FOR BIDDING PURPOSES ONLY

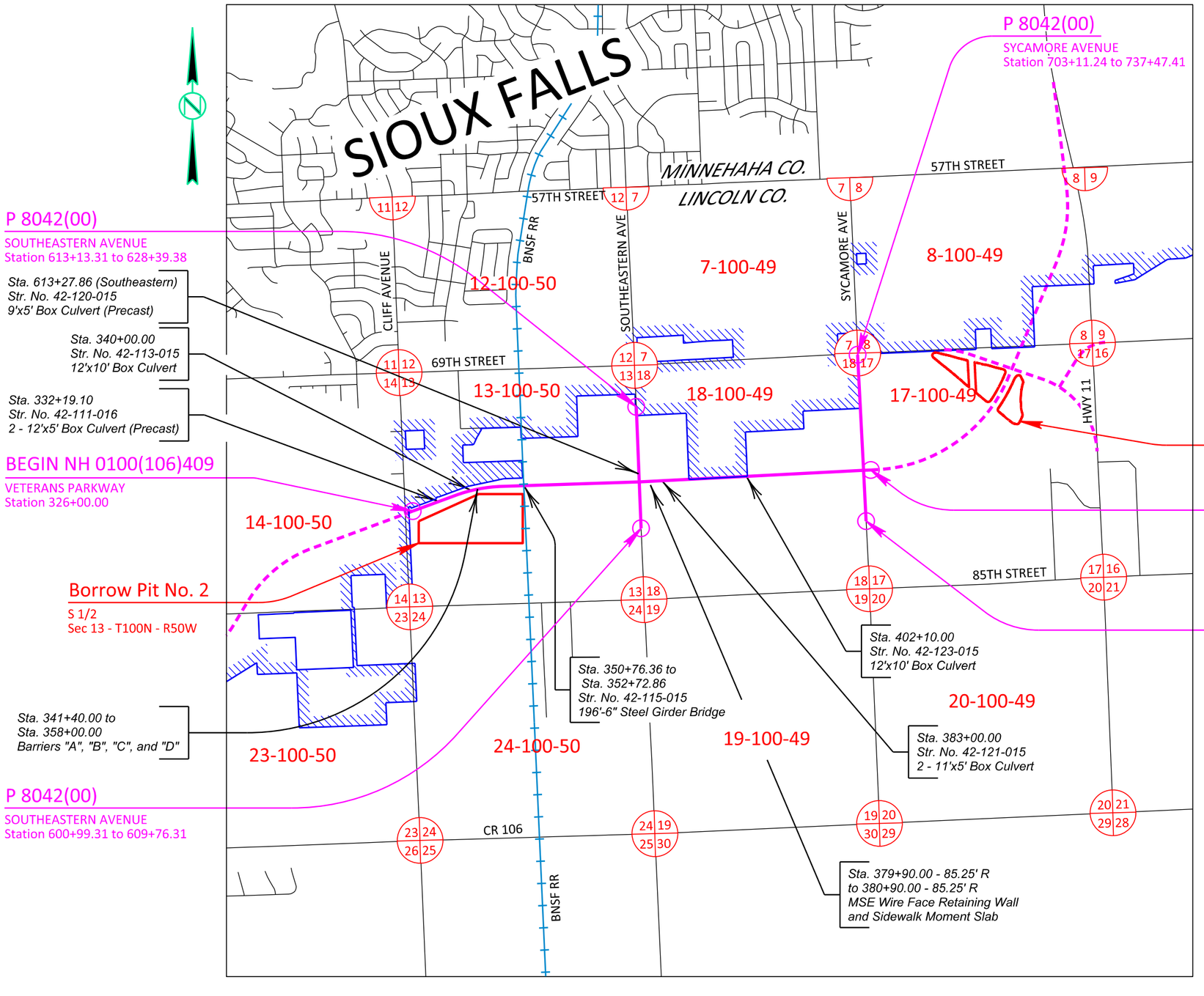
SECTION D: EROSION CONTROL PLANS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D1	D43

FILE: ...\Section D\D01 (Title).dgn
PLOTTING DATE: 10-10-2024

REV DATE:
INITIAL:

INDEX OF SHEETS



REGISTERED PROFESSIONAL ENGINEER
REG. NO. 5524
JAMES H. UNRUH
SOUTH DAKOTA
10-14-24

SECTION D ESTIMATE OF QUANTITIES

Bid Item Number	Item	Quantity PCN 01V7 Veterans	PCN 08DG Southeastern	PCN 08DH Sycamore	Total	Unit
110E1690	Remove Sediment	8.0	2.1	0.8	10.9	CuYd
110E1695	Remove Sediment Filter Bag	3,473	932	360	4,765	Ft
110E1700	Remove Silt Fence	8,884	1,488	1,920	12,292	Ft
120E6300	Water for Vegetation	19,569.9	1,903.3	2,505.7	23,978.9	MGal
230E0010	Placing Topsoil	193,150	14,845	9,637	217,632	CuYd
730E0100	Cover Crop Seeding	150.0	-	-	150.0	Bu
730E0206	Type D Permanent Seed Mixture	2,195	1,665	2,192	6,052	Lb
730E0212	Type G Permanent Seed Mixture	1,663	170	224	2,057	Lb
731E0100	Fertilizing	7,388	654	861	8,903	Lb
732E0100	Mulching	168.2	10.5	13.8	192.5	Ton
732E0300	Bonded Fiber Matrix	9.4	2.6	3.4	15.4	Ton
734E0044	Soil Stabilizer	20.0	-	-	20.0	Acre
734E0154	12" Diameter Erosion Control Wattle	844	-	-	844	Ft
734E0165	Remove and Reset Erosion Control Wattle	212	-	-	212	Ft
734E0180	Sediment Filter Bag	3,473	932	360	4,765	Ft
734E0325	Surfacing Roughening	8.6	-	-	8.6	Acre
734E0602	Low Flow Silt Fence	34,587	5,602	7,180	47,369	Ft
734E0604	High Flow Silt Fence	950	350	500	1,800	Ft
734E0610	Mucking Silt Fence	2,466	413	532	3,411	CuYd
734E0620	Repair Silt Fence	8,884	1,488	1,920	12,292	Ft
734E0680	Flocculent Housing Unit	2	-	-	2	Each
734E0683	500K Gallon Treatment Flocculent Bag	2	-	-	2	Each
734E0845	Sediment Control at Inlet with Frame and Grate	109	19	10	138	Each
734E0847	Sediment Control at Type S Reinforced Concrete Drop Inlet	-	48	-	48	Ft
734E5000	Dewatering	80	-	-	80	Hour
734E5010	Sweeping	80	20	20	120	Hour
900E1310	Concrete Washout Facility	3	1	1	5	Each
900E1320	Construction Entrance	8	2	2	12	Each

PERMANENT SEEDING

The areas to be seeded comprise of all newly graded areas within the project limits except for the top of roadways, sidewalks, and temporary easements under cultivation. For quantities, seeding was assumed to extend to the temporary easement limits.

See Section H for Veterans Parkway median seeding.

Type D Permanent Seed Mixture will be used on mowed areas in boulevards and at 4% or flatter slopes for Veterans Parkway and on all seeded areas for the CIP projects and will consist of the following:

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

Type G Permanent Seed Mixture will be used in non-maintained areas on slopes steeper than 4% and will 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

SURFACE ROUGHENING

Surface roughening will be done after topsoil placement and before permanent seeding, fertilizing, and mulching applications. Refer to Standard Plate 734.25 or details.

TABLE OF SURFACE ROUGHENING				
Station to	Station	L/R	Area (Acre)	Location
01V7 Veterans Parkway				
337+70	339+50	L	0.13	slope
338+50	339+50	R	0.05	slope
340+50	351+00	L	1.72	slope
340+50	351+00	R	1.90	slope
352+40	361+00	L	1.09	slope
352+40	361+40	R	1.66	slope
385+50	389+50	R	0.25	slope
396+50	408+50	L	0.90	slope
396+50	401+50	R	0.47	slope
403+00	404+80	R	0.09	slope
405+50	409+50	R	0.32	slope
Total 01V7 Veterans Parkway			**8.6**	

FERTILIZING

A commercial fertilizer with a minimum guaranteed analysis of 13-13-13, 18-46-0, 11-52-0, or an approved alternate fertilizer sold for use as a lawn starter fertilizer will be applied to all areas designated for permanent seeding. The application rate of fertilizer will be 100 pounds per acre.

COVER CROP SEEDING

Cover crop seeding may be used on this project as a temporary erosion control measure. The actual limits and use of cover crop seeding will be determined by the Engineer during construction. The estimate of quantities includes 150 bushels of cover crop seed.

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PLACING TOPSOIL

The thickness will be approximately 4 inches within the right-of-way and 6 inches on temporary easements. The earthwork balance shows an excess of topsoil. The Contractor will place all the available topsoil within the project limits by increasing the thickness of the topsoil placed as necessary. The total Placing Topsoil quantity includes the excess topsoil.

Table of Placing Topsoil (non-median)		
Station to	Station	(CuYd)
01V7 Veterans Parkway		
326+00 (begin project)	351+27 (BNSF bridge)	7,476
352+24 (BNSF bridge)	377+87 (SE Ave)	6,160
377+87 (SE Ave)	428+27 (Syc Ave)	10,813
428+27 (Syc Ave)	430+00 (end project)	126
	Total 01V7 Veterans Parkway	**24,575**
Muck Excavation Waste (assumes spread as topsoil within the project limits)		**63,558**
(1) Borrow Pits		
Borrow Pit #2 (Cliff Ave)		
Topsoil Piles from 01V6		3,034
Muck excavation pile from 01V6		11,880
Pond A		8,467
Pond B		3,293
Pond C		104,474
	Total Borrow Pit #2 (Cliff Ave)	**131,148**
Borrow Pit #5 (69th Street)		
Pond A		14,589
Pond B		22,838
	Total Borrow Pit #5 (69th St)	**37,427**
(1) Quantity assumes that all stripped topsoil will be placed back within the borrow pit or used on roadway slopes.		
	Total Veterans Park and Borrow Pits	**193,150**
CIP Roadways		
08DG Southeastern Ave		
601+00 (begin project)	609+72(Veterans)	1,434
613+13 (Veterans)	628+39 (End Project)	2,544
Muck Excavation Waste		6,307
Borrow Pit #2 (Cliff Ave)		4,559
	Total 08DG Southeastern Ave	**14,845**
08DH Sycamore Ave		
700+00 (begin project)	710+36 (Veterans)	1,918
712+54 (Veterans)	737+50 (End Project)	2,770
Muck Excavation Waste		4,056
Borrow Pit #5 (69th Street)		893
	Total 08DH Sycamore Ave	**9,637**
	Total Project	**217,632**

See Section H plans for Contractor Furnished Topsoil in the medians.

TABLE OF SEED, FERTILIZER, BONDED FIBER MATRIX, AND WATER

Roadway	Location	L/R	Area		Seed		Mulching	Bonded Fiber Matrix	Water for Veg.	Fertilizer
			(1000 SqFt)	(Acres)	Type D (Lb)	Type G (Lb)	(Ton)	(Ton)	(MGal)	(Lb)
Veterans Parkway	326+00 to 351+34	L	234.5	5.38	266	168	10.3	2.5	1,875.9	645
	326+00 to 351+34	R	249.0	5.72	270	178	13.7	0.0	1,992.1	685
	351+95 to 377+35	L	240.3	5.52	269	172	11.9	1.3	1,922.5	662
	351+95 to 377+35	R	209.6	4.81	261	150	10.4	1.1	1,676.8	577
	378+40 to 427+90	L	358.4	8.23	520	257	17.8	1.9	2,866.8	987
	378+40 to 427+90	R	455.7	10.46	577	326	22.6	2.4	3,645.6	1,255
	428+70 to 430+00	L	9.1	0.21	15	7	0.5	0.0	72.9	25
	428+70 to 430+00	R	9.1	0.21	17	6	0.4	0.0	72.4	24
	(1) Borrow Pit #2 (Pond A)	R	52.1	1.20	0	37	2.9	0.0	417.0	143
	(1) Borrow Pit #2 (Pond B)	R	41.2	0.95	0	30	2.3	0.0	329.6	113
	(1) Borrow Pit #2 (Pond C)	R	268.7	6.17	0	192	14.8	0.0	2,149.3	740
	(1) Borrow # 5 (Pond A)	L	96.4	2.21	0	69	5.3	0.0	771.1	265
	(1) Borrow # 5 (Pond B)	L	97.2	2.23	0	70	5.4	0.0	777.8	267
	Additional						50.0		1,000.0	1,000
	Total 01V7 Veterans Parkway		**2,321.2**	**53.29**	**2,195**	**1,663**	**168.2**	**9.4**	**19,569.9**	**7,388**
South-eastern Avenue	600+99 to 609+77	R	35.4	0.81	248	25	1.6	0.4	283.1	97
	600+99 to 609+77	L	55.9	1.28	392	40	2.5	0.6	447.6	154
	613+13 to 628+40	R	52.5	1.21	368	38	2.3	0.6	420.4	144
	613+13 to 628+40	L	94.0	2.16	658	67	4.1	1.0	752.2	259
	Total 08DG Southeastern Avenue		**237.9**	**5.5**	**1,665**	**170**	**10.5**	**2.6**	**1,903.3**	**654**
Sycamore Avenue	699+97 to 709+81	R	44.6	1.02	312	32	2.0	0.5	356.6	122
	699+97 to 709+81	L	57.5	1.32	403	41	2.5	0.6	460.2	158
	713+11 to 737+47	R	105.0	2.41	735	75	4.6	1.1	840.2	289
	713+11 to 737+47	L	106.1	2.44	743	76	4.7	1.1	848.7	292
	Total 08DH Sycamore Avenue		**313.2**	**7.2**	**2,192**	**224**	**13.8**	**3.4**	**2,505.7**	**861**
	Total Project		**2,872.4**	**65.9**	**6,052**	**2,057**	**192.5**	**15.4**	**23,978.9**	**8,903**

(1) Quantities at borrow pits assume a 40' wide seeding strip around the perimeter of the borrow pits.

(2) It is assumed that Bonded Fiber Matrix will be applied in areas around intersections and along developed properties; all other areas will receive mulch.

MULCHING (GRASS HAY OR STRAW)

An additional 50 tons of Grass Hay or Straw Mulch has been added to the Estimate of Quantities for temporary erosion control on areas determined by the Engineer during construction.

If the Contractor uses a no-till drill, mulch may be applied prior to seeding and the mulch can then be punched into the soil by the no-till drill. If the Contractor uses this process, the no-till drill seeding will be completed immediately following the mulch application and the mulch will be punched into the soil at a 3-inch depth.

BONDED FIBER MATRIX

Bonded fiber matrix will be hydraulically applied to the areas listed in the table and any other areas deemed necessary by the Engineer. In general, it assumed that bonded fiber matrix will be applied in areas around intersections and along developed properties.

The Contractor will use a bonded fiber matrix from the approved products list, or an approved equal. The approved product list for bonded fiber matrix may be viewed at the following internet site:

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

REGISTERED PROFESSIONAL ENGINEER
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10-14-24

WATER FOR VEGETATION

See Section H for water for vegetation in median areas.

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 10.5 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”.

SOIL STABILIZER

An estimated quantity of 20 acres of soil stabilizer has been included in the Estimate of Quantities. The soil stabilizer will be applied on permanently seeded areas and areas deemed necessary by the Engineer.

The Contractor will apply soil stabilizer in accordance with the manufacturer’s application instructions and at the rate specified in the list of approved soil stabilizers.

Wood fiber mulch that contains a green dye will be mixed with the soil stabilizer to be used as a tracer when the soil stabilizer is applied hydraulically. Wood fiber mulch will be added at a rate of 300 pounds per acre to all of the approved soil stabilizers listed in the table except for the Pam-12 Plus product. The wood fiber mulch will be a 100% wood fiber product and does not need to contain a tackifier.

All costs for furnishing and applying the soil stabilizer including wood fiber mulch, hauling, materials, equipment, labor, and incidentals necessary will be paid for at the contract unit price per Acre for “Soil Stabilizer”.

The soil stabilizer will be from the list below or an approved equal:

Product	Manufacturer
StarTak 600 Applied at a rate of 150 Lb/Acre	Chemstar Products Company Minneapolis, MN Phone: 1-800-328-5037 www.chemstar.com
Pam-12 Plus Applied at a rate of: Slope — None to 4:1: 1000 Lb/Acre; 4:1 to 3:1: 1000 to 2000 Lb/Acre; 3:1 to 2:1: 2000 to 3000 Lb/Acre	ENCAP, LLC Green Bay, WI Phone: 1-920-406-5050 https://encappro.com/
M-Binder Applied at a rate of 150 Lb/Acre	Ecology Controls Carpinteria, CA Phone: 1-805-684-0436 www.ssseeds.com
FiberRX Applied at a rate of: Slope — None to 4:1: 50 Lb/Acre; 3:1: 60 Lb/Acre; 2:1: 70 Lb/Acre; 1:1 or steeper: 80 Lb/Acre	HydroStraw, LLC Manteno, IL Phone: 1-800-545-1755 http://www.hydrostraw.com
Enviropam Applied at a rate of 9 Lb/Acre	Innovative Turf Solutions, LLC Lebanon, OH Phone: 1-513-317-8311 www.innovativeturfsolutions.com
HydraTack, Tack Plus, Tack-P, or Tack-P Plus Applied at a rate of 30 Lb/Acre	Innovative Turf Solutions, LLC Lebanon, OH Phone: 1-513-317-8311 www.innovativeturfsolutions.com
Fl-1045 Hydrobond or Fl-1046 Hydrobond Applied at a rate of 15 Lb/Acre	JRM Chemical, Inc. Cleveland, OH Phone: 1-216-475-8488 www.soilmoist.com
HF5000 Tack Applied at a rate of 60 Lb/Acre	Rantec Corporation Ranchester, WY Phone: 1-307-655-9565 www.ranteccorp.com
R-Tack Applied at a rate of 150 Lb/Acre	Rantec Corporation Ranchester, WY Phone: 1-307-655-9565 www.ranteccorp.com
SpecTac Applied at a rate of: Slope — None: 30 to 80 Lb/Acre; 4:1: 50 to 100 Lb/Acre; 3:1: 80 to 120 Lb/Acre; 2:1: 100 to 170 Lb/Acre	Rantec Corporation Ranchester, WY Phone: 1-307-655-9565 www.ranteccorp.com
Super Tack Applied at a rate of 60 Lb/Acre	Rantec Corporation Ranchester, WY Phone: 1-307-655-9565 www.ranteccorp.com
EarthGuard SFM Applied at a rate of 60 LB/Acre (approx. 6 Gallons/Acre)	Terra Novo Inc. Bakersfield, CA Phone: 1-888-843-1029 www.terranovo.com

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10-14-24

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.

An additional quantity of 12" Diameter Erosion Control Wattles has been added to the Estimate of Quantities for temporary erosion and sediment control in highway ditch channels and as an alternative to low flow or high flow silt fence at wetland areas adjacent to the highway.

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

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

TABLE OF EROSION CONTROL WATTLE

Station	L/R	Diameter (in)	Location	Quantity (Ft)	Remove and Reset
01V7 (Veterans Parkway)					
352+02	L	12	ditch	46	12
352+02	R	12	ditch	46	12
352+45	R	12	ditch	46	12
353+95	R	12	ditch	46	12
354+45	R	12	ditch	46	12
356+95	R	12	ditch	46	12
413+40	R	12	ditch	46	12
414+90	R	12	ditch	46	12
416+40	R	12	ditch	46	12
422+20	R	12	ditch	46	12
423+70	R	12	ditch	46	12
424+30	L	12	ditch	46	12
425+70	L	12	ditch	46	12
426+90	L	12	ditch	46	12
			Additional Quantity	200	50
01V7 (Veterans Parkway) Total				**844**	**212**

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.

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.

An additional quantity of high flow silt fence has been added to the Estimate of Quantities for temporary sediment control

TABLE OF LOW FLOW SILT FENCE

Station to	Station	L/R	Location	Quantity (Ft)
01V7 Veterans Parkway				
326+00	332+00	L	perimeter	600
326+00	332+00	R	perimeter	600
332+40	347+15	L	perimeter	1,475
332+40	347+50	R	perimeter	1,570
347+50	351+00	L	perimeter	350
347+85	351+00	R	perimeter	375
351+02	351+02	L/R	perimeter	275
352+20	352+10	L/R	perimeter	260
352+10	357+00	R	perimeter	490
352+20	357+35	L	perimeter	515
357+70	363+40	L	perimeter	570
357+60	370+40	R	perimeter	1,280
366+50	368+35	R	perimeter	185
371+60	377+20	R	perimeter	600
374+30	376+80	L	perimeter	250
378+65	380+05	R	perimeter	185
378+70	382+25	L	perimeter	355
380+80	383+20	R	perimeter	240
382+90	390+80	L	perimeter	790
383+60	390+80	R	perimeter	720
391+30	421+30	L	perimeter	3,000
391+30	392+00	R	perimeter	70
392+00	412+90	R	perimeter	2,240
413+30	422+00	R	perimeter	980
422+00	422+60	R	perimeter	60
421+80	424+40	L	perimeter	260
424+00	424+65	R	perimeter	65
424+95	427+65	R	perimeter	330
428+80	430+00	R	perimeter	180
429+00	430+00	L	perimeter	150
Borrow Pit #5 (69th Street Site)			perimeter & wetlands	7,066
Borrow Pit #2 (Cliff Ave site) (Assumes none installed with			perimeter & wetlands	5,272
Quantity from Interim Sediment Control at Inlets				3,029
Additional quantity				200
Total 01V7 Veterans Parkway				**34,587**

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10-14-24

HDR

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-0100(106)409 & P- 8042(00)	D6	D43

Plotting Date: 10/14/2024

TABLE OF LOW FLOW SILT FENCE				
Station to	Station	L/R	Location	Quantity (Ft)
08DG Southeastern Avenue				
601+29	608+02	L	perimeter	850
601+27	603+97	R	perimeter	272
604+17	609+71	R	perimeter	555
608+25	609+75	L	perimeter	150
613+40	617+93	L	perimeter	610
613+40	619+41	R	perimeter	610
618+76	627+93	L	perimeter	925
620+14	624+46	R	perimeter	440
624+65	627+80	R	perimeter	320
Quantity from Interim Sediment Control at Inlets				820
Additional quantity				50
Total 08DG Southeastern Avenue				**5,602**
08DH Sycamore Avenue				
699+99	709+81	L	perimeter	985
699+99	709+81	R	perimeter	1090
713+15	721+87	L	perimeter	880
713+17	716+46	R	perimeter	335
716+85	722+41	R	perimeter	560
722+24	737+16	L	perimeter	1500
722+70	737+28	R	perimeter	1460
Quantity from Interim Sediment Control at Inlets				320
Additional quantity				50
Total 08DH Sycamore Avenue				**7,180**

TABLE OF HIGH FLOW SILT FENCE			
Station	L/R	Location	Quantity (Ft)
01V7 Veterans Parkway			
332+20	L	Inlet end pipe	40
332+20	R	Outlet end pipe	40
343+00	R	Outlet end pipe	30
347+30	L	Inlet end pipe	30
347+70	R	Outlet end pipe	30
357+20	R	Outlet end pipe	30
357+55	L	Inlet end pipe	30
357+40	R	Outlet end pipe	30
376+85	L	Inlet end pipe	40
379+00	L	Outlet end pipe	40
382+60	L	Inlet end pipe	40
383+40	R	Outlet end pipe	40
391+10	L	Inlet end pipe	40
391+10	R	Outlet end pipe	40
392+10	R	Outlet end pipe	30
392+60	R	Inlet end pipe	30
393+35	R	Outlet end pipe	30
413+10	L	Outlet end pipe	30
421+20	R	Outlet end pipe	30
421+50	R	Inlet end pipe	30
422+05	R	Outlet end pipe	30
421+60	L	Inlet end pipe	40
423+75	R	Outlet end pipe	40
424+80	L	Inlet end pipe	30
424+80	R	Outlet end pipe	30
Additional quantity			100
Total 01V7 Veterans Parkway			**950**

TABLE OF HIGH FLOW SILT FENCE			
08DG Southeastern Avenue			
601+87	L	Inlet end pipe	30
601+87	R	Outlet end pipe	30
602+60	L	Outlet end pipe	30
602+99	L	Inlet end pipe	30
604+43	L	Outlet end pipe	30
608+15	L	Inlet end pipe	30
613+28	L	Inlet end pipe	30
613+28	R	Outlet end pipe	30
615+64	L	Outlet end pipe	30
624+56	R	Outlet end pipe	30
Additional quantity			50
Total 08DG Southeastern Avenue			**350**
08DH Sycamore Avenue			
700+98	L	Inlet end pipe	30
700+99	R	Outlet end pipe	30
702+60	L	Inlet end pipe	30
702+13	L	Outlet end pipe	30
702+61	L	Inlet end pipe	30
702+14	L	Outlet end pipe	30
702+62	L	Inlet end pipe	30
702+16	L	Outlet end pipe	30
702+62	R	Outlet end pipe	30
720+23	R	Outlet end pipe	30
720+24	L	Inlet end pipe	30
721+86	L	Outlet end pipe	30
722+39	L	Inlet end pipe	30
722+33	R	Outlet end pipe	30
722+94	R	Inlet end pipe	30
Additional quantity			50
Total 08DH Sycamore Avenue			**500**
Total Project			**1,800**

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DEWATERING AND SEDIMENT COLLECTING

The Contactor has the option to treat sediment laden water trapped within the project limits or the Contractor may elect to transport sediment laden water off the project. Refer to the OPTIONS FOR DEWATERING AND SEDIMENT COLLECTING detail sheet for more information.

Water transported off the project limits will not be disposed of in an area where it can enter a waterway. The disposal site must be approved by the Engineer.

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.

At a minimum, sweeping will be required:

1. Prior to opening any segment or roadway to traffic.
2. Following pavement grooving operations and prior to the application of the pavement marking tape.
3. When sawing operations are underway in the inside driving lanes, the outside driving lanes and gutter may need to be swept to control dust.

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:

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

SDDOT CONSTRUCTION ENTRANCE

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

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

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

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

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

Sieve Size	Percent Passing
3”	100%
2 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.

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INTERIM SEDIMENT CONTROL AT INLETS, MANHOLES, AND JUNCTION BOXES AFTER SURFACING REMOVAL AND BEFORE PLACEMENT OF SURFACING

Refer to Standard Plate 734.05 for details of installation of high flow silt fence at drop inlets, manholes, and junction boxes.

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

In addition, the Contractor will do the following for this installation:

- A space of at least 1' will be provided between the silt fence installation and the inlet. This space will be filled completely with a 2" depth of aggregate, 2" minus or smaller.
- The top elevation of the silt fence will be such that a 12" horizontal flap of silt fence will remain at the bottom.
- The base of the silt fence will conform to the natural ground profile but does not need to be trenched in at the bottom.
- The extra 12" of the silt fence material may be cut so that the material will lay flat upon the subgrade.
- Sediment filter bags will be placed on the 12" flap around the perimeter of the silt fence installation. The sediment filter bags will overlap 6" at the ends and be placed tightly together.
- The sediment filter bags will be filled with clean aggregate 2" minus or smaller.

The Sediment Filter Bag will be as shown below or an approved equal:

Product	Manufacturer
Snake Bag	Sacramento Bag Manufacturing Co. Sacramento, CA Phone: 1-800-287-2247 www.sacbag.com
Rock Log	SRW Products Princeton, MN Phone: 1-763-260-7822 www.srwproducts.com

All costs for furnishing and installing the sediment filter bags will be incidental to the contract unit price per foot for "Sediment Filter Bag."

All costs for removing the sediment filter bags will be incidental to the contract unit price per foot for "Remove Sediment Filter Bag".

Payment for high flow silt fence will be as stated in Section 734.5 of the Specifications.

All costs for furnishing, installing, and removing the 2" depth of aggregate will be incidental to other erosion and sediment control contract items.

All costs for removing and disposing of sediment collected by the sediment control device will be incidental to the contract unit price per cubic yard for "Remove Sediment".

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.

The Contractor and Engineer will inspect and maintain the sediment control device once every week and within 24 hours after every rainfall event greater than 1/2".

SEDIMENT CONTROL AT INLETS WITH FRAMES AND GRATES

This type of sediment control device should be used where there is pavement in the vicinity of the drop inlets and storm water or sediment could possibly enter the frame and grate. Sediment Control at Inlet with Frame and Grate will be installed prior to working in the vicinity of the drop inlets.

The Contractor will be responsible for maintaining and repairing the sediment control devices for the duration of the project for which sediment control measures are required. Maintenance will be scheduled to prevent storm water from backing up into the driving lane.

"Sediment Control at Inlet with Frame and Grate" will be paid for one time at each location, regardless of the number of times the sediment control devices are installed, inspected, cleaned, removed, repaired, or replaced. All costs associated with furnishing, installing, inspecting, maintaining, cleaning, sediment removal, and repairing Sediment Control at Inlet with Frame and Grate will be incidental to the contract unit price per each for "Sediment Control at Inlet with Frame and Grate".

Sediment collection devices will be:

A commercial made sediment collection device from the "Sediment Control at Inlet with Frame and Grate" list or an approved equal. The device will be installed in reinforced concrete drop inlets in accordance with the manufacturer's recommendations.

Sediment Control at Inlet with Frame and Grate Approved List:

Product	Manufacturer
InfraSafe Debris Collection Device with filter sock	Royal Environmental Systems, Inc. Stacy, MN Phone: 1-800-817-3240 www.royalenterprises.net
Dandy Curb Sack and Dandy Curb Bag for curb inlets. Dandy Bag, Dandy Sack, and Dandy Pop for median drains.	Dandy Products Inc. Powell, OH Phone: 1-800-591-2284 www.dandyproducts.com
Silt Trapper	Storm Water Solutions Lakeville, MN Phone: 1-952-461-4376 www.silttrapper.com
DIP Basket	Skyview Construction Co., LLC Summit, SD Phone: 1-605-520-0555
FLEXSTORM Inlet Filters	Inlet and Pipe Protection, Inc. Naperville, IL Phone: 1-866-287-8655 www.inletfilters.com
GR-8 Guard or Combo Guard	ERTEC Environmental Systems LLC Alameda, CA Phone: 1-866-521-0724 www.ertecsystems.com
BX Inlet Sediment Boxes	BX Civil and Construction Dell Rapids, SD Phone: 1-605-428-5483 http://www.bx-cc.com
EZ-Flo and EZ-Catch	Flo-Water, LLC West Des Moines, IA Phone: 1-515-577-6763 www.flo-water.net
Basin Bag	CSI Geoturf Highland, MI Phone: 1-248-887-0855 https://geoturf.com/

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
SmartCurb Filter	NoFlood, Inc. Fort Myers, FL Phone: 1-239-776-1671 http://www.noflood.com

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	NH-0100(106)409 & P- 8042(00)	D9	D43

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TABLE OF STORM SEWER DROP INLETS AND JUNCTION BOXES

Station	Offset		Inlet Type	Before surfacing: Low Flow Silt Fence Quantity	Before surfacing: Sediment Filter Bag Quantity	Before surfacing: Remove Sediment	Before surfacing: Muck Silt Fence	After surfacing: Sediment Control at inlets with frames and grates
01V7 (Veterans Parkway)								
326+50.00	65.67	L	DOT 3x4 Type B	26	30	0.07	1.80	1
327+00.00	65.67	L	3 Grate Type B (W=3')	36	40	0.09	2.50	1
327+50.00	65.67	L	DOT 3x4 Type B	26	30	0.07	1.80	1
329+04.00	65.67	L	DOT 3x4 Type B	26	30	0.07	1.80	1
330+59.00	53.67	L	DOT 2x3 Type B	22	26	0.06	1.53	1
326+50.00	53.67	R	DOT 3x4 Type B	26	30	0.07	1.80	1
327+00.00	53.67	R	3 Grate Type B (W=3')	36	40	0.09	2.50	1
327+50.00	53.67	R	DOT 2x3 Type B	22	26	0.06	1.53	1
329+04.00	53.67	R	DOT 2x3 Type B	22	26	0.06	1.53	1
330+59.00	53.67	R	DOT 2x3 Type B	22	26	0.06	1.53	1
332+42.00	53.67	L	DOT 2x3 Type B	22	26	0.06	1.53	1
333+89.00	52.52	L	DOT 2x3 Type B	22	26	0.06	1.53	1
332+42.00	53.67	R	DOT 3x4 Type B	26	30	0.07	1.80	1
333+89.00	52.52	R	DOT 3x4 Type B	26	30	0.07	1.80	1
335+65.00	10.88	L	DOT 2x3 Type B	22	26	0.06	1.53	1
337+37.34	8.65	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
339+81.68	5.47	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
335+65.00	50.23	R	DOT 3x4 Type B	26	30	0.07	1.80	1
337+37.29	47.99	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
339+81.68	44.81	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
342+67.00	3.08	L	DOT 3x4 Type C	26	30	0.07	1.80	1
342+71.53	3.08	L	DOT 3x4 Type C	26	30	0.07	1.80	1
342+68.69	42.75	R	2 Grate type B (W=3')	30	34	0.08	2.08	1
345+16.00	3.08	L	DOT 3x4 Type C	26	30	0.07	1.80	1
345+16.00	42.75	R	DOT 3x4 Type B	26	30	0.07	1.80	1
347+65.00	3.08	L	DOT 3x4 Type C	26	30	0.07	1.80	1
347+65.00	45.64	R	DOT 2x3 Type B	22	26	0.06	1.53	1
348+80.00	42.75	L	DOT 2x3 Type B	22	26	0.06	1.53	1
348+80.00	43.08	R	DOT 3x4 Type C	26	30	0.07	1.80	1
350+63.50	43.08	L	DOT 3x4 Type C	26	30	0.07	1.80	1
350+63.50	43.08	R	DOT 3x4 Type C	26	30	0.07	1.80	1
352+86.00	43.08	L	DOT 3x4 Type C	26	30	0.07	1.80	1
352+86.00	43.08	R	DOT 3x4 Type C	26	30	0.07	1.80	1
355+85.00	45.59	L	3 Grate Type B (W=2')	34	38	0.09	2.36	1
358+70.00	43.77	L	3 Grate Type B (W=2')	34	38	0.09	2.36	1
355+85.00	42.75	R	3 Grate Type B (W=2')	34	38	0.09	2.36	1
358+70.00	43.77	R	3 Grate Type B (W=2')	34	38	0.09	2.36	1
362+10.00	48.72	L	3 Grate Type B (W=2')	34	38	0.09	2.36	1
364+22.00	51.81	L	3 Grate Type B (W=2')	34	38	0.09	2.36	1
366+33.00	53.67	L	3 Grate Type B (W=2')	34	38	0.09	2.36	1
368+48.00	53.67	L	DOT 3x4 Type B	26	30	0.07	1.80	1
370+59.00	53.67	L	DOT 3x4 Type B	26	30	0.07	1.80	1
372+12.00	53.67	L	DOT 3x4 Type B	26	30	0.07	1.80	1
373+65.00	53.67	L	DOT 4x4 Type B	28	32	0.07	1.94	1
375+18.00	53.67	L	DOT 4x4 Type B	28	32	0.07	1.94	1

TABLE OF STORM SEWER DROP INLETS AND JUNCTION BOXES

Station	Offset		Inlet Type	Before surfacing: Low Flow Silt Fence Quantity	Before surfacing: Sediment Filter Bag Quantity	Before surfacing: Remove Sediment	Before surfacing: Muck Silt Fence	After surfacing: Sediment Control at inlets with frames and grates
01V7 (Veterans Parkway)								
376+62.00	53.67	L	DOT 5.5x5.5 Type B	33	37	0.09	2.29	1
379+15.00	65.67	L	DOT 2x3 Type B	22	26	0.06	1.53	1
380+96.00	65.67	L	DOT 2x3 Type B	22	26	0.06	1.53	1
382+00.00	65.67	L	DOT 2x3 Type B	22	26	0.06	1.53	1
382+50.00	65.67	L	3 Grate Type B (W=2')	34	38	0.09	2.36	1
383+02.00	65.67	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
384+92.00	53.67	L	DOT 2x3 Type B	22	26	0.06	1.53	1
362+10.00	48.72	R	3 Grate Type B (W=2')	34	38	0.09	2.36	1
364+22.00	51.81	R	3 Grate Type B (W=2')	34	38	0.09	2.36	1
366+33.00	53.67	R	3 Grate Type B (W=2')	34	38	0.09	2.36	1
368+48.00	53.67	R	DOT 3x4 Type B	26	30	0.07	1.80	1
370+59.00	53.67	R	DOT 3x4 Type B	26	30	0.07	1.80	1
372+12.00	63.89	R	DOT 3x4 Type B	26	30	0.07	1.80	1
373+65.00	65.67	R	DOT 4x4 Type B	28	32	0.07	1.94	1
375+18.00	65.67	R	DOT 4x4 Type B	28	32	0.07	1.94	1
376+62.00	65.67	R	DOT 4x4 Type B	28	32	0.07	1.94	1
379+15.00	53.67	R	DOT 2x3 Type B	22	26	0.06	1.53	1
380+96.00	53.67	R	DOT 2x3 Type B	22	26	0.06	1.53	1
382+00.00	53.67	R	DOT 2x3 Type B	22	26	0.06	1.53	1
382+50.00	53.67	R	3 Grate Type B (W=2')	34	38	0.09	2.36	1
382+96.00	53.67	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
384+92.00	53.67	R	DOT 2x3 Type B	22	26	0.06	1.53	1
390+39.00	53.67	L	DOT 2x3 Type B	22	26	0.06	1.53	1
390+89.00	53.67	L	3 Grate Type B (W=2')	34	38	0.09	2.36	1
390+45.00	93.00	L	DOT 5x5 JB	33	37	0.09	2.29	
391+05.00	75.50	L	DOT 5x5 JB	33	37	0.09	2.29	
391+39.00	53.67	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
393+36.57	53.67	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
395+32.00	53.67	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
397+98.00	53.67	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
390+39.00	53.67	R	DOT 2x3 Type B	22	26	0.06	1.53	1
390+89.00	53.67	R	3 Grate Type B (W=2')	34	38	0.09	2.36	1
391+39.00	53.67	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
393+36.57	53.67	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
395+32.00	53.67	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
397+98.00	53.67	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
404+00.00	53.67	L	DOT 2x3 Type B	22	26	0.06	1.53	1
406+00.00	53.67	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
409+55.00	53.67	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
413+11.50	53.67	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
404+00.00	53.67	R	DOT 2x3 Type B	22	26	0.06	1.53	1
406+00.00	53.67	R	2 Grate type B (W=2')	28	32	0.07	1.94	1

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FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-0100(106)409 & P- 8042(00)	D10	D43

Plotting Date: 10/14/2024

TABLE OF STORM SEWER DROP INLETS AND JUNCTION BOXES								
				Before surfacing				After surfacing
Station	Offset		Inlet Type	Low Flow Silt Fence Quantity	Sediment Filter Bag Quantity	Remove Sediment	Muck Silt Fence	Sediment Control at inlets with frames and grates
01V7 (Veterans Parkway)								
409+55.00	53.67	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
413+11.50	53.67	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
414+40.00	53.67	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
415+70.00	53.67	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
417+00.00	53.67	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
418+30.00	53.67	L	2 Grate type B (W=3')	30	34	0.08	2.08	1
419+60.00	53.67	L	2 Grate type B (W=3')	30	34	0.08	2.08	1
421+17.00	53.67	L	DOT 3x4 Type B	26	30	0.07	1.80	1
414+40.00	53.67	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
415+70.00	53.67	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
417+00.00	53.67	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
418+30.00	53.67	R	2 Grate type B (W=3')	28	32	0.07	1.94	1
419+60.00	53.67	R	2 Grate type B (W=3')	28	32	0.07	1.94	1
421+17.00	53.67	R	DOT 3x4 Type B	26	30	0.07	1.80	1
422+74.00	58.09	R	DOT 2x3 Type B	22	26	0.06	1.53	1
422+74.00	53.67	L	DOT 2x3 Type B	22	26	0.06	1.53	1
424+31.00	53.67	L	DOT 2x3 Type B	22	26	0.06	1.53	1
424+81.00	53.67	L	3 Grate Type B (W=2')	34	38	0.09	2.36	1
425+31.00	53.67	L	DOT 2x3 Type B	22	26	0.06	1.53	1
424+31.00	65.67	R	DOT 2x3 Type B	22	26	0.06	1.53	1
424+81.00	65.67	R	3 Grate Type B (W=2')	34	38	0.09	2.36	1
425+31.00	65.67	R	DOT 2x3 Type B	22	26	0.06	1.53	1
610+15.00	50.16	R	2 Grate type B (W=3')	30	34	0.08	2.08	1
712+62.00	41.67	R	DOT 3x4 Type B	26	30	0.07	1.80	1
Total 01V7 Veterans Parkway				**3,029**	**3,473**	**8.0**	**210.2**	**109**

TABLE OF STORM SEWER DROP INLETS AND JUNCTION BOXES								
				Before surfacing				After surfacing
Station	Offset		Inlet Type	Low Flow Silt Fence Quantity	Sediment Filter Bag Quantity	Remove Sediment	Muck Silt Fence	Sediment Control at inlets with frames and grates
603+93.66	33.50	R	DOT 2x3 Type B	22	26	0.06	1.53	1
604+49.78	33.50	L	DOT 2x3 Type B	22	26	0.06	1.53	1
604+49.92	34.25	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
606+99.99	33.67	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
606+00.00	38.60	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
608+14.88	39.00	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
608+14.92	41.31	R	2 Grate type B (W=3')	28	32	0.07	1.94	1
613+69.32	94.70	L	4'x4' SF JB Type I	30	34	0.08	2.08	
614+75.00	50.00	L	DOT 2x3 Type B	22	26	0.06	1.53	1
614+74.97	37.74	R	DOT 2x3 Type B	22	26	0.06	1.53	1
615+25.17	51.15	L	DOT 4x11 Type S	42	46	0.11	2.91	
615+24.06	39.32	R	DOT 4x11 Type S	42	46	0.11	2.91	
615+68.03	44.23	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
615+68.20	35.04	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
615+68.01	45.82	R	4'x4' SF JB Type I	30	34	0.08	2.08	
619+32.58	37.99	R	4'x4' SF JB Type I	30	34	0.08	2.08	
619+43.53	65.39	L	4'x4' SF JB Type I	30	34	0.08	2.08	
624+47.81	63.06	L	4'x4' SF JB Type I	30	34	0.08	2.08	
624+56.78	33.00	R	DOT 4x4 Type B	28	32	0.07	1.94	1
625+36.93	36.50	L	DOT 4x11 Type S	42	46	0.11	2.91	
625+37.10	36.50	R	DOT 4x11 Type S	42	46	0.11	2.91	
625+73.87	33.50	L	DOT 2x3 Type B	22	26	0.06	1.53	1
625+74.27	34.14	R	DOT 4x3 Type B	26	30	0.07	1.80	1
626+23.63	33.50	L	DOT 2x3 Type B	22	26	0.06	1.53	1
626+23.79	38.63	R	DOT 4x3 Type B	26	30	0.07	1.80	1
627+97.55	40.50	L	3 Grate Type B (W=2')	34	38	0.09	2.36	1
627+97.50	43.50	R	3 Grate Type B (W=4')	38	42	0.10	2.64	1
Total 08DG (Southeastern Avenue)				**820**	**932**	**2.1**	**57**	**19**
08DH (Sycamore Avenue)								
703+06.95	33.50	L	3 Grate Type B (W=2')	34	38	0.09	2.36	1
703+06.87	33.01	R	3 Grate Type B (W=3')	36	40	0.09	2.50	1
704+50.00	33.50	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
704+50.22	33.50	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
706+50.00	33.50	L	2 Grate type B (W=2')	28	32	0.07	1.94	1
706+49.03	33.50	R	2 Grate type B (W=2')	28	32	0.07	1.94	1
714+78.34	33.50	L	3 Grate Type B (W=2')	34	38	0.09	2.36	1
714+78.33	33.00	R	3 Grate Type B (W=3')	36	40	0.09	2.50	1
716+93.00	33.50	L	3 Grate Type B (W=2')	34	38	0.09	2.36	1
716+93.00	33.50	R	3 Grate Type B (W=2')	34	38	0.09	2.36	1
Total 08DG (Southeastern Avenue)				**320**	**360**	**0.8**	**22**	**10**

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-0100(106)409 & P- 8042(00)	D11	D43

FOR BIDDING PURPOSES ONLY

Plotting Date: 10/14/2024

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** 85.55 acres
- **5.3 (3b): Total Area to be Disturbed** 53.39 acres
- **5.3 (3c): Maximum Area Disturbed at One Time** 53.39 acres
- **5.3 (3d): Existing Vegetative Cover (%)** 85
- **5.3 (3d): Description of Vegetative Cover** Crops, grass, existing roadways.
- **5.3 (3e): Soil Properties:** AASHTO Soil Classification A-2-4. A-6, A-7-6
- **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
☐ Natural Buffers (within 50 ft of Waters of State)	
☒ Silt Fence	
☒ Erosion Control Wattles	
☐ Temporary Berm / Windrow	
☐ Floating Silt Curtain	
☒ Stabilized Construction Entrances	
☐ Entrance/Exit Equipment Tire Wash	
☐ Other:	

Structural Erosion and Sediment Controls

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

Dust Controls

Description	Estimated Start Date
☐ Tarps & Wind impervious fabrics	
☒ Watering	
☐ Stockpile location/orientation	
☐ Dust Control Chlorides	
☐ Other	

Dewatering BMPs

Description	Estimated Start Date
☐ Sediment Basins	
☐ Dewatering bags	
☐ Weir tanks	
☐ Temporary Diversion Channel	
☐ 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
☐ Vegetation Buffer Strips	
☒ Temporary Seeding (Cover Crop Seeding)	
☒ Permanent Seeding	
☐ Sodding	
☐ Planting (Woody Vegetation for Soil Stabilization)	
☒ Mulching (Grass Hay or Straw)	
☐ Fiber Mulching (Wood Fiber Mulch)	
☒ Soil Stabilizer	
☒ Bonded Fiber Matrix	
☐ Fiber Reinforced Matrix	
☒ Erosion Control Blankets	
☒ Surface Roughening (e.g. tracking)	
☐ 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.

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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 ½ 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.

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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.

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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

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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.

FOR BIDDING PURPOSES ONLY

EROSION AND SEDIMENT CONTROL LEGEND

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D15	D43

FILE: ...\Section D\D15 Legend.dgn
PLOTTING DATE: 10-10-2024

REV DATE:
INITIAL:

SYMBOLOGY FOR BEST MANAGEMENT PRACTICES

- RIP RAP (SEE SECTION B FOR DETAILS)
- SEDIMENT CONTROL AT INLET BEFORE PLACEMENT OF SURFACING
- SEDIMENT CONTROL AT INLET WHEN SURFACING IS IN PLACE
- LOW FLOW SILT FENCE
- HIGH FLOW SILT FENCE
- EROSION CONTROL WATTLES IN DITCHES
- SURFACE ROUGHENING
- TYPE G PERMANENT SEED MIXTURE
- TYPE D PERMANENT SEED MIXTURE
- PROPOSED DRAINAGE STRUCTURE / PIPE
- SURFACE FLOW DIRECTION
- RIGHT-OF-WAY
- PROPOSED ROADWAY
- WORK LIMITS

BEST MANAGEMENT PRACTICES

Best Management Practices (BMPs) are split into three categories and are to be used throughout construction.

INITIAL PHASE
BMPs from the Legend shown as Orange Symbols on the Erosion and Sediment Control Plan Sheets are to be installed in the Initial Phase prior to earth disturbing activities. Other BMPs installed during the initial phase, like inlet protection on existing inlets, may remain in place, be removed, or be replaced depending on the fate of the inlet it is protecting. Most BMPs installed during this phase should remain in place until water is diverted or until Final Phase BMPs are installed.

INTERMEDIATE PHASE
BMPs from the Legend shown as Blue Symbols on the Erosion and Sediment Control Plan Sheets are to be installed during the Intermediate Phase to do one of the following:
--Dewater and/or collect sediment and debris from storm water
--Temporarily stabilize soil to reduce the need for excessive sediment capture
Sediment control BMPs should remain in place until Final Stabilization is acheived unless they are replaced by another BMP.

FINAL PHASE
BMPs from the Legend shown as Green Symbols on the Erosion and Sediment Control Plan Sheets are to be installed in the Final Phase to do one of the following:
--Achieve final stabilization through permanent erosion control.
--Capture sediment during final stabilization. BMPs used to capture sediment, such as inlet protection, should be removed once the vegetation reaches 75% of the background level. Other BMPs, like erosion control wattles, can be left to decompose.

BMPs without symbology are listed below. Notes and details are shown in the plans if it has been determined the BMP is needed. In the event notes and details are needed for a particular BMP, contact the Road Design Office. If additional BMPs are required other than what is included in the plans, be sure to indicate they were added by updating the Storm Water Pollution Prevention Plan (SWPPP) / Section D.

Dewatering and Sediment Collecting--Water that needs to be removed for construction to progress can either be pumped into the sanitary sewer (with the City's permission), onto a long flat vegetated area, or through a filtration system as detailed in the plans.

Street Sweeping--Used to prevent sediment from tracking or blowing off the site.

Rip Rap--Notes and details are shown in Section B

Rip Rap for bridge berms--Notes and details are typically shown in Section E

Cover Crop--Typically seeded on all topsoil stockpiles and disturbed areas where grading is complete but permanent seeding cannot be done within 14 days due to seasonal limitations. Usually followed with Grass Hay/Straw Mulching.

Permanent Seeding--Done on all disturbed areas that are not going to be paved, graveled, or sodded. Permanent seeding can be done after mulching has been applied using a no-till drill.

Grass Hay/Straw Mulching--Usually follows Permanent Seeding. Mulching is done on all disturbed areas not covered with pavement, sodding, erosion control blanket, fiber mulching, bonded fiber matrix, or fiber reinforced matrix. It is not shown on the plan sheets unless it is put down as a temporary/Blue BMP.

Sediment Basins--Usually added to the plans if space is available on the construction site. It is preferred that they be installed prior to earth moving activities when possible. The Engineer determines whether or not a sediment basin will remain on the site or be removed after construction done.

Recommendations for maintaining a manageable site that meets the requirements of the Storm Water Permit are listed below.

Do not disturb more area than is needed to complete work.

Complete work near wet or sensitive areas of the project during the winter or dry seasons.

Keep the area disturbed under 10 acres at a time. The permit requires us to install a sediment basin for every 10 acres of common drainage disturbed.

Areas that have been temporarily or permanently stabilized with cover crop or permanent seeding and the appropriate mulch, blanket, or matrix are no longer considered disturbed--so stabilize as soon as possible.

REGISTERED PROFESSIONAL ENGINEER
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SOUTH DAKOTA
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VETERANS PARKWAY

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D16	D43

FILE: ...\Section D\D16 (315+00).dgn
PLOTTING DATE: 10-10-2024

REV DATE:
INITIAL:

Install Low Flow Silt Fence at the following locations:

326+00 to 332+00 L	Perimeter	600 Ft
326+00 to 332+00 R	Perimeter	600 Ft

Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:

326+50.00 - 65.67' L	26 Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
326+50.00 - 53.67' R	26 Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
327+00.00 - 65.67' L	36 Ft Low Flow Silt Fence	40 Ft Sediment Filter Bags
327+00.00 - 53.67' R	36 Ft Low Flow Silt Fence	40 Ft Sediment Filter Bags
327+50.00 - 65.67' L	26 Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
327+50.00 - 53.67' R	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
329+04.00 - 65.67' L	26 Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
329+04.00 - 53.67' R	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags

Install Sediment Control at Inlets with Frames and Grates after the placement of surfacing at the following locations:

326+50.00 - 65.67' L	1	Each
326+50.00 - 53.67' R	1	Each
327+00.00 - 65.67' L	1	Each
327+00.00 - 53.67' R	1	Each
327+50.00 - 65.67' L	1	Each
327+50.00 - 53.67' R	1	Each
329+04.00 - 65.67' L	1	Each
329+04.00 - 53.67' R	1	Each

BEGIN NH 0100(106)409
Veterans Parkway
Station 326+00.00

315+00
320+00
325+00
330+00

Proposed Veterans Parkway

Present Cliff Avenue

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D17	D43

FILE: ...\Section D\D17 (330+00).dgn
PLOTTING DATE: 10-10-2024

REV DATE:
INITIAL:

VETERANS PARKWAY

Install Low Flow Silt Fence at the following locations:

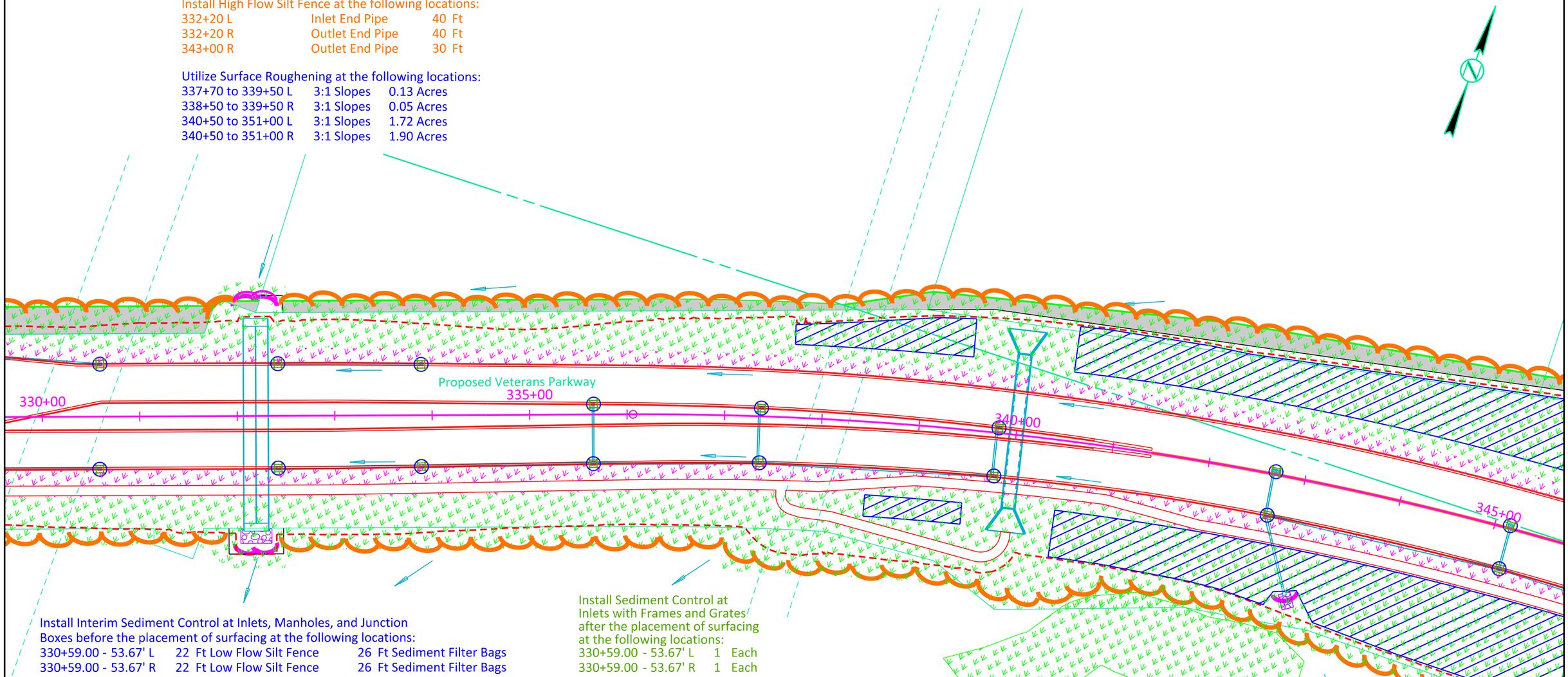
332+40 to 347+15 L	Perimeter	1,475 Ft
332+40 to 347+50 R	Perimeter	1,570 Ft

Install High Flow Silt Fence at the following locations:

332+20 L	Inlet End Pipe	40 Ft
332+20 R	Outlet End Pipe	40 Ft
343+00 R	Outlet End Pipe	30 Ft

Utilize Surface Roughening at the following locations:

337+70 to 339+50 L	3:1 Slopes	0.13 Acres
338+50 to 339+50 R	3:1 Slopes	0.05 Acres
340+50 to 351+00 L	3:1 Slopes	1.72 Acres
340+50 to 351+00 R	3:1 Slopes	1.90 Acres



Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:

330+59.00 - 53.67' L	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
330+59.00 - 53.67' R	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
332+42.00 - 53.67' L	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
332+42.00 - 53.67' R	26 Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
333+89.00 - 52.52' L	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
333+89.00 - 52.52' R	26 Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
335+65.00 - 10.88' L	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
335+65.00 - 50.23' R	26 Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
337+37.34 - 8.65' L	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
337+37.29 - 47.99' R	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
339+81.68 - 5.47' L	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
339+81.68 - 44.81' R	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
342+67.00 - 3.08' L	26 Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
342+68.69 - 42.75' R	30 Ft Low Flow Silt Fence	34 Ft Sediment Filter Bags
342+71.53 - 3.08' L	26 Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
345+16.00 - 3.08' L	26 Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
345+16.00 - 42.75' R	26 Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags

Install Sediment Control at Inlets with Frames and Grates after the placement of surfacing at the following locations:

330+59.00 - 53.67' L	1	Each
330+59.00 - 53.67' R	1	Each
332+42.00 - 53.67' L	1	Each
332+42.00 - 53.67' R	1	Each
333+89.00 - 52.52' L	1	Each
333+89.00 - 52.52' R	1	Each
335+65.00 - 10.88' L	1	Each
335+65.00 - 50.23' R	1	Each
337+37.34 - 8.65' L	1	Each
337+37.29 - 47.99' R	1	Each
339+81.68 - 5.47' L	1	Each
339+81.68 - 44.81' R	1	Each
342+67.00 - 3.08' L	1	Each
342+68.69 - 42.75' R	1	Each
342+71.53 - 3.08' L	1	Each
345+16.00 - 3.08' L	1	Each
345+16.00 - 42.75' R	1	Each

Borrow Pit No. 2
See tables in Section D notes for Silt Fence and Grass Seed locations and quantities.

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D18	D43

FILE: ...\Section D\D18 (345+00).dgn
PLOTTING DATE: 10-10-2024

REV DATE:
INITIAL:

Install Low Flow Silt Fence at the following locations:

347+50 to 351+00 L	Perimeter	350 Ft
347+85 to 351+00 R	Perimeter	375 Ft
351+02 L to 351+02 R	Perimeter	275 Ft
352+20 L to 352+10 R	Perimeter	260 Ft
352+10 to 357+00 R	Perimeter	490 Ft
352+20 to 357+35 L	Perimeter	515 Ft
357+70 to 363+40 L	Perimeter	570 Ft
357+60 to 370+40 R	Perimeter	1,280 Ft

Install High Flow Silt Fence at the following locations:

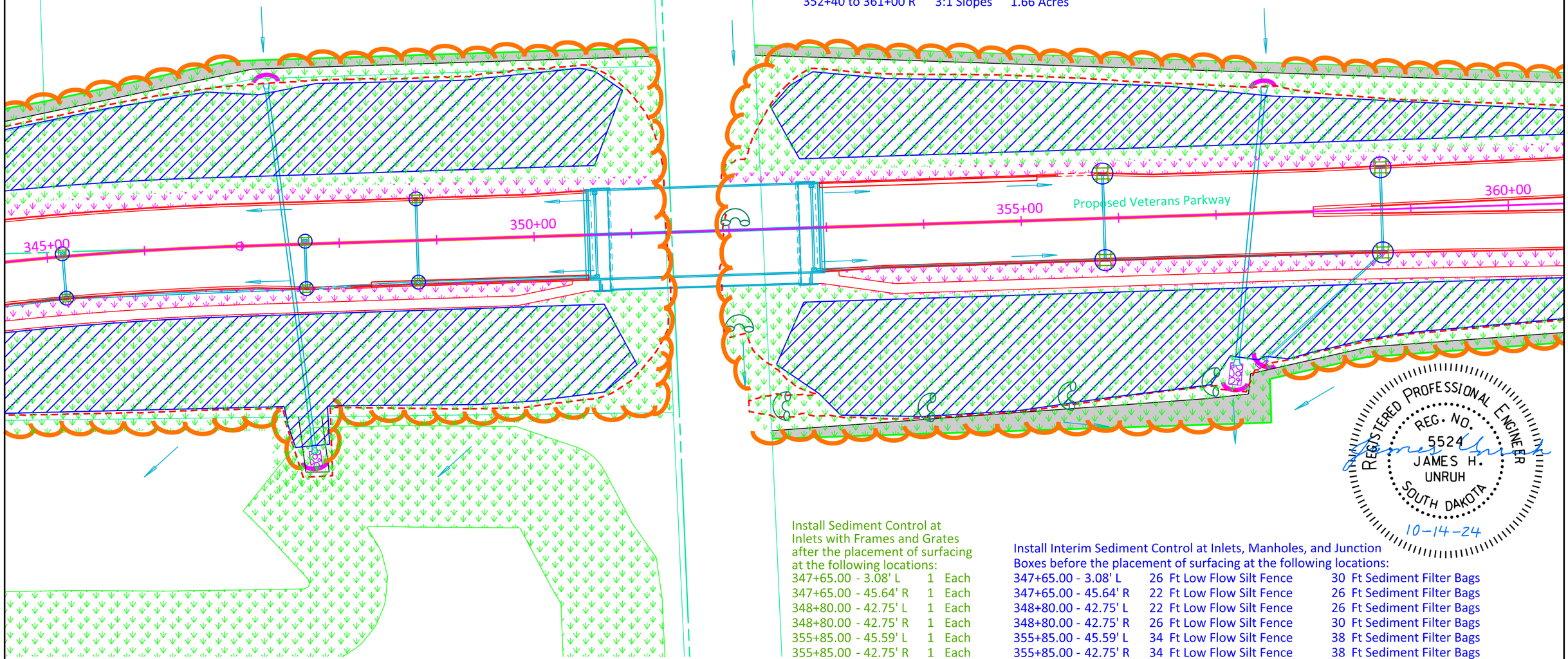
347+30 L	Inlet End Pipe	30 Ft
347+70 R	Outlet End Pipe	30 Ft
357+20 R	Outlet End Pipe	30 Ft
357+55 L	Inlet End Pipe	30 Ft
357+40 R	Outlet End Pipe	30 Ft

Install 12" Diameter Erosion Control Wattles across the highway ditch channel bottom at the following locations:

352+02 L	46 Ft
352+02 R	46 Ft
352+45 R	46 Ft
353+95 R	46 Ft
354+45 R	46 Ft
356+95 R	46 Ft

Utilize Surface Roughening at the following locations:

352+40 to 361+00 L	3:1 Slopes	1.09 Acres
352+40 to 361+00 R	3:1 Slopes	1.66 Acres



REGISTERED PROFESSIONAL ENGINEER
REG. NO. 5524
JAMES H. UNRUH
SOUTH DAKOTA
10-14-24

Install Sediment Control at Inlets with Frames and Grates after the placement of surfacing at the following locations:

347+65.00 - 3.08' L	1	Each
347+65.00 - 45.64' R	1	Each
348+80.00 - 42.75' L	1	Each
348+80.00 - 42.75' R	1	Each
355+85.00 - 45.59' L	1	Each
355+85.00 - 42.75' R	1	Each
358+70.00 - 43.77' L	1	Each
358+70.00 - 43.77' R	1	Each

Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:

347+65.00 - 3.08' L	26 Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
347+65.00 - 45.64' R	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
348+80.00 - 42.75' L	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
348+80.00 - 42.75' R	26 Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
355+85.00 - 45.59' L	34 Ft Low Flow Silt Fence	38 Ft Sediment Filter Bags
355+85.00 - 42.75' R	34 Ft Low Flow Silt Fence	38 Ft Sediment Filter Bags
358+70.00 - 43.77' L	34 Ft Low Flow Silt Fence	38 Ft Sediment Filter Bags
358+70.00 - 43.77' R	34 Ft Low Flow Silt Fence	38 Ft Sediment Filter Bags

VETERANS PARKWAY

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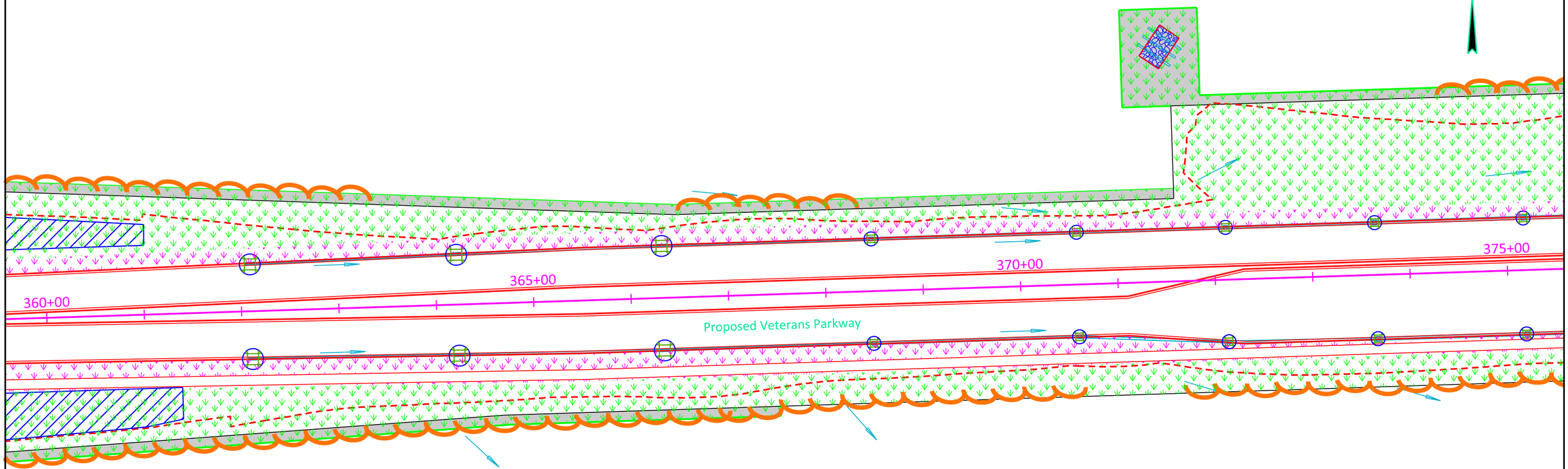
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D19	D43

FILE: ...\Section D\D19 (360+00).dgn
PLOTTING DATE: 10-10-2024

REV DATE:
INITIAL:

Install Low Flow Silt Fence at the following locations:

366+50 to 368+35 R	Perimeter	185 Ft
371+60 to 377+20 R	Perimeter	600 Ft
374+30 to 376+80 L	Perimeter	250 Ft



Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:

362+10.00 - 48.72' L	34	Ft Low Flow Silt Fence	38 Ft Sediment Filter Bags
362+10.00 - 48.72' R	34	Ft Low Flow Silt Fence	38 Ft Sediment Filter Bags
364+22.00 - 51.81' L	34	Ft Low Flow Silt Fence	38 Ft Sediment Filter Bags
364+22.00 - 51.81' R	34	Ft Low Flow Silt Fence	38 Ft Sediment Filter Bags
366+33.00 - 53.67' L	34	Ft Low Flow Silt Fence	38 Ft Sediment Filter Bags
366+33.00 - 53.67' R	26	Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
368+48.00 - 53.67' L	26	Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
368+48.00 - 53.67' R	26	Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
370+59.00 - 53.67' L	26	Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
370+59.00 - 53.67' R	26	Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
372+12.00 - 53.67' L	26	Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
372+12.00 - 63.89' R	26	Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
373+65.00 - 53.67' L	28	Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
373+65.00 - 65.67' R	28	Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags

Install Sediment Control at Inlets with Frames and Grates after the placement of surfacing at the following locations:

362+10.00 - 48.72' L	1	Each
362+10.00 - 48.72' R	1	Each
364+22.00 - 51.81' L	1	Each
364+22.00 - 51.81' R	1	Each
366+33.00 - 53.67' L	1	Each
366+33.00 - 53.67' R	1	Each
368+48.00 - 53.67' L	1	Each
368+48.00 - 53.67' R	1	Each
370+59.00 - 53.67' L	1	Each
370+59.00 - 53.67' R	1	Each
372+12.00 - 53.67' L	1	Each
372+12.00 - 63.89' R	1	Each
373+65.00 - 53.67' L	1	Each
373+65.00 - 65.67' R	1	Each

REGISTERED PROFESSIONAL ENGINEER
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10-14-24

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D20	D43

FILE: ...\Section D\D20 (375+00).dgn
PLOTTING DATE: 10-10-2024

REV DATE:
INITIAL:

VETERANS PARKWAY

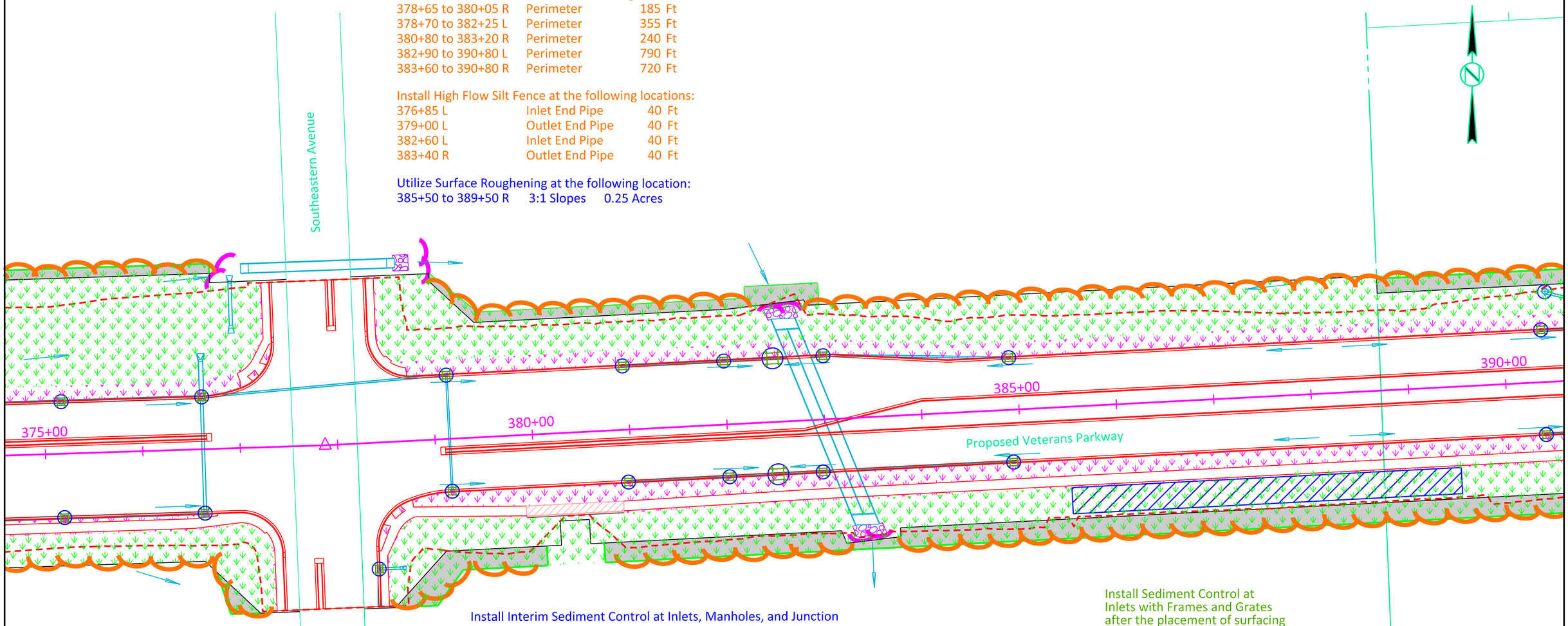
Install Low Flow Silt Fence at the following locations:

378+65 to 380+05 R	Perimeter	185 Ft
378+70 to 382+25 L	Perimeter	355 Ft
380+80 to 383+20 R	Perimeter	240 Ft
382+90 to 390+80 L	Perimeter	790 Ft
383+60 to 390+80 R	Perimeter	720 Ft

Install High Flow Silt Fence at the following locations:

376+85 L	Inlet End Pipe	40 Ft
379+00 L	Outlet End Pipe	40 Ft
382+60 L	Inlet End Pipe	40 Ft
383+40 R	Outlet End Pipe	40 Ft

Utilize Surface Roughening at the following location:
385+50 to 389+50 R 3:1 Slopes 0.25 Acres



Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:

375+18.00 - 53.67' L	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
375+18.00 - 65.67' R	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
376+62.00 - 53.67' L	33 Ft Low Flow Silt Fence	37 Ft Sediment Filter Bags
376+62.00 - 65.67' R	37 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
610+15.00 - 50.16' R	30 Ft Low Flow Silt Fence	34 Ft Sediment Filter Bags
379+15.00 - 65.67' L	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
379+15.00 - 53.67' R	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
380+96.00 - 65.67' L	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
380+96.00 - 53.67' R	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
382+00.00 - 65.67' L	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
382+00.00 - 53.67' R	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
382+50.00 - 65.67' L	34 Ft Low Flow Silt Fence	38 Ft Sediment Filter Bags
382+50.00 - 53.67' R	34 Ft Low Flow Silt Fence	38 Ft Sediment Filter Bags
382+96.00 - 53.67' R	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
383+02.00 - 65.67' L	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
384+92.00 - 53.67' L	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
384+92.00 - 53.67' R	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags

Install Sediment Control at Inlets with Frames and Grates after the placement of surfacing at the following locations:

375+18.00 - 53.67' L	1	Each
375+18.00 - 65.67' R	1	Each
376+62.00 - 53.67' L	1	Each
376+62.00 - 65.67' R	1	Each
610+15.00 - 50.16' R	1	Each
379+15.00 - 65.67' L	1	Each
379+15.00 - 53.67' R	1	Each
380+96.00 - 65.67' L	1	Each
380+96.00 - 53.67' R	1	Each
382+00.00 - 65.67' L	1	Each
382+00.00 - 53.67' R	1	Each
382+50.00 - 65.67' L	1	Each
382+50.00 - 53.67' R	1	Each
382+96.00 - 53.67' R	1	Each
383+02.00 - 65.67' L	1	Each
384+92.00 - 53.67' L	1	Each
384+92.00 - 53.67' R	1	Each

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10-14-24

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VETERANS PARKWAY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D21	D43

FILE: ...\Section D\D21 (390+00).dgn
PLOTTING DATE: 10-10-2024

REV DATE:
INITIAL:

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REG. NO. 5524
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SOUTH DAKOTA
10-14-24

Install Low Flow Silt Fence at the following locations:

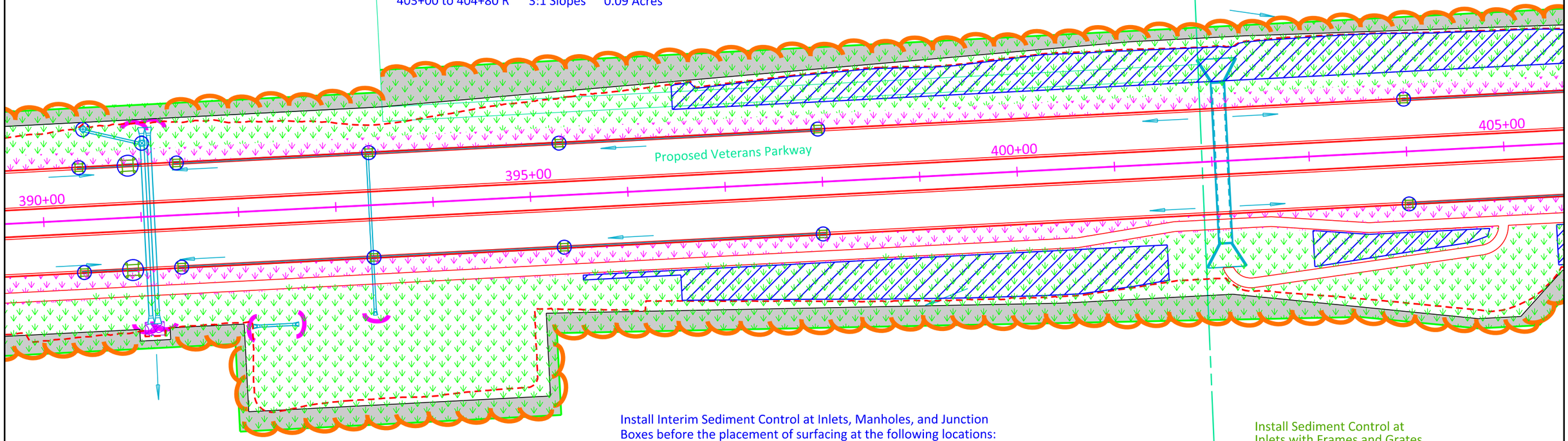
391+30 to 421+30 L	Perimeter	3,000 Ft
391+30 to 392+00 R	Perimeter	70 Ft
392+00 to 412+90 R	Perimeter	2,240 Ft

Install High Flow Silt Fence at the following locations:

391+10 L	Inlet End Pipe	40 Ft
391+10 R	Outlet End Pipe	40 Ft
392+10 R	Outlet End Pipe	30 Ft
392+60 R	Inlet End Pipe	30 Ft
393+35 R	Outlet End Pipe	30 Ft

Utilize Surface Roughening at the following locations:

396+50 to 408+50 L	3:1 Slopes	0.90 Acres
396+50 to 401+50 R	3:1 Slopes	0.47 Acres
403+00 to 404+80 R	3:1 Slopes	0.09 Acres



Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:

390+39.00 - 53.67' L	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
390+39.00 - 53.67' R	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
390+45.00 - 93.00' L	33 Ft Low Flow Silt Fence	37 Ft Sediment Filter Bags
390+89.00 - 53.67' L	34 Ft Low Flow Silt Fence	38 Ft Sediment Filter Bags
390+89.00 - 53.67' R	34 Ft Low Flow Silt Fence	38 Ft Sediment Filter Bags
391+05.00 - 75.50' L	33 Ft Low Flow Silt Fence	37 Ft Sediment Filter Bags
391+39.00 - 53.67' L	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
391+39.00 - 53.67' R	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
393+36.57 - 53.67' L	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
393+36.57 - 53.67' R	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
395+32.00 - 53.67' L	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
395+32.00 - 53.67' R	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
397+98.00 - 53.67' L	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
397+98.00 - 53.67' R	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
404+00.00 - 53.67' L	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
404+00.00 - 53.67' R	26 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags

Install Sediment Control at Inlets with Frames and Grates after the placement of surfacing at the following locations:

390+39.00 - 53.67' L	1	Each
390+39.00 - 53.67' R	1	Each
390+89.00 - 53.67' L	1	Each
390+89.00 - 53.67' R	1	Each
391+39.00 - 53.67' L	1	Each
391+39.00 - 53.67' R	1	Each
393+36.57 - 53.67' L	1	Each
393+36.57 - 53.67' R	1	Each
395+32.00 - 53.67' L	1	Each
395+32.00 - 53.67' R	1	Each
397+98.00 - 53.67' L	1	Each
397+98.00 - 53.67' R	1	Each
404+00.00 - 53.67' L	1	Each
404+00.00 - 53.67' R	1	Each

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D22	D43

FILE: ...\Section D\D22 (405+00).dgn
PLOTTING DATE: 10-10-2024

REV DATE:
INITIAL:

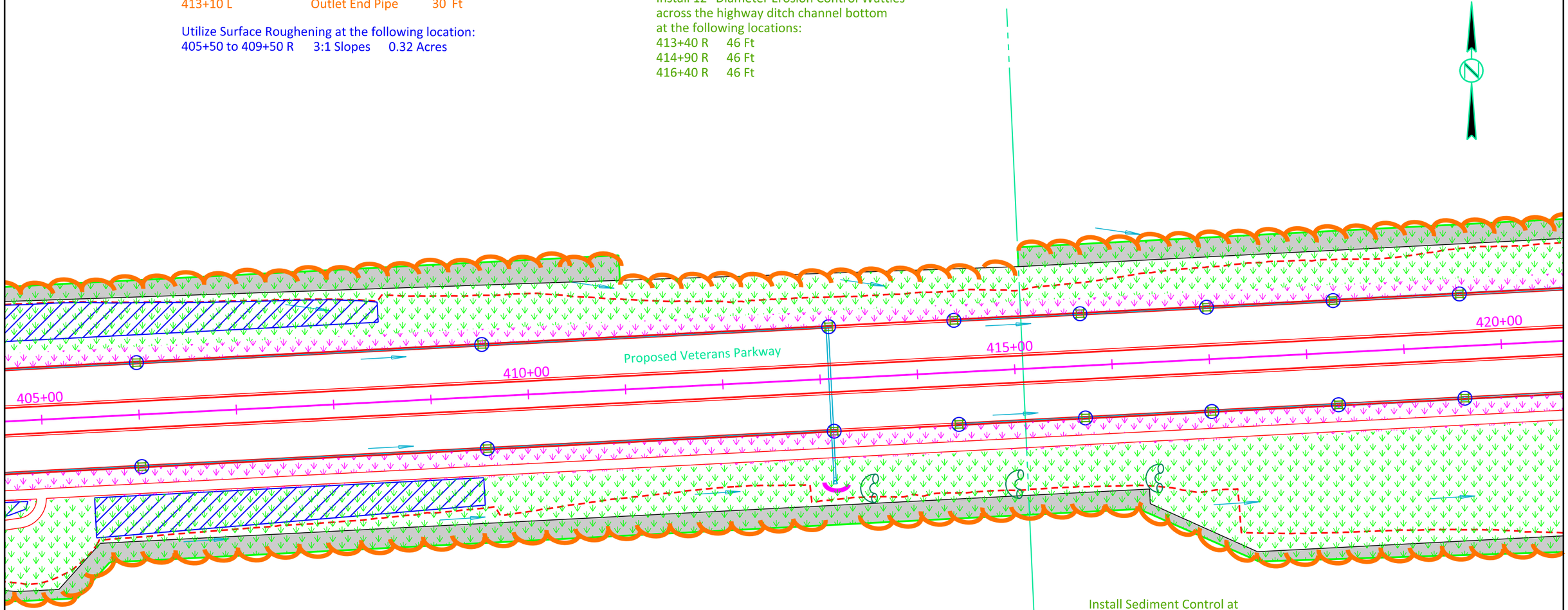
VETERANS PARKWAY

Install Low Flow Silt Fence at the following locations:
413+30 to 422+00 R Perimeter 980 Ft

Install High Flow Silt Fence at the following locations:
413+10 L Outlet End Pipe 30 Ft

Utilize Surface Roughening at the following location:
405+50 to 409+50 R 3:1 Slopes 0.32 Acres

Install 12" Diameter Erosion Control Wattles
across the highway ditch channel bottom
at the following locations:
413+40 R 46 Ft
414+90 R 46 Ft
416+40 R 46 Ft



Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:

406+00.00 - 53.67' L	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
406+00.00 - 53.67' R	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
409+55.00 - 53.67' L	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
409+55.00 - 53.67' R	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
413+11.50 - 53.67' L	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
413+11.50 - 53.67' R	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
414+40.00 - 53.67' L	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
414+40.00 - 53.67' R	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
415+70.00 - 53.67' L	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
415+70.00 - 53.67' R	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
417+00.00 - 53.67' R	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
417+00.00 - 53.67' L	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
418+30.00 - 53.67' R	30 Ft Low Flow Silt Fence	34 Ft Sediment Filter Bags
418+30.00 - 53.67' L	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags
419+60.00 - 53.67' R	30 Ft Low Flow Silt Fence	34 Ft Sediment Filter Bags
419+60.00 - 53.67' L	28 Ft Low Flow Silt Fence	32 Ft Sediment Filter Bags

Install Sediment Control at Inlets with Frames and Grates after the placement of surfacing at the following locations:

406+00.00 - 53.67' L	1	Each
406+00.00 - 53.67' R	1	Each
409+55.00 - 53.67' L	1	Each
409+55.00 - 53.67' R	1	Each
413+11.50 - 53.67' L	1	Each
413+11.50 - 53.67' R	1	Each
414+40.00 - 53.67' L	1	Each
414+40.00 - 53.67' R	1	Each
415+70.00 - 53.67' L	1	Each
415+70.00 - 53.67' R	1	Each
417+00.00 - 53.67' R	1	Each
417+00.00 - 53.67' L	1	Each
418+30.00 - 53.67' R	1	Each
418+30.00 - 53.67' L	1	Each
419+60.00 - 53.67' R	1	Each
419+60.00 - 53.67' L	1	Each

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 5524
JAMES H. UNRUH
SOUTH DAKOTA
10-14-24

FOR BIDDING PURPOSES ONLY

VETERANS PARKWAY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D23	D43

FILE: ...\Section D\D23 (420+00).dgn
PLOTTING DATE: 10-10-2024

REV DATE:
INITIAL:

Install Low Flow Silt Fence at the following locations:

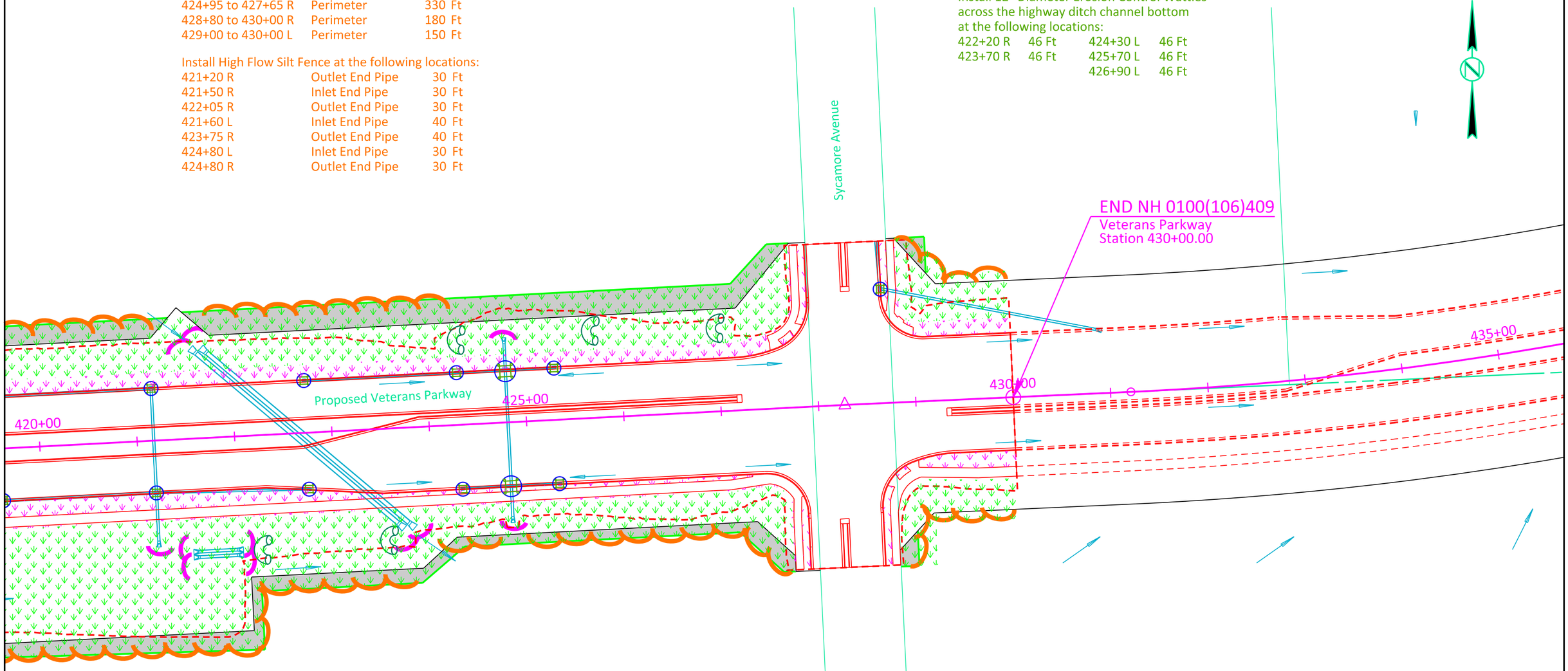
422+00 to 422+60 R	Perimeter	60 Ft
421+80 to 424+40 L	Perimeter	260 Ft
424+00 to 424+65 R	Perimeter	65 Ft
424+95 to 427+65 R	Perimeter	330 Ft
428+80 to 430+00 R	Perimeter	180 Ft
429+00 to 430+00 L	Perimeter	150 Ft

Install High Flow Silt Fence at the following locations:

421+20 R	Outlet End Pipe	30 Ft
421+50 R	Inlet End Pipe	30 Ft
422+05 R	Outlet End Pipe	30 Ft
421+60 L	Inlet End Pipe	40 Ft
423+75 R	Outlet End Pipe	40 Ft
424+80 L	Inlet End Pipe	30 Ft
424+80 R	Outlet End Pipe	30 Ft

Install 12" Diameter Erosion Control Wattles across the highway ditch channel bottom at the following locations:

422+20 R	46 Ft	424+30 L	46 Ft
423+70 R	46 Ft	425+70 L	46 Ft
		426+90 L	46 Ft



Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:

421+17.00 - 53.67' L	26 Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
421+17.00 - 53.67' R	26 Ft Low Flow Silt Fence	30 Ft Sediment Filter Bags
422+74.00 - 53.67' L	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
422+74.00 - 58.09' R	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
424+31.00 - 53.67' L	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
424+31.00 - 65.67' R	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
424+81.00 - 53.67' L	34 Ft Low Flow Silt Fence	38 Ft Sediment Filter Bags
424+81.00 - 65.67' R	34 Ft Low Flow Silt Fence	38 Ft Sediment Filter Bags
425+31.00 - 53.67' L	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
425+31.00 - 65.67' R	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags
712+62.00 - 41.67' R	22 Ft Low Flow Silt Fence	26 Ft Sediment Filter Bags

Install Sediment Control at Inlets with Frames and Grates after the placement of surfacing at the following locations:

421+17.00 - 53.67' L	1	Each
421+17.00 - 53.67' R	1	Each
422+74.00 - 58.09' R	1	Each
422+74.00 - 53.67' L	1	Each
424+31.00 - 53.67' L	1	Each
424+81.00 - 53.67' L	1	Each
425+31.00 - 53.67' L	1	Each
424+31.00 - 65.67' R	1	Each
424+81.00 - 65.67' R	1	Each
425+31.00 - 65.67' R	1	Each
712+62.00 - 41.67' R	1	Each

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 5524
JAMES H. UNRUH
SOUTH DAKOTA
10-14-24

HDR

FOR BIDDING PURPOSES ONLY

VETERANS PARKWAY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D24	D43

FILE: ...\D24 (Borrow Pit 5).dgn
PLOTTING DATE: 10-10-2024

REV DATE:
INITIAL:

69th Street
1115+00
1120+00
1125+00
1130+00
1135+00
1140+00
475+00
470+00
465+00
460+00
Proposed Veterans Parkway

BORROW PIT NO. 5
POND A

BORROW PIT NO. 5
POND B

BORROW PIT NO. 5
POND C

Wetland
Wetland

SCALE IN FEET
0 100 200

Borrow Pit No. 2
See tables in Section D notes for Silt Fence and Grass Seed locations and quantities.

Storm sewer and roadway items shown are for future project 01VA

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 5524
JAMES H. UNRUH
SOUTH DAKOTA
10-14-24

SOUTHEASTERN AVENUE

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D25	D43

FILE: PLAN_EROSION CONTROL_CIP 6.7
PLOTTING DATE: 10/13/2024

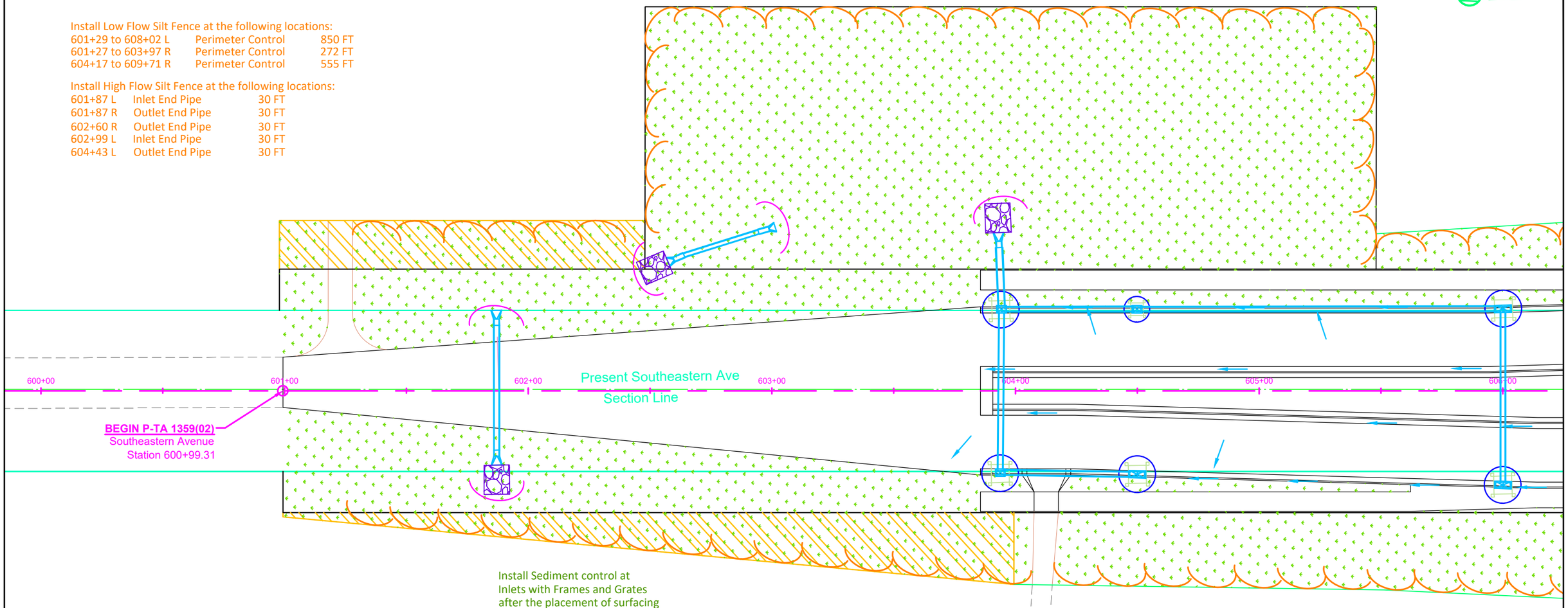
REV DATE:
INITIAL:

Install Low Flow Silt Fence at the following locations:

601+29 to 608+02 L	Perimeter Control	850 FT
601+27 to 603+97 R	Perimeter Control	272 FT
604+17 to 609+71 R	Perimeter Control	555 FT

Install High Flow Silt Fence at the following locations:

601+87 L	Inlet End Pipe	30 FT
601+87 R	Outlet End Pipe	30 FT
602+60 R	Outlet End Pipe	30 FT
602+99 L	Inlet End Pipe	30 FT
604+43 L	Outlet End Pipe	30 FT



Install Sediment control at Inlets with Frames and Grates after the placement of surfacing at the following locations:

603+94 - 33.50 L	1 Each
603+94 - 33.50 R	1 Each
604+50 - 33.50 L	1 Each
604+50 - 34.25 R	1 Each
606+00 - 33.67 L	1 Each
606+00 - 38.60 R	1 Each

Install Interim Sediment control at Inlets, Manholes, and Junction boxes before the placement of surfacing at the following locations:

603+94 - 33.50 L	22 Ft Low flow Silt fence	26 Ft Sediment Filter Bags
603+94 - 33.50 R	22 Ft Low flow Silt fence	26 Ft Sediment Filter Bags
604+50 - 33.50 L	22 Ft Low flow Silt fence	26 Ft Sediment Filter Bags
604+50 - 34.25 R	28 Ft Low flow Silt fence	32 Ft Sediment Filter Bags
606+00 - 33.67 L	28 Ft Low flow Silt fence	32 Ft Sediment Filter Bags
606+00 - 38.60 R	28 Ft Low flow Silt fence	32 Ft Sediment Filter Bags

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15047
KENT A. ODE
SOUTH DAKOTA
10/14/2024

HDR

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SOUTHEASTERN AVENUE

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D26	D43

FILE: PLAN_EROSION CONTROL_CIP 6.7
PLOTTING DATE: 10/13/2024

REV DATE:
INITIAL:

Install Low Flow Silt Fence at the following locations:
608+25 to 609+75 LT Perimeter 150 FT

Install High Flow Silt Fence at the following locations:
608+15 LT Inlet Pipe End 30 FT

END P-TA 1359(02)
Southeastern Avenue
Station 609+76.67

606+00 607+00 608+00 Present Southeastern Ave 609+00 610+00 Section Line 611+00 612+00 Pre

Install Sediment control at
Inlets with Frames and Grates
after the placement of surfacing
at the following locations:
608+15 - 39.00 L 1 Each
608+15 - 41.31 R 1 Each

Install Interim Sediment control at Inlets, Manholes, and Junction
boxes before the placement of surfacing at the following locations:
608+15 - 39.00 L 28 Ft Low flow Silt fence 32 Ft Sediment Filter Bags
608+15 - 41.31 R 28 Ft Low flow Silt fence 32 Ft Sediment Filter Bags

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15097
KENT A. ODE
SOUTH DAKOTA
10/14/2024

Proposed Veterans Parkway

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SOUTHEASTERN AVENUE

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D27	D43

FILE: PLAN_EROSION CONTROL_CIP 6.7
PLOTTING DATE: 10/13/2024

REV DATE:
INITIAL:

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15042
KENT A. ODE
SOUTH DAKOTA
10/14/2024

Present Southeastern Ave

612+00 613+00 614+00 615+00 616+00 617+00 618+00

BEGIN P-TA 1359(02)
Southeastern Avenue
Station 613+12.73

Install Low Flow Silt Fence at the following locations:

613+40 to 617+93 LT	Perimeter Control	610 FT
613+40 to 619+41 RT	Perimeter Control	610 FT

Install Sediment control at Inlets with Frames and Grates after the placement of surfacing at the following locations:

614+75 - 50.00 L	1 Each
614+75 - 37.74 R	1 Each
615+25 - 51.15 L	1 Each
615+24 - 39.32 R	1 Each
615+68 - 44.23 L	1 Each
615+68 - 35.04 R	1 Each

Install High Flow Silt Fence at the following locations:

613+28 LT	Inlet End Pipe	30 FT
613+28 RT	Outlet End Pipe	30 FT
615+64 LT	Outlet End Pipe	30 FT

Install Interim Sediment control at Inlets, Manholes, and Junction boxes before the placement of surfacing at the following locations:

613+69 - 94.70 L	30Ft Low flow Silt fence	36 Ft Sediment Filter Bags
614+75 - 50.00 L	18 Ft Low flow Silt fence	24 Ft Sediment Filter Bags
614+75 - 37.74 R	18 Ft Low flow Silt fence	24 Ft Sediment Filter Bags
615+25 - 51.14 L	38 Ft Low flow Silt fence	44 Ft Sediment Filter Bags
615+24 - 39.32 R	38 Ft Low flow Silt fence	44 Ft Sediment Filter Bags
615+68 - 44.23 L	18 Ft Low flow Silt fence	24 Ft Sediment Filter Bags
615+68 - 35.04 R	18 Ft Low flow Silt fence	24 Ft Sediment Filter Bags
615+68 - 45.82 R	30 Ft Low flow Silt fence	36 Ft Sediment Filter Bags

FOR BIDDING PURPOSES ONLY

SOUTHEASTERN AVENUE

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D28	D43

FILE: PLAN_EROSION CONTROL_CIP 6.7
PLOTTING DATE: 10/13/2024

REV DATE:
INITIAL:

Install Low Flow Silt Fence at the following locations:

618+76 to 627+93 LT	Perimeter Control	925 FT
620+14 to 624+46 RT	Perimeter Control	440 FT

618+00 619+00 620+00 621+00 622+00 623+00 624+00

Section Line
Present Southeastern Ave

ST ST ST

Install Interim Sediment control at Inlets, Manholes, and Junction boxes before the placement of surfacing at the following locations:

619+33 - 37.99 L	30 Ft Low flow Silt fence	34 Ft Sediment Filter Bags
619+44 - 65.39 R	30 Ft Low flow Silt fence	34 Ft Sediment Filter Bags

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15604
KENT A. ODE
SOUTH DAKOTA
10/14/2024

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SOUTHEASTERN AVENUE

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D29	D43

FILE: PLAN_EROSION CONTROL_CIP 6.7
PLOTTING DATE: 10/13/2024

REV DATE:
INITIAL:

Install Low Flow Silt Fence at the following locations:
624+65 to 627+80 RT Perimeter 320 FT

Install High Flow Silt Fence at the following location:
624+56 RT Outlet End Pipe 30 FT

Property Line

Section Line

624+00 625+00 626+00 627+00 628+00 628+99

Present Southeastern Ave

END P-TA 1359(02)
Southeastern Avenue
Station 628+39.38

Property Line

Present Bison Trail

Install Sediment control at
Inlets with Frames and Grates
after the placement of surfacing
at the following locations:

624+57 - 33.00 R	1 Each
625+37 - 36.50 L	1 Each
625+37 - 36.50 R	1 Each
625+74 - 33.50 L	1 Each
625+74 - 34.14 R	1 Each
626+24 - 33.50 L	1 Each
626+24 - 38.67 R	1 Each
627+98 - 40.50 L	1 Each
627+98 - 43.50 R	1 Each

Install Interim Sediment control at Inlets, Manholes, and Junction boxes before the placement of surfacing at the following locations:

624+48 - 63.06 L	30 Ft Low flow Silt fence	34 Ft Sediment Filter Bags
624+57 - 33.00 R	28 Ft Low flow Silt fence	32 Ft Sediment Filter Bags
625+37 - 36.50 L	42 Ft Low flow Silt fence	46 Ft Sediment Filter Bags
625+37 - 36.50 R	42 Ft Low flow Silt fence	46 Ft Sediment Filter Bags
625+74 - 33.50 L	22 Ft Low flow Silt fence	26 Ft Sediment Filter Bags
625+74 - 34.14 R	26 Ft Low flow Silt fence	30 Ft Sediment Filter Bags
626+24 - 33.50 L	22 Ft Low flow Silt fence	26 Ft Sediment Filter Bags
626+24 - 38.67 R	26 Ft Low flow Silt fence	30 Ft Sediment Filter Bags
627+98 - 40.50 L	34 Ft Low flow Silt fence	38 Ft Sediment Filter Bags
627+98 - 43.50 R	38 Ft Low flow Silt fence	42 Ft Sediment Filter Bags

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15047
KENT A. ODE
SOUTH DAKOTA
10/14/2024

HDR

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SYCAMORE AVENUE

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D30	D43

FILE: PLAN_EROSION CONTROL_CIP 6.7
PLOTTING DATE: 10/13/2024

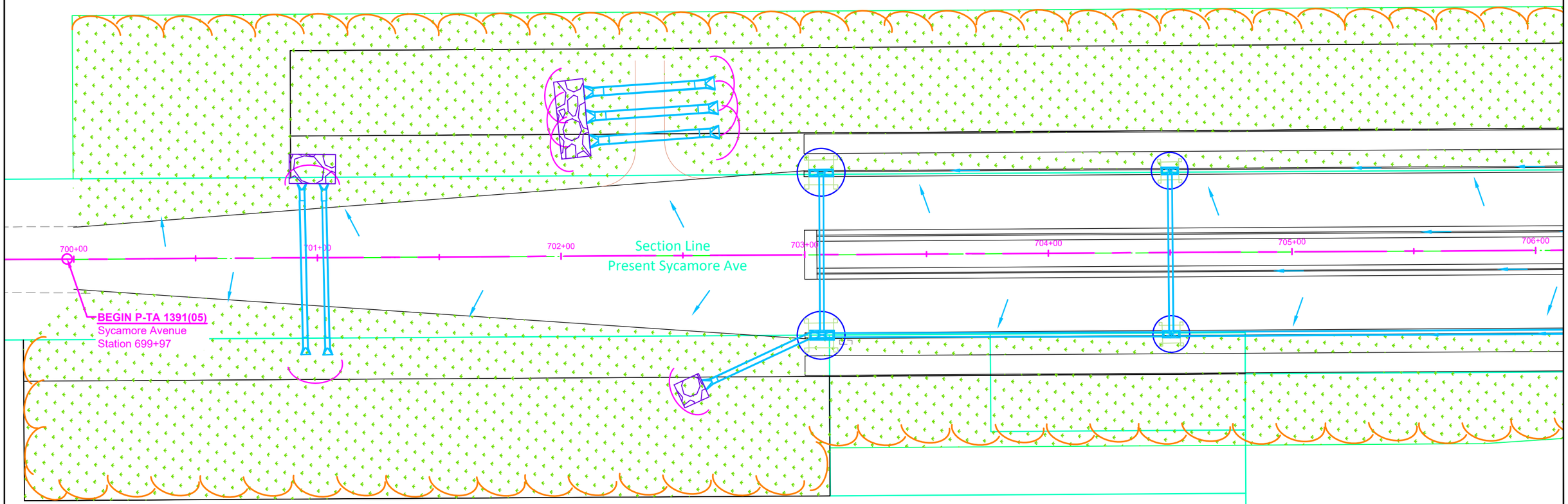
REV DATE:
INITIAL:

Install Low Flow Silt Fence at the following locations:

699+99 to 709+71 LT	Perimeter Control	985 FT
699+99 to 709+81 RT	Perimeter Control	1090 FT

Install High Flow Silt Fence at the following locations:

700+98 LT	Inlet End Pipe	30 FT
700+99 RT	Outlet End Pipe	30 FT
702+60 LT	Inlet End Pipe	30 FT
702+13 LT	Outlet End Pipe	30 FT
702+61 LT	Inlet End Pipe	30 FT
702+14 LT	Outlet End Pipe	30 FT
702+62 LT	Inlet End Pipe	30 FT
702+16 LT	Outlet End Pipe	30 FT
702+62 RT	Outlet End Pipe	30 FT



REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15047
KENT A. ODE
SOUTH DAKOTA
10/14/2024

Install Sediment control at Inlets with Frames and Grates after the placement of surfacing at the following locations:

703+07 - 33.50 L	1 Each
703+07 - 33.01 R	1 Each
704+50 - 33.50 L	1 Each
704+50 - 33.50 R	1 Each

Install Interim Sediment control at Inlets, Manholes, and Junction boxes before the placement of surfacing at the following locations:

703+07 - 33.50 L	34 Ft Low flow Silt fence	38 Ft Sediment Filter Bags
703+07 - 33.01 R	36 Ft Low flow Silt fence	40 Ft Sediment Filter Bags
704+50 - 33.50 L	28 Ft Low flow Silt fence	32 Ft Sediment Filter Bags
704+50 - 33.50 R	28 Ft Low flow Silt fence	32 Ft Sediment Filter Bags

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SYCAMORE AVENUE

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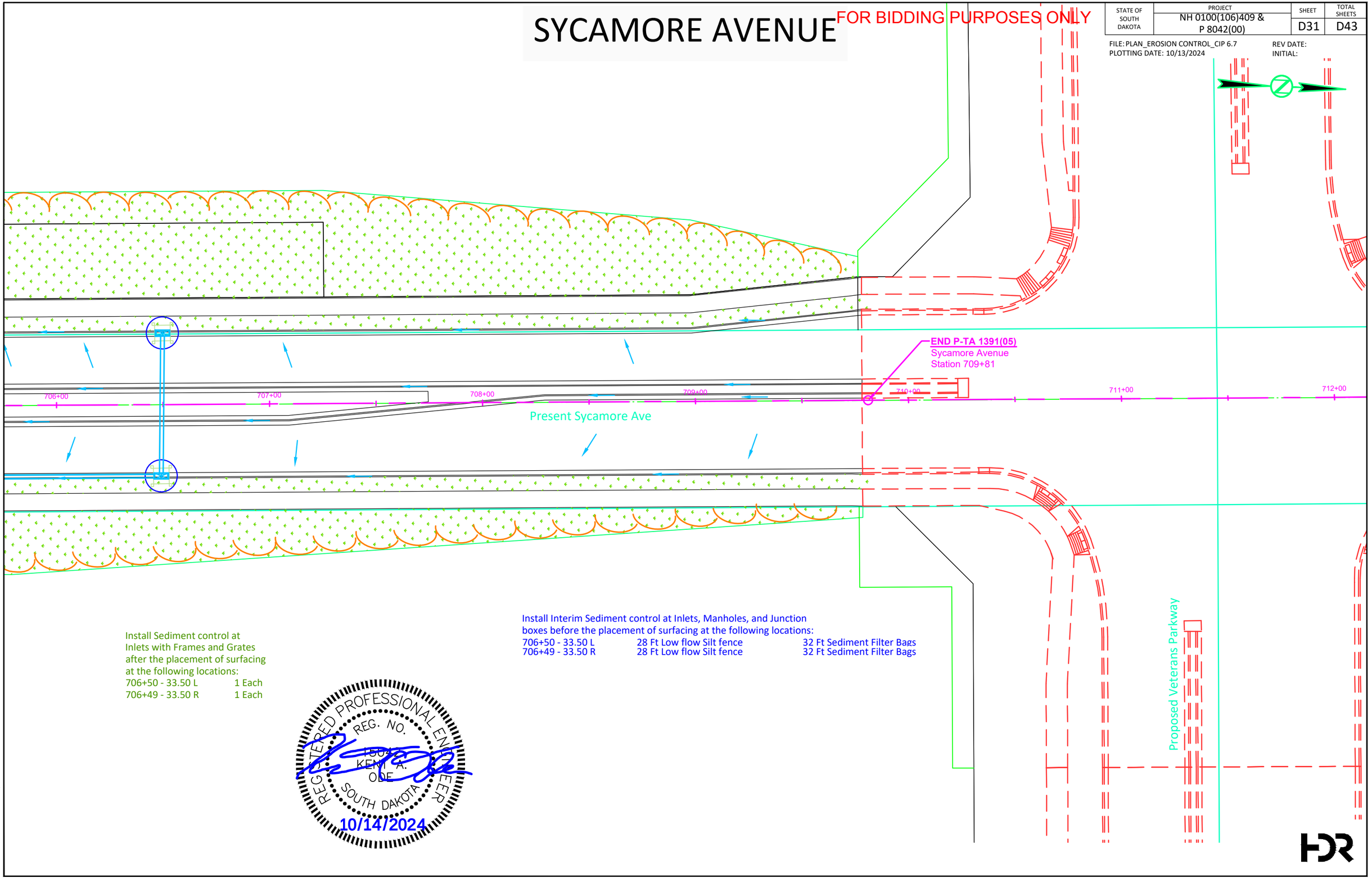
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D31	D43

FILE: PLAN_EROSION CONTROL_CIP 6.7
PLOTTING DATE: 10/13/2024

REV DATE:
INITIAL:



Install Sediment control at Inlets with Frames and Grates after the placement of surfacing at the following locations:

706+50 - 33.50 L	1 Each
706+49 - 33.50 R	1 Each

Install Interim Sediment control at Inlets, Manholes, and Junction boxes before the placement of surfacing at the following locations:

706+50 - 33.50 L	28 Ft Low flow Silt fence	32 Ft Sediment Filter Bags
706+49 - 33.50 R	28 Ft Low flow Silt fence	32 Ft Sediment Filter Bags

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15042
KENT A. ODE
SOUTH DAKOTA
10/14/2024

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D32	D43

FILE: PLAN_EROSION CONTROL_CIP 6.7
PLOTTING DATE: 10/13/2024

REV DATE:
INITIAL:

Install Low Flow Silt Fence at the following locations:

713+15 to 721+87 LT	Perimeter Control	880 FT
713+17 to 716+46 RT	Perimeter Control	335 FT
716+85 to 722+41 RT	Perimeter Control	560 FT

712+00 713+00 714+00 715+00 716+00 717+00 718+00

Section Line
Present Sycamore Ave

BEGIN P-TA 1391(05)
Sycamore Avenue
Station 713+04

Install Sediment control at Inlets with Frames and Grates after the placement of surfacing at the following locations:

714+78 - 33.50 L	1 Each
714+78 - 33.00 R	1 Each
716+93 - 33.50 R	1 Each
716+93 - 33.50 R	1 Each

Install Interim Sediment control at Inlets, Manholes, and Junction boxes before the placement of surfacing at the following locations:

714+78 - 33.50 L	34 Ft Low flow Silt fence	38 Ft Sediment Filter Bags
714+78 - 33.00 R	36 Ft Low flow Silt fence	40 Ft Sediment Filter Bags
716+93 - 33.50 R	34 Ft Low flow Silt fence	38 Ft Sediment Filter Bags
716+93 - 33.50 R	34 Ft Low flow Silt fence	38 Ft Sediment Filter Bags

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15047
KENT A. ODE
SOUTH DAKOTA
10/14/2024

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SYCAMORE AVENUE

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D33	D43

FILE: PLAN_EROSION CONTROL_CIP 6.7
PLOTTING DATE: 10/13/2024

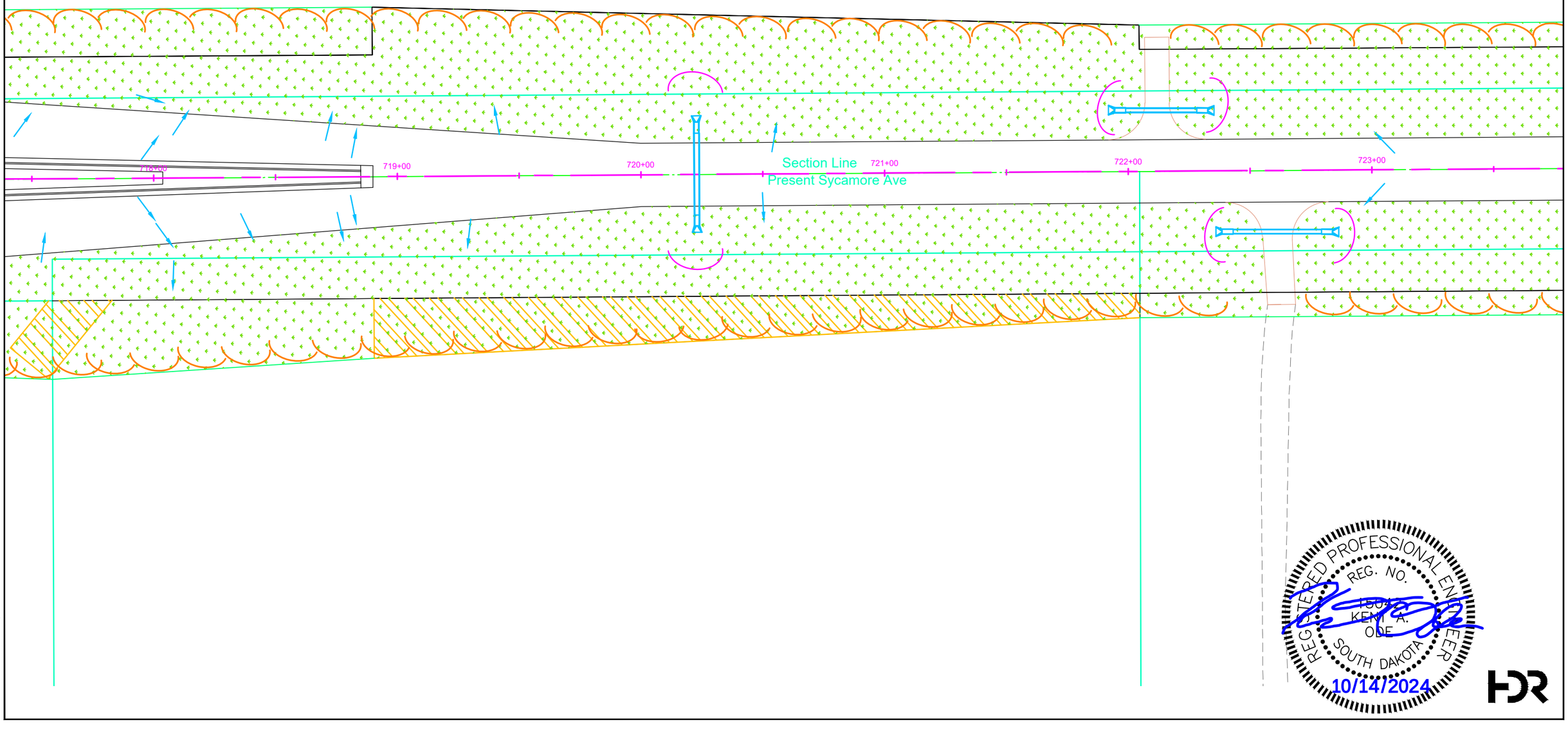
REV DATE:
INITIAL:

Install High Flow Silt Fence at the following locations:

720+23 RT	Outlet End Pipe	30 FT
720+24 LT	Inlet End Pipe	30 FT
721+86 LT	Outlet End Pipe	30 FT
722+39 LT	Inlet End Pipe	30 FT
722+33 RT	Outlet End Pipe	30 FT
722+94 RT	Inlet End Pipe	30 FT

Install Low Flow Silt Fence at the following locations:

722+24 to 737+16 LT	Perimeter Control	1500 FT
722+70 to 737+28 RT	Perimeter Control	1460 FT



REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15047
KENT A. ODE
SOUTH DAKOTA
10/14/2024

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SYCAMORE AVENUE

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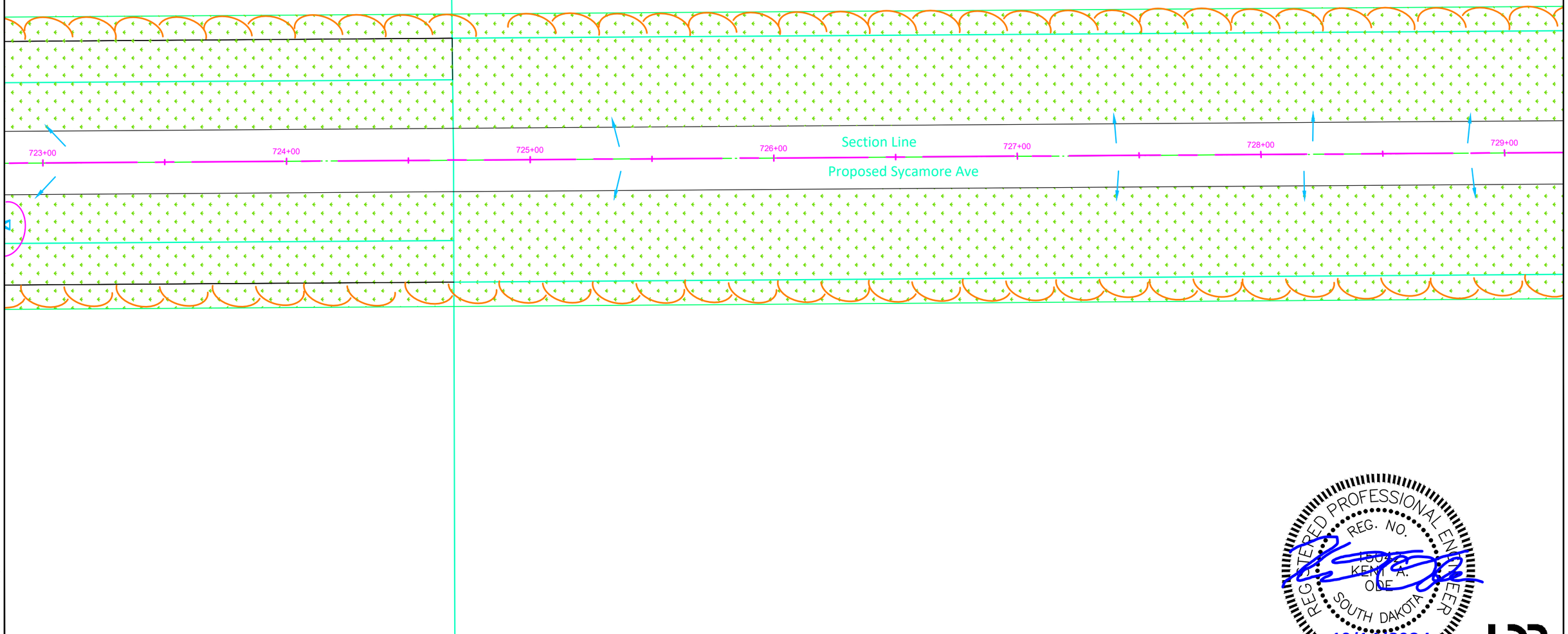
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D34	D43

FILE: PLAN_EROSION CONTROL_CIP 6.7
PLOTTING DATE: 10/13/2024

REV DATE:
INITIAL:



REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15504
KENT A. ODE
SOUTH DAKOTA
10/14/2024

HDR

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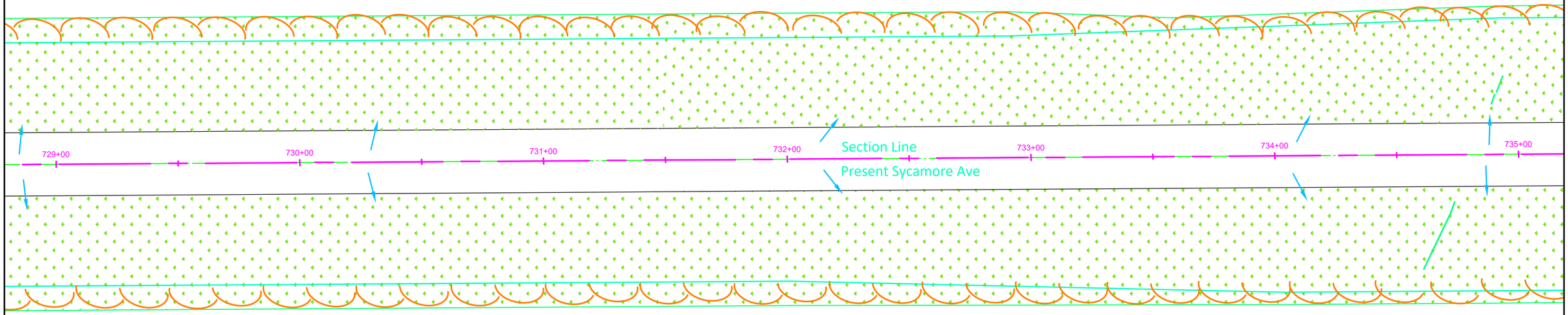
SYCAMORE AVENUE

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D35	D43

FILE: PLAN_EROSION CONTROL_CIP 6.7
PLOTTING DATE: 10/13/2024

REV DATE:
INITIAL:



REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15047
KENT A. ODE
SOUTH DAKOTA
10/14/2024

HDR

C:\pwworking\central\d1\d2671505\Plan_Erosion Control_CIP 6.7.dwg
PLOT DATE: 10/13/2024 11:56 AM Ode, Kent

SYCAMORE AVENUE

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D36	D43

FILE: PLAN_EROSION CONTROL_CIP 6.7
PLOTTING DATE: 10/13/2024
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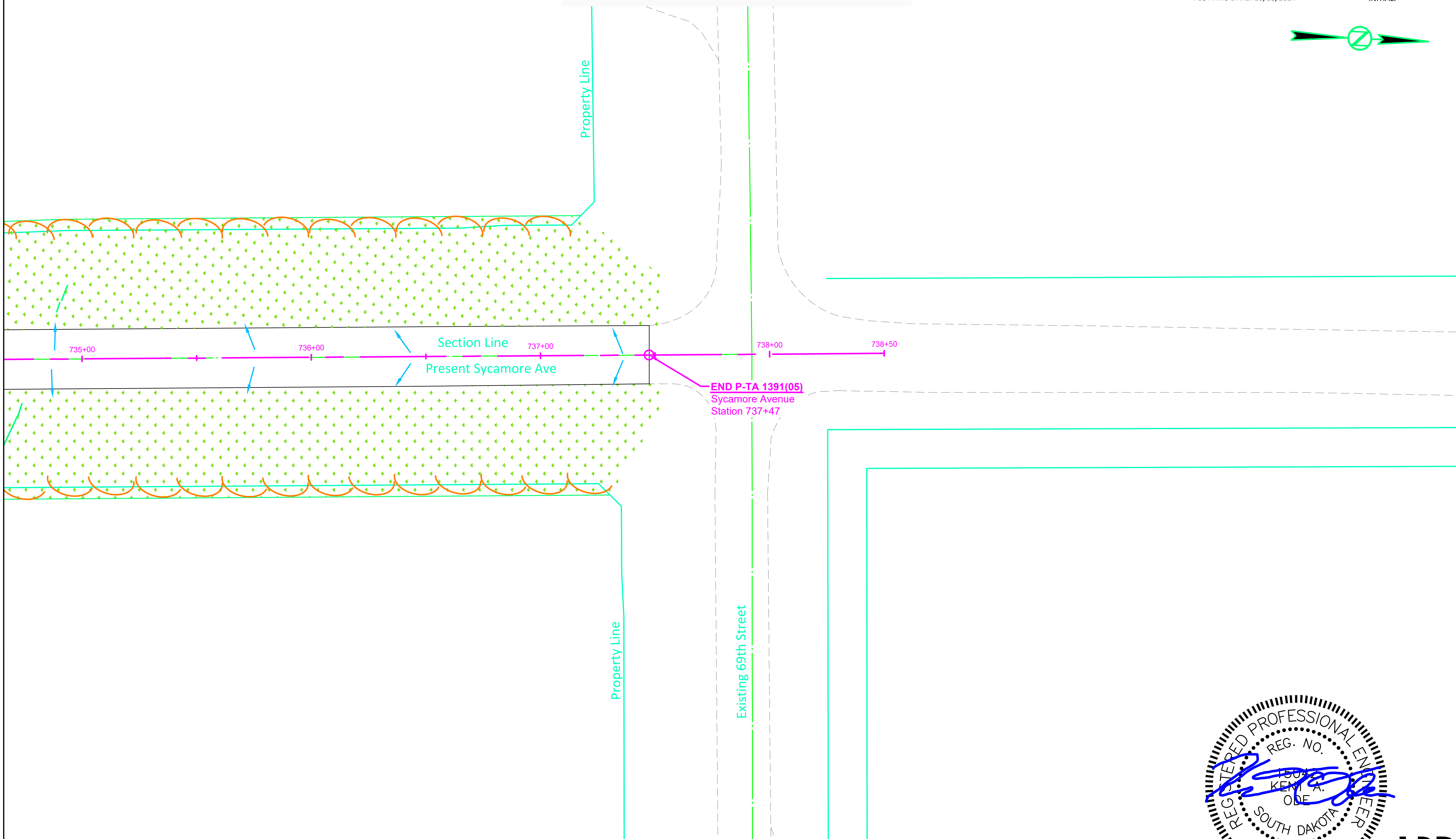

REGISTERED PROFESSIONAL ENGINEER
REG. NO.
KENT A.
ODE
SOUTH DAKOTA
10/14/2024

HDR

FOR BIDDING PURPOSES ONLY

PLOT DATE: 10/13/2024 11:56 AM Ode, Kent

FOR BIDDING PURPOSES ONLY

DEWATERING AND SEDIMENT COLLECTION SYSTEM

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D37	D43

FILE: ...\D37 (Dewatering Detail).dgn
PLOTTING DATE: 10-10-2024
REV DATE:
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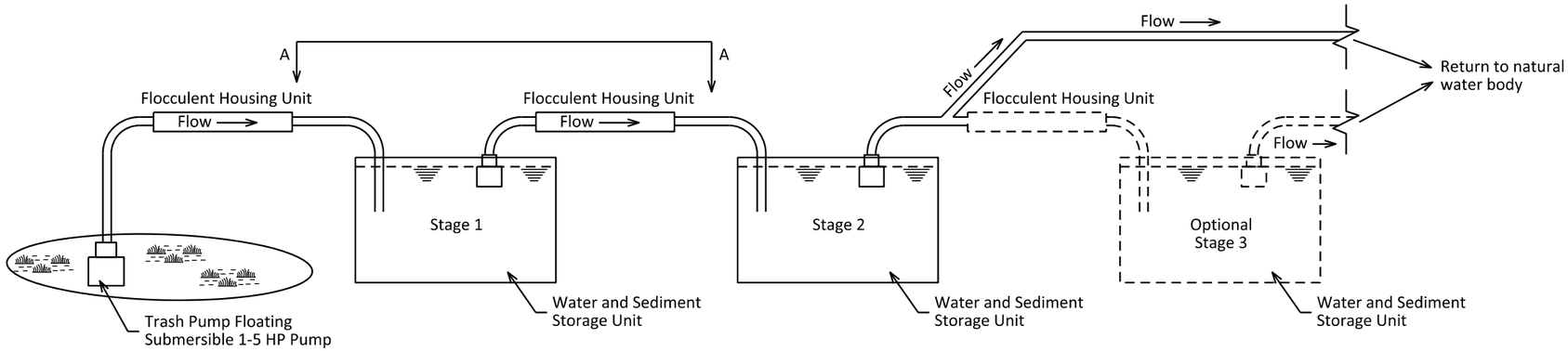
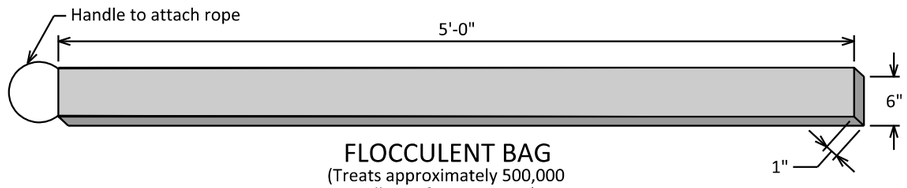
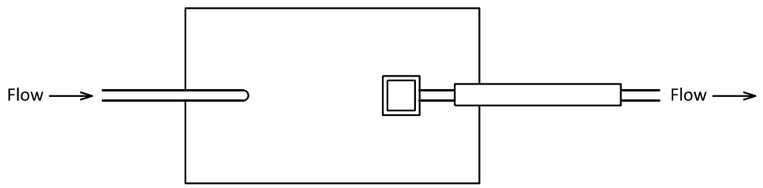


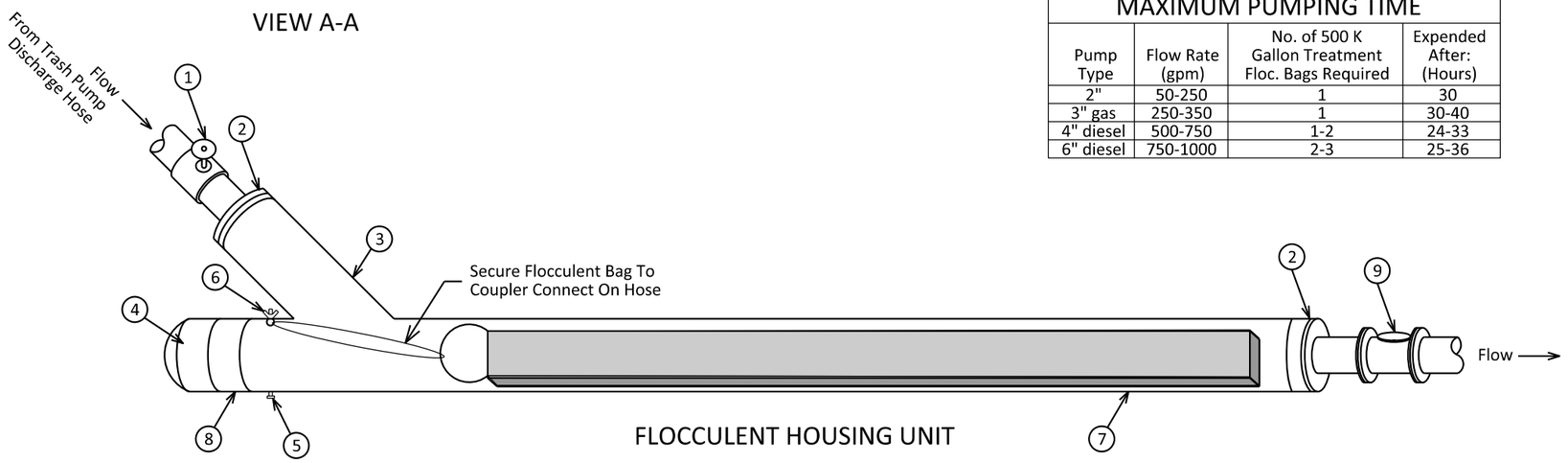
ELEVATION VIEW
CASCADE SYSTEM



FLOCCULENT BAG
(Treats approximately 500,000 gallons of storm water)



VIEW A-A



FLOCCULENT HOUSING UNIT

FLOCCULENT HOUSING UNIT
(Estimated Quantities)
(For Information Only)

NO.	DESCRIPTION	QUANTITY	UNIT
1	4" or 6" Dia. Sch. 40 Gate Valve	1	Each
2	4" x 6" or 6" x 8" Sch. 40 PVC Bushing	2	Each
3	6" or 8" Dia. Sch. 40 PVC "Y"	1	Each
4	6" or 8" Dia. Sch. 40 PVC Female Threaded Cap	1	Each
5	1" Dia. Sch. 80 PVC Drain Valve	1	Each
6	1/2" Eye Bolt With Wing Nut and Rubber Gromets	1	Each
7	6" or 8" Dia. Sch. 40 PVC Pipe	10	Ft.
8	6" or 8" Dia. Sch. 40 PVC Male Adaptor	1	Each
9	4" or 6" Dia. Sch. 40 PVC Swing Check Valve	1	Each

MAXIMUM PUMPING TIME

Pump Type	Flow Rate (gpm)	No. of 500 K Gallon Treatment Floc. Bags Required	Expended After: (Hours)
2"	50-250	1	30
3" gas	250-350	1	30-40
4" diesel	500-750	1-2	24-33
6" diesel	750-1000	2-3	25-36

GENERAL NOTES:

The purpose of the dewatering and sediment collection system is to collect turbid storm water on the project and treat it with a flocculent. The sediment would then settle in the storage units and the clear water would then be discharged into the storm sewer, lake, stream, vegetated ditch, or other Engineer approved site. Clear water for this project is defined as having a maximum of 30 mg/L of suspended solids. The clear water discharged shall have a ph between 6.1 and 8.5, with a ph of 7.0 preferred.

The drawing of the cascade system is for conceptual purposes only: however, the cascade system shall at a minimum incorporate the use of 2 flocculent housing units and 2 water and sediment storage units.

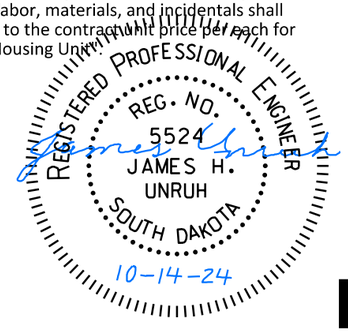
Design and construction of the water and sediment storage units are project site specific and shall be the Contractor's responsibility. A water and sediment storage unit may consist of a storage bin lined with plastic, the bed of a dump truck lined with plastic, a sediment basin, or another Engineer approved unit.

The 500,000 gallon treatment flocculent bag shall be a BIOSTAR™ CH product or approved equal. Information concerning the product may be found on the Internet and the following location: http://www.biostar-ch.com

All costs for the dewatering and sediment collection system including disposing of sediment collected in the water and sediment storage units, pumping, furnishing and using the water and sediment collection units, labor, materials, and incidentals necessary for the dewatering and sediment collection system shall be incidental to the contract unit price per hour for "Dewatering". Measurement shall be based on the number of hours pumping occurs for the dewatering and sediment collection system.

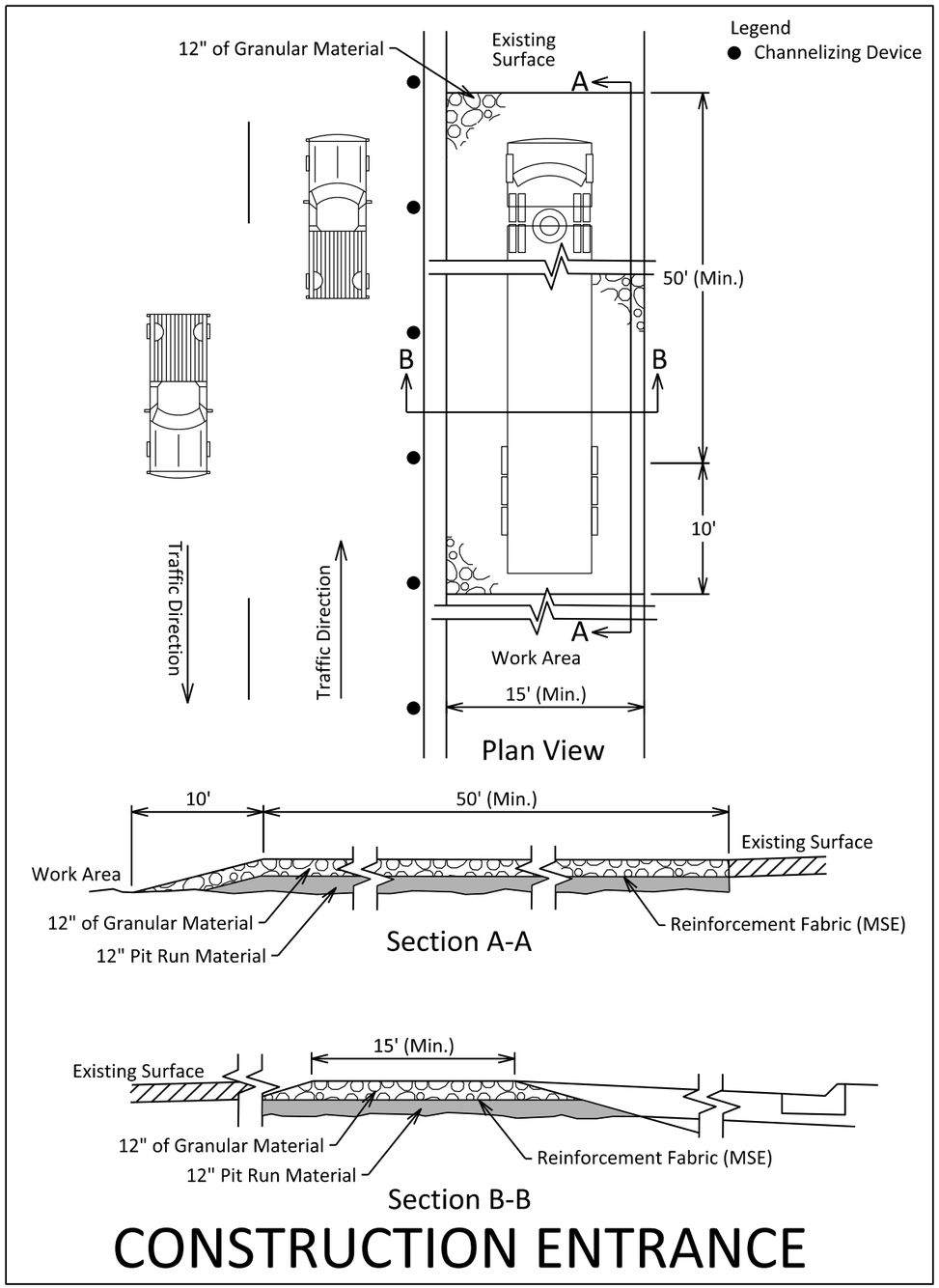
All costs for furnishing the 500,000 gallon treatment flocculent bag shall be incidental to the contract unit price per each for "500 K Gallon Treatment Flocculent Bag".

All costs for furnishing the flocculent housing unit including all labor, materials, and incidentals shall be incidental to the contract unit price per each for "Flocculent Housing Unit".

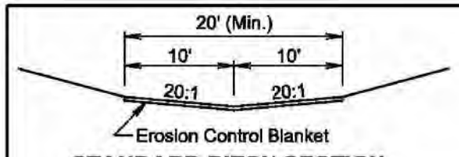


STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D38	D43

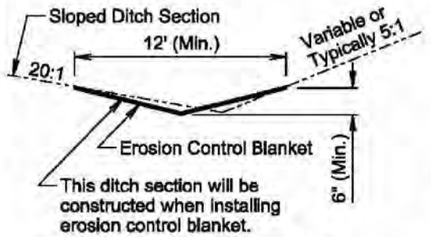
FILE: ...\D38-D43 standard plates.dgn
PLOTTING DATE: 10-10-2024
REV DATE:
INITIAL:



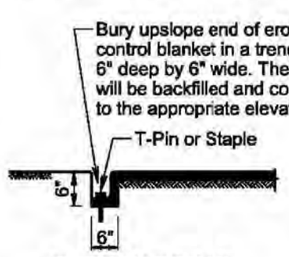
CONSTRUCTION ENTRANCE



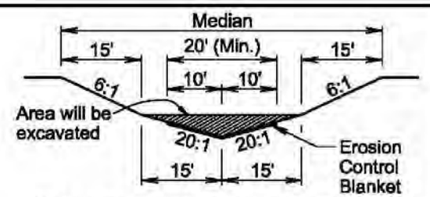
STANDARD DITCH SECTION



SLOPED DITCH SECTION

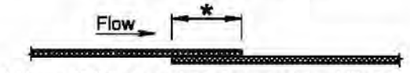


TRENCH DETAIL



The median will be shaped to the limits shown in this detail where the erosion control blanket will be placed.

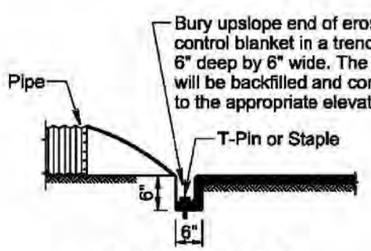
MEDIAN SECTION



*Use a 4" (Min.) overlap wherever two widths of erosion control blanket are applied side by side.

*Use a 6" (Min.) overlap wherever one roll of erosion control blanket ends and another begins.

OVERLAP DETAIL



PIPE END DETAIL

GENERAL NOTES:

Prior to placement of the erosion control blanket, the areas will be properly prepared, shaped, seeded, and fertilized.

Erosion control blanket will be unrolled in the direction of the flow of water when placed in ditches and on slopes. The upslope end of the erosion control blanket will be buried in a trench 6" wide by 6" deep. There will be at least a 6" overlap wherever one roll of erosion control blanket ends and another begins, with the upslope erosion control blanket placed on top of the downslope erosion control blanket.

The erosion control blanket will be pinned to the ground according to the manufacturer's installation recommendations.

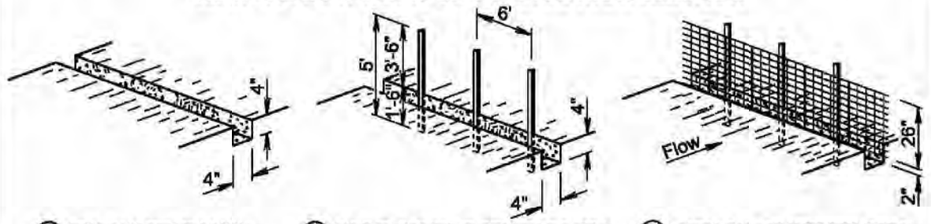
After the placement of the erosion control blanket, the Contractor will fine grade along all edges of the blanket to maintain a uniform slope adjacent to the blanket and level any low spots which might prevent uniform and unrestricted flow of side drainage directly onto the erosion control blanket.

All ditch sections will be shaped when installing the erosion control blanket. All costs for shaping the ditches will be incidental to the contract unit price per foot for "Shaping for Erosion Control Blanket".

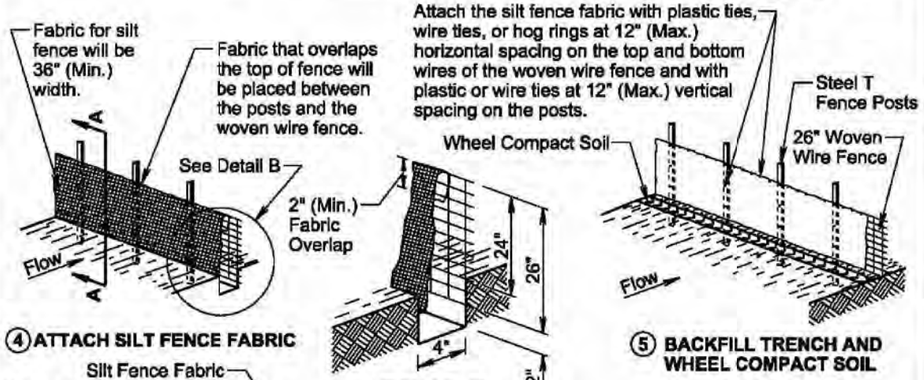
February 14, 2020

Published Date: 2025	SDDOT	**EROSION CONTROL BLANKET**	PLATE NUMBER 734.01
			Sheet 1 of 1

MANUAL LOW FLOW SILT FENCE INSTALLATION

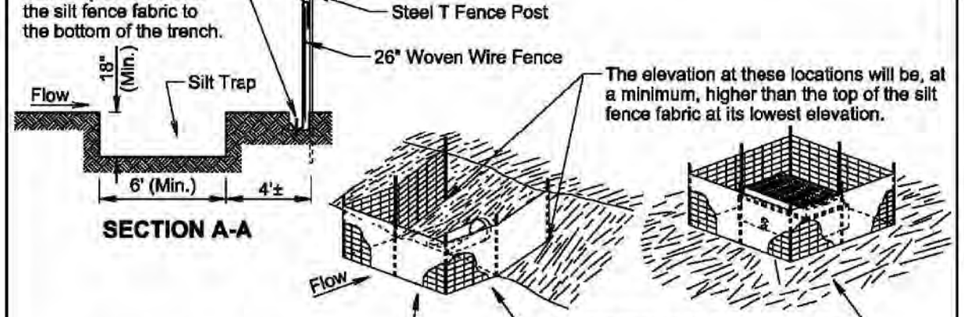


① EXCAVATE TRENCH ② DRIVE STEEL T FENCE POSTS ③ ATTACH 26" WOVEN WIRE FENCE TO POSTS



④ ATTACH SILT FENCE FABRIC ⑤ BACKFILL TRENCH AND WHEEL COMPACT SOIL

DETAIL B

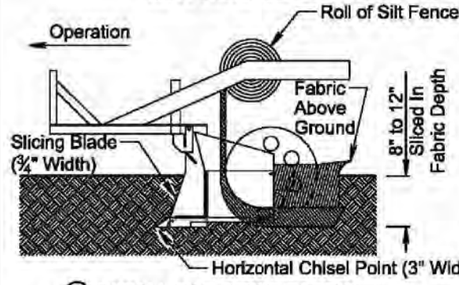


SECTION A-A

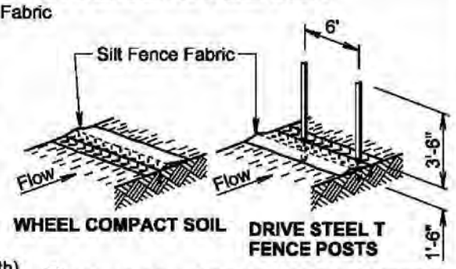
February 14, 2020

Published Date: 2025	SDDOT	LOW FLOW SILT FENCE AND SILT TRAP	PLATE NUMBER 734.04 Sheet 1 of 2

MACHINE SLICED LOW FLOW SILT FENCE INSTALLATION

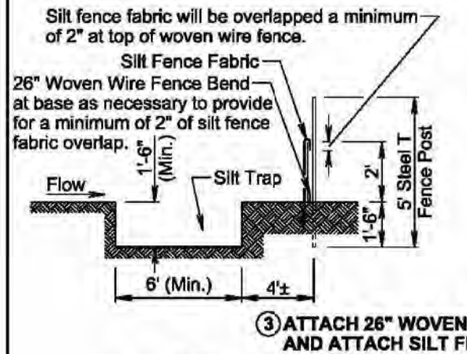


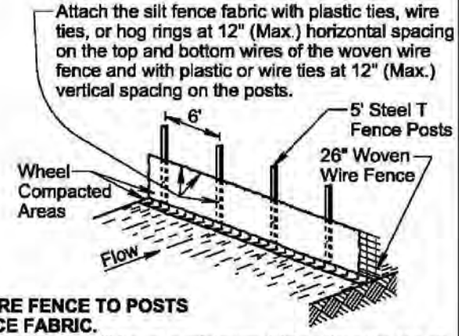
① INSTALL SILT FENCE FABRIC BY MACHINE SLICING METHOD.



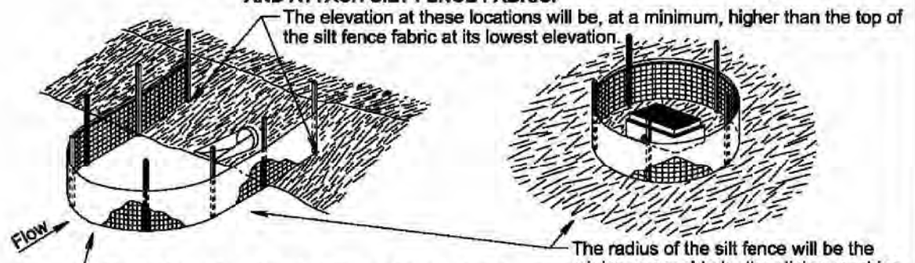
WHEEL COMPACT SOIL DRIVE STEEL T FENCE POSTS

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





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



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.

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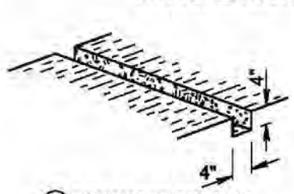
Published Date: 2025	SDDOT	LOW FLOW SILT FENCE AND SILT TRAP	PLATE NUMBER 734.04 Sheet 2 of 2

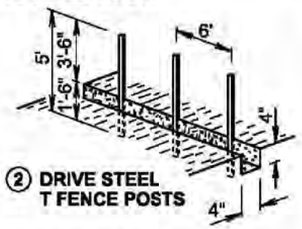
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D40	D43

FILE: ...\D38-D43 standard plates.dgn
PLOTTING DATE: 10-10-2024
REV DATE:
INITIAL:

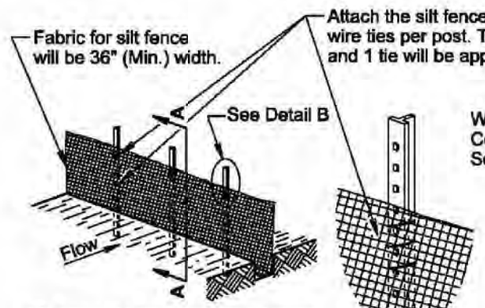
MANUAL HIGH FLOW SILT FENCE INSTALLATION



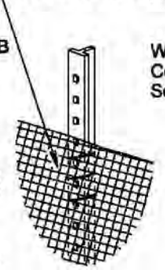
① EXCAVATE TRENCH



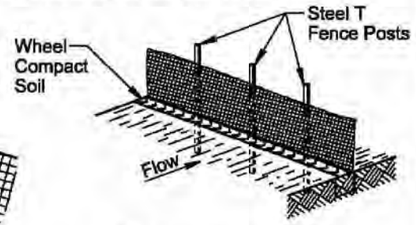
② DRIVE STEEL T FENCE POSTS



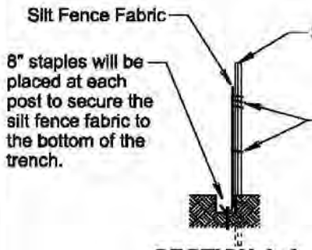
③ ATTACH SILT FENCE FABRIC



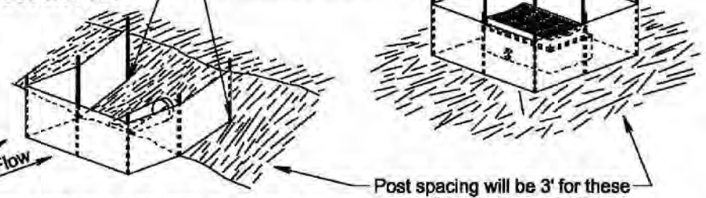
DETAIL B



④ BACKFILL TRENCH AND WHEEL COMPACT SOIL



SECTION A-A



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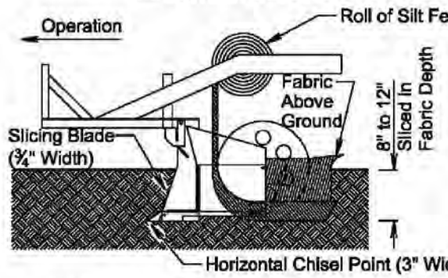
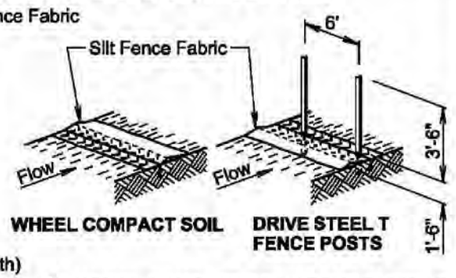
Published Date: 2025	SDDOT	HIGH FLOW SILT FENCE	PLATE NUMBER 734.05 Sheet 1 of 2

MACHINE SLICED HIGH FLOW SILT FENCE INSTALLATION



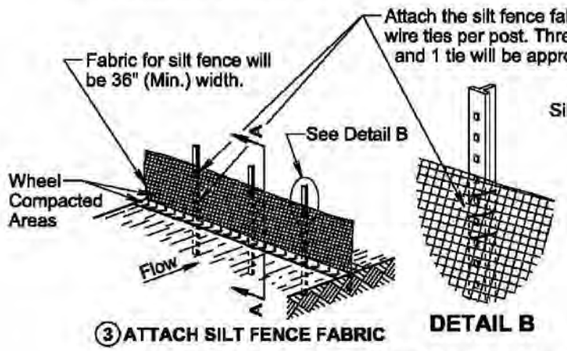
① INSTALL SILT FENCE FABRIC BY MACHINE SLICING METHOD.



WHEEL COMPACT SOIL

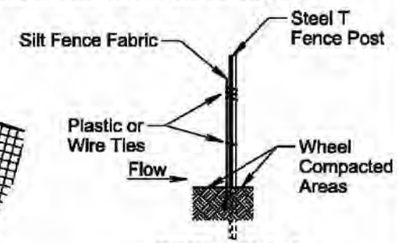
DRIVE STEEL T FENCE POSTS

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

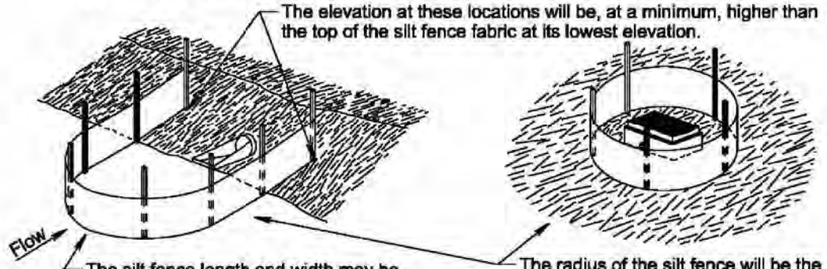


③ ATTACH SILT FENCE FABRIC

DETAIL B



SECTION A-A



GENERAL NOTE:

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.

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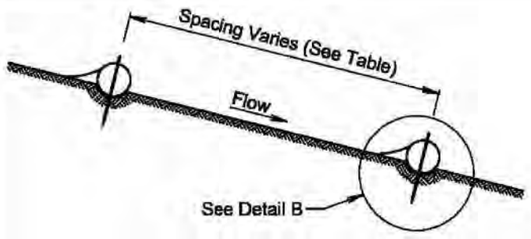
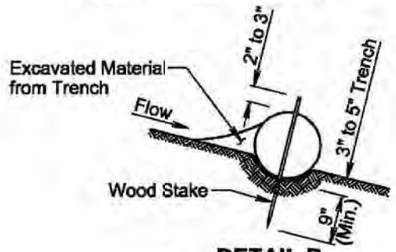
Published Date: 2025	SDDOT	HIGH FLOW SILT FENCE	PLATE NUMBER 734.05 Sheet 2 of 2

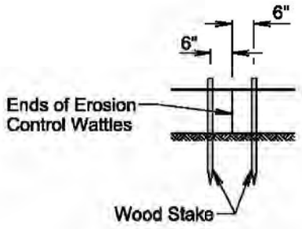


ELEVATION VIEW
(Cut or Fill Slope Installation)

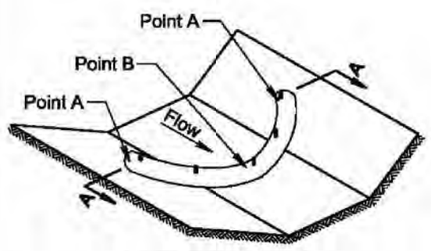
CUT OR FILL SLOPE INSTALLATION	
Slope	Spacing (Ft.)
1:1	10
2:1	20
3:1	30
4:1	40



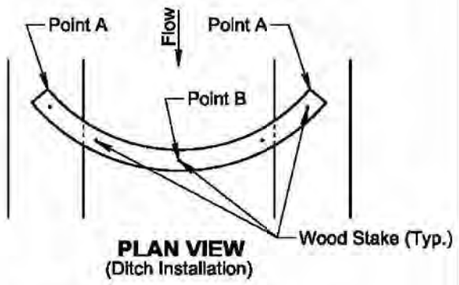
DETAIL B
(Typical of All Installations)



DETAIL C
(See General Notes)

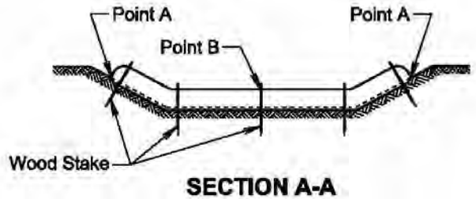


ISOMETRIC VIEW
(Ditch Installation)



PLAN VIEW
(Ditch Installation)

DITCH INSTALLATION	
Grade	Spacing (Ft.)
2%	150
3%	100
4%	75
5%	50



SECTION A-A

February 14, 2020

Published Date: 2025	SDDOT	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.

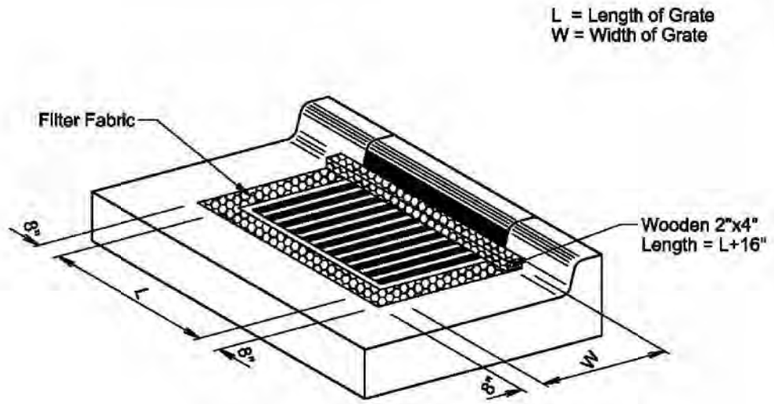
Sediment removal, disposal, or necessary shaping will be as directed by the Engineer. All costs for removing accumulated sediment, disposal of sediment, and necessary shaping will be incidental to the contract unit price per cubic yard for "Remove Sediment".

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: 2025	SDDOT	EROSION CONTROL WATTLE	PLATE NUMBER 734.06
			Sheet 2 of 2



ISOMETRIC VIEW

GENERAL NOTES:

The grate and curb and gutter shown are for illustrative purposes only.

The sediment control at inlet with frame and grate will be placed at locations stated in the plans or at locations determined by the Engineer.

The filter fabric will be the type specified in the plans.

The filter fabric will be placed in the inlet opening prior to placing the grate. Approximately 18 inches of excess filter fabric will be wrapped around the 2"x4" and stapled securely to the 2"x4" after the grate has been placed.

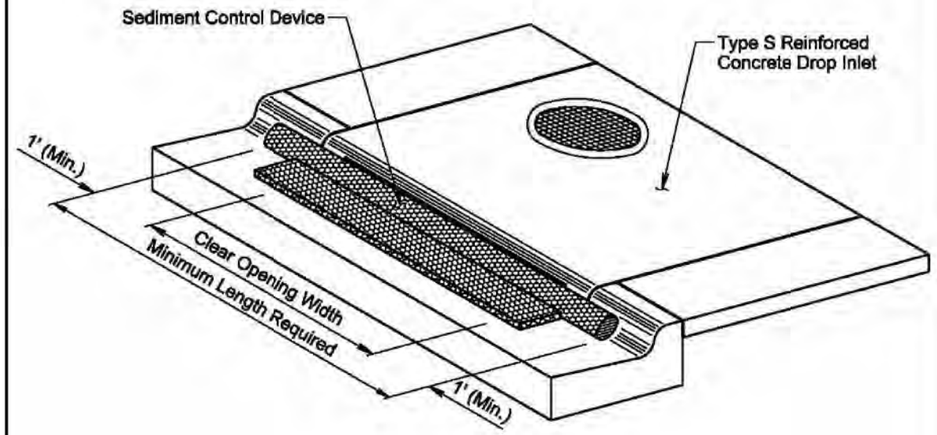
The Contractor and Engineer will inspect the sediment control device in accordance with the storm water permit. The Contractor will maintain the sediment control device by removing accumulated sediment and replacing torn filter fabric with new filter fabric.

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.

All costs for furnishing, installing, inspecting, maintaining, removing, and replacing the sediment control device at the inlet including labor, equipment, and materials will be incidental to the contract unit price per each for "Sediment Control at Inlet with Frame and Grate".

February 14, 2020

Published Date: 2025	SDDOT	SEDIMENT CONTROL AT INLETS WITH FRAMES AND GRATES	PLATE NUMBER 734.10
			Sheet 1 of 1



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".

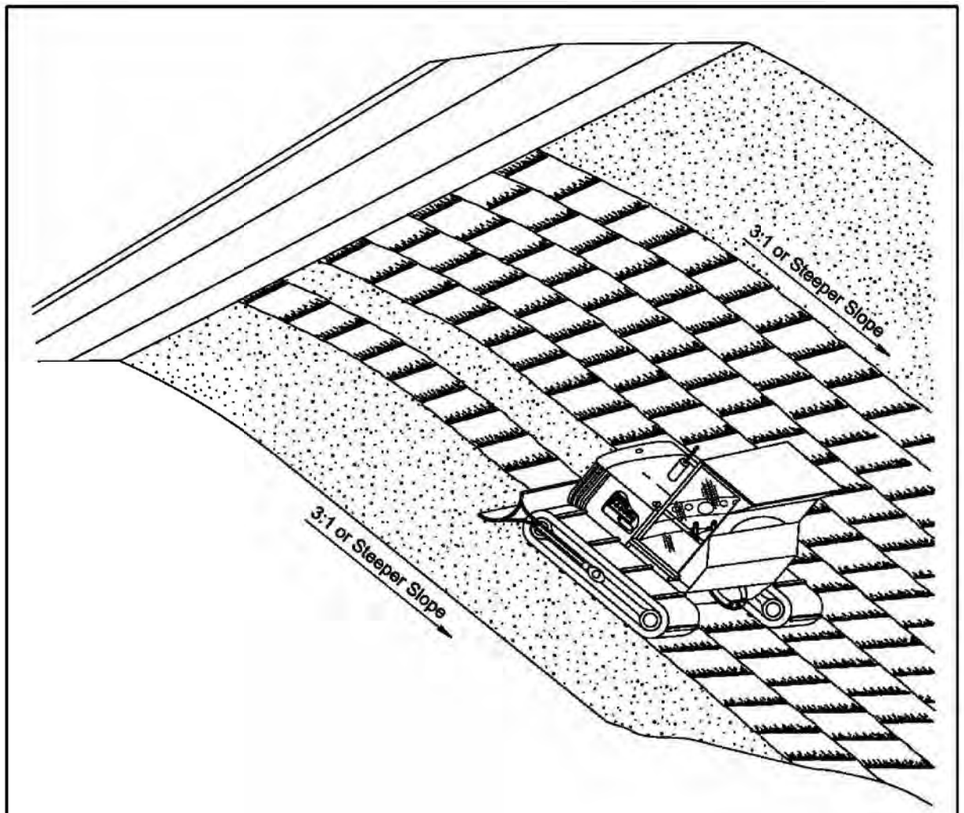
February 14, 2020

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

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(106)409 & P 8042(00)	D43	D43

FILE: ...\D38-D43 standard plates.dgn
PLOTTING DATE: 10-10-2024

REV DATE:
INITIAL:



GENERAL NOTES:

Where practical, surface roughening will be done on slopes 3:1 and steeper and on slopes deemed necessary by the Engineer.

The equipment used for surface roughening will be equipped with tracks that are capable of creating ridges in the soil that are perpendicular to the slope. The final condition of the surface roughening will be approved by the Engineer.

Measurement for surface roughening will be to the nearest tenth of an acre.

All costs associated with surface roughening including labor, equipment, and materials will be incidental to the contract unit price per acre for "Surface Roughening".

February 14, 2020

Published Date: 2025	SDDOT	**SURFACE ROUGHENING**	PLATE NUMBER 734.25 Sheet 1 of 1