

SECTION D: EROSION AND SEDIMENT CONTROL PLANS

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT IM-B-CR 2292(101)3	SHEET D1	TOTAL SHEETS D47
Plotting Date:	1/15/2025	Revised Date:	1/15/2025
		Initials:	NBG

INDEX OF SHEETS

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D2-D11	Estimate with General Notes and Tables
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D38-D41	Exit 3 Crossover
D42-D42A	Standard Details
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END IM-B-CR 2292(101)3

NB Cliff Ave. 126+02.67
 Located 1155.78 feet North and
 36.79 feet West of the
 southeast corner of Section 28 -
 Township 101 North -
 Range 49 West of the 5th PM.

STR. NO. 50-211-231

STR. NO. 50-211-230

BEGIN IM-B-CR 2292(101)3

NB I-229 Station 178+00.00
 Located 917.81 feet South and
 3016.64 feet West of the
 northeast corner of Section 33 -
 Township 101 North -
 Range 49 West of the 5th PM.
 MRM 003.26+0.243

END IM-B-CR 2292(101)3

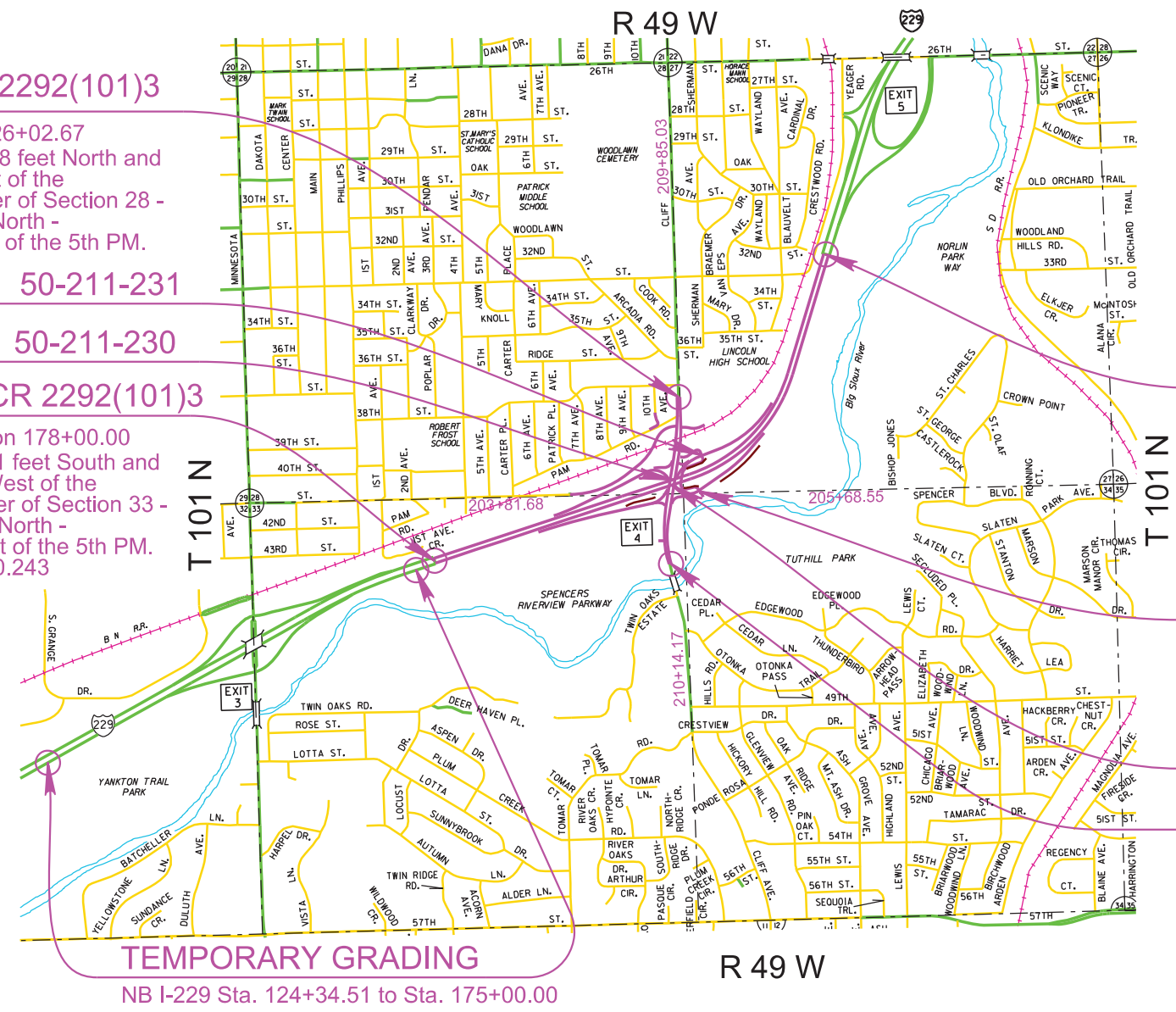
NB I-229 Station 245+03.64
 Located 2934.62 feet North and
 1765.55 feet East of the
 southwest corner of Section 27 -
 Township 101 North -
 Range 49 West of the 5th PM.
 MRM 004.37+0.465

STR. NO. 50-210-231

STR. NO. 50-210-230

BEGIN IM-B-CR 2292(101)3

NB Cliff Ave. Station 105+40.80
 Located 890.68 feet South and
 115.85 feet West of the
 northeast corner of Section 33 -
 Township 101 North -
 Range 49 West of the 5th PM.



Plot Scale - 1:2000

Plotted From - ngiersvik

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SECTION D ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1690	Remove Sediment	35.0	CuYd
110E1693	Remove Erosion Control Wattle	1,359	Ft
110E1695	Remove Sediment Filter Bag	2,516	Ft
110E1700	Remove Silt Fence	3,240	Ft
120E6300	Water for Vegetation	11,985.0	MGal
230E0010	Placing Topsoil	23,080	CuYd
730E0202	Type B Permanent Seed Mixture	133	Lb
730E0206	Type D Permanent Seed Mixture	12,585	Lb
731E0200	Fertilizing	34.31	Ton
732E0200	Fiber Mulching	14.5	Ton
732E0300	Bonded Fiber Matrix	80.5	Ton
734E0044	Soil Stabilizer	41.3	Acre
734E0102	Type 2 Erosion Control Blanket	10,567	SqYd
734E0133	Type 3 Turf Reinforcement Mat	997.0	SqYd
734E0154	12" Diameter Erosion Control Wattle	6,059	Ft
734E0160	20" Diameter Erosion Control Wattle	216	Ft
734E0165	Remove and Reset Erosion Control Wattle	1,569	Ft
734E0180	Sediment Filter Bag	2,516	Ft
734E0325	Surface Roughening	2.0	Acre
734E0510	Shaping for Erosion Control Blanket	4,093	Ft
734E0602	Low Flow Silt Fence	14,820	Ft
734E0610	Mucking Silt Fence	900	CuYd
734E0620	Repair Silt Fence	3,240	Ft
734E0630	Floating Silt Curtain	600	Ft
734E0845	Sediment Control at Inlet with Frame and Grate	29	Each
734E0847	Sediment Control at Type S Reinforced Concrete Drop Inlet	485	Ft
734E5005	Dewatering	Lump Sum	LS
734E5010	Sweeping	80	Hour
900E1310	Concrete Washout Facility	4	Each
900E1320	Construction Entrance	8	Each

SECTION D ESTIMATE OF QUANTITIES (Exit 3 Crossover)

(Included in overall estimate of quantities table, for information only)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1690	Remove Sediment	2.0	CuYd
110E1700	Remove Silt Fence	907	Ft
230E0010	Placing Topsoil	4,369	CuYd
730E0202	Type B Permanent Seed Mixture	133	Lb
731E0200	Fertilizing	3.71	Ton
732E0200	Fiber Mulching	14.5	Ton
734E0102	Type 2 Erosion Control Blanket	10,567	SqYd
734E0133	Type 3 Turf Reinforcement Mat	997.0	SqYd
734E0154	12" Diameter Erosion Control Wattle	624	Ft
734E0160	20" Diameter Erosion Control Wattle	216	Ft
734E0165	Remove and Reset Erosion Control Wattle	210	Ft
734E0325	Surface Roughening	5.5	Acre
734E0510	Shaping for Erosion Control Blanket	4,093	Ft
734E0602	Low Flow Silt Fence	3,626	Ft
734E0610	Mucking Silt Fence	252	CuYd
734E0620	Repair Silt Fence	907	Ft
734E0845	Sediment Control at Inlet with Frame and Grate	4	Each
734E0847	Sediment Control at Type S Reinforced Concrete Drop Inlet	24	Ft
734E5010	Sweeping	40	Hour
900E1310	Concrete Washout Facility	2	Each
900E1320	Construction Entrance	4	Each

MYCORRHIZAL INOCULUM

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

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

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

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	D2	D47

Revised Date: 01/15/2025
Initials: NBG

MEDIAN AND RAISED ISLAND LANDSCAPING

See Section H for landscaping at raised medians and islands.

PLACING TOPSOIL

The thickness will be approximately 4 inches within the right-of-way and 6 inches on temporary easements.

The estimated amount of topsoil to be placed for the project is 23,080 CuYd. (Exit 4: 18,711 CuYd; Exit 3 Crossover: 4,369 CuYd)

Topsoil to be stockpiled by direction of the engineer or at the SDDOT Maintenance Yard located at the NW quadrant of the intersection of W. 69th Street and Solberg Avenue, Sioux Falls.

TABLE OF TOPSOIL PLACEMENT (Exit 4)

Alignment	Station	Topsoil (CuYd)
SB229	STA 178+11.52 to STA 193+77.49	585
NB229	STA 178+00.00 to STA 208+43.89	1,544
RAMPD	STA 70+00.00 to STA 85+96.23	1,831
RAMPD	STA 72+53.79 to STA 85+52.01	1,055
41ST	STA 21+13.21 to STA 37+60.41	1,142
RAMPA	STA 12+30.05 to STA 25+43.67	2,598
RAMPA	STA 11+20.53 to STA 21+29.50	552
TRAIL	STA 0+00.00 to STA 3+03.86	176
TRAIL	STA 3+39.61 to STA 8+23.04	199
NB229	STA 210+00.00 to STA 230+30.39	952
NB229	STA 230+30.39 to STA 246+50.99	960
SB229	STA 225+12.67 to STA 229+83.21	250
SB229	STA 229+83.21 to STA 244+57.56	819
NB229	STA 178+00.00 to STA 191+22.38	505
RAMPC	STA 50+00.00 to STA 64+79.84	1,739
RAMPC	STA 55+75.61 to STA 66+57.11	443
SBCLIFF	STA 305+42.44 to STA 308+23.56	157
SBCLIFF	STA 308+59.70 to STA 310+67.34	9
NBCLIFF	STA 105+40.80 to STA 111+54.04	44
RAMPB	STA 31+27.17 to STA 33+48.02	339
RAMPB	STA 33+52.87 to STA 44+21.56	644
RAMPB	STA 30+71.55 to STA 41+86.29	621
TRAIL	STA 7+54.07 to STA 11+13.25	243
NB229	STA 221+75.61 to STA 230+26.01	615
NB229	STA 230+26.01 to STA 245+03.64	688
Total:		18,711 CuYd



TABLE OF TOPSOIL PLACEMENT (Exit 3 Crossover)

Alignment	Station	Topsoil
I-229 NB	STA 124+34.00 to STA 140+58.75	1276
I-229 NB	STA 157+61.00 to STA 175+00.00	1020
I-229 NB	STA 140+58.75 to STA 152+74.41	745
I-229 NB	STA 153+49.41 to STA 160+60.54	566
Ramp C	STA 30+00.00 to STA 36+25.00	552
I-229 NB	STA 125+00.00 to STA 130+57.00	210
Total :		4369 CuYd

FERTILIZING

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

The fertilizer will be applied at a rate of 1,500 pounds per acre in accordance with the manufacturer's recommended method of application.

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

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

The application rate is 34 pounds per 1,000 square feet.

PERMANENT SEEDING

The areas to be seeded consist of all newly graded areas within the project limits except for the top of roadways and temporary easements under cultivation.

Lawn and turf seed, such as the Type D Permanent Seed Mixture, will be tested within 12 months prior to planting, exclusive of the calendar month in which the test was completed.

Type B Permanent Seed Mixture will consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Arriba, Flintlock, Rodan, Rosana, Walsh	7
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
Canada Wildrye	Mandan	2
Total:		18

Type D Permanent Seed Mixture will consist of the following:

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

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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WATER FOR VEGETATION

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

Immediately after seeding:

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

After emergence:

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

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

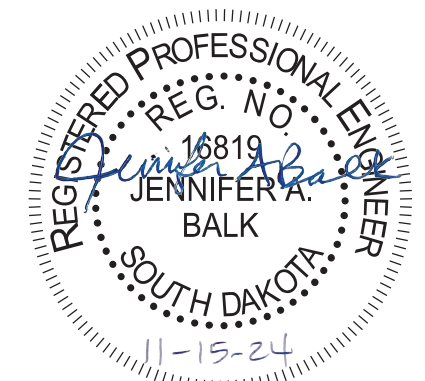
All costs for furnishing and applying the water including hauling, materials, equipment, labor, and incidentals necessary will be paid for at the contract unit price per MGal for "Water for Vegetation".

SURFACE ROUGHENING

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

TABLE OF SURFACE ROUGHENING

Align	Station to	Station	L/R	Location	Area (AC)
RAMPA	10+42	19+31	R	RAMPA Slope	0.3
RAMPB	30+00	39+06	L	RAMPB Slope	0.5
RAMPC	56+53	67+03	L	RAMPC Slope	0.4
RAMPD	75+73	85+96	R	RAMPD Slope	0.8
Total:					2.0



BONDED FIBER MATRIX

Bonded fiber matrix will be hydraulically applied to the areas listed in the Table of Topsoil Placement (Exit 4) and any other areas deemed necessary by the Engineer.

The application area is the same as the Type D permanent seed mixture.

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>

FIBER MULCHING

Fiber mulch will be applied in the same location as permanent seeding in a separate operation following permanent seeding.

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

Fiber mulch will be applied at the rate of 3,000 pounds per acre.

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

An additional 3.3 tons of Fiber Mulching has been added to the Estimate of Quantities for temporary erosion control on areas determined by the Engineer during construction.

All costs for the additional tackifier added to the fiber mulch including labor, equipment, and materials will be incidental to the contract unit price per pound or ton for "Fiber Mulching".

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

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

SOIL STABILIZER

An estimated quantity of 41.3 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://encapro.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
Hydra Tack, 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
FI-1045 Hydrobond or FI-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

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R-Tack
Applied at a rate of 150 Lb/Acre

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

Super Tack
Applied at a rate of 60 Lb/Acre

EarthGuard SFM
Applied at a rate of 60 LB/Acre
(approx. 6 Gallons/Acre)

EDGE
Hydraulically applied at a rate of:
Slope
≤4:1 1,500 Lb/Acre
3:1 1,800 Lb/Acre
2:1 2,000 Lb/Acre
≥1:1 3,000 Lb/Acre

Dry applied at a rate of:
Slope
≤4:1 3,000 Lb/Acre
3:1 3,500 Lb/Acre
≥2:1 4,500 Lb/Acre

Rantec Corporation
Ranchester, WY

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Terra Novo Inc.
Bakersfield, CA
Phone: 1-888-843-1029
www.terranovo.com

LSC Environmental Products, LLC
Apalachin, NY
Phone: 1-800-800-7671
www.lscenv.com



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 (Also see Table of Wattles on next sheet for details) 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 (DITCH)

Align	Station	L/R	Dia. (12 IN)	Location	Qty (FT)
NB229	179+43	L	12	ML CL DITCH	20
NB229	180+93	L	12	ML CL DITCH	20
NB229	182+43	L	12	ML CL DITCH	20
NB229	183+93	L	12	ML CL DITCH	20
NB229	185+43	L	12	ML CL DITCH	20
NB229	186+93	L	12	ML CL DITCH	20
NB229	188+43	L	12	ML CL DITCH	20
NB229	189+92	L	12	ML CL DITCH	20
NB229	191+44	L	12	ML CL DITCH	20
NB229	192+93	L	12	ML CL DITCH	20
NB229	194+35	L	12	ML CL DITCH	20
NB229	194+64	L	12	ML CL DITCH	20
NB229	195+58	L	12	ML CL DITCH	20
NB229	196+58	L	12	ML CL DITCH	20
NB229	197+58	L	12	ML CL DITCH	20
NB229	198+58	L	12	ML CL DITCH	20
NB229	199+57	L	12	ML CL DITCH	20
NB229	200+58	L	12	ML CL DITCH	20
NB229	201+58	L	12	ML CL DITCH	20
NB229	202+57	L	12	ML CL DITCH	20
SB229	183+21	L	12	SB229 DITCH LT	20
SB229	184+71	L	12	SB229 DITCH LT	20
SB229	186+22	L	12	SB229 DITCH LT	20
SB229	187+71	L	12	SB229 DITCH LT	20
SB229	189+20	L	12	SB229 DITCH LT	20
SB229	190+71	L	12	SB229 DITCH LT	20
SB229	190+74	L	12	SB229 DITCH LT	20
SB229	192+19	L	12	SB229 DITCH LT	20
SB229	193+78	L	12	SB229 DITCH LT	20

TABLE OF EROSION CONTROL WATTLE (DITCH) (CONTINUED) FOR BIDDING PURPOSES ONLY

Align	Station	L/R	Dia. (12 IN)	Location	Qty (FT)
NB229	203+58	L	12	ML CL DITCH	20
NB229	204+58	L	12	ML CL DITCH	20
NB229	205+58	L	12	ML CL DITCH	20
NB229	211+90	L	12	ML CL DITCH	20
NB229	212+89	L	12	ML CL DITCH	20
NB229	213+92	L	12	ML CL DITCH	20
NB229	214+93	L	12	ML CL DITCH	20
NB229	215+98	L	12	ML CL DITCH	20
NB229	217+00	L	12	ML CL DITCH	20
NB229	218+00	L	12	ML CL DITCH	20
RAMPB	32+00	L	12	DITCH LT	30
RAMPB	32+32	L	12	DITCH LT	30
RAMPB	34+02	L	12	DITCH LT	30
RAMPB	35+33	L	12	DITCH LT	30
RAMPB	36+83	L	12	DITCH LT	30
RAMPB	38+33	L	12	DITCH LT	20
RAMPC	51+61	R	12	DITCH RT	40
RAMPC	53+05	R	12	DITCH RT	40
RAMPC	54+08	R	12	DITCH RT	40
RAMPC	55+75	R	12	DITCH RT	40
RAMPC	56+24	L	12	DITCH LT	20
RAMPC	57+17	R	12	DITCH RT	40
RAMPC	57+73	L	12	DITCH LT	30
RAMPC	58+65	R	12	DITCH RT	40
RAMPC	59+23	L	12	DITCH LT	30
RAMPC	60+16	R	12	DITCH RT	40
RAMPC	60+73	L	12	DITCH LT	40
RAMPC	61+65	R	12	DITCH RT	40
RAMPC	62+21	L	12	DITCH LT	30
RAMPC	63+12	R	12	DITCH RT	40
RAMPC	63+70	L	12	DITCH LT	30
RAMPC	64+57	L	12	DITCH LT	30
RAMPD	71+48	L	12	DITCH LT	20
RAMPD	73+01	L	12	DITCH LT	20
RAMPD	73+60	L	12	DITCH LT	20
RAMPD	73+85	L	12	DITCH LT	30
RAMPD	74+53	L	12	DITCH LT	30
RAMPD	75+23	R	12	DITCH RT	20
RAMPD	76+72	R	12	DITCH RT	20
RAMPD	78+21	R	12	DITCH RT	20
RAMPD	79+70	R	12	DITCH RT	20
RAMPD	81+20	R	12	DITCH RT	30
RAMPD	81+56	L	12	DITCH LT	20
RAMPD	82+69	L	12	DITCH LT	40
RAMPD	82+74	R	12	DITCH RT	40
RAMPD	84+21	R	12	DITCH RT	30

TABLE OF EROSION CONTROL WATTLE (DITCH) (CONTINUED)

Align	Station	L/R	Dia. (12 IN)	Location	Qty (FT)
NB229	219+04	L	12	ML CL DITCH	20
NB229	220+05	L	12	ML CL DITCH	20
NB229	221+03	L	12	ML CL DITCH	20
NB229	222+05	L	12	ML CL DITCH	20
NB229	223+07	L	12	ML CL DITCH	20
NB229	224+10	L	12	ML CL DITCH	20
NB229	225+10	L	12	ML CL DITCH	20
NB229	226+61	L	12	ML CL DITCH	20
NB229	228+14	L	12	ML CL DITCH	20
NB229	229+66	L	12	ML CL DITCH	20
NB229	231+16	L	12	ML CL DITCH	20
NB229	232+66	L	12	ML CL DITCH	20
NB229	234+16	L	12	ML CL DITCH	20
NB229	235+67	L	12	ML CL DITCH	20
NB229	237+17	L	12	ML CL DITCH	20
NB229	238+70	L	12	ML CL DITCH	20
NB229	240+20	L	12	ML CL DITCH	20
NB229	241+71	L	12	ML CL DITCH	20
RAMPA	13+83	L	12	POND DITCH LT	30
RAMPA	14+87	R	12	DITCH RT	30
RAMPA	15+28	L	12	POND DITCH LT	30
RAMPA	16+02	R	12	DITCH RT	30
RAMPA	16+82	L	12	POND DITCH LT	30
RAMPA	18+00	R	12	DITCH RT	30
RAMPA	18+48	L	12	POND DITCH LT	30
RAMPA	19+11	R	12	DITCH RT	30
RAMPA	19+45	L	12	POND DITCH LT	30
RAMPA	20+59	L	12	POND DITCH LT	30
RAMPA	22+47	L	12	POND DITCH LT	30
RAMPA	24+11	L	12	POND DITCH LT	30
RAMPB	41+00	L	12	DITCH LT	20
RAMPC	64+58	R	12	DITCH RT	40
SB229	225+08	L	12	POND DITCH LT	30
SB229	226+97	L	12	POND DITCH LT	30
SB229	228+60	I	12	POND DITCH LT	30
SB229	229+80	L	12	DITCH LT	20
SB229	230+52	L	12	DITCH LT	20
SB229	232+04	L	12	DITCH LT	20
SB229	233+50	L	12	DITCH LT	20

Total: 2830

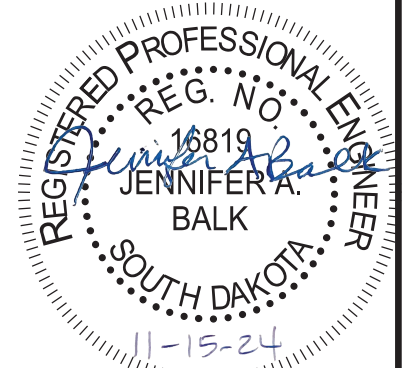


TABLE OF EROSION CONTROL WATTLE (SLOPE)

Alignment	Station to	Station	L/R	Dia. (12 IN)	Location	Quantity (Ft)
41ST	21+30	23+63	L	12	SIDEWALK	175
NBCLIFF	122+75	125+12	R	12	SIDEWALK	240
NBCLIFF	118+22	118+78	R	12	SIDEWALK	70
NBCLIFF	115+79	116+28	R	12	SIDEWALK	60
NBCLIFF	105+41	105+91	R	12	SIDEWALK	50
NBCLIFF	110+64	112+00	R	12	SIDEWALK	120
NBCLIFF	115+04	116+05	R	12	SIDEWALK	115
RAMPF	15+00	17+64	R	12	SIDEWALK	230
SBCLIFF	323+69	326+15	L	12	SIDEWALK	290
SBCLIFF	315+42	316+06	L	12	SIDEWALK	70
SBCLIFF	314+92	315+62	L	12	SIDEWALK	80
SBCLIFF	308+59	310+09	L	12	SIDEWALK	125
SBCLIFF	305+50	308+18	L	12	SIDEWALK	290
SCHOOL	40+30	41+98	L	12	SIDEWALK	175
TRAIL	0+00	1+01	L	12	SIDEWALK	100
TRAIL	3+80	4+15	R	12	SIDEWALK	45
TRAIL	6+18	7+70	R	12	SIDEWALK	145
TRAIL	7+49	9+13	L	12	SIDEWALK	155
TRAIL	11+87	12+11	L/R	12	SIDEWALK	70
Total:						2,605

TABLE OF EROSION CONTROL WATTLE (Exit 3 Crossover)

Station	Location	Diameter	Quantity
I-229 NB : 126+42 - 30' LT	Inlet	20"	30
I-229 NB : 132+51 - 60' LT	Inlet	20"	30
I-229 NB : 133+29 - 66' RT	Box Culvert	12"	30
I-229 NB : 133+53 - 66' RT	Box Culvert	12"	40
I-229 NB : 133+76 - 66' RT	Box Culvert	12"	30
I-229 NB : 140+26 - 30' LT	Inlet	20"	30
I-229 NB : 153+45 - 237' RT	Inlet	20"	30
I-229 NB : 158+92 - 30' LT	Median Ditch	12"	35
I-229 NB : 160+42 - 30' LT	Median Ditch	12"	35
I-229 NB : 161+92 - 30' LT	Median Ditch	12"	35
I-229 NB : 163+42 - 30' LT	Median Ditch	12"	35
I-229 NB : 164+92 - 30' LT	Median Ditch	12"	35
I-229 NB : 166+18 - 30' LT	Inlet	20"	30
I-229 NB : 166+42 - 30' LT	Median Ditch	12"	35
I-229 NB : 167+92 - 30' LT	Median Ditch	12"	35
I-229 NB : 169+42 - 30' LT	Median Ditch	12"	35
I-229 NB : 170+92 - 30' LT	Median Ditch	12"	35
I-229 NB : 172+42 - 30' LT	Median Ditch	12"	35
I-229 NB : 173+92 - 30' LT	Median Ditch	12"	35
I-229 NB : 175+42 - 30' LT	Median Ditch	12"	35
I-229 NB : 175+83 - 30' LT	Inlet	20"	30
Additional (12") Quantity :			104
Additional (20") Quantity :			36
Total (12" - 624 20" - 216) =			840 ft

REMOVE AND RESET EROSION CONTROL WATTLE

Erosion control wattles may be removed and reset as necessary as work progresses. The erosion control wattles removed and reset will be in useable condition. All costs for removing and resetting the erosion control wattles will be incidental to the contract unit price per foot for "Remove and Reset Erosion Control Wattle".

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.

TABLE OF LOW FLOW SILT FENCE (PERIMETER)

Alignment	Station to	Station	L/R	Location	Quantity (Ft)
41ST	23+94	28+87	L	PERIMETER	408
41ST	33+02	33+38	L	PERIMETER	83
41ST	35+65	36+29	L	PERIMETER	90
NB229	177+93	192+72	R	PERIMETER	1,475
NB229	221+76	245+04	R	PERIMETER	2,380
NBCLIFF	105+91	110+64	R	PERIMETER	470
NBCLIFF	112+00	112+29	R	PERIMETER	43
PAM	50+72	51+56	R	PERIMETER	145
RAMPB	32+37	33+44	R	PERIMETER	154
RAMPB	33+63	34+00	R	PERIMETER	43
RAMPB	34+25	44+22	R	PERIMETER	1,075
RAMPD	73+28	76+38	L	PERIMETER	511
SB229	1178+08	1183+03	L	PERIMETER	500
SB229	1233+50	1244+59	L	PERIMETER	1,165
SBCLIFF	307+78	308+24	L	PERIMETER	58
SBCLIFF	305+36	305+50	L	PERIMETER	40
SBCLIFF	310+66	311+48	L	PERIMETER	120
Total:					8,761

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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Initials: NGB

TABLE OF LOW FLOW SILT FENCE (Exit 3 Crossover)

Station	Location	Quantity
I-229 NB : 124+00 - 110' RT to 143+24 - 116' RT	South Ditch	1,924
I-229 NB : 143+24 - 116' RT to 148+52 - 279' RT	South Ditch	552
147+41 - 240' RT to 147+62 - 168' RT	South Ditch	75
148+36 - 267' RT to 148+58 - 197' RT	South Ditch	75
149+32 - 297' RT to 149+54 - 225' RT	South Ditch	75
150+28 - 325' RT to 150+50 - 253' RT	South Ditch	75
150+68 - 218' RT to 151+25 - 138' RT	Ramp C	96
151+21 - 227' RT to 151+71 - 71' RT	Ramp C	94
153+25 - 212' RT to 153+75 - 236' RT	Ramp B	56
Additional Quantity :		604
Total =		3,626 ft

TABLE OF LOW FLOW SILT FENCE (PIPE END)

Alignment	Station	L/R	Location	Quantity (Ft)
41ST	32+24	L	PIPES	65
41STp	36+96	L	PIPE	18
NB229	181+51	L	PIPE	18
NB229	189+75	L	PIPE	18
NB229	194+51	L	PIPE	18
NB229	195+20	L	PIPE	18
NB229	237+64	L	PIPE	55
NB229	237+50	L	PIPE	55
RAMPA	14+49	R	PIPE	18
RAMPC	54+12	R	PIPE	18
RAMPC	63+47	R	PIPE	18
RAMPD	73+58	L	PIPE	18
RAMPD	73+75	L	PIPE	18
RAMPD	83+42	R	PIPE	18
SB229	229+92	L	PIPE	60
SBCLIFF	319+73	L	PIPES	80
SBCLIFF	311+59	L	CULVERT	60
Interim Sediment Control at Inlets				1,860
Total:				2,433



FLOATING SILT CURTAIN

Floating silt curtains will be installed at locations noted in the table and at locations determined by the Engineer during construction.

The Contractor will determine the water depth and other waterway characteristics such as stream flow velocity and seek technical advice from the manufacturer before ordering the floating silt curtain so that the floating silt curtain installed is the correct type for the individual sites.

The Contractor will install the floating silt curtain in accordance with the manufacturer's installation instructions or as directed by the Engineer.

The Contractor will maintain the floating silt curtains for the duration of the project to ensure continuous protection of the waterway.

A list of known manufacturers of floating silt curtain is shown below for informational purpose. Contractors may also use Engineer approved floating silt curtain from manufacturers that are not included in the list.

ABASCO, LLC
Humble, TX
Phone: 1-281-466-1500
www.abasco.net

Aer-Flo, Inc.
Bradenton, FL
Phone: 1-800-823-7356
www.aerflo.com

ACME Environmental
Tulsa, OK
Phone: 1-855-563-2666
www.acmeboom.com

ENVIRO-USA, LLC
Cap Canaveral, FL
Phone: 1-321-222-9551
www.enviro-usa.com

Elastec/American Marine, Inc.
Carmi, IL
Phone: 1-618-382-2525
www.turbiditycurtains.com

Geo-Synthetics, LLC (GSI)
Waukesha, WI
Phone: 1-800-444-5523
www.geosynthetics.com

Parker Systems, Inc.
Chesapeake, VA
Phone: 1-866-472-7537
www.parkersystemsinc.com

TABLE OF FLOATING SILT CURTAIN

Align	Station to	Station	L/R	Offset (ft)	Location	Qty (ft)
NBCLIFF	109+78	113+85	R	230/443	BIG SIOUX RIVER	600
Total:						600

EROSION CONTROL BLANKET (Exit 3 Crossover)

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Erosion control blanket will be installed 16 feet wide at the locations noted in the table and at locations determined by the Engineer during construction.

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

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

An additional quantity of Type 2 Erosion Control Blanket has been added to the Estimate of Quantities for temporary erosion control.

TABLE OF TYPE 2 EROSION CONTROL BLANKET (Exit 3 Crossover)

Alignment : Station	Location	Type 2 Erosion Control Blanket	
		Typical (734E0102)	Shaping (734E0510)
I-229 : 124+67 - 30' LT	Median Ditch	1,278	230
I-229 : 128+74 - 30' LT	Median Ditch	3,289	592
I-229 : 140+26 - 80' RT	Ditch	260	146
I-229 : 146+67 - 98' RT	Ditch	476	268
I-229 : 149+75 - 122' RT	Outlet	21	
I-229 : 151+64 - 144' RT	Outlet	21	
I-229 : 154+70 - 142' RT	Outlet	21	
I-229 : 155+57 - 147' RT	Ditch		240
I-229 : 157+42 - 30' LT	Median Ditch	3,440	1,935
Additional Quantity =		1,761	682
Total =		10,567 SqYd	4,093 Ft

SHAPING FOR EROSION CONTROL BLANKET

The ditches will be shaped for the erosion control blanket as specified on Standard Plate 734.01.

TURF REINFORCEMENT MAT

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

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

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

TABLE OF TYPE 3 TURF REINFORCEMENT MAT (Exit 3 Crossover)

Alignment : Station	Location	Quantity
NB Diversion : 5152+50 - 12' RT	Bridge Abutment Slope	293
NB Diversion : 5153+75 - 12' RT	Bridge Abutment Slope	538
Additional Quantity =		166
Total =		997 SqYd

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	IM-B-CR 2292(101)3	D7	D47

Revised Date: 01/15/2025
Initials: NBG



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".

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	D8	D47

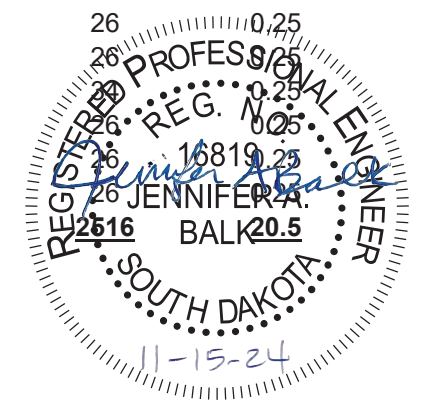
TABLE OF INTERIM SEDIMENT CONTROL AT INLETS, MANHOLES, AND JUNCTION BOXES AFTER SURFACING REMOVAL AND BEFORE PLACEMENT OF SURFACING

Align	Station	L/R	Low Flow Silt Fence Quantity (Ft)	Sediment Filter Bag Quantity (Ft)	Remove Sediment Quantity (CuYd)
41ST	21+83	L	26	34	0.25
41ST	22+25	L	18	26	0.25
41ST	23+40	L	18	26	0.25
41ST	25+00	L	18	26	0.25
41ST	22+10	R	26	34	0.25
41ST	22+24	R	18	26	0.25
41ST	30+65	R	26	34	0.25
41ST	31+30	R	18	26	0.25
41ST	31+80	R	18	26	0.25
41ST	30+65	L	26	34	0.25
41ST	31+30	L	18	26	0.25
41ST	31+60	L	18	26	0.25
41ST	34+00	L	18	26	0.25
41ST	34+00	R	18	26	0.25
NB229	205+96	L	18	26	0.25
NB229	210+82	L	18	26	0.25
NB229	230+30	L	18	26	0.25
NBCLIFF	119+75	R	54	62	0.25
NBCLIFF	120+94	R	54	62	0.25
NBCLIFF	123+00	R	54	62	0.25
NBCLIFF	124+38	R	18	26	0.25
NBCLIFF	119+30	R	18	26	0.25
NBCLIFF	117+90	R	26	34	0.25
NBCLIFF	113+73	R	18	26	0.25
NBCLIFF	114+30	R	18	26	0.25
NBCLIFF	114+80	R	28	36	0.25
NBCLIFF	109+20	R	18	26	0.25
NBCLIFF	107+75	R	18	26	0.25
NBCLIFF	112+09	R	18	26	0.25
NBCLIFF	111+13	R	18	26	0.25
NBCLIFF	109+75	R	26	34	0.25
NBCLIFF	108+57	R	18	26	0.25
NBCLIFF	105+47	R	20	28	0.25
NBCLIFF	117+25	R	28	36	0.25
NBCLIFF	120+28	R	20	28	0.25
PAM	51+20	R	20	28	0.25
RAMPA	13+96	L	20	28	0.25
RAMPA	13+84	R	20	28	0.25
RAMPA	14+43	R	20	28	0.25
RAMPA	14+97	R	20	28	0.25
RAMPA	19+57	R	20	28	0.25
RAMPA	10+75	R	18	26	0.25
RAMPA	12+00	R	18	26	0.25

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

Align	Station	L/R	Low Flow Silt Fence Quantity (Ft)	Sediment Filter Bag Quantity (Ft)	Remove Sediment Quantity (CuYd)
RAMPB	33+84	L	20	28	0.25
RAMPB	42+80	R	28	36	0.25
RAMPB	41+43	L	20	28	0.25
RAMPB	30+30	L	18	26	0.25
RAMPB	31+73	L	26	34	0.25
RAMPC	56+40	L	18	26	0.25
RAMPC	64+75	L	20	28	0.25
RAMPC	64+75	L	28	36	0.25
RAMPC	66+00	L	18	26	0.25
RAMPD	84+57	R	26	34	0.25
RAMPE	5+35	L	18	26	0.25
RAMPE	5+00	L	18	26	0.25
RAMPF	17+51	R	26	34	0.25
RAMPF	15+50	R	18	26	0.25
RAMPF	17+44	L	18	26	0.25
RAMPG	26+23	R	26	34	0.25
SB229	206+81	L	18	26	0.25
SB229	214+20	L	28	36	0.25
SB229	211+68	L	18	26	0.25
SB229	211+68	R	18	26	0.25
SBCLIFF	310+77	L	18	26	0.25
SBCLIFF	310+49	L	18	26	0.25
SBCLIFF	320+00	L	18	26	0.25
SCHOOL	42+70	L	18	26	0.25
SCHOOL	42+70	R	18	26	0.25
SCHOOL	42+70	R	18	26	0.25
SBCLIFF	323+36	L	54	62	0.25
SBCLIFF	324+43	L	54	62	0.25
SBCLIFF	325+77	L	54	62	0.25
SBCLIFF	320+83	L	18	26	0.25
SBCLIFF	319+46	L	18	26	0.25
SBCLIFF	317+82	L	18	26	0.25
SBCLIFF	313+90	L	26	34	0.25
SBCLIFF	314+50	L	18	26	0.25
SBCLIFF	308+79	L	18	26	0.25
SBCLIFF	307+96	L	26	34	0.25
SBCLIFF	309+41	L	18	26	0.25
SBCLIFF	305+48	L	18	26	0.25
SBCLIFF	318+66	L	18	26	0.25

Total: 1860



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

TABLE OF SEDIMENT CONTROL AT INLETS WITH FRAMES AND GRATES

Alignment	Station	L/R	Quantity (Each)
NB229	205+96	L	1
NB229	210+82	L	1
NB229	230+30	L	1
NBCLIFF	120+94	R	1
NBCLIFF	123+00	R	1
RAMPA	13+96	L	1
RAMPA	13+84	R	1
RAMPA	14+43	R	1
RAMPA	14+97	R	1
RAMPA	19+57	R	1
RAMPB	33+84	L	1
RAMPB	41+43	L	1
RAMPB	31+73	L	1
RAMPC	56+40	L	1
RAMPC	64+75	L	1
RAMPC	64+75	L	1
RAMPE	5+35	L	1
RAMPE	5+01	L	1
SB229	206+81	L	1
SB229	211+68	L	1
SBCLIFF	310+49	L	1
SBCLIFF	323+36	L	1
SBCLIFF	324+43	L	1
SBCLIFF	325+77	L	1
SBCLIFF	309+41	L	1
Total:			25

TABLE OF SEDIMENT CONTROL AT INLETS WITH FRAMES AND GRATES (Exit 3 Crossover)

Alignment : Station	Quantity
I-229 NB : 149+75 - 37' RT	1
I-229 NB : 152+10 - 37' RT	1
I-229 NB : 154+72 - 37' RT	1
I-229 NB : 156+50 - 37' RT	1
Total =	4 Each

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	D9	D47

SEDIMENT CONTROL AT TYPE S REINFORCED CONCRETE DROP INLETS

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

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



TABLE OF SEDIMENT CONTROL AT TYPE S REINFORCED CONCRETE DROP INLETS

Alignment	Station	L/R	Clear Opening Width (Ft)	Quantity* (Ft)
41ST	21+83	L	6	8
41ST	22+25	L	10	12
41ST	23+40	L	6	8
41ST	25+00	L	6	8
41ST	22+10	R	6	8
41ST	22+24	R	10	12
41ST	30+65	R	6	8
41ST	31+30	R	10	12
41ST	31+80	R	6	8
41ST	30+65	L	6	8
41ST	31+30	L	10	12
41ST	31+60	L	6	8
41ST	34+00	L	6	8
41ST	34+00	R	6	8
NBCLIFF	119+75	R	6	8
NBCLIFF	119+30	R	6	8
NBCLIFF	117+90	R	6	8
NBCLIFF	113+73	R	6	8
NBCLIFF	114+30	R	6	8
NBCLIFF	114+80	R	6	8
NBCLIFF	109+20	R	10	12
NBCLIFF	107+75	R	6	8
NBCLIFF	112+09	R	6	8
NBCLIFF	111+13	R	6	8
NBCLIFF	109+75	R	6	8
NBCLIFF	108+57	R	10	12
NBCLIFF	105+47	R	6	8
NBCLIFF	117+25	R	6	8
NBCLIFF	120+28	R	6	8
PAM	51+20	R	6	8
RAMPA	10+75	R	11	13
RAMPA	12+00	R	6	8
RAMPB	30+30	L	6	8
RAMPC	66+00	L	11	13
RAMPD	84+57	R	11	13
RAMPF	15+50	R	11	13
RAMPG	26+23	R	11	13
SBCLIFF	310+77	L	6	8
SBCLIFF	320+00	L	6	8
SBCLIFF	320+83	L	6	8
SBCLIFF	319+46	L	6	8
SBCLIFF	317+82	L	6	8
SBCLIFF	313+90	L	6	8
SBCLIFF	314+50	L	6	8
SCHOOL	42+70	L	6	8
SCHOOL	42+70	R	6	8
SCHOOL	42+70	R	6	8
SBCLIFF	308+79	L	10	12
SBCLIFF	307+96	L	6	8
SBCLIFF	305+48	L	6	8
SBCLIFF	318+66	L	6	8
Total:				461

* Quantity shown is the minimum length required and will be the basis of payment.

TABLE OF SEDIMENT CONTROL AT TYPE S REINFORCED CONCRETE DROP INLETS (Exit 3 Crossover) FOR BIDDING PURPOSES ONLY

Alignment : Station	Clear Opening (Ft)	Quantity*
I-229 NB : 153+38 - 56' LT	10	12
I-229 NB : 153+97 - 28' LT	10	12
Total =		24 Ft

*Quantity shown is the minimum length required and will be the basis of payment.

SDDOT CONSTRUCTION ENTRANCE

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

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

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

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

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

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

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

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

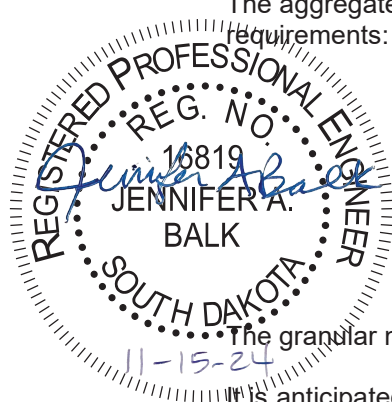
The Reinforcement Fabric (MSE) will be in conformance with Section 831 of the Specifications. The Reinforcement Fabric (MSE) will be on the Approved

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

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

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

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



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) Track-Out Control Mat (10' width and 24' length required)	Signature Systems Group, LLC Flower Mound, TX Phone: 1-800-931-7301 https://www.signature-systems.com/ RubberForm Recycled Products, LLC Lockport, NY Phone: 1-716-478-0408 www.rubberform.com

CONCRETE WASHOUT AREA

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

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".

DEWATERING AND SEDIMENT COLLECTING

The Contactor has the option to treat sediment laden water trapped within the project limits with the DEWATERING AND SEDIMENT COLLECTION SYSTEM as detailed in the standard details, or the Contractor may elect to transport sediment laden water off the project.

If the Contractor elects to transport sediment laden water off the project, no additional payment for loading, transporting, and labor costs will be made. 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.

WEED CONTROL DURING CONSTRUCTION

The Contractor will be responsible to control all legumes, noxious weeds, and grass within the project limits, in both disturbed areas and undisturbed areas, throughout the duration of the project. Legumes, noxious weeds and grass shall be controlled by hand pulling, mowing, and/or inoculation.

If the Contractor chooses to inoculate weeds, the inoculation must be performed in accordance with the manufacturer's recommendations and all applicable federal, state, and local laws and ordinances. The Contractor is responsible for keeping all required chemical application records, and must provide them to the Engineer upon request. The inoculation product must be approved by the Engineer prior to application.

The amount of weed control required on the project will be at the discretion of the Engineer. All materials, equipment, tools, labor, and other appurtenances required to control all legumes, noxious weeds, and grass throughout the duration of the project will be paid for at the contract unit price per Lump Sum for "Weed Control - Project".

WEED CONTROL FOR FINAL RESTORATION

Legumes and noxious weeds shall be controlled in all newly seeded and/or sodded areas by hand pulling, mowing, and/or inoculation for the duration of the 45 day maintenance period and until a uniform, perennial vegetative cover with a density of 70% of the native grasses has been established. This requirement applies to the project limits and to all contractor staging areas. If areas are dormant seeded, this requirement shall remain in effect until the following spring.

If the Contractor chooses to inoculate weeds, the inoculation must be performed in accordance with the manufacturer's recommendations and all applicable federal, state, and local laws and ordinances. The Contractor is responsible for keeping all required chemical application records, and must provide them to the Engineer upon request. The inoculation product must be approved by the Engineer prior to application.

More than one weed control application may be required depending on site conditions. The amount of weed control required on the project will be at the discretion of the Engineer. A pre-emergent application is recommended.

All materials, equipment, tools, labor and other appurtenances required to control all legumes and noxious weeds throughout the 45 day maintenance period and until a uniform, perennial vegetative cover with a density of 70% of the native grasses has been established will be paid for at the contract unit price per Sq Yd for "Weed Control".

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	D11	D47

Revised Date: 01/15/2025
Initials: NBG



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): bridge and retaining wall construction
- 5.3 (3b): Total Project Area 77 acres
- 5.3 (3b): Total Area to be Disturbed 66 acres
- 5.3 (3c): Maximum Area Disturbed at One Time 50%
- 5.3 (3d): Existing Vegetative Cover (%) 63
- 5.3 (3d): Description of Vegetative Cover grass

- 5.3 (3e): Soil Properties: AASHTO A-2-4, A-2-6-, A-4, or A-6
- 5.3 (3f): Name of Receiving Water Body/Bodies Big Sioux River
- 5.3 (3g): Location of Construction Support Activity Areas

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 FOR BIDDING PURPOSES ONLY

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

Perimeter Controls (See Detail Plan Sheets)

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

Structural Erosion and Sediment Controls

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

Dust Controls

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

Dewatering BMPs

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

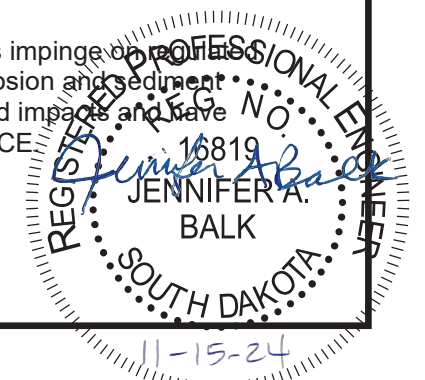
Stabilization Practices (See Detail Plan Sheets)

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

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

Wetland Avoidance

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



5.3 (6): PROCEDURES FOR INSPECTIONS

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

5.3 (7): POST CONSTRUCTION STORMWATER MANAGEMENT

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

5.3 (8): POLLUTION PREVENTION PROCEDURES

5.3 (8a): Spill Prevention and Response Procedures

➤ Material Management

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

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

➤ Spill Control Practices

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

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

➤ Spill Response

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

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

FOR BIDDING PURPOSES ONLY

- 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.



FOR BIDDING PURPOSES ONLY

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.



FOR BIDDING PURPOSES ONLY

5.4: SWPPP CERTIFICATIONS

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

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

➤ **South Dakota Department of Transportation**

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



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

➤ **Prime Contractor**

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

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

Authorized Signature



CONTACT INFORMATION

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

➤ **Contractor Information:**

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

➤ **Erosion Control Supervisor**

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

➤ **SDDOT Project Engineer**

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

➤ **SDDANR Contact Spill Reporting**

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

➤ **SDDANR Contact for Hazardous Materials.**

- (605) 773-3153

➤ **National Response Center Hotline**

- (800) 424-8802.

➤ **SDDANR Stormwater Contact Information**

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

5.5: REQUIRED SWPPP MODIFICATIONS

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

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

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

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

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

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

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

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

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

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

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


















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

EROSION AND SEDIMENT CONTROL LEGEND

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	D16	D47

Plotting Date: 11/15/2024

-  Low Flow Silt Fence
-  Low Flow Silt Fence
-  Low Flow Silt Fence at Pipe
-  Sediment Control at Inlet After Placement of Surfacing
-  Sediment Control at Inlet with Frame and Grates After Placement of Surfacing
-  Floating Silt Curtain
-  Sediment Filter Bags
-  Erosion Control Wattles on Slopes
-  Erosion Control Wattles at Inlets
-  Erosion Control Wattles in Ditches
-  Surface Roughening
-  Type 1 Erosion Control Blanket
-  Type 2 Erosion Control Blanket
-  Turf Reinforcement Mat
-  Seeded Areas - Type D Boulevard and Bonded Fiber Matrix
-  Class B Rip-rap and Type B Drainage Fabric - See Section B Storm Sewer Layouts for details
-  Cut and Fill 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 and remain in place for the Intermediate Phase for temporary stabilization and in the Final Phase to achieve final stabilization.















INTERMEDIATE PHASE

BMPs from the Legend shown as Blue Symbols on the Erosion and Sediment Control Plan Sheets are to be installed in the Intermediate Phase for temporary stabilization and remain in place in the Final Phase to achieve final stabilization.

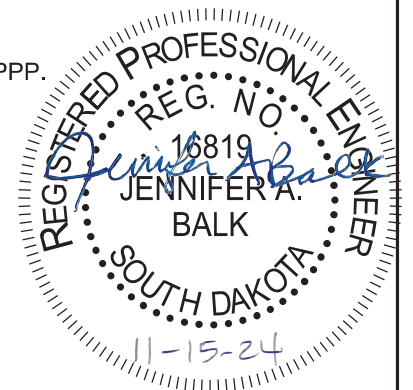
FINAL PHASE

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 achieve final stabilization.

LEGEND

-  Drainage Arrow
-  Concrete Plant Site
-  Vegetated Buffer Strip
-  Concrete Washout
-  Stabilized Construction Entrance
-  Asphalt Plant Site
-  Topsoil Stockpile
-  Work Platform
-  On-Site Construction Material Storage Area
-  Borrow Area
-  Dumpster or other Trash and Debris Container
-  Spill Kit
-  Vehicle and Equipment Parking Area, Fueling Area, or Maintenance Area
-  Portable Toilet

Symbols in the Legend that apply to this project are to be shown on this Title Sheet to update the SWPPP.



I-229 - Phase 1

FOR BIDDING PURPOSES ONLY

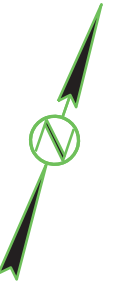
STATE OF SOUTH DAKOTA	PROJECT IM-B-CR 2292(101)3	SHEET D17	TOTAL SHEETS D47
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Plotting Date: 11/15/2024

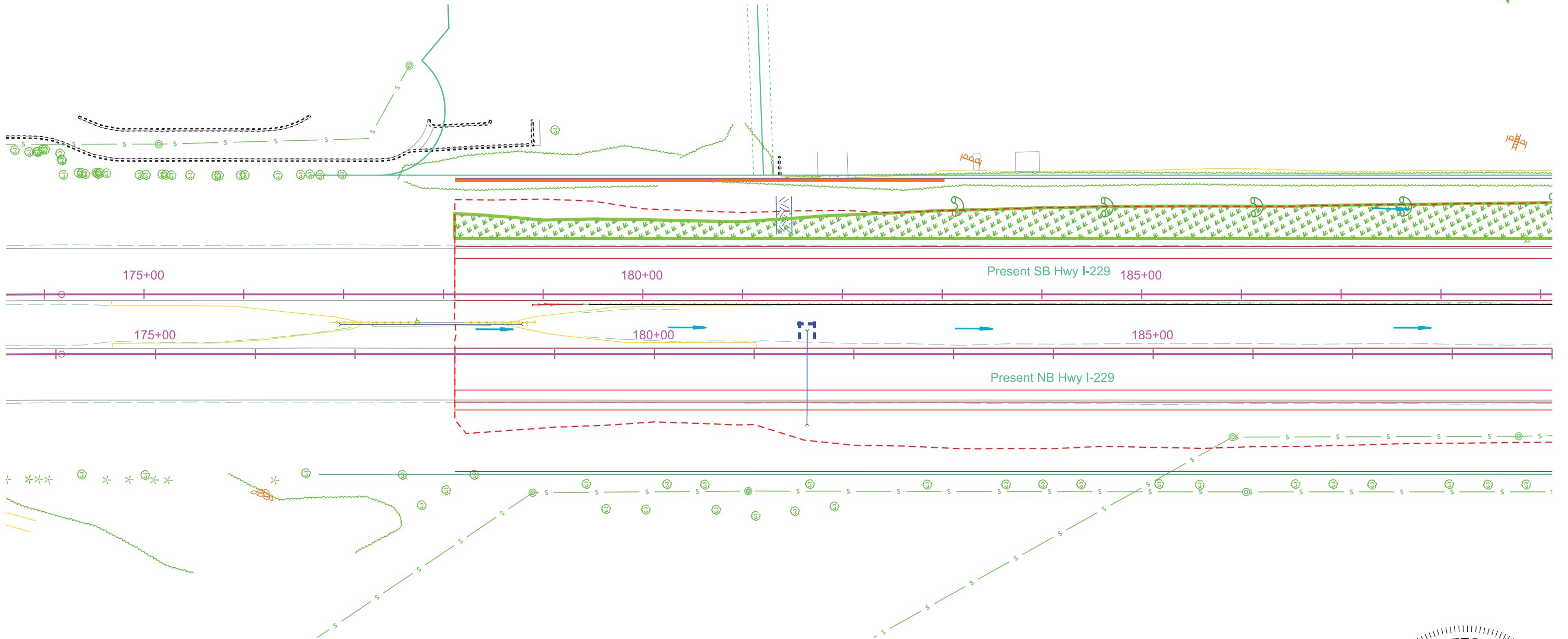
Install Low Flow Silt Fence at the following locations:
NB229 181+52 L Inlet end of pipe 18 Ft

Install Low Flow Silt Fence at the following locations:
178+08 L to 183+05 L Perimeter control 500 Ft

Install 12" Diameter Erosion Control Wattles
across the highway ditch channel bottom
at the following locations:
SB229 183+22 L 20 Ft
SB229 184+72 L 20 Ft
SB229 186+22 L 20 Ft
SB229 187+71 L 20 Ft



Plot Scale - 1:100



SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN



Plotted From - ngiersvik

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I-229 - PHASE 1

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	D18	D47

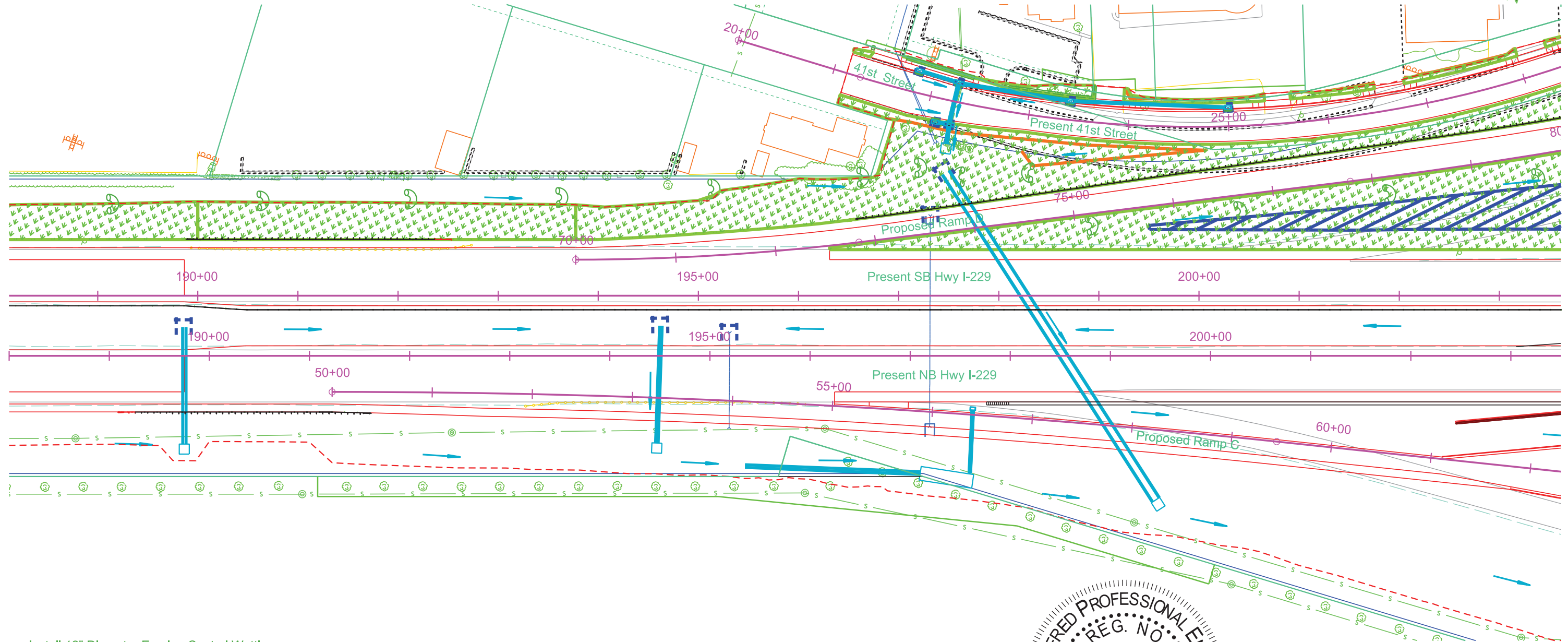
Plotting Date: 11/15/2024

Install Low Flow Silt Fence at the following locations:
 RAMP D 73+28 L to 76+38 L Perimeter control 515 Ft
 41ST_NEW 23+94 L to 36+29 L Perimeter control 585 Ft

Install 12" Diameter Erosion Control Wattles on slope at the following locations:
 41ST_NEW 21+30 L to 23+63 L 175 Ft

Utilize Surface Roughening at the following locations:
 RAMPD 75+73 R to 84+50 R; 3:1 Slope Ramp D RT 0.79 Acres

Install Low Flow Silt Fence at the following locations:
 NB229 189+75 L Inlet end of pipe 18 Ft
 NB229 194+50 L Inlet end of pipe 18 Ft
 NB229 195+20 L Inlet end of pipe 18 Ft
 RAMPD 73+57 L Inlet end of pipe 18 Ft
 RAMPD 73+75 L Inlet end of pipe 18 Ft



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

SB229 189+20 L 20 Ft	RAMP D 71+48 L 20 Ft	RAMP D 75+23 R 20 Ft
SB229 190+74 L 20 Ft	RAMP D 73+01 L 20 Ft	RAMP D 76+72 R 20 Ft
SB229 192+19 L 20 Ft	RAMP D 73+60 L 20 Ft	RAMP D 78+21 R 20 Ft
SB229 193+78 L 20 Ft	RAMP D 73+85 L 30 Ft	RAMP D 79+70 R 20 Ft
	RAMP D 74+53 L 30 Ft	



SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN

Plot Scale - 1:100

Plotted From - ngiersvik

File - ...103HN_ec.dgn

I-229 - PHASE 1

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	D19	D47

Plotting Date: 11/15/2024

Install Low Flow Silt Fence at the following locations:
41ST_NEW 23+94 L to 36+29 L Perimeter control 585 Ft

Install 12" Diameter Erosion Control Wattles on slope at the following locations:
SBCLIFF 315+42 L to 316+06 L 70 Ft
NBCLIFF 115+79 R to 116+28 R 60 Ft
NBCLIFF 118+22 R to 118+78 R 70 Ft
TRAIL 00+00 L to 01+01 L 100 Ft
TRAIL 03+80 L to 04+150 L 45 Ft
TRAIL 06+18 L to 07+70 L 145 Ft

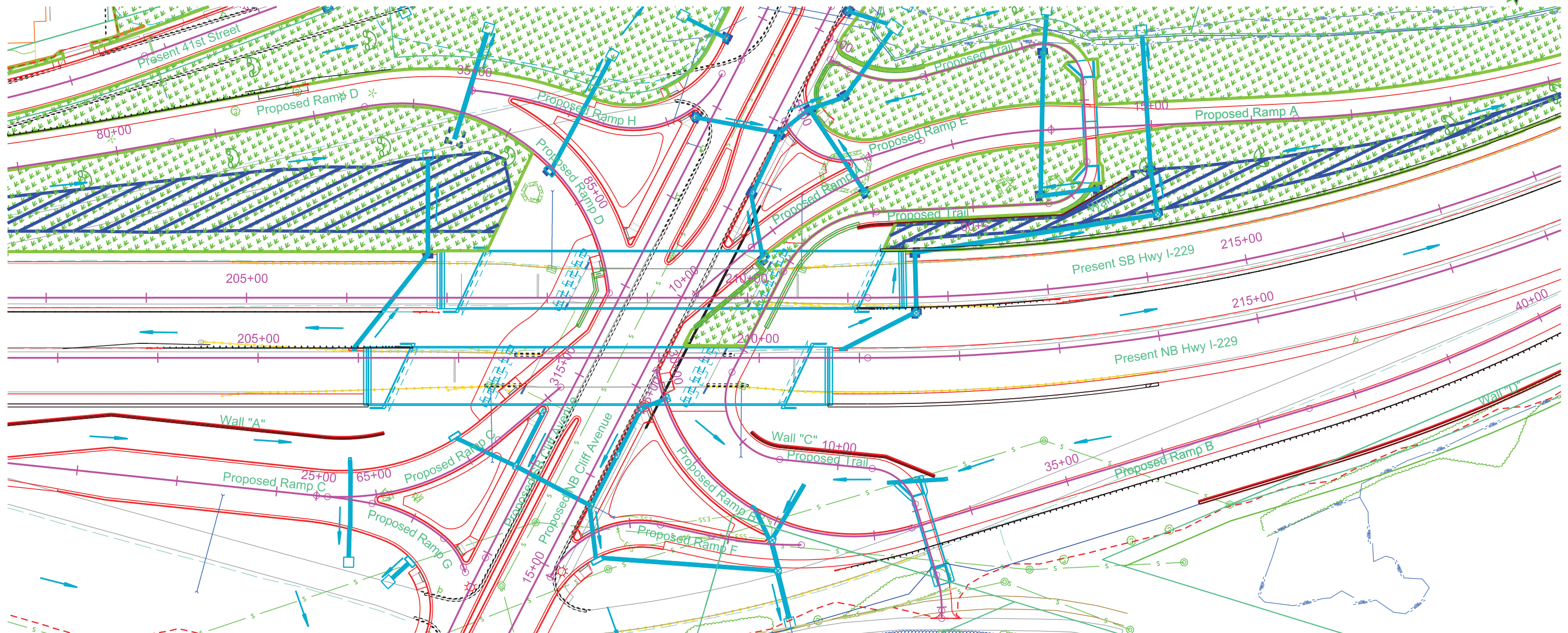
Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:
RAMPD 84+57 R 26 Ft Low Flow Silt Fence 34 Ft Sediment Filter Bags
RAMPA 13+96 L 20 Ft Low Flow Silt Fence 28 Ft Sediment Filter Bags
RAMPA 13+84 R 20 Ft Low Flow Silt Fence 28 Ft Sediment Filter Bags
RAMPA 14+43 R 20 Ft Low Flow Silt Fence 28 Ft Sediment Filter Bags
SB229 206+81 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
SB229 214+20 L 28 Ft Low Flow Silt Fence 36 Ft Sediment Filter Bags
SB229 211+68 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags

NB229 210+82 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
RAMPA 14+97 R 20 Ft Low Flow Silt Fence 28 Ft Sediment Filter Bags
NBCLIFF 119+30 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
RAMPE 5+35 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
RAMP E 5+00 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
NBCLIFF 117+90 R 26 Ft Low Flow Silt Fence 34 Ft Sediment Filter Bags
RAMPA 10+75 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags

Plot Scale - 1:100

Plotted From - engiersvik

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Install 12" Diameter Erosion Control Wattles across the highway ditch channel bottom at the following locations:
RAMP D 79+70 R 20 Ft RAMP A 14+87 R 30 Ft
RAMP D 81+20 R 30 Ft RAMP A 16+01 R 30 Ft
RAMP D 81+56 L 20 Ft RAMP A 18+00 R 30 Ft
RAMP D 82+69 L 40 Ft RAMP A 19+10 R 30 Ft
RAMP D 82+74 R 40 Ft
RAMP D 84+21 R 30 Ft

Install Sediment Control at Inlets with Frames and Grates after the placement of surfacing at the following locations:
RAMPA 13+96 L 1 Each
RAMPA 13+84 R 1 Each
RAMPA 14+43 R 1 Each
SB229 206+81 L 1 Each
SB229 211+68 L 1 Each
NB229 205+96 L 1 Each
NB229 210+82 L 1 Each

RAMPA 14+97 R 1 Each
RAMPE 5+35 L 1 Each
RAMPE 5+00 L 1 Each

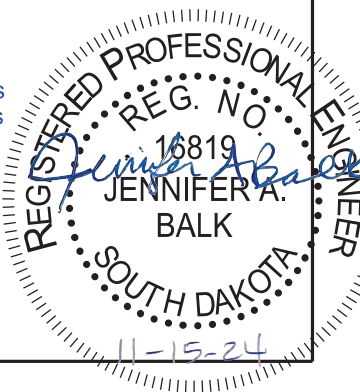
Install Sediment Control at Type S Drop Inlets after the placement of surfacing at the following locations:
RAMPD 84+57 R 13 FT
NBCLIFF 119+30 R 8 FT
NBCLIFF 117+90 R 8 FT
RAMPA 10+75 R 13 FT
RAMPA 12+00 R 8 FT
SBCLIFF 317+82 L 8 FT
SBCLIFF 318+66 L 8 FT

NBCLIFF 117+25 R 8 FT
NBCLIFF 113+73 R 8 FT
NBCLIFF 114+30 R 8 FT
NBCLIFF 114+80 R 8 FT

Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:
RAMPA 12+00 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
SBCLIFF 317+82 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
SBCLIFF 318+66 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
NBCLIFF 177+25 R 28 Ft Low Flow Silt Fence 36 Ft Sediment Filter Bags
SB229 211+68 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
RAMPD 83+42 R 18 Ft Low Flow Silt Fence
RAMPA 14+49 R 18 Ft Low Flow Silt Fence

Utilize Surface Roughening at the following locations:
RAMPA 12+00 R to 19+31 R; 3:1 Slope Ramp A RT 0.3 Acres

SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN



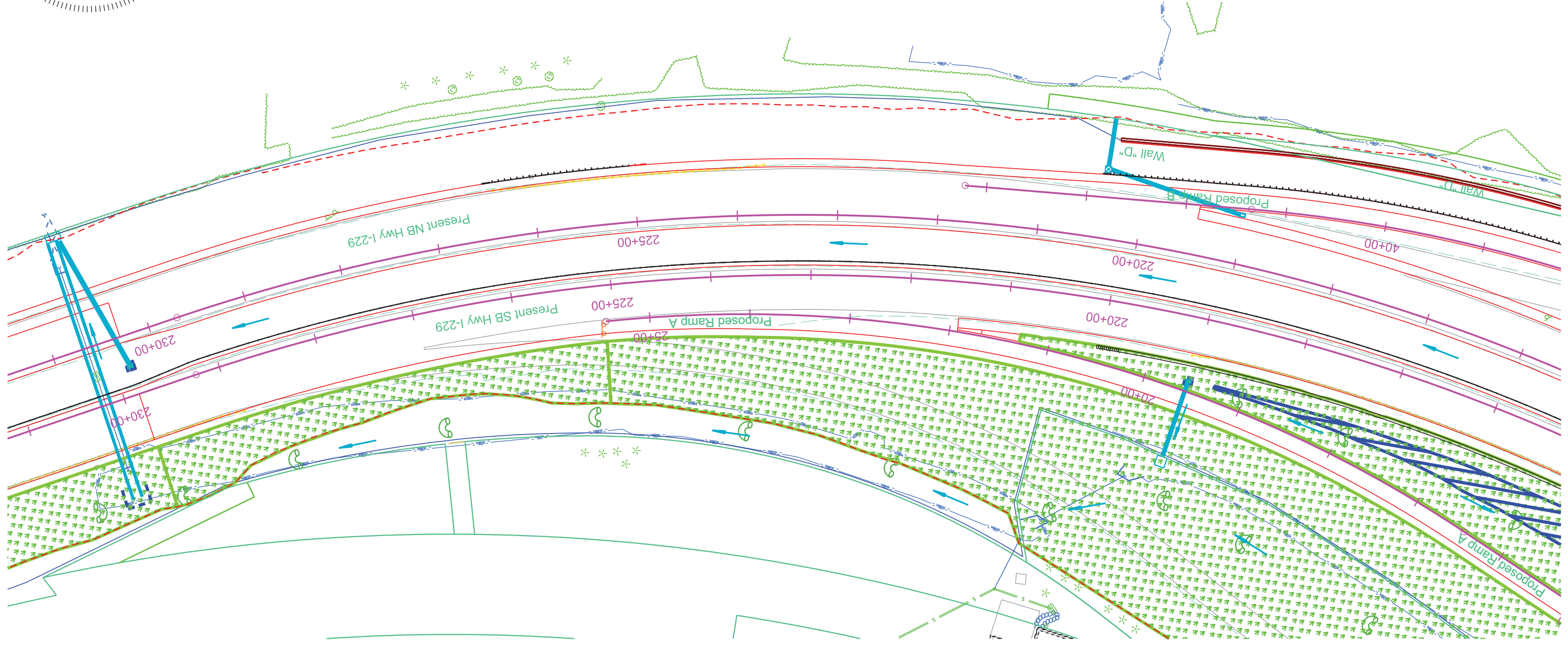
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
IM-B-CR 2292(10)3		D20	D47

Plotting Date: 11/15/2024

I-229 - PHASE 1

Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:
 RAMPA 19+57 R 20 Ft Low Flow Silt Fence 28 Ft Sediment Filter Bags
 NB229 230+30 L 18 Ft Low Flow Silt Fence
 SB229 229+92 L 60 Ft Low Flow Silt Fence

Install 12" Diameter Erosion Control Wattles across the highway ditch channel bottom at the following locations:
 RAMPA 16+82 L 30 Ft SB229 225+09 L 30 Ft
 RAMPA 18+48 L 30 Ft SB229 226+98 L 30 Ft
 RAMPA 16+82 L 30 Ft SB229 228+60 L 30 Ft
 RAMPA 16+82 L 30 Ft SB229 229+81 L 30 Ft
 RAMPA 20+59 L 30 Ft SB229 230+52 L 30 Ft
 RAMPA 22+47 L 30 Ft
 RAMPA 24+10 L 30 Ft



FOR BIDDING PURPOSES ONLY
 SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN

File: ...05HN_sec.dgn

Plot Scale = 1"=100'

Plotted From = notersvik

I-229 - PHASE 1

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	D21	D47

Plotting Date: 11/15/2024

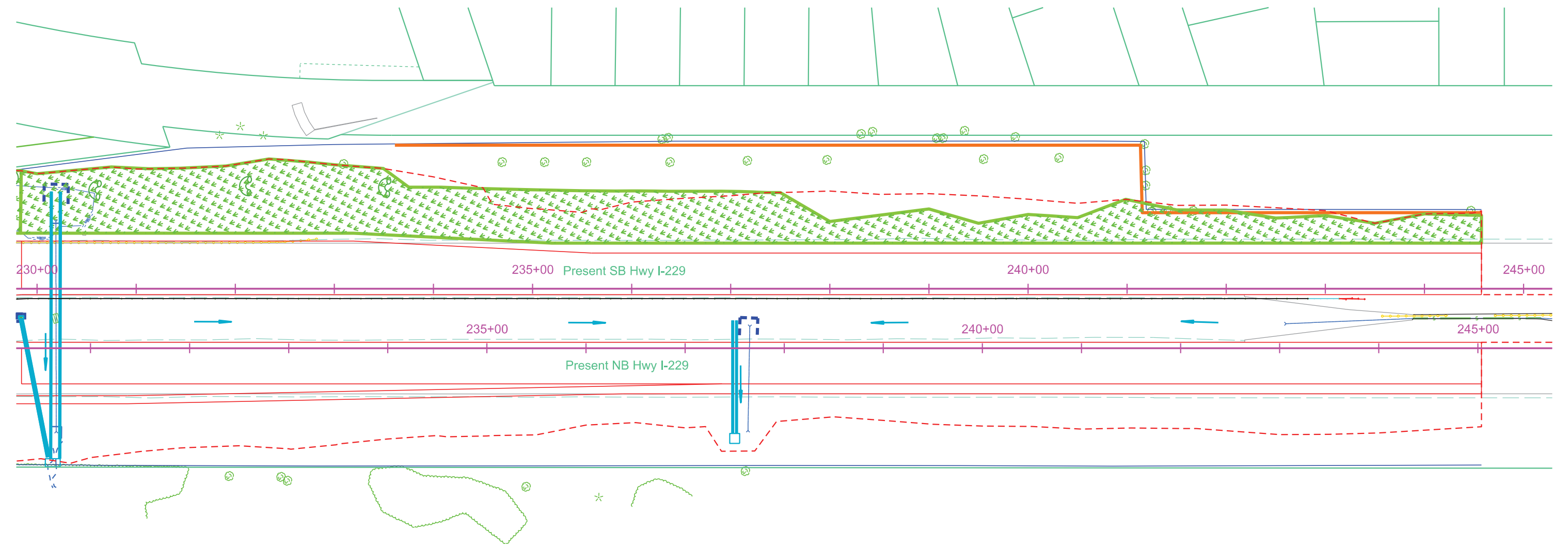
Install 12" Diameter Erosion Control Wattles across the highway ditch channel bottom at the following locations:
SB229 230+52 L 20 Ft
SB229 232+04 L 20 Ft
SB229 233+50 L 20 Ft

Install Low Flow Silt Fence at the following locations:
SB229 229+92 L Inlet end of pipe 60 Ft
NB229 237+65 L Inlet end of pipe 50 Ft

Install Low Flow Silt Fence at the following locations:
SB229 233+50 L to 244+59 L Perimeter control 1150 Ft



Plot Scale - 1:100



SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN



Plotted From - ngiersvik

File - ...105HN_ec.dgn

CLIFF AVENUE / PARK ENTRANCE - PHASE 1

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT IM-B-CR 2292(101)3	SHEET D22	TOTAL SHEETS D47
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Plotting Date: 11/15/2024

Install Low Flow Silt Fence at the following locations:
SBCLIFF 307+78 L to 308+34 L Perimeter control 60 Ft

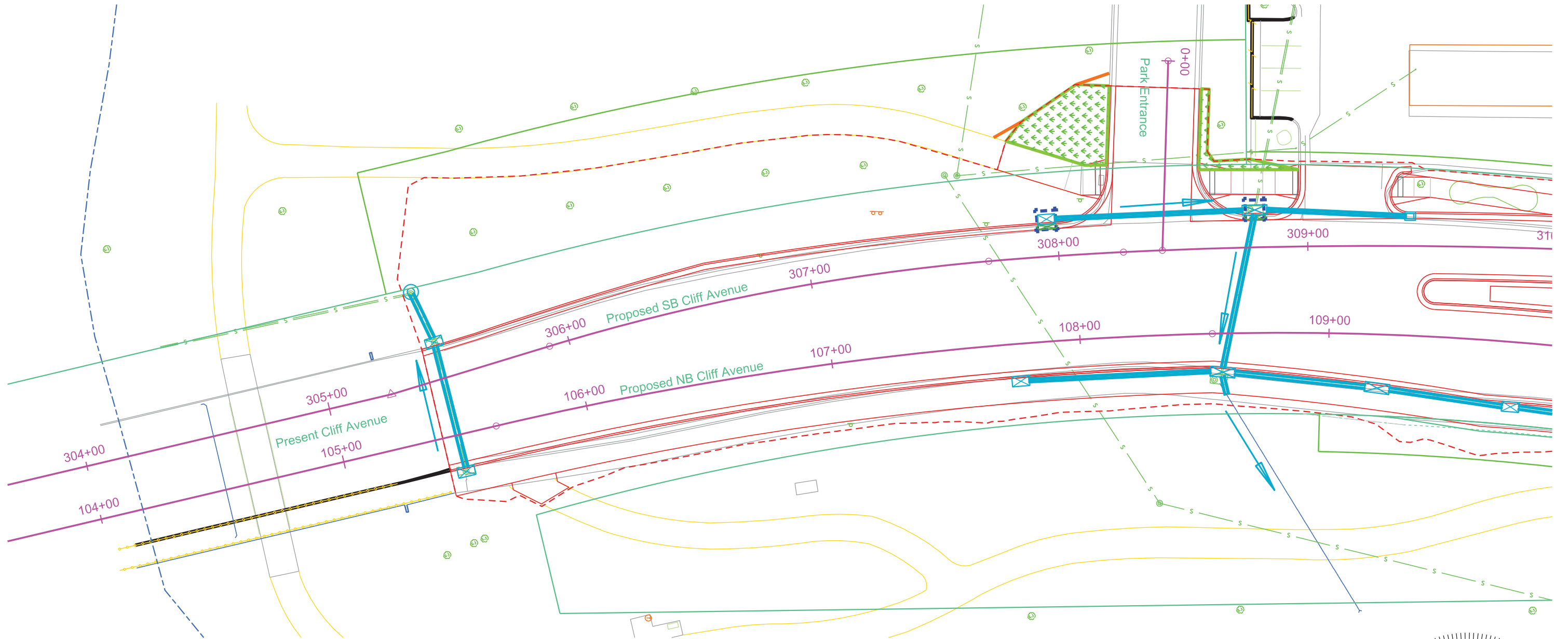
Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:
SBCLIFF 305+48 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
SBCLIFF 307+96 L 26 Ft Low Flow Silt Fence 34 Ft Sediment Filter Bags

Install Sediment Control at Type S Drop Inlets after the placement of surfacing at the following locations:
SBCLIFF 307+96 L 8 Ft
SB CLIFF 308+79 L 12 Ft



Plot Scale - 1:40

Plotted From - engiersvik



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SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN



CLIFF AVENUE - PHASE 1

STATE OF SOUTH DAKOTA	PROJECT	TOTAL SHEETS
IM-B-CR 2292(101)3	D23	D47

Plotting Date: 11/15/2024



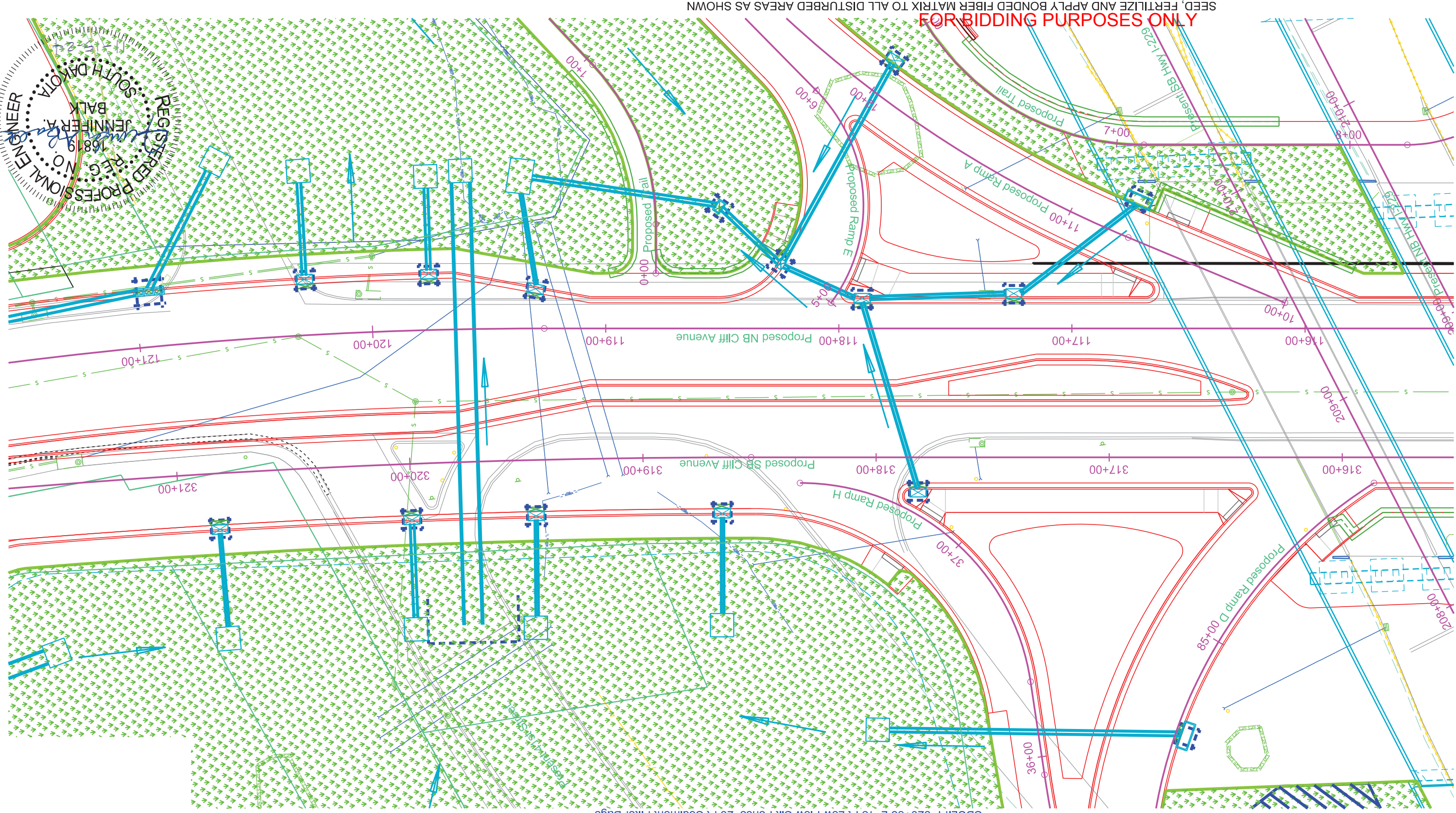
Install 12" Diameter Erosion Control Wattles on slope at the following locations:
 SBCLIFF 315+42 L to 316+06 L 70 Ft
 NBCLIFF 115+79 R to 116+28 R 60 Ft
 NBCLIFF 118+22 R to 118+78 R 70 Ft
 TRAIL 0+00 L to 01+01 L 100 Ft

Install Sediment Control at Inlets with Frames and Grates after the placement of surfacing
 NBCLIFF 120+94 L 1 Each

Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:
 NBCLIFF 119+75 R 54 Ft Low Flow Silt Fence 62 Ft Sediment Filter Bags
 NBCLIFF 120+28 R 20 Ft Low Flow Silt Fence 28 Ft Sediment Filter Bags
 NBCLIFF 120+94 R 54 Ft Low Flow Silt Fence 62 Ft Sediment Filter Bags
 SBCLIFF 319+46 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 SBCLIFF 320+00 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 SBCLIFF 320+83 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags

Install Low Flow Silt Fence at the following locations:
 SBCLIFF 319+73 L Inlet end of pipe 80 Ft

Install Sediment Control at Type S Drop Inlets after the placement of surfacing:
 NBCLIFF 119+75 R 8 Ft
 SBCLIFF 320+00 L 8 Ft
 NBCLIFF 120+28 R 8 Ft
 SBCLIFF 320+83 L 8 Ft
 SBCLIFF 319+46 L 8 Ft



SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN

FOR BIDDING PURPOSES ONLY

CLIFF AVENUE - PHASE 1

STATE OF SOUTH DAKOTA	PROJECT	IM-B-CR 2292(101)3	SHEET	D24	TOTAL SHEETS	D47
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Plotting Date: 11/15/2024



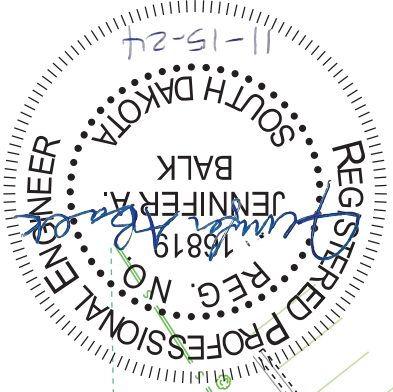
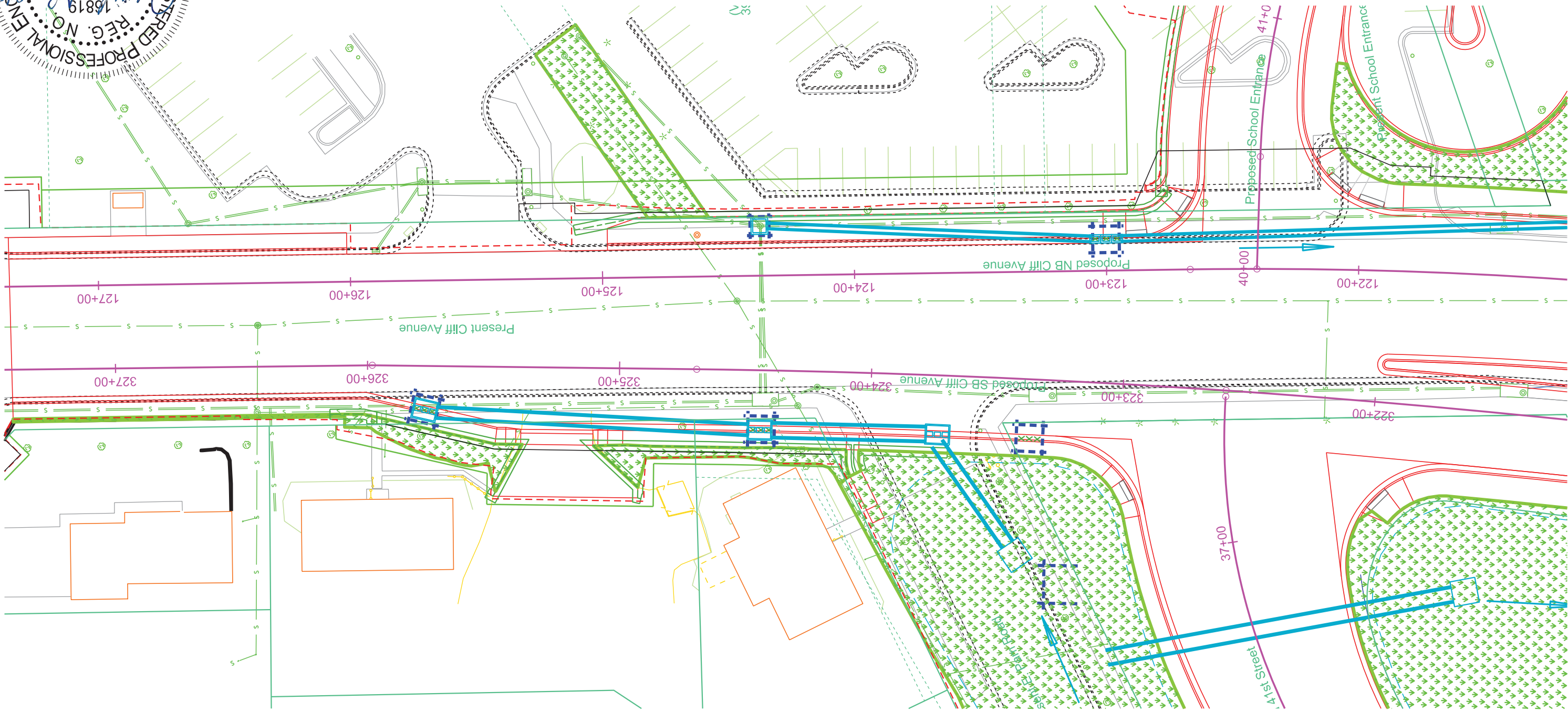
Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:
 NBCLIFF 123+00 R 54 Ft Low Flow Silt Fence 62 Ft Sediment Filter Bags
 NBCLIFF 124+38 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 SBCLIFF 323+36 L 54 Ft Low Flow Silt Fence 62 Ft Sediment Filter Bags
 SBCLIFF 324+43 L 54 Ft Low Flow Silt Fence 62 Ft Sediment Filter Bags
 SBCLIFF 325+77 L 54 Ft Low Flow Silt Fence 62 Ft Sediment Filter Bags
 SBCLIFF 326+96 L 18 Ft Low Flow Silt Fence
 41ST 36+96 L 18 Ft Low Flow Silt Fence

Install 12" Diameter Erosion Control Wattles on slope at the following locations:
 SBCLIFF 323+69 L to 326+15 L 290 Ft
 NBCLIFF 122+75 R to 125+12 R 240 Ft
 SBCLIFF 323+36 L 1 Each
 SBCLIFF 324+43 L 1 Each
 SBCLIFF 325+77 L 1 Each
 SCHOOL 40+30 L to 41+98 L 175 Ft

Install Sediment Control at Inlets with Frames and Grates after the placement of surfacing on slope at the following locations:
 NBCLIFF 123+00 R 1 Each
 SBCLIFF 323+36 L 1 Each
 SBCLIFF 324+43 L 1 Each
 SBCLIFF 325+77 L 1 Each

SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN

FOR BIDDING PURPOSES ONLY



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Plot Scale = 1"=40'

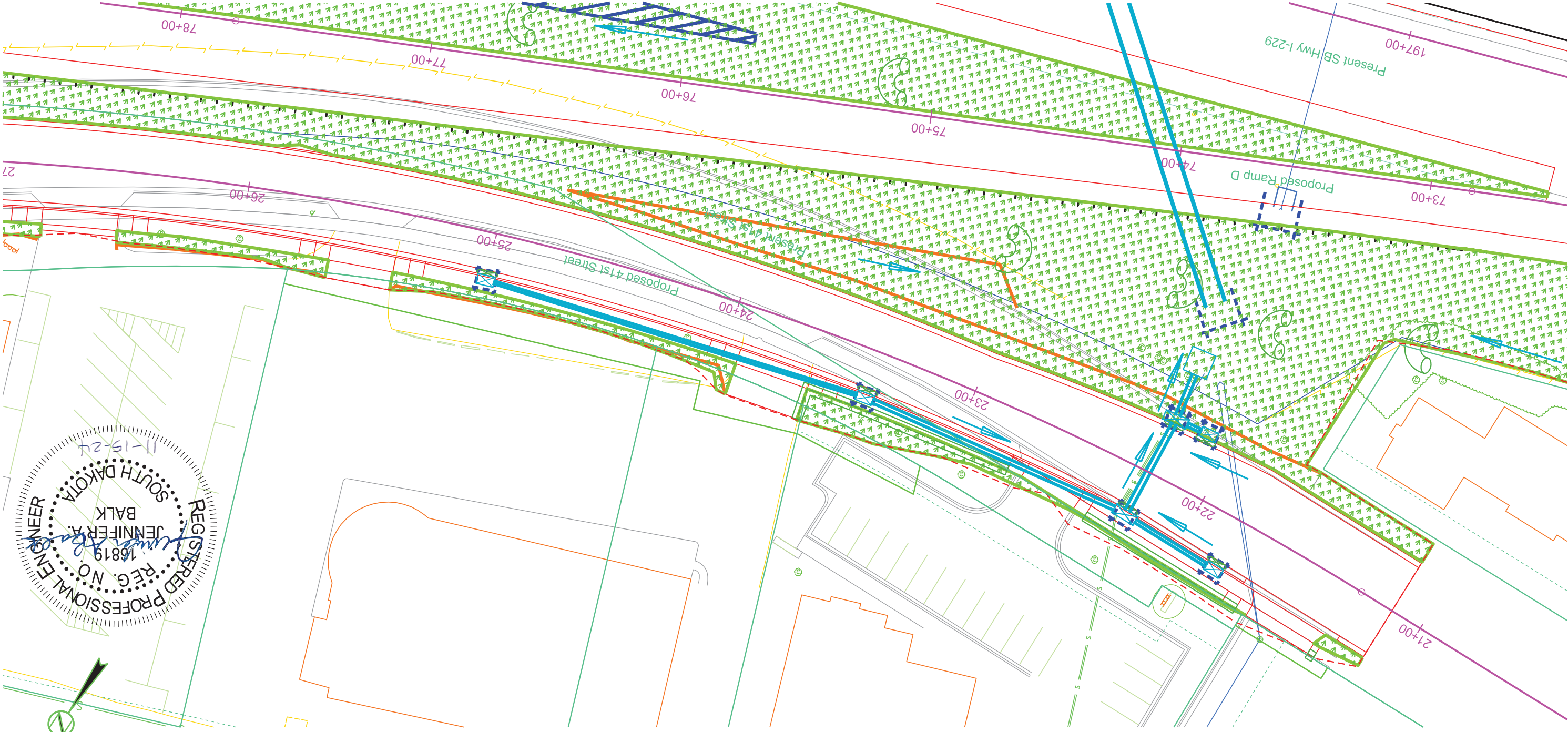
Plotted From: notersvik

41ST STREET - PHASE 1

Plotting Date: 11/15/2024

STATE OF SOUTH DAKOTA	PROJECT	D47
IM-B-CR 2292(101)3	SHEET	D25
TOTAL SHEETS		

Install Low Flow Silt Fence at the following locations:
 RAMP D 73+28 L to 76+38 L Perimeter control 515 Ft
 41ST 23+94 L to 36+29 L Perimeter control 585 Ft



Install 12" Diameter Erosion Control Wattles on slope at the following locations:
 41ST 21+30 L to 23+63 L 175 Ft

Install Sediment Control at Type S Drop Inlets after the placement of surfacing at the following locations:
 41ST 21+83 L 8 Ft
 41ST 22+10 R 8 Ft
 41ST 22+24 R 8 Ft
 41ST 22+25 L 12 Ft
 41ST 23+40 L 8 Ft
 41ST 23+40 R 8 Ft
 41ST 25+00 L 8 Ft

Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:
 41ST 21+83 L 26 Ft Low Flow Silt Fence 34 Ft Sediment Filter Bags
 41ST 22+25 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 41ST 23+40 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 41ST 25+00 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 41ST 22+10 R 26 Ft Low Flow Silt Fence 34 Ft Sediment Filter Bags
 41ST 22+24 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags

SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN FOR BIDDING PURPOSES ONLY

41ST STREET - PHASE 1

STATE OF SOUTH DAKOTA	PROJECT
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IM-B-CR 2292(101)3

SHEET

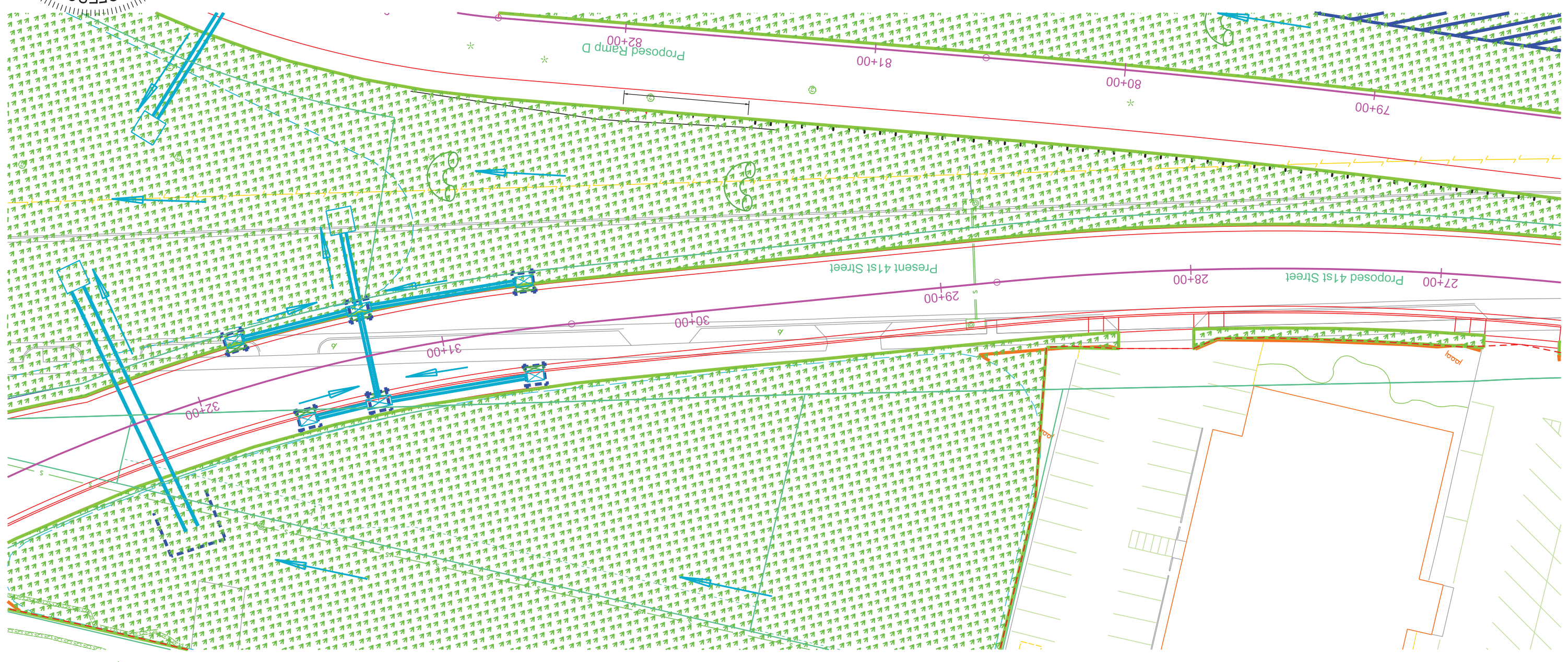
TOTAL SHEETS

Plotting Date: 11/15/2024

Install 12" Diameter Erosion Control Wattles across the highway ditch channel bottom at the following locations:
 RAMPD 79+70 R 20 Ft
 RAMPD 81+56 L 20 Ft
 RAMPD 82+68 L 40 Ft

SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN

Install Low Flow Silt Fence at the following locations:
 41ST 23+94 L to 28+87.02 L Perimeter control 410 Ft



Install Sediment Control at Type S Drop Inlets after the placement of surfacing at the following locations:
 41ST 30+65 R 8 Ft
 41ST 31+30 R 12 Ft
 41ST 31+80 R 8 Ft
 41ST 30+65 L 8 Ft
 41ST 31+30 L 12 Ft
 41ST 31+60 L 8 Ft

Boxes before the placement of surfacing at the following locations:
 41ST 31+60 L 18 Ft Low Flow Silt Fence
 41ST 31+30 L 18 Ft Low Flow Silt Fence
 41ST 30+65 R 26 Ft Sediment Filter Bags
 41ST 31+30 R 26 Ft Sediment Filter Bags
 41ST 31+80 R 18 Ft Low Flow Silt Fence
 41ST 31+60 L 18 Ft Low Flow Silt Fence
 41ST 30+65 L 26 Ft Low Flow Silt Fence
 41ST 31+80 R 18 Ft Low Flow Silt Fence
 41ST 31+60 L 18 Ft Low Flow Silt Fence
 41ST 31+30 R 18 Ft Low Flow Silt Fence
 41ST 31+60 L 65 Ft Low Flow Silt Fence

FOR BIDDING PURPOSES ONLY



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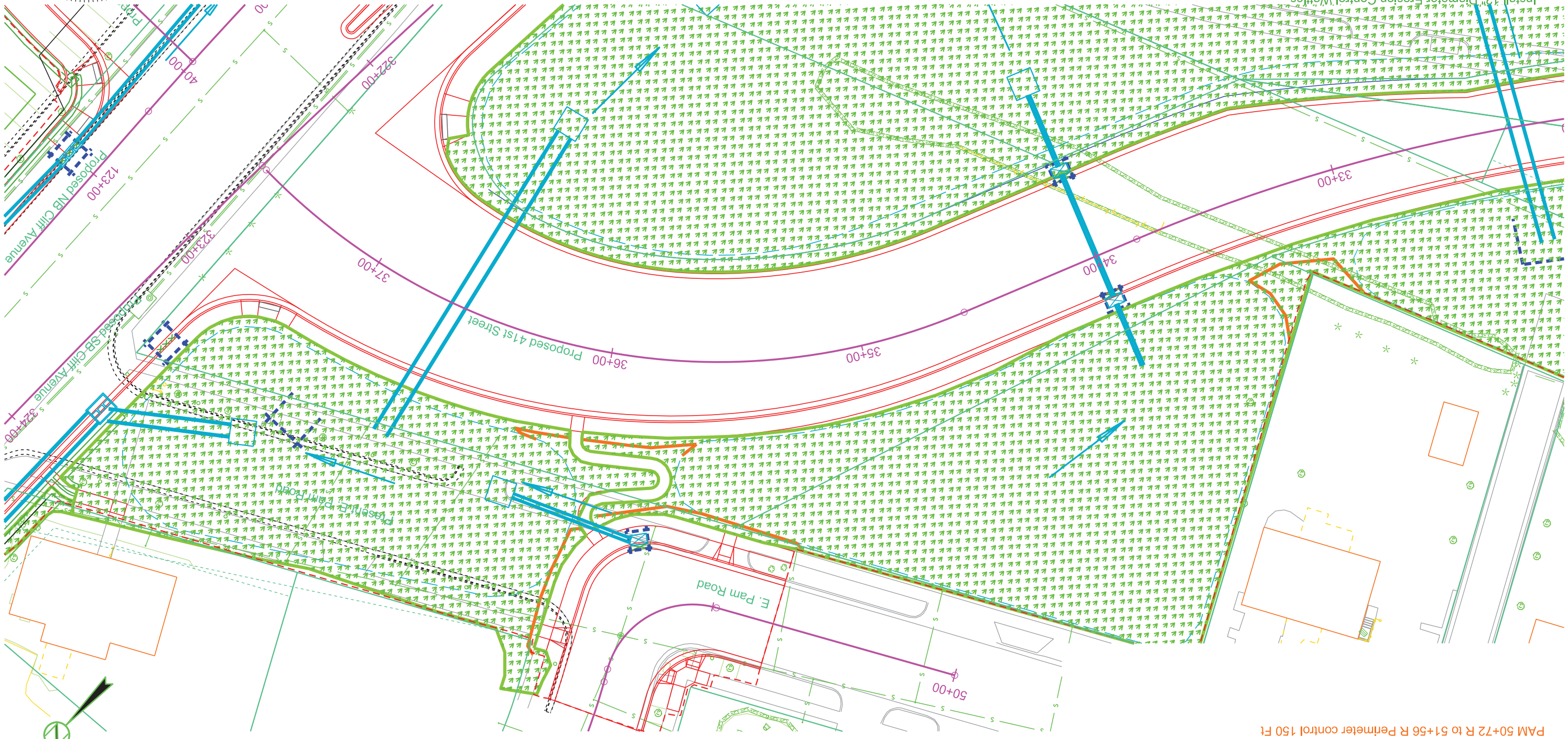
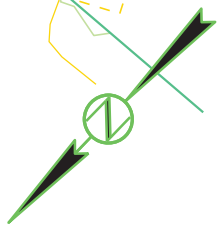
Plot Scale =

1/4" = 1'

41ST STREET & PAM ROAD - PHASE 1

STATE OF SOUTH DAKOTA	PROJECT	IM-B-CR 2292(101)3	SHEET	D27	TOTAL SHEETS	D47
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Plotting Date: 11/15/2024



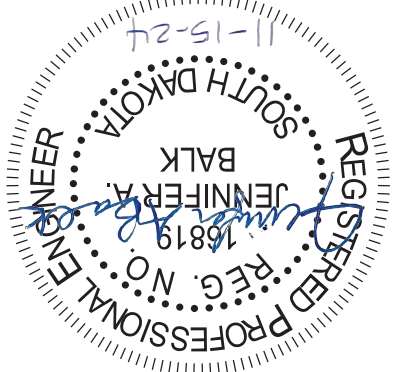
Install Low Flow Silt Fence at the following locations:
 41ST 33+02 L to 33+38 L Perimeter control 85 Ft
 41ST 35+65 L to 36+29 L Perimeter control 90 Ft
 PAM 50+72 R to 51+56 R Perimeter control 150 Ft

Install Interim Sediment Control at Type S Drop Inlets after the placement of surfacing at the following locations:
 41ST 34+00 L 8 Ft
 41ST 34+00 R 8 Ft
 PAM 51+20 R 8 Ft

Boxes before the placement of surfacing at the following locations:
 41ST 34+00 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 41ST 34+00 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 PAM 51+20 R 20 Ft Low Flow Silt Fence 28 Ft Sediment Filter Bags
 41ST 32+24 L 65 Ft Low Flow Silt Fence

Install 12" Diameter Erosion Control Wattles on slope at the following locations:
 SBCLIFF 323+69 L to 326+15 L 290 Ft
 NBCLIFF 122+75 R to 125+12 R 240 Ft
 SCHOOL 40+30 L to 41+98 L 175 Ft

SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN
FOR BIDDING PURPOSES ONLY



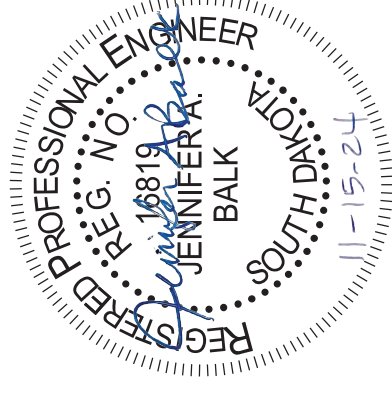
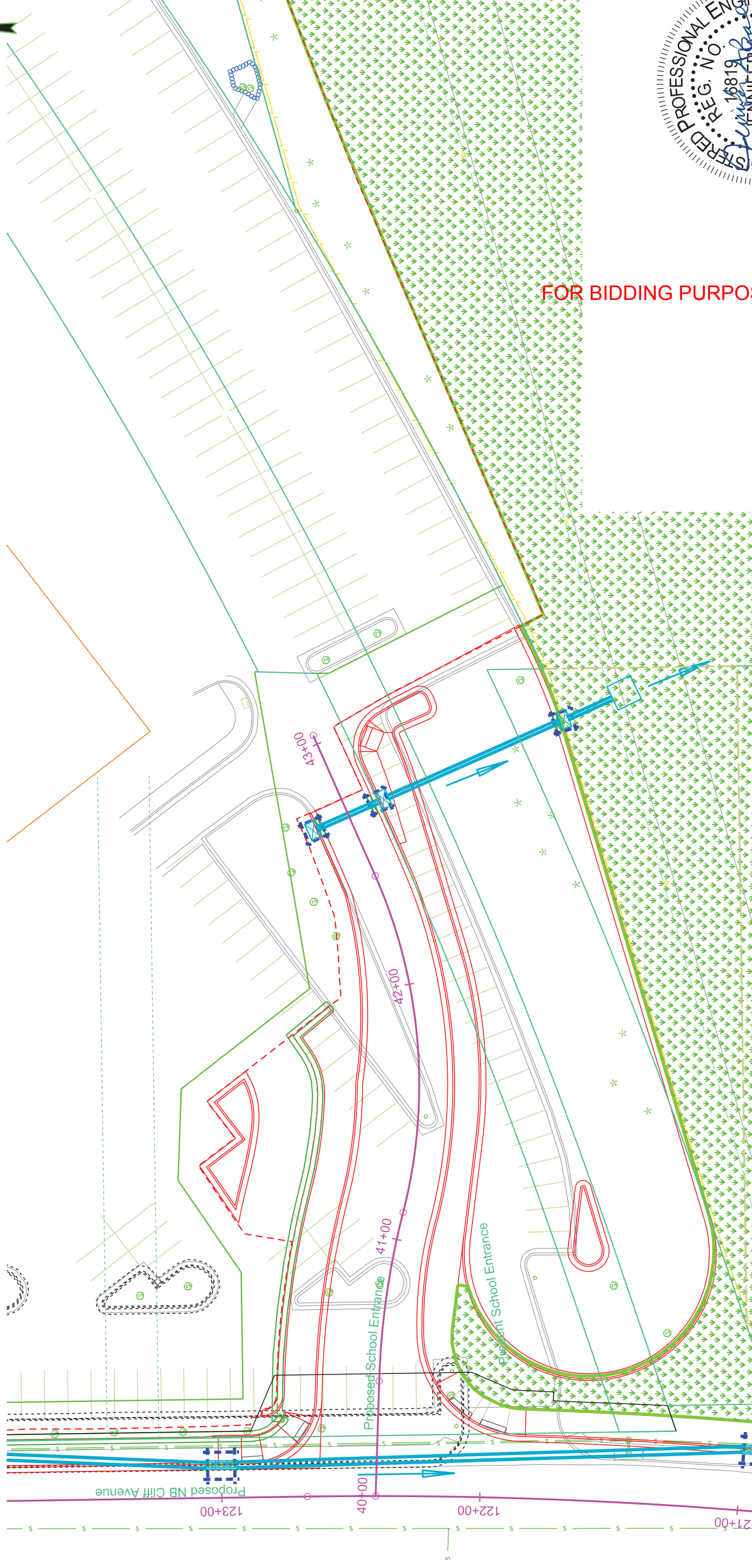
SCHOOL ENTRANCE - PHASE 1

SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN

Install 12" Diameter Erosion Control Wattles on slope at the following locations:
 NBCLIFF 122+75 R to 125+12 R 240 Ft
 SCHOOL 40+30 L to 41+98 L 175 Ft

Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:
 SCHOOL 42+70 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 SCHOOL 42+70 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 SCHOOL 42+70 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags

Install Sediment Control at Type S Drop Inlets after the placement of surfacing at the following locations:
 42+70 L 8 Ft
 42+70 R 8 Ft
 42+70 R 8 Ft



STATE OF SOUTH DAKOTA	PROJECT	TOTAL SHEETS
	IM-B-CR 2292(101)3	D47
Plotting Date:		
	11/15/2024	

I-229 - PHASE 1

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	D29	D47

Plotting Date: 11/15/2024

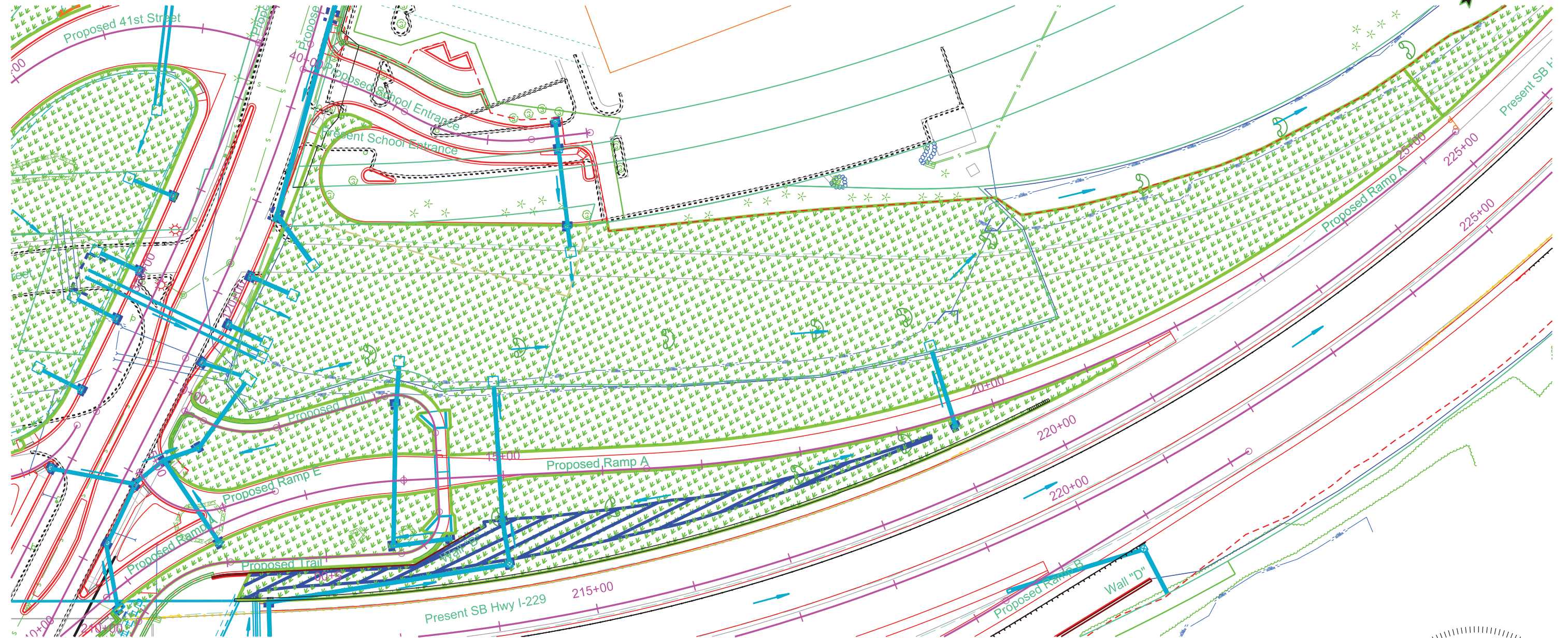
Install 12" Diameter Erosion Control Wattles across the highway ditch channel bottom at the following locations:
RAMPA 13+83 L 30 Ft
RAMPA 15+28 L 30 Ft
RAMPA 16+82 L 30 Ft
RAMPA 18+48 L 30 Ft
RAMPA 19+45 L 30 Ft
RAMPA 20+59 L 30 Ft
RAMPA 22+47 L 30 Ft
RAMPA 24+11 L 30 Ft
SB229 225+08 L 30 Ft

Install 12" Diameter Erosion Control Wattles on slope at the following locations:
NBCLIFF 118+22 R to 118+78 R 70 Ft
NBCLIFF 122+75 R to 125+12 R 240 Ft
SCHOOL 40+30 L to 41+98 L 175 Ft
TRAIL 00+00 L to 01+01 L 100 Ft
TRAIL 03+80 L to 04+150 L 45 Ft
TRAIL 06+18 L to 07+70 L 145 Ft

Install Low Flow Silt Fence at the following locations:
SBCLIFF 319+73 L Inlet end of pipe 80 Ft
RAMPA 14+49 R Inlet end of pipe 18 Ft

Plot Scale - 1:100

Plotted From - engiersvik



SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN



File - ...105HN.eco.dgn

I-229 - PHASE 2

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	D30	D47

Plotting Date: 11/15/2024

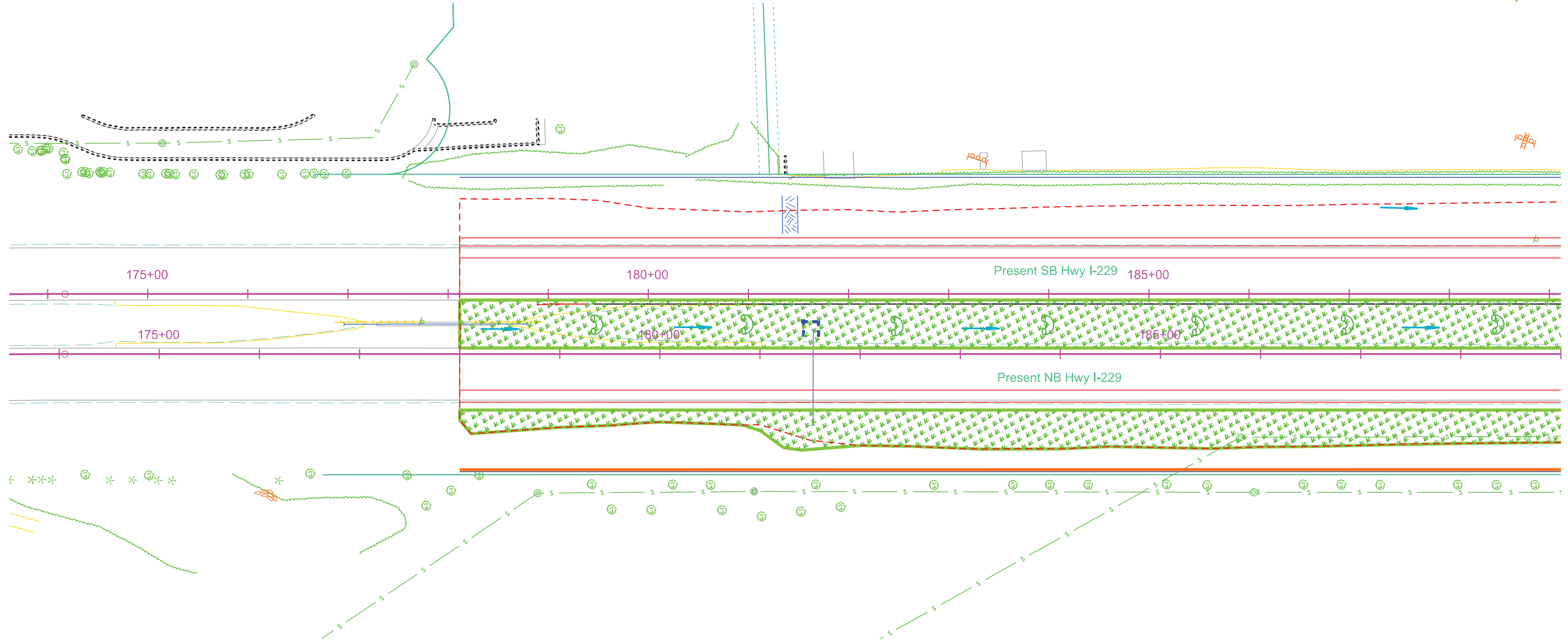
Install Low Flow Silt Fence at the following locations:
NB229 177+93 R to 192+72 R Perimeter control 1495 Ft

Install Low Flow Silt Fence at the following locations:
NB229 181+51 L Inlet end of pipe 18 Ft

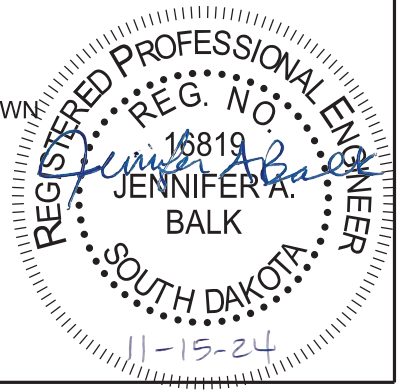
Install 12" Diameter Erosion Control Wattles
across the highway ditch channel bottom
at the following locations:
NB229 179+42 L 20 Ft
NB229 180+93 L 20 Ft
NB229 182+43 L 20 Ft
NB229 183+93 L 20 Ft
NB229 185+44 L 20 Ft
NB229 186+93 L 20 Ft
NB229 188+43 L 20 Ft



Plot Scale - 1:100



SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN



Plotted From - ngiersvik

File - ...1034HN_ec.dgn

I-229 - PHASE 2

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	D31	D47

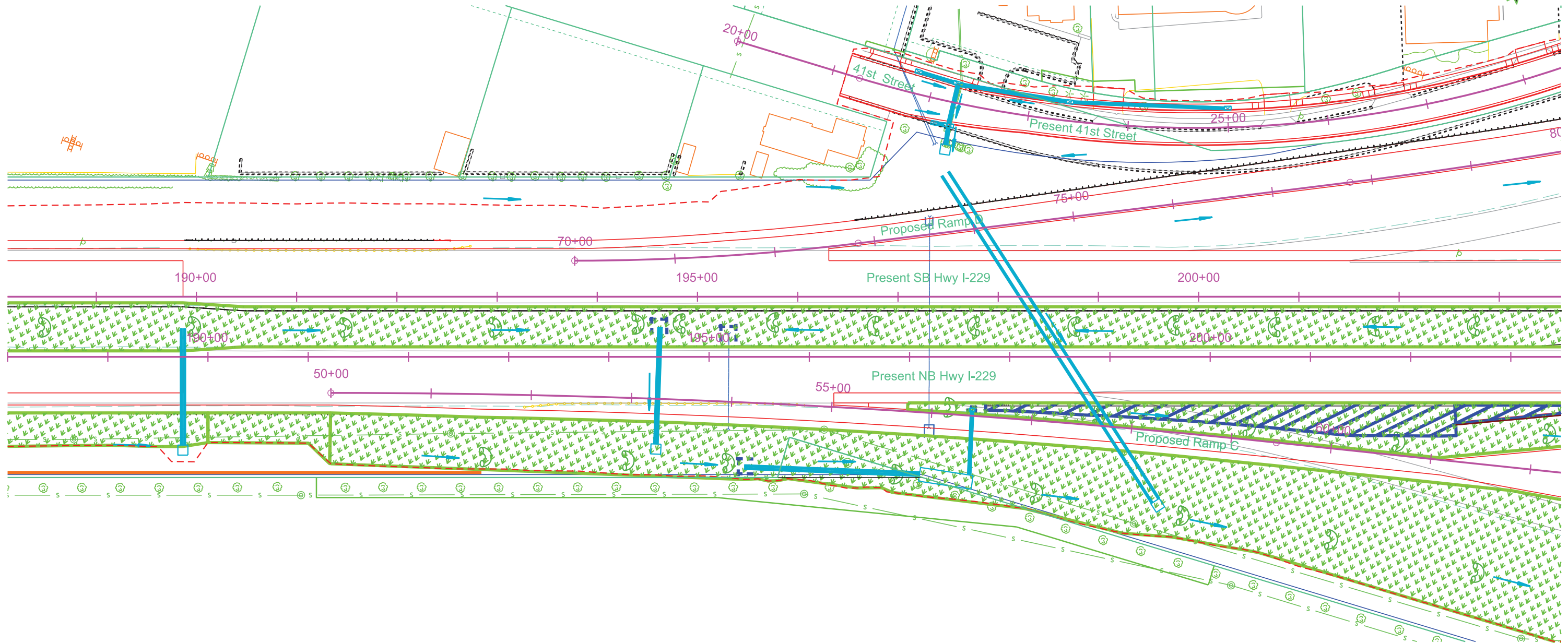
Plotting Date: 11/15/2024

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

NB229 188+43 L 20 Ft	NB229 196+58 L 20 Ft	RAMPC 51+61 R 40 Ft	RAMPC 58+65 R 40 Ft
NB229 189+92 L 20 Ft	NB229 197+58 L 20 Ft	RAMPC 53+05 R 40 Ft	RAMPC 59+23 L 30 Ft
NB229 191+44 L 20 Ft	NB229 198+58 L 20 Ft	RAMPC 54+08 R 40 Ft	RAMPC 60+16 R 40 Ft
NB229 192+93 L 20 Ft	NB229 199+58 L 20 Ft	RAMPC 55+75 R 40 Ft	RAMPC 60+73 L 40 Ft
NB229 194+35 L 20 Ft	NB229 200+58 L 20 Ft	RAMPC 56+24 L 20 Ft	RAMPC 61+65 R 40 Ft
NB229 194+64 L 20 Ft	NB229 201+58 L 20 Ft	RAMPC 57+17 R 40 Ft	RAMPC 62+21 L 30 Ft
NB229 195+58 L 20 Ft	NB229 202+57 L 20 Ft	RAMPC 57+73 L 30 Ft	

Install Low Flow Silt Fence at the following locations:
NB229 177+93 R to 192+72 R Perimeter control 1495 Ft

Install Sediment Control at Inlets with Frames and Grates after the placement of surfacing at the following locations:
RAMPC 56+40 L 1 Each



Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:
RAMPC 56+40 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
NB229 194+51 L 18 Ft Low Flow Silt Fence
NB229 195+20 L 18 Ft Low Flow Silt Fence
RAMPC 54+12 R 18 Ft Low Flow Silt Fence

SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN

Utilize Surface Roughening at the following locations:
RAMPC 56+63 L to 65+00 L; 3:1 Slope Ramp C LT 0.40 Acres



Plot Scale - 1:100

Plotted From - ngiersvik

File - ...105HN.ecs.dgn

I-229 - PHASE 2

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	D32	D47

Plotting Date: 11/15/2024

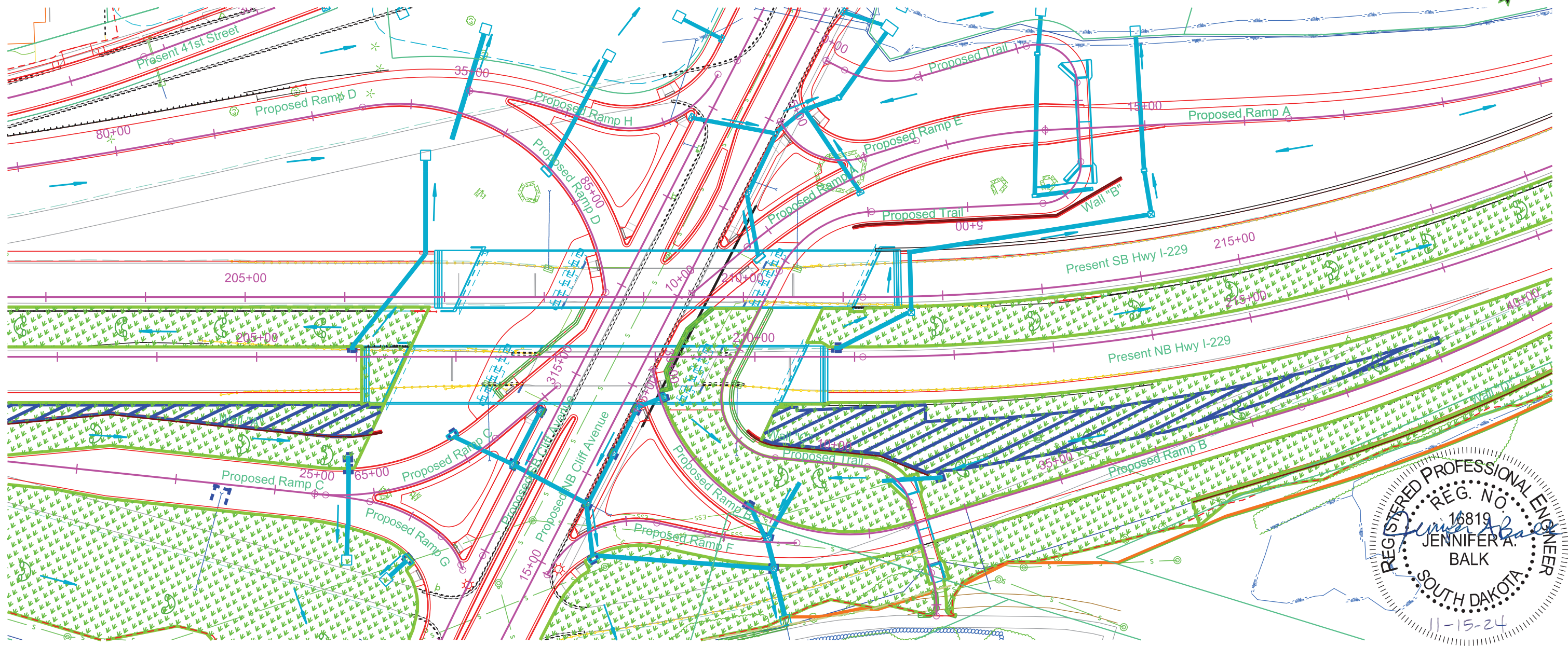
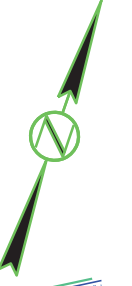
Install 12" Diameter Erosion Control Wattles across the highway ditch channel bottom at the following locations:

NB229 202+57 L 20 Ft	NB229 214+92 L 20 Ft	RAMPC 61+65 R 40 Ft	RAMPB 31+99 L 30 Ft
NB229 203+58 L 20 Ft	NB229 215+98 L 20 Ft	RAMPC 62+21 L 30 Ft	RAMPB 32+32 L 30 Ft
NB229 204+58 L 20 Ft	NB229 217+00 L 20 Ft	RAMPC 63+12 R 40 Ft	RAMPB 34+02 L 30 Ft
NB229 205+58 L 20 Ft	NB229 218+00 L 20 Ft	RAMPC 63+70 L 30 Ft	RAMPB 35+33 L 30 Ft
NB229 211+90 L 20 Ft		RAMPC 64+57 L 30 Ft	RAMPB 36+83 L 30 Ft
NB229 212+90 L 20 Ft			RAMPB 38+33 L 20 Ft
NB229 213+92 L 20 Ft			

Utilize Surface Roughening at the following locations:
 RAMPC 56+63 L to 65+00 L; 3:1 Slope Ramp C LT 0.40 Acres
 RAMPB 31+75 L to 39+06 L; 3:1 Slope Ramp B LT 0.50 Acres

Install Sediment Control at Inlets with Frames and Grates after the placement of surfacing at the following locations:
 RAMPB 31+73 L 1 Each
 RAMPB 33+84 L 1 Each
 RAMPC 64+75 L 1 Each
 RAMPC 64+75 L 1 Each

Install Sediment Control at Type S Drop Inlets after the placement of surfacing at the following locations:
 RAMPB 30+30 L 8 Ft
 RAMPC 66+00 L 13 Ft
 RAMPF 15+50 R 13 Ft
 RAMPG_NEW 26+23 R 13 Ft

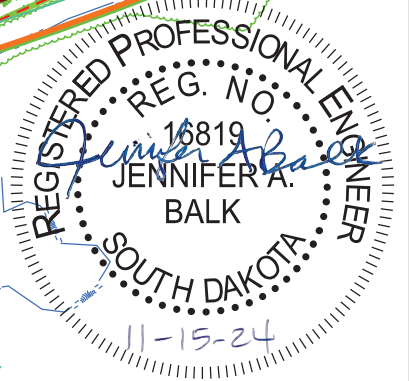


Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:
 NBCLIFF 113+73 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 NBCLIFF 114+30 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 NBCLIFF 114+80 R 28 Ft Low Flow Silt Fence 36 Ft Sediment Filter Bags
 NB229 205+96 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 SBCLIFF 313+90 L 26 Ft Low Flow Silt Fence 34 Ft Sediment Filter Bags
 SBCLIFF 314+50 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 RAMPB 30+30 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 RAMPB 31+37 L 26 Ft Low Flow Silt Fence 34 Ft Sediment Filter Bags
 RAMPB 33+84 L 20 Ft Low Flow Silt Fence 28 Ft Sediment Filter Bags

RAMPC 64+75 L 20 Ft Low Flow Silt Fence 28 Ft Sediment Filter Bags
 RAMPC 64+75 L 28 Ft Low Flow Silt Fence 36 Ft Sediment Filter Bags
 RAMPC 66+00 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 RAMPF 15+50 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 RAMPF 17+44 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 RAMPF 17+51 R 26 Ft Low Flow Silt Fence 34 Ft Sediment Filter Bags
 RAMPG_NEW 26+23 R 26 Ft Low Flow Silt Fence 34 Ft Sediment Filter Bags
 RAMPC 63+47 R 18 Ft Low Flow Silt Fence

Install 12" Diameter Erosion Control Wattles on slope at the following locations:
 SBCLIFF 314+95 L to 315+62 L 80 Ft
 NBCLIFF 115+04 R to 116+05 R 115 Ft
 TRAIL 7+49 L to 9+13 L 155 Ft
 TRAIL 11+87 L/R to 12+11 L/R 70 Ft
 RAMPF 15+00 R TO 17+64 R 230 Ft

Install Low Flow Silt Fence at the following locations:
 RAMPB 33+37 R to 33+44 R Perimeter control 155 Ft
 RAMPB 33+63 R to 34+00 R Perimeter control 45 Ft
 RAMPB 34+25 R to 44+22 R Perimeter control 1030 Ft



SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN

Plot Scale - 1:100

Plotted From - engierslik

File - ...1055HN_eca.dgn

I-229 - PHASE 2

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	D33	D47

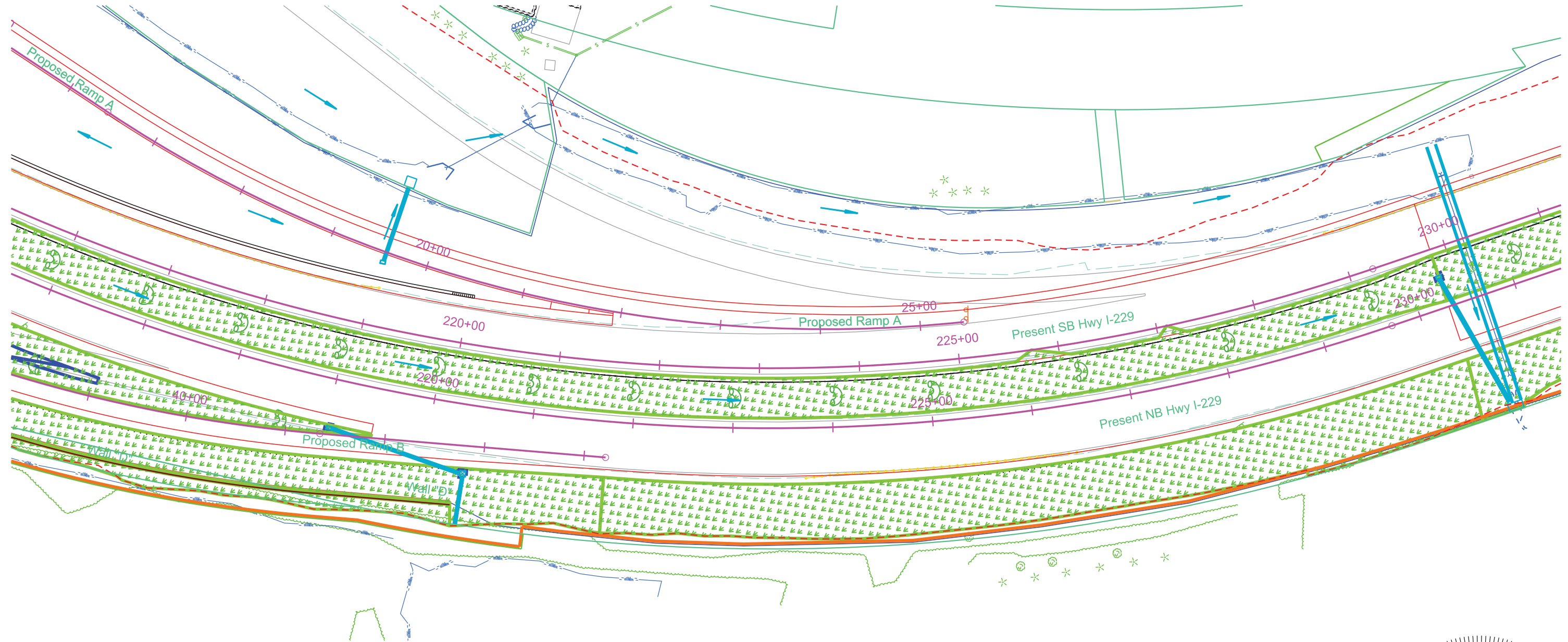
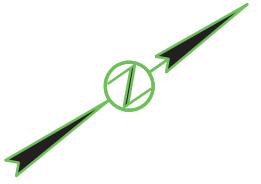
Plotting Date: 11/15/2024

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

- | | | |
|----------------------|----------------------|---------------------|
| NB229 215+98 L 20 Ft | NB229 223+07 L 20 Ft | RAMPB 38+33 L 20 Ft |
| NB229 216+99 L 20 Ft | NB229 224+10 L 20 Ft | RAMPB 41+00 L 20 Ft |
| NB229 217+99 L 20 Ft | NB229 225+10 L 20 Ft | |
| NB229 219+03 L 20 Ft | NB229 226+61 L 20 Ft | |
| NB229 220+05 L 20 Ft | NB229 228+14 L 20 Ft | |
| NB229 221+02 L 20 Ft | NB229 229+66 L 20 Ft | |
| NB229 222+05 L 20 Ft | NB229 231+16 L 20 Ft | |

SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN

Install Sediment Control at
Inlets with Frames and Grates
after the placement of surfacing
at the following locations:
RAMPB 41+43 L 1 Each



Install Low Flow Silt Fence at the following locations:
RAMPB 34+25 R to 44+22 R Perimeter control 1030 Ft
NB229 221+76 R to 245+04 R Perimeter control 2380 Ft

Install Interim Sediment Control at Inlets, Manholes, and Junction
Boxes before the placement of surfacing at the following locations:
RAMPB 41+43 L 20 Ft Low Flow Silt Fence 28 Ft Sediment Filter Bags
RAMPB 42+80 R 28 Ft Low Flow Silt Fence 36 Ft Sediment Filter Bags



Plot Scale - 1:100

Plotted From - ngiersvik

File - ...1034HN_ec.dgn

I-229 - PHASE 2

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	D34	D47

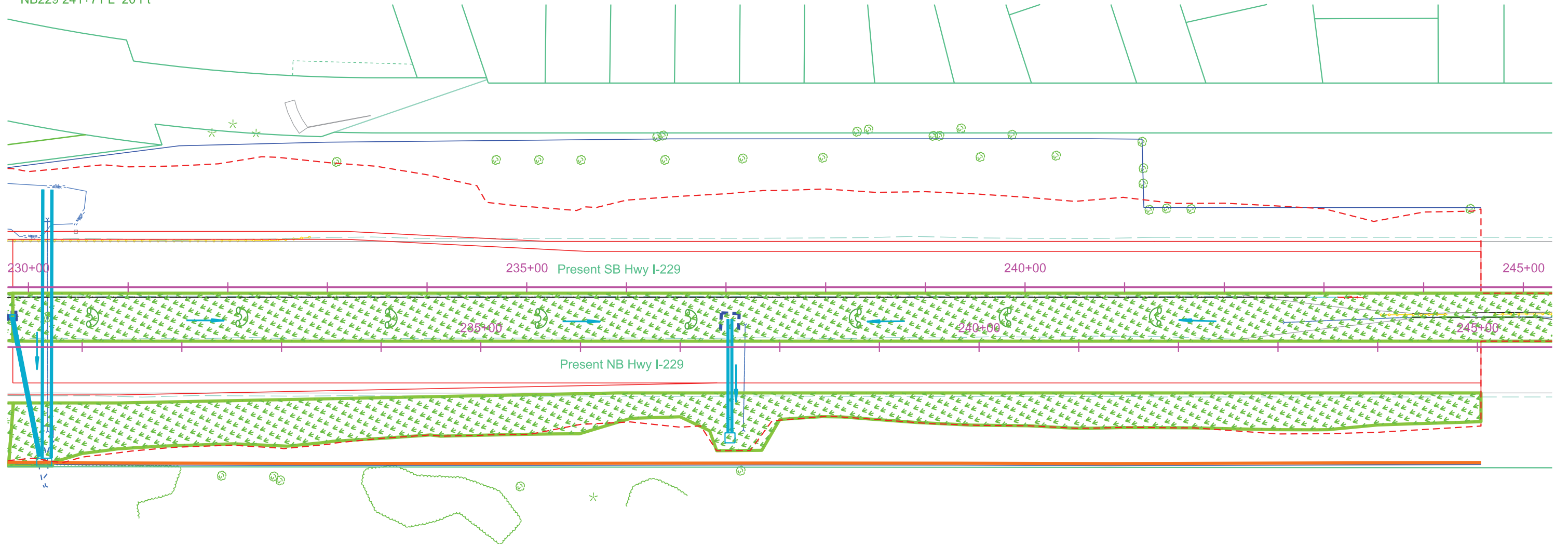
Plotting Date: 11/15/2024



Install 12" Diameter Erosion Control Wattles across the highway ditch channel bottom at the following locations:
 NB229 231+16 L 20 Ft
 NB229 232+66 L 20 Ft
 NB229 234+16 L 20 Ft
 NB229 235+66 L 20 Ft
 NB229 237+17 L 20 Ft
 NB229 238+70 L 20 Ft
 NB229 240+20 L 20 Ft
 NB229 241+71 L 20 Ft

SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN

Plot Scale - 1:100



Install Low Flow Silt Fence at the following locations:
 NB229 221+76 R to 245+04 R Perimeter control 2380 Ft

Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:
 NB229 230+30 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 NB229 237+50 L 55 Ft Low Flow Silt Fence



Plotted From - ngiersvik

File - ...105HN_ec.dgn

CLIFF AVENUE - PHASE 2

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT IM-B-CR 2292(101)3	SHEET D35	TOTAL SHEETS D47
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Plotting Date: 11/15/2024

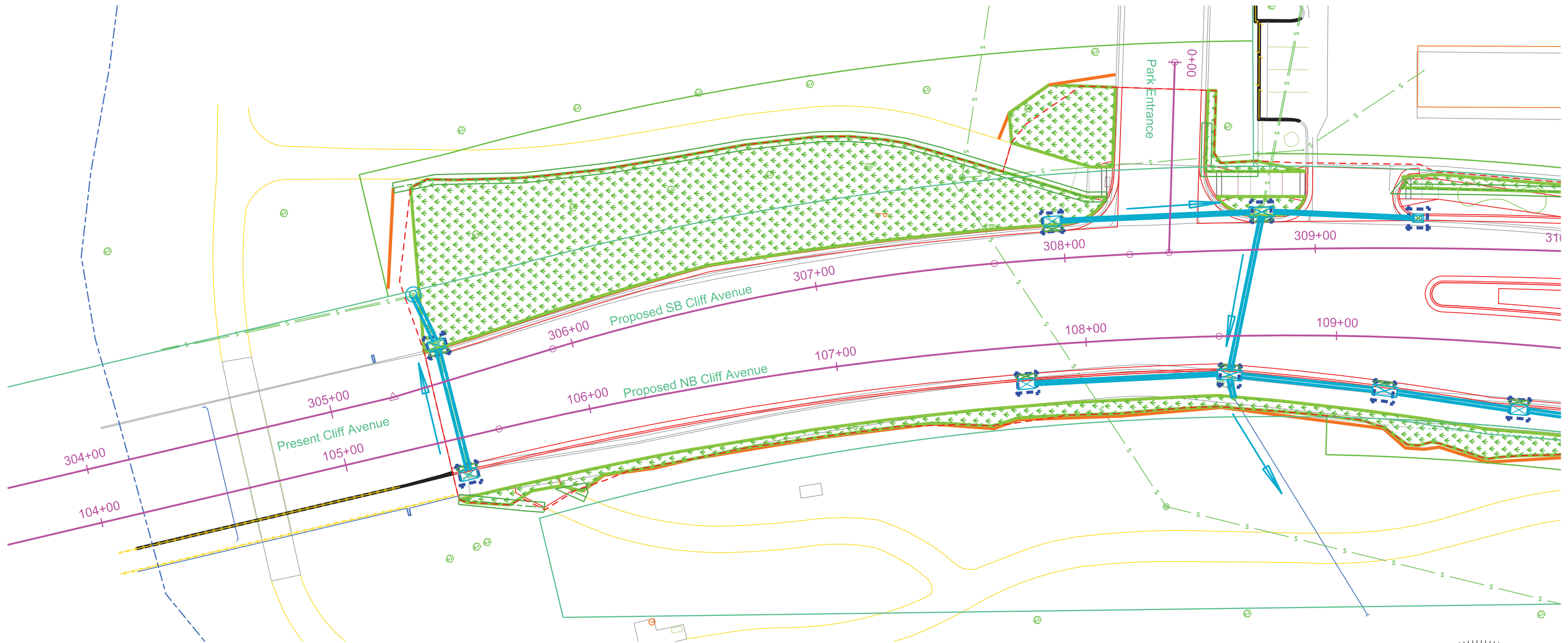


Install 12" Diameter Erosion Control Wattles on slope at the following locations:
 SBCLIFF 305+50 L to 308+18 L 290 Ft
 SBCLIFF 308+59 L to 310+09 L 125 Ft
 NBCLIFF 105+41 R to 015+91 R 50 Ft

Install Sediment Control at Inlets with Frames and Grates after the placement of surfacing at the following locations:
 SBCLIFF 309+41 L 1 Each

Install Sediment Control at Type S Drop Inlets after the placement of surfacing at the following locations:
 NBCLIFF 105+47 R 8 Ft
 NBCLIFF 107+75 R 8 Ft
 NBCLIFF 108+57 R 12 Ft
 NBCLIFF 109+20 R 12 Ft
 NBCLIFF 109+75 R 8 Ft

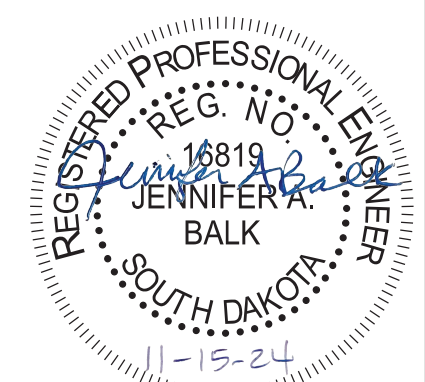
SBCLIFF 305+48 L 8 Ft
 SBCLIFF 307+96 L 8 Ft
 SBCLIFF 308+79 L 12 Ft



Install Low Flow Silt Fence at the following locations:
 SBCLIFF 305+36 L to 305+50 L Perimeter control 45 Ft
 SBCLIFF 307+78 L to 308+34 L Perimeter control 60 Ft
 NBCLIFF 105+91 R to 110+65 R Perimeter control 470 Ft

Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:
 NBCLIFF 105+47 R 20 Ft Low Flow Silt Fence 28 Ft Sediment Filter Bags
 NBCLIFF 107+75 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 NBCLIFF 108+57 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 NBCLIFF 109+20 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 NBCLIFF 109+75 R 26 Ft Low Flow Silt Fence 34 Ft Sediment Filter Bags
 SBCLIFF 305+48 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 SBCLIFF 307+96 L 26 Ft Low Flow Silt Fence 34 Ft Sediment Filter Bags
 SBCLIFF 308+79 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 SBCLIFF 309+41 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags

SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN



Plot Scale - 1"=40'

Plotted From - engiersvik

File - ...105HN_ec.dgn

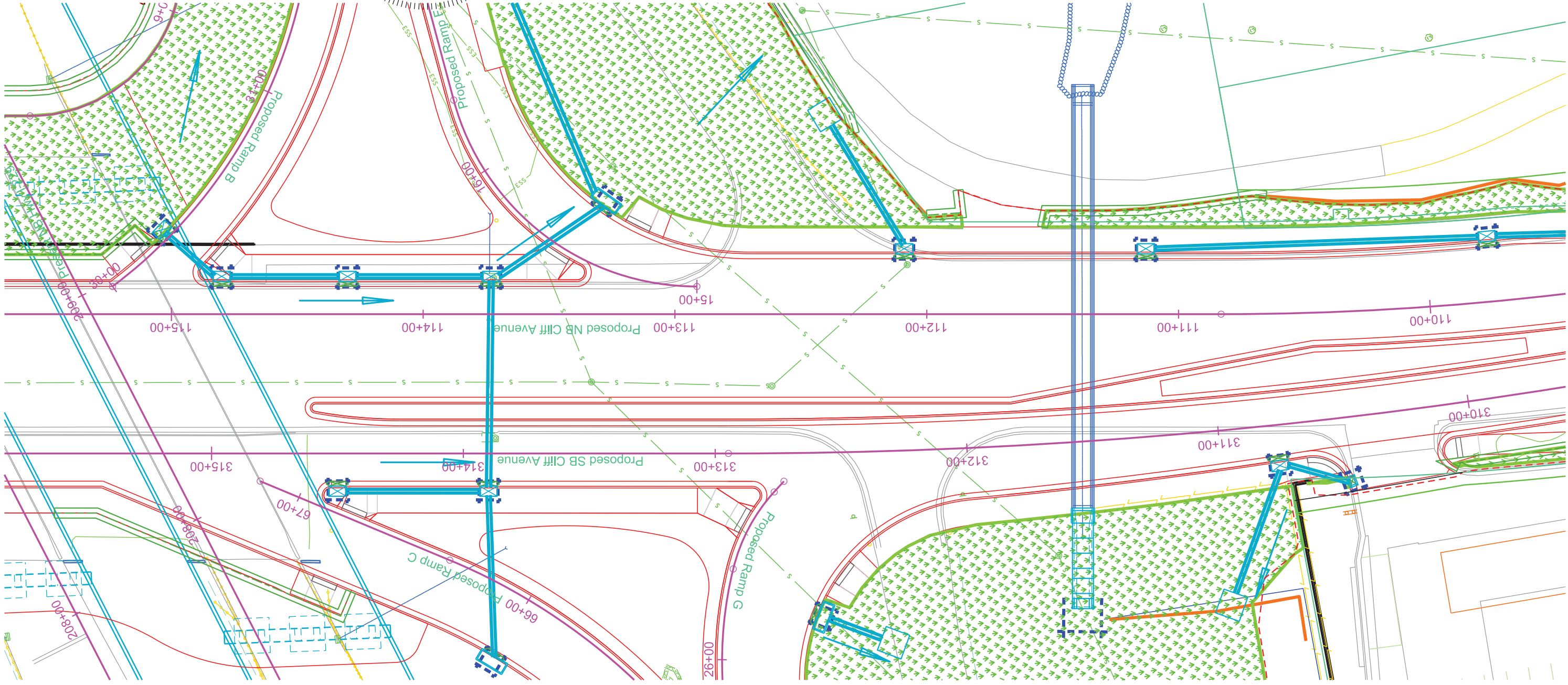
CLIFF AVENUE - PHASE 2

STATE OF SOUTH DAKOTA	PROJECT	D36	TOTAL SHEETS
IM-B-CR 2292(101)3		D47	

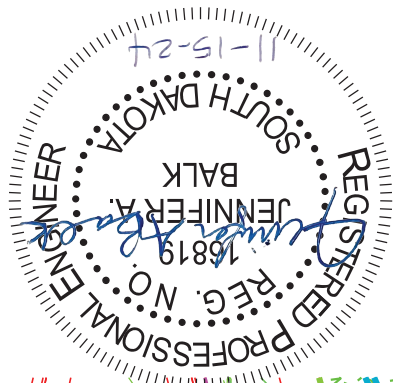
Plotting Date: 11/15/2024

Install Interim Sediment Control at Inlets, Manholes, and Junction Boxes before the placement of surfacing at the following locations:
 NBCLIFF 111+13 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 NBCLIFF 112+09 R 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 SBCLIFF 310+49 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 SBCLIFF 310+77 L 18 Ft Low Flow Silt Fence 26 Ft Sediment Filter Bags
 SBCLIFF 311+60 L 60 Ft Low Flow Silt Fence

Install Sediment Control at Inlets with Frames and Grates after the placement of surfacing at the following locations:
 SBCLIFF 310+49 L 1 Each



Install Sediment Control at Type S Drop Inlets after the placement of surfacing at the following locations:
 NBCLIFF 111+13 R 8 Ft
 NBCLIFF 112+13 R 8 Ft
 SBCLIFF 310+77 L 8 Ft
 SBCLIFF 313+90 L 8 Ft
 SBCLIFF 314+50 L 8 Ft



SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN

Install Low Flow Silt Fence at the following locations:
 SBCLIFF 310+66 L to 311+48 L Perimeter control 120 Ft
 NBCLIFF 105+91 R to 110+65 R Perimeter control 470 Ft
 NBCLIFF 112+00 R to 112+29 R Perimeter control 45 Ft

Install 12" Diameter Erosion Control Wattles on slope at the following locations:
 SBCLIFF 308+59 L to 310+09 L 125 Ft
 SBCLIFF 314+92 L to 315+62 L 80 Ft
 NBCLIFF 110+65 R to 112+00 R 120 Ft
 NBCLIFF 115+04 R to 116+05 R 115 Ft
 TRAIL 7+49 L TO 9+13 L 155 Ft
 RAMP 15+00 R TO 17+64 R 230 Ft

FOR BIDDING PURPOSES ONLY

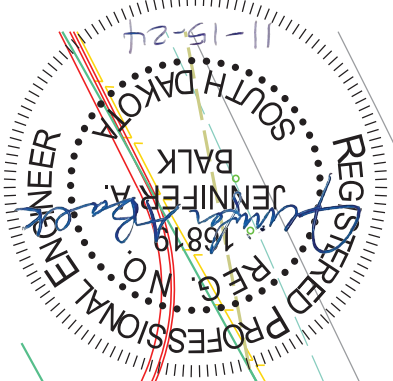
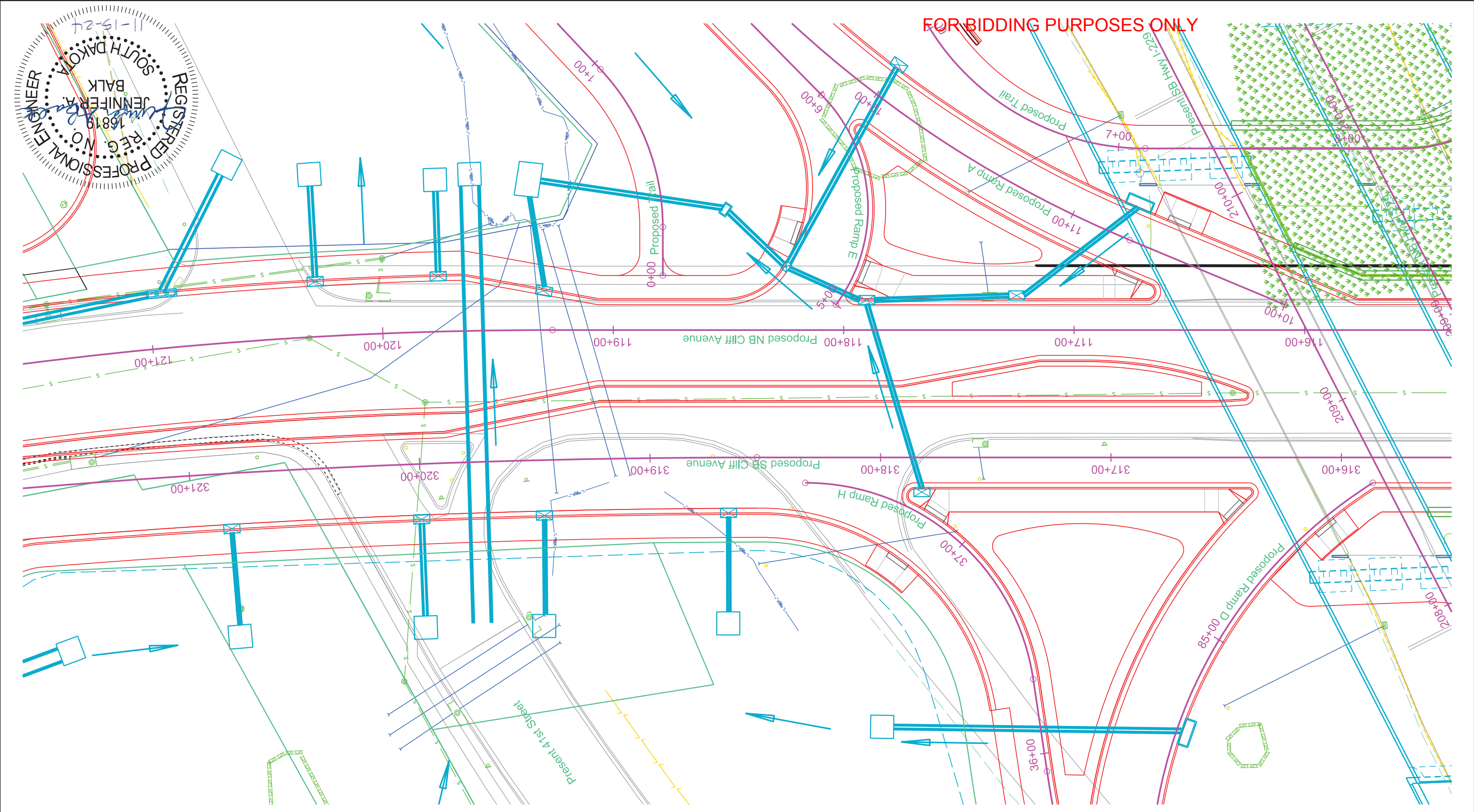
CLIFF AVENUE - PHASE 2

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
IM-B-CR 2292(10)3	D37	D47	D47

Plotting Date: 11/15/2024

SEED, FERTILIZE AND APPLY BONDED FIBER MATRIX TO ALL DISTURBED AREAS AS SHOWN

Install 12" Diameter Erosion Control Wattles on slope at the following locations:
 SBCLIFF 314+92 L to 315+62 L 80 Ft
 NBCLIFF 115+04 R to 116+05 R 115 Ft
 TRAIL 7+49 L to 9+13 L 155 Ft



File: ...05HN_sec.dgn

Plot Scale = 1/4" = 1'-0"

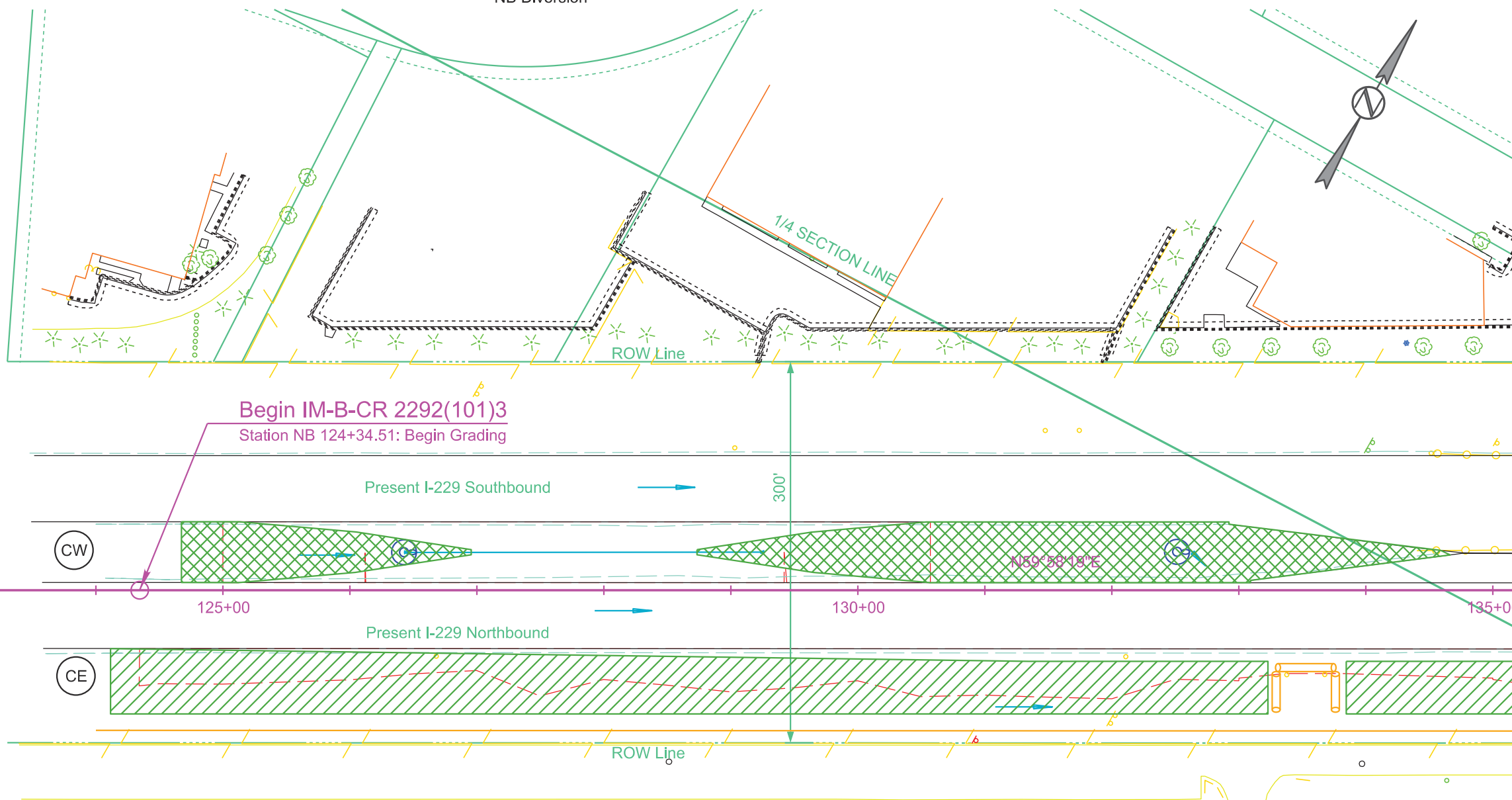
Plot Scale = 1/4" = 1'-0"

EROSION CONTROL

FOR BIDDING PURPOSES ONLY

NB Diversion

STATE OF SOUTH DAKOTA	PROJECT IM-B-CR 2292(101)3	SECTION D38	SHEET D47
Plotting Date: 10/23/2024			



Begin IM-B-CR 2292(101)3
Station NB 124+34.51: Begin Grading

Present I-229 Southbound

Present I-229 Northbound

CW

CE

120+00

125+00

130+00

135+00

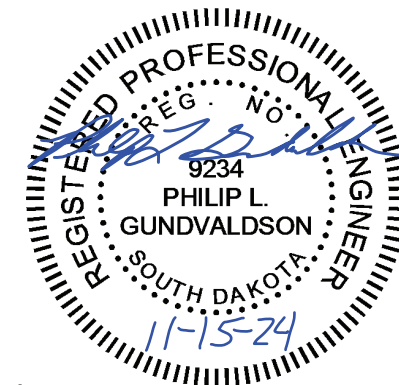
ROW Line

Install Low Flow Silt Fence
I-229 MB 124+00-110' RT to 140+00-110' RT - 1600 ft

Install 20" Diameter Erosion Control Wattles
I-229 NB 126+42-30' LT - 30 ft
I-229 NB 132+51-30' LT - 30 ft

Install 12" Diameter Erosion Control Wattles
I-229 NB 133+29-66' RT - 30 ft
I-229 NB 133+53-66' RT - 40 ft
I-229 NB 133+76-66' RT - 30 ft

Install Type 2 Erosion Control Blanket (Ditch Shaping)
I-229 NB 124+67-30' LT - 230 Ft
I-229 NB 128+74-30' LT - 592 Ft



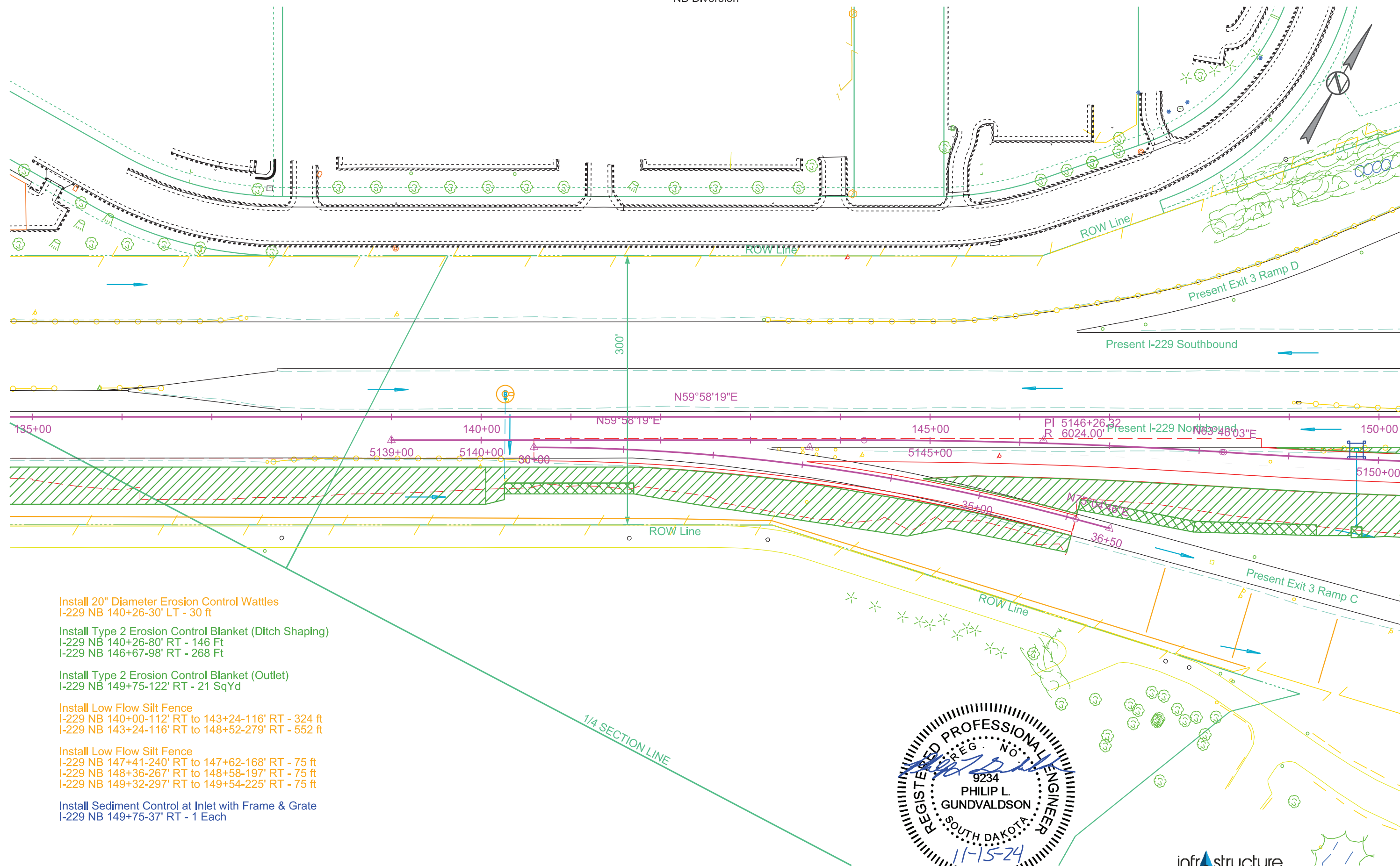
EROSION CONTROL

NB Diversion

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT IM-B-CR 2292(101)3	SECTION D39	SHEET D47
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Plotting Date: 10/23/2024



- Install 20" Diameter Erosion Control Wattles
I-229 NB 140+26-30' LT - 30 ft
- Install Type 2 Erosion Control Blanket (Ditch Shaping)
I-229 NB 140+26-80' RT - 146 Ft
I-229 NB 146+67-98' RT - 268 Ft
- Install Type 2 Erosion Control Blanket (Outlet)
I-229 NB 149+75-122' RT - 21 SqYd
- Install Low Flow Silt Fence
I-229 NB 140+00-112' RT to 143+24-116' RT - 324 ft
I-229 NB 143+24-116' RT to 148+52-279' RT - 552 ft
- Install Low Flow Silt Fence
I-229 NB 147+41-240' RT to 147+62-168' RT - 75 ft
I-229 NB 148+36-267' RT to 148+58-197' RT - 75 ft
I-229 NB 149+32-297' RT to 149+54-225' RT - 75 ft
- Install Sediment Control at Inlet with Frame & Grate
I-229 NB 149+75-37' RT - 1 Each

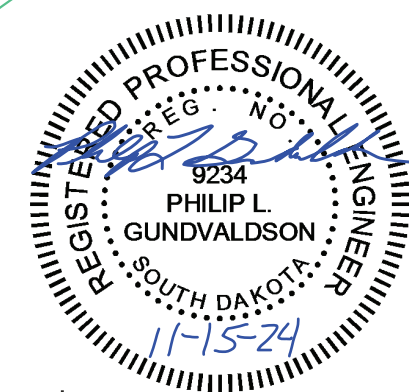
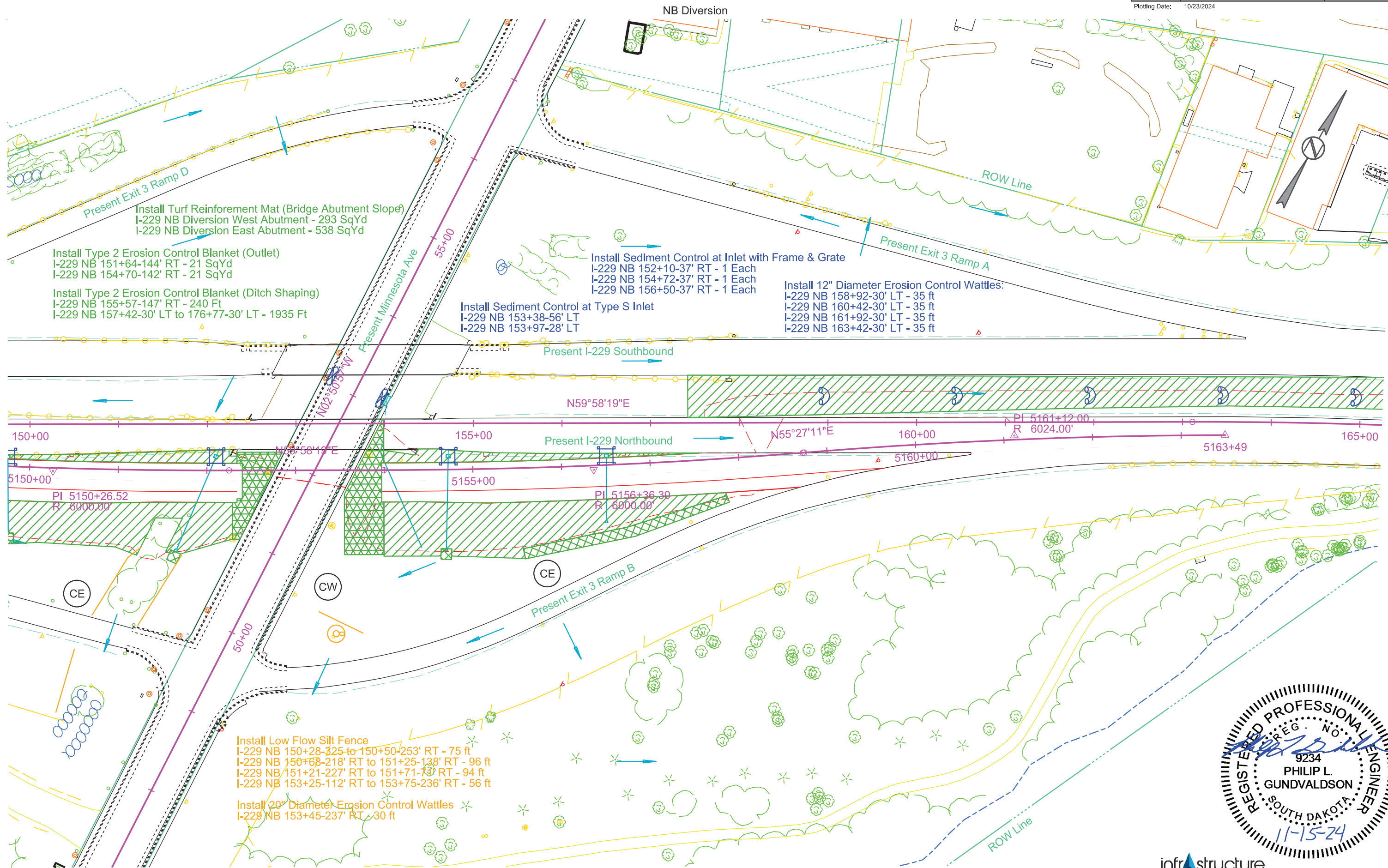


EROSION CONTROL

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SECTION	SHEET
	IM-B-CR 2292(101)3	D40	D47

Plotting Date: 10/23/2024

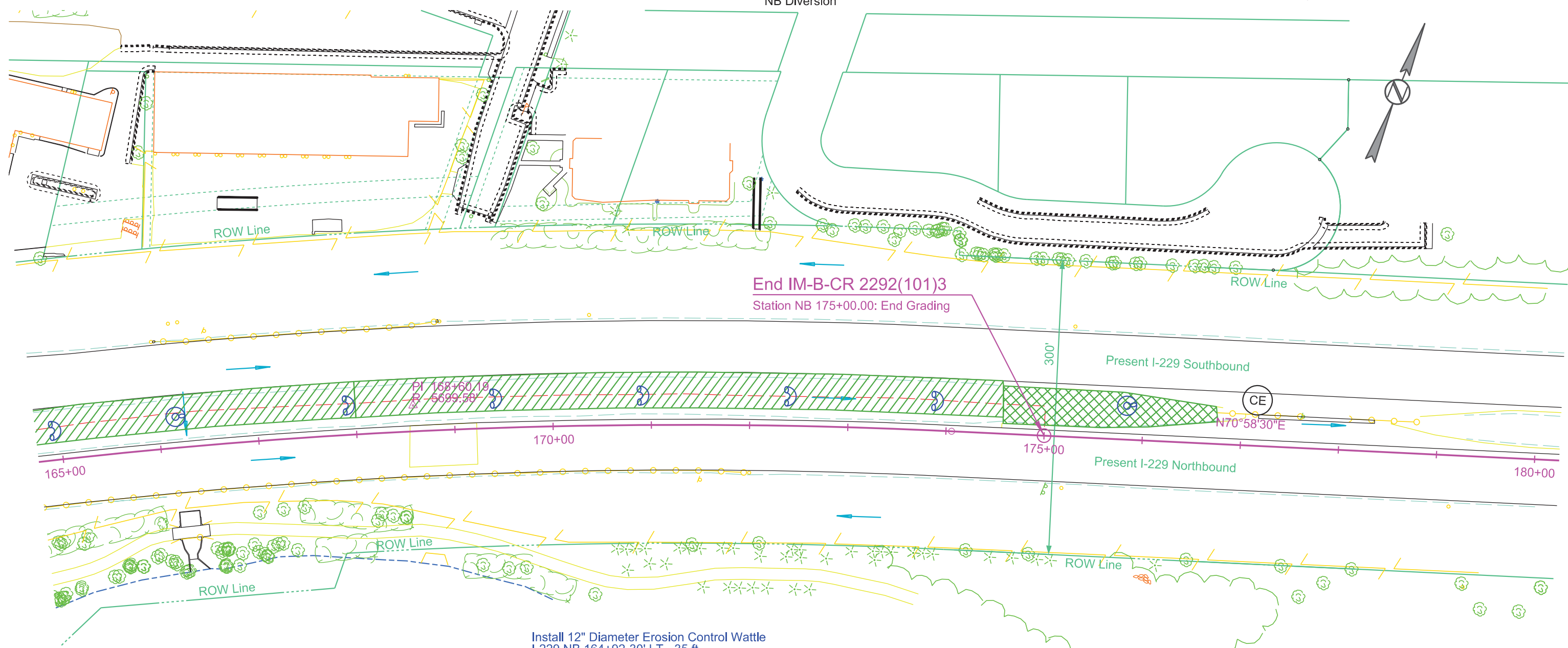


infrastructure
design group inc.

EROSION CONTROL

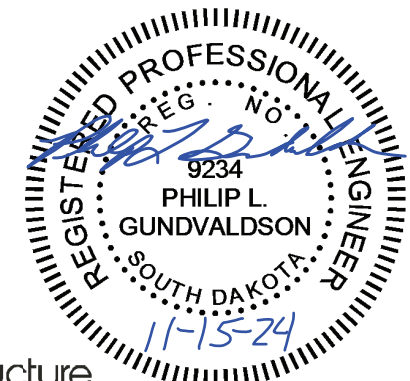
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT IM-B-CR 2292(101)3	SECTION D41	SHEET D47
Plotting Date: 10/23/2024			



End IM-B-CR 2292(101)3
Station NB 175+00.00: End Grading

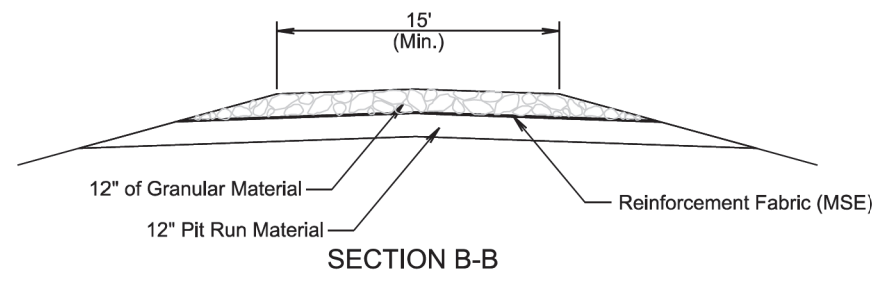
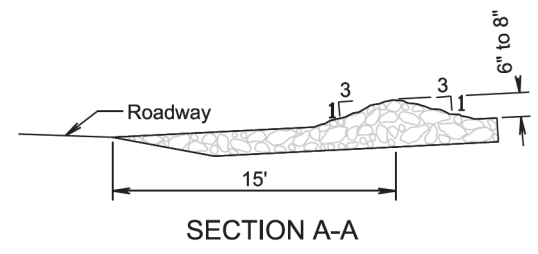
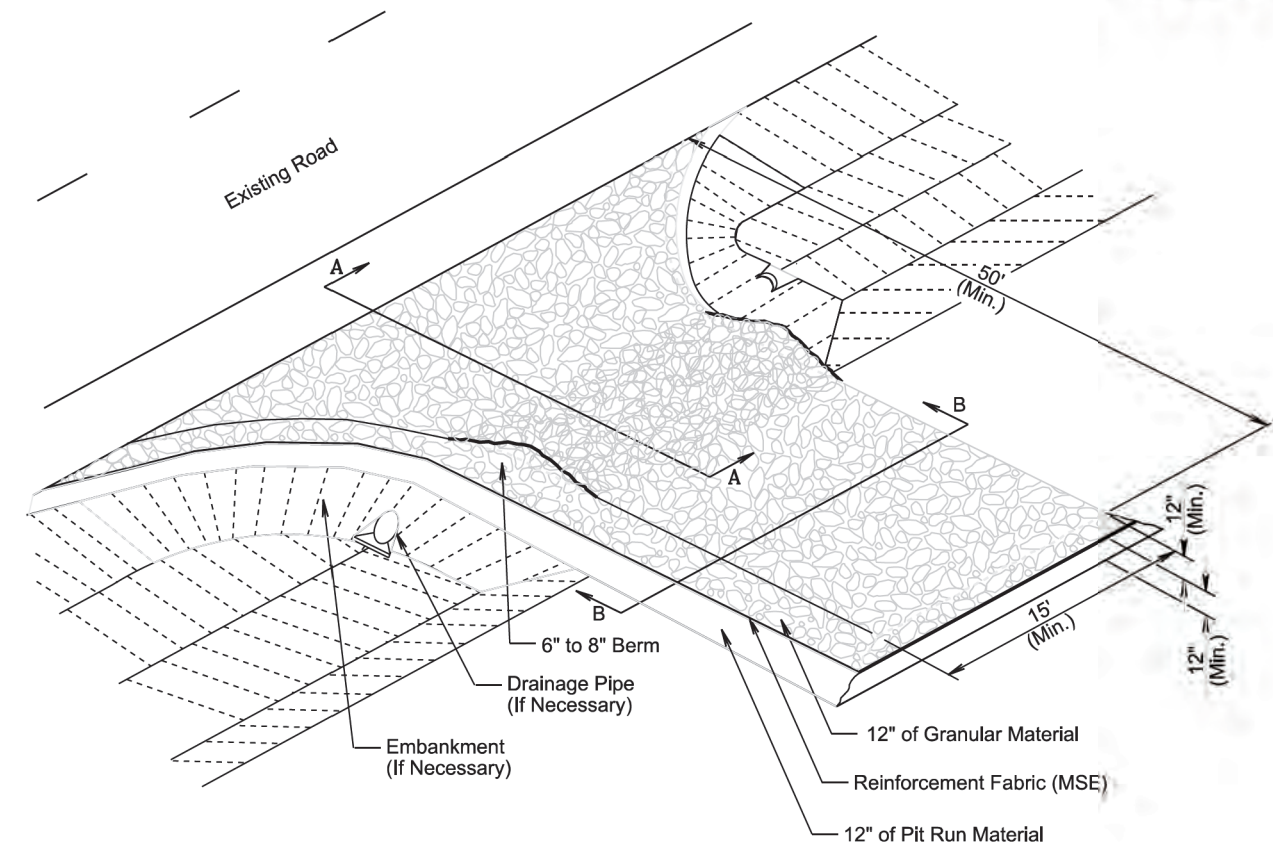
- Install 12" Diameter Erosion Control Wattle**
 I-229 NB 164+92-30' LT - 35 ft
 I-229 NB 166+42-30' LT - 35 ft:
 I-229 NB 167+92-30' LT - 35 ft
 I-229 NB 169+42-30' LT - 35 ft
 I-229 NB 170+92-30' LT - 35 ft
 I-229 NB 172+42-30' LT - 35 ft
 I-229 NB 173+92-30' LT - 35 ft
 I-229 NB 175+42-30' LT - 35 ft
- Install 20" Diameter Erosion Control Wattles**
 I-229 NB 166+18-30' LT - 30 ft
 I-229 NB 175+83-30' LT - 30 ft



SDDOT CONSTRUCTION ENTRANCE

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SECTION	SHEET
	IM-B-CR 2292(101)3	D42	D47
Plotting Date: 6/7/2024			

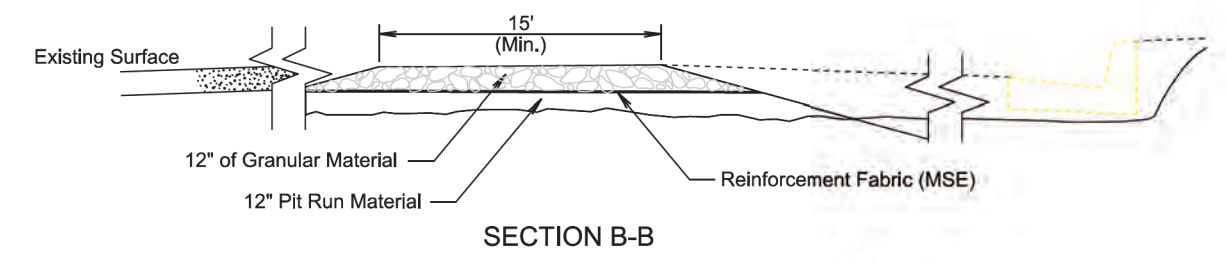
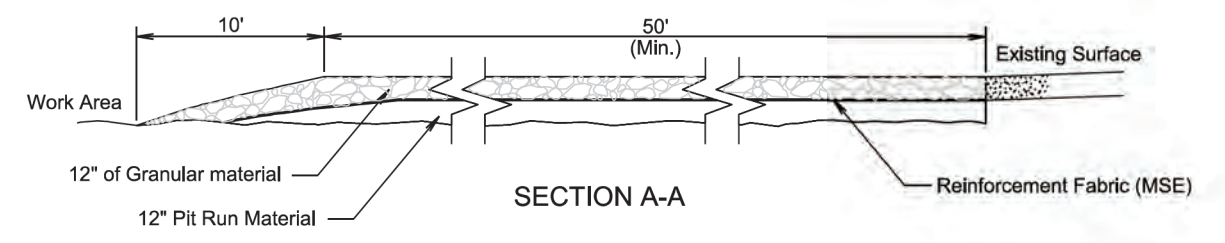
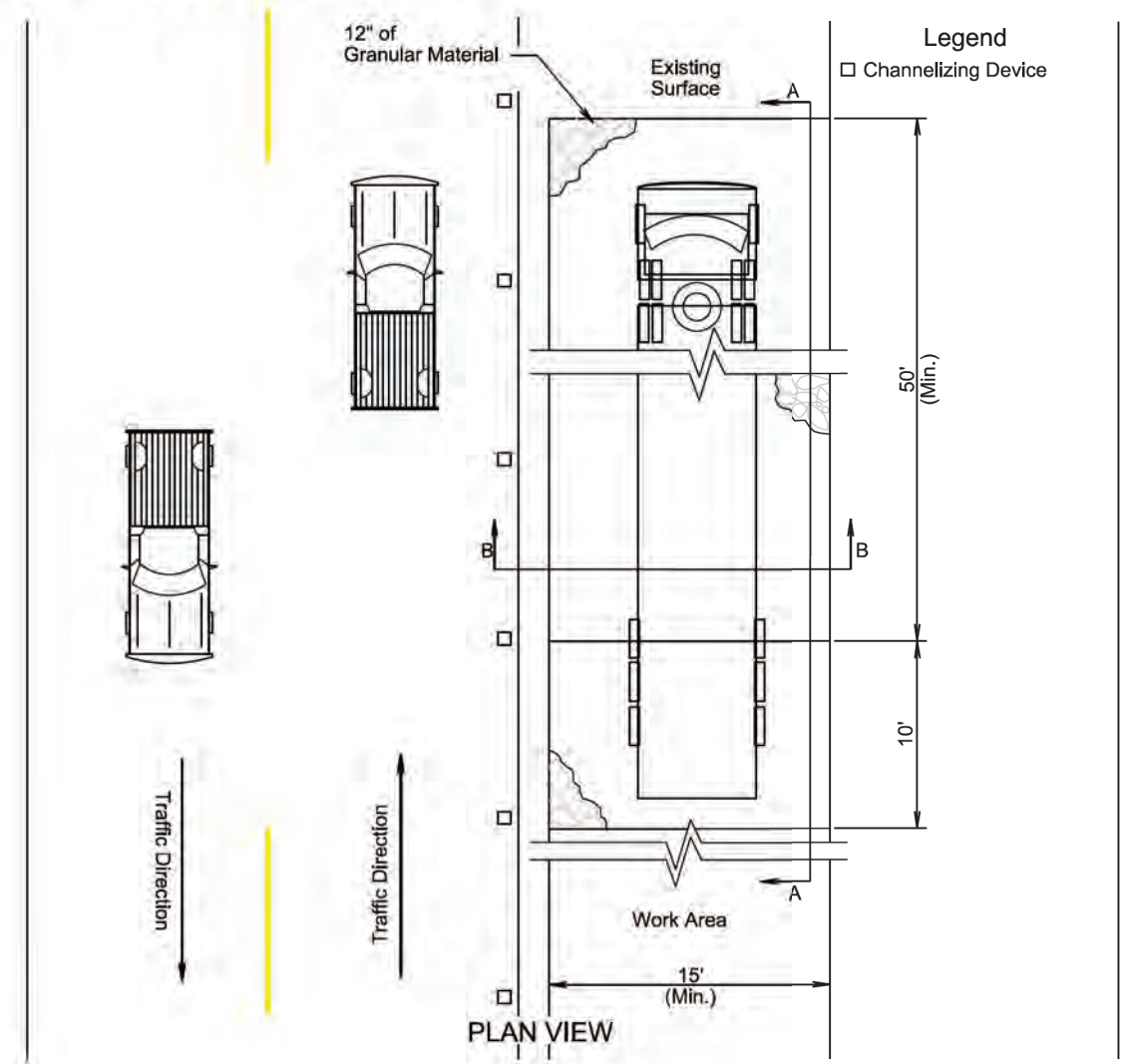


GENERAL NOTES:

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

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

If embankment is necessary it must be pit run material.



TRANSVERSE TO ROADWAY

PARALLEL TO ROADWAY

OPTIONS FOR DEWATERING AND SEDIMENT COLLECTING

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	D42A	D47
Plotting Date:	1/15/2025	Revised Date:	1/15/2025
		Initials:	NBG

FOR BIDDING PURPOSES ONLY

DEWATERING BAGS AND SOCKS capture sediment and should be placed on pavement, vegetated areas, or gravel.

Dandy Dewatering Bag
Dandy Products, Inc.
Powell, OH
Phone: 1.800.591.2284
www.dandyproducts.com

Non-woven Sediment Filter Bags
Indian Valley Industries, Inc.
Johnson City, NY
Phone: 1.800.659.5111
www.iviindustries.com

Taurus Dewatering Bags/Socks
SolHuTec Group, Inc.
Sebastian, FL
Phone: 1.888.703.9889
www.solhutec.com

Ultra-Dewatering Bag
UltraTech International, Inc
Jacksonville, FL
Phone: 1.800.764.9563
www.spillcontainment.com

Heavy Duty Dirtbag 55
ACF Environmental
Richmond, VA
Phone: 1.800.223.9021
www.acfenvironmental.com

Pump-It Tube
Flo-Water, LLC
West Des Moines, IA
Phone: 1.515.577.6763
www.flo-water.net

OPTIONS ARE NOT LIMITED TO WHAT IS SHOWN ON THIS SHEET

NO MATTER THE SYSTEM OR METHOD USED, THE CONTRACTOR MUST MEET THE TERMS OF THE TEMPORARY DISCHARGE PERMIT AND THE STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES.

Various systems, devices, and products are shown on this sheet to give the Contractor ideas of what may be used for water treatment. Other systems, devices, and products are available and can be used with approval from the Engineer.

The Contractor may elect to block a portion of storm sewer near the outfall with sand bags and pump the water out to be treated with a flocculent or allow the water to set in a lined dumpster until sediment falls out of suspension before discharging the water. Drop inlet protection devices could also be used as part of a treatment train. The Contractor may pump dirty water into a hydroseeder and mix it with a flocculent, and spray the mixture back onto a sediment pond.

PURPOSE

The purpose of a dewatering and sediment collection system is to collect turbid storm water on the project, treat it with flocculents as needed, and capture the sediment that falls out of suspension before the water is discharged into "Waters of the US" or "Waters of the State". Refer to the Environmental Commitments for the specific requirements for each body of water on this project.

The Contractor will need to create a Pollution Prevention Plan (PPP) for dewatering and sediment collection if the Contractor chooses to discharge the water into "Waters of the US" or "Waters of the State" instead of disposing of the water off-site, using it for irrigation, or using it for hydroseeding. The Contractor will also need to obtain a Temporary Discharge Permit from the South Dakota Department of Agriculture & Natural Resources (DANR) on all projects outside of Indian Reservation boundaries.

Suggestions for dewatering and sediment collection may be shown on the plan sheets. It is the Contractor's responsibility to dewater and collect sediment. The Contractor will have to intercept and treat the stormwater before storm sewer outfalls into "Waters of the US" or "Waters of the State". The Contractor may need more than one dewatering and sediment collection system to capture and treat stormwater at multiple outfalls and/or locations simultaneously during each phase of the project.

PAYMENT

All costs for Dewatering and Sediment Collecting will be incidental to the contract lump sum price for "Dewatering".

FLOCCULENTS listed below are considered to be safe for the environment, if used as directed:

APS 700 Series Floc Logs
Applied Polymer Systems, Inc.
Woodstock, GA
Phone: 1.866.200.9868
http://www.siltstop.com

Floc, Floc Soc, Floc Bag
Innovative Turf Solutions Products
Cincinnati, OH
Phone: 1.513.317.8311
http://www.innovativeturfproducts.com

Biostar CH
Hild & Associates, Inc.
Stillwater, MN
Phone: 1.715.426.5131
www.biostar-ch.com

Terra-Tubes
ACF Environmental
Buffalo Grove, IL
Phone: 1.800.366.1180
www.terratubes.com

FI-3500 Tablets
JRM Chemical, Inc.
Cleveland, OH
Phone: 1.216.475.8488
http://www.soilmoist.com

Tigerfloc
Floc Systems Inc.
Surrey, British Columbia
Phone: 1.604.343.2046
www.flocsystems.com

PORTABLE FLOCCULENT SYSTEMS

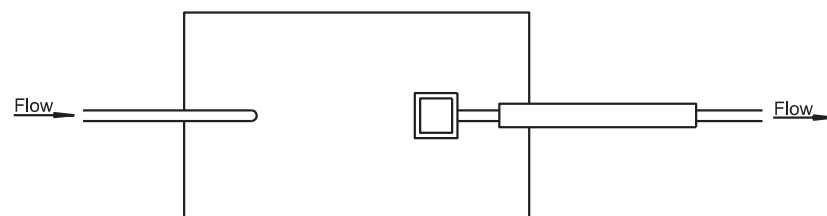
Eco Pond Rescue Water Wagon
Eco Pond Rescue LLC
Seminole, Florida
Phone: 1.727.412.4323
www.ecopondrescue.com

WTS2000 Portable Sediment Tank
Aqualet Industries, LLC
Ocean, New Jersey
Phone: 1.732.695.6336
http://aqualetindustries.com

Dry Flocculent Mixing System
Innovative Equipment Solutions
Hot Springs, Arkansas
Phone: 1.501.525.8484
http://www.neptunewash.com

THE CASCADE SYSTEM

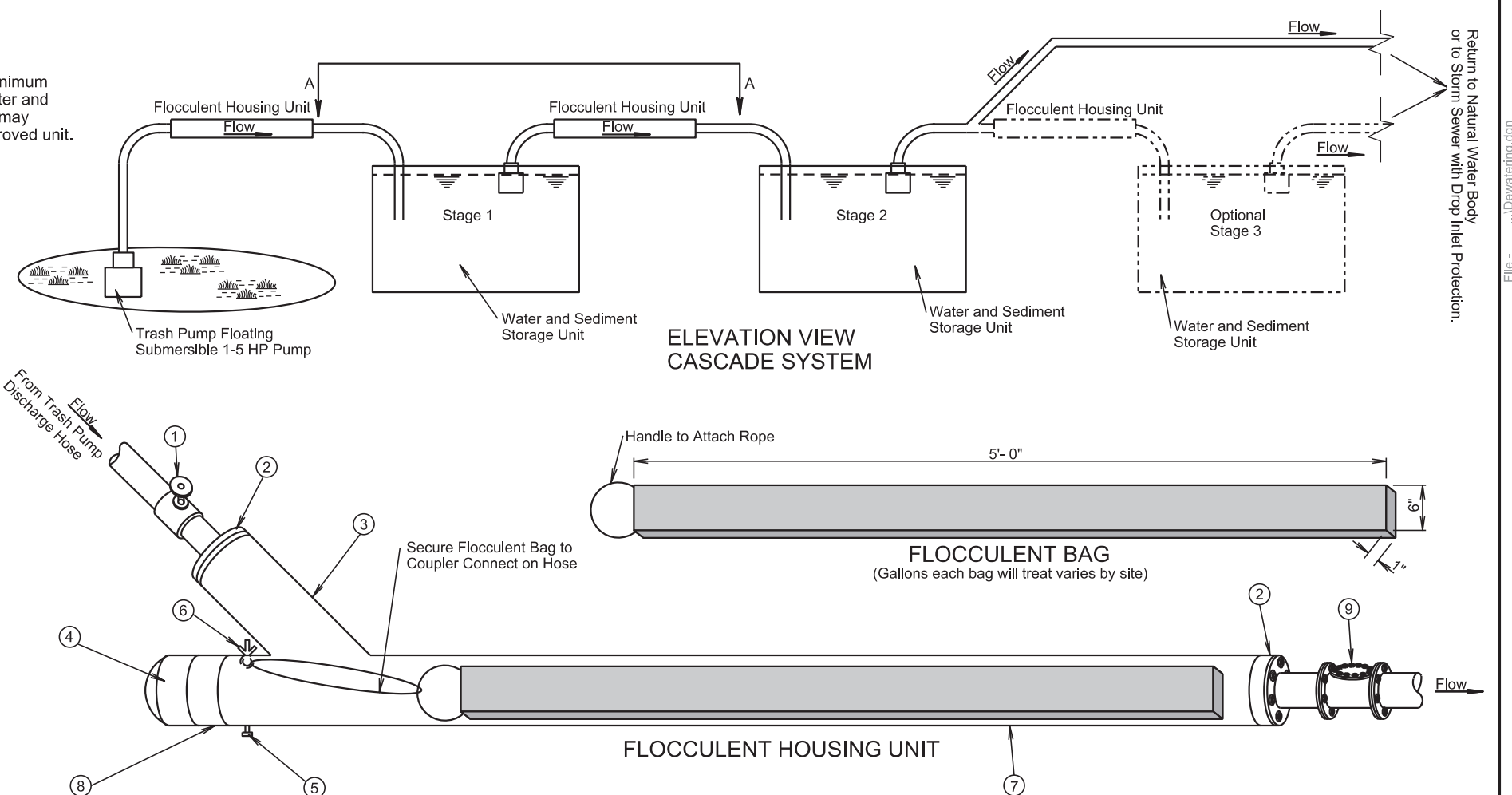
The cascade system is shown below and to the right for conceptual purposes only; however, the cascade system will at a minimum incorporate the use of 2 flocculent housing units and 2 water and sediment storage units. Design and construction of the water and sediment storage units are project site specific and will 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 other Engineer approved unit. The treatment flocculent bag may be from the list or an approved equal.



VIEW A-A

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 Adapter	1	Each
9	4" or 6" Dia. Sch. 40 PVC Swing Check Valve	1	Each

FLOW RATE ESTIMATE	
Pump Type	Flow Rate (gpm)
2"	50-250
3" Gas	250-350
4" Diesel	500-750
6" Diesel	750-1000



ELEVATION VIEW CASCADE SYSTEM

FLOCCULENT BAG
(Gallons each bag will treat varies by site)

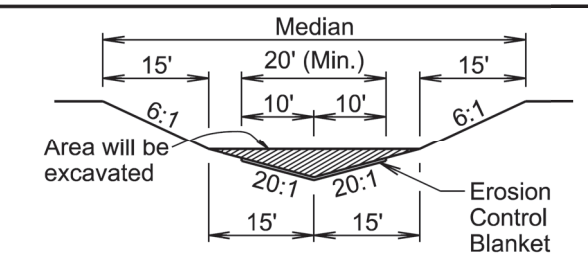
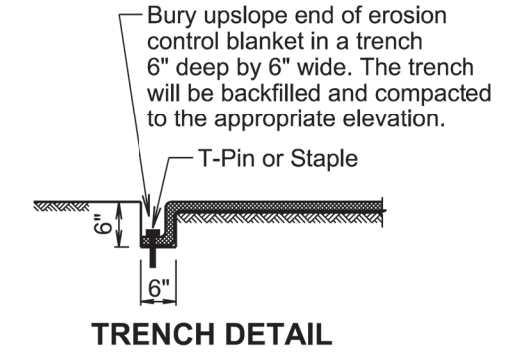
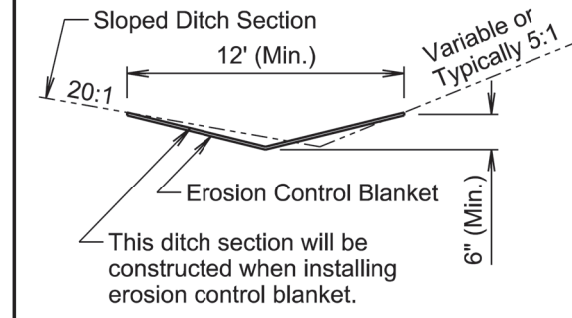
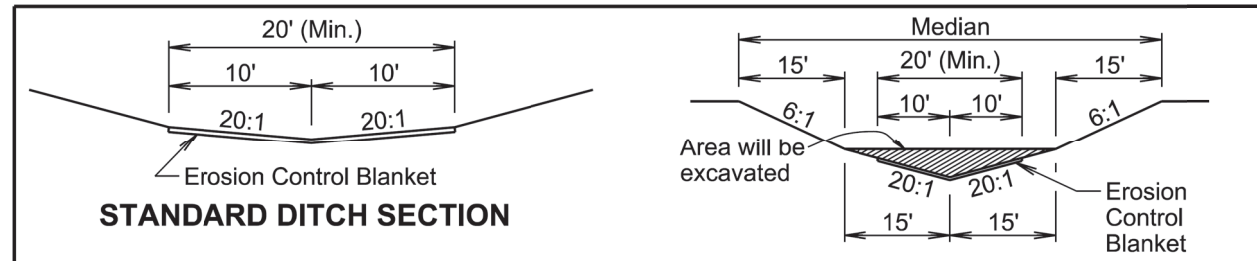
FLOCCULENT HOUSING UNIT

Plot Scale - 1:300

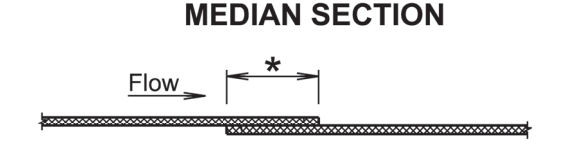
Plotted From - ngiersvik

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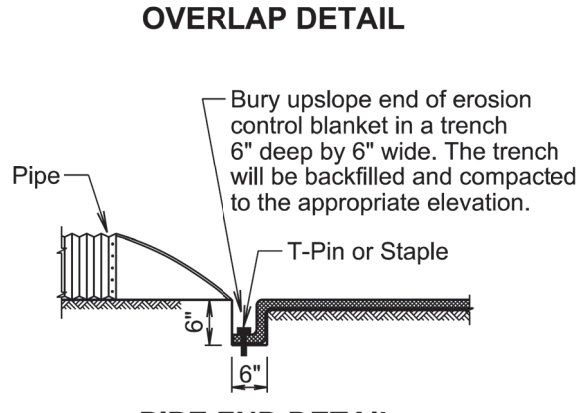
Plot Scale - 1:200



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



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



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".

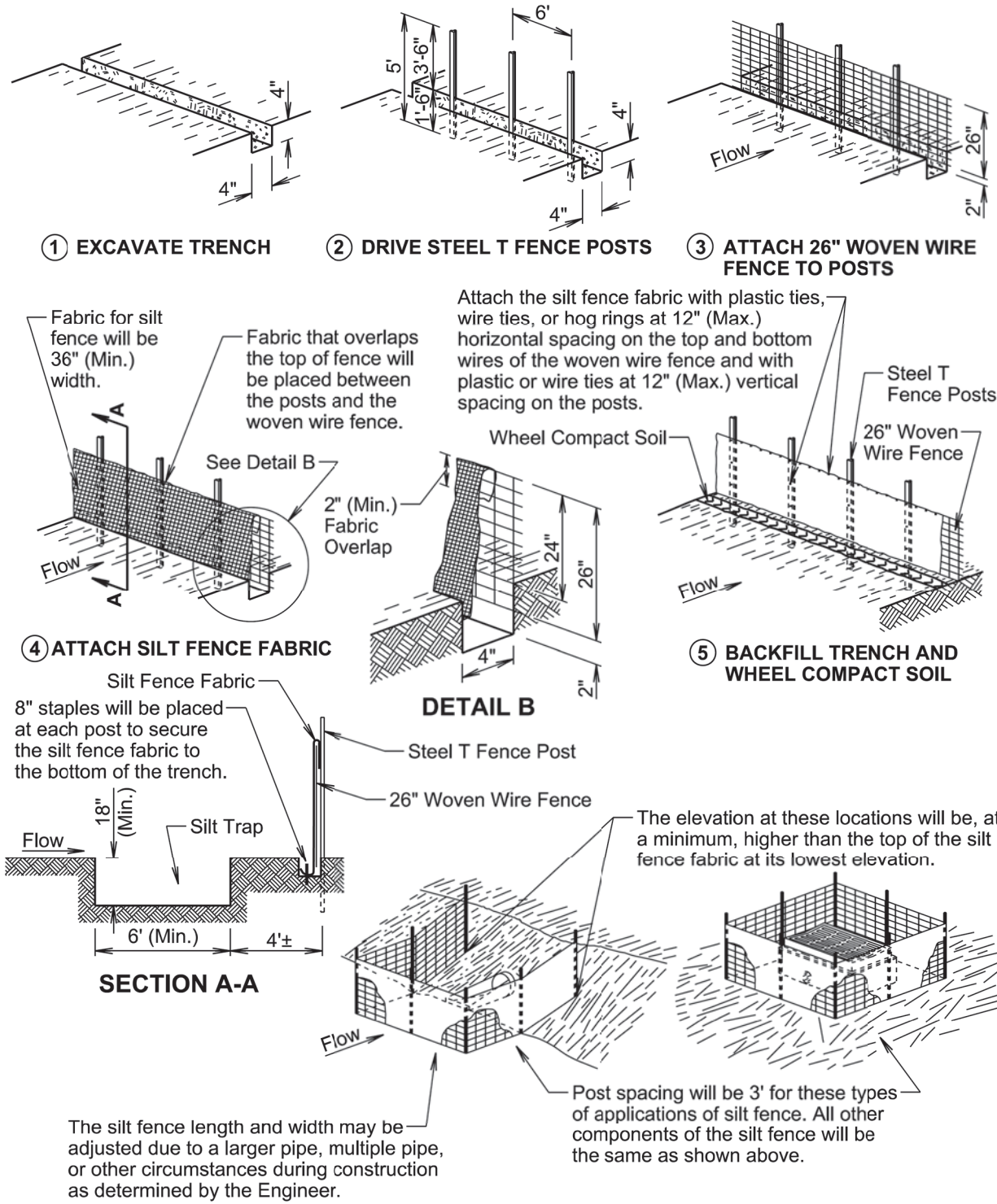
February 14, 2020

<i>Published Date: 2025</i>	S D D O T	EROSION CONTROL BLANKET	PLATE NUMBER 734.01
			Sheet 1 of 1

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MANUAL LOW FLOW SILT FENCE INSTALLATION



February 14, 2020

LOW FLOW SILT FENCE AND SILT TRAP

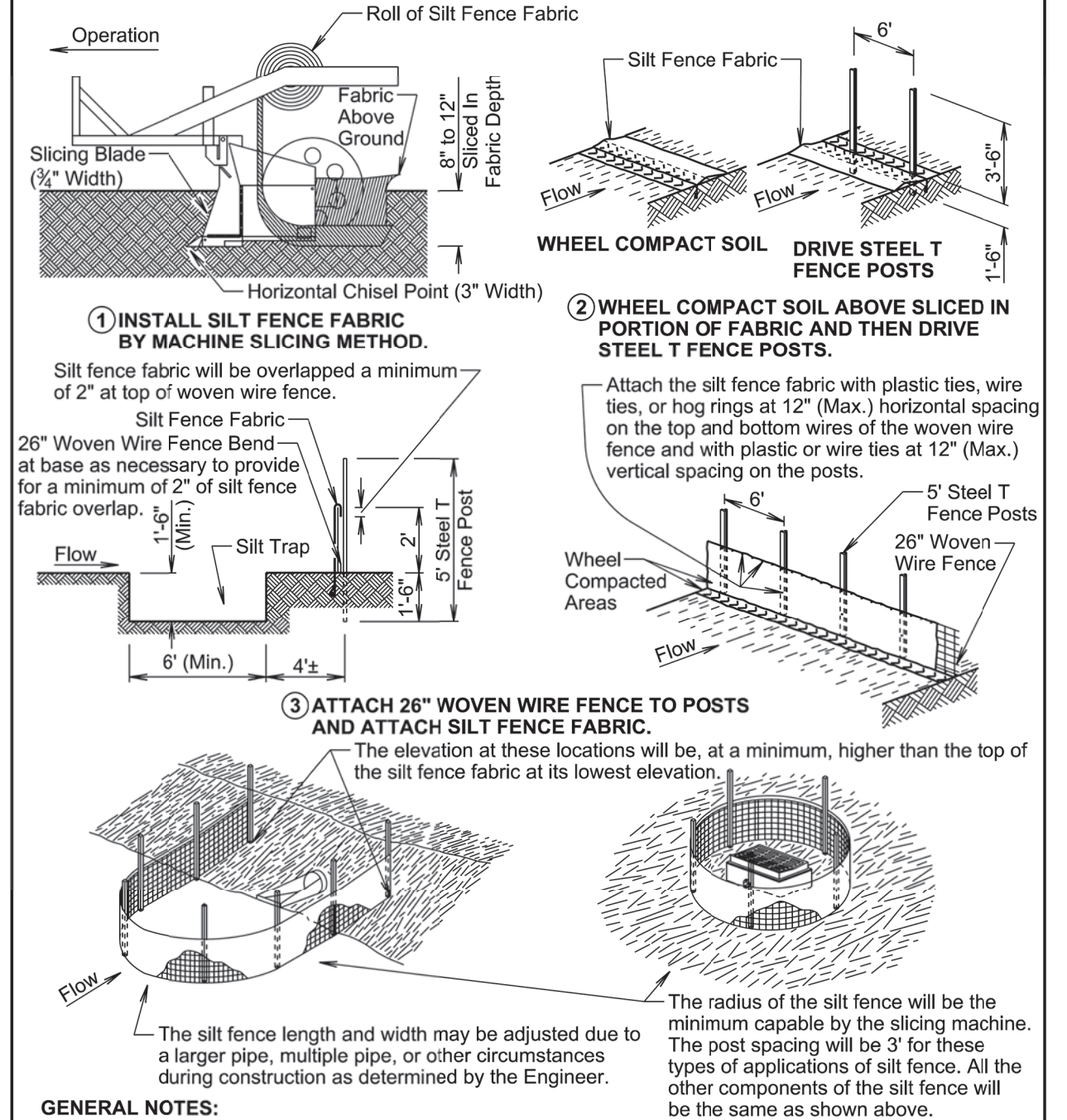
PLATE NUMBER
734.04

Sheet 1 of 2

Published Date: 2025

SD DOT

MACHINE SLICED LOW FLOW SILT FENCE INSTALLATION



GENERAL NOTES:

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

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

February 14, 2020

LOW FLOW SILT FENCE AND SILT TRAP

PLATE NUMBER
734.04

Sheet 2 of 2

Published Date: 2025

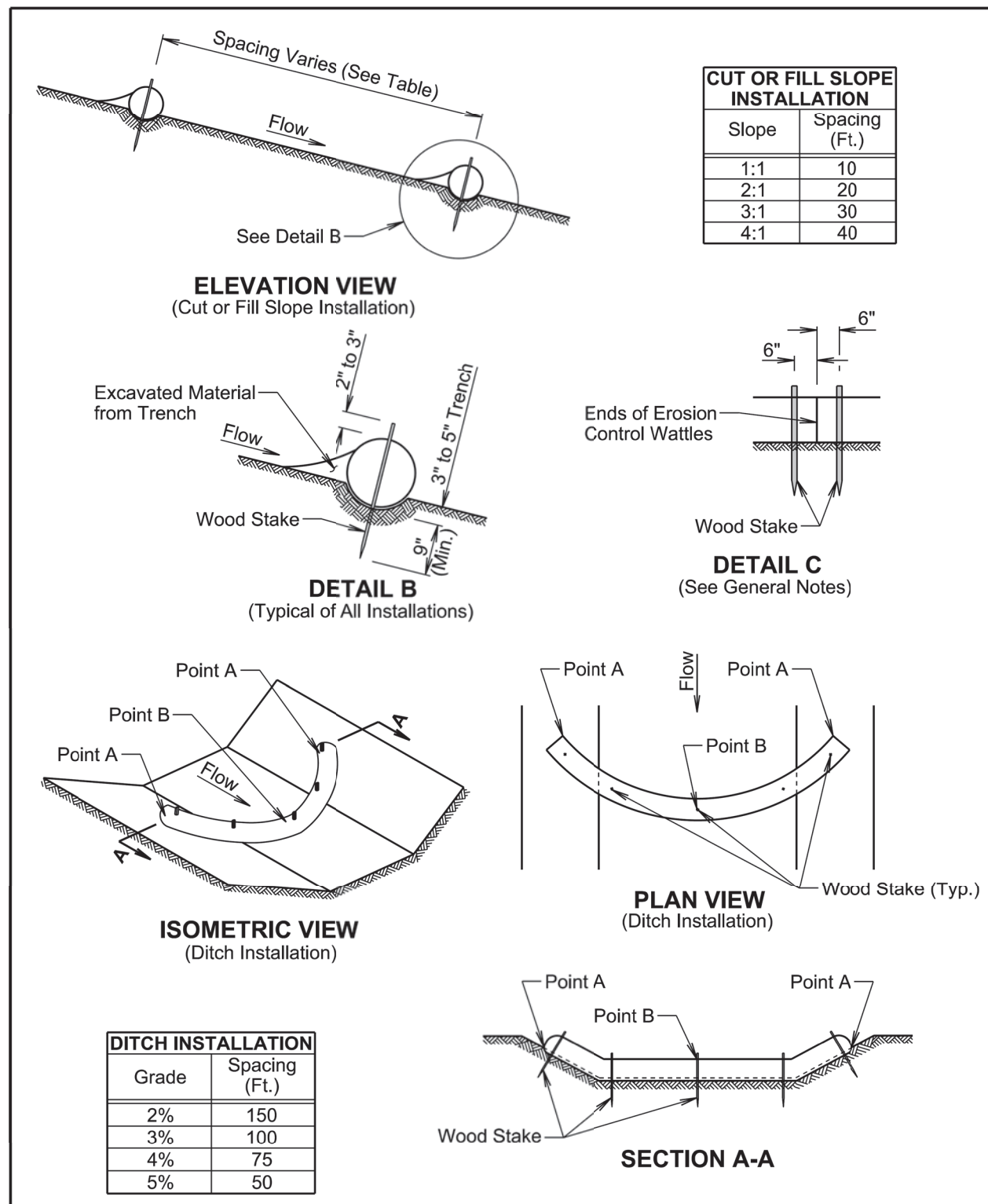
SD DOT

Plot Scale: 1:200

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Plot Scale - 1:200



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".

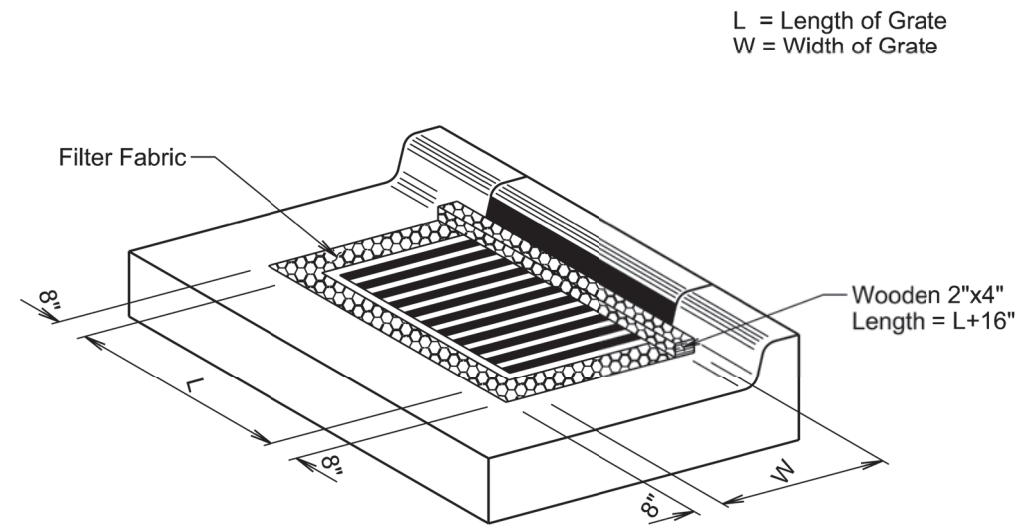
February 14, 2020

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

Plotted From - ngiersvik

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1:200 Plot Scale -



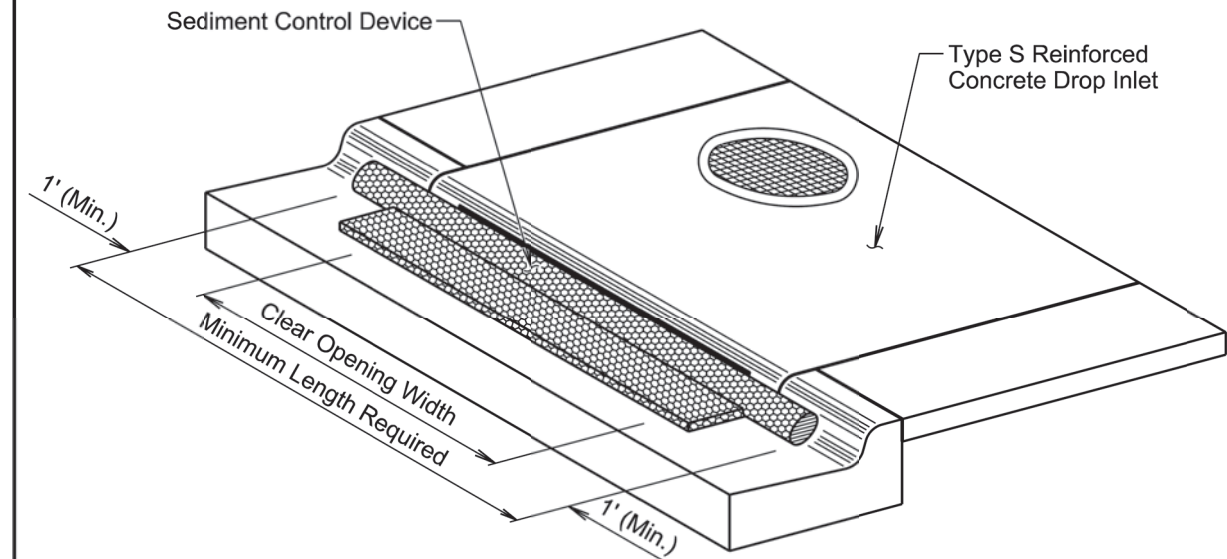
ISOMETRIC VIEW

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

Plotted From: - ngiersvik

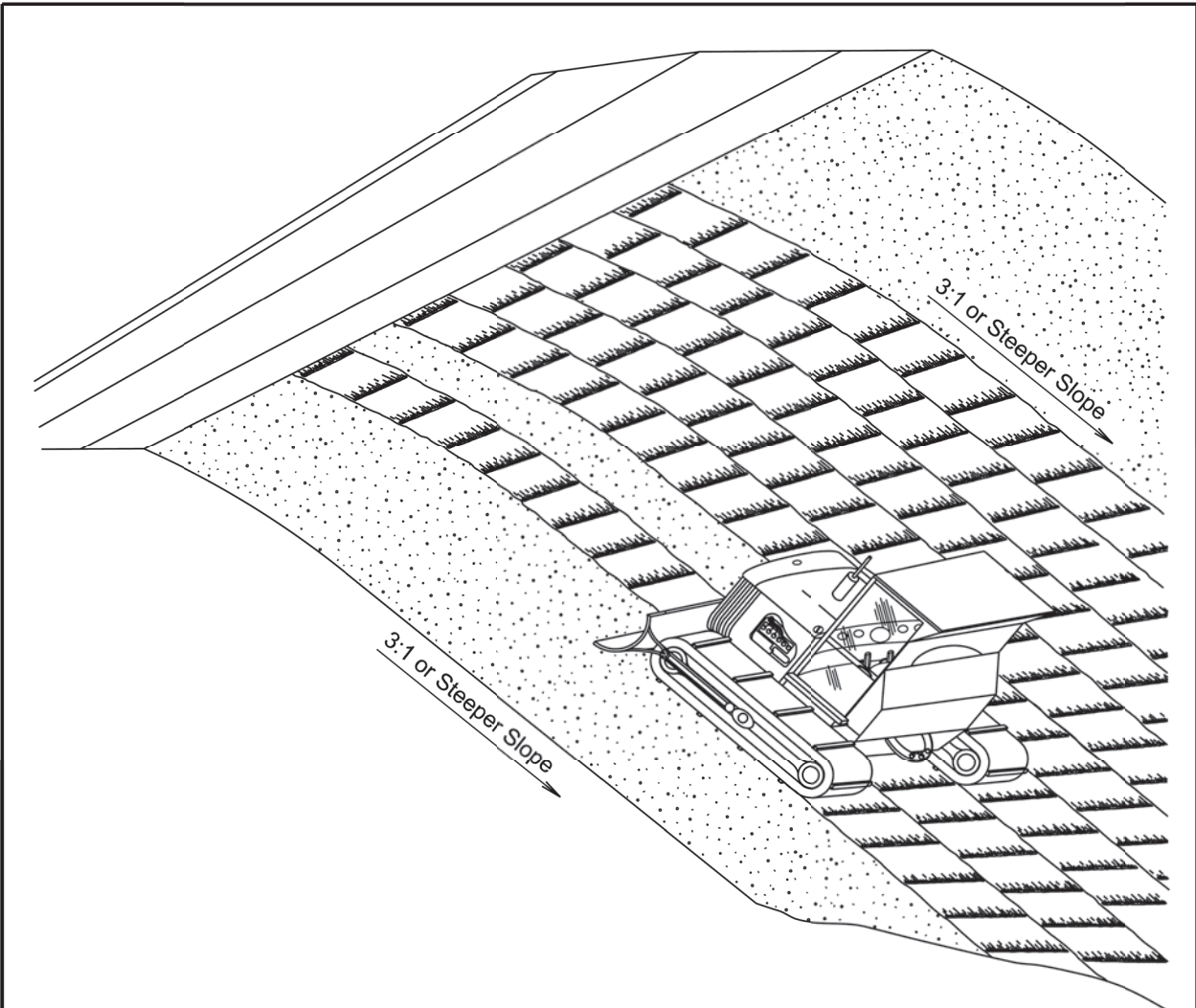
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FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	D47	D47

Plotting Date: 11/15/2024

Plot Scale - 1:200



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

<i>Published Date: 2025</i>	S D D O T	SURFACE ROUGHENING	PLATE NUMBER 734.25
			Sheet 1 of 1

Plotted From - ngiersvik

File - ...105HN_ec-plates.dgn