

Plot Scale - 1:200

Plotted From - TRR011626

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STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

PROJECT 385S-492
US HIGHWAY 385 S
FALL RIVER COUNTY

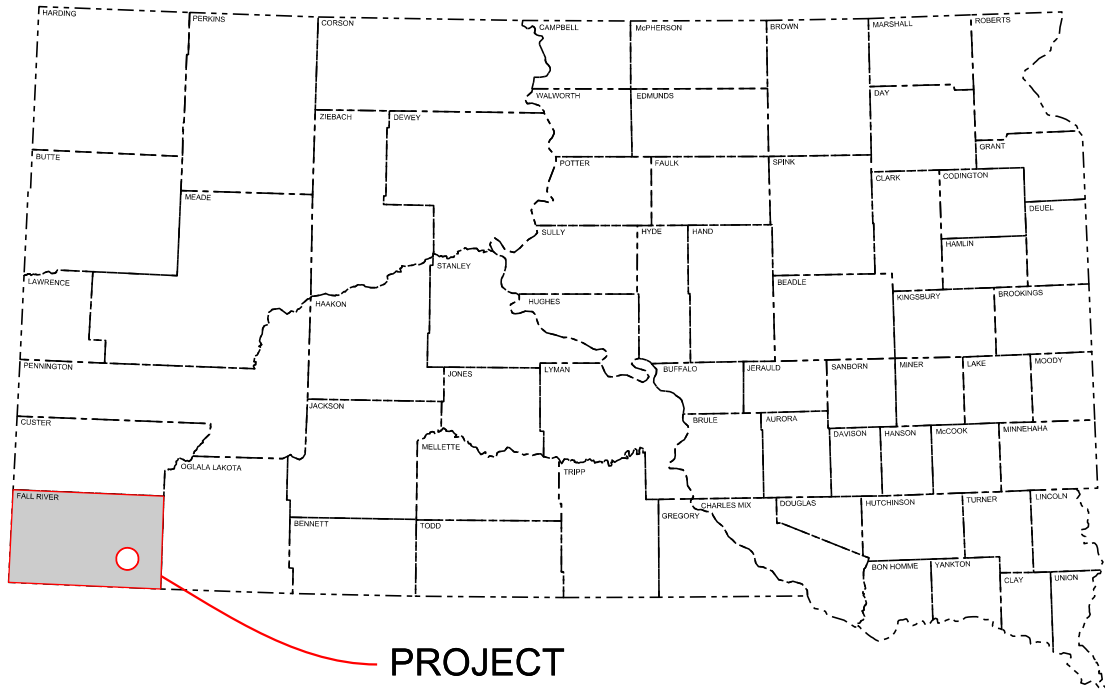
EROSION REPAIR
PCN i6k7

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	385S-492	1	23

Plotting Date: 04/27/2022

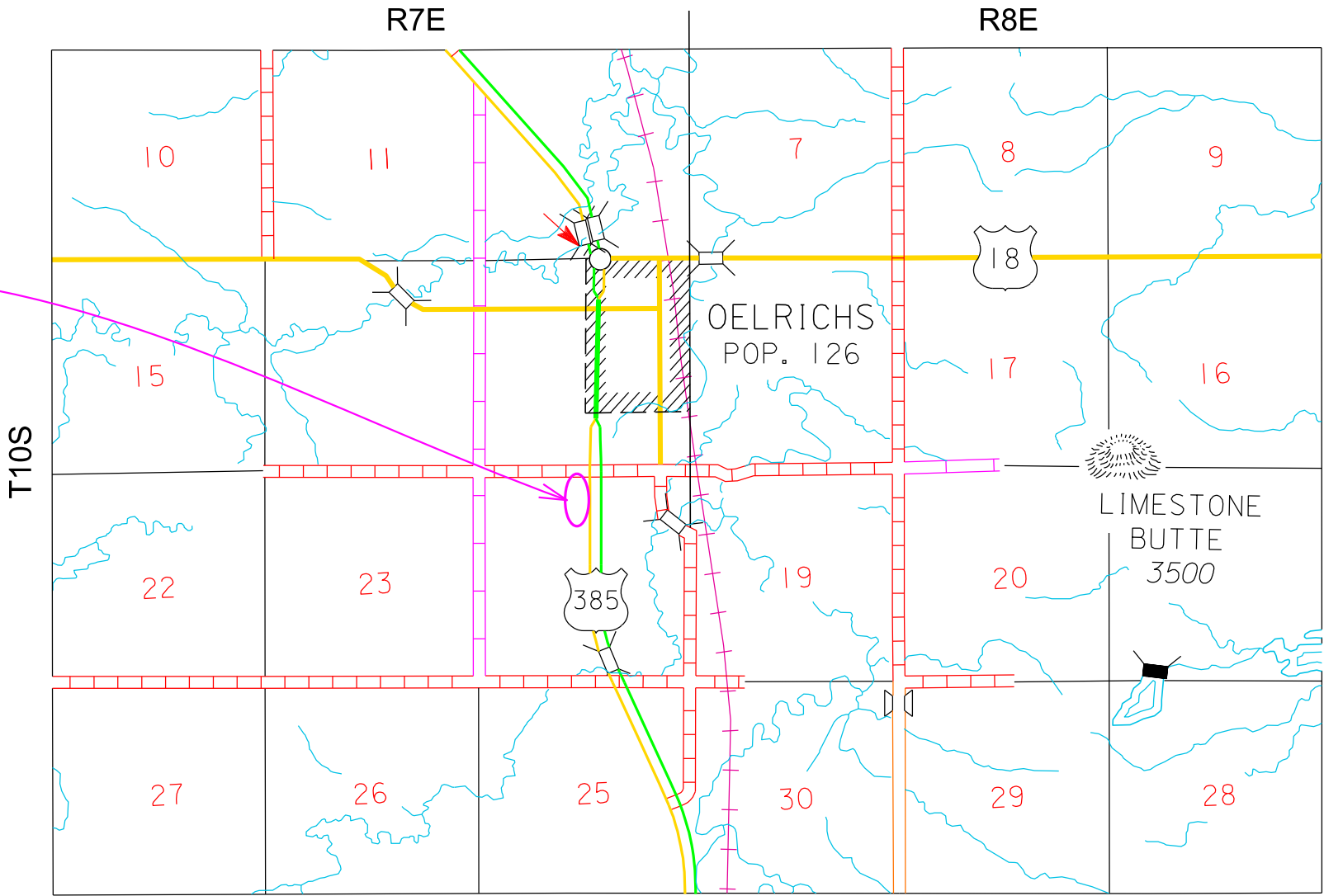
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PROJECT

PROJECT 385S-492
MRM 12.0



STORM WATER PERMIT
(None Required)

DESIGN DESIGNATION	
AADT (2021)	608
AADT (2041)	903
DHV	0
D	50%
DHV T%	9.6%
AADT T%	21.0%
V	70 mph

ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E1010	Remove Asphalt Concrete Pavement	150.0	SqYd
110E1700	Remove Silt Fence	15	Ft
110E7800	Remove Chain Link Fence for Reset	670	Ft
120E0010	Unclassified Excavation	560	CuYd
230E0020	Contractor Furnished Topsoil	150	CuYd
250E0020	Incidental Work, Grading	Lump Sum	LS
380E1000	6" Miscellaneous PCC Pavement	6.1	SqYd
421E0100	Pipe Culvert Undercut	31	CuYd
450E0182	36" RCP Class 2, Furnish	30	Ft
450E0190	36" RCP, Install	30	Ft
450E2028	36" RCP Flared End, Furnish	2	Each
450E2029	36" RCP Flared End, Install	2	Each
450E3022	30" RCP Arch Class 2, Furnish	44	Ft
450E3030	30" RCP Arch, Install	44	Ft
450E4508	30" RCP Arch Flared End, Furnish	2	Each
450E4509	30" RCP Arch Flared End, Install	2	Each
621E0520	Reset Chain Link Fence	670	Ft
634E0110	Traffic Control Signs	68.5	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Board	1	Each
650E0060	Type B66 Concrete Curb and Gutter	480	Ft
650E0360	Type BL66 Concrete Curb and Gutter	40	Ft
650E4659	Modified Type P6 Concrete Gutter	16	Ft
700E0310	Class C Riprap	148.7	Ton
734E0010	Erosion Control	Lump Sum	LS
734E0131	Type 1 Turf Reinforcement Mat	89.0	SqYd
734E0154	12" Diameter Erosion Control Wattle	300	Ft
734E0165	Remove and Reset Erosion Control Wattle	75	Ft
734E0400	Rock Check Dam	55.0	CuYd
734E0604	High Flow Silt Fence	160	Ft
734E0610	Mucking Silt Fence	4	CuYd
734E0620	Repair Silt Fence	15	Ft
831E0110	Type B Drainage Fabric	207	SqYd

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 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 shall be power washed with hot water (≥140 °F) and completely dried for a minimum of 7 days prior to subsequent use. South Dakota administrative rule 41:10:04:02 forbids the possession and transport of AIS; therefore, all attached dirt, mud, debris and vegetation must be removed and all compartments and tanks capable of holding standing water must be drained. This includes, but is not limited to, all equipment, pumps, lines, hoses and holding tanks.

Action Taken/Required:

The Contractor will obtain the necessary permits from the regulatory agencies such as the South Dakota Department of Environment and Natural Resources (DENR) 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: <http://sdleastwanted.com/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 E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

Action Taken/Required:

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor 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 Environment 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 shall be removed from view of the ROW or buried, and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06. Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

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

State Historic Preservation Office (SHPO or THPO) concurrence has not been obtained for this project.

Action Taken/Required:

All earth disturbing activities 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 100 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.

The Contractor is responsible 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.

UTILITIES

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

If utilities are identified near the improvement area through the SD One Call Process as required by South Dakota Codified Law 49-7A and Administrative Rule Article 20:25, the Contractor will contact the Project Engineer to determine modifications that will be necessary to avoid utility impacts.

INCIDENTAL WORK, GRADING

Station	L/R	Remarks
0+96		Remove 18" HDPE
0+54 to 3+00	R	Clear and Shape Ditch
3+95 to 7+47	R	Clear and Shape Ditch

UNCLASSIFIED EXCAVATION

Unclassified Excavation is provided on the project for removing excess material to shape the drainage channel in accordance with the typical sections. The excess material will be used to fill the embankment behind the curb gutter at no additional cost to the Department. The estimate of quantities provides 560 cubic yards of Unclassified Excavation for performing this work. Approximately 465 cubic yards of excess material will be handled as waste and hauled off the project at no additional cost to the Department.

Plans quantity will be the basis of payment for the Unclassified Excavation quantity. If changes are made in the field during construction, measurements will be taken and the quantity will be adjusted accordingly.

TABLE OF ASPHALT CONCRETE PAVEMENT REMOVAL

Station	to	Station	L/R	Quantity (SqYd)
640+00		641+70	L	72.6
644+25		645+50	L	77.4
Total:				150.0

TABLE OF FENCE QUANTITIES

Location	Remove Chain Link Fence for Reset (Ft)	Reset Chain Link Fence (Ft)
0+63 to 1+23 – 165' L	60	60
0+68 to 3+28	260	260
3+64 to 7+14	350	350
Total:	670	670

TABLE OF TYPE BL66 CONCRETE CURB AND GUTTER

Station	to	Station	L/R	Quantity (Ft)
1+10		1+50	L	40
Total:				40

TABLE OF TYPE B66 CONCRETE CURB AND GUTTER

Station	to	Station	L/R	Quantity (Ft)
1+50		3+22	L	172
3+80		4+60	L	80
4+76		7+04	L	228
Total:				480

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	385S-492	3	23

TABLE OF MODIFIED TYPE P6 CONCRETE GUTTER

Station	to	Station	L/R	Quantity (Ft)
4+60		4+76	L	16
Total:				16

TABLE OF PIPE QUANTITIES

Location	Reinforced Concrete			
	Arch	Arch Flared End	Circular	Circular Flared End
	30" Cl. 2 Ft	30" Each	36" Cl. 2 Ft	36" Each
11+05 (West Access Road)	44	2		
12+22 (East Yard)			30	2
Total:	44	2	30	2

PIPE CULVERT UNDERCUT

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.

Station	Undercut Depth (Ft)	Quantity (CuYd)
639+39	1	17
639+55	1	14
Total:		31

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	---

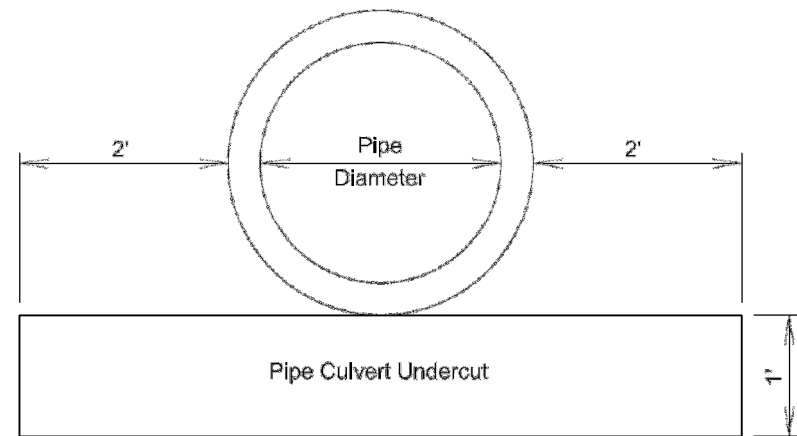


TABLE OF RIPRAP AND DRAINAGE FABRIC

Station	Class C Riprap (Ton)	Type B Drainage Fabric (SqYd)
10+63	52.0	76
12+00	96.7	131
Total:	148.7	207

CONTRACTOR FURNISHED TOPSOIL

The Contractor will be required to furnish and place 300 CuYd of topsoil in the reshaped highway ditch or as determined by the Engineer during construction.

Contractor furnished topsoil will be free from stones, coarse gravel, or similar objects larger than 3/4 inch in diameter. Brush, stumps, roots, wood, objectionable weeds, liter, or any other material which may be harmful to plant growth will not be allowed. Organic material will be decomposed.

All costs to furnish and place the Contractor furnished topsoil will be incidental to the contract unit price per cubic yard for "Contractor Furnished Topsoil".

ROCK CHECK DAM

The rock for the rock check dam will be 6-8" and angular. The rock check dam will be constructed to the limits shown on Standard Plate 734.03. All costs for constructing the rock check dam including labor, equipment, excavation, and rock will be incidental to the contract unit price per cubic yard for "Rock Check Dam".

TABLE OF ROCK CHECK DAMS

Station	Quantity (CuYd)
At Inlet of 36" RCP (East Side of Yard)	55
Total:	55

TURF REINFORCEMENT MAT

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

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

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

TABLE OF TURF REINFORCEMENT MAT

Station	Location	Width (Ft)	Length (Ft)	Type	Quantity (SqYd)
4+64	Curb Opening Outlet	16	50	1	89
Total Type 1 Turf Reinforcement Mat:					89

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	385S-492	4	23

EROSION CONTROL

The estimated area requiring erosion control is 38,300 square feet. All costs for the erosion control work for furnishing, placing, and maintaining erosion control including equipment, labor, seeding, and fertilizing will be incidental to the contract lump sum price for "Erosion Control".

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

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 the following fungal species:

- 25% *Glomus intraradices*
- 25% *Glomus aggregatum or deserticola*
- 25% *Glomus mosseae*
- 25% *Glomus etunicatum*

All seed will be inoculated by the seed supplier with a minimum of 100,000 live propagules of mycorrhizal fungi per acre. All costs of inoculating the seed this will be incidental to the contract unit price per pound for the corresponding permanent seed mixture.

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

Product	Manufacturer
MycoApply	Mycorrhizal Applications, Inc. Grants Pass, OR Phone: 1-866-476-7800 www.mycorrhizae.com
AM 120 Multi Species Blend	Reforestation Technologies Int. Gilroy, CA Phone: 1-800-784-4769 www.reforest.com

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 1,500 pounds per acre in accordance with the manufacturer's recommended method of application.

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

Product	Manufacturer
Sustane	Sustane Corporate Headquarters Cannon Falls, Minnesota Phone: 1-800-352-9245 www.sustane.com
Perfect Blend	Perfect Blend, LLC Bellevue, WA Phone: 1-866-456-8890 www.perfect-blend.com

Permanent Seeding

The areas to be seeded consist of newly disturbed areas within the project limits.

Type F Permanent Seed Mixture will consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Arriba, Flintlock, Rodan, Rosana, Walsh	7
Green Needlegrass	Lodorm, AC Mallard Ecovar	4
Sideoats Grama	Butte, Pierre	3
Blue Grama	Bad River	2
Oats or Spring Wheat: April through May; Winter Wheat: August through November		10
Total:		26

EROSION CONTROL WATTLE

Erosion control wattles for restraining the flow of runoff and sediment will be installed at locations noted in the table and at locations determined by the Engineer during construction. Refer to Standard Plate 734.06 for details.

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

Erosion control wattles will remain on the project until vegetation has been established and then they will be removed in accordance with the Engineer.

Erosion control wattles can be removed and reset as needed as work progresses if they are still in useable condition. All costs for removing and resetting Erosion Control Wattles shall be incidental to the contract unit price per foot for "Remove and Reset Erosion Control Wattle". The estimated quantities for "Remove and Reset Erosion Control Wattle" were estimated as 25% of the length of wattles.

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

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

TABLE OF EROSION CONTROL WATTLE

Station	Diameter (Inch)	Location	Quantity (Ft)
639+40	12	Pipe Inlet	50
642+39	12	Pipe Inlet	50
		Perimeter Control as needed	200
Total:			300

HIGH FLOW SILT FENCE

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

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

High 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 734.05 for details.

TABLE OF HIGH FLOW SILT FENCE

Station	Location	Quantity (Ft)
11+80	Ahead of Rock Check Dam (Permanent)	100
639+67 L	Inlet Protection at 36" RCP (US385)	60
Total:		160

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	385S-492	5	23

REPAIR SILT FENCE

Silt fence shall be repaired if needed in accordance with Standard Plate 734.04 at the locations listed in the Table of low f Flow Silt Fence.

MUCKING SILT FENCE

Mucking silt fence shall consist of removing muck trapped by the silt fence and spreading the material evenly over the adjacent area to conform to the existing grade.

REMOVE SILT FENCE

Silt fence shall be removed when vegetation is established. Some or all of the silt fence may be left on the project until vegetation is established.

TRAFFIC CONTROL – GENERAL NOTES

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.

The Contractor will exercise caution to not damage the existing asphalt concrete parking lot. Site access will be limited to the area of the permanent easement and/or the east entrance only.

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

If there is a discrepancy between the 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 materials and equipment will be stored a minimum distance of 30’ from the traveled way during nonworking hours.

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

INVENTORY OF TRAFFIC CONTROL DEVICES

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W4-2	LEFT or RIGHT LANE ENDS (symbol)	1	48" x 48"	16.0	16.0
W20-1	ROAD WORK AHEAD	1	48" x 48"	16.0	16.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	1	48" x 48"	16.0	16.0
W21-5	SHOULDER WORK	1	48" x 48"	16.0	16.0
G20-2	END ROAD WORK	1	36" x 18"	4.5	4.5
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS 68.5 SQFT			

HORIZONTAL ALIGNMENT

Yard Drainage Channel Alignment

Type	Station	Northing	Easting
POB	10+00.00	318921.535	1193635.178
TL= 249.59 S 87°36'15" E			
POE	12+49.59	318911.101	1193884.551

Curb and Gutter Alignment

Type	Station	Northing	Easting
POB	-0+01.06	318819.856	1193849.096
TL= 745.33 N 2°03'55" E			
POE	7+44.27	319564.701	1193875.956

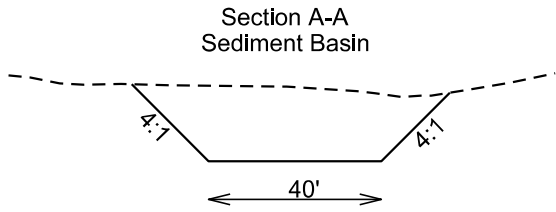
US385 Northbound Alignment

Type	Station	Northing	Easting
PI	626+98.96	317666.763	1194017.147
TL= 1939.39 N 2°00'38" E			
PC	646+38.35	319604.960	1194085.191
PI	648+12.11	R = 10300.00 Delta = 1°55'58" L	319778.607 1194091.287
PT	649+85.83	319952.361	1194091.523
TL= 456.81 N 0°04'40" E			
PC	654+42.64	320409.171	1194092.143
PI	656+12.07	R = 10300.00 Delta = 1°53'05" R	320578.606 1194092.373

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	385S-492	6	23

Plot State -

Plotted From -



Remove for Reset
& Reset Chain Link Fence
at the following locations:
0+63 to 1+23 - 165' L
0+68 to 3+28
3+64 to 7+14

11+05
Install 30" - 44' RCP Arch
& 2 RCP Arch Flared Ends

12+22
Install 36" - 30' RCP
& 2 Flared Ends

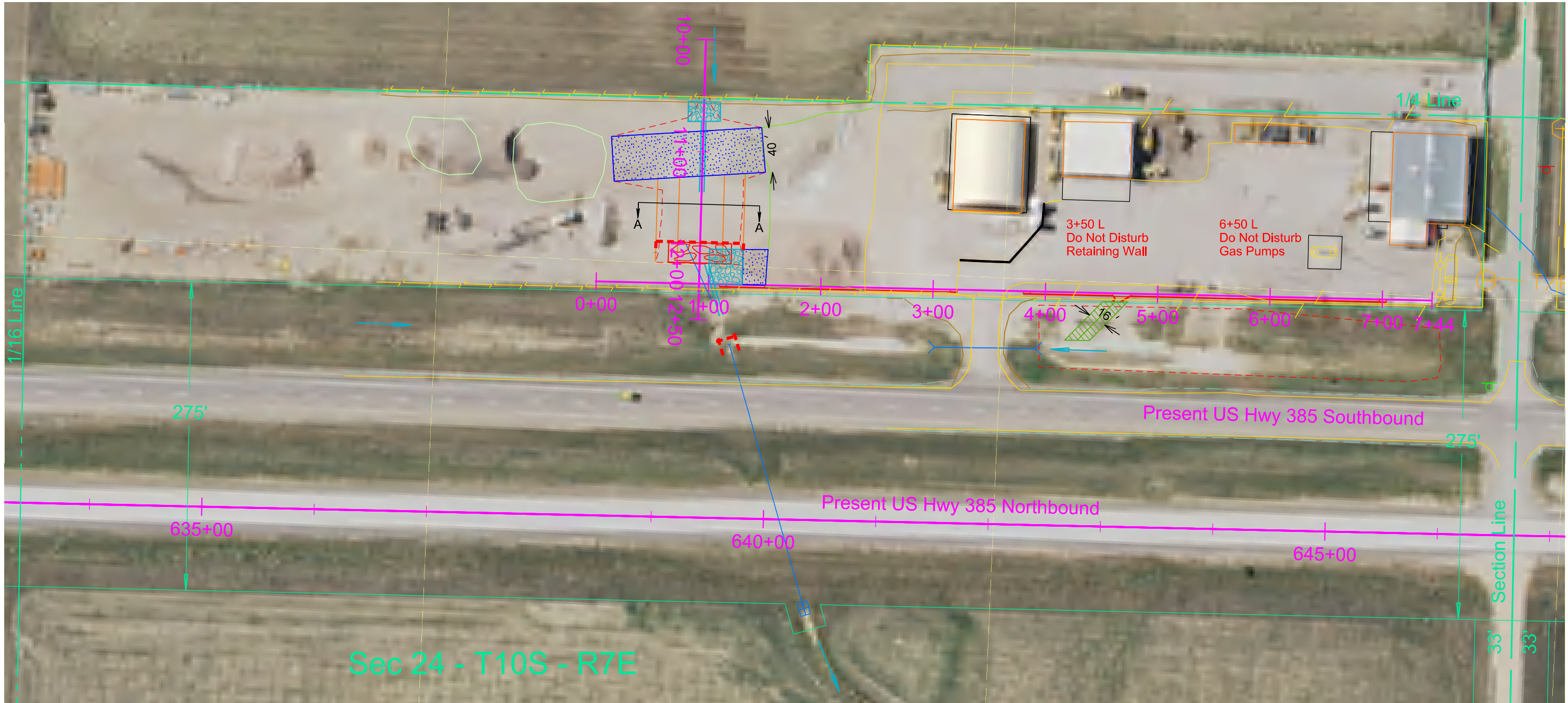
0+96
Remove 54'-18" HDPE
(Incidental Work, Grading)

Clear and Shape Ditch
(Incidental Work, Grading)
at the following locations:
0+54 to 3+00 - 50' R
3+95 to 7+45 - 50' R

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	385S-492	7	23

Plotting Date: 04/27/2022

- High Flow Silt Fence
- Type 1 Turf Reinforcement Mat (16' x 40')
- Rock Check Dam (55 CuYd)
- Class C Riprap (148.6 ton)
- Surfacing By SDDOT



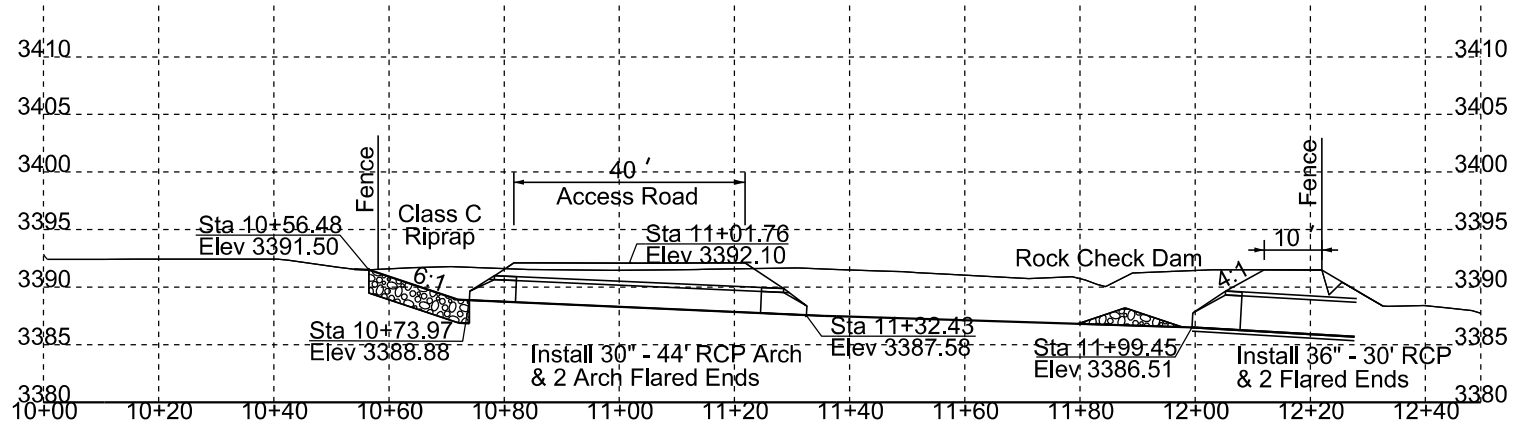
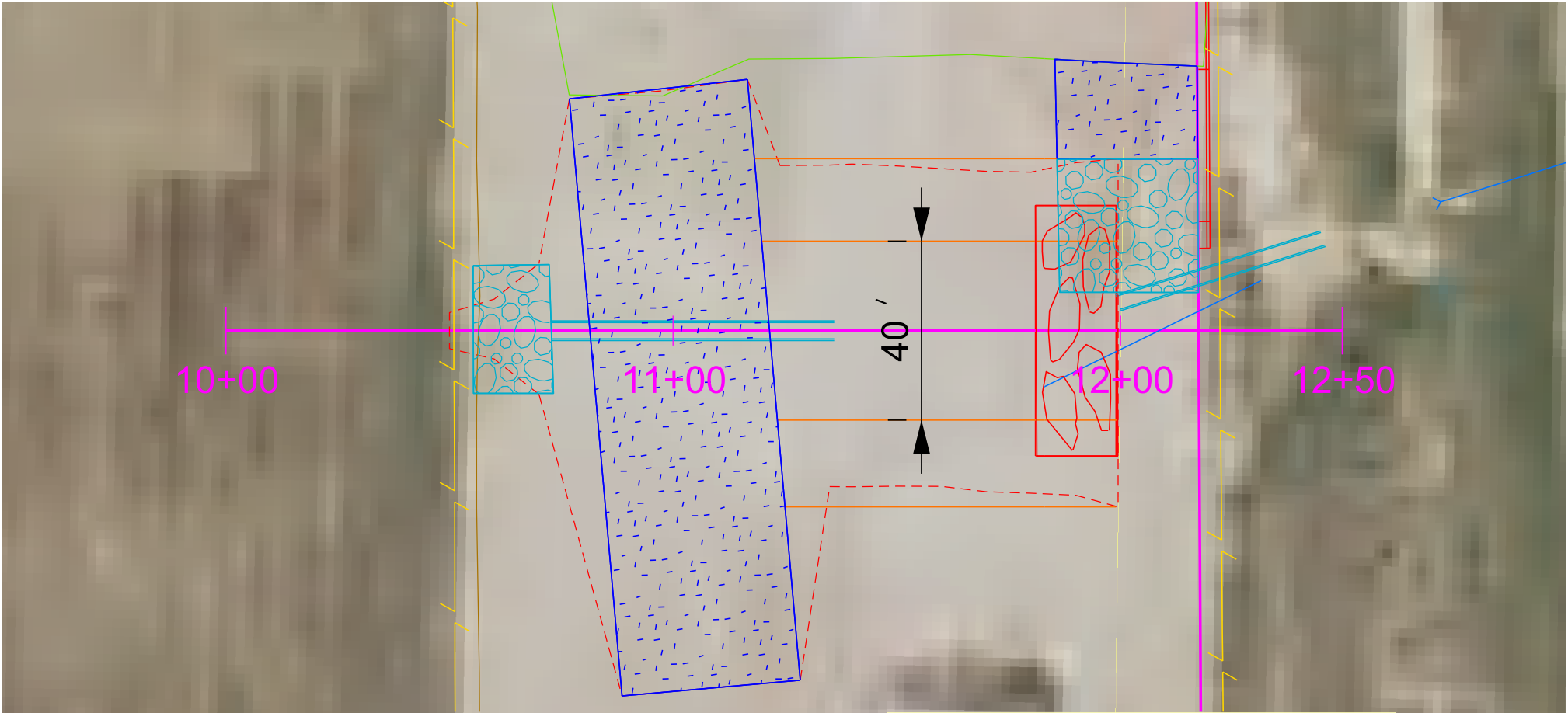
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Plot Scale - 1:35,333

Plotted From - TRR011626

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	385S-492	8	23

Plotting Date: 04/27/2022



CURB AND GUTTER LAYOUT

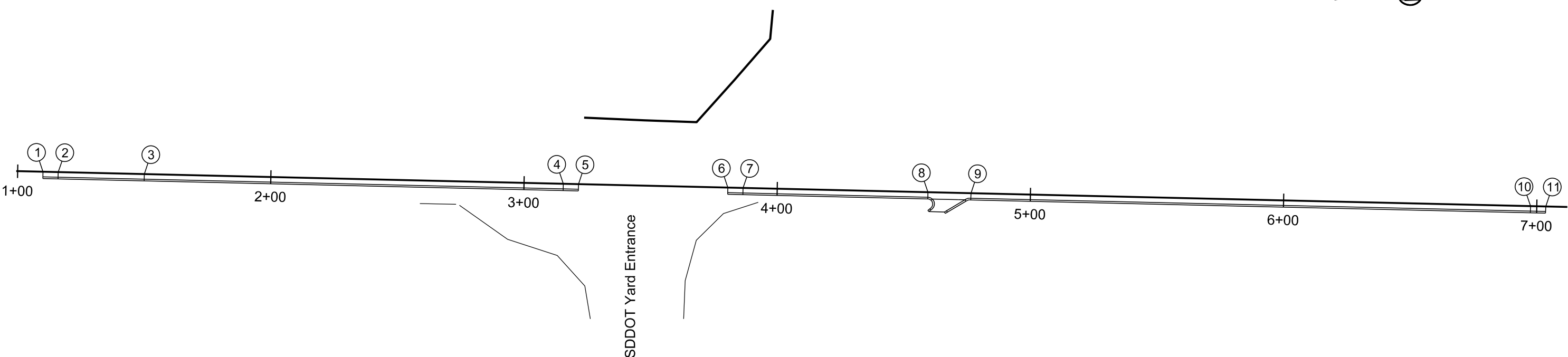
Note: All curb and gutter shown on this sheet is Type B66 except as noted.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	385S-492	9	23

Plotting Date: 04/27/2022



Plot Scale - 1"=40'



1 1+10
(639+56-208' L)
Begin Tapered C&G
TC Elev 3391.51 (Theor)

2 1+16
(639+62-208' L)
End Tapered C&G
Begin Str BL66 C&G
TC Elev 3391.54

3 1+50
(639+97-208' L)
End Str BL66 C&G
Begin Str C&G
TC Elev 3391.64

4 3+16
(641+62-208' L)
End Str C&G
Begin Tapered C&G
TC Elev 3392.28 (Match Existing)

5 3+22
(641+68-208' L)
End Tapered C&G
TC Elev 3392.16 (Theor.)

6 3+80
(642+27-208' L)
Begin Tapered C&G
TC Elev 3392.06 (Theor)

7 3+86
(642+33-208' L)
End Tapered C&G
Begin Str C&G
TC Elev 3392.02

8 4+60
(643+06-208' L)
End Str C&G
Begin Modified Type P6 Gutter
TC Elev 3391.29 (Match Existing)

9 4+76
(643+23-208' L)
End Modified Type P6 Gutter
Begin Str C&G
TC Elev 3391.29 (Match Existing)

10 6+98
(645+44-208' L)
End Str C&G
Begin Tapered C&G
TC Elev 3392.85 (Match Existing)

11 7+04
(645+50-208' L)
End Tapered C&G
Begin Str C&G
TC Elev 3392.78 (Theor)

PRESENT US HIGHWAY 385 N

640+00

641+00

642+00

643+00

644+00

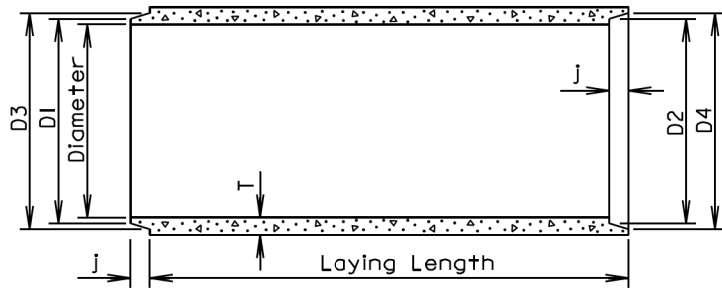
645+00

Plotted From - TRRC 11626

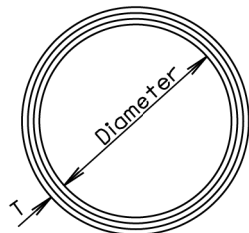
File - ...CLayout.dgn

TOLERANCES IN DIMENSIONS

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



LONGITUDINAL SECTION



END VIEW

GENERAL NOTES:

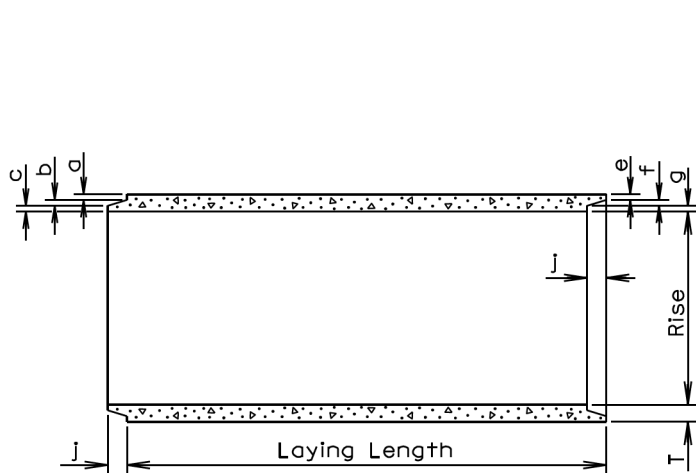
Construction of R.C.P. shall conform to the requirements of Section 990 of the Specifications.

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

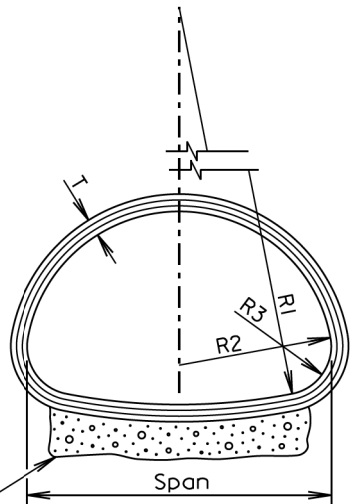
Diam. (in.)	Approx. Wt./Ft. (lb.)	T (in.)	J (in.)	D1 (in.)	D2 (in.)	D3 (in.)	D4 (in.)
12	92	2	1 3/4	13 1/4	13 5/8	13 3/8	14 1/4
15	127	2 1/4	2	16 1/2	16 3/8	17 1/4	17 5/8
18	168	2 1/2	2 1/4	19 5/8	20	20 3/8	20 3/4
21	214	2 3/4	2 1/2	22 7/8	23 1/4	23 3/4	24 1/8
24	265	3	2 3/4	26	26 3/8	27	27 3/8
27	322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

June 26, 2015

Published Date: 2nd Qtr. 2022	S D D O T	REINFORCED CONCRETE PIPE	PLATE NUMBER 450.01
			Sheet 1 of 1



LONGITUDINAL SECTION



END VIEW

TOLERANCES IN DIMENSIONS

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

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 1/16	14 3/4	4 5/8
30	450	22 1/2	36 1/4	4	1 13/16	5/8	1 9/16	3 1/2	1 9/16	5/8	1 13/16	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 3/4
48	890	36	58 1/2	5	2 1/4	3/4	2	5	2	3/4	2 1/4	84	30	8 7/8
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 5/16	5	2 3/4	3/4	2 1/2	105	37 1/2	11
72	1900	54	88	7	3 13/16	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 7/8	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

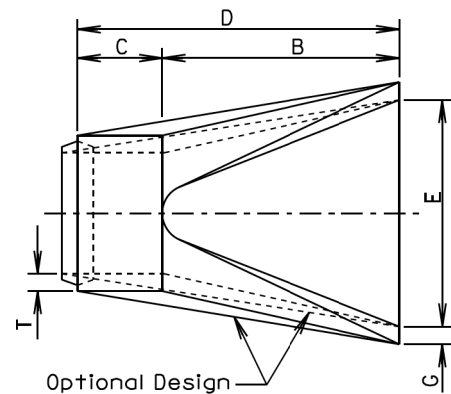
* Equivalent Diameter of Circular R.C.P.

GENERAL NOTES:

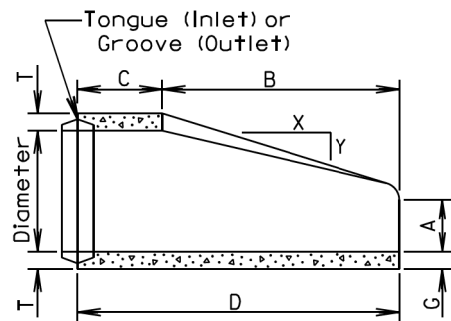
Construction of R.C.P. Arch shall conform to the requirements of Section 990 of the Specifications. Not more than 2 four-foot sections shall be permitted near the ends of any culvert. Four-foot lengths shall be used only to secure the required length of culvert.

June 26, 2015

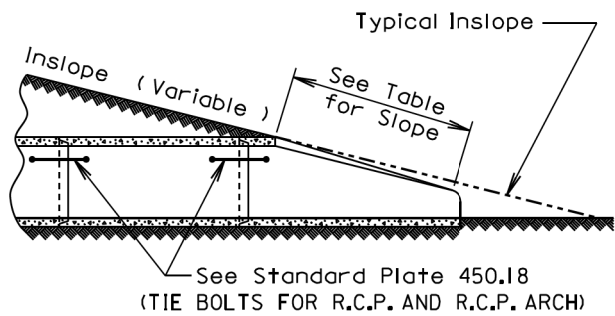
Published Date: 2nd Qtr. 2022	S D D O T	REINFORCED CONCRETE PIPE ARCH	PLATE NUMBER 450.02
			Sheet 1 of 1



TOP VIEW



LONGITUDINAL SECTION

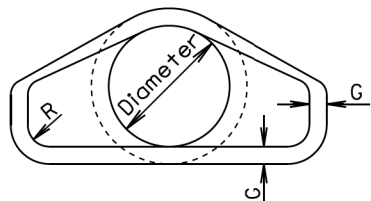


SLOPE DETAIL

GENERAL NOTES:

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

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



END VIEW

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

June 26, 2015

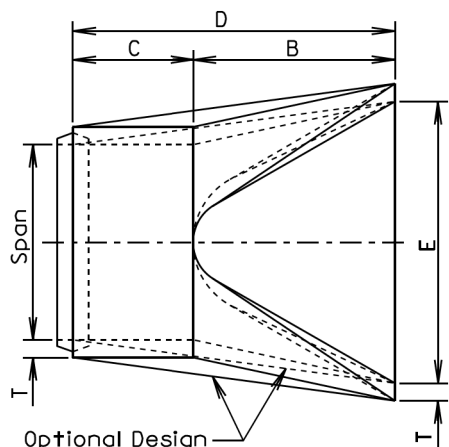
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R. C. P. FLARED ENDS

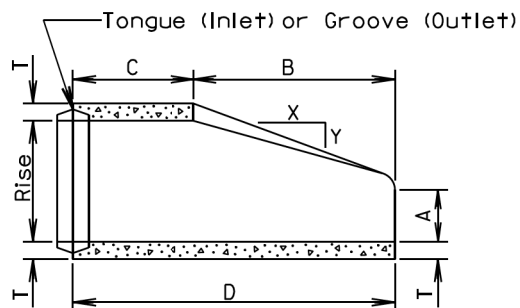
PLATE NUMBER
450.10

Sheet 1 of 1

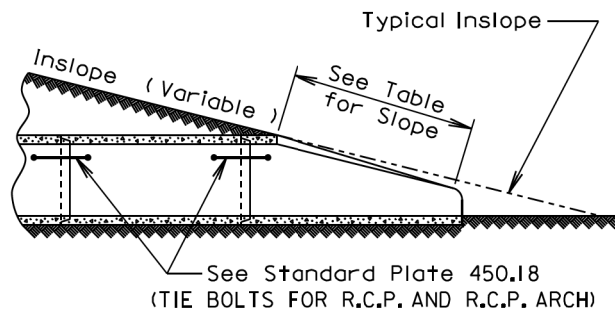
Published Date: 2nd Qtr. 2022



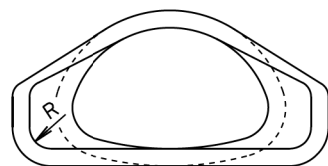
TOP VIEW



LONGITUDINAL SECTION



SLOPE DETAIL



END VIEW

GENERAL NOTES:

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

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

* Size (in.)	Approximate Weight of Section (lbs.)	Rise (in.)	Span (in.)	Slope (X:Y)	T (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	R (in.)
18	1100	13 1/2	22	3: 1	2 1/2	7	27	45	72	36	2
24	1750	18	28 1/2	3: 1	3 1/2	8 1/2	39	33	72	48	3
30	3300	22 1/2	36 1/4	3: 1	4	9 1/2	50	46	96	60	3
36	4350	26 5/8	43 3/4	3: 1	4 1/2	11 1/8	60	36	96	72	6
42	5250	31 5/16	51 1/8	3: 1	4 1/2	15 13/16	60	36	96	78	6
48	6400	36	58 1/2	3: 1	5	21	60	36	96	84	6
54	7850	40	65	3: 1	5 1/2	25 1/2	60	36	96	90	6
60	9500	45	73 1/2	3: 1	6	31	60	36	96	96	6
72	13550	54	88	2: 1	7	31	60	39	99	120	6
84	17950	62	102	2: 1	8	28 1/2	83	19	102	144	6

*Equivalent Diameter of Circular R. C. P.

June 26, 2015

S
D
D
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R. C. P. ARCH FLARED ENDS

PLATE NUMBER
450.11

Sheet 1 of 1

Published Date: 2nd Qtr. 2022

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	385S-492		

Plotting Date: 04/27/2022

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

GENERAL NOTES:

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

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

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

ADJUSTABLE EYE BOLT TIE

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

GENERAL NOTES:

Angles shall conform to ASTM A36.

Bolts shall conform to ASTM A307. Nuts shall be heavy hex conforming to ASTM A563. Washers shall conform to ASTM F436.

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

ANGLE AND BOLT TIE

GENERAL NOTES:

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

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

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

END VIEW "CIRCULAR" **END VIEW "ARCH"**

February 28, 2013

S D D O T	TIE BOLTS FOR R.C.P. AND R.C.P. ARCH	PLATE NUMBER 450.18
		Sheet 1 of 1
		<i>Published Date: 2nd Qtr. 2022</i>

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 traveling on or crossing the roadway to perform work operations.

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

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

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

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

WORK SPACE

ROAD WORK AHEAD W20-1

A

January 22, 2021

S D D O T	WORK BEYOND THE SHOULDER	PLATE NUMBER 634.01
		Sheet 1 of 1
		<i>Published Date: 2nd Qtr. 2022</i>

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45	500	600	25
50	500	600	50
55	750	660	50
60 - 65	1000	780	50

■ Channelizing Device

END ROAD WORK G20-2

The channelizing devices will be drums or 42" cones if traffic control must remain overnight.

For short duration operations (1 hour or less) all channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.

Worker signs (W21-1 or W21-1a) may be used instead of SHOULDER WORK signs.

A SHOULDER WORK sign should be placed on the left side of a divided or one-way roadway only if the left shoulder is affected.

The SHOULDER WORK sign on an intersecting roadway is not required if drivers emerging from that roadway will encounter another advance warning sign before they reach a work activity area.

WORK SPACE

SHOULDER WORK W21-5

ROAD WORK AHEAD W20-1

END ROAD WORK G20-2

WORK SPACE

January 22, 2021

SDDOT

WORK ON SHOULDERS

PLATE NUMBER 634.03

Published Date: 2nd Qtr. 2022

Sheet 1 of 1

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45	500	600	25
50	500	600	50 *
55	750	660	50 *
60 - 65	1000	780	50 *

* Spacing is 40' for 42" cones.

⊙ Reflectorized Drum

■ Channelizing Device

④ 4" White Temporary Pavement Marking

The channelizing devices will be 42" cones or drums.

42" cones may be used in place of the drums shown in the taper if setup will not be used during night time hours.

Temporary pavement markings will be used if traffic control must remain overnight.

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

END ROAD WORK G20-2 (Optional)

WORK SPACE

Arrow Board Sequential Chevron

RIGHT LANE CLOSED AHEAD W20-5

ROAD WORK AHEAD W20-1

September 22, 2021

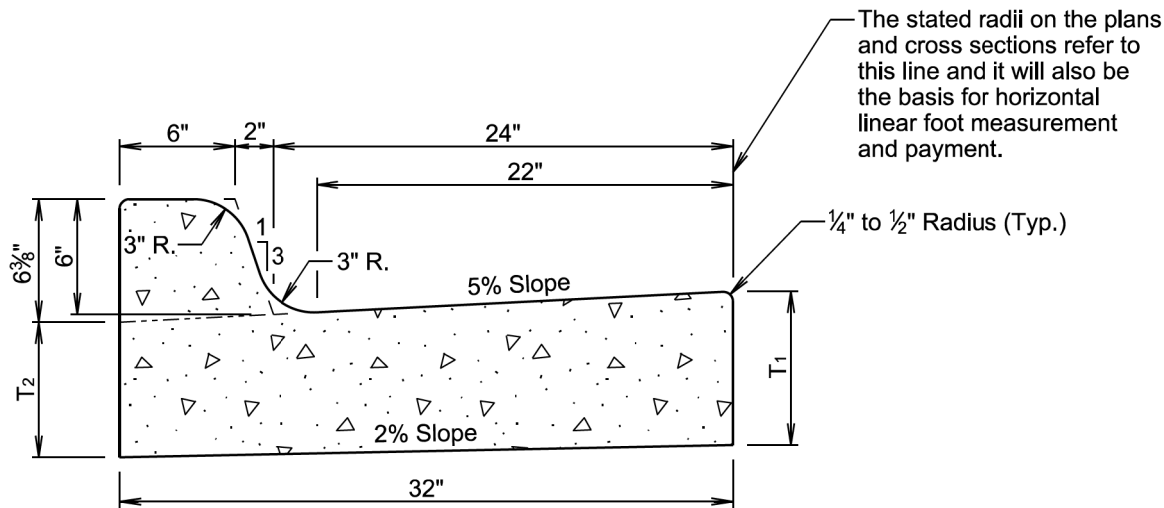
SDDOT

4-LANE UNDIVIDED, RIGHT LANE CLOSED

PLATE NUMBER 634.47

Published Date: 2nd Qtr. 2022

Sheet 1 of 1



TYPE B CONCRETE CURB AND GUTTER				
Type	T ₁ (Inches)	T ₂ (Inches)	Cu. Yd. Per Lin. Ft.	Lin. Ft. Per Cu. Yd.
B66	6	5 1/16	0.057	17.7
B67	7	6 1/16	0.065	15.4
B68	8	7 1/16	0.073	13.7
B68.5	8.5	7 9/16	0.077	13.0
B69	9	8 1/16	0.081	12.3
B69.5	9.5	8 9/16	0.085	11.7
B610	10	9 1/16	0.090	11.2
B610.5	10.5	9 9/16	0.094	10.7
B611	11	10 1/16	0.098	10.2
B611.5	11.5	10 9/16	0.102	9.8
B612	12	11 1/16	0.106	9.4

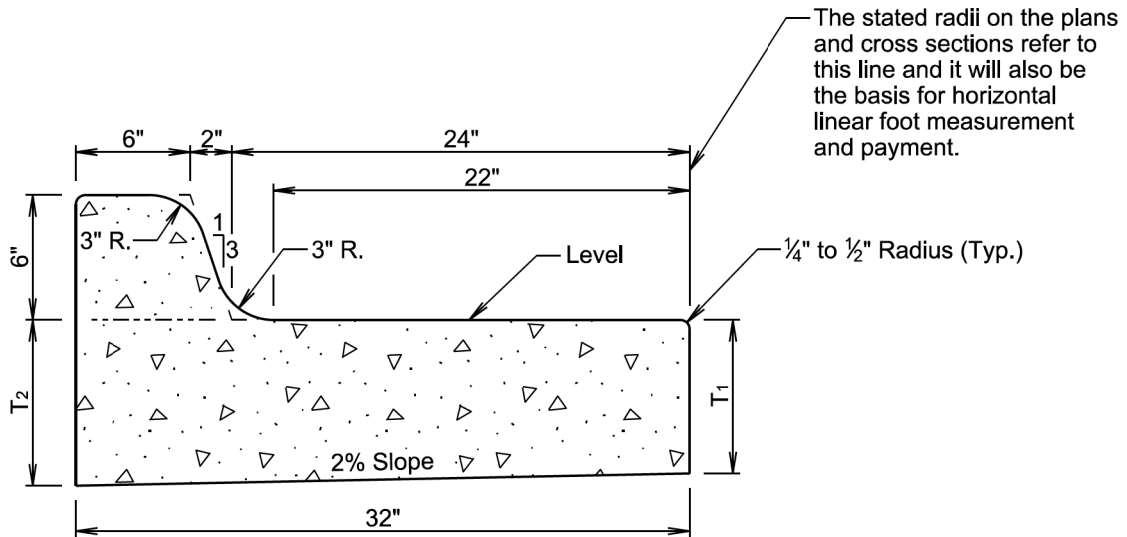
GENERAL NOTES:

When concrete curb and gutter longitudinally adjoins new concrete pavement, the method of attachment will be by one of the methods shown on standard plate 380.11.

See standard plate 650.90 for expansion and contraction joints in the curb and gutter.

December 23, 2019

Published Date: 2nd Qtr. 2022	S D D O T	TYPE B CONCRETE CURB AND GUTTER	PLATE NUMBER 650.01
			Sheet 1 of 1



TYPE BL CONCRETE CURB AND GUTTER				
Type	T ₁ (Inches)	T ₂ (Inches)	Cu. Yd. Per Lin. Ft.	Lin. Ft. Per Cu. Yd.
BL66	6	6 5/8	0.063	15.9
BL67	7	7 5/8	0.071	14.1
BL68	8	8 5/8	0.080	12.5
BL68.5	8.5	9 1/8	0.084	11.9
BL69	9	9 5/8	0.088	11.4
BL69.5	9.5	10 1/8	0.092	10.9
BL610	10	10 5/8	0.096	10.4
BL610.5	10.5	11 1/8	0.100	10.0
BL611	11	11 5/8	0.104	9.6
BL611.5	11.5	12 1/8	0.108	9.3
BL612	12	12 5/8	0.112	8.9

GENERAL NOTES:

When concrete curb and gutter longitudinally adjoins new concrete pavement, the method of attachment will be by one of the methods shown on standard plate 380.11.

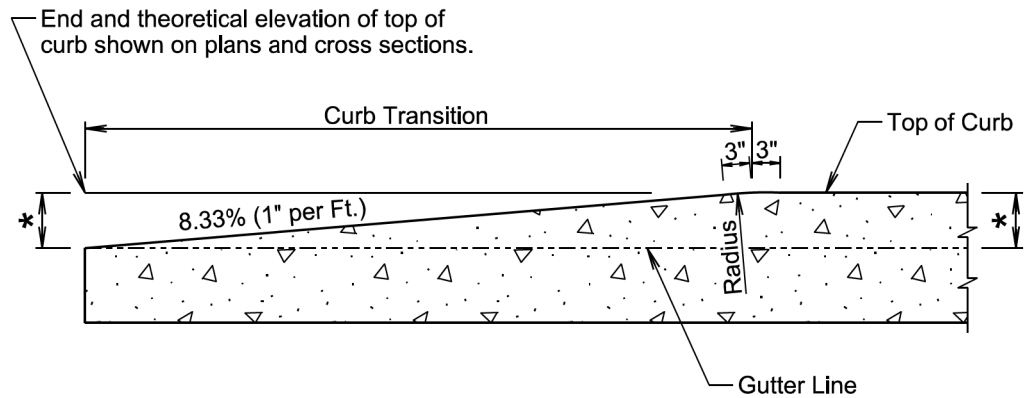
See standard plate 650.90 for expansion and contraction joints in the curb and gutter.

December 23, 2019

Published Date: 2nd Qtr. 2022	S D D O T	TYPE BL CONCRETE CURB AND GUTTER	PLATE NUMBER 650.05
			Sheet 1 of 1

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	385S-492	16	23

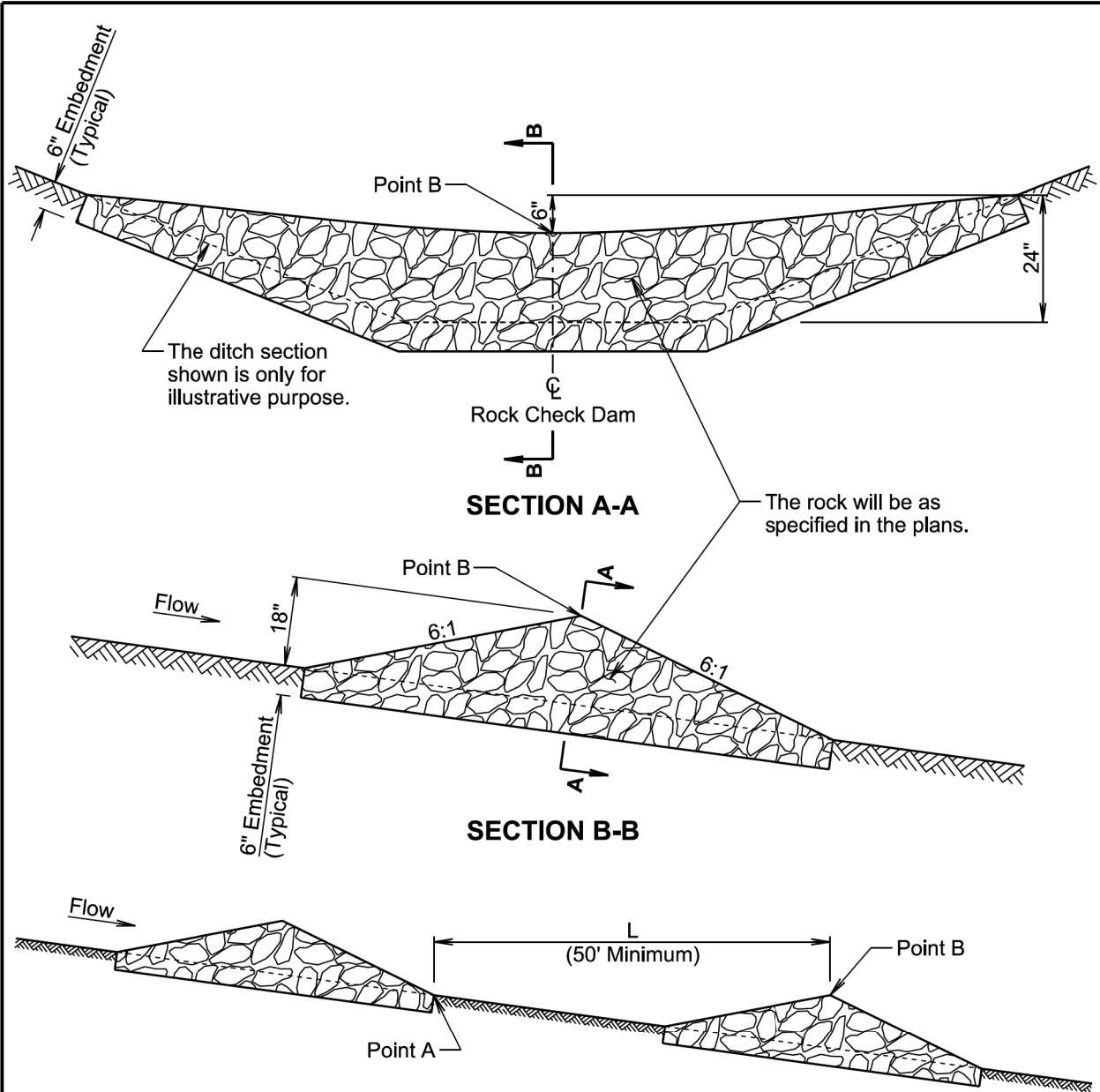
Plotting Date: 04/27/2022



LONGITUDINAL SECTION
(Concrete Curb Taper)

December 23, 2019

<i>Published Date: 2nd Qtr. 2022</i>	S D D O T	CONCRETE CURB TAPER	PLATE NUMBER 650.35
			Sheet 1 of 1



GENERAL NOTES:

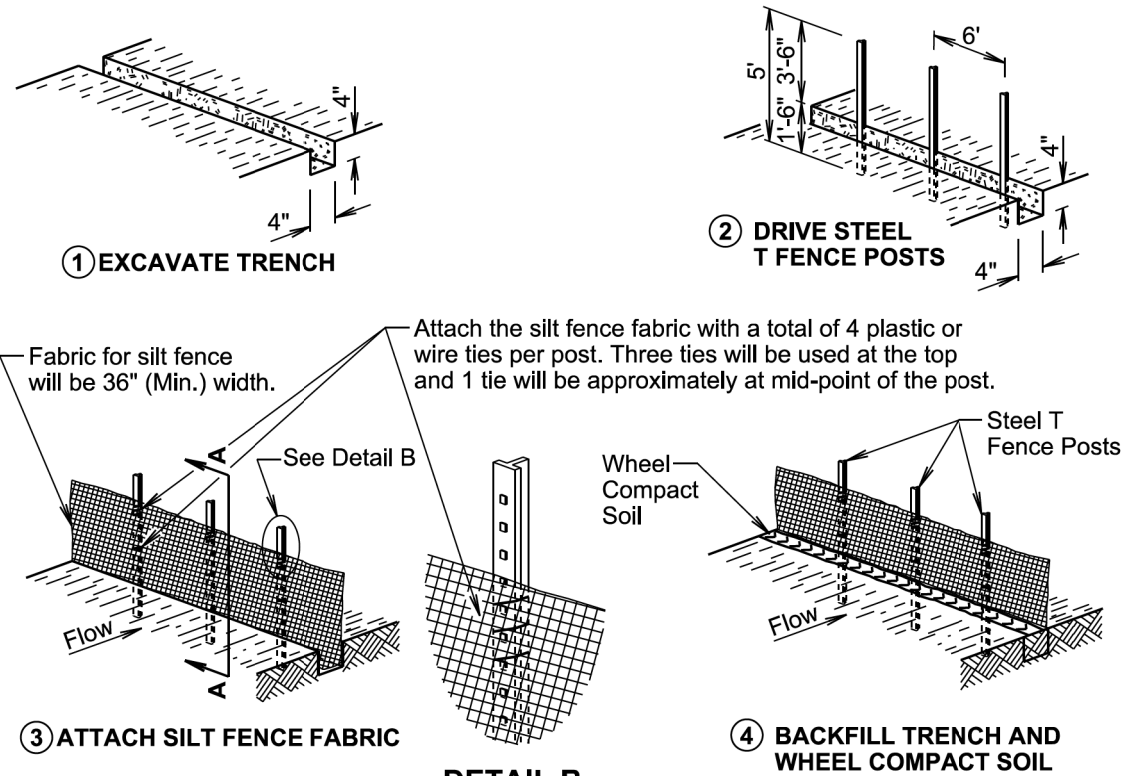
The elevation of Point A and Point B will be the same. The distance L is the distance required such that Point A and Point B are at the same elevation.

All costs for constructing the rock check dam including labor, equipment, excavation, and rock will be incidental to the contract unit price per cubic yard for "Rock Check Dam".

February 14, 2020

<i>Published Date: 2nd Qtr. 2022</i>	S D D O T	ROCK CHECK DAM	PLATE NUMBER 734.03
			Sheet 1 of 1

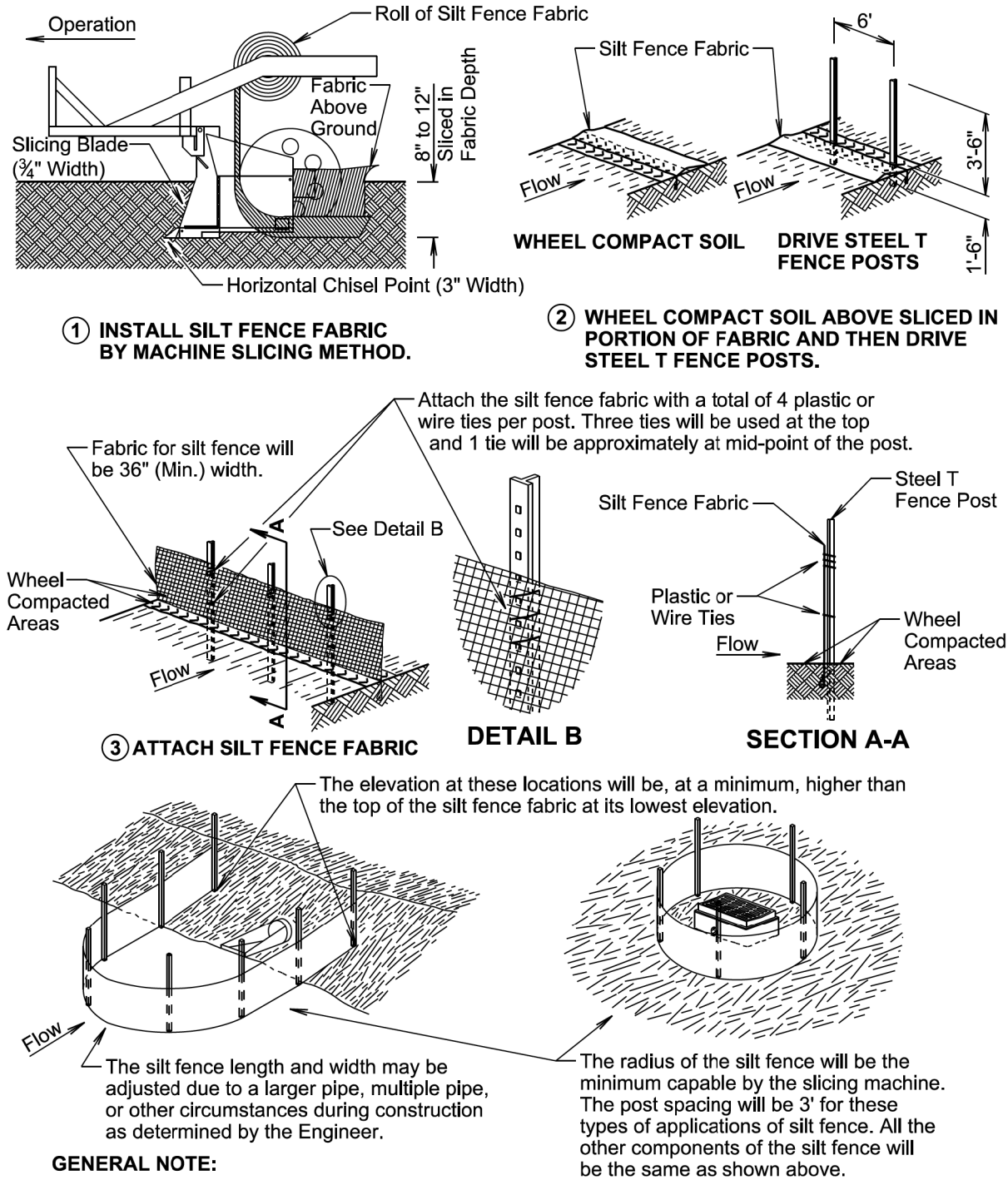
MANUAL HIGH FLOW SILT FENCE INSTALLATION



February 14, 2020

Published Date: 2nd Qtr. 2022	S D D O T	HIGH FLOW SILT FENCE	PLATE NUMBER
			734.05
			Sheet 1 of 2

MACHINE SLICED HIGH FLOW SILT FENCE INSTALLATION

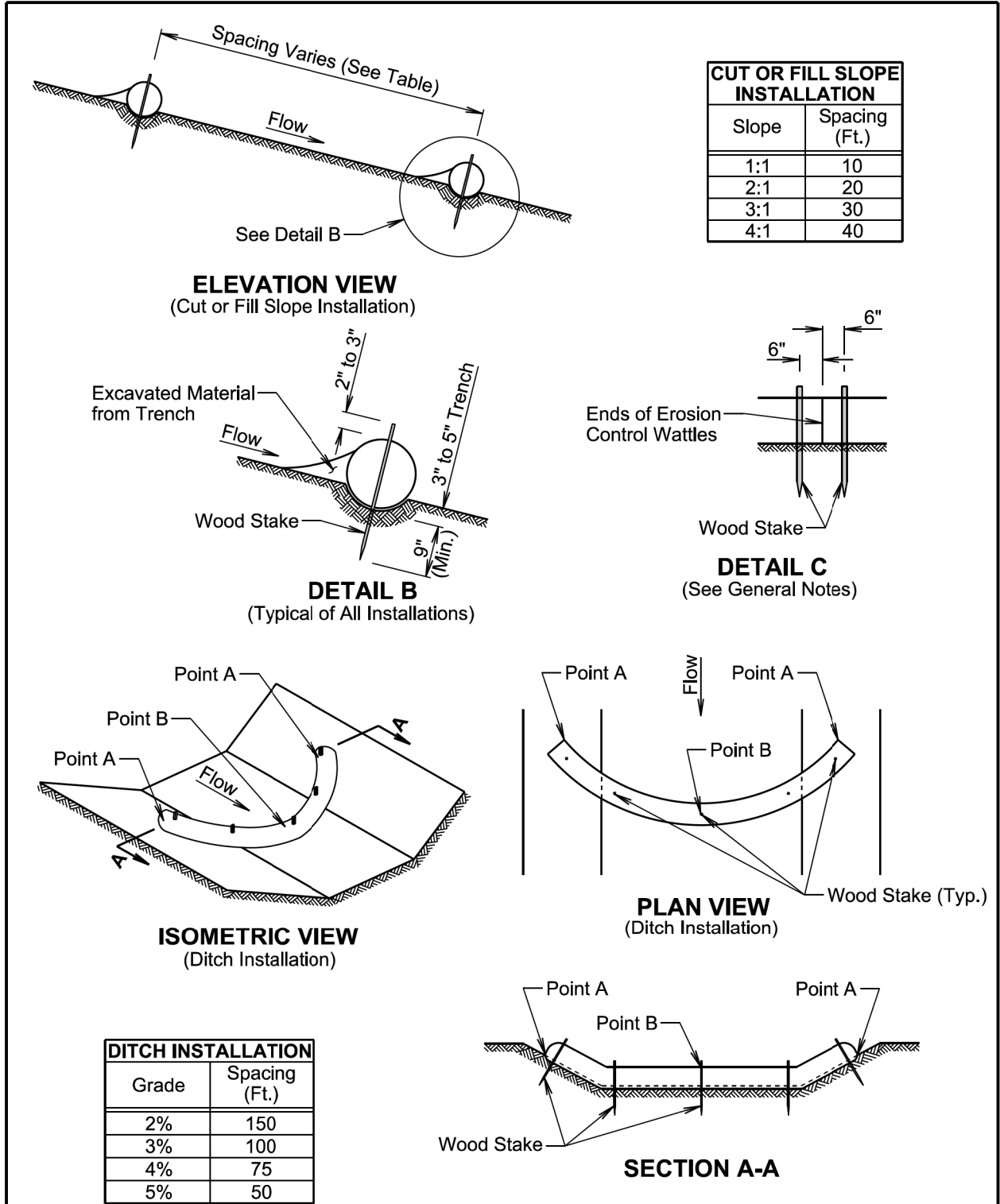


February 14, 2020

Published Date: 2nd Qtr. 2022	S D D O T	HIGH FLOW SILT FENCE	PLATE NUMBER
			734.05
			Sheet 2 of 2

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	385S-492	18	23

Plotting Date: 04/27/2022



February 14, 2020

Published Date: 2nd Qtr. 2022	S D D O T	EROSION CONTROL WATTLE	PLATE NUMBER 734.06
			Sheet 1 of 2

GENERAL NOTES:

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

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

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

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

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

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

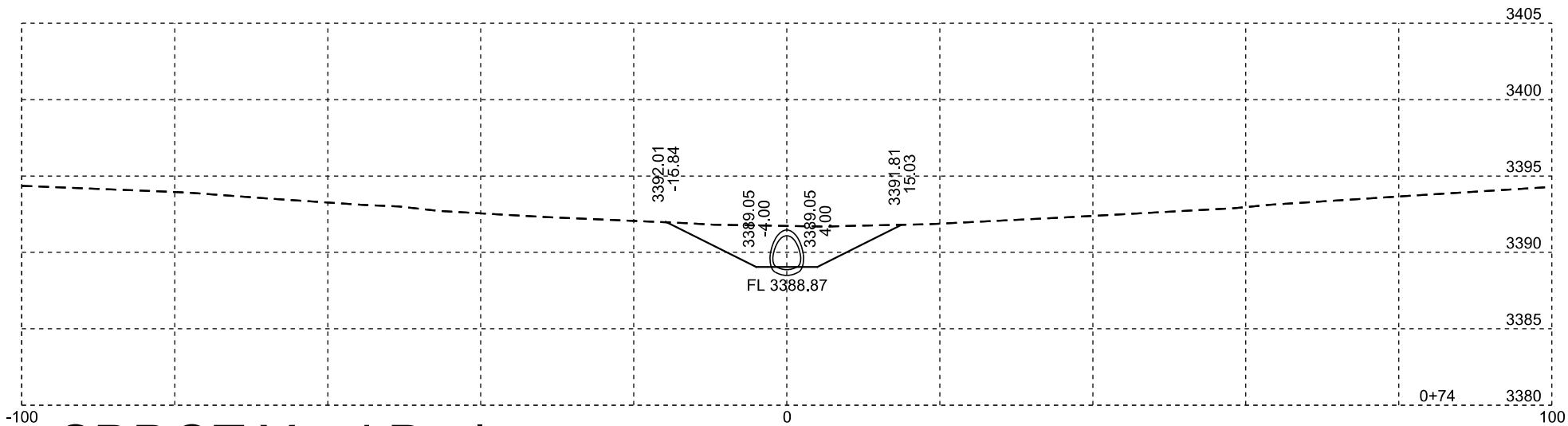
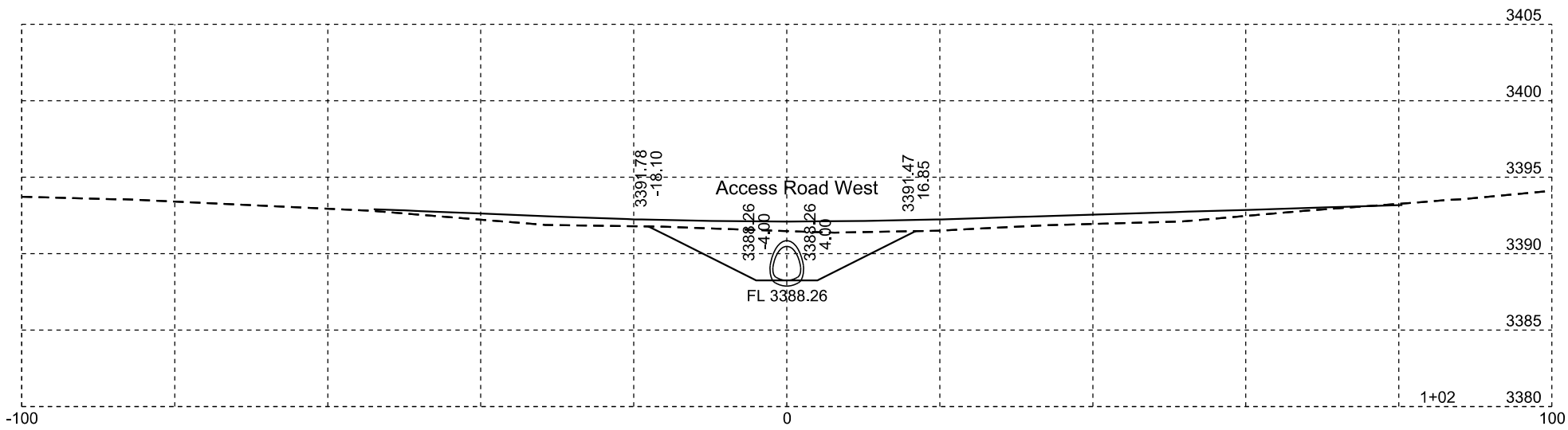
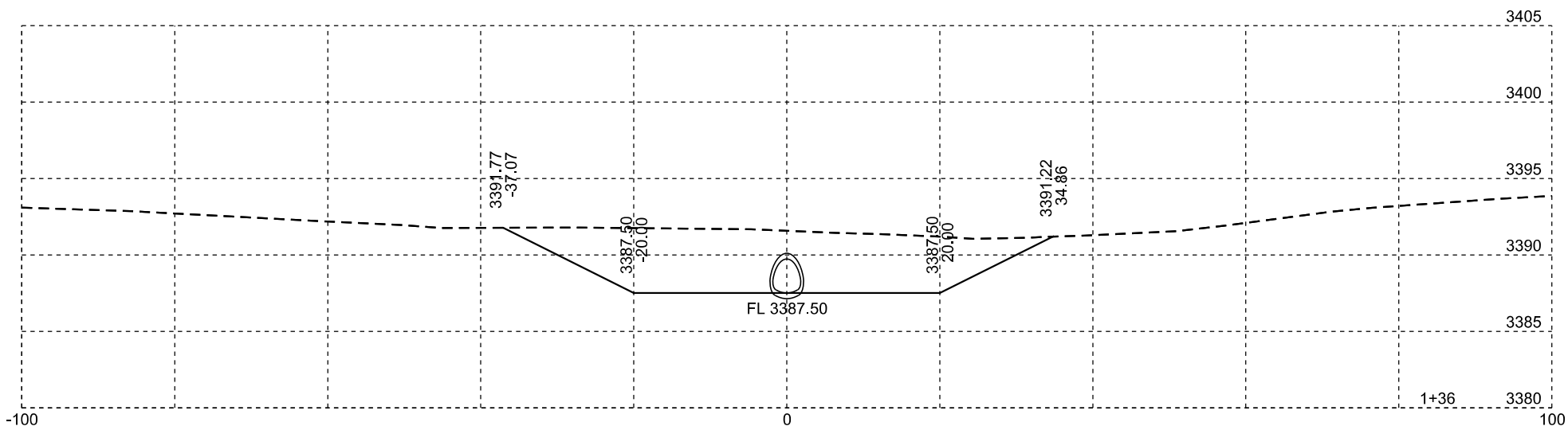
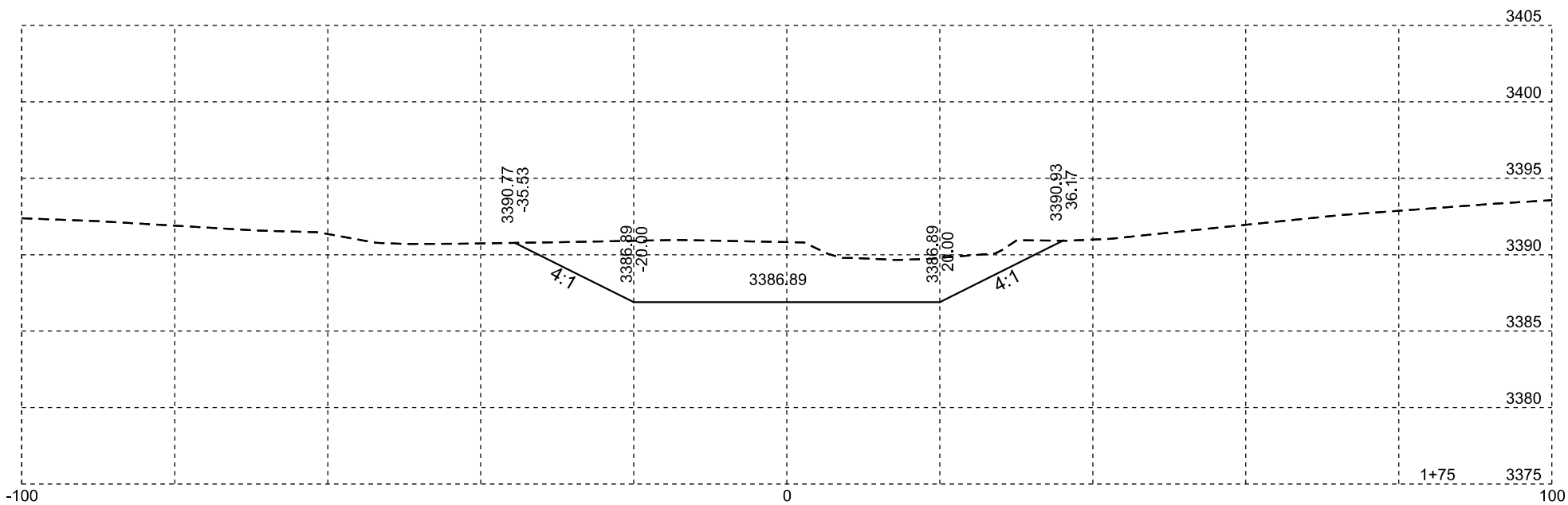
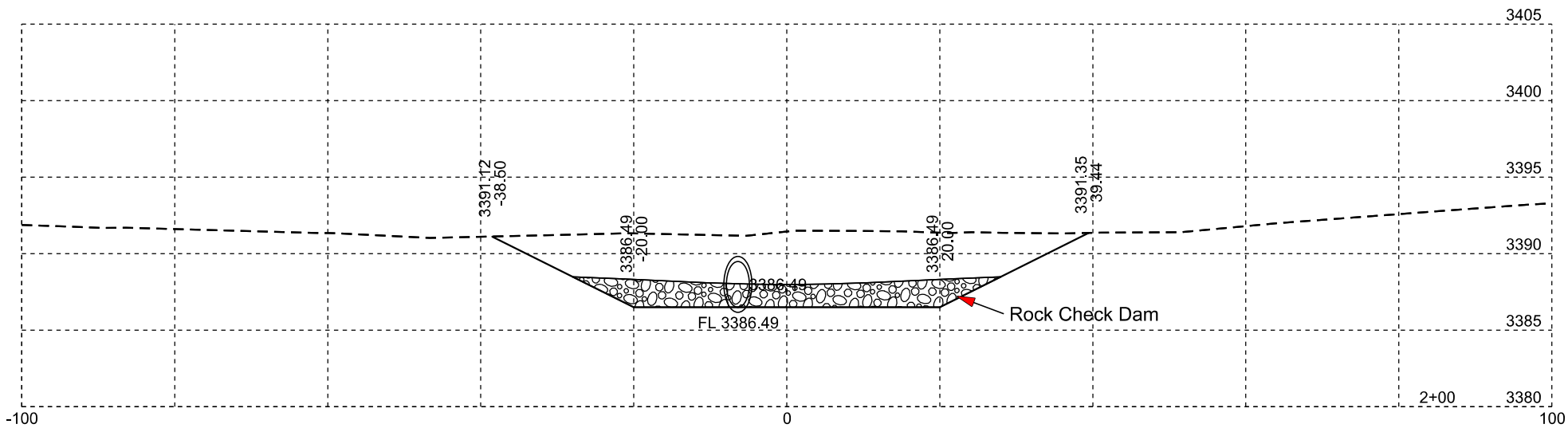
Sediment removal, disposal, or necessary shaping will be as directed by the Engineer. All costs for removing accumulated sediment, disposal of sediment, and necessary shaping will be incidental to the contract unit price per cubic yard for "Remove Sediment".

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

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

February 14, 2020

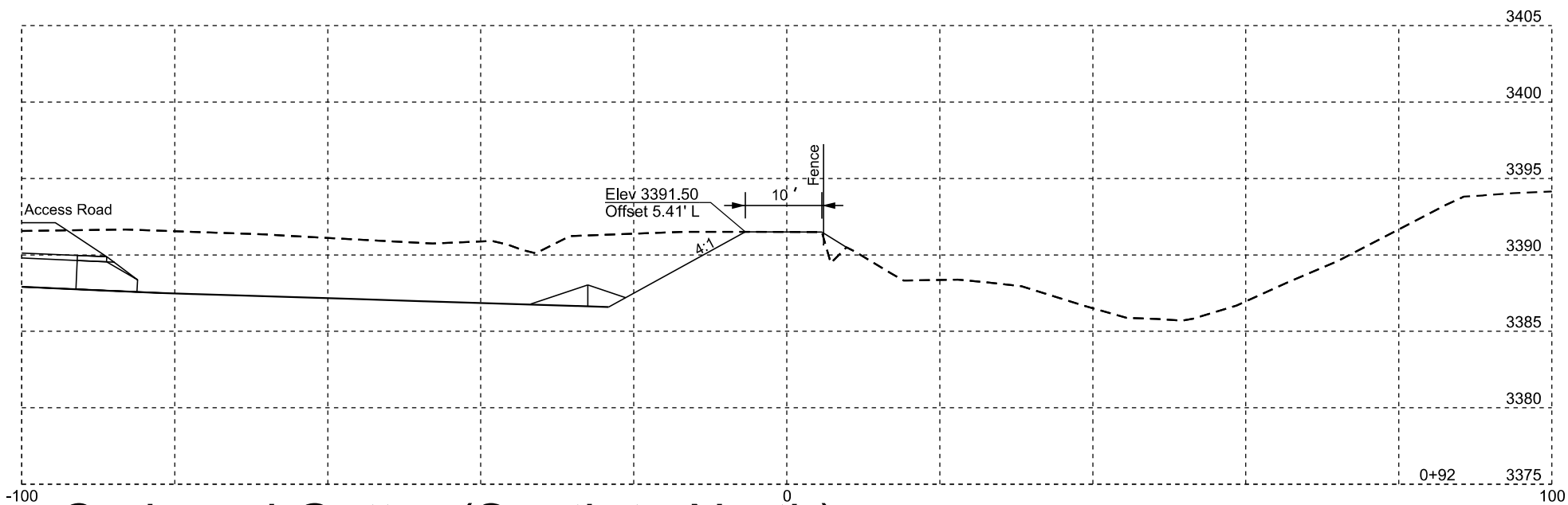
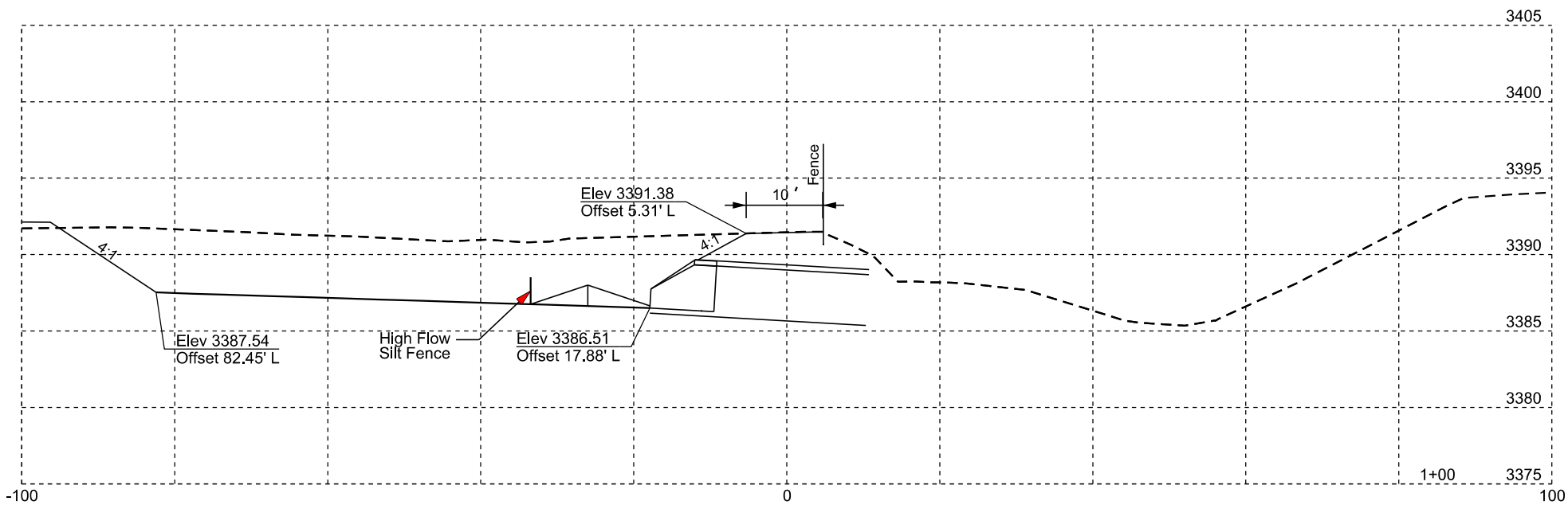
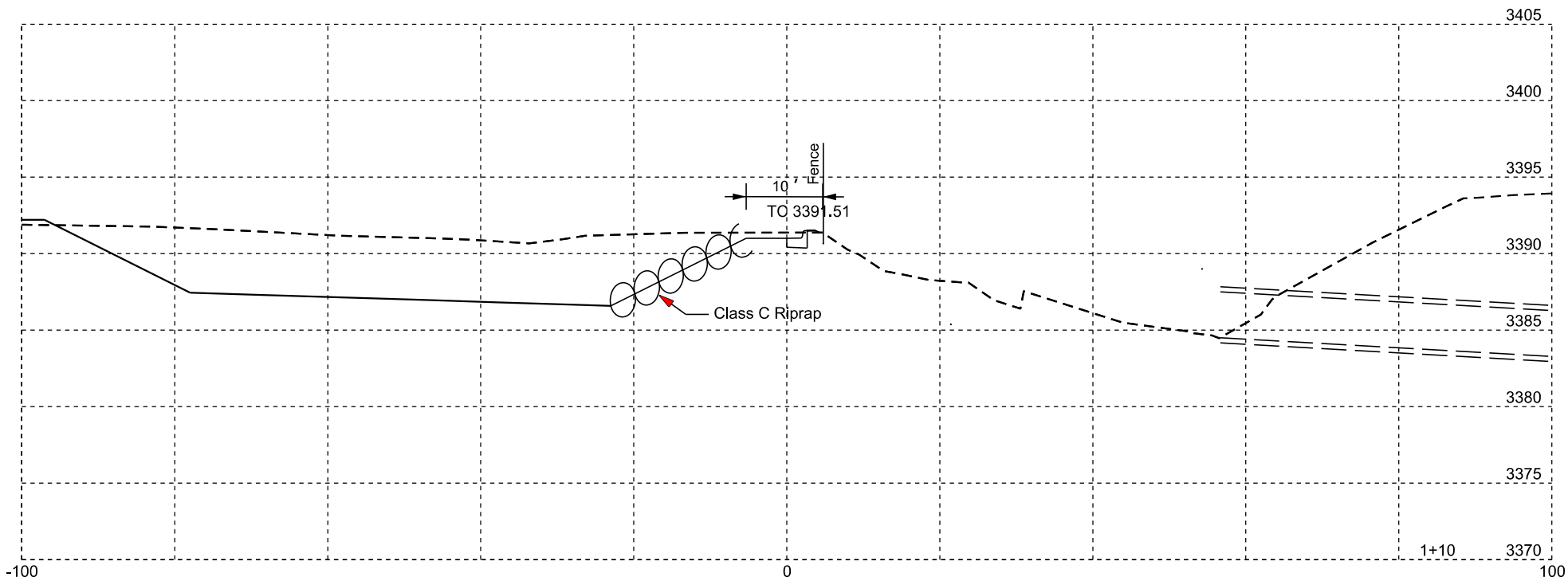
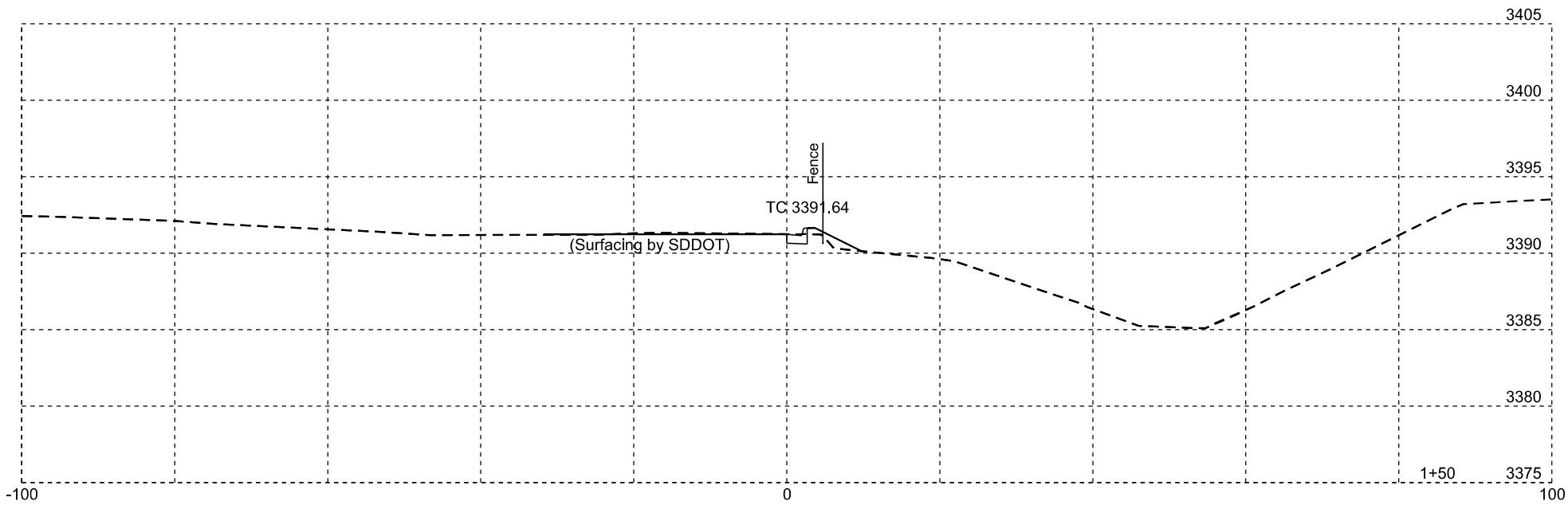
Published Date: 2nd Qtr. 2022	S D D O T	EROSION CONTROL WATTLE	PLATE NUMBER 734.06
			Sheet 2 of 2



SDDOT Yard Drainage

Plotting Date: 04/27/2022

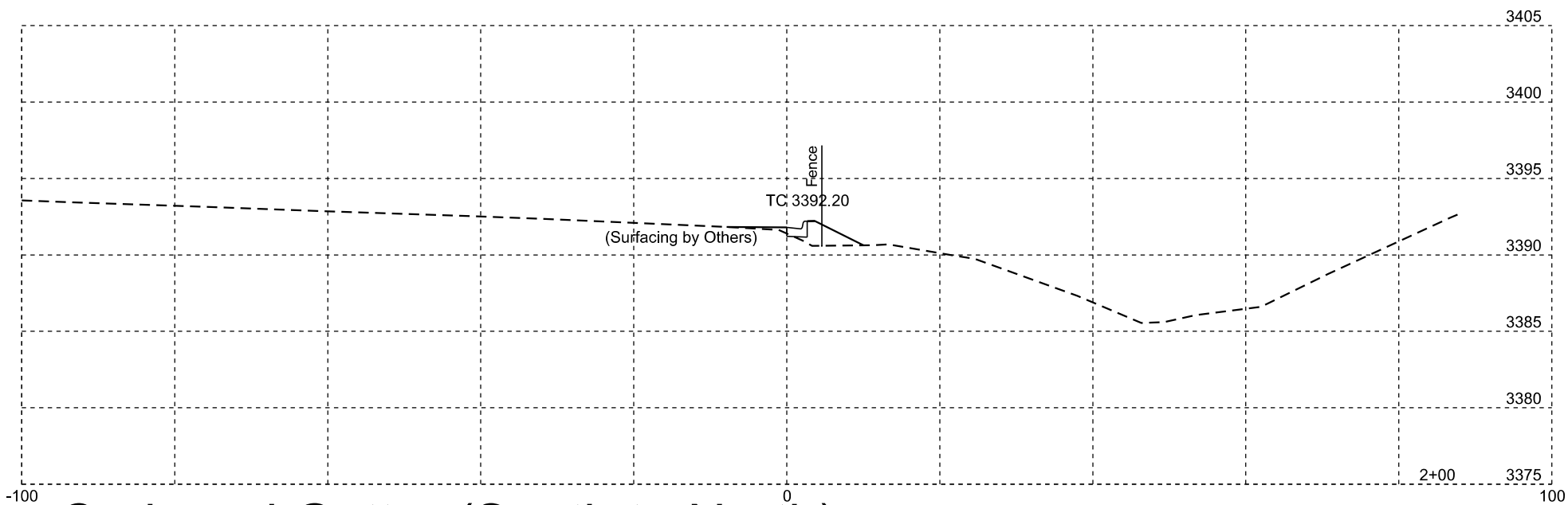
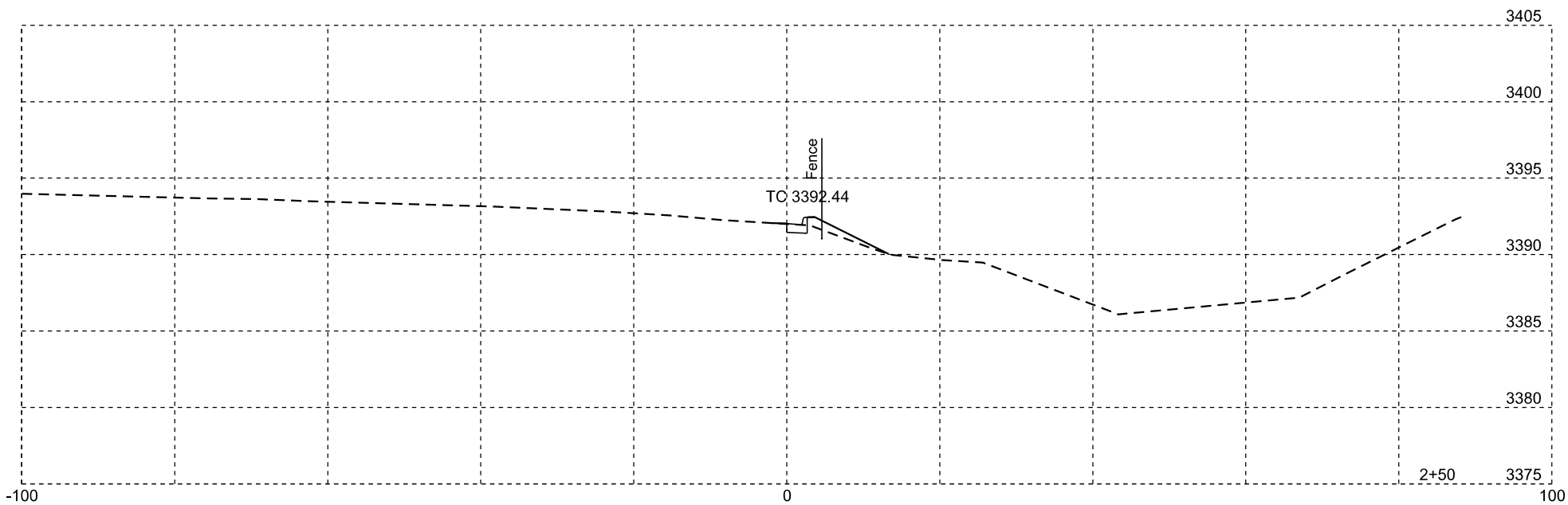
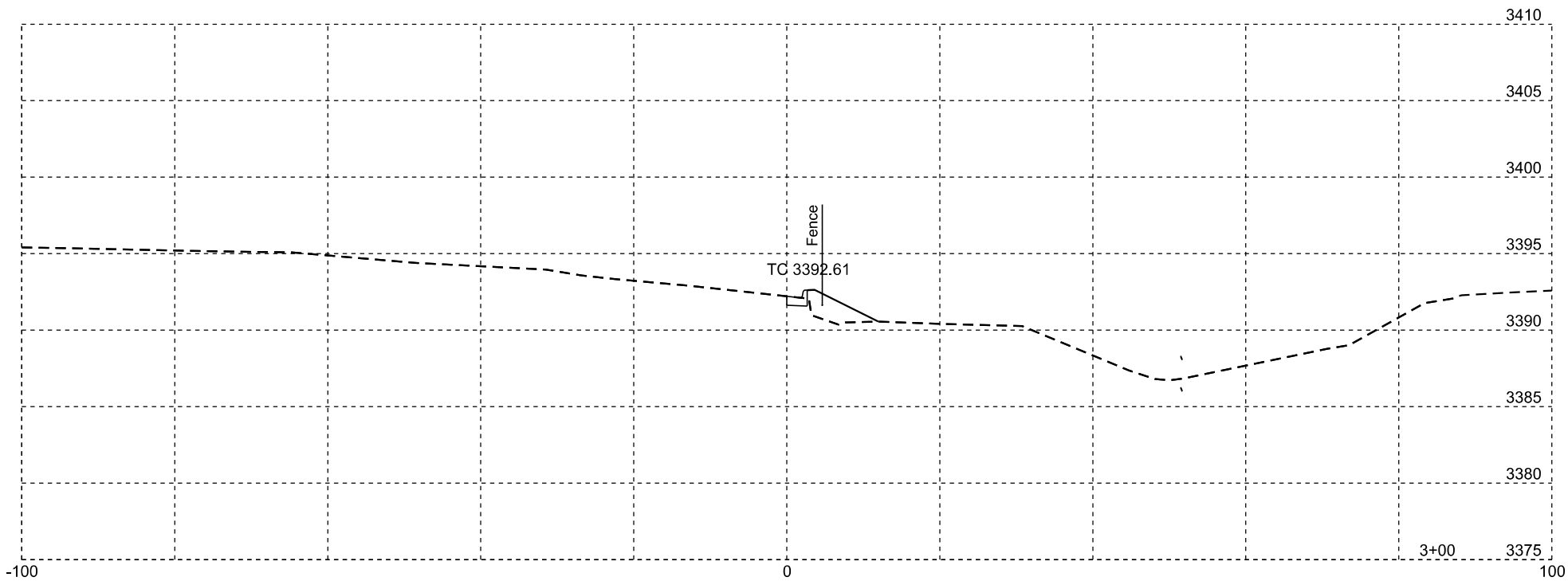
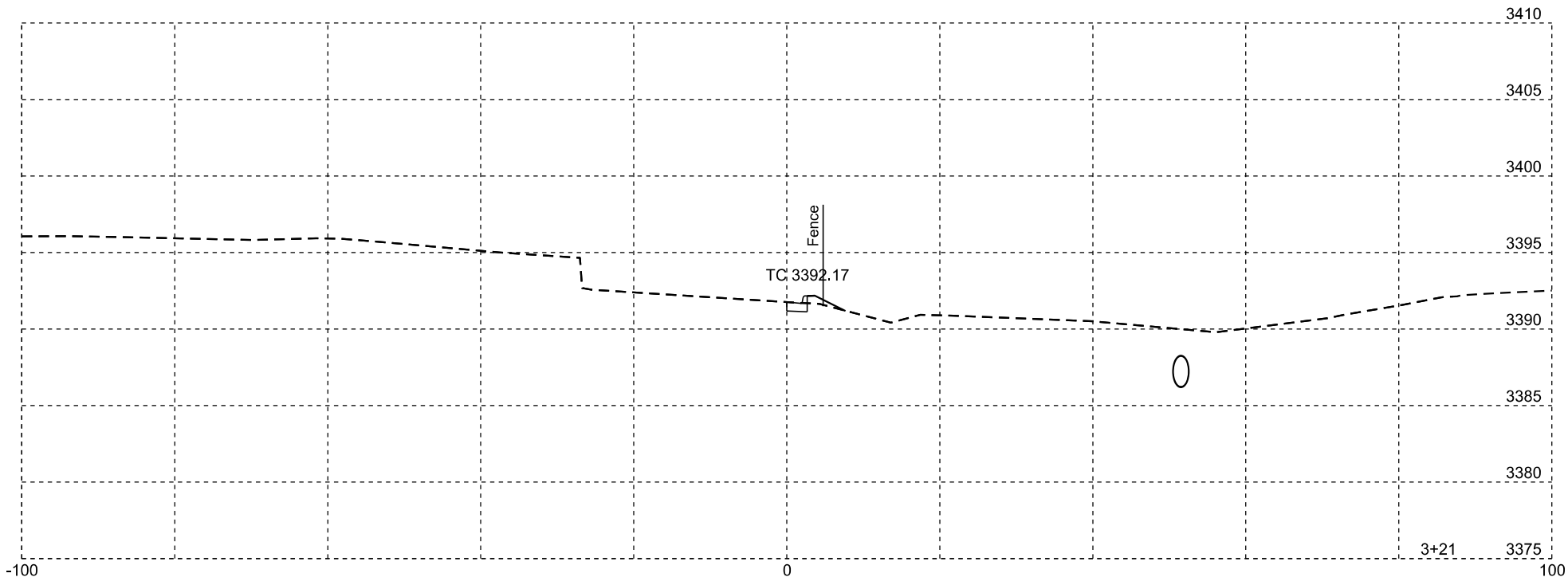
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	385S-492	19	23



Curb and Gutter (South to North)

Plotting Date: 04/27/2022

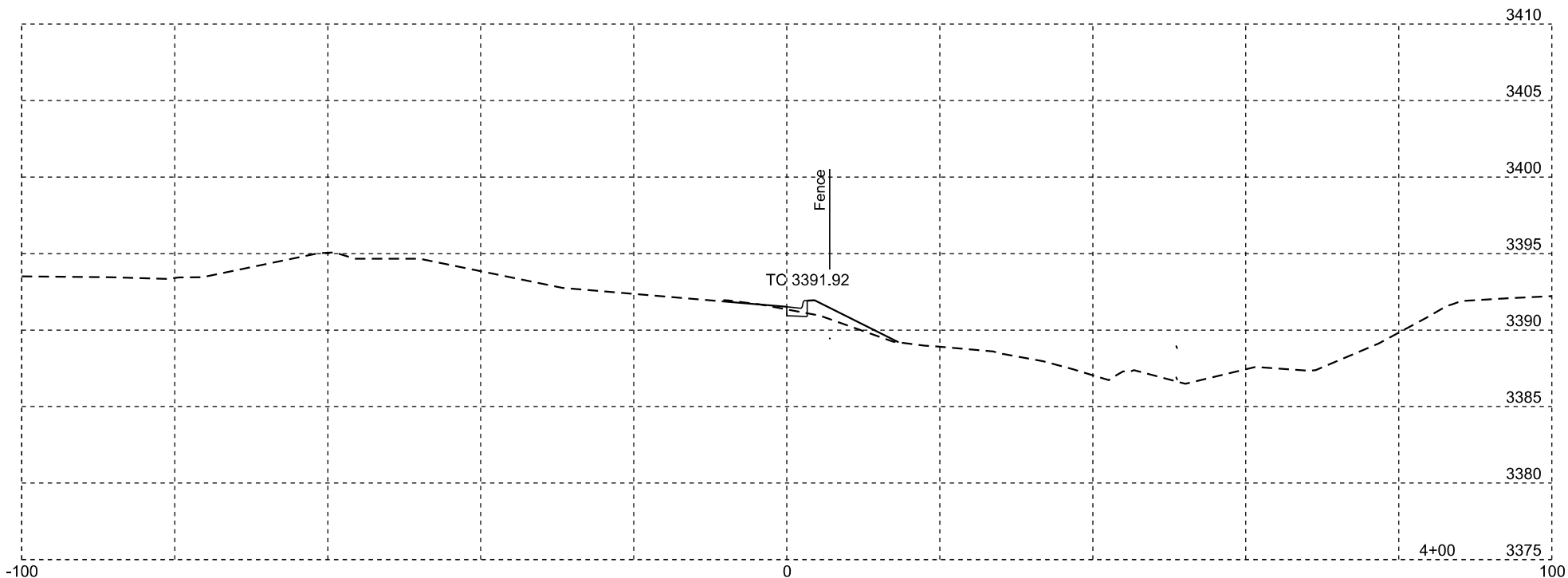
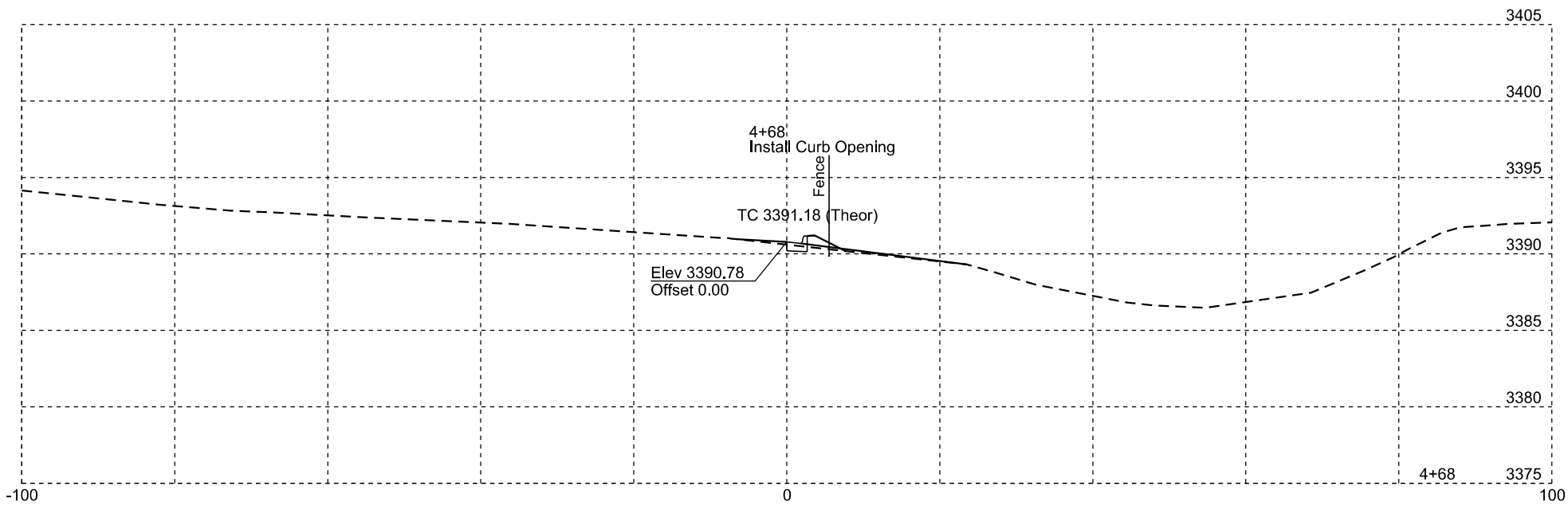
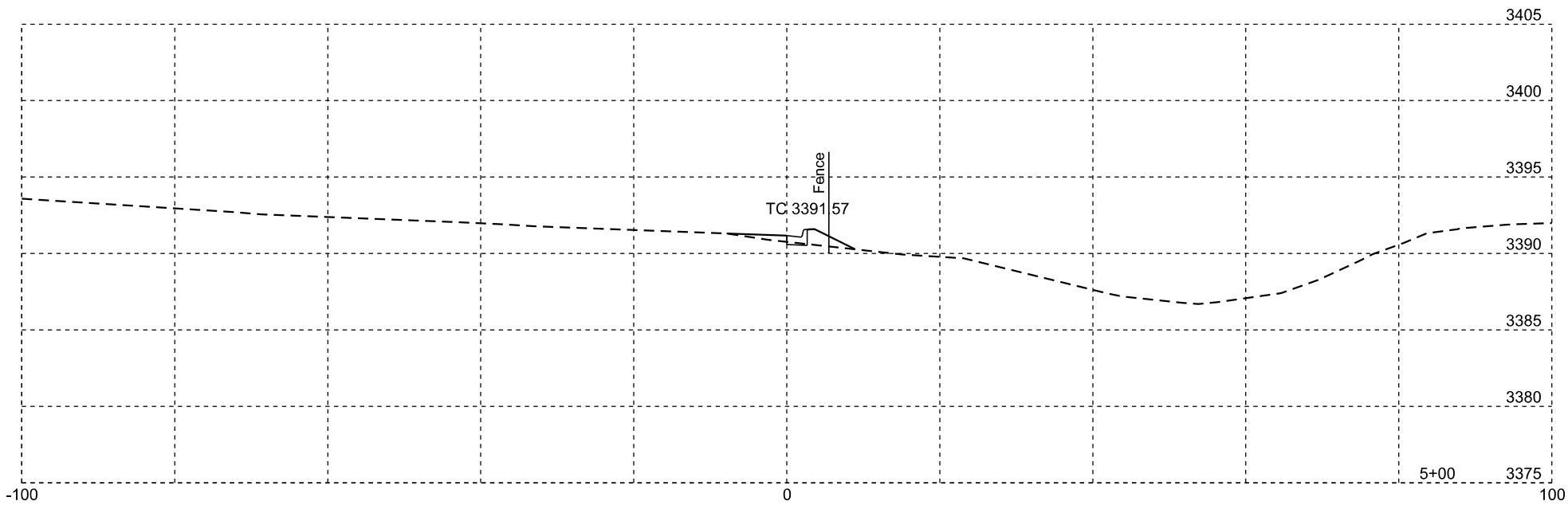
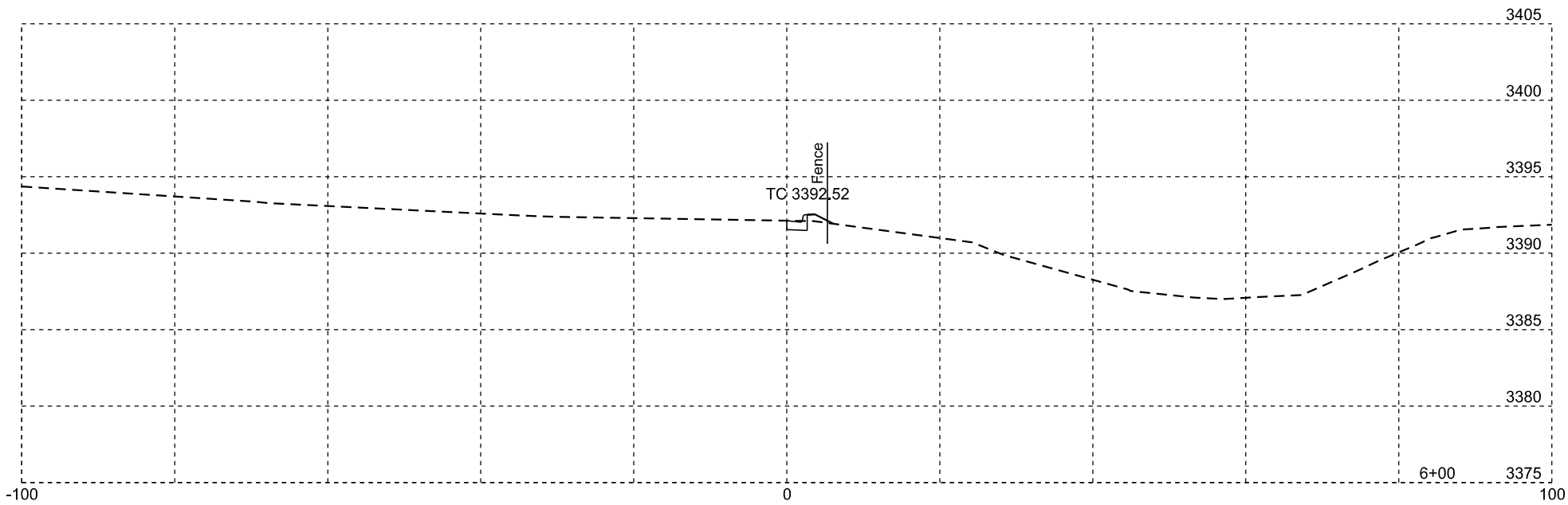
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	385S-492	20	23



Curb and Gutter (South to North)

Plotting Date: 04/27/2022

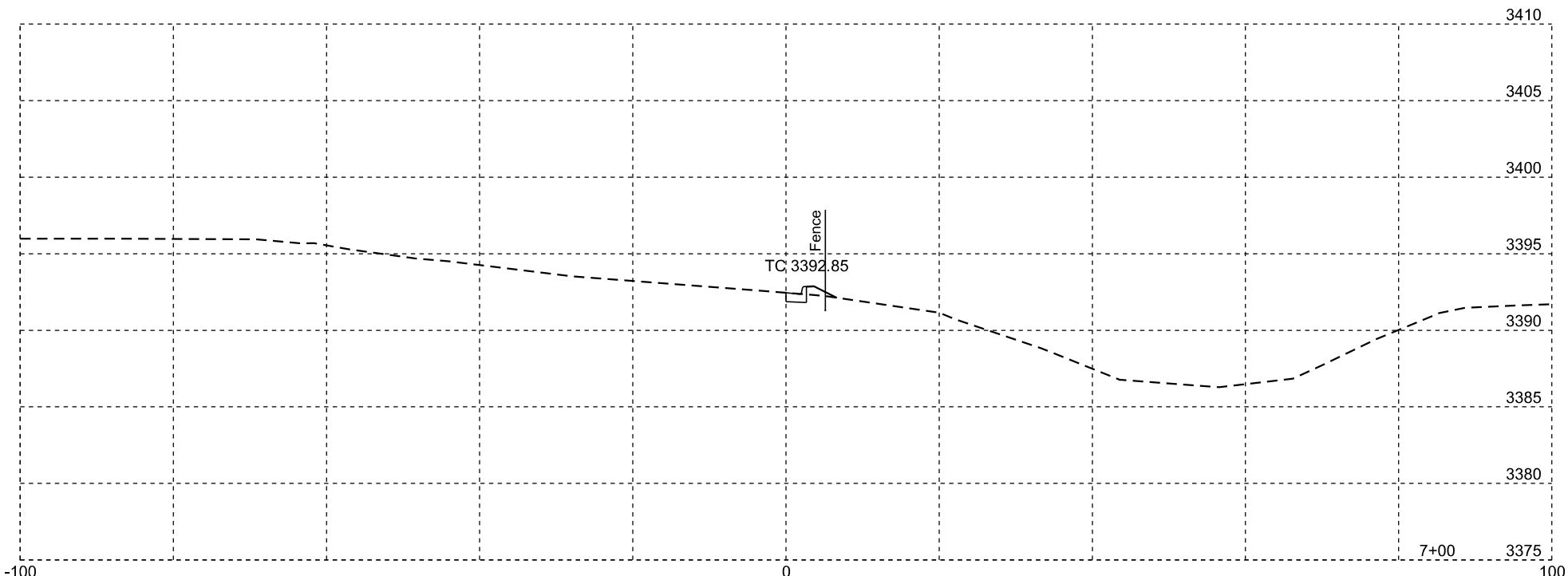
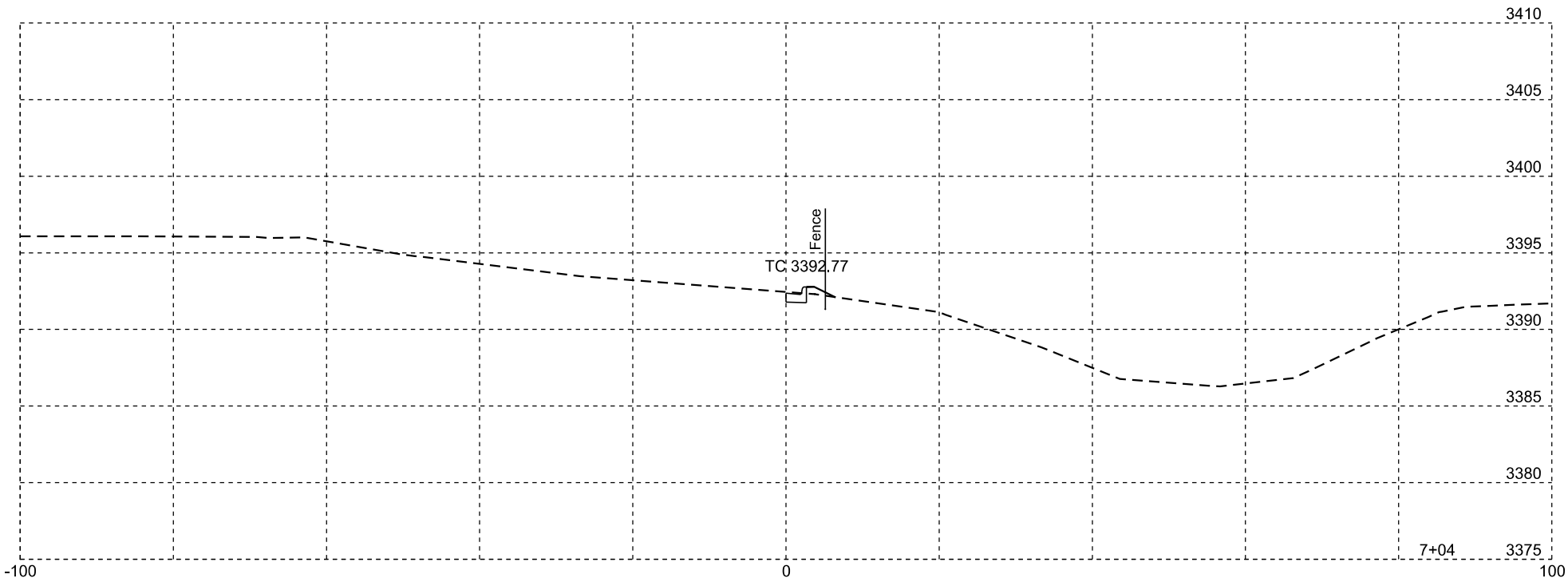
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	385S-492	21	23



Curb and Gutter (South to North)

Plotting Date: 04/27/2022

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	385S-492	22	23



Curb and Gutter (South to North)

Plotting Date: 04/27/2022

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	385S-492	23	23