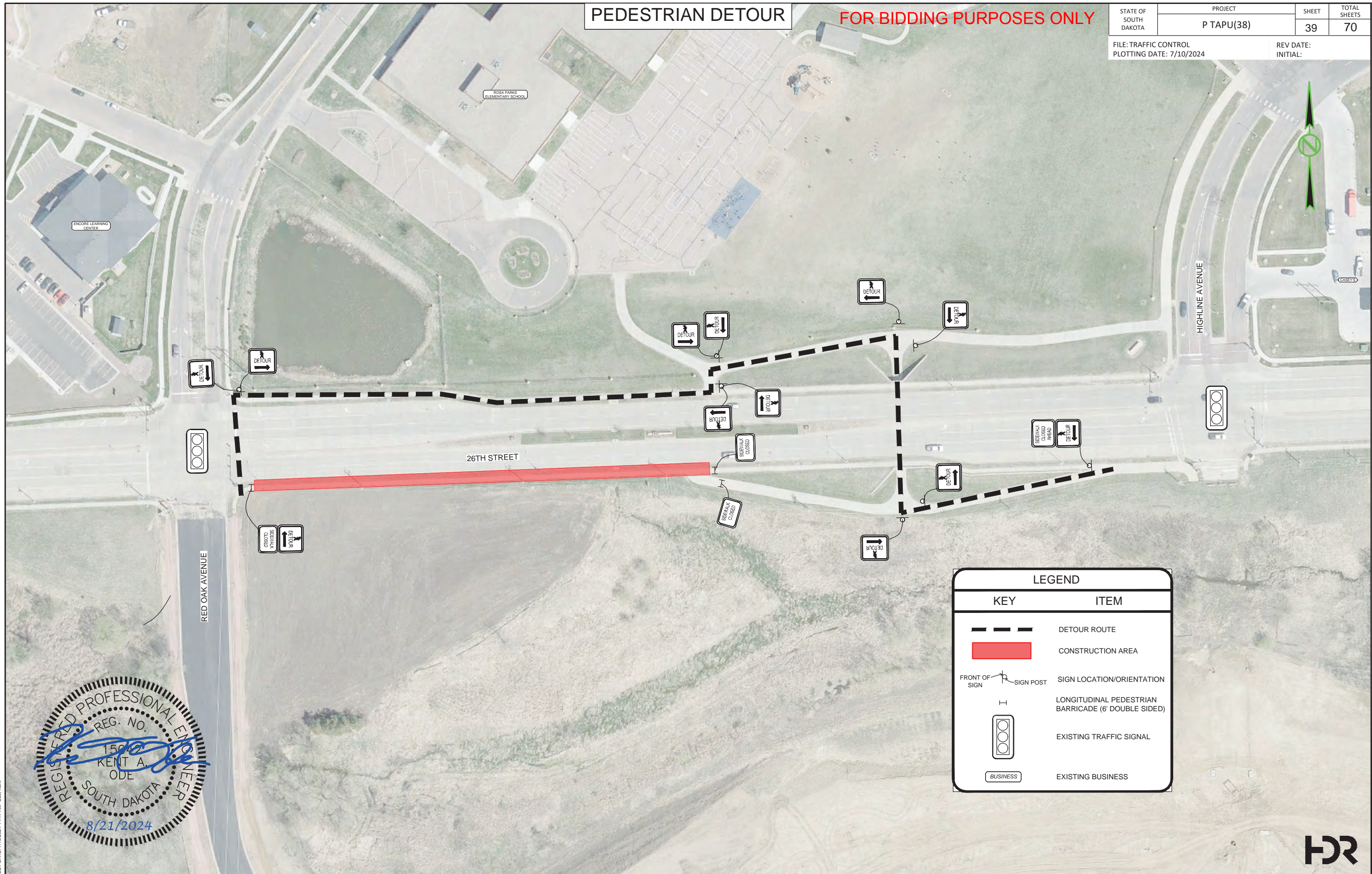


PEDESTRIAN DETOUR

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	39	70

FILE: TRAFFIC CONTROL
PLOT DATE: 7/10/2024
REV DATE: INITIAL:



LEGEND	
KEY	ITEM
	DETOUR ROUTE
	CONSTRUCTION AREA
	FRONT OF SIGN
	SIGN POST
	LONGITUDINAL PEDESTRIAN BARRICADE (6' DOUBLE SIDED)
	EXISTING TRAFFIC SIGNAL
	EXISTING BUSINESS

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15012
KENT A. ODE
SOUTH DAKOTA
8/21/2024

C:\work\p\central\15012\15012\Traffic Control.dwg
PLOT DATE: 7/10/2024 11:17 AM Ode, Kent

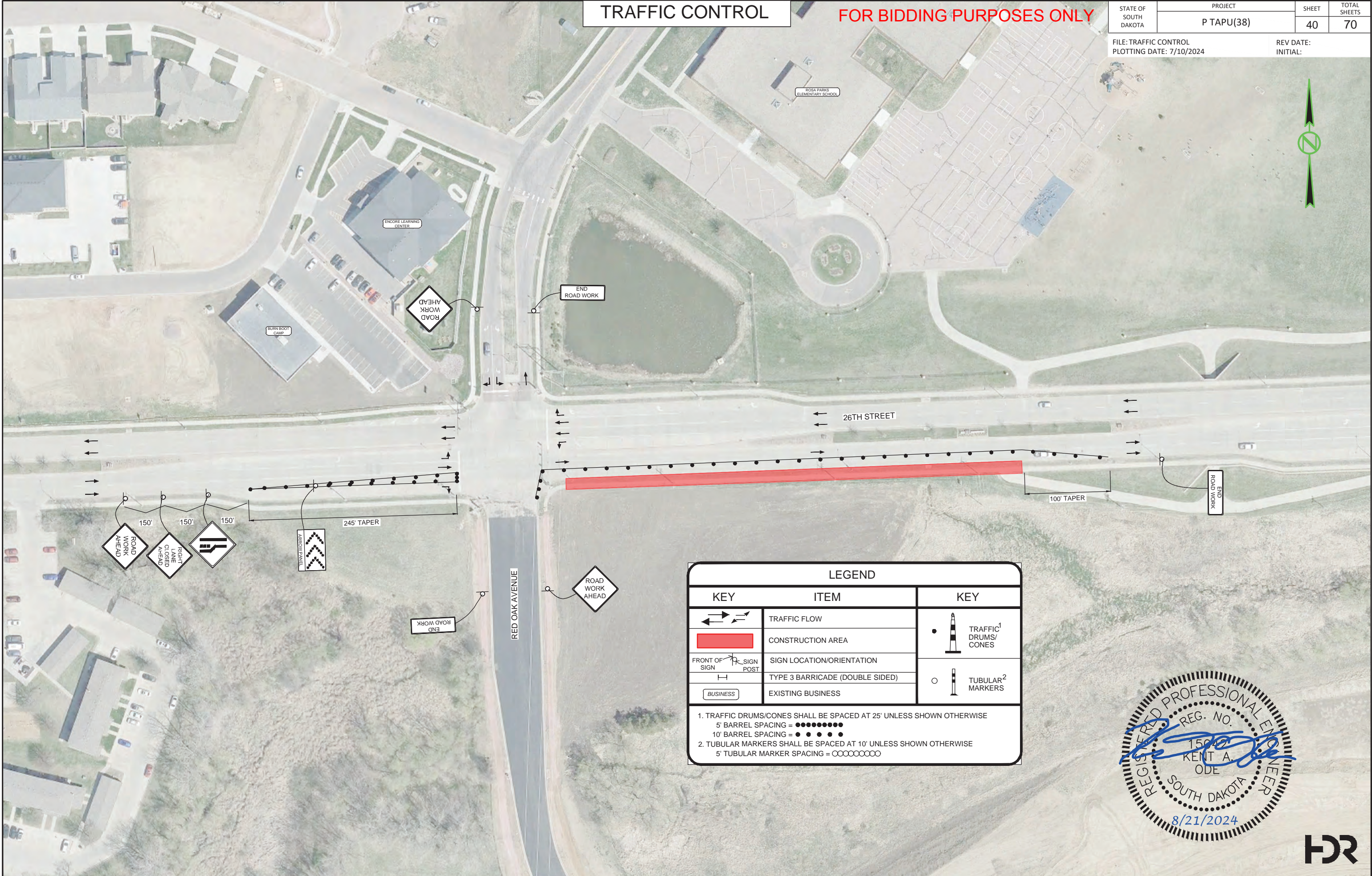


TRAFFIC CONTROL

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	40	70

FILE: TRAFFIC CONTROL
 PLOTTING DATE: 7/10/2024
 REV DATE: INITIAL:



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 10' UNLESS SHOWN OTHERWISE
 5' TUBULAR MARKER SPACING = ○○○○○○○○

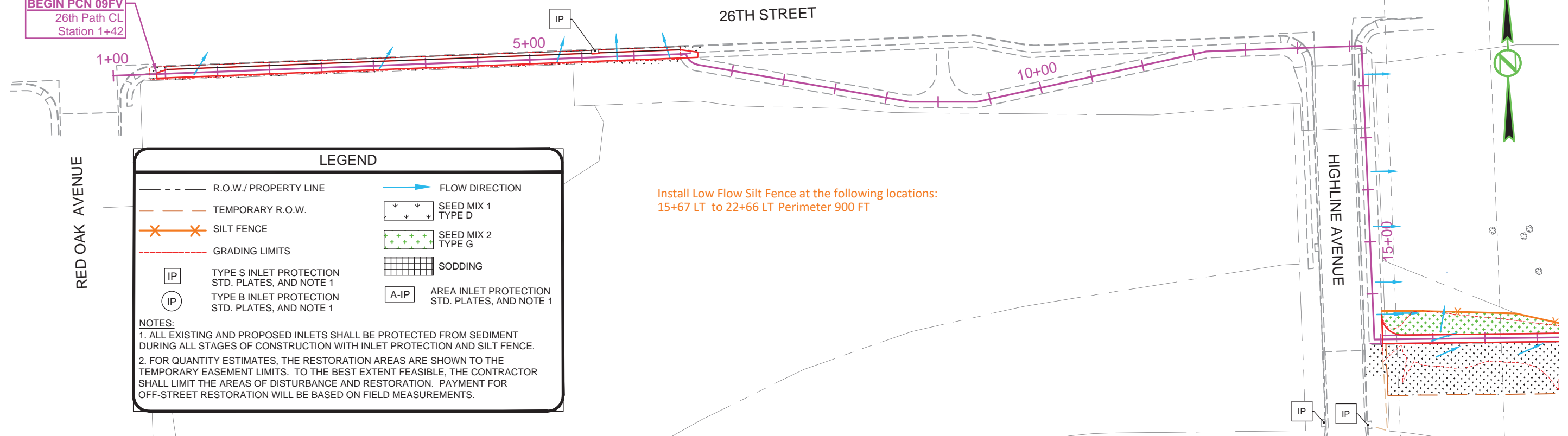


Erosion Control FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	41	70

FILE: EROSION CONTROL PLAN
 PLOTTING DATE: 7/10/2024
 REV DATE: INITIAL:

BEGIN PCN 09FV
 26th Path CL
 Station 1+42



LEGEND

R.O.W./ PROPERTY LINE	FLOW DIRECTION
TEMPORARY R.O.W.	SEED MIX 1 TYPE D
SILT FENCE	SEED MIX 2 TYPE G
GRADING LIMITS	SODDING
TYPE S INLET PROTECTION STD. PLATES, AND NOTE 1	AREA INLET PROTECTION STD. PLATES, AND NOTE 1
TYPE B INLET PROTECTION STD. PLATES, AND NOTE 1	

NOTES:

- ALL EXISTING AND PROPOSED INLETS SHALL BE PROTECTED FROM SEDIMENT DURING ALL STAGES OF CONSTRUCTION WITH INLET PROTECTION AND SILT FENCE.
- FOR QUANTITY ESTIMATES, THE RESTORATION AREAS ARE SHOWN TO THE TEMPORARY EASEMENT LIMITS. TO THE BEST EXTENT FEASIBLE, THE CONTRACTOR SHALL LIMIT THE AREAS OF DISTURBANCE AND RESTORATION. PAYMENT FOR OFF-STREET RESTORATION WILL BE BASED ON FIELD MEASUREMENTS.

Install Low Flow Silt Fence at the following locations:
 15+67 LT to 22+66 LT Perimeter 900 FT

Install Low Flow Silt Fence at the following locations:
 24+26 LT to 32+95 LT Perimeter 895 FT



Erosion Control

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	42	70

FILE: EROSION CONTROL PLAN
PLOT DATE: 7/10/2024
REV DATE: INITIAL:



LEGEND

--- R.O.W./ PROPERTY LINE	→ FLOW DIRECTION
- - - - - TEMPORARY R.O.W.	SEED MIX 1 TYPE D
✕ SILT FENCE	SEED MIX 2 TYPE G
- - - - - GRADING LIMITS	SODDING
IP TYPE S INLET PROTECTION STD. PLATES, AND NOTE 1	A-IP AREA INLET PROTECTION STD. PLATES, AND NOTE 1
IP TYPE B INLET PROTECTION STD. PLATES, AND NOTE 1	

NOTES:

- ALL EXISTING AND PROPOSED INLETS SHALL BE PROTECTED FROM SEDIMENT DURING ALL STAGES OF CONSTRUCTION WITH INLET PROTECTION AND SILT FENCE.
- FOR QUANTITY ESTIMATES, THE RESTORATION AREAS ARE SHOWN TO THE TEMPORARY EASEMENT LIMITS. TO THE BEST EXTENT FEASIBLE, THE CONTRACTOR SHALL LIMIT THE AREAS OF DISTURBANCE AND RESTORATION. PAYMENT FOR OFF-STREET RESTORATION WILL BE BASED ON FIELD MEASUREMENTS.

VETERANS PKWY

Install Low Flow Silt Fence at the following locations:
44+79 LT to 52+69 LT Perimeter 810 FT

Install Low Flow Silt Fence at the following locations:
52+82 LT Inlet End Pipe 75 Ft

S SHAFER AVENUE

S SILVERTHORNE AVE

VETERANS PKWY



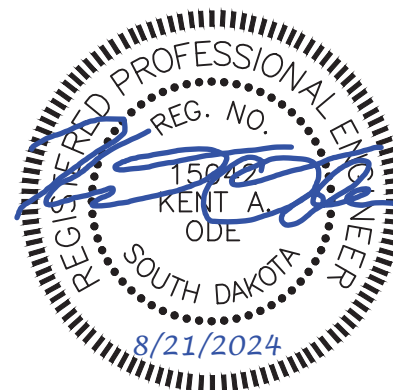
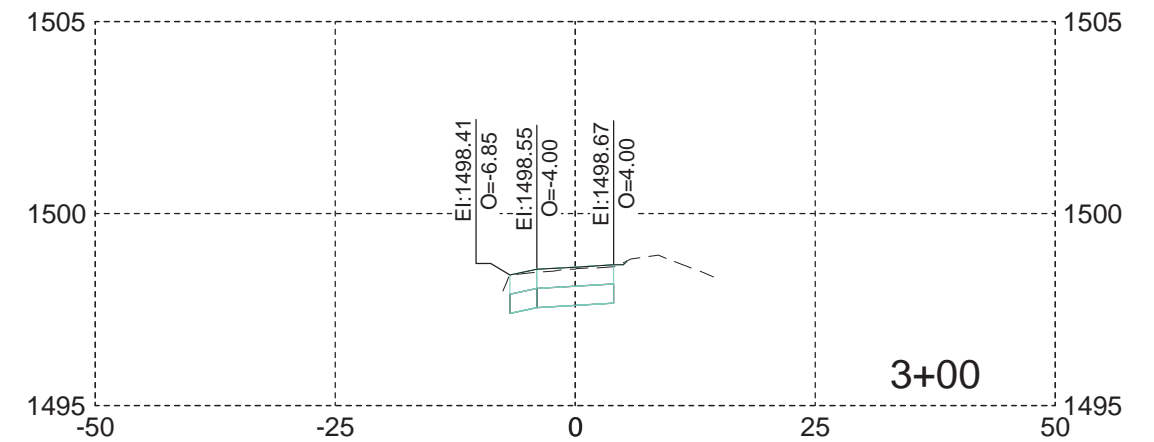
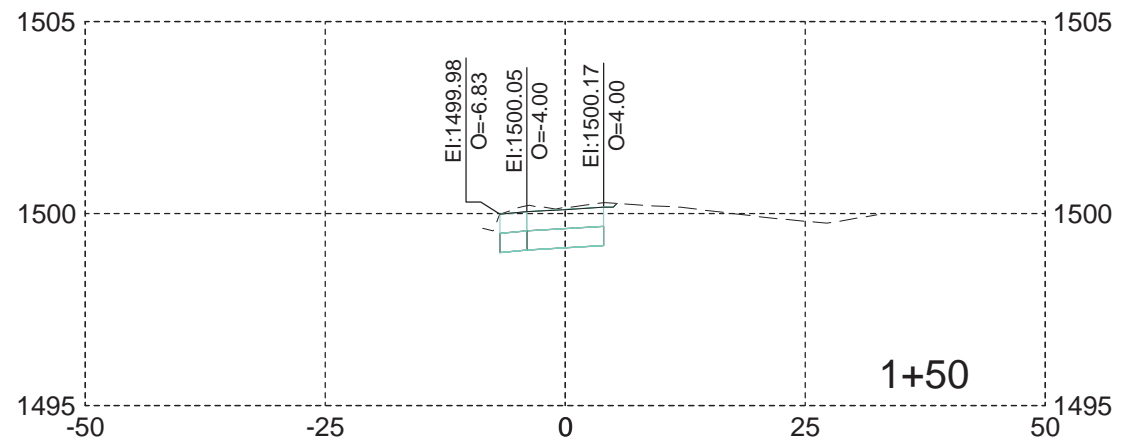
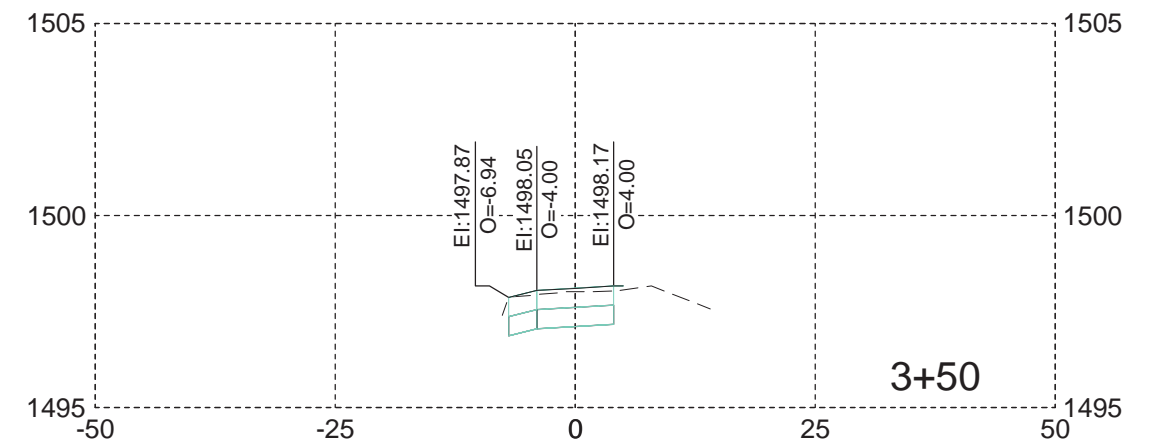
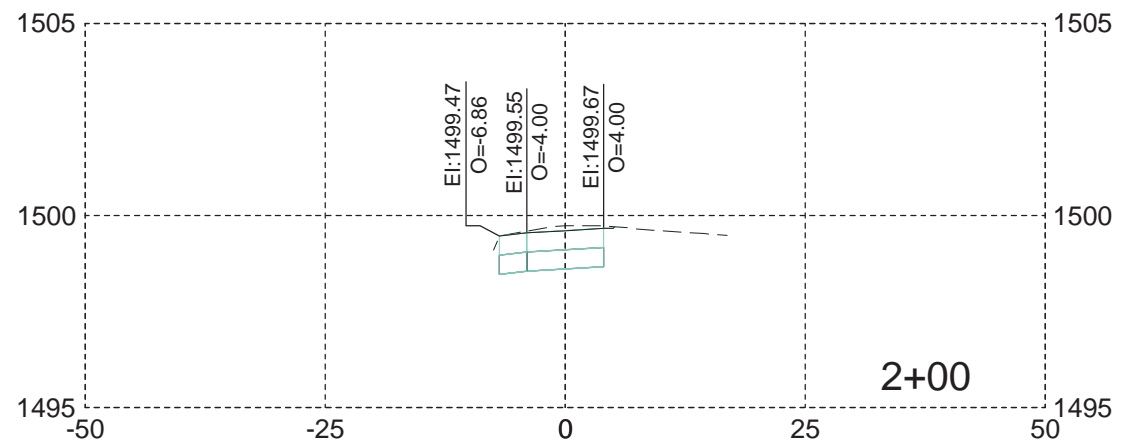
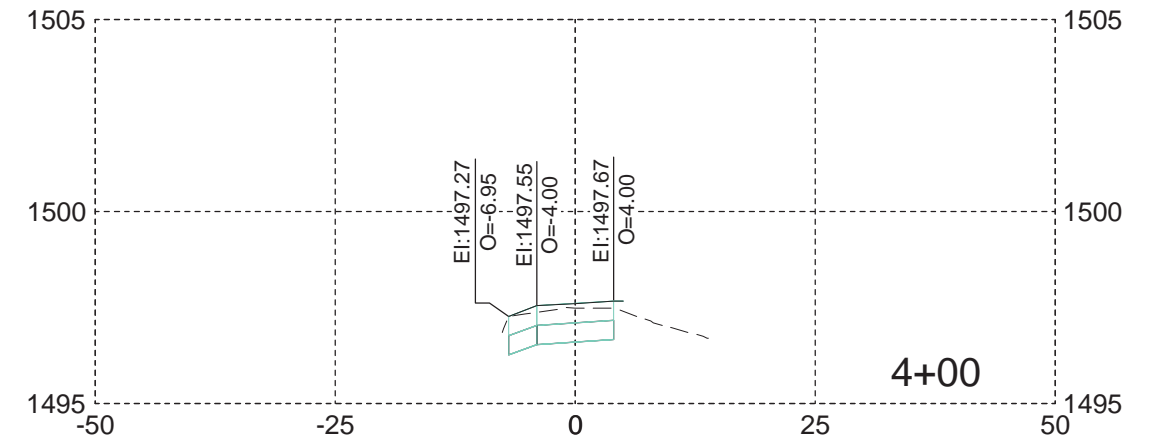
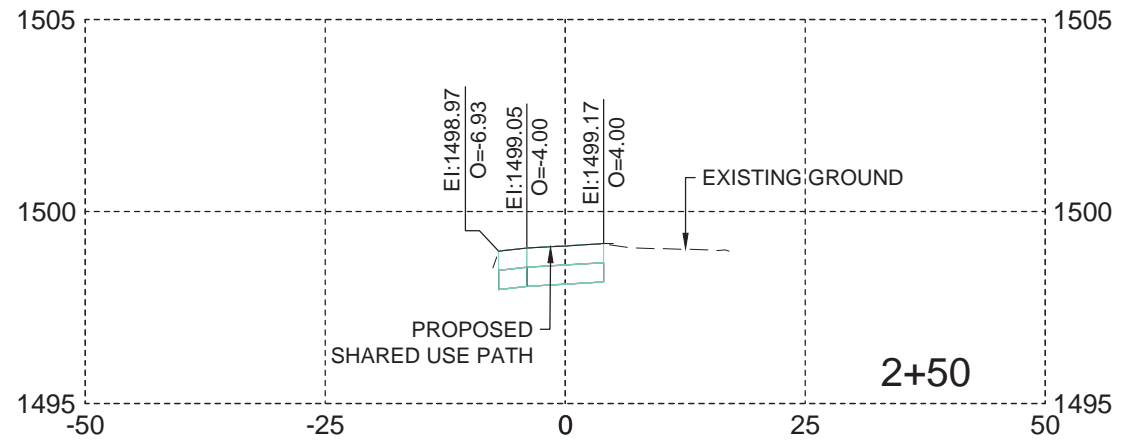
END PCN 09FV
26th Path CL
Station 53+84



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	45	70

FILE: CROSS SECTIONS - 26TH ST PATH
PLOT DATE: 7/10/2024
REV DATE:
INITIAL:



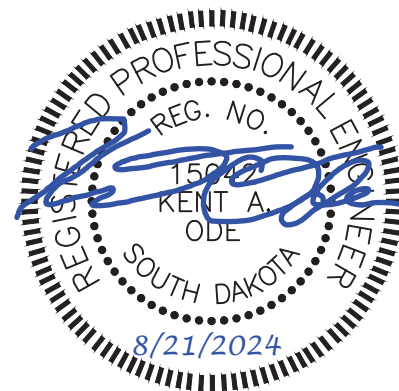
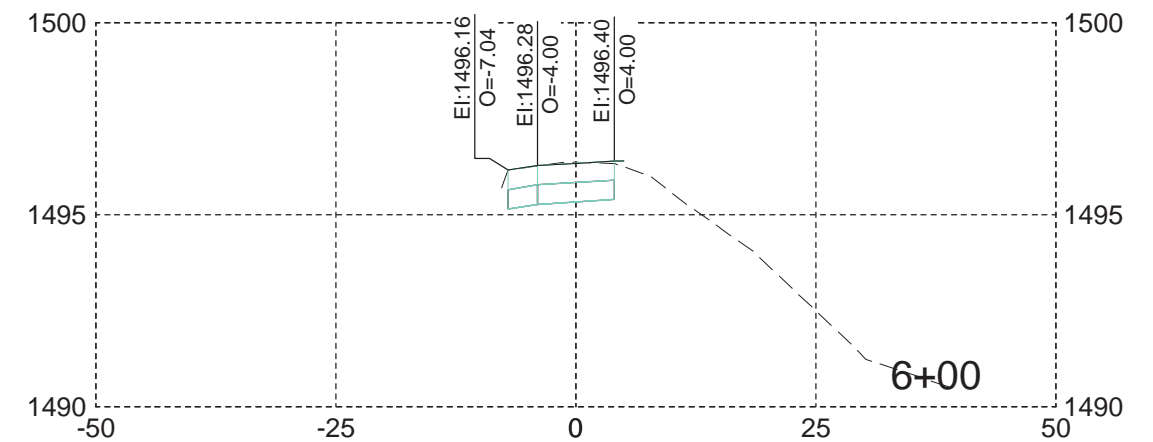
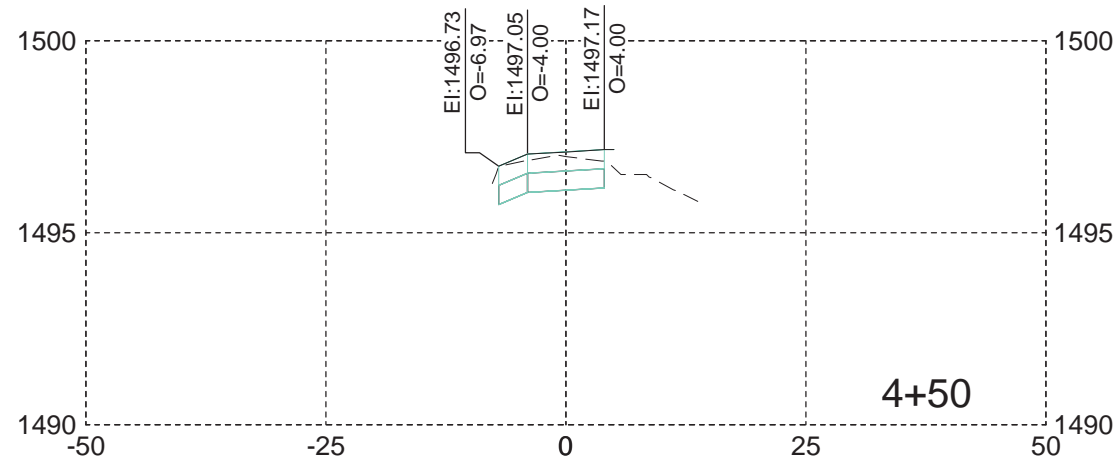
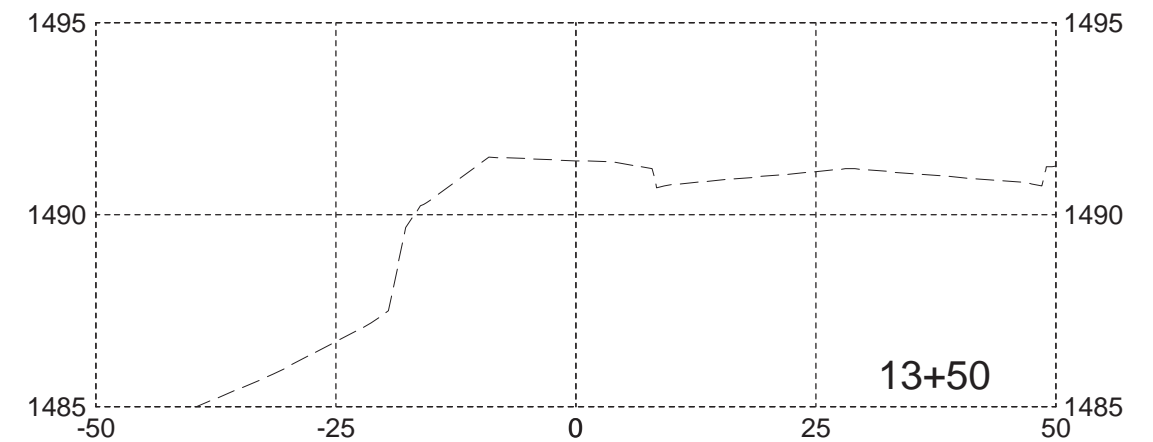
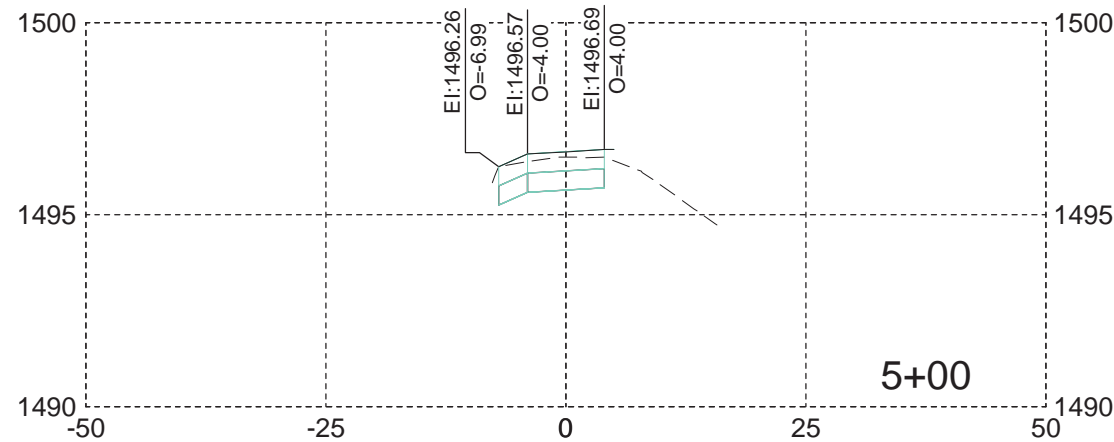
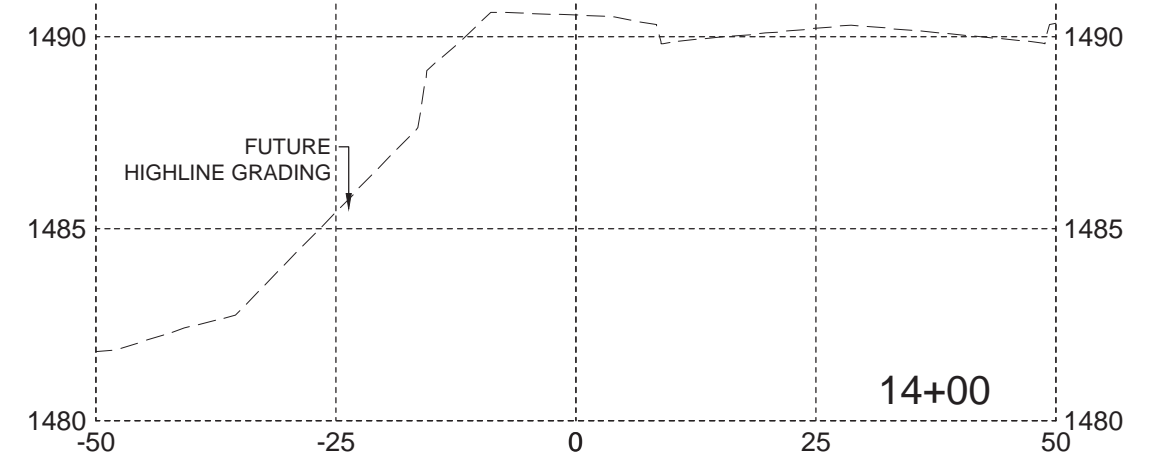
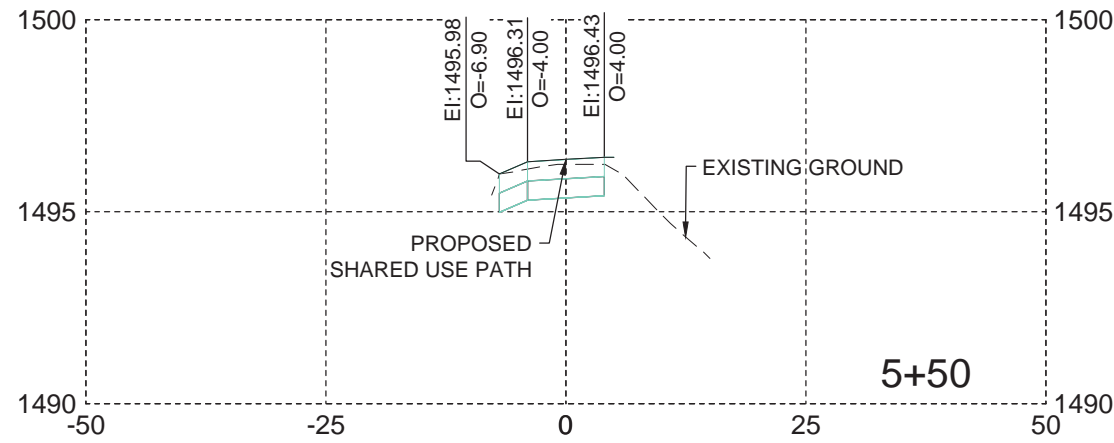
C:\work\central\10261097\Cross Sections - 26th St Path.dwg
PLOT DATE: 7/10/2024 11:17 AM Ode, Kent



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	46	70

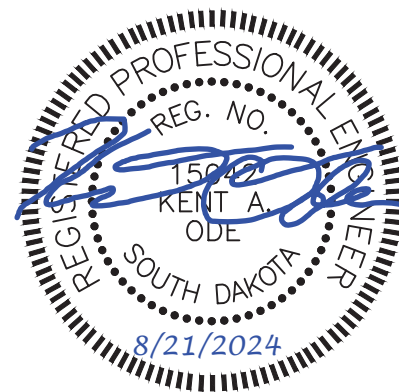
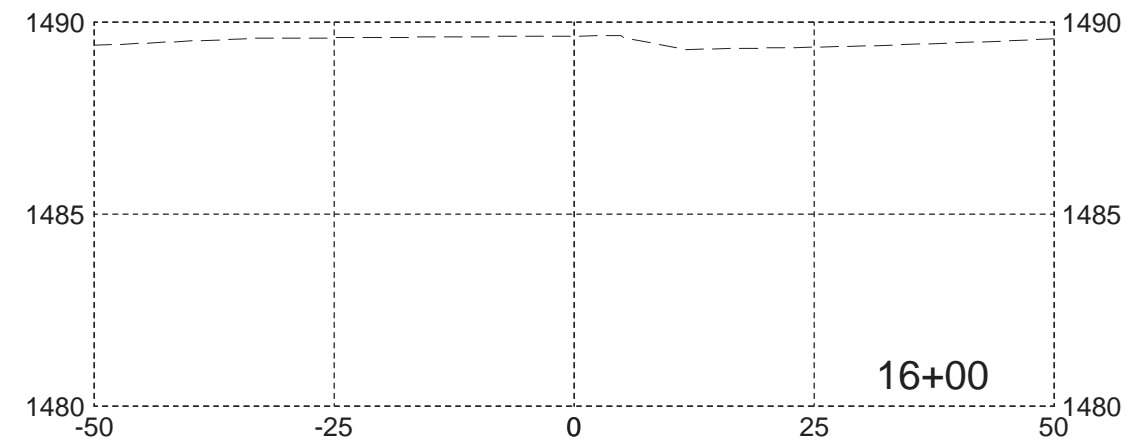
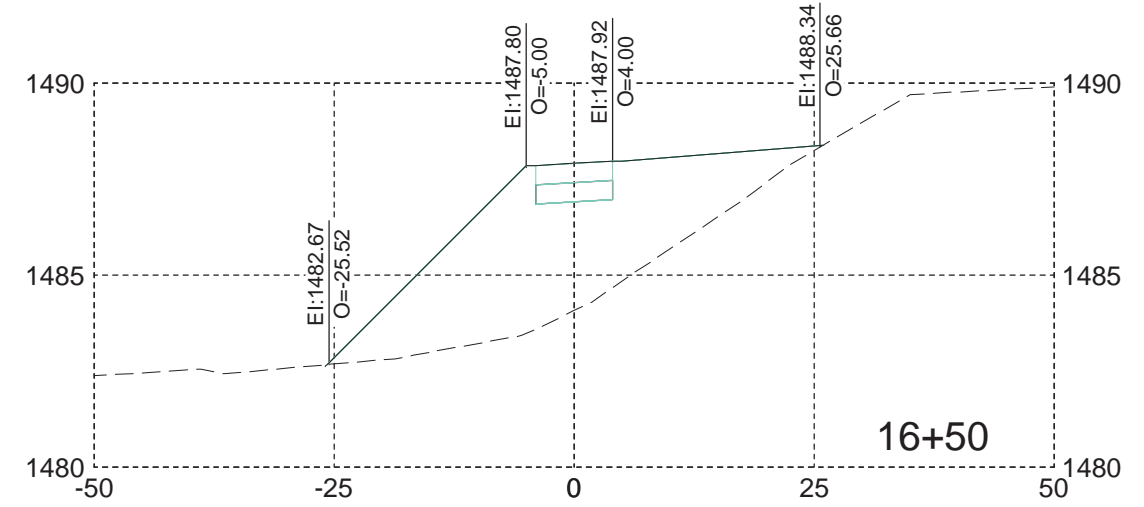
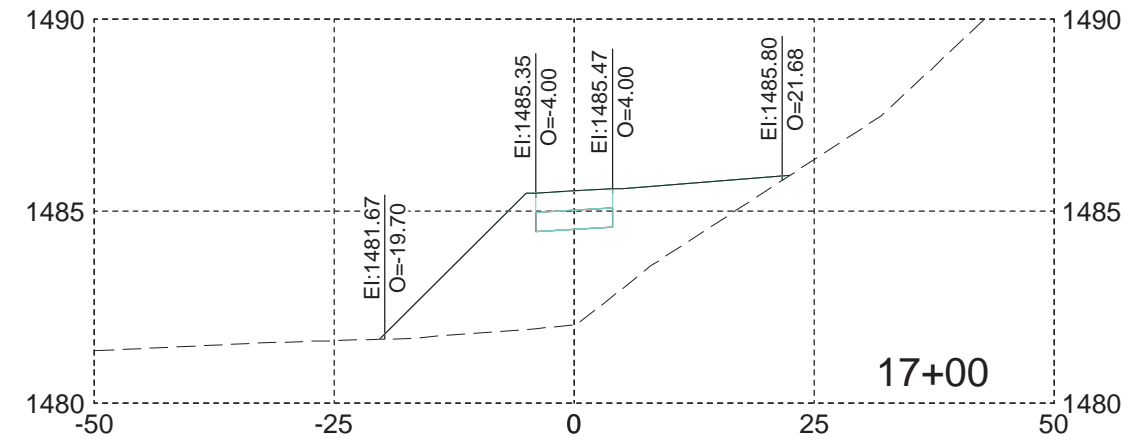
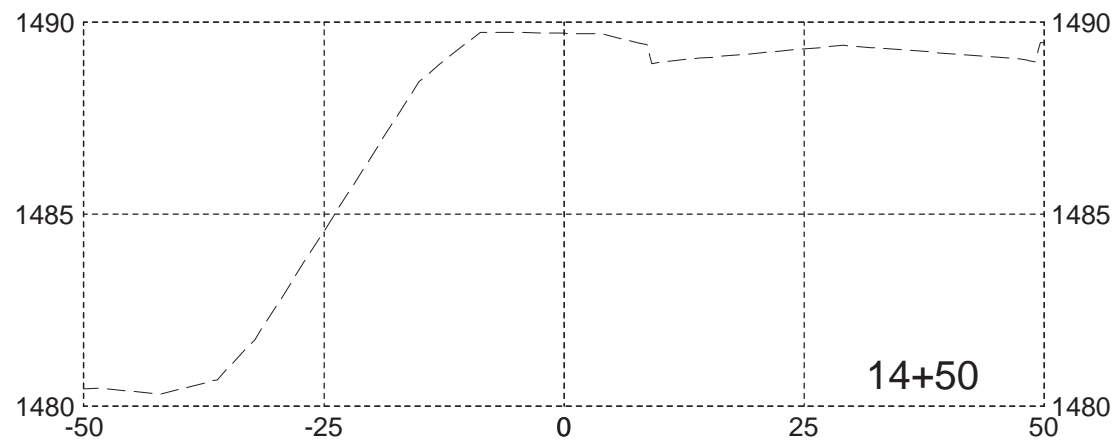
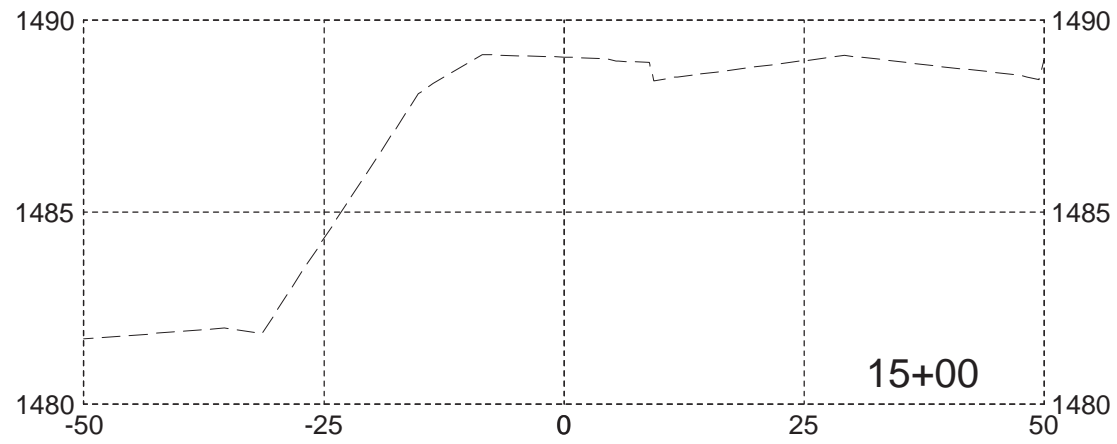
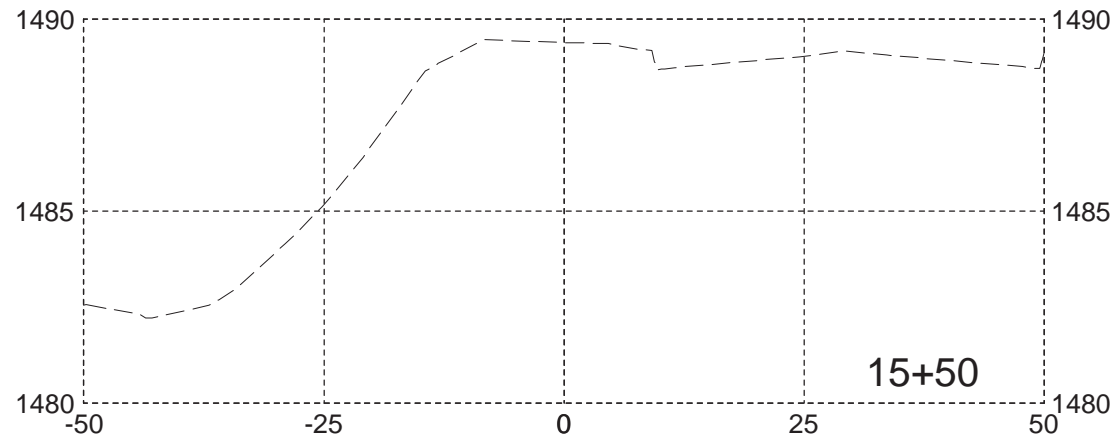
FILE: CROSS SECTIONS - 26TH ST PATH
PLOT DATE: 7/10/2024
REV DATE: INITIAL:



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	47	70

FILE: CROSS SECTIONS - 26TH ST PATH
PLOT DATE: 7/10/2024
REV DATE:
INITIAL:



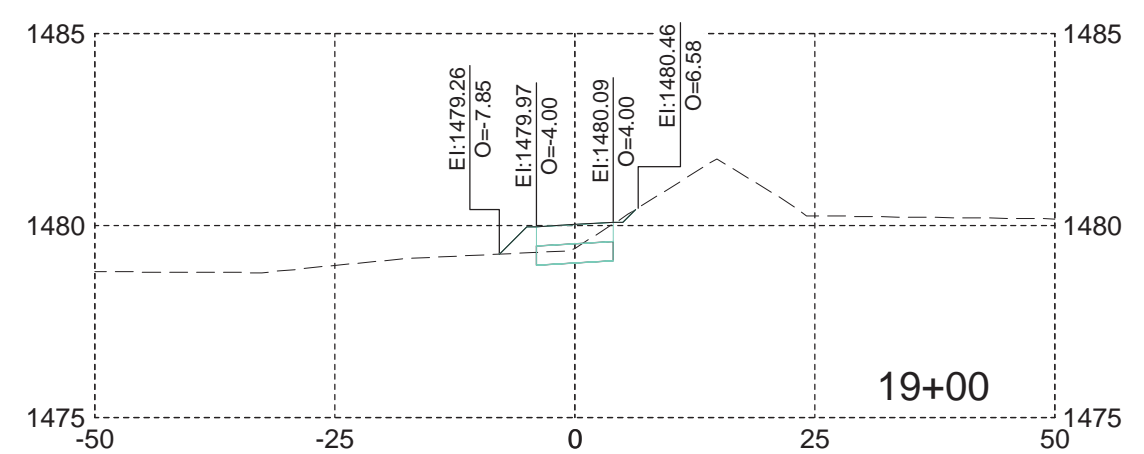
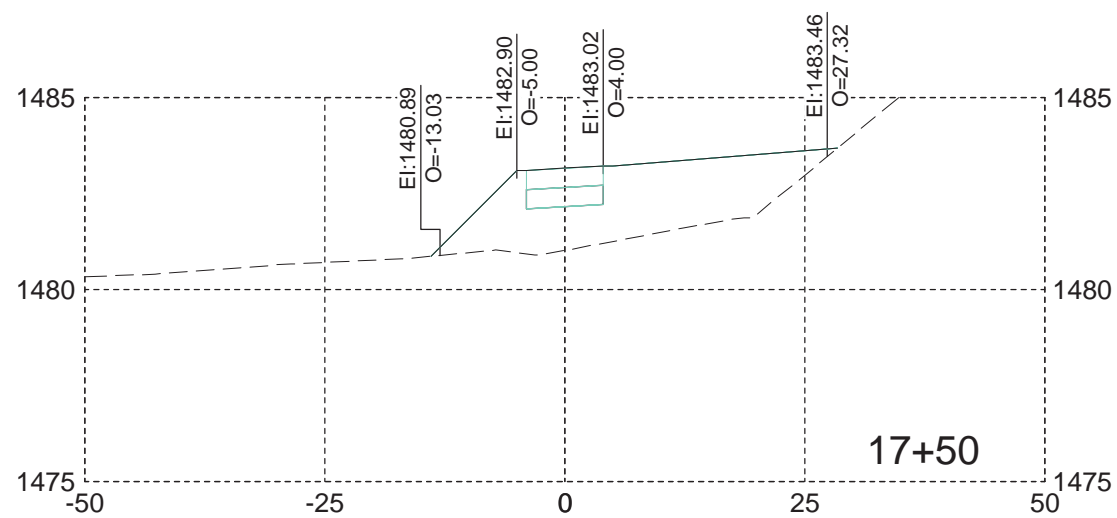
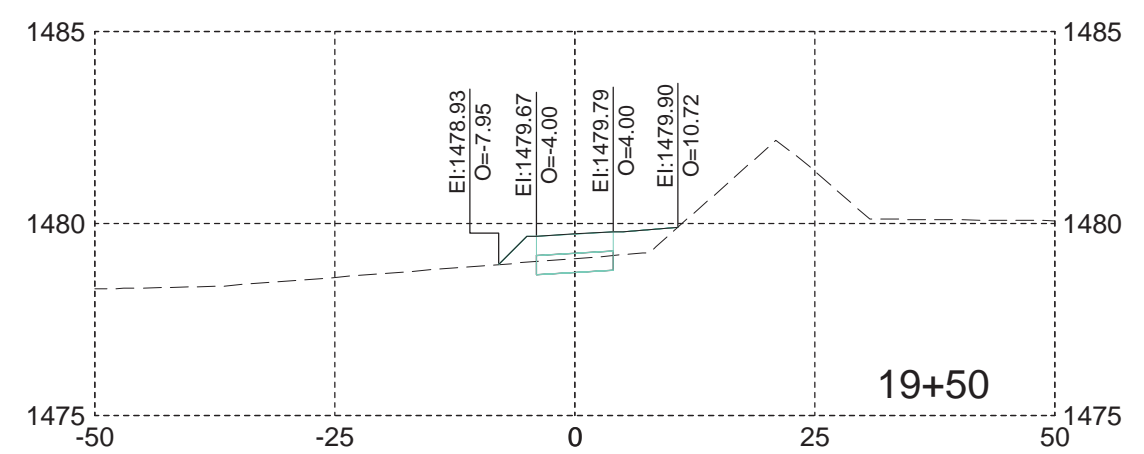
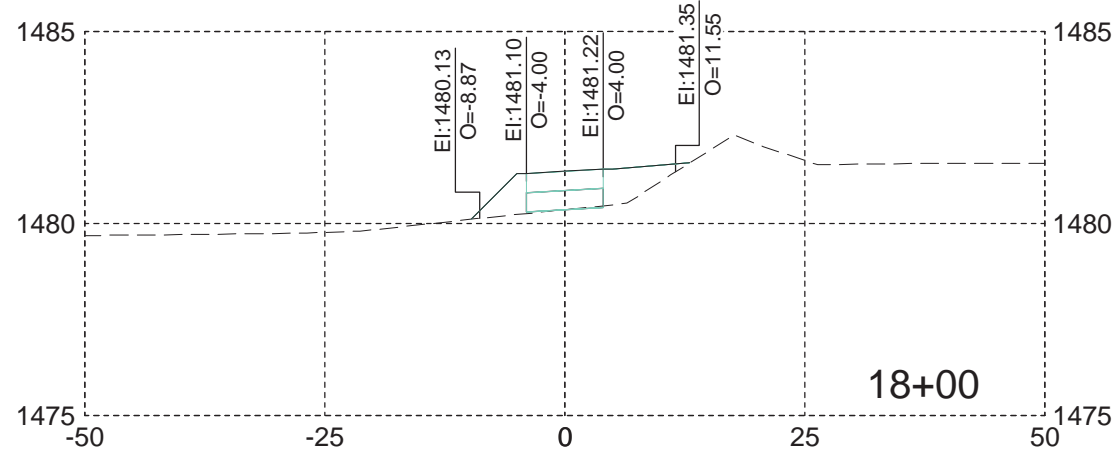
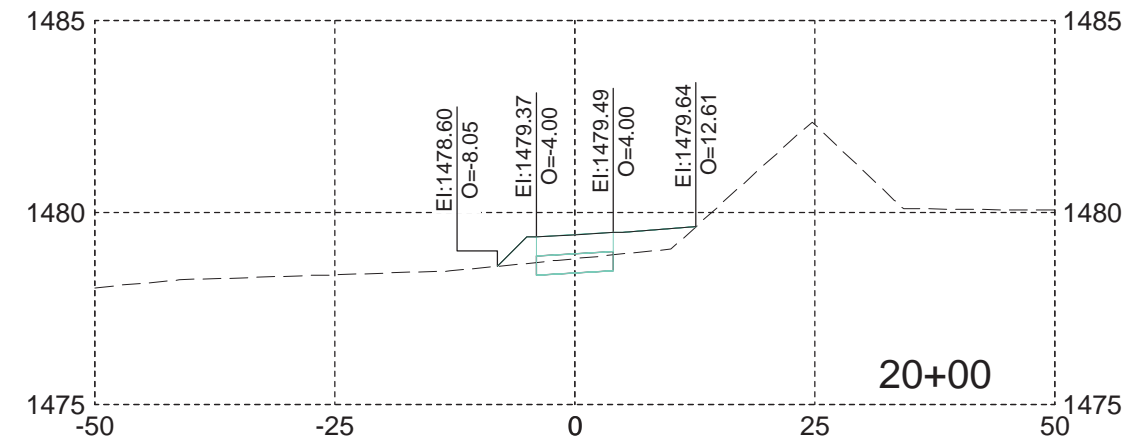
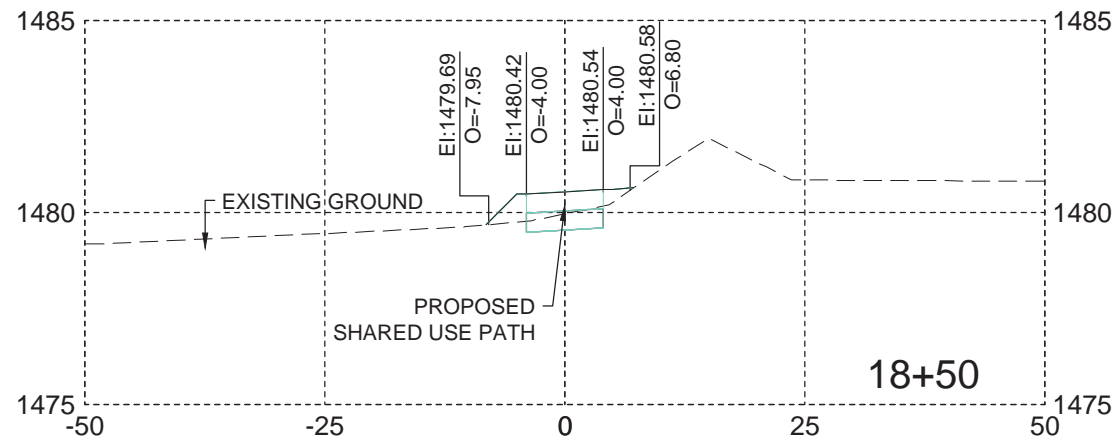
C:\work\p\central\15261097\Cross Sections - 26th St Path.dwg
PLOT DATE: 7/10/2024 11:17 AM Ode, Kent



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	48	70

FILE: CROSS SECTIONS - 26TH ST PATH
PLOT DATE: 7/10/2024
REV DATE:
INITIAL:



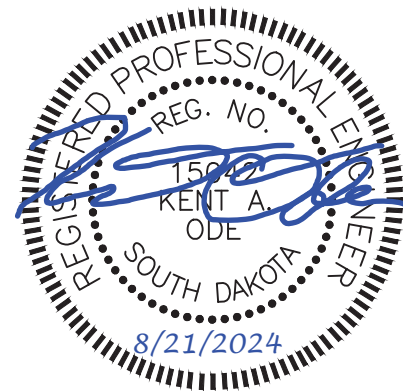
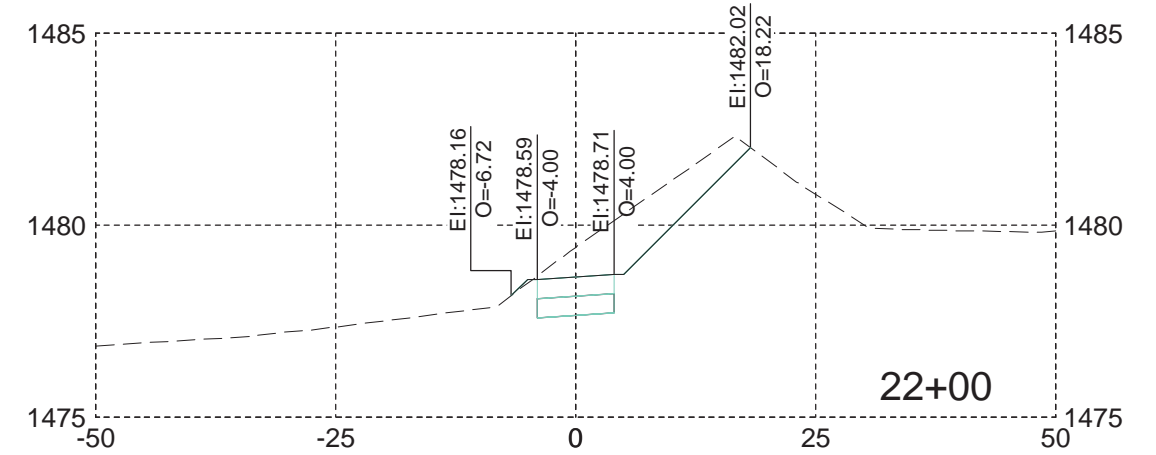
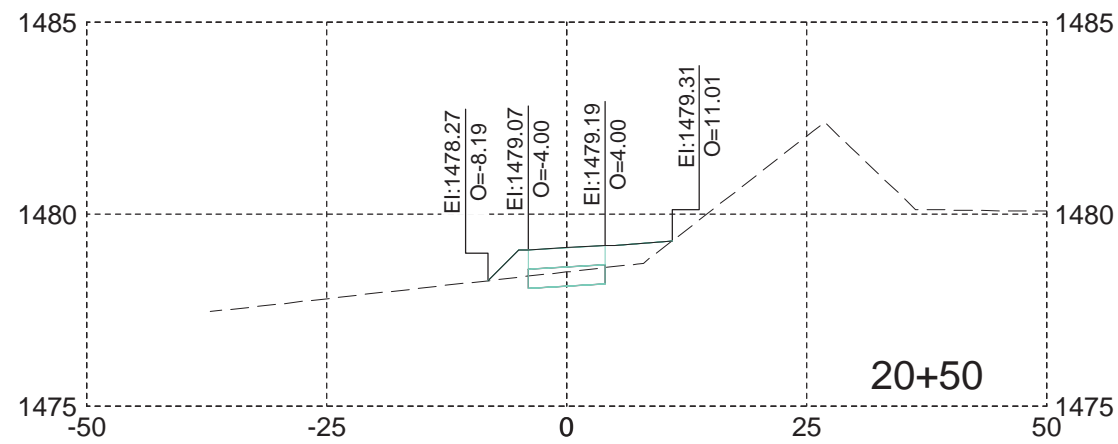
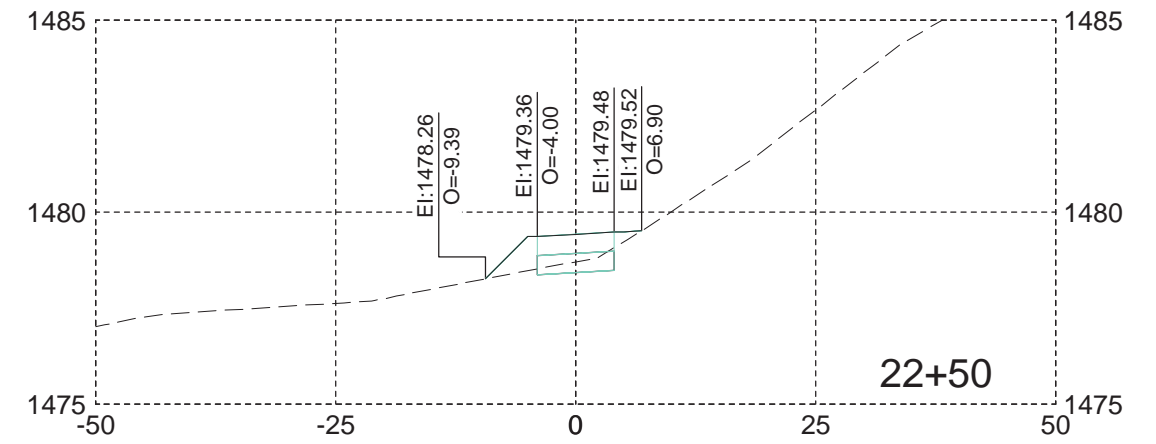
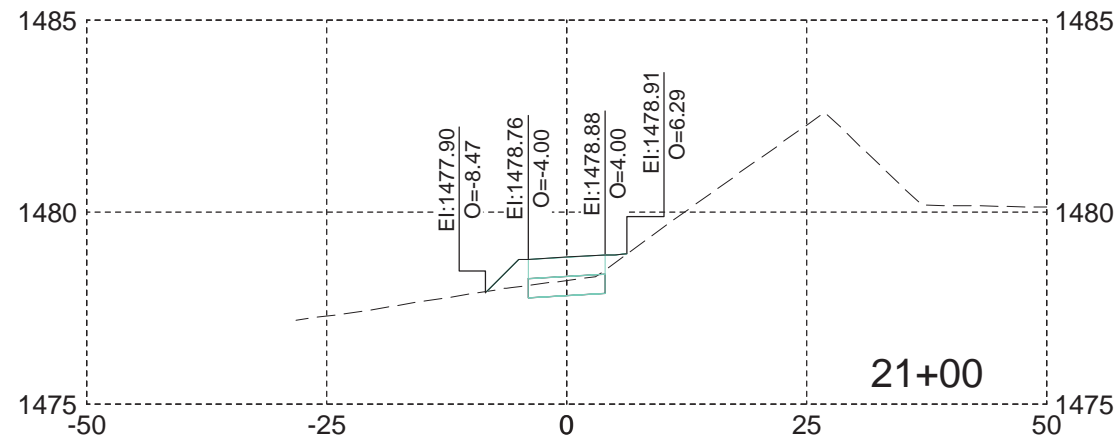
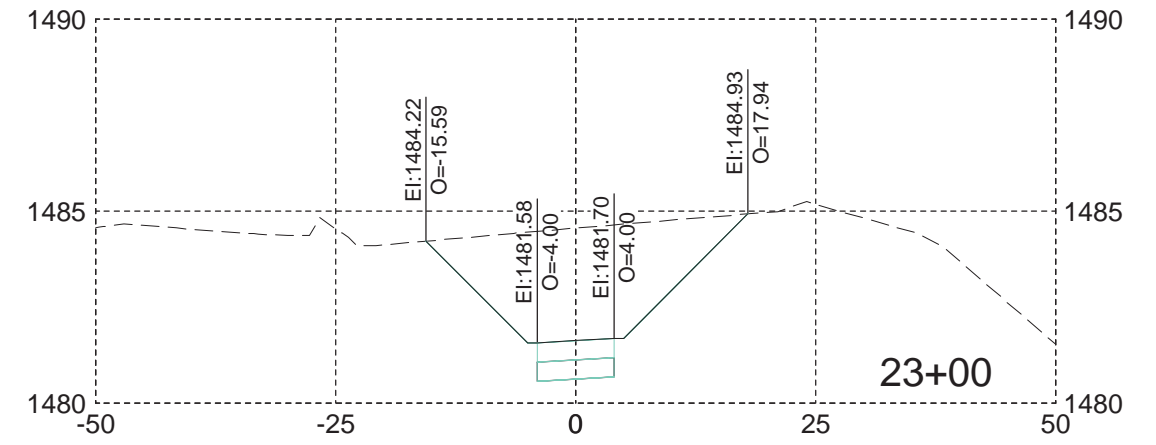
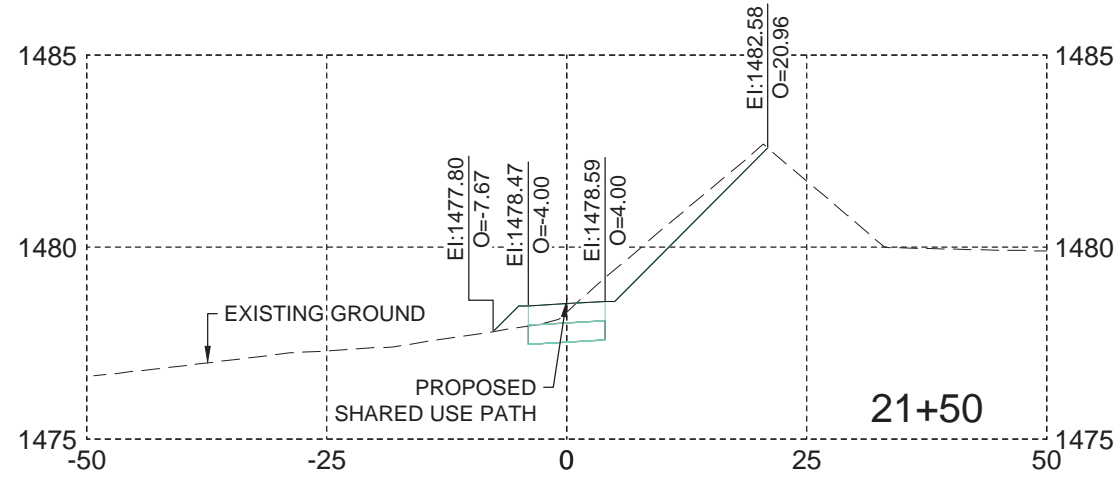
C:\work\central\10261097\Cross Sections - 26th St Path.dwg
PLOT DATE: 7/10/2024 11:17 AM Ode, Kent



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	49	70

FILE: CROSS SECTIONS - 26TH ST PATH
PLOT DATE: 7/10/2024
REV DATE: INITIAL:



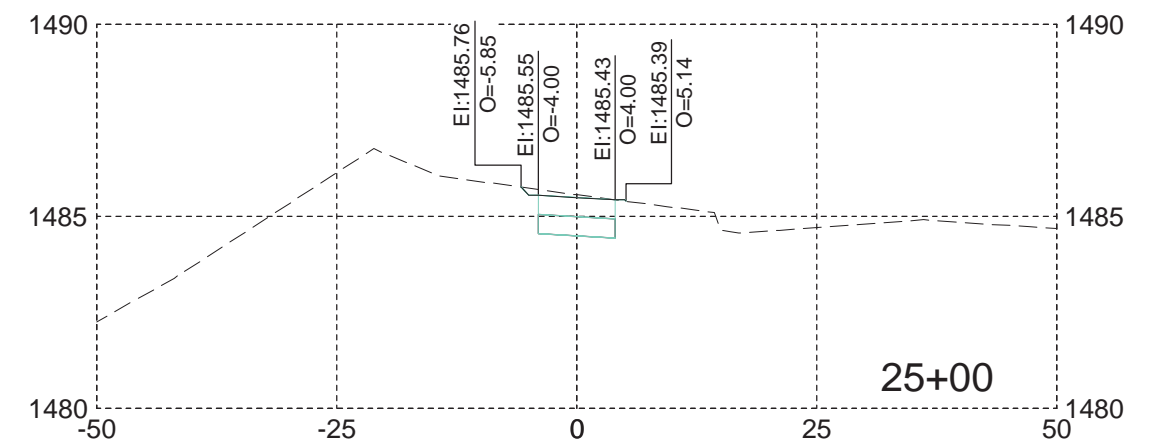
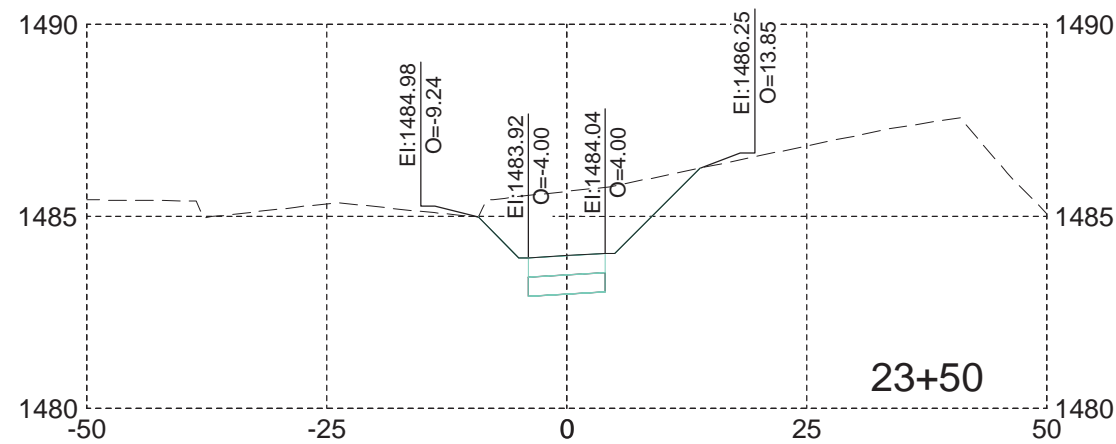
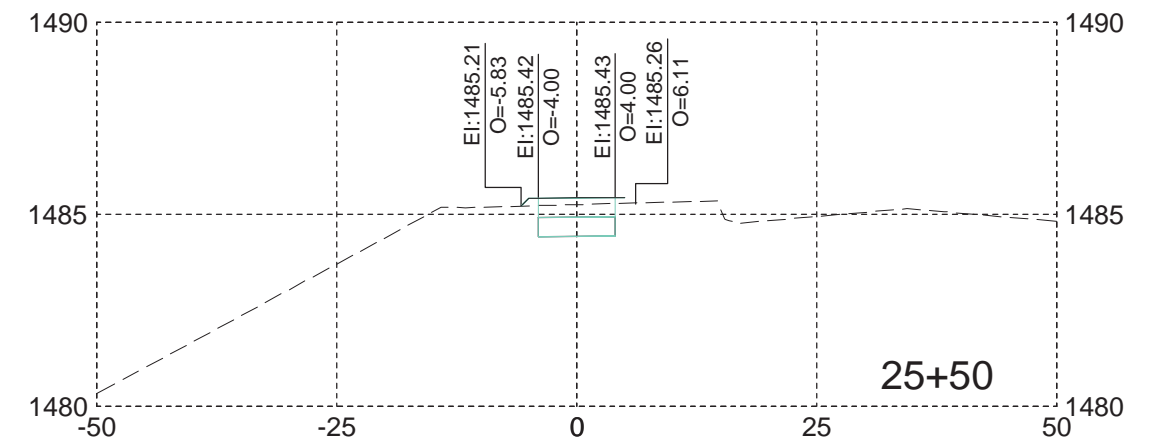
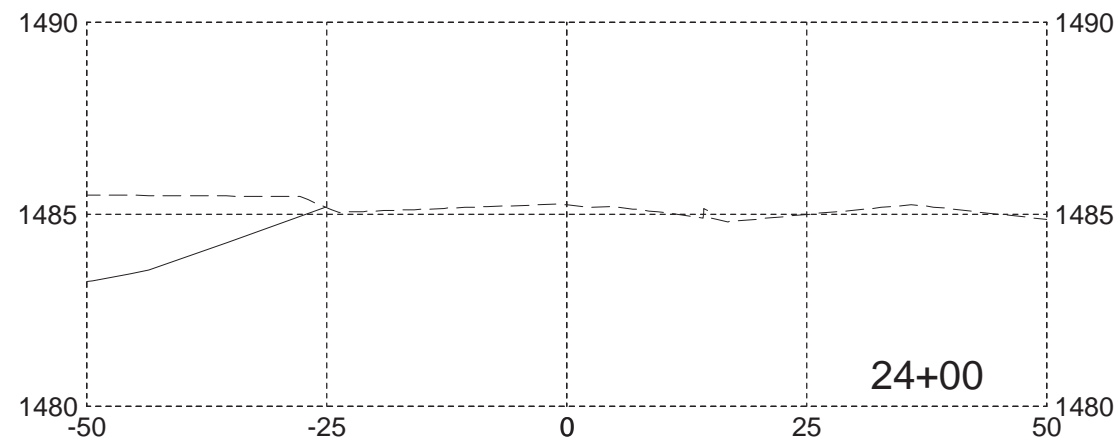
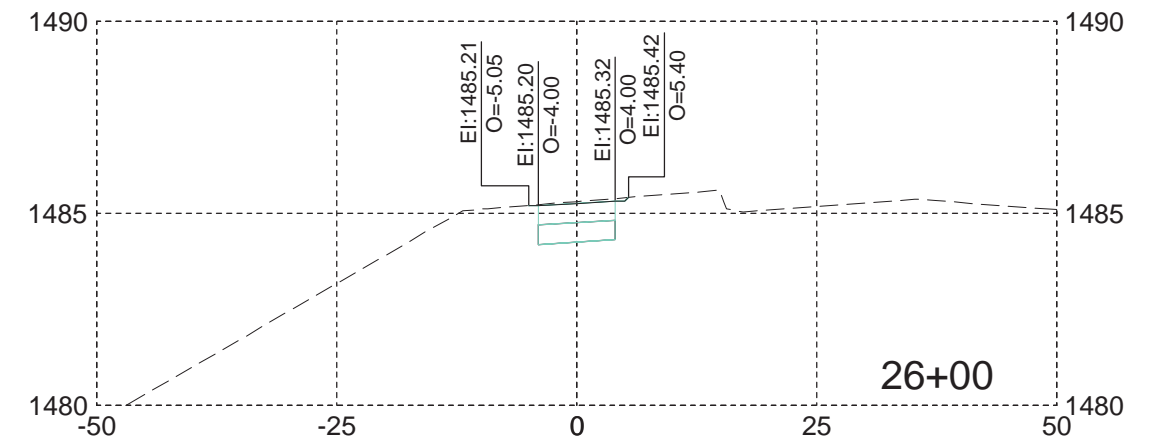
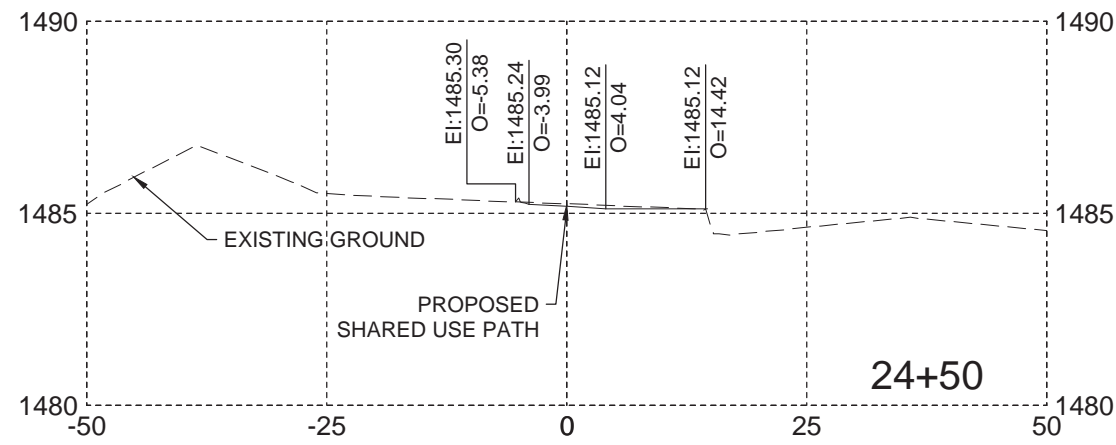
C:\work\p\central\10261097\Cross Sections - 26th St Path.dwg
PLOT DATE: 7/10/2024 11:17 AM Ode, Kent



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	50	70

FILE: CROSS SECTIONS - 26TH ST PATH
PLOT DATE: 7/10/2024
REV DATE:
INITIAL:



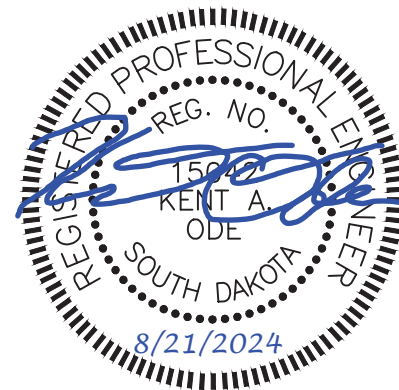
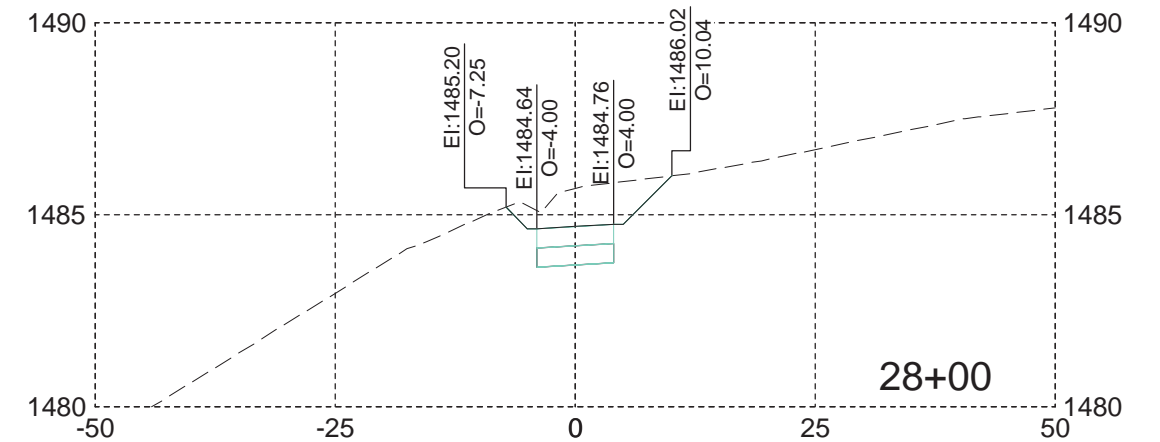
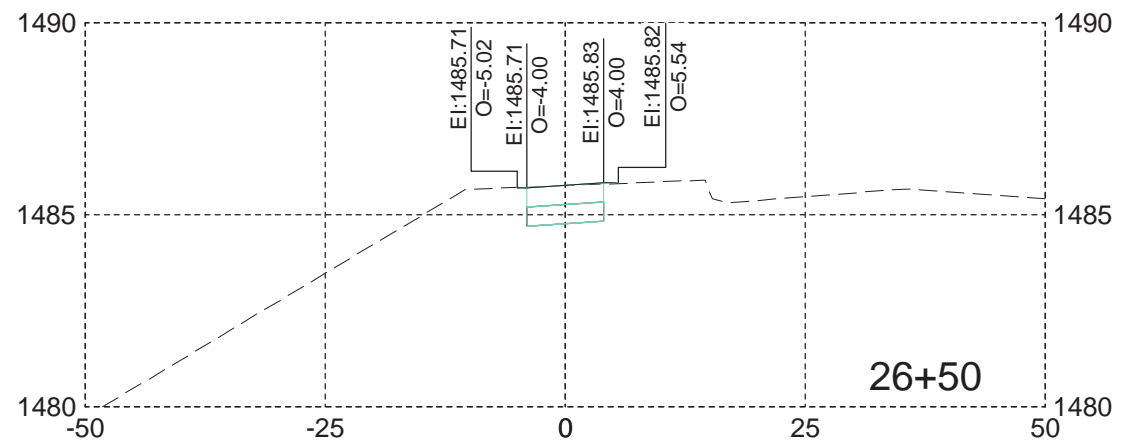
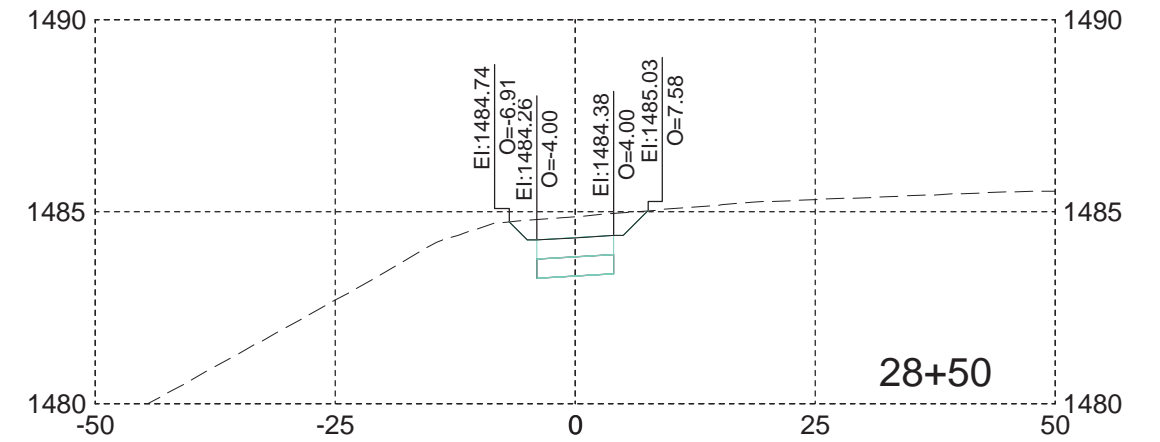
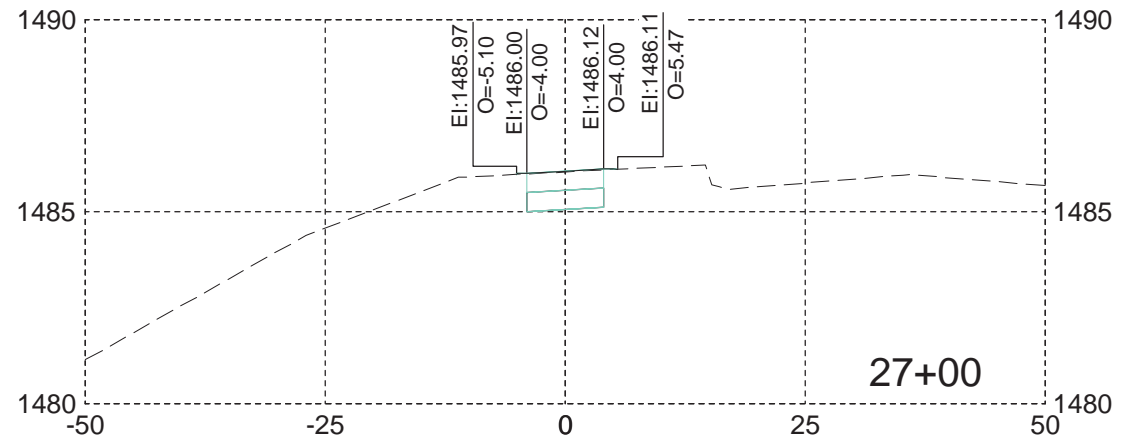
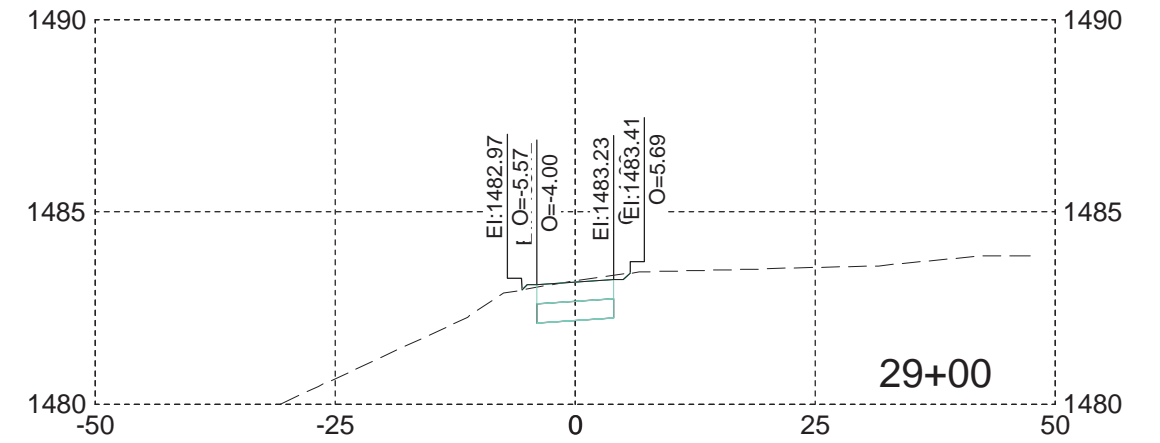
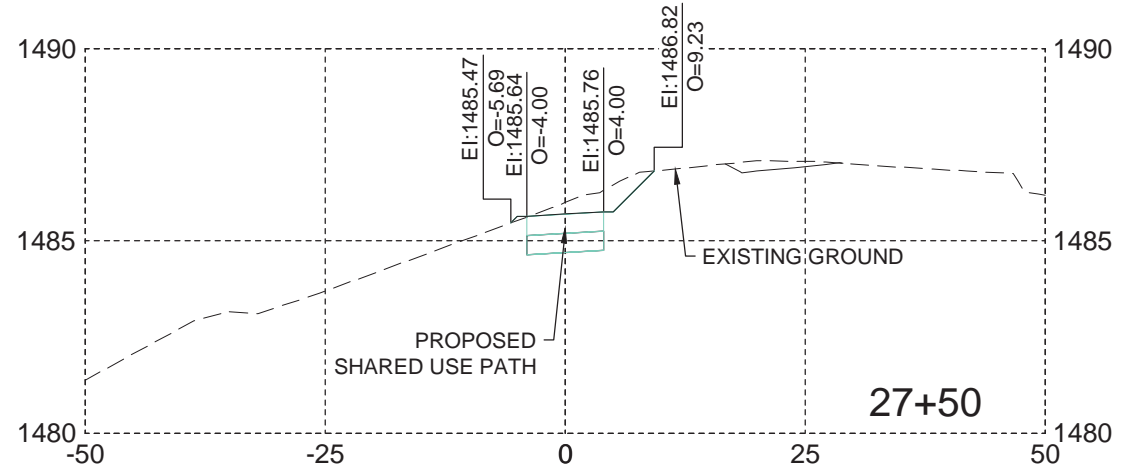
C:\work\central\10261097\Cross Sections - 26th St Path.dwg
PLOT DATE: 7/10/2024 11:18 AM Ode, Kent



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	51	70

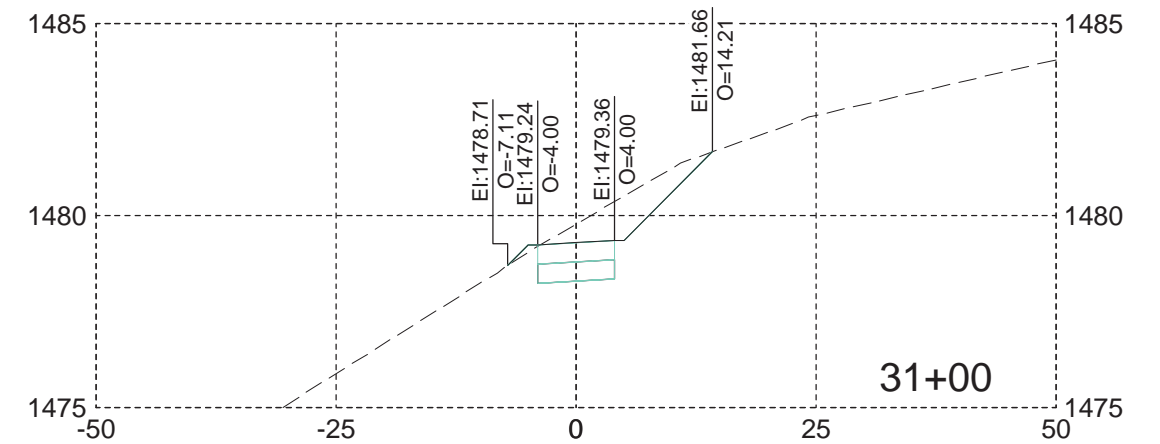
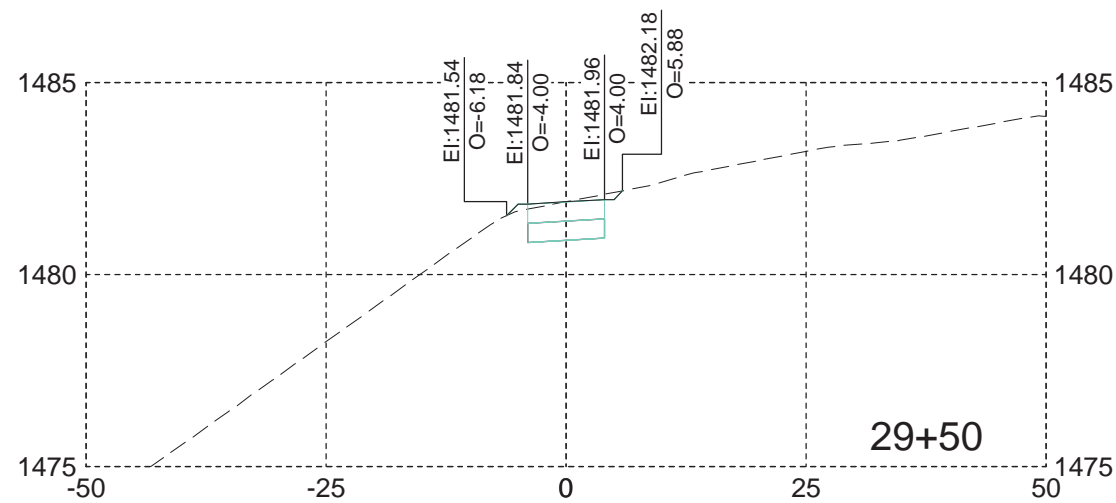
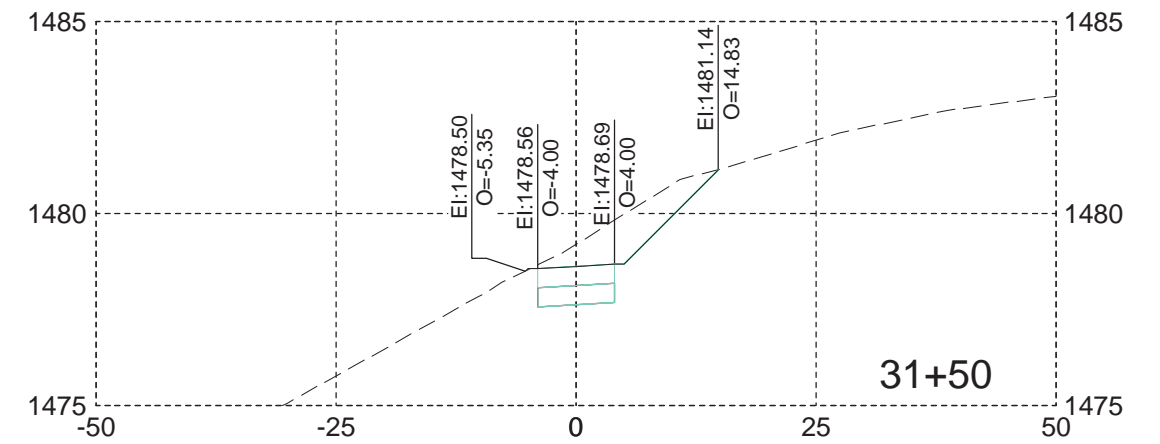
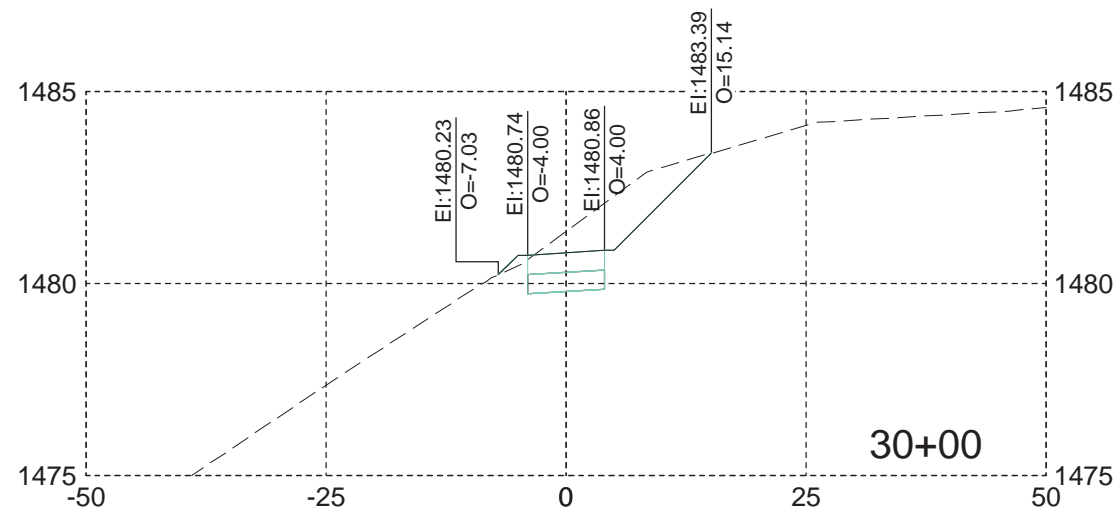
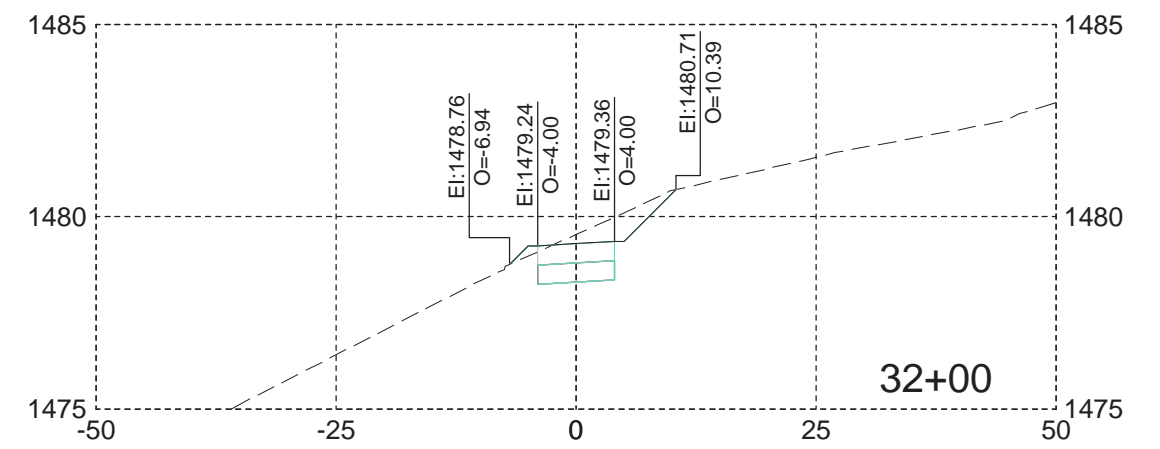
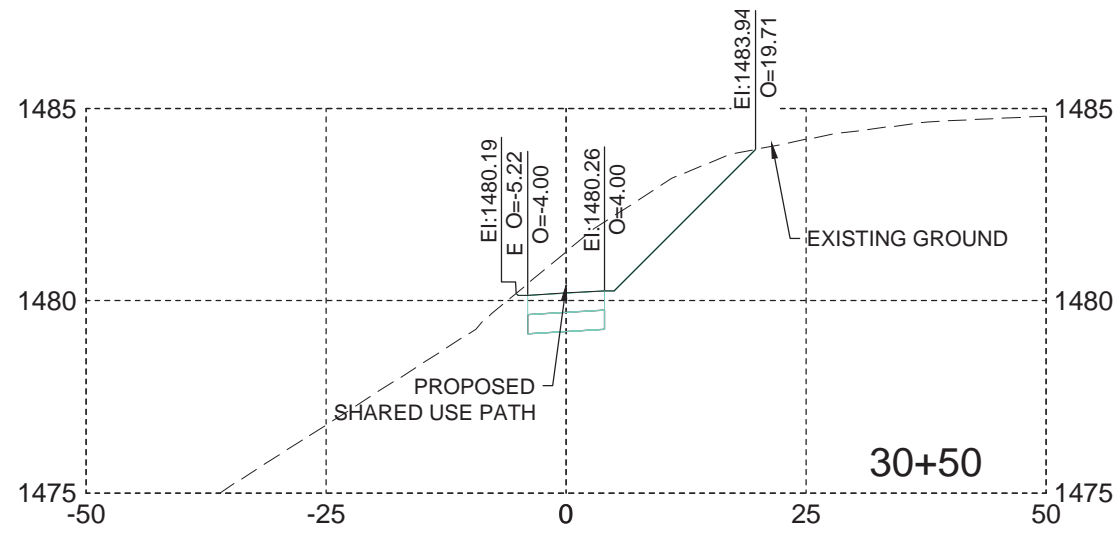
FILE: CROSS SECTIONS - 26TH ST PATH
PLOT DATE: 7/10/2024
REV DATE: INITIAL:



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	52	70

FILE: CROSS SECTIONS - 26TH ST PATH
PLOT DATE: 7/10/2024
REV DATE:
INITIAL:



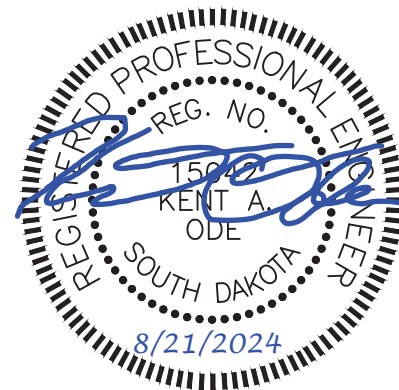
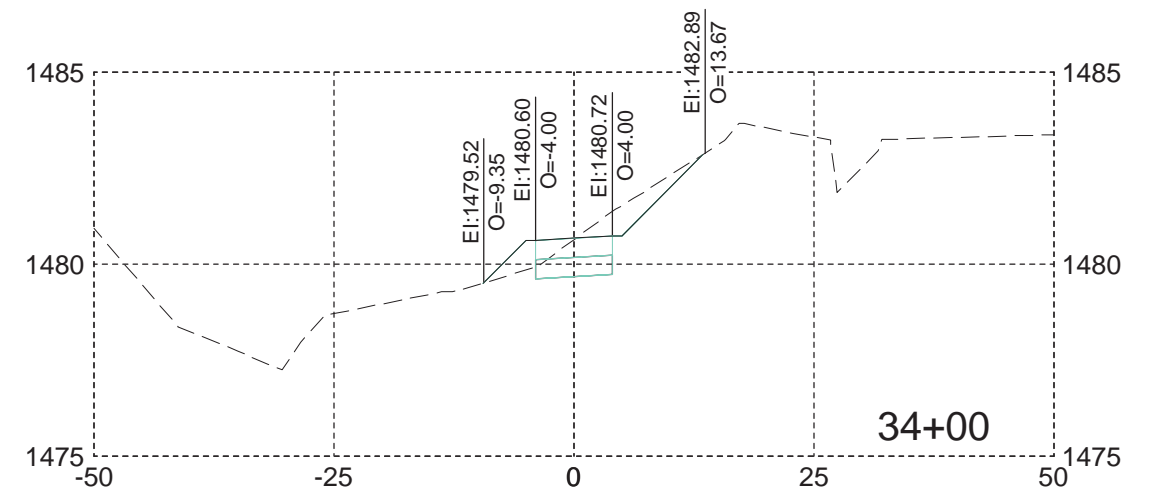
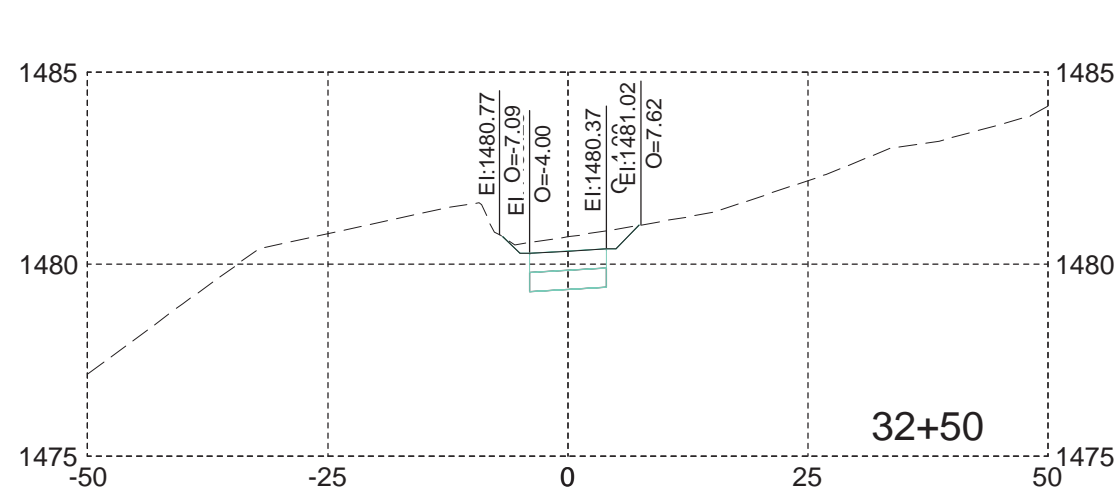
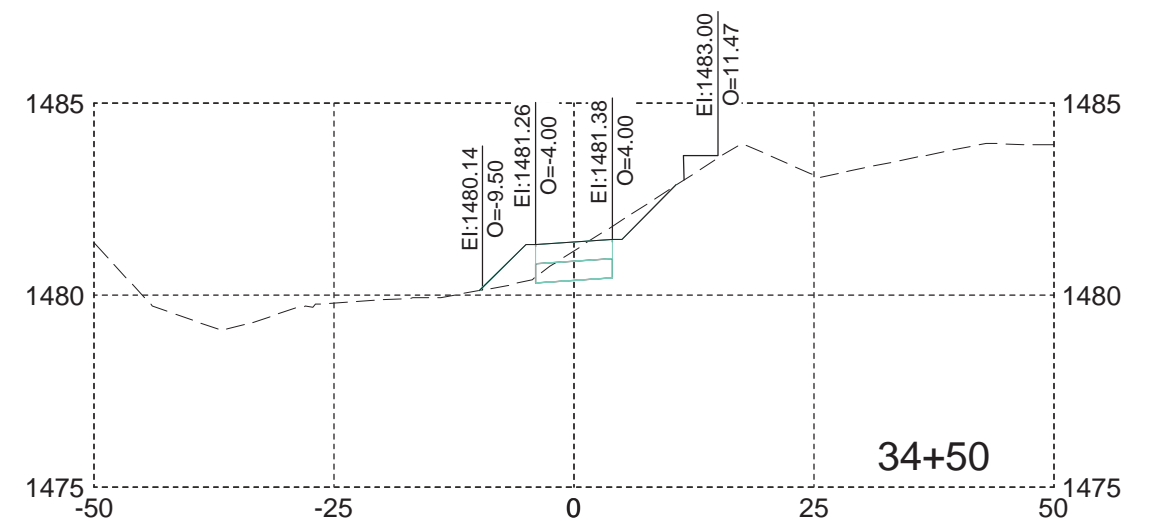
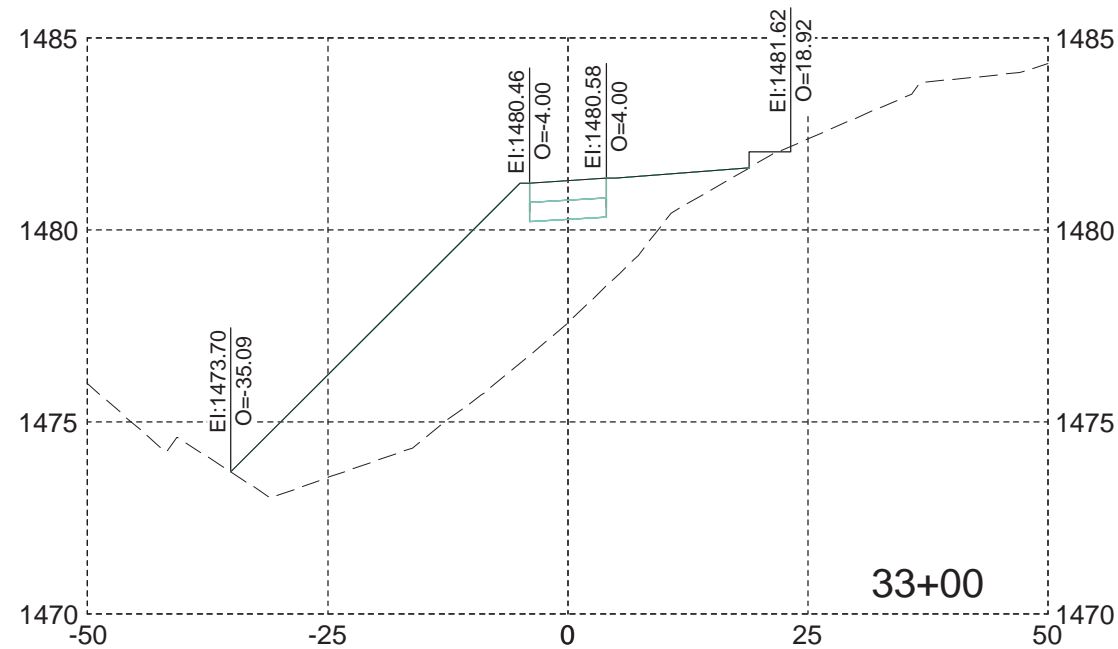
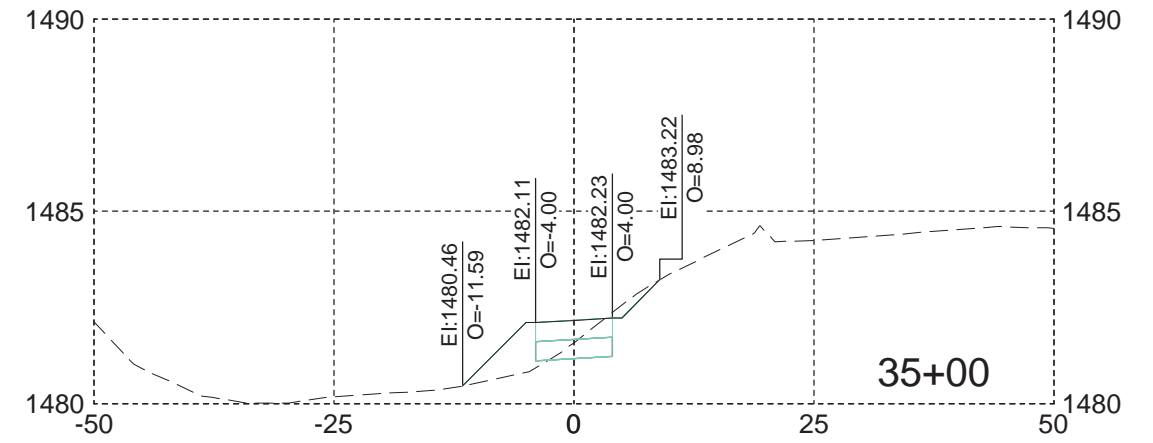
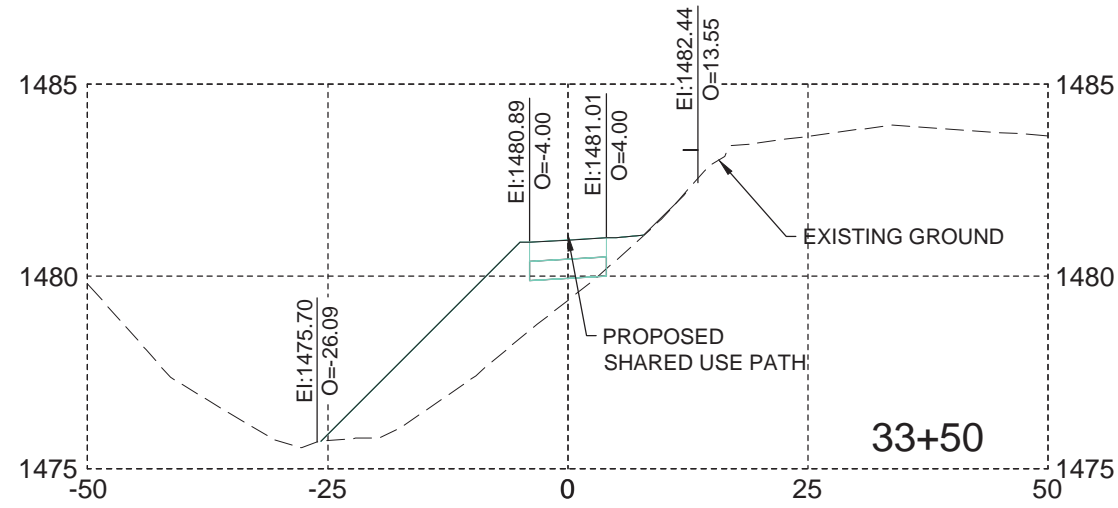
C:\work\central\10261097\Cross Sections - 26th St Path.dwg
PLOT DATE: 7/10/2024 11:18 AM Ode, Kent



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	53	70

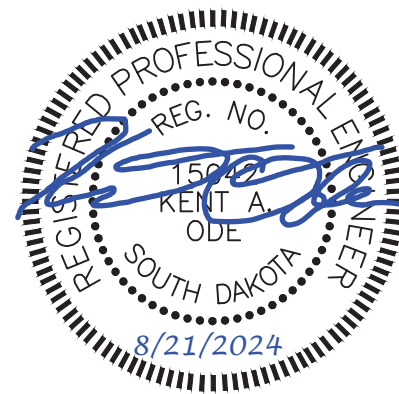
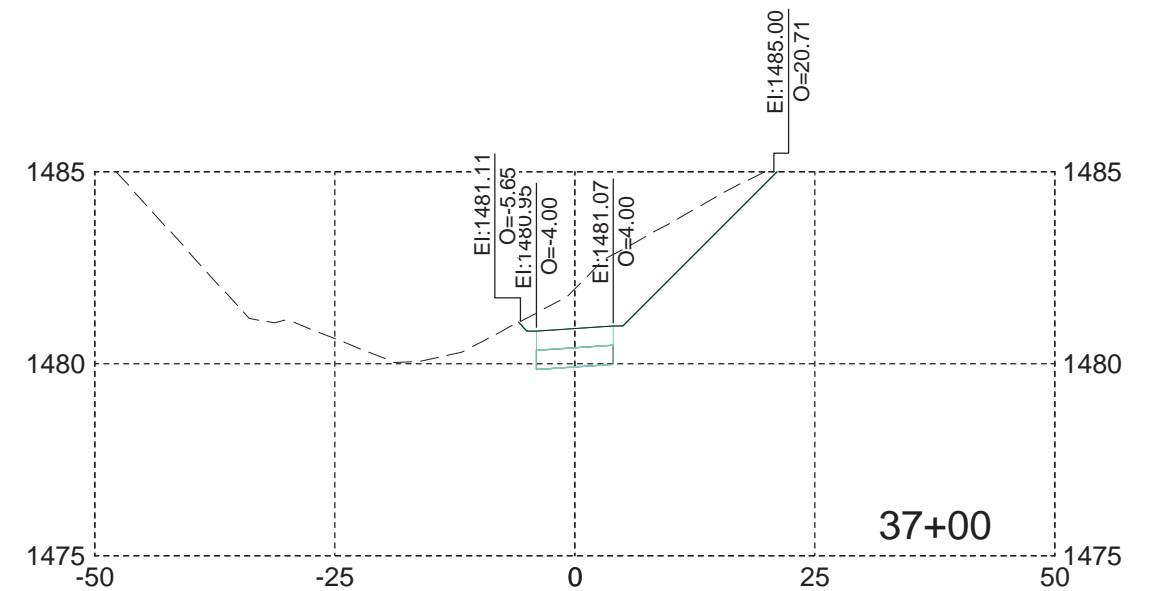
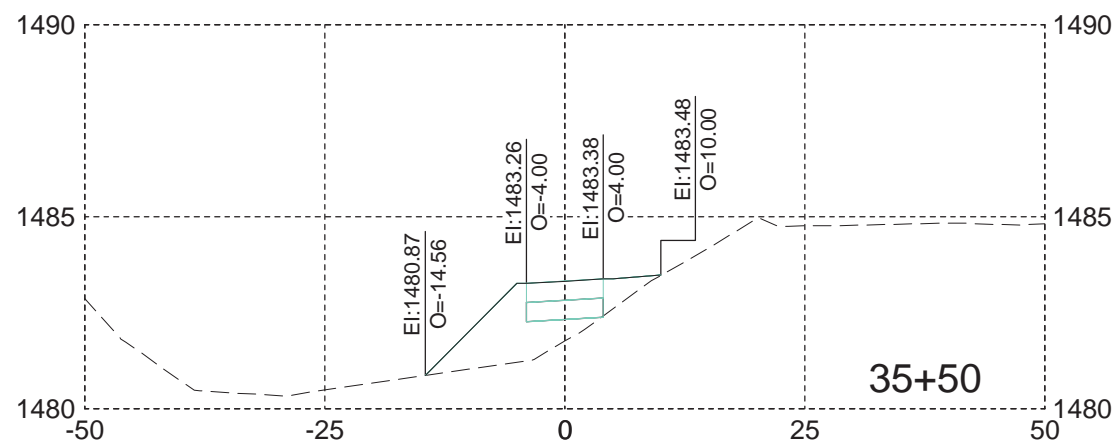
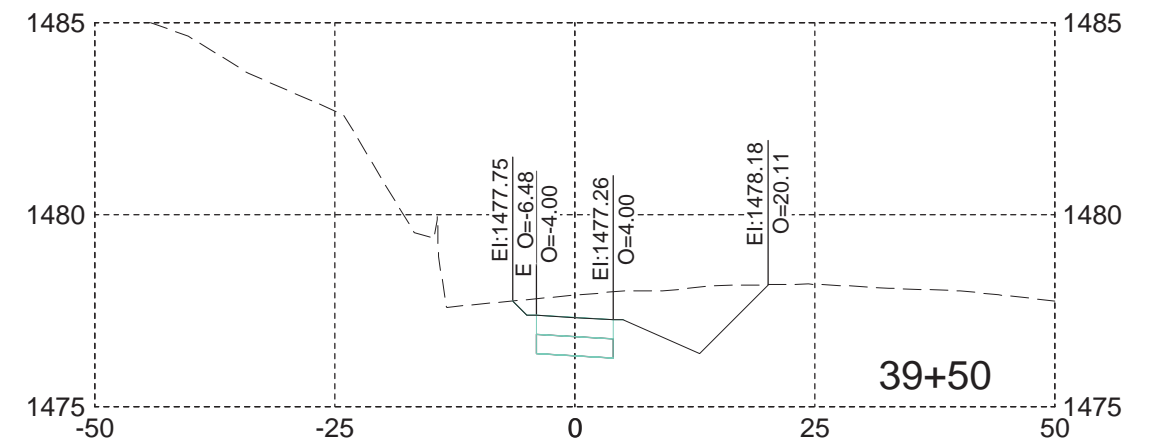
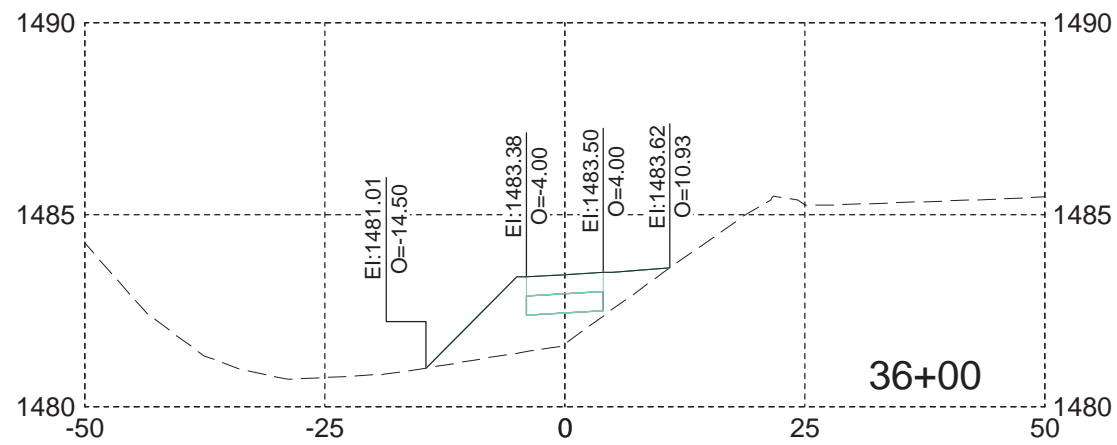
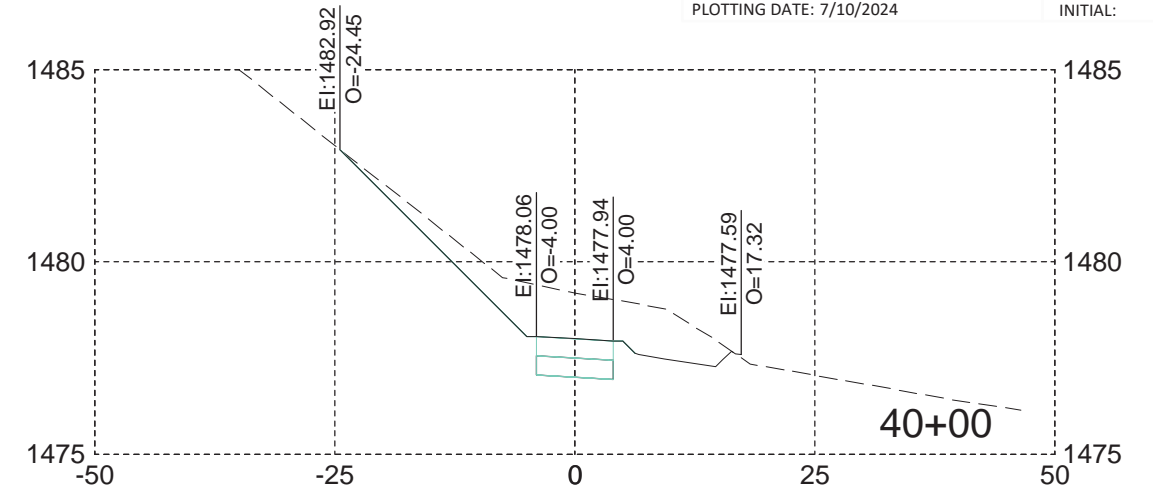
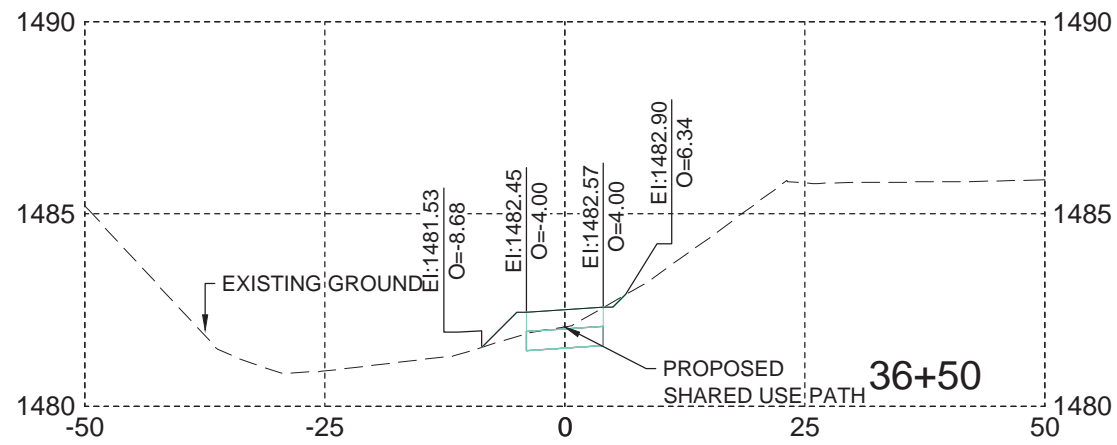
FILE: CROSS SECTIONS - 26TH ST PATH
PLOT DATE: 7/10/2024
REV DATE: INITIAL:



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	54	70

FILE: CROSS SECTIONS - 26TH ST PATH
PLOT DATE: 7/10/2024
REV DATE: INITIAL:



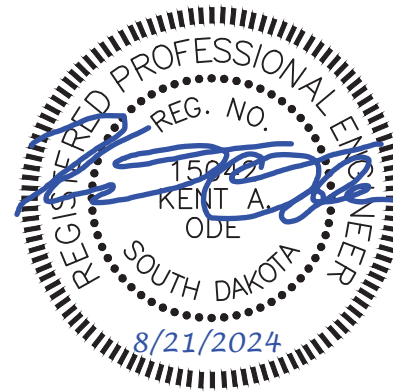
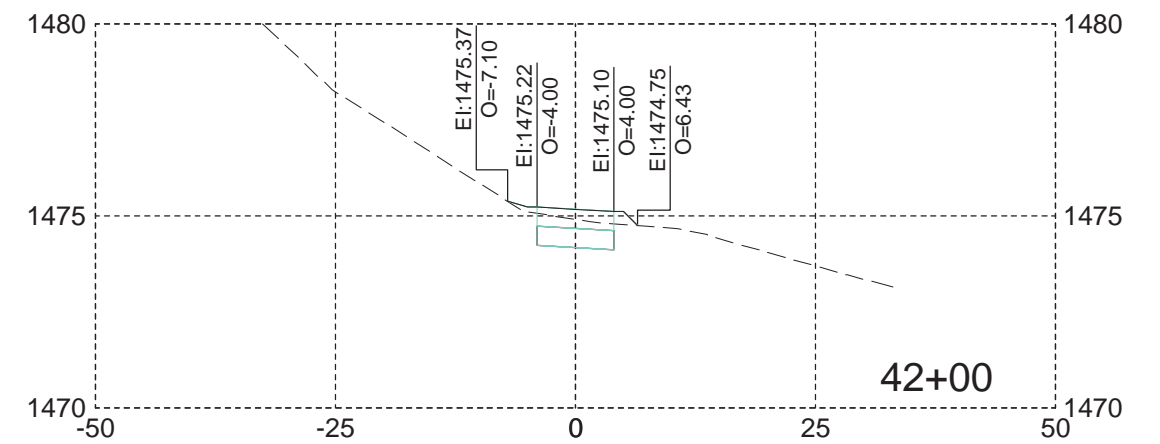
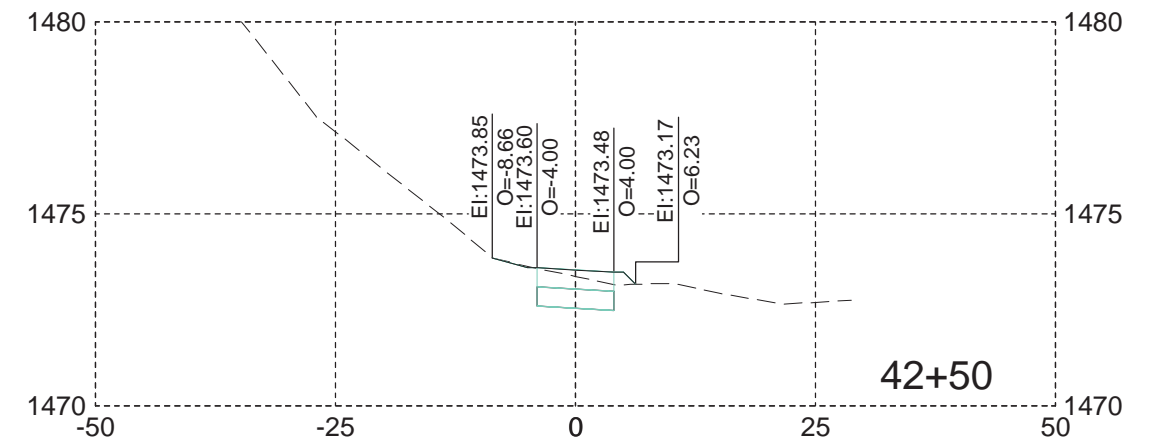
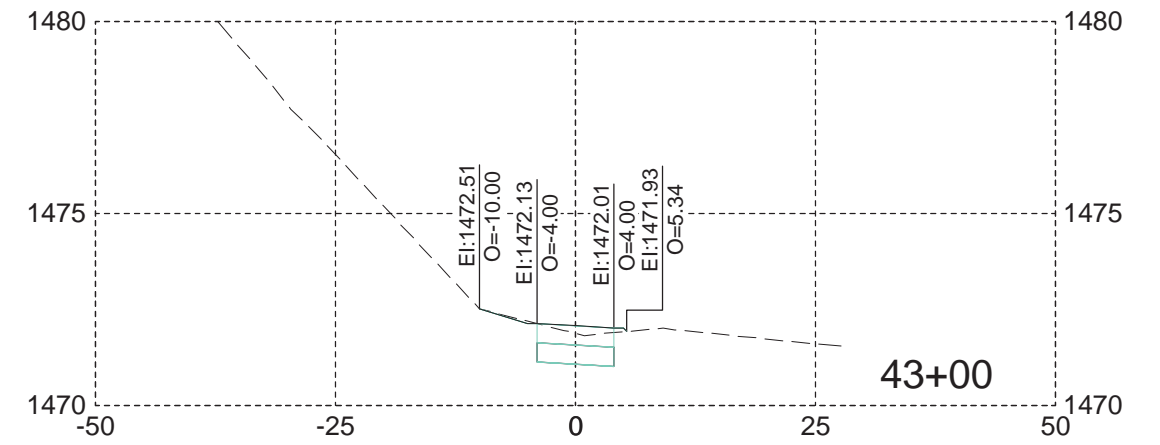
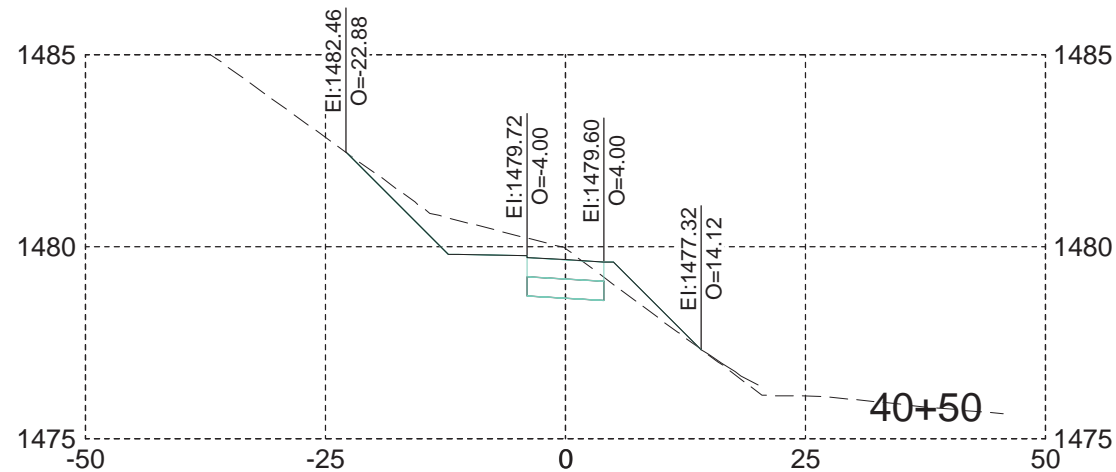
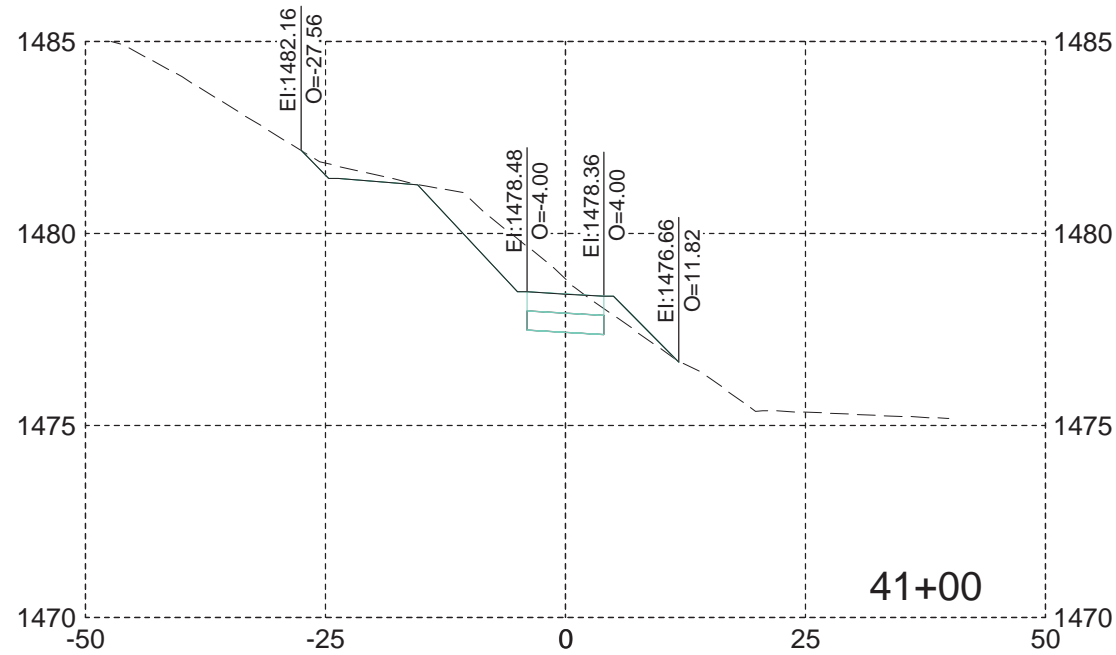
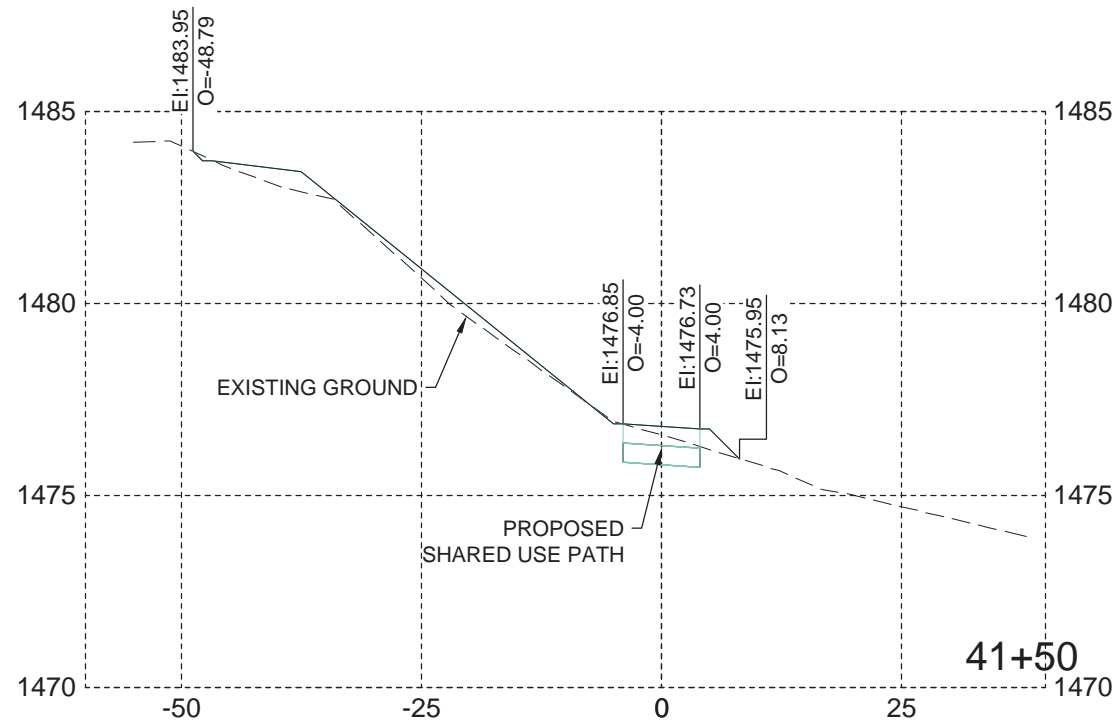
C:\work\central\15261097\Cross Sections - 26th St Path.dwg
PLOT DATE: 7/10/2024 11:18 AM Ode, Kent



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	55	70

FILE: CROSS SECTIONS - 26TH ST PATH
PLOT DATE: 7/10/2024
REV DATE:
INITIAL:



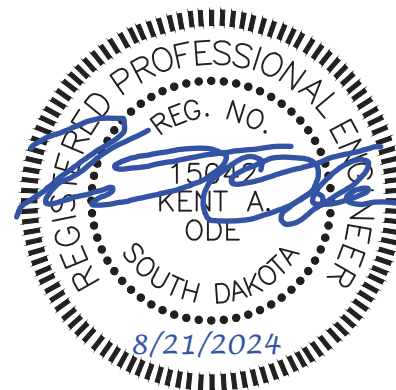
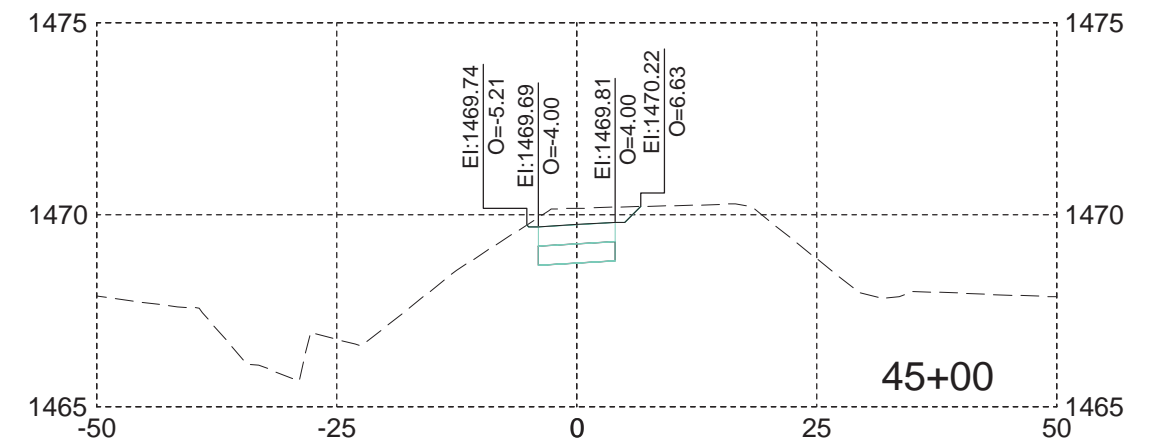
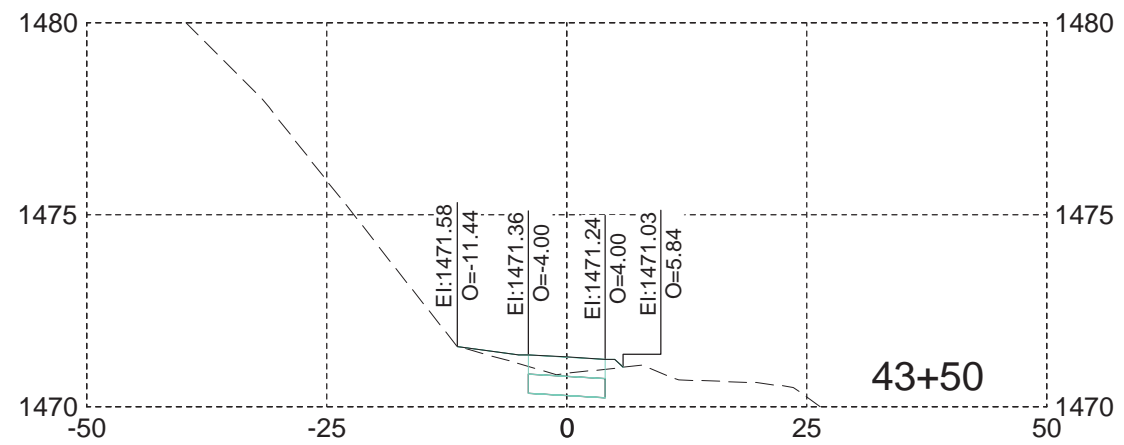
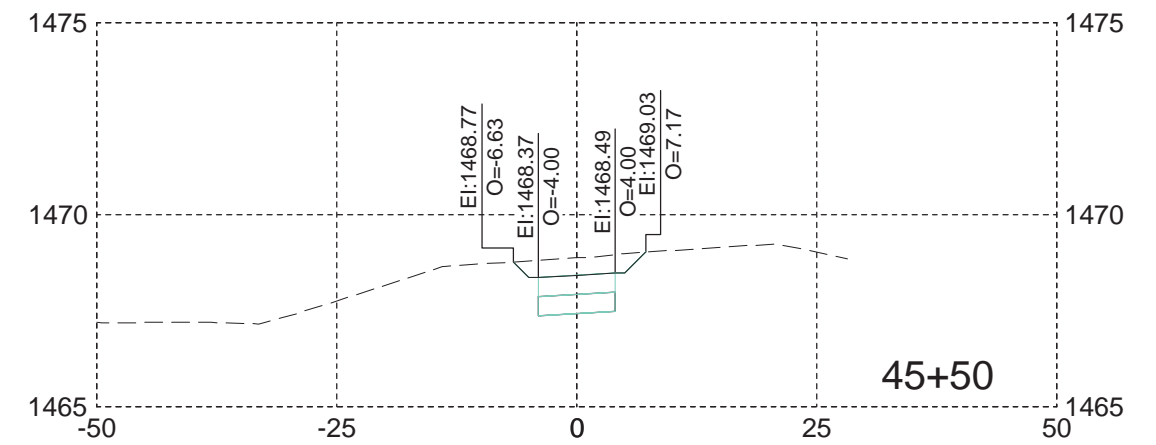
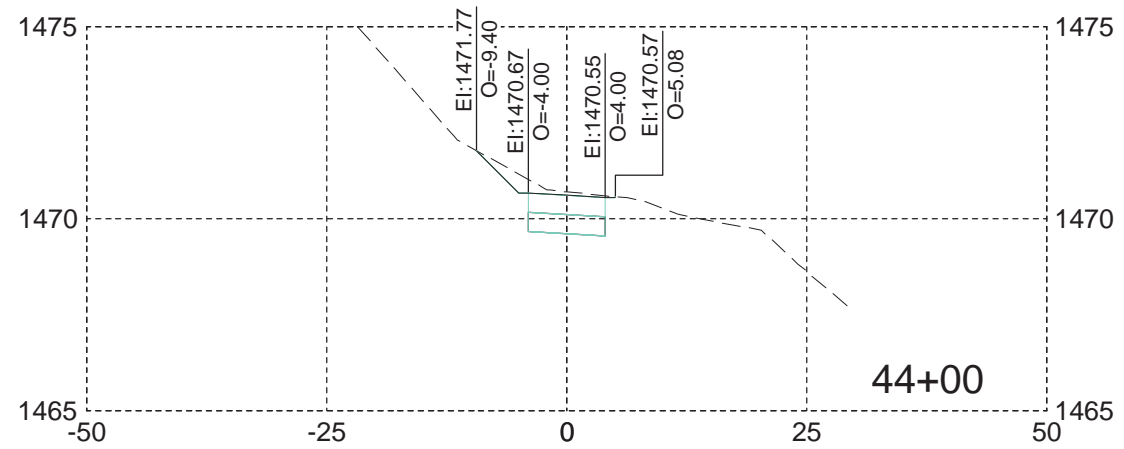
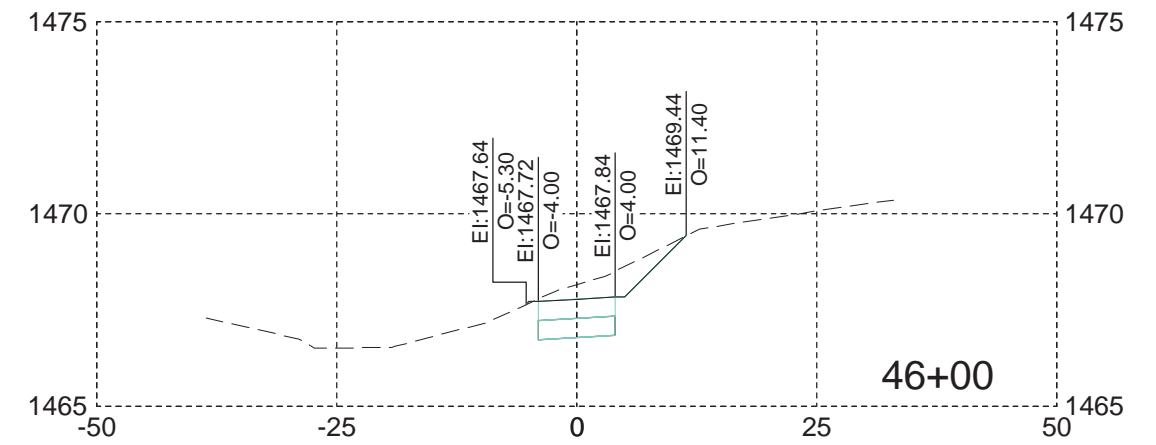
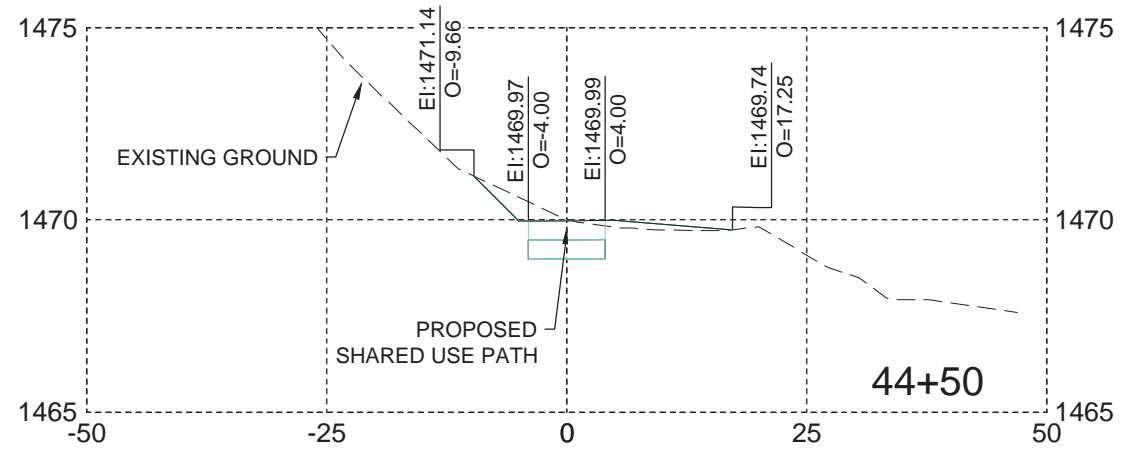
C:\work\p\central\10261097\Cross Sections - 26th St Path.dwg
PLOT DATE: 7/10/2024 11:18 AM Ode, Kent



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	56	70

FILE: CROSS SECTIONS - 26TH ST PATH
PLOT DATE: 7/10/2024
REV DATE: INITIAL:



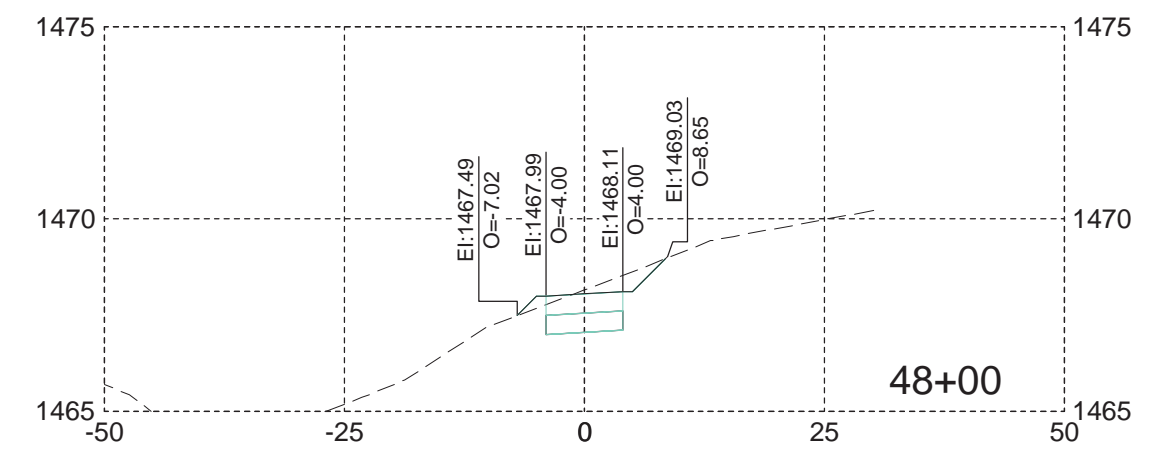
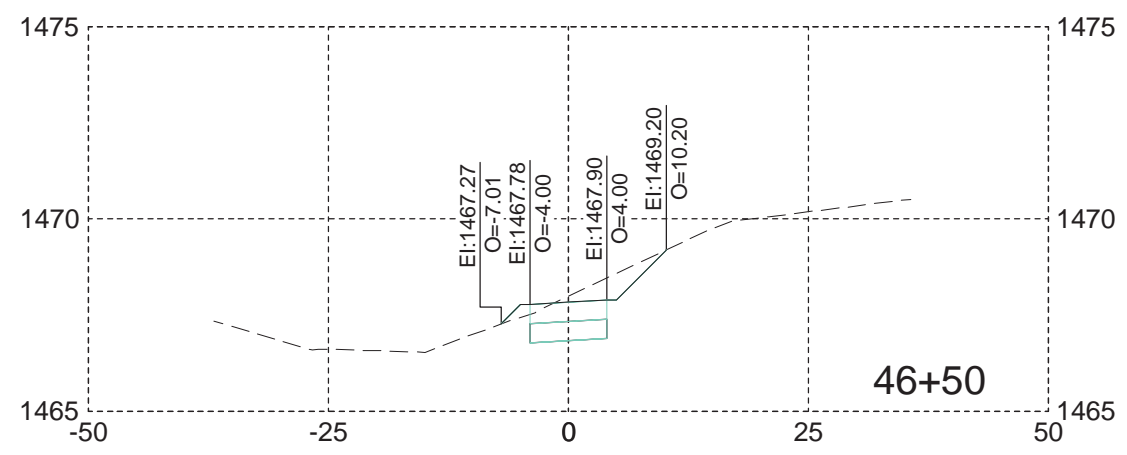
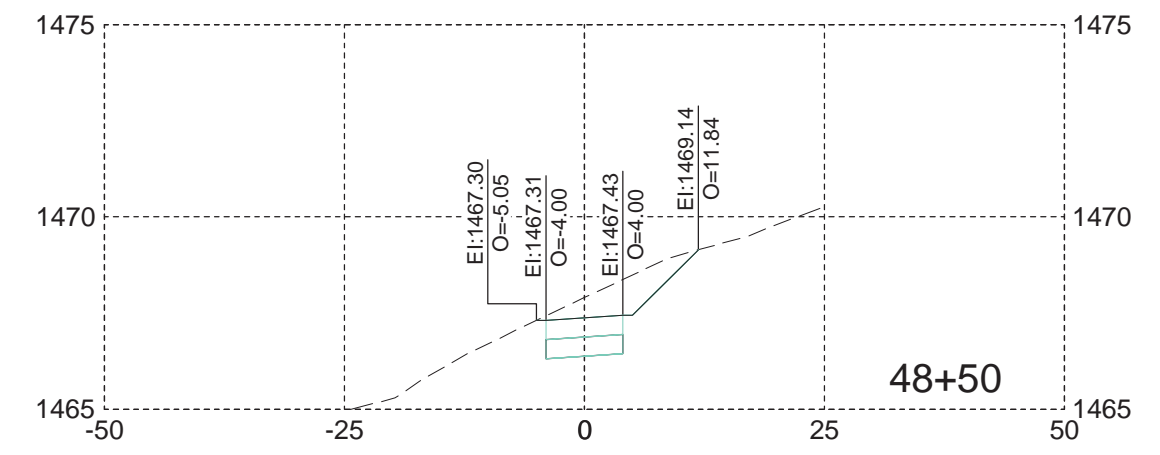
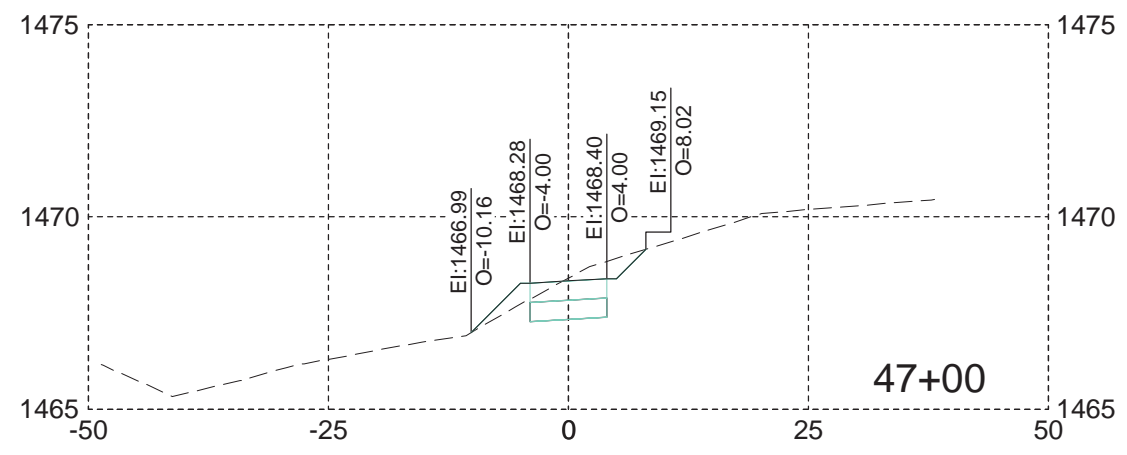
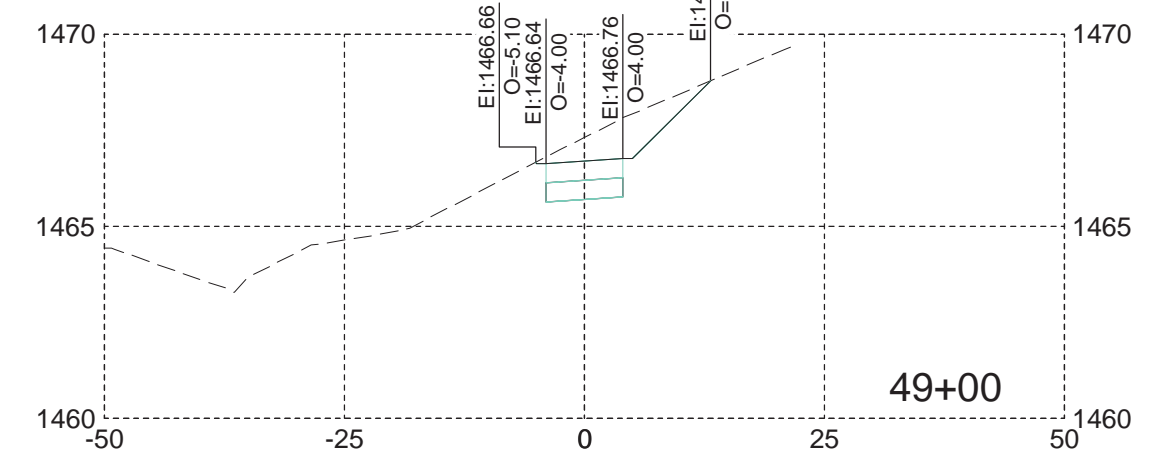
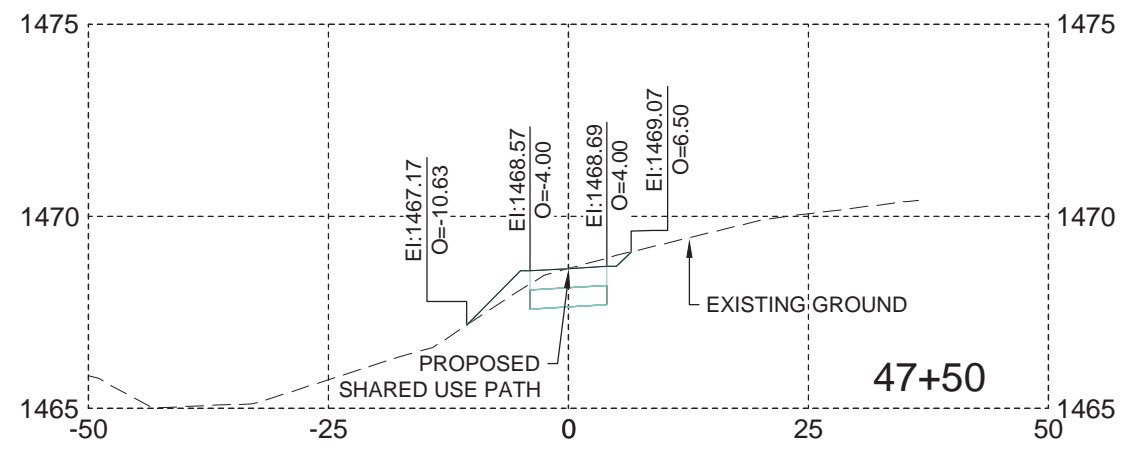
C:\work\central\10261097\Cross Sections - 26th St Path.dwg
PLOT DATE: 7/10/2024 11:18 AM Ode, Kent



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	57	70

FILE: CROSS SECTIONS - 26TH ST PATH
PLOTTING DATE: 7/10/2024
REV DATE:
INITIAL:



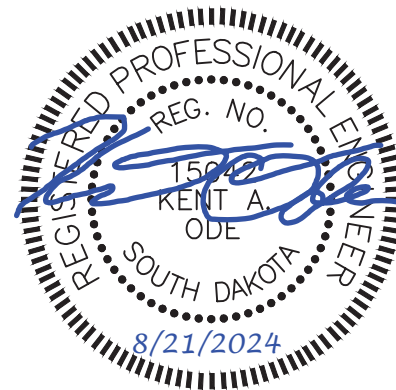
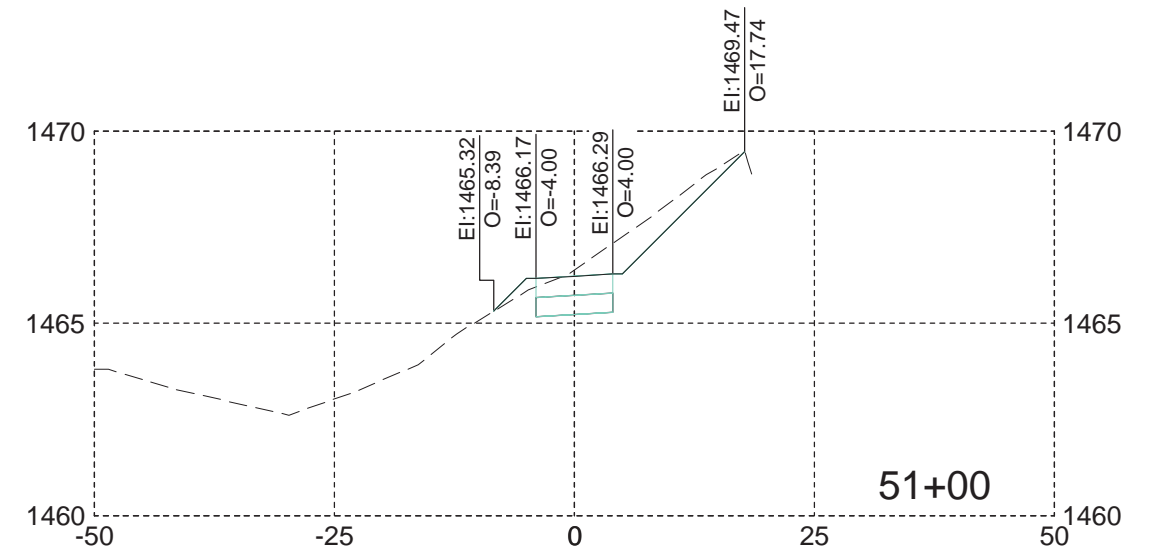
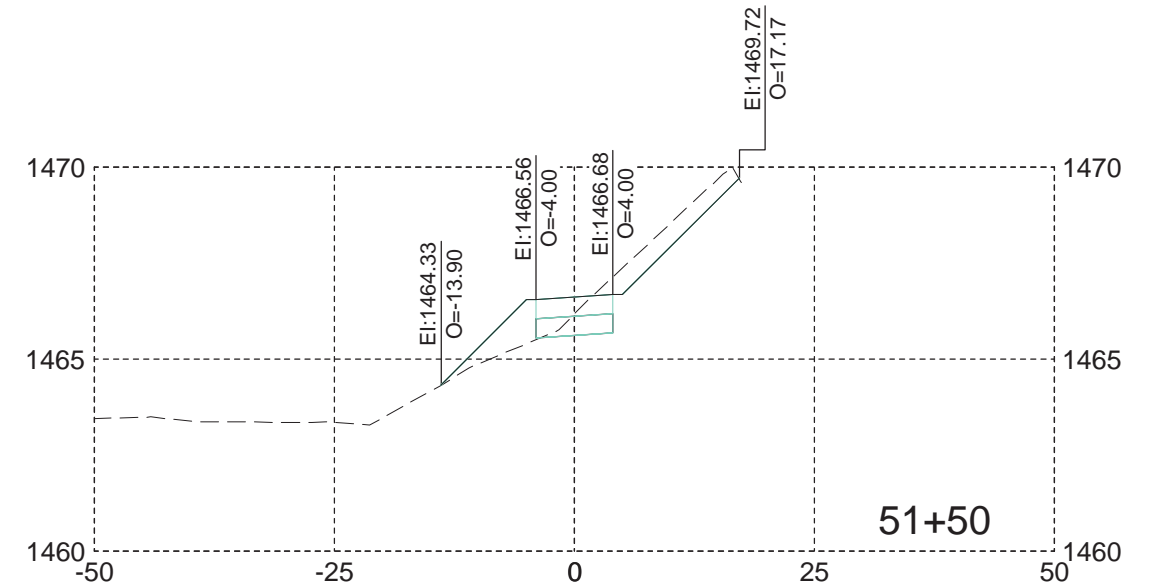
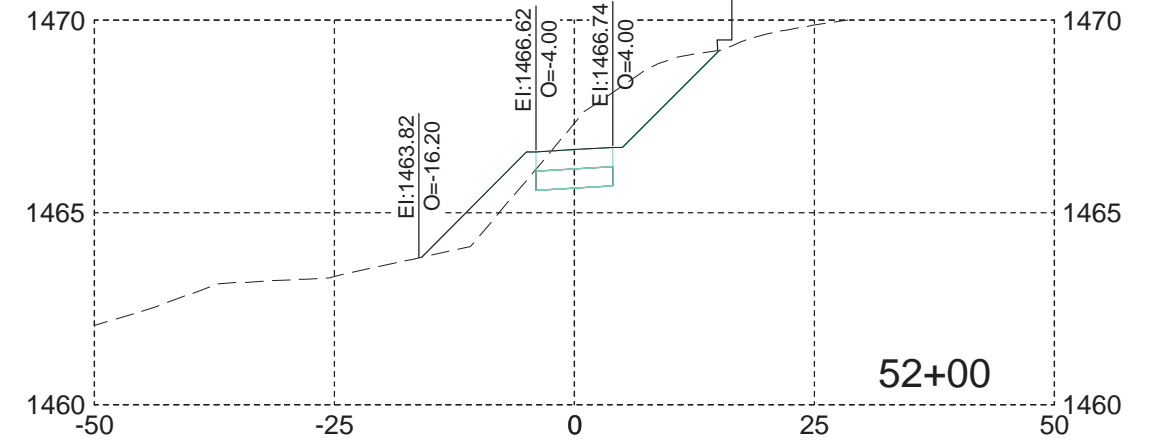
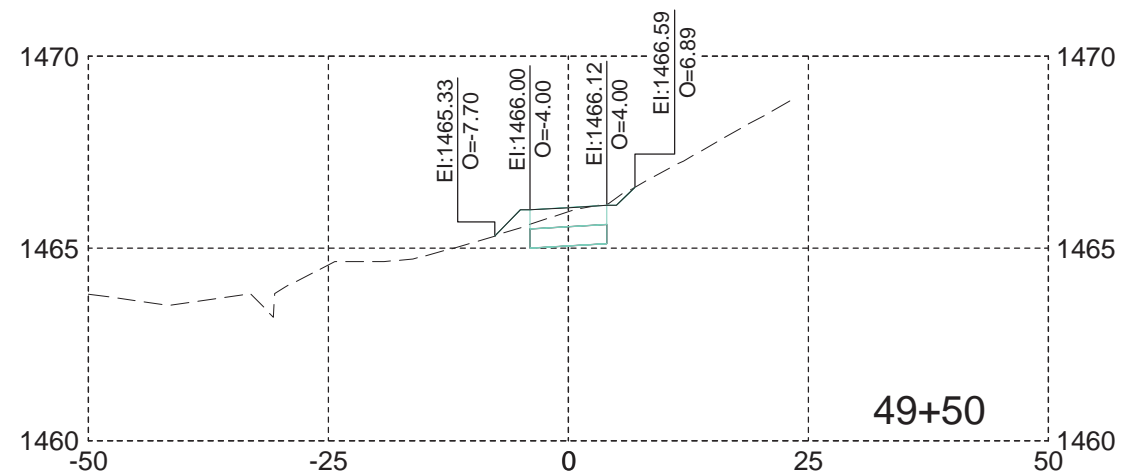
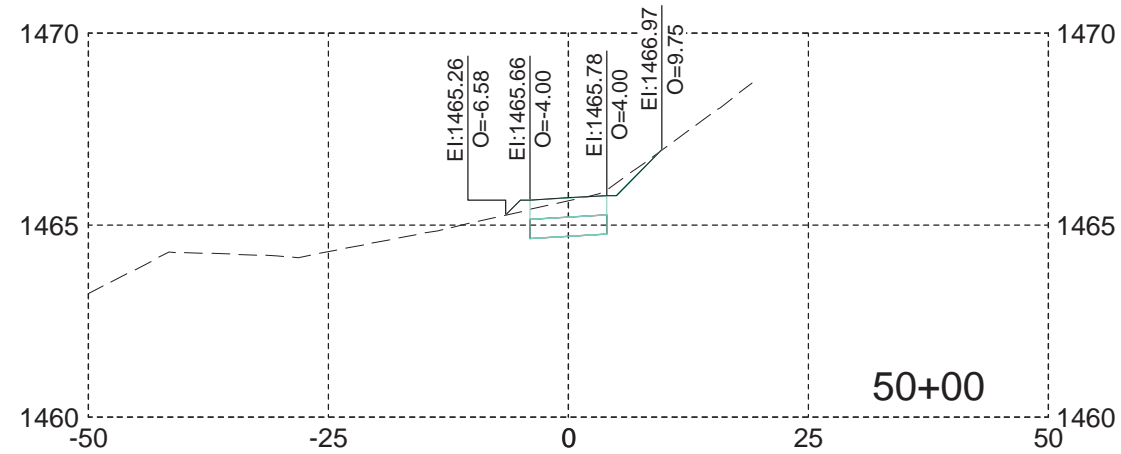
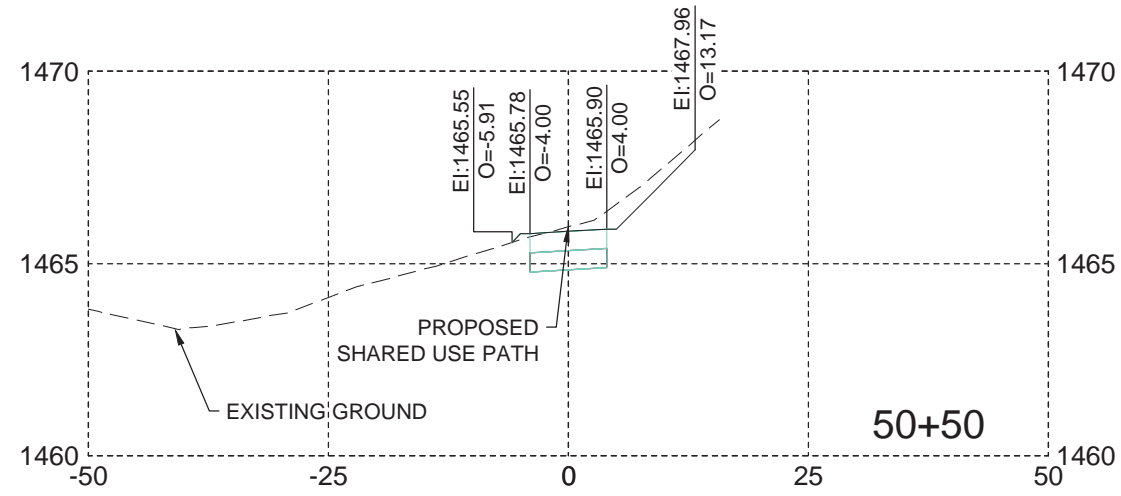
C:\work\central\10261097\Cross Sections - 26th St Path.dwg
PLOT DATE: 7/10/2024 11:18 AM Ode, Kent



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	58	70

FILE: CROSS SECTIONS - 26TH ST PATH
PLOTTING DATE: 7/10/2024
REV DATE:
INITIAL:

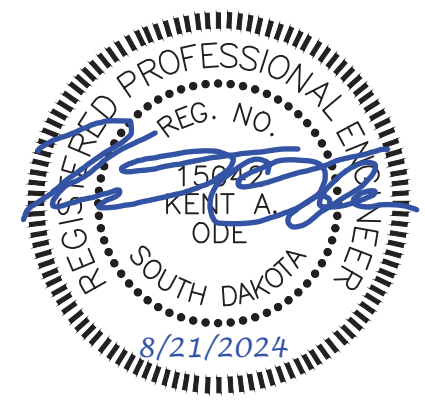
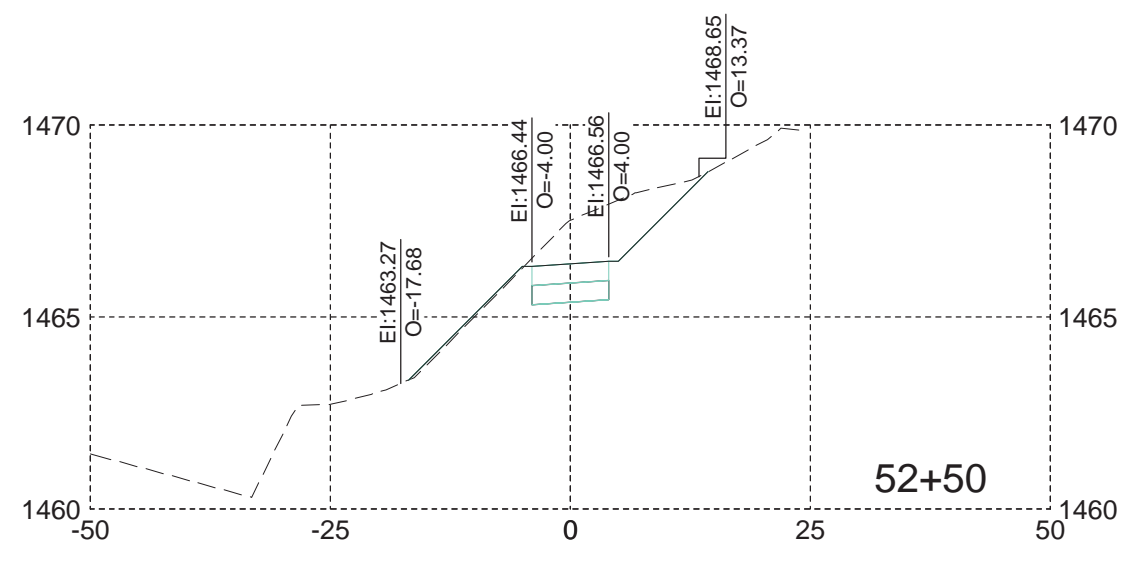
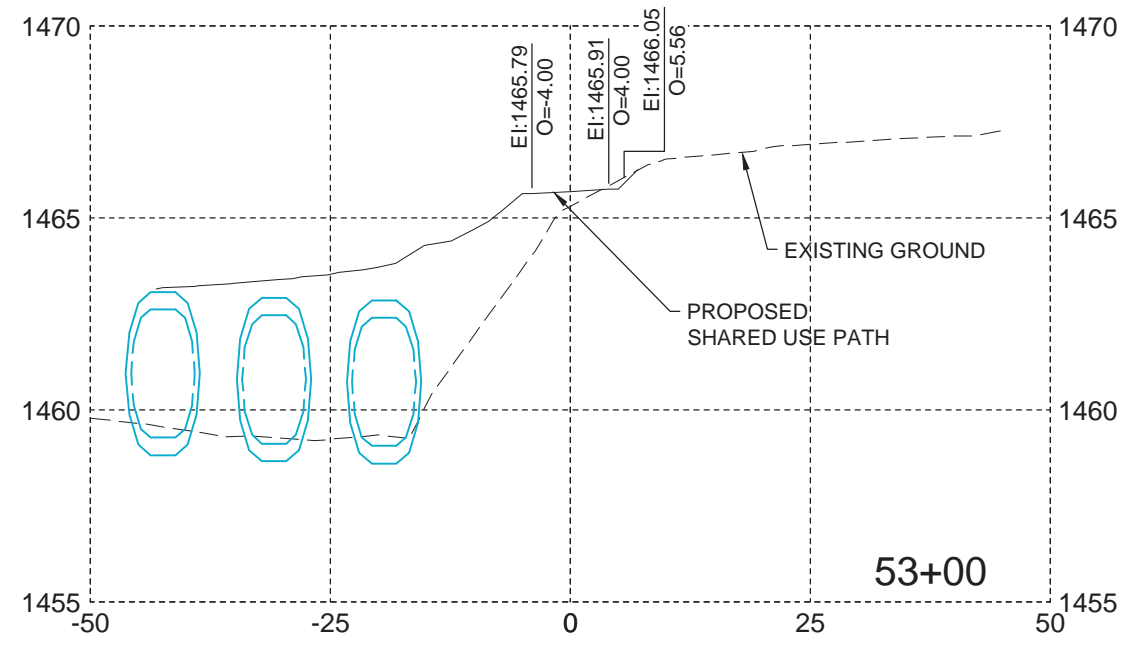


FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	59	70

FILE: CROSS SECTIONS - 26TH ST PATH
PLOTTING DATE: 7/10/2024

REV DATE:
INITIAL:

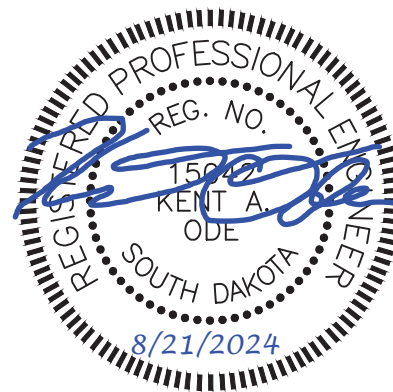
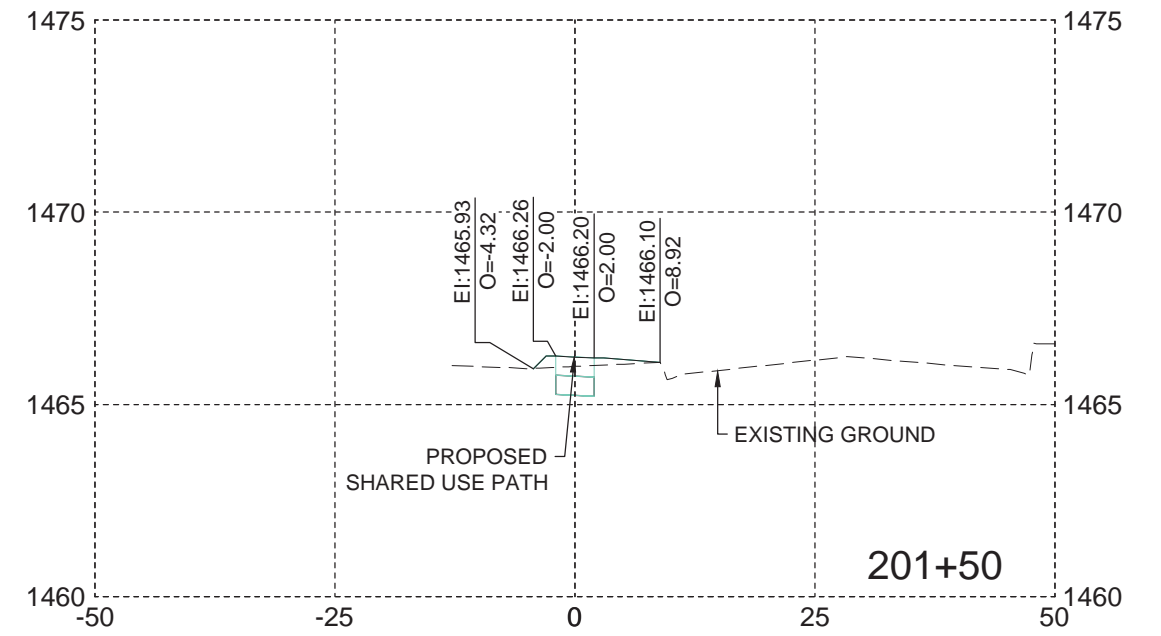
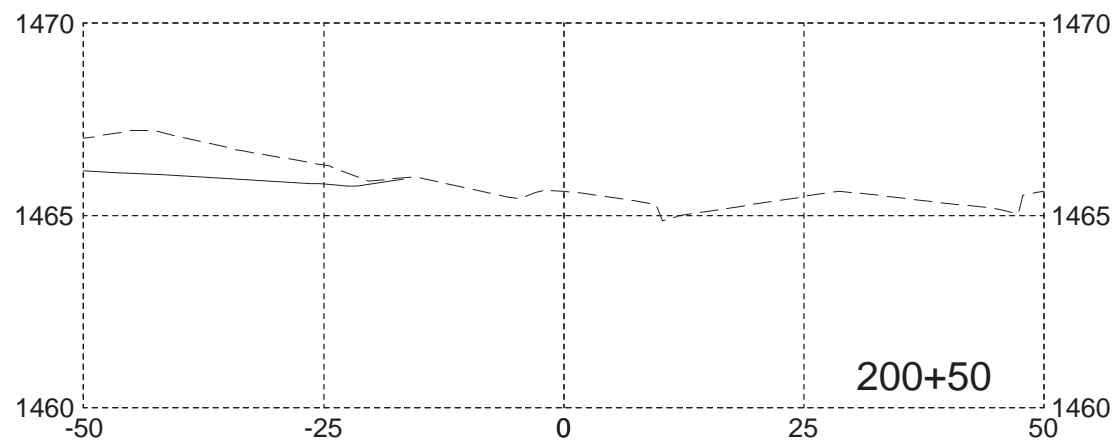
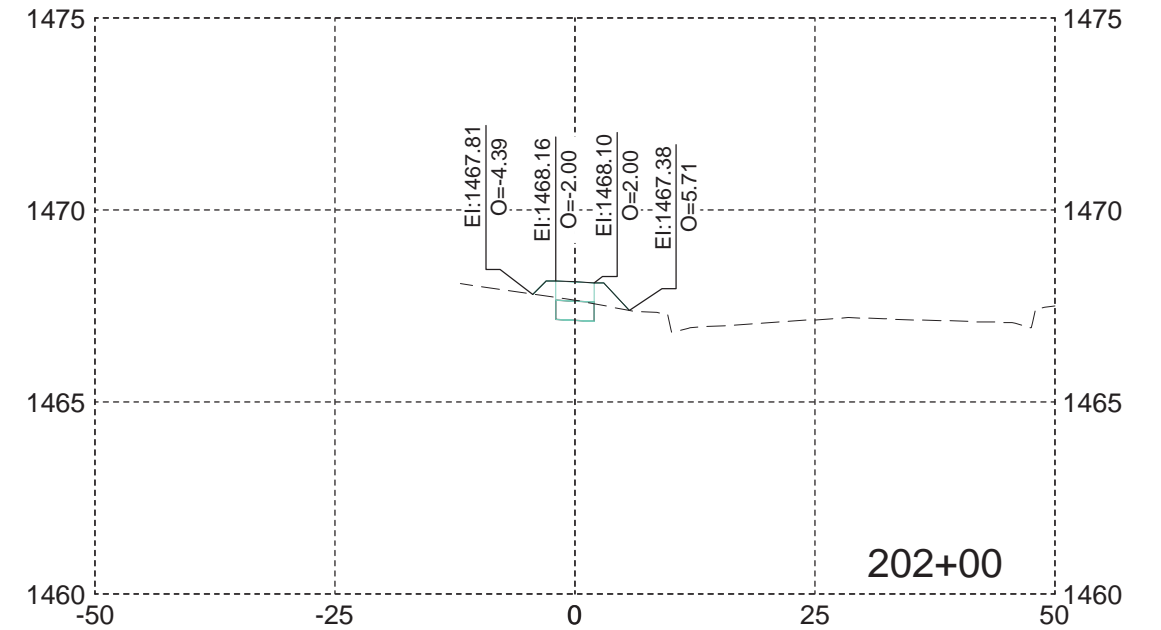
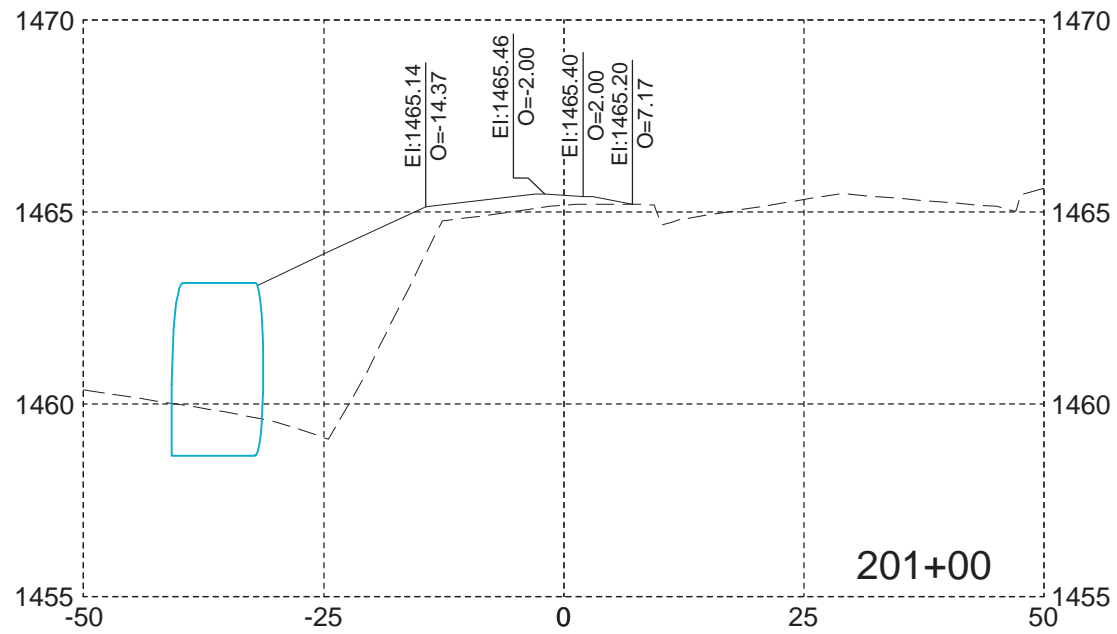


C:\work\central\10261097\Cross Sections - 26th St Path.dwg
PLOT DATE: 7/10/2024 11:18 AM Ode, Kent

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	60	70

FILE: CROSS SECTIONS - 26TH ST PATH
PLOT DATE: 7/10/2024
REV DATE:
INITIAL:



C:\work\central\10261097\Cross Sections - 26th St Path.dwg
PLOT DATE: 7/10/2024 11:18 AM Ode, Kent



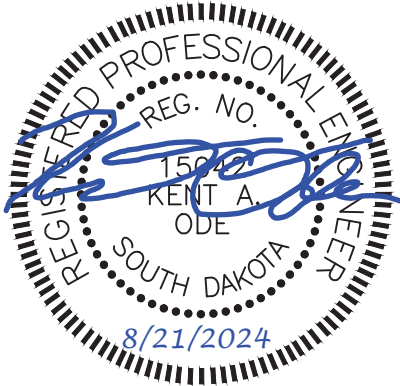
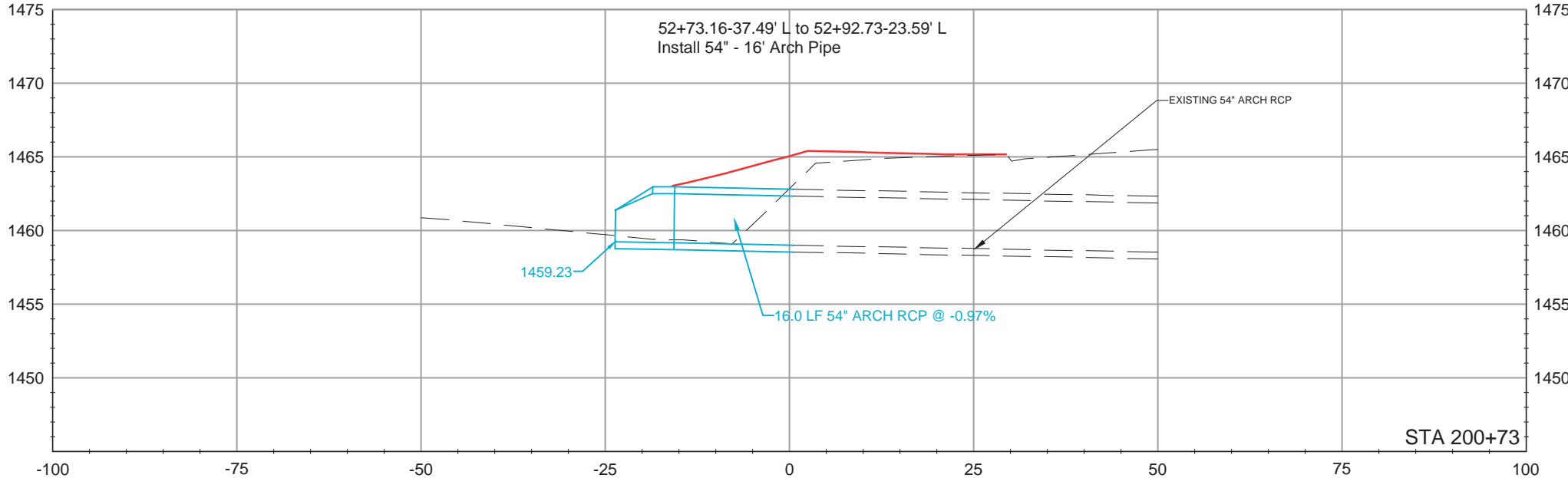
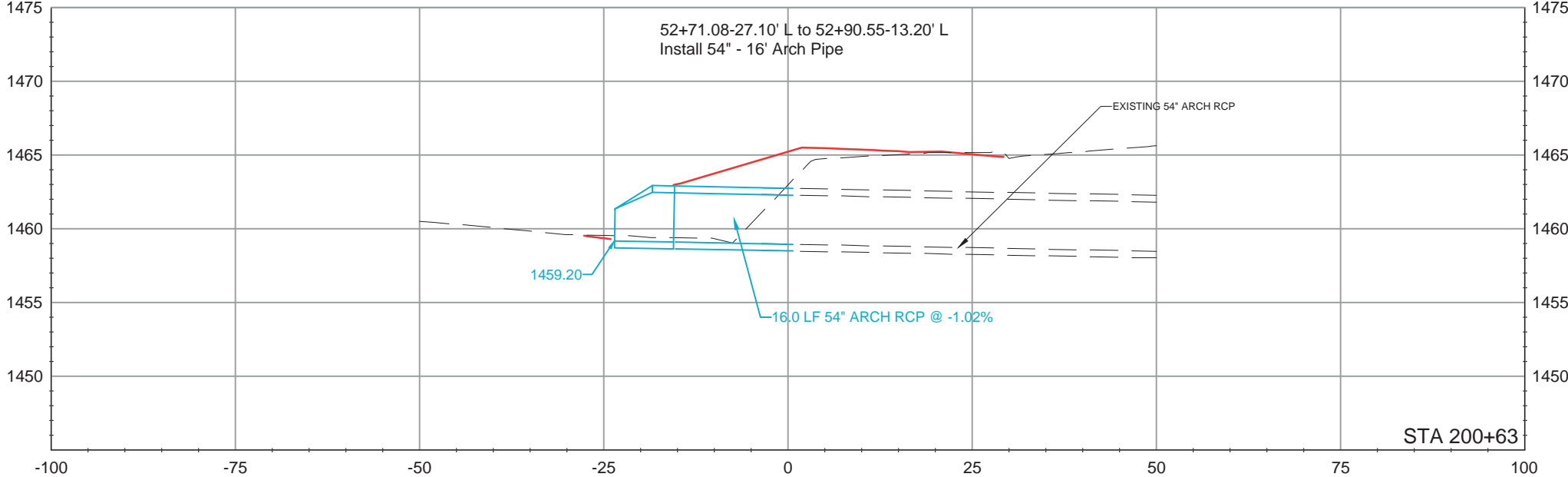
PIPE SECTIONS

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	43	70

FILE: PIPE SECTIONS
PLOT DATE: 7/10/2024

REV DATE:
INITIAL:

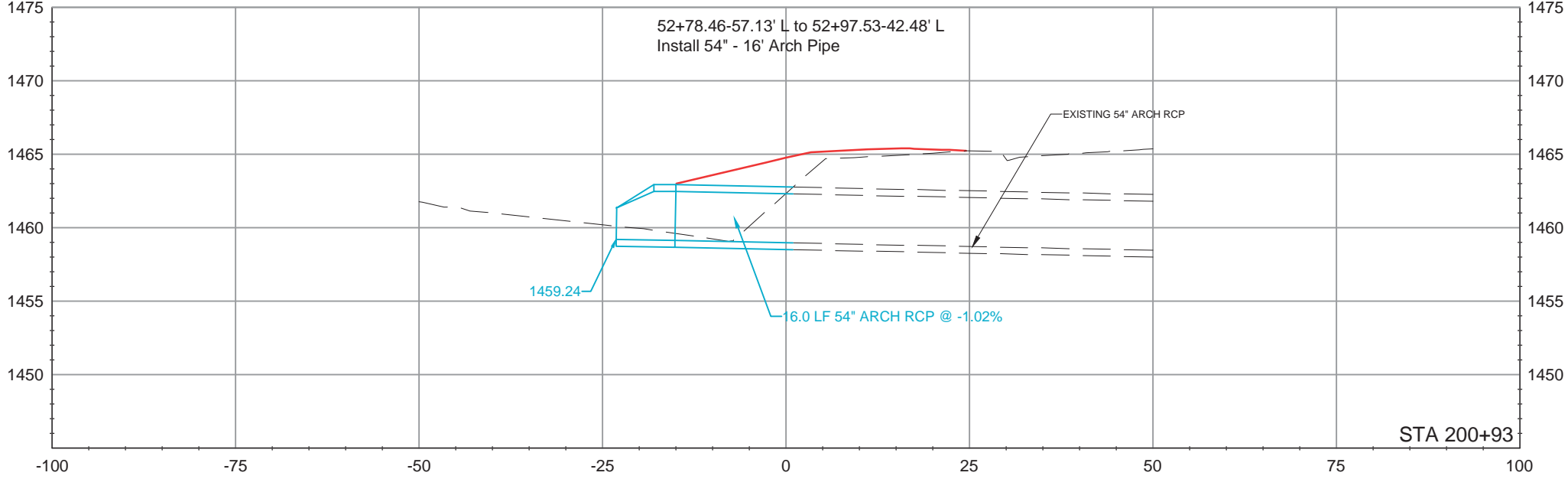
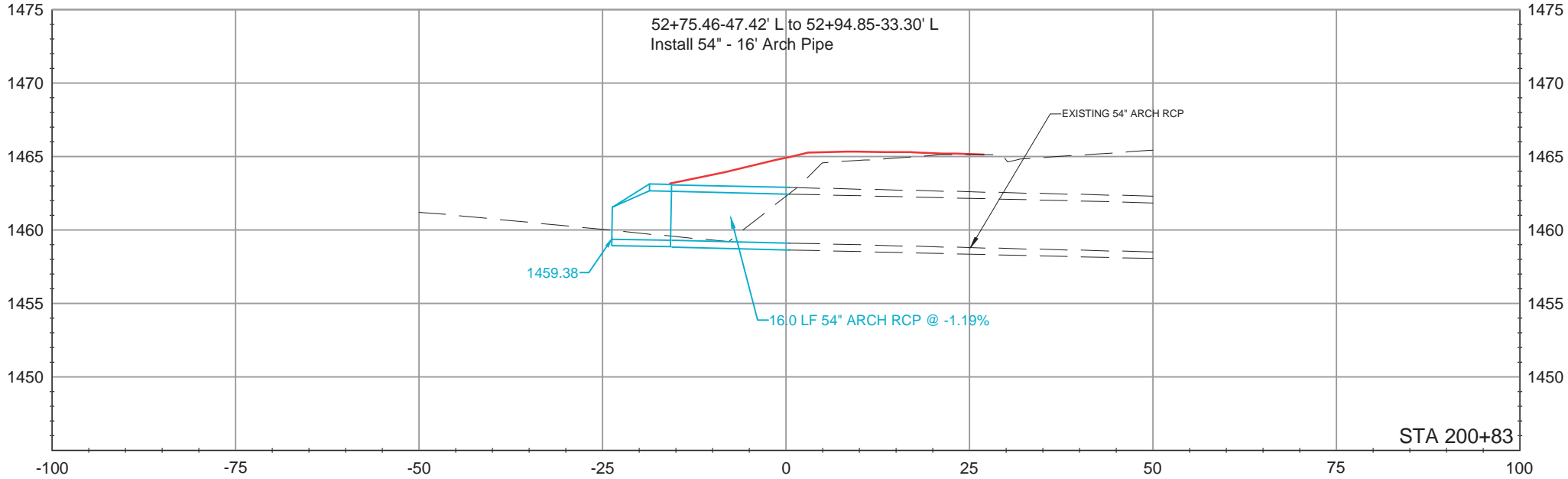


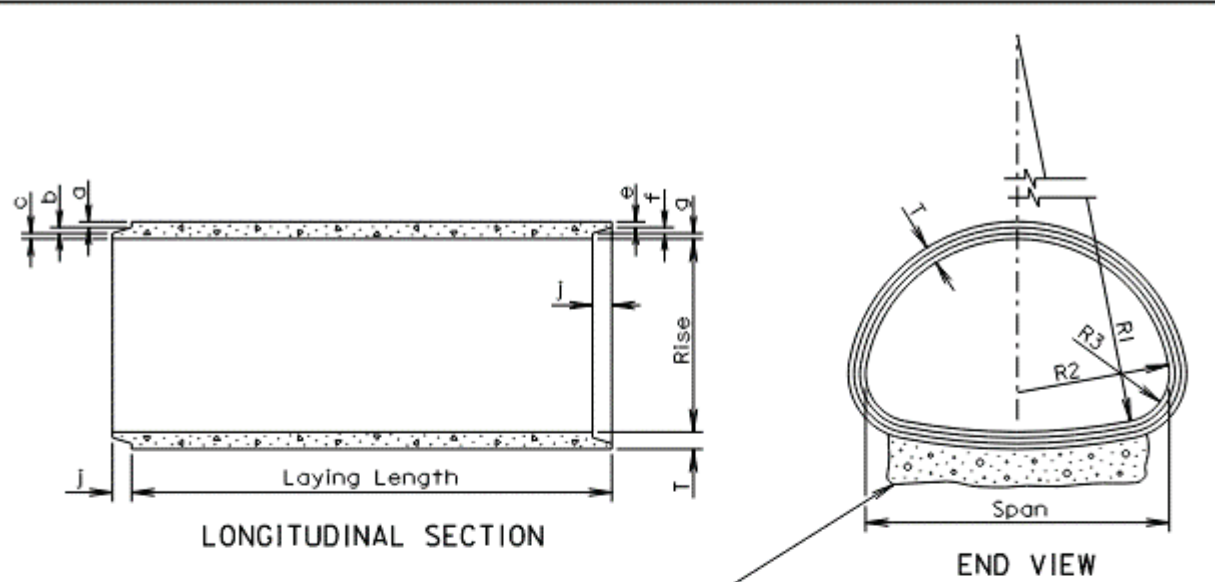
PIPE SECTIONS

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(38)	44	70

FILE: PIPE SECTIONS
PLOT DATE: 7/10/2024
REV DATE:
INITIAL:





TOLERANCES IN DIMENSIONS

Radial dimensions at joints: $\pm 1/8"$ for 65" span or less and $\pm 1/4"$ for longer spans.
 Rise and Span: $\pm 2\%$ of tabular values.
 Length of Joint (J): $\pm 1/4"$.
 Wall thickness (T): not less than design T by more than 5% or $3/16"$, whichever is greater.
 Laying length: shall not underrun by more than $1/2"$.

Gravel Bedding Material shall be supplied for 102" to 169" spans. It shall be placed to a thickness of 6" (Min.) x 85% of the Span x Length of culvert and shall conform to the gradation requirements for gravel surfacing except material may be screened or may be plan provided material.

* Size (in.)	Approx. Wt./Ft. (lb.)	Rise (in.)	Span (in.)	T (in.)	a (in.)	b (in.)	c (in.)	j (in.)	e (in.)	f (in.)	g (in.)	R1 (in.)	R2 (in.)	R3 (in.)
18	170	13 1/2	22	2 1/2	1 3/8	3/8	3/4	2	1 1/8	3/8	1	27 1/2	13 3/4	5 1/4
24	320	18	28 1/2	3 1/2	1 5/8	1/2	1 3/8	3	1 3/8	1/2	1 5/8	40 11/16	14 3/4	4 5/8
30	450	22 1/2	36 1/4	4	1 11/16	5/8	1 9/16	3 1/2	1 9/16	5/8	1 11/16	51	18 3/4	6 1/8
36	600	26 5/8	43 3/4	4 1/2	2	3/4	1 3/4	4	1 3/4	3/4	2	62	22 1/2	6 1/2
42	740	31 5/16	51 1/8	4 1/2	2	3/4	1 3/4	4	1 3/4	3/4	2	73	26 1/4	7 1/4
48	890	36	58 1/2	5	2 1/4	3/4	2	5	2	3/4	2 1/4	84	30	8 1/8
54	1100	40	65	5 1/2	2 1/2	3/4	2 1/4	5	2 1/4	3/4	2 1/2	92 1/2	33 3/8	10
60	1400	45	73 1/2	6	3 5/16	3/4	1 15/16	5	2 3/4	3/4	2 1/2	105	37 1/2	11
72	1900	54	88	7	3 9/16	1	2 3/16	6	3 1/4	1	2 3/4	126	45	13 5/16
84	2500	62	102	8	4 1/8	1	2 7/8	6	3 1/2	1	3 1/2	162 1/2	52	14 1/2
96	3300	78	122 3/8	9	4 1/2	1	3 1/2	7	4	1	4	218	62	20
108	4200	88	138 1/2	10	5	1	4	7	4 1/2	1	4 1/2	269	70	22
120	5100	96 1/8	154	11	5 1/2	1	4 1/2	7	5	1	5	301 3/8	78	24
132	5100	106 1/2	168 3/4	10		1	4	7	4 1/2	1	4 1/2	329	85 5/8	26 1/8

* Equivalent Diameter of Circular R. C. P.

GENERAL NOTES:

Construction of R.C.P. Arch 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.

June 26, 2015

S D D O T	REINFORCED CONCRETE PIPE ARCH	PLATE NUMBER 450.02
	Published Date: 2025	Sheet 1 of 1

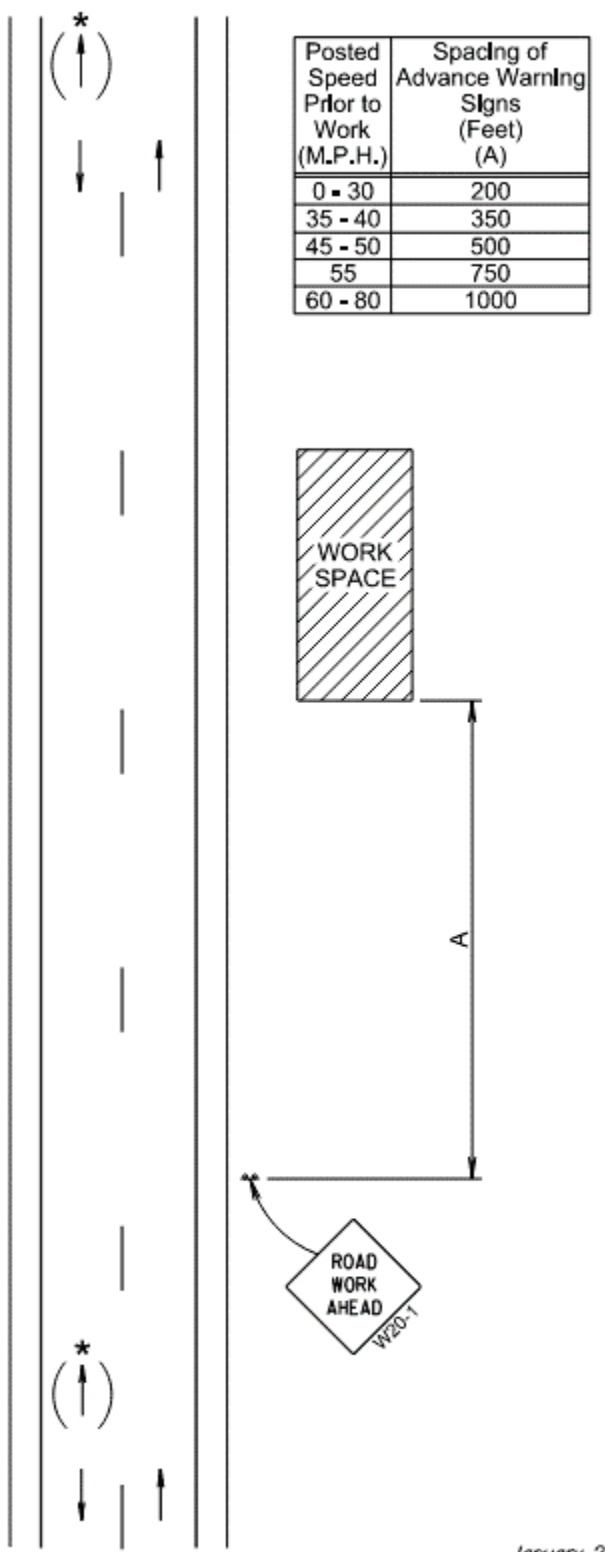
The signs illustrated are not required if the work space is behind a barrier, more than 2 feet behind the curb, or 15 feet or more from the edge of any roadway.

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.

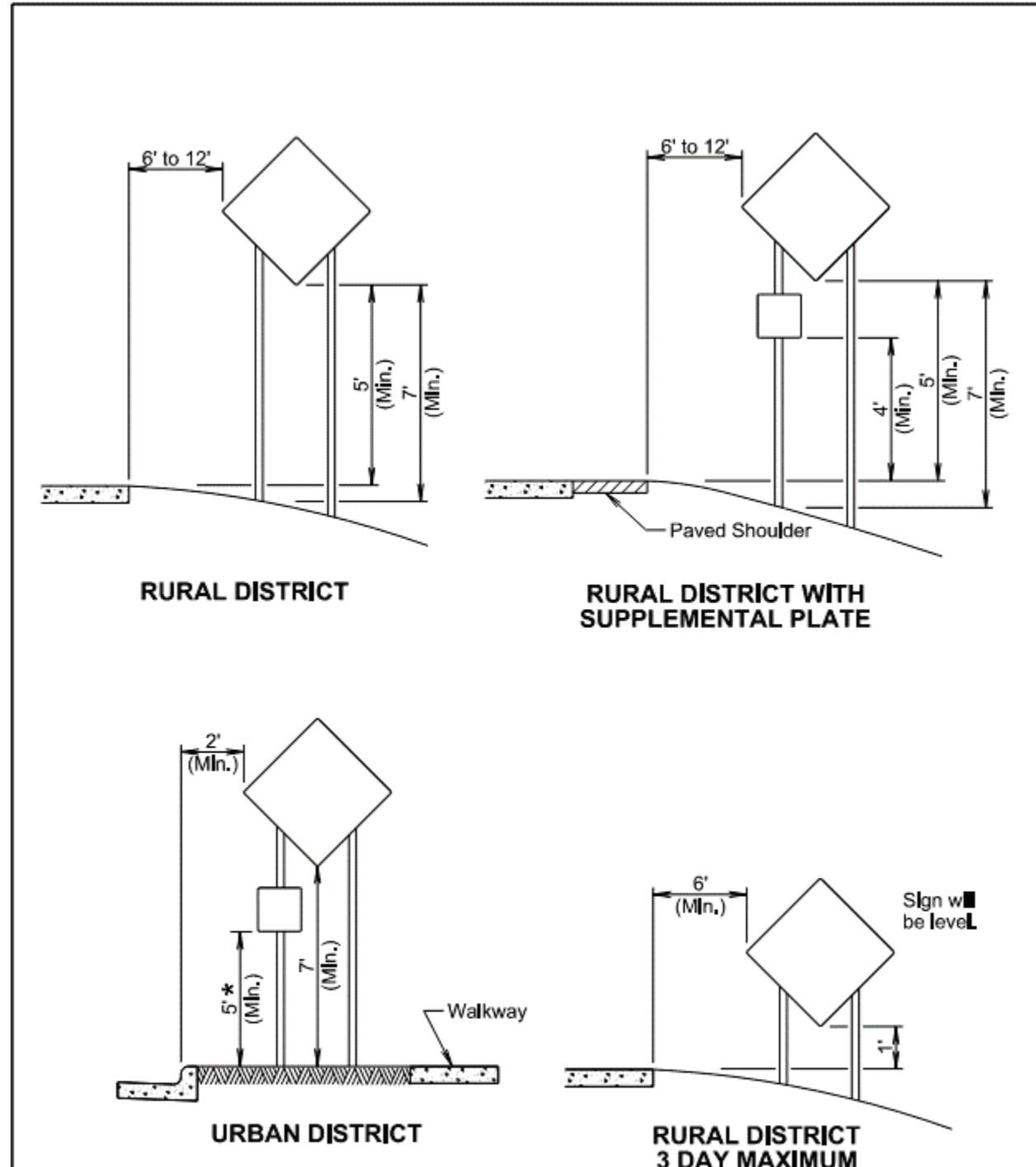
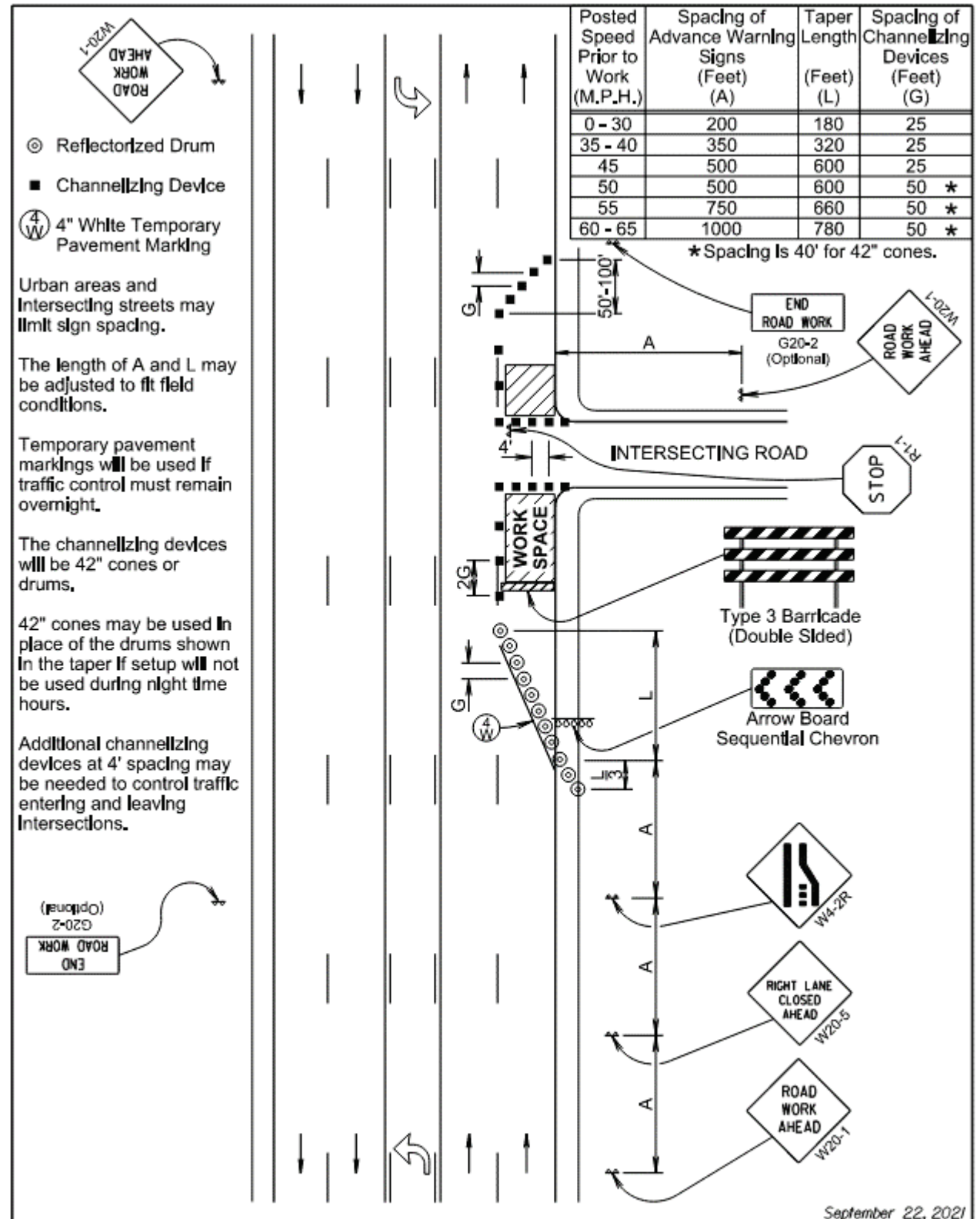
* If the work space is on a divided highway, an advance warning sign should also be placed on the left side of the directional roadway.

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.

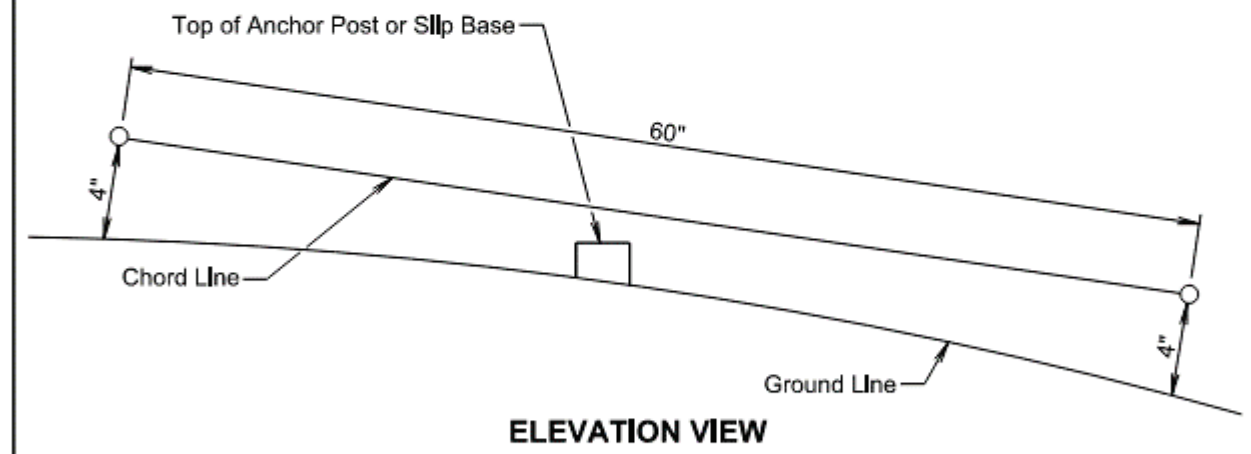
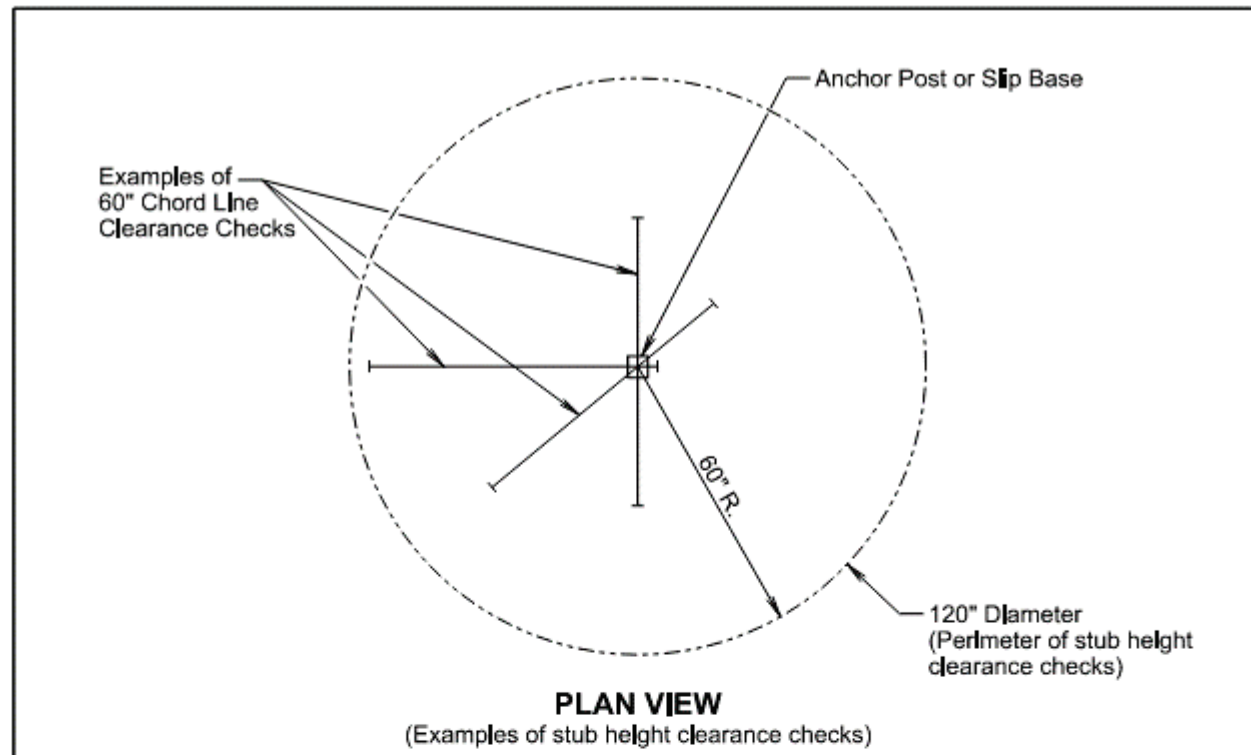


January 22, 2021

S D D O T	WORK BEYOND THE SHOULDER	PLATE NUMBER 634.01
	Published Date: 2025	Sheet 1 of 1



* 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.



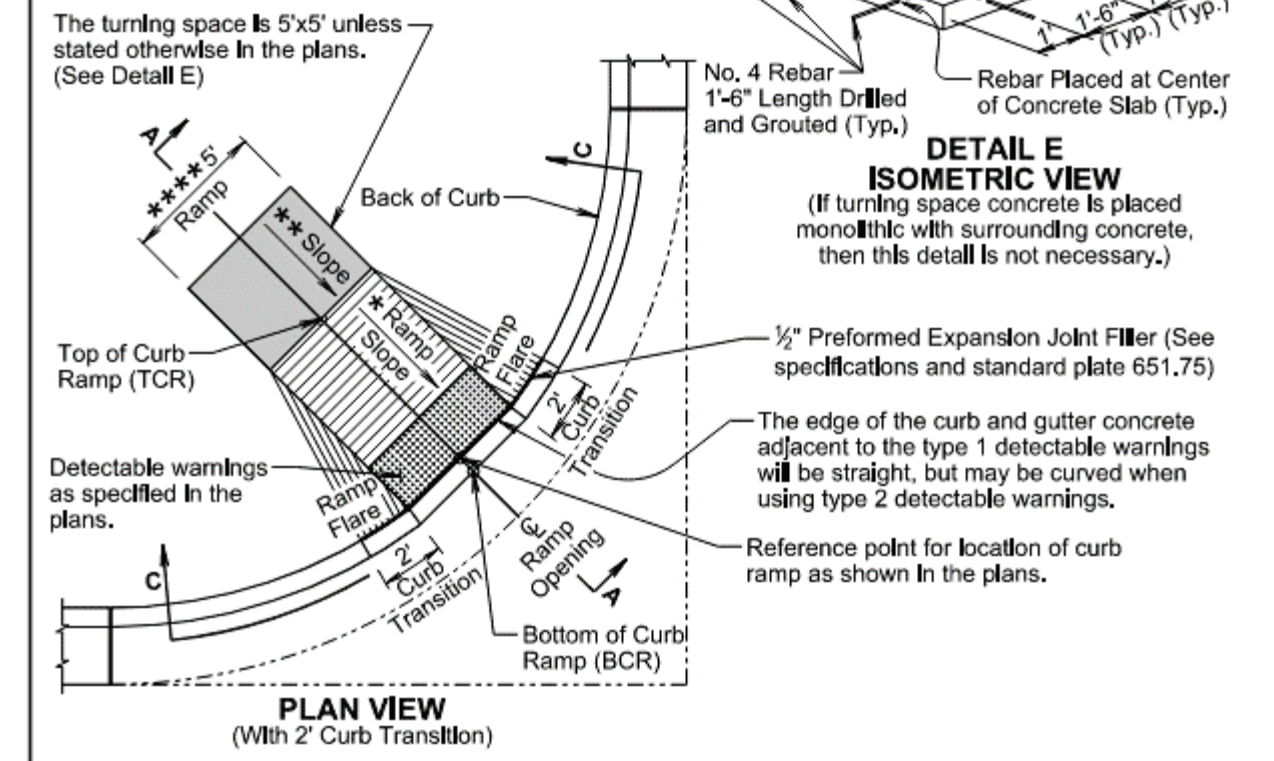
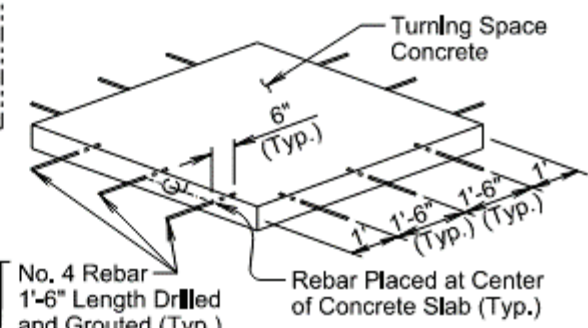
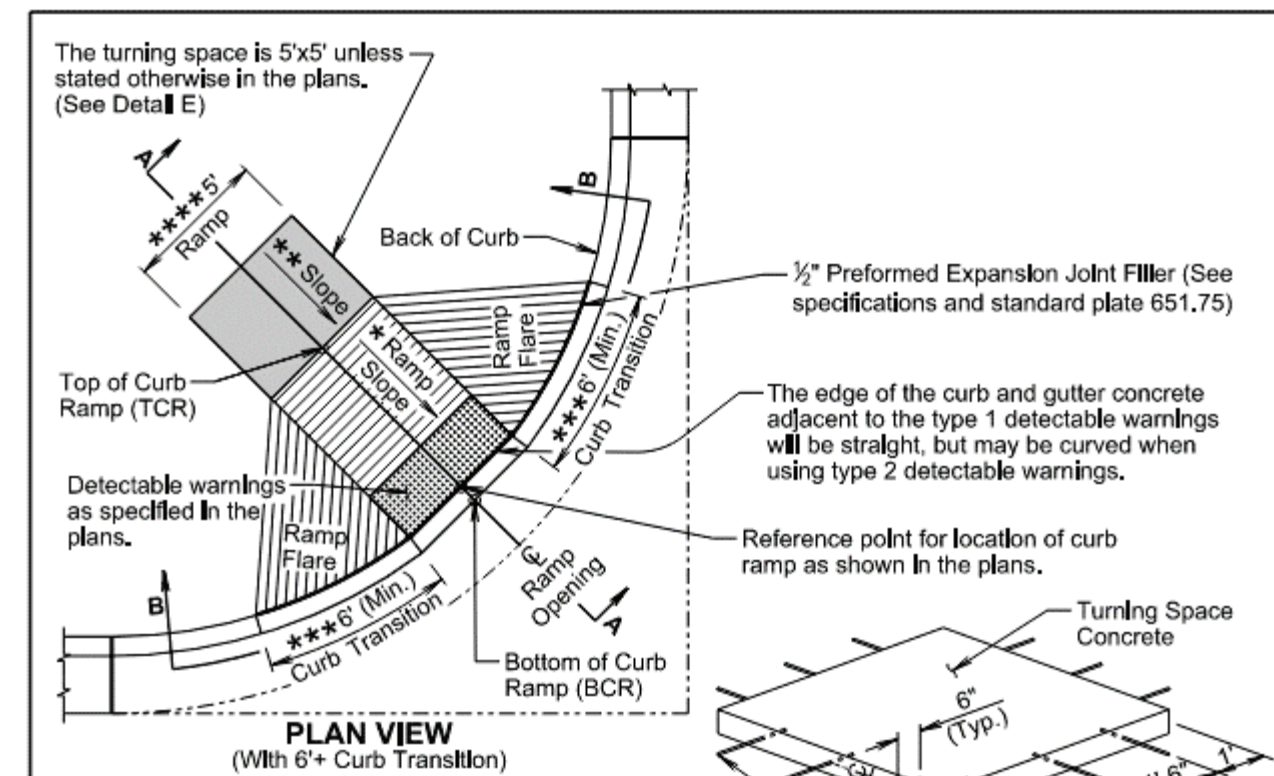
GENERAL NOTES:

- 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

S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
		Sheet 1 of 1

Published Date: 2025

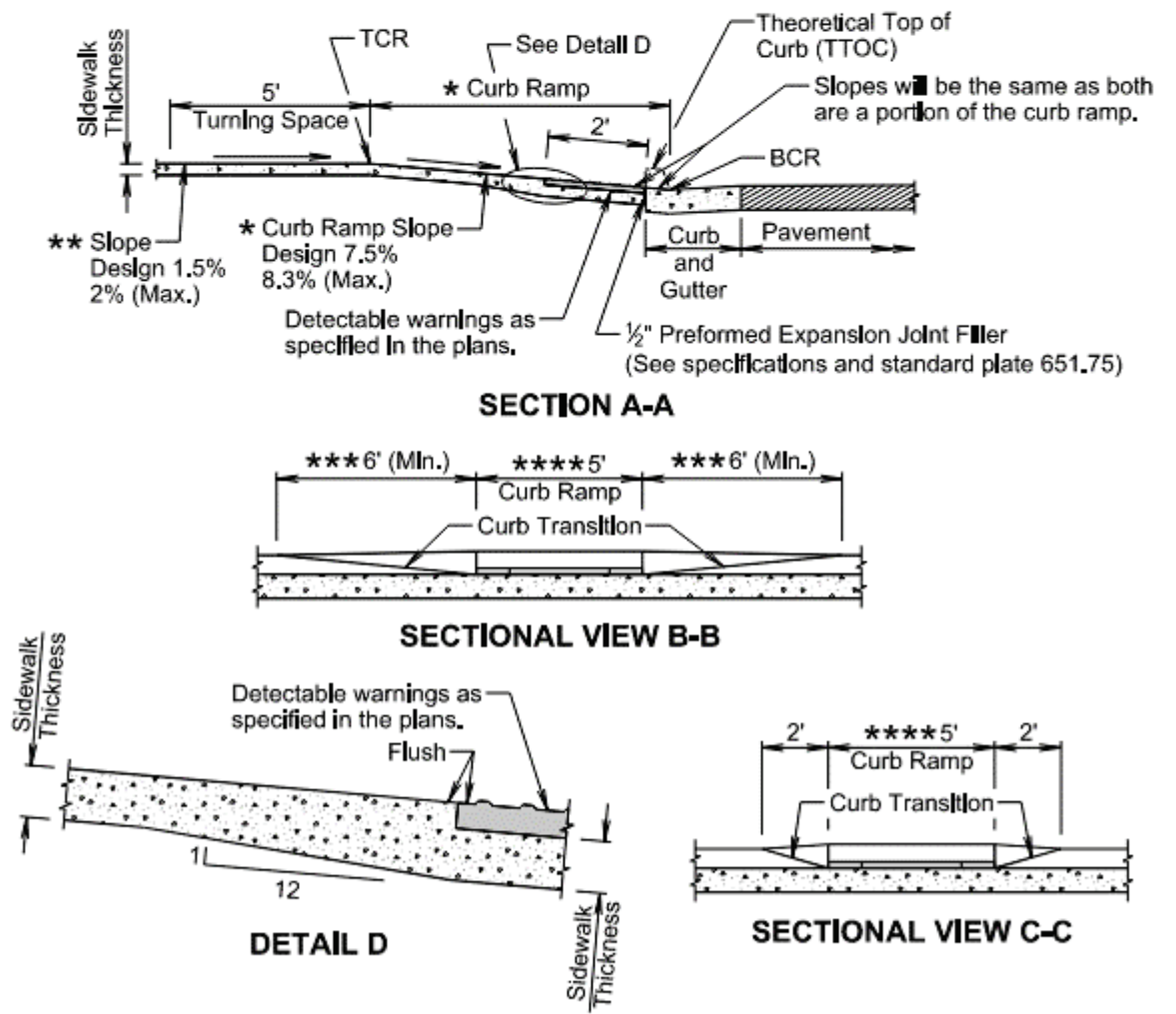


February 14, 2020

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

Published Date: 2025

- 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% and will not exceed 15' in length unless stated otherwise in the plans.
- The curb ramp length may be computed based on the intersection of a continuous 1.5% theoretical slope from theoretical top of curb (TTOC) with the curb ramp using a continuous 7.5% curb ramp slope. The elevation of point TCR will always be higher than the elevation of point TTOC unless specified otherwise in the plans. The curb ramp length dimension as shown in the plans 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%. Plans are designed using a 1.5% slope 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 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.
- **** The ramp width is 5' unless stated otherwise in the plans.



February 14, 2020

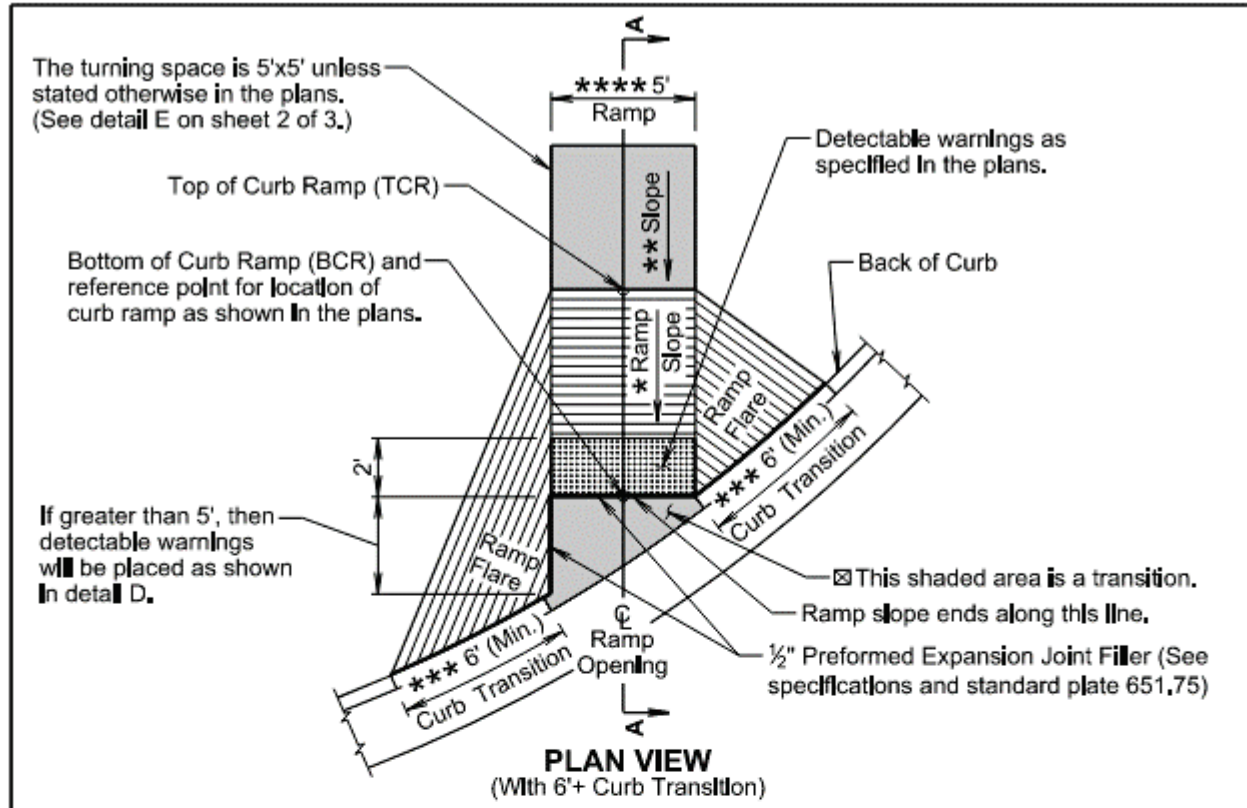
Published Date: 2025	S D D O T	TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)	PLATE NUMBER 651.01
			Sheet 2 of 3

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

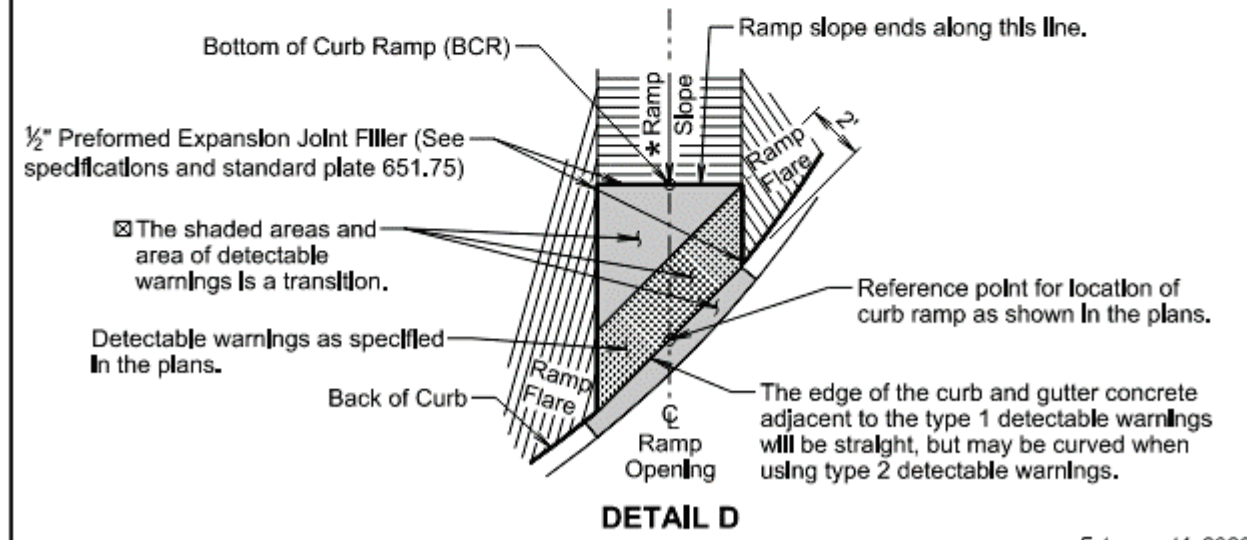


☒ This shaded area is a transition.

Ramp slope ends along this line.

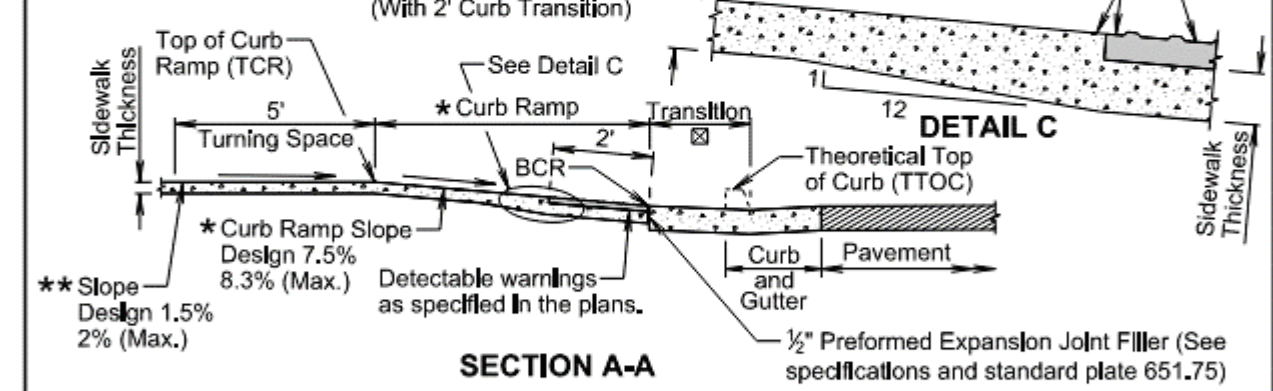
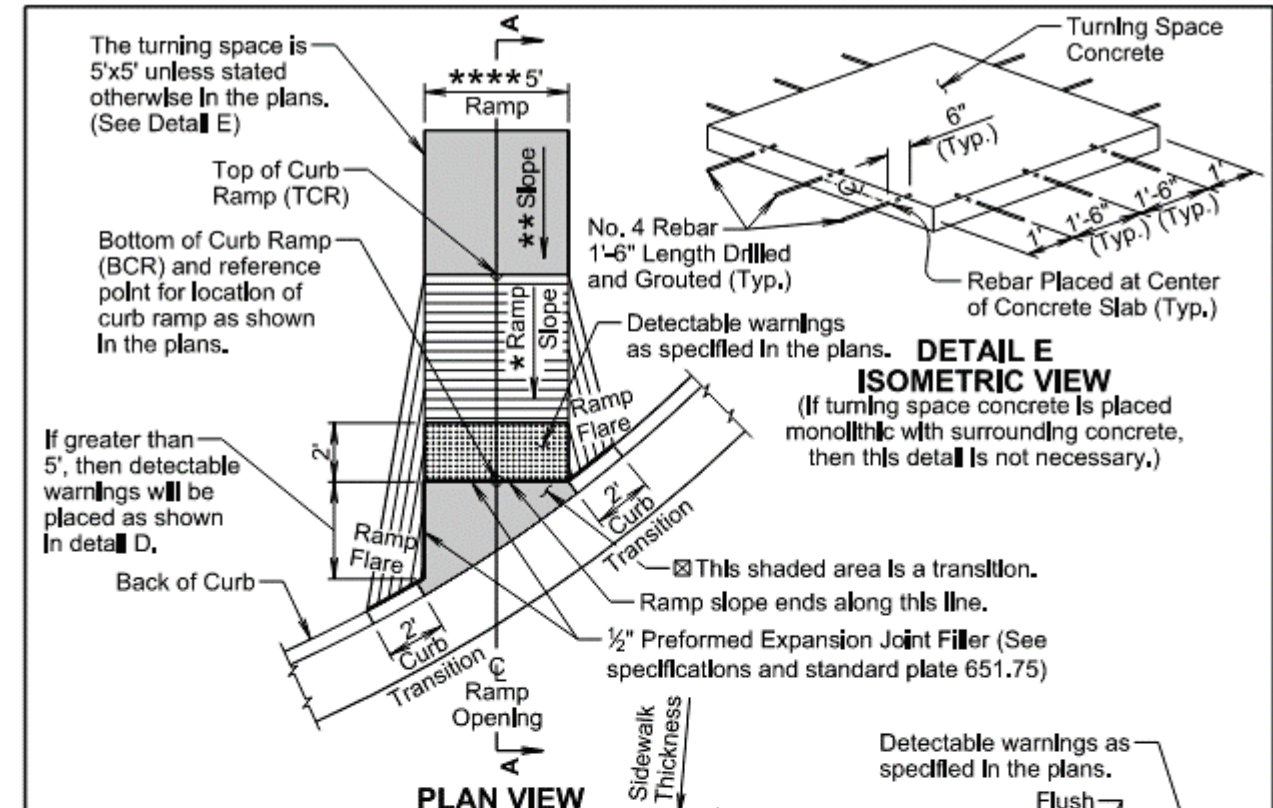
☒ The slope within the transition area will not be steeper than 5%. The concrete within the transition will be placed monolithic with the curb and gutter or fillet section concrete. The concrete thickness within the transition will be the same as the curb and gutter or fillet section concrete thickness.

*** 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



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% and will not exceed 15' in length unless stated otherwise in the plans.

* The elevation of point TCR will always be higher than the elevation of point TTOC unless specified otherwise in the plans. The curb ramp length dimension as shown in the plans 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%. Plans are designed using a 1.5% slope 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 ramp width is 5' unless stated otherwise in the plans. February 14, 2020

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

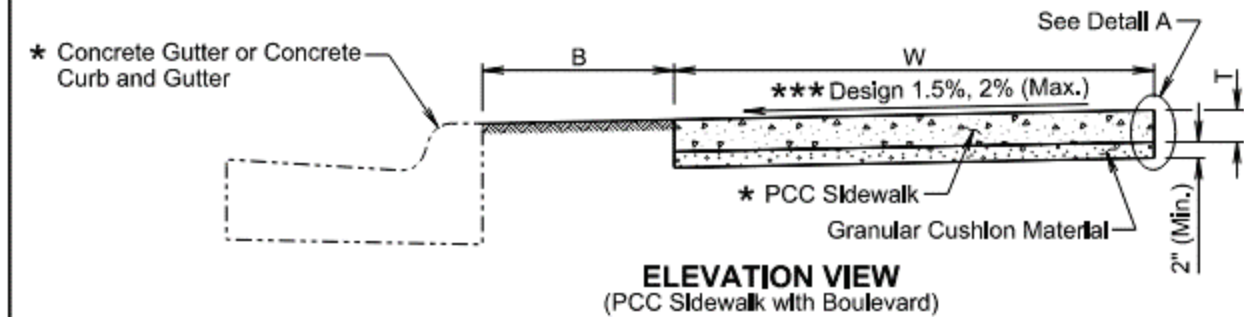
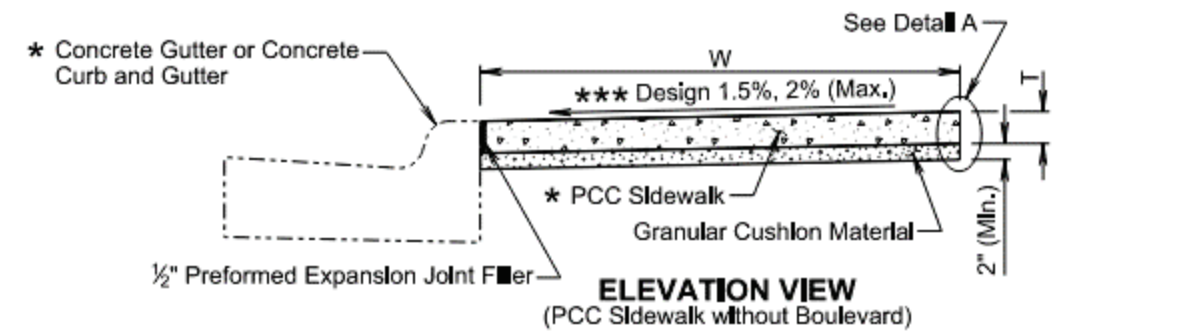
All costs for furnishing and installing the transition area at the base of the curb ramp will be incidental to the contract unit price per foot for the corresponding curb and gutter contract item when curb and gutter is used and will be incidental to the contract unit price per square yard for the corresponding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

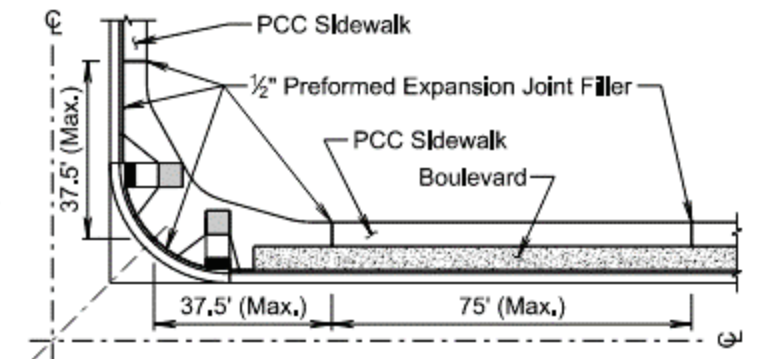
The type 2 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding will be paid for at the contract unit price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



- 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.

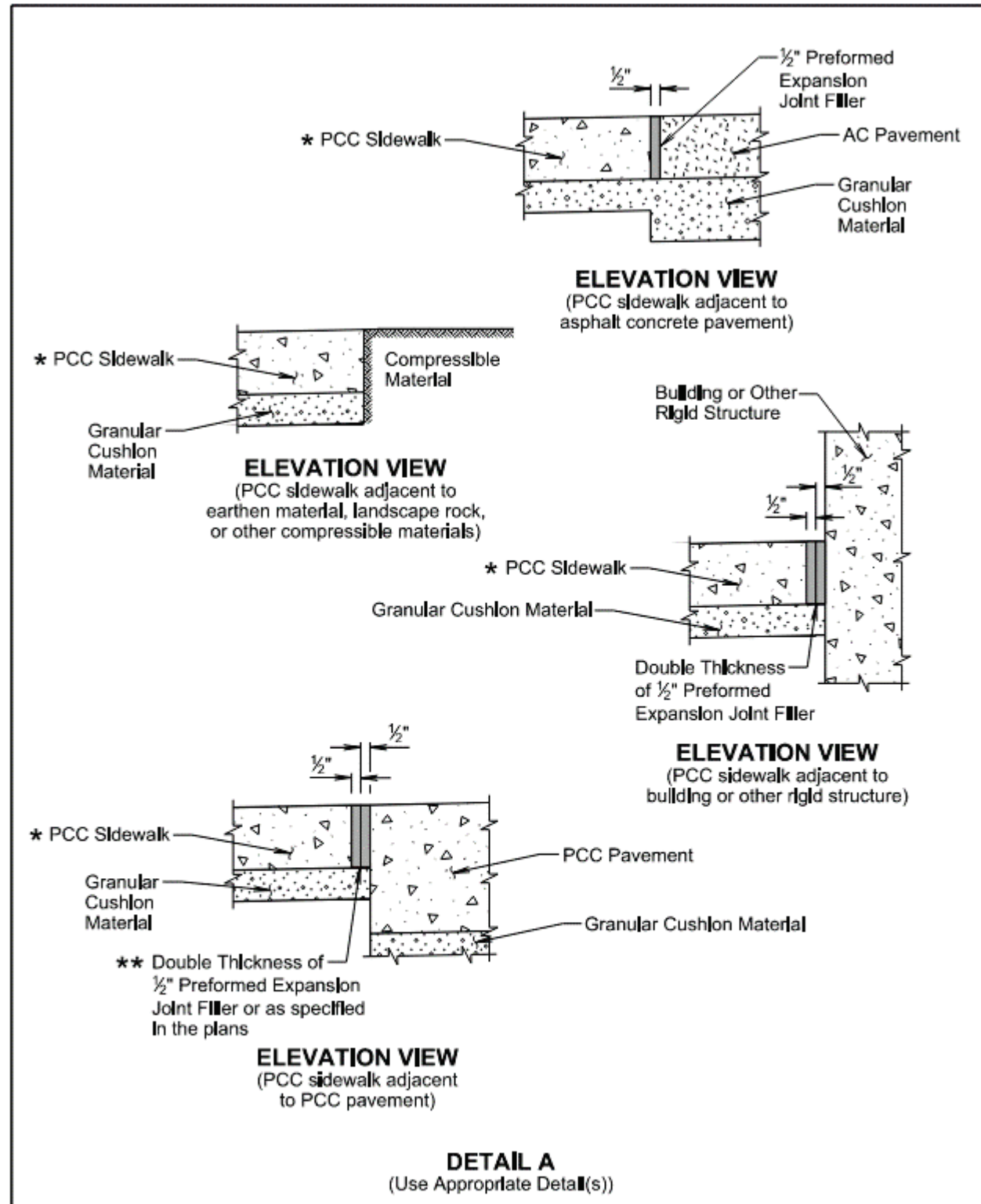
PCC sidewalk placed adjacent to intersection of roadways will have an expansion joint placed transversely a maximum of 37.5 feet from the intersection. See Plan View.

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.

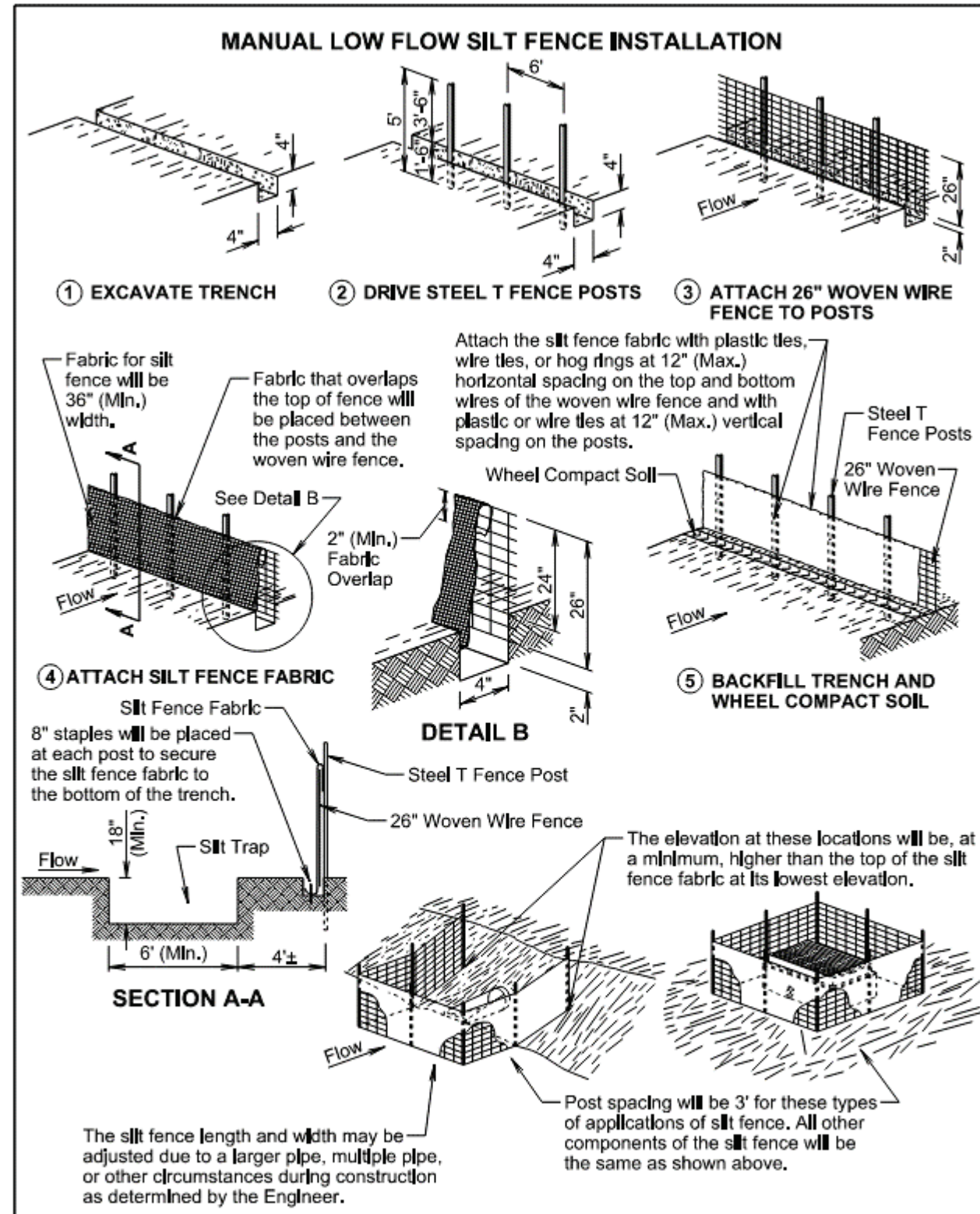
February 14, 2020

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



February 14, 2020

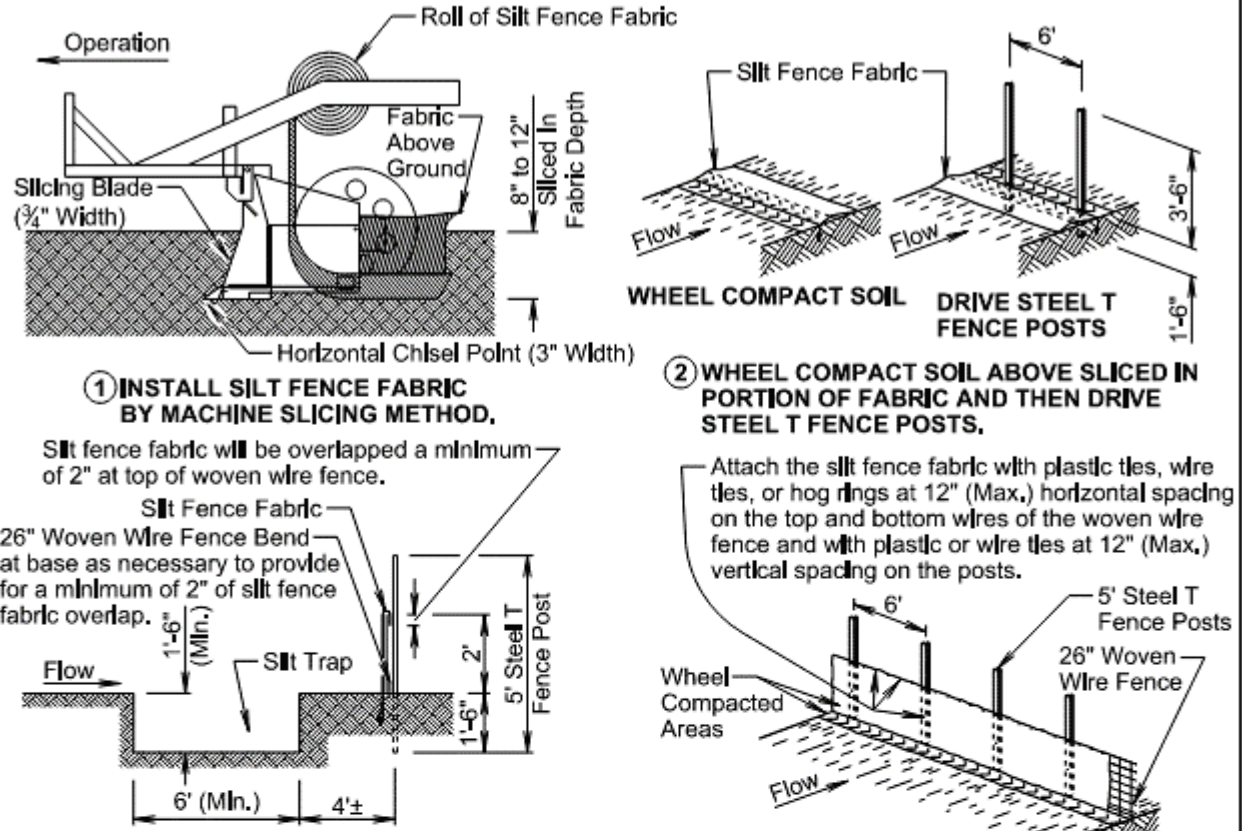
Published Date: 2025	S D D O T	PCC SIDEWALK	PLATE NUMBER
			651.75
			Sheet 2 of 2



February 14, 2020

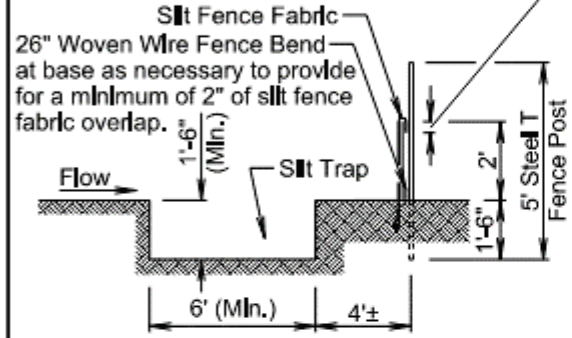
Published Date: 2025	S D D O T	LOW FLOW SILT FENCE AND SILT TRAP	PLATE NUMBER
			734.04
			Sheet 1 of 2

MACHINE SLICED LOW FLOW SILT FENCE INSTALLATION



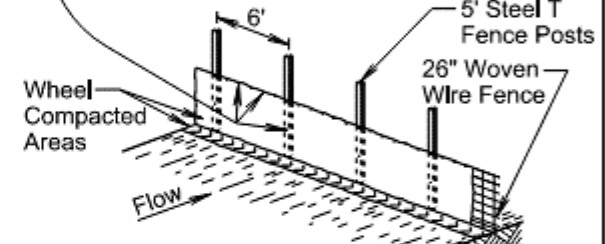
1) INSTALL SILT FENCE FABRIC BY MACHINE SLICING METHOD.

Silt fence fabric will be overlapped a minimum of 2" at top of woven wire fence.



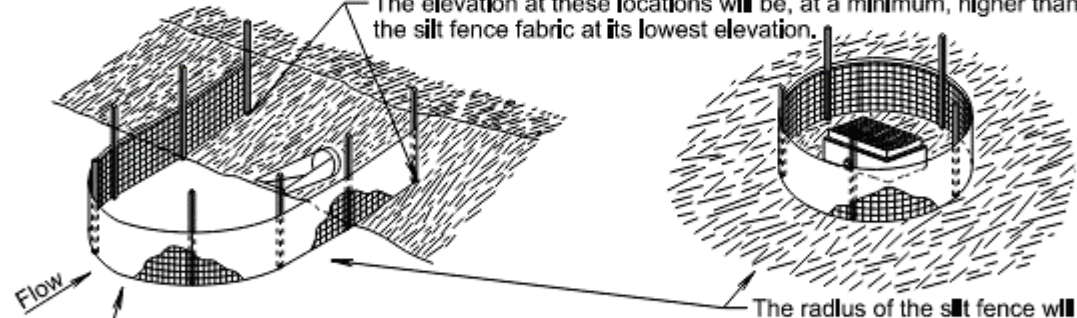
2) WHEEL COMPACT SOIL ABOVE SLICED IN PORTION OF FABRIC AND THEN DRIVE STEEL T FENCE POSTS.

Attach the silt fence fabric with plastic ties, wire ties, or hog rings at 12" (Max.) horizontal spacing on the top and bottom wires of the woven wire fence and with plastic or wire ties at 12" (Max.) vertical spacing on the posts.



3) ATTACH 26" WOVEN WIRE FENCE TO POSTS AND ATTACH SILT FENCE FABRIC.

The elevation at these locations will be, at a minimum, higher than the top of the silt fence fabric at its lowest elevation.



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.

The radius of the silt fence will be the minimum capable by the slicing machine. The post spacing will be 3' for these types of applications of silt fence. All the other components of the silt fence will be the same as shown above.

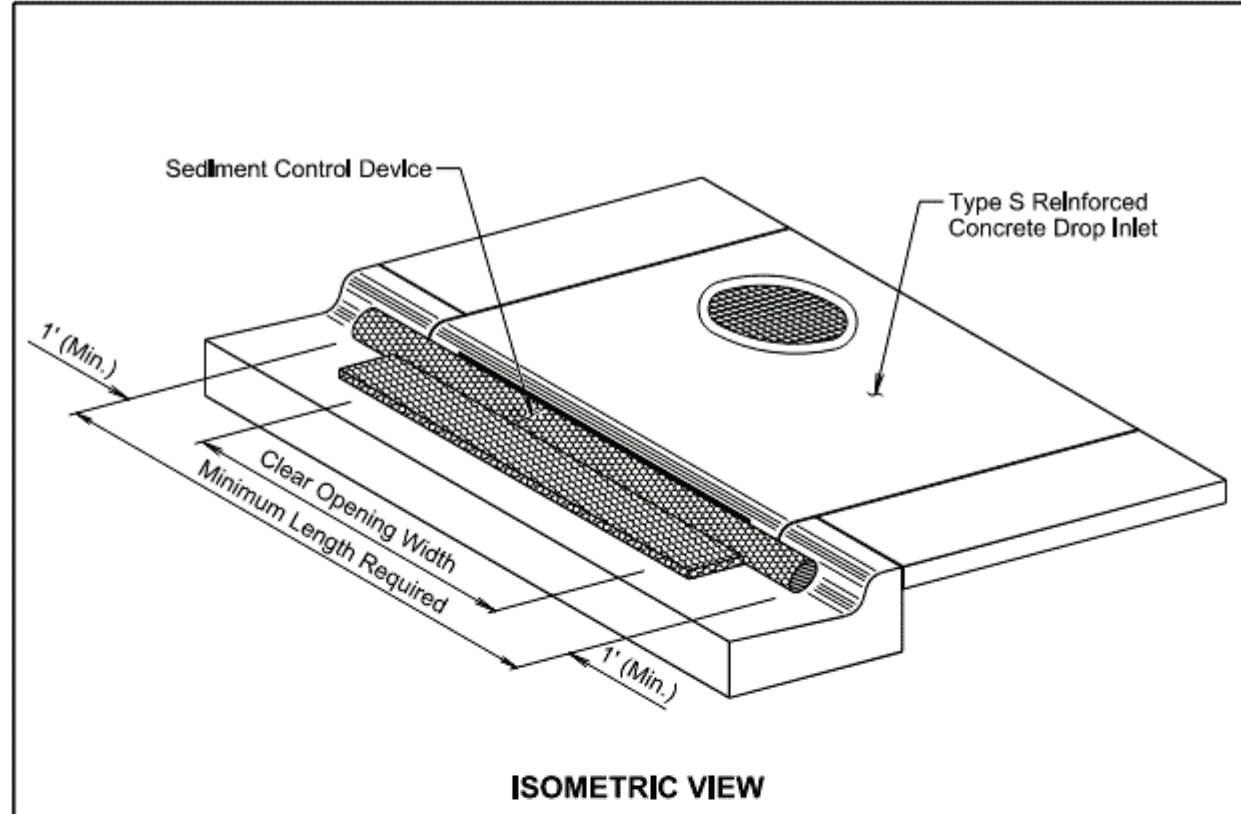
GENERAL NOTES:

A silt trap will be provided when specified by a plan note. All costs for constructing the silt trap will be incidental to the contract unit price per cubic yard for "Silt Trap".

If a trench can not be dug or the silt fence fabric can not be sliced in due to the type of earthen material (such as rock), then a row of 30 to 40 pound sandbags butted end to end will be provided on top of the extra length of silt fence fabric to prevent underflow.

February 14, 2020

S D D O T	LOW FLOW SILT FENCE AND SILT TRAP	PLATE NUMBER 734.04
	Published Date: 2025	Sheet 2 of 2



ISOMETRIC VIEW

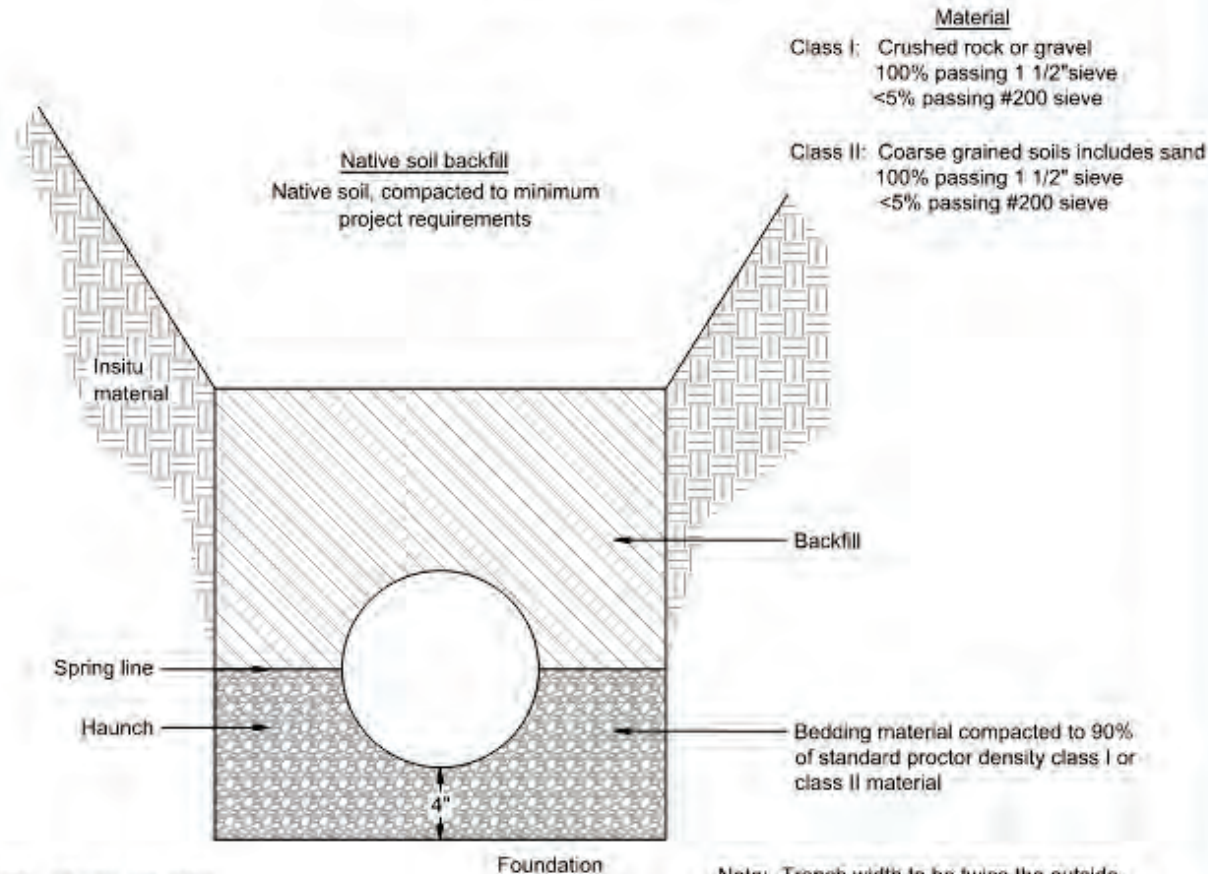
GENERAL NOTES:

- The type of sediment control device shown is for illustrative purposes only.
- The type of sediment control device used will be one of the types as specified in the plans.
- The sediment control device will be placed at the drop inlets according to the manufacturer's installation instructions.
- The sediment control at inlet for type S reinforced concrete drop inlet will be placed at locations stated in the plans or at locations determined by the Engineer.
- The Contractor and Engineer will inspect the sediment control device in accordance with the storm water permit. The Contractor will maintain the sediment control device by removing the device, removing accumulated sediment, and resetting the device.
- The removed sediment will be placed at a location away from the drop inlet where the sediment will not be washed back into the drop inlet or other storm sewer system.
- Payment for the "Sediment Control at Type S Drop Inlet" will be based on the minimum length required at the drop inlets. Some of the sediment control devices specified in the plans will have to be longer due to available length.
- All costs for furnishing, installing, inspecting, maintaining, removing, and resetting the sediment control device at the drop inlet including labor, equipment, and materials will be incidental to the contract unit price per foot for "Sediment Control at Type S Reinforced Concrete Drop Inlet".

February 14, 2020

S D D O T	SEDIMENT CONTROL AT INLETS FOR TYPE S REINFORCED CONCRETE DROP INLETS	PLATE NUMBER 734.11
	Published Date: 2025	Sheet 1 of 1

**For 12" Thru 84" Diameter Pipe
Type B Installation**



- Material**
- Class I: Crushed rock or gravel
100% passing 1 1/2" sieve
<5% passing #200 sieve
 - Class II: Coarse grained soils includes sand
100% passing 1 1/2" sieve
<5% passing #200 sieve

Native soil backfill
Native soil, compacted to minimum project requirements

Assume: 140 lbs. per cubic foot pipe strength class shown on plans

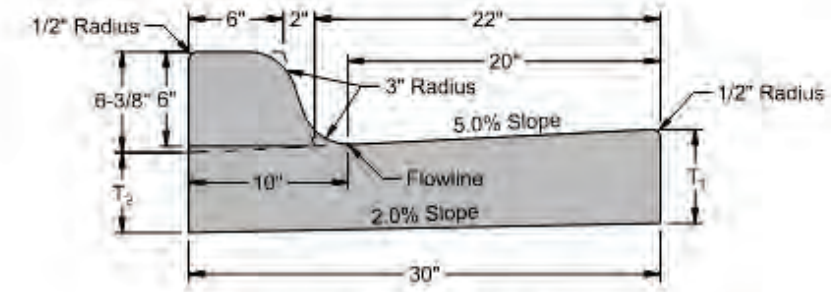
Note: Trench width to be twice the outside diameter, or the outside diameter plus two feet, which ever is less.

Quantity Estimate Table

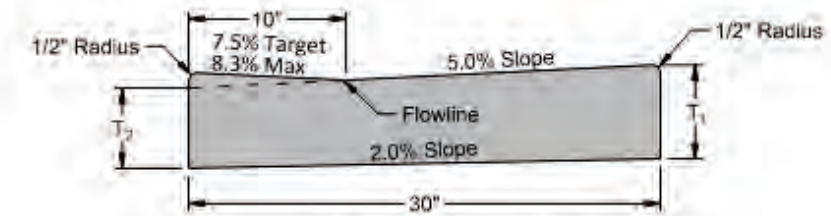
For Bedding Material

12"	0.14 Ton/L.F.
15"	0.19 Ton/L.F.
18"	0.25 Ton/L.F.
21"	0.29 Ton/L.F.
24"	0.33 Ton/L.F.
27"	0.36 Ton/L.F.
30"	0.40 Ton/L.F.
33"	0.44 Ton/L.F.
36"	0.48 Ton/L.F.
42"	0.57 Ton/L.F.
48"	0.67 Ton/L.F.
54"	0.77 Ton/L.F.
60"	0.88 Ton/L.F.
66"	0.98 Ton/L.F.
72"	1.10 Ton/L.F.
78"	1.24 Ton/L.F.
84"	1.35 Ton/L.F.

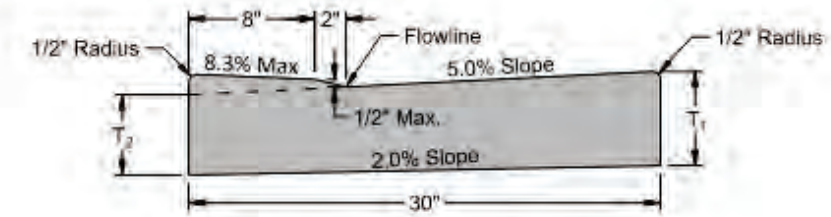
Revised: January 2008



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-8 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.

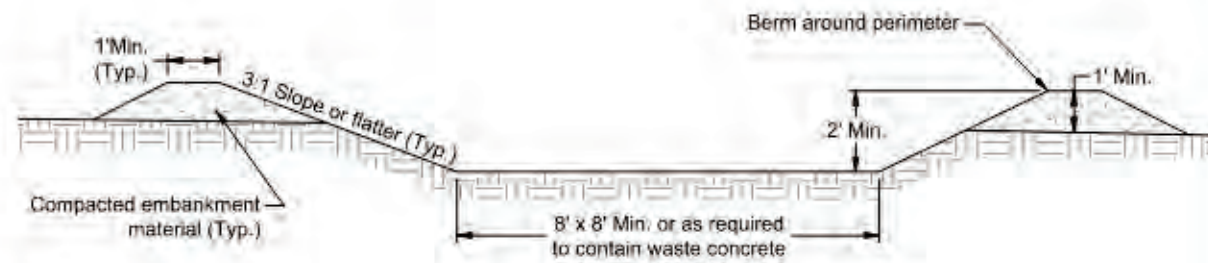
Issued: January 2017

Concrete Washout Facility



Notes:

1. Concrete washout facility shall be installed prior to any concrete placement on site.
2. A sign shall be installed adjacent to each washout facility to inform concrete equipment operators to utilize the CWF.
3. The concrete washout facility shall be repaired and enlarged or cleaned out as necessary to maintain capacity for wasted concrete.
4. 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.
5. When the concrete washout facility is removed, the holes, depressions or other ground disturbance shall be backfilled, repaired and stabilized.



Cross Sectional View

Revised: December 2008



Concrete Washout Facility

Specification Reference
No. 734

Plate Number
734.28