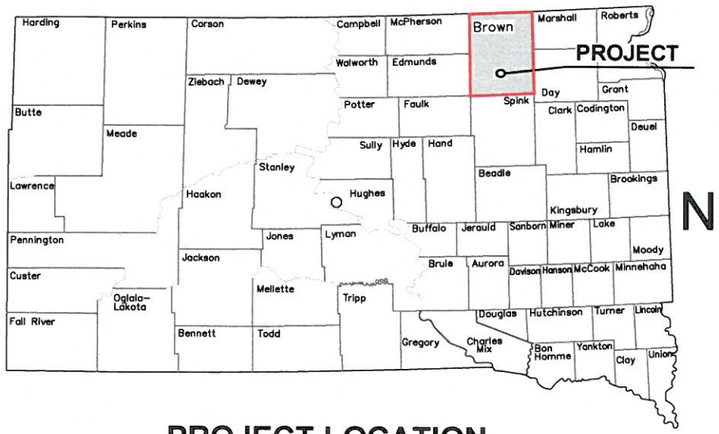
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	1	47



PROJECT LOCATION
NO SCALE

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

PROJECT NO. P TAPU(03)
NORTH ROOSEVELT SHARED USE PATH
ABERDEEN, BROWN COUNTY, SOUTH DAKOTA
9.5' WIDE SHARED USE PATH, GRADING
PCN 04Q7

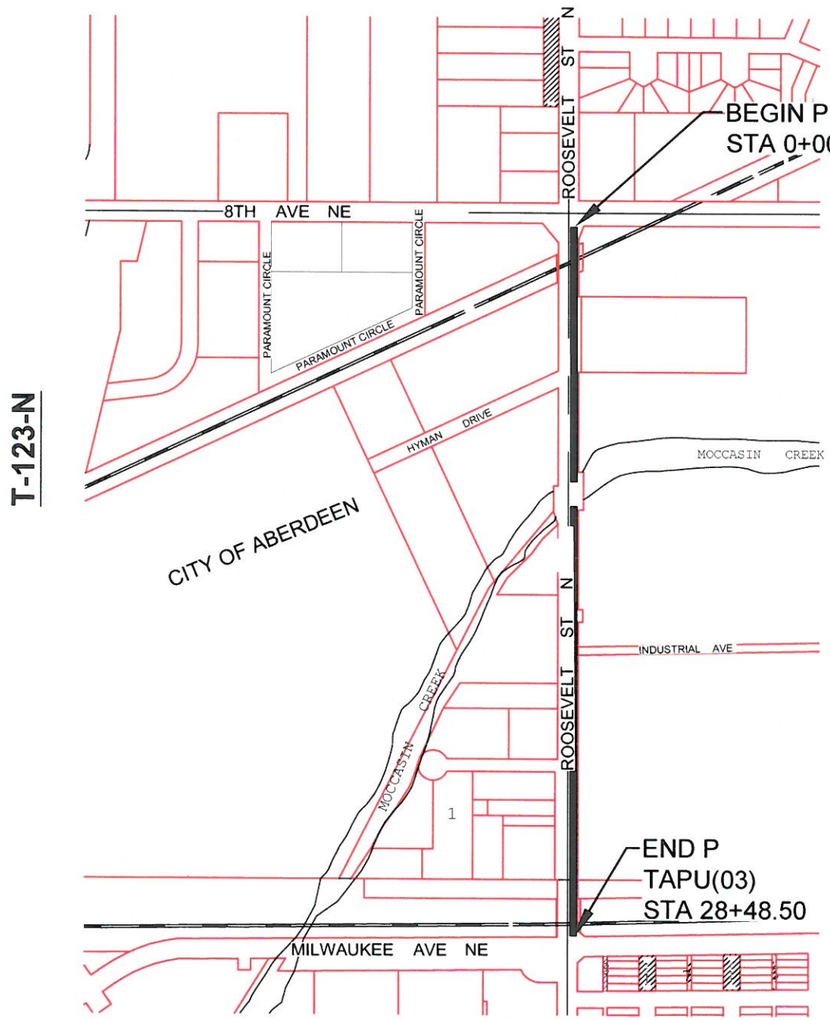
INDEX OF SHEETS

STORM WATER PERMIT

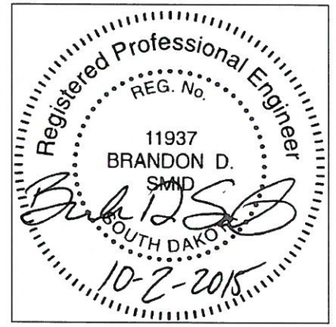
BEGINNING LAT - N45° 28' 24.84"
& LONG- W98° 27' 14.15"
MAJOR STREAM: MOCCASIN CREEK
PROJECT AREA: 1.96 ACRES
AREA DISTURBED: 1.75 ACRES

DESIGN DESIGNATION		
GROSS LENGTH:	2840.00 FEET	0.5400 MILES
LENGTH OF EXCEPTIONS:	105.00 FEET	0.0200 MILES
NET LENGTH:	2735.00 FEET	0.5200 MILES

R-63-W



R-63-W
LOCATION MAP
NO SCALE



Helms & ASSOCIATES
CIVIL ENGINEERS & LAND SURVEYORS
221 Brown County
Highway 19
P.O. Box 111,
Aberdeen, S.D. 57401
Phone: 605.225.1212,
Fax: 605.225.3189
Email: terryh@helmsengineering.com

ESTIMATE OF QUANTITIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU (03)	2	47

REVISED 3/9/2016

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3230	Grade Staking	1.050	Mile
009E3250	Miscellaneous Staking	0.525	Mile
009E3280	Slope Staking	0.525	Mile
009E3300	Three Man Survey Crew	20.0	Hour
110E0300	Remove Concrete Curb and Gutter	43	Ft
110E1110	Remove Concrete Approach Pavement	171.9	SqYd
110E1690	Remove Sediment	1.0	CuYd
110E1700	Remove Silt Fence	40	Ft
120E0010	Unclassified Excavation	2588	CuYd
120E0600	Contractor Furnished Borrow Excavation	1250	CuYd
230E0010	Placing Topsoil	778	CuYd
250E0010	Incidental Work	Lump Sum	LS
380E3520	6” PCC Approach Pavement	226.7	SqYd
632E1320	2.0”x2.0” Perforated Tube Post	108.0	Ft
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	6.0	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy, Super/Very High Intensity	13.6	SqFt
634E0110	Traffic Control Signs	95	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0265	Type 3 Barricade, 6’ Double Sided	4	Each
650E0060	Type B66 Concrete Curb and Gutter	43	Ft
651E0150	5” Reinforced Concrete Sidewalk	24366	SqFt
651E7000	Type I Detectable Warnings	114	SqFt
671E7010	Adjust Manhole	2	Each
730E1200	Hydroseeding	5949	SqYd
731E0100	Fertilizing	1781	Lb
732E0550	Fiber Reinforced Matrix	2460	Lb
734E0604	High Flow Silt Fence	158	Ft
734E0610	Mucking Silt Fence	11	CuYd
734E0845	Sediment Control at Inlet with Frame and Grate	8	Each
900E0010	Refurbish Single Mailbox	12	Each
998E0100	Railroad Protective Insurance	Lump Sum	LS

ENVIRONMENTAL COMMITMENTS AND PROJECT NOTES

SPECIFICATIONS

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

ENVIRONMENTAL COMMITMENTS

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project if perceived environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office. The environmental commitments associated with this project are as follows:

COMMITMENT C: WATER SOURCE

The Contractor shall not withdraw water with equipment previously used outside the State of South Dakota without prior approval from the SDDOT Environmental Office. Thoroughly wash all construction equipment before entering South Dakota to reduce the risk of invasive species introduction into the project vicinity.

Action Taken/Required:

The Contractor shall obtain the necessary permits from the regulatory agencies such as the Department of Environment and Natural Resources (DENR) and the United States Army Corps of Engineers (COE) prior to executing water extraction activities.

COMMITMENT E: STORM WATER

Action Taken/Required:

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

Construction activities constitute 1 acre or more of earth disturbance.

Action Taken/Required:

The DENR and the US Environmental Protection Agency (EPA) have issued separate general permits for the discharge of storm water runoff. The DENR permit applies to discharges on state land and the EPA permit applies to discharges on federal or reservation land. The Contractor is advised this project is regulated under the Phase II Storm Water Regulations and must receive coverage under the General Permit for Construction Activities. A Notice of Intent (NOI) will be submitted to DENR a minimum of 15 days prior to project start by the DOT Environmental Office. A letter must be received from DENR that acknowledges project coverage under this general permit before project start. The Contractor is advised that permit coverage may also be required by off-site activities, such as borrow and staging areas, which are the responsibility of the Contractor.

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

A major component of the storm water construction permits is development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which is a joint effort and responsibility of the SDDOT and the Contractor. Erosion control measures and best management practices will be implemented in accordance with the SWPPP. The SWPPP is a dynamic document and is to be available on-site at all times.

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

SDDOT:
http://www.sddot.com/business/environmental/stormwater/Default.aspx

DENR: http://www.denr.sd.gov/des/sw/stormwater.aspx

EPA: http://cfpub.epa.gov/npdes/home.cfm?program_id=6

Contractor Certification Form:

The "Department of Environmental and Natural Resources – Contractor Certification Form" (SD EForm – 2110LDV1-ContractorCertification.pdf) shall be completed by the Contractor or their certified Erosion Control Supervisor after the award of the contract. Work may not begin on the project until this form is signed.

The form certifies under penalty of law that the Contractor understands and will comply with the terms and conditions of the Surface Water Discharge General Permit for Storm Water Discharges Associated with Construction Activities for the Project.

The online form can be found at:
http://denr.sd.gov/des/sw/eforms/E2110LDV1-ContractorCertification.pdf

COMMITMENT H: WASTE DISPOSAL SITE

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

Action Taken/Required:

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

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

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

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

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

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

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

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

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

ENVIRONMENTAL COMMITMENTS AND PROJECT NOTES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

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

Action Taken/Required:

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: staging areas, borrow sites, waste disposal sites, and all material processing sites.

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

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

The Contractor shall submit the records search or cultural resources survey report and if the location of the site is within the current geographical or historic boundaries of any South Dakota reservation to SDDOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

If evidence for cultural resources is uncovered during project construction activities, then such activities shall cease and the Project Engineer shall be immediately notified. The Project Engineer will contact the SDDOT Environmental Engineer in order to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for staging areas, borrow sites, waste disposal sites, or material processing sites that affect wetlands, threatened and endangered species, or waterways. The Contractor shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

GRADING OPERATIONS

Water for Embankment is estimated at the rate of 10 gallons of water per cubic yard of Embankment minus Waste. The estimated quantity of Water for Embankment is 3 MGal. No separate payment will be made for the Water for Embankment and all costs associated shall be incidental to the contract unit price per cubic yard of “Unclassified Excavation”.

The estimated cubic yards of excavation and/or embankment required to construct outlet ditches, ditch blocks, and approaches are included in the earthwork balance notes on the profile sheets.

Special ditch grades and other sections of the roadway different than the typical section shall be constructed to the limits shown on the cross sections. If significant changes to the cross sections are necessary during construction, the Engineer shall contact the Designer for the proposed change.

Generally, all shallow inlet and outlet ditches as noted on the plan sheets shall be cut with a 10-foot wide bottom with 5:1 backslopes. However, the Engineer may direct the Contractor to adjust the ditch width for proper alignment with the drainage structure.

WORK AREA

All work in the plans shall occur within the ROW or on City owned property. Work limits are indicated on the plan sheets. The Contractor shall limit the disturbance outside of the identified project limits. Any disturbance that does occur outside of the project limits will be restored by the Contractor at no cost to the City.

UTILITIES

The Contractor shall be aware that the existing utilities shown in the plans were surveyed prior to the design of this project and might have been relocated or replaced by a new utility facility prior to construction of this project. The Contractor shall contact each utility owner and confirm the status of all existing and new utility facilities. The utility contact information is provided elsewhere in the plans or bidding documents. The following list identifies utilities with utilities in the project area

Century Link	1-888-650-6750
Northwestern Energy	1-605-225-6300
City of Aberdeen	1-605-626-7010
Midcontinent Communications	1-800-888-1300
Northern Valley Communications	1-605-725-1000

SHRINKAGE FACTOR: Embankment +35%

TABLE OF UNCLASSIFIED EXCAVATION

	Cut CuYd	Fill CuYd
Site	322	388
Concrete Volume	412	
Gravel Volume	538	
6" Scarify and Recompact (95% of Proctor Value)	538	538
35% Shrinkage	-	324
Sub Total	1,810	1,250
Total Unclassified Excavation	1,810	1,250
Disposal of Excess Material	0	560
Topsoil	778	778
Earthwork Balance	2,588	2,588

PROCEDURES FOR DETERMINING UNCLASSIFIED EXCAVATION QUANTITY

When plan quantities are used for payment, the Unclassified Excavation quantity shall be used for final payment.

The Topsoil quantity in the Table of Unclassified Excavation is an estimate. When finaling a project, the bid quantity of Topsoil shall be used.. The quantity of Topsoil from the cuts will be paid for twice as Unclassified Excavation, as it will be in both the Excavation and Topsoil quantities. This will be full compensation for Excavation, which includes necessary undercutting to provide space for placement of topsoil.

WORK TO BE COMPLETED BY OTHERS

Station	L/R	Remarks
0+30	7.5’ R	Street Light to Remain
0+91	2’ L	Sign to be Removed and Relocated By Others
1+87	7’ L	Railroad Sign to Remain
2+14	9’ L	Telephone Utility Post to Remain
2+16	8’ L	Telephone Utility Post to Remain
2+23	7’ L	Public Warning System Pole to Remain
2+25	6’ L	Public Warning System Pole to Remain
2+70	5’ R	Street Light to Remain
2+79	5.5’ R	Electrical Utility Pole to Remain
4+26		Asphalt Concrete Composite Transition from Shared Use Path to Existing Driveway to be Completed by Contractor
5+21	5’ R	Street Light to Remain
5+94	11’ L	Sewer Manhole to Remain Undisturbed
7+70	5’ R	Street Light to Remain
9+02	25’ L	Sewer Manhole to Remain Undisturbed
9+83	5’ R	Street Light to Remain
10+75	5’ L	Bridge to Remain
11+81	23’ L	Sewer Manhole to Remain Undisturbed
12+63	5’ R	Street Light to Remain
15+31	6’ R	Street Light to Remain
15+41	8’ R	Lift Station Control Pannell to Remain
15+44	10’ R	Lift Station Control Pannell to Remain
15+61	7’ R	Lift Station Control Pannell to Remain
15+76	7’ R	Lift Station Control Pannell to Remain
17+57	5’ R	Street Light to Remain
20+02	5’ R	Street Light to Remain
22+45	5’ R	Street Light to Remain
24+92	5’ R	Street Light to Remain
27+38	14’ R	Street Light to Remain
27+42	8’ L	Railroad Building to Remain
27+70	0’ L	Railroad Tracks to Remain
27+84	12’ R	Railroad Light and Cross Bar to Remain
27+89	13’ R	Railroad Sign to Remain
28+39	7’ R	Street Signal Light to Remain

ENVIRONMENTAL COMMITMENTS AND PROJECT NOTES

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REVISED 12/1/2015

INCIDENTAL WORK

Station	L/R	Remarks
22+20	5' R	Electrical Service Meter Socket to be Removed and Reinstalled with Break Away Coupler

MAILBOXES

The Contractor shall reset the existing mailboxes on new posts with the necessary support hardware for single mailbox assemblies. The local Postmaster will determine the recommended mounting height of the mailboxes throughout the project. The Contractor shall coordinate with the Engineer on the proper postal representative to contact.

All costs for removing existing mailboxes, providing temporary mailboxes, and resetting mailboxes with new posts and necessary support hardware shall be incidental to the contract unit price per each for "Refurbish Single Mailbox".

TABLE OF ADJUST MANHOLES

Station	L/R	Remarks
9+02	5' L	Adjust Manhole Frame and Lid
12+57	5' R	Adjust Manhole Frame and Lid

TABLE OF REFURBISH MAILBOX

Station	L/R	Single (Each)	Double (Each)
4+08	10' R	1	
6+34	10' R	1	
17+27	9' R	1	
19+25	9' R	1	
20+19	9' R	1	
20+81	9' R	1	
21+18	9' R	1	
22+66	9' R	1	
23+60	9' R	1	
23+62	9' R	1	
23+97	9' R	1	
24+38	9' Rx	1	
	Totals:	12	0

CONCRETE APPROACH PAVEMENT REMOVALS

Station	L/R	Quantity (SqYd)
4+25	15' Lx	38.1
11+63	5' R	62.1
26+28	8' R	71.7
	Total:	171.9

TYPE 1 DETECTABLE WARNINGS

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

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

A concrete thickness equal to the adjacent concrete sidewalk thickness and 6 inches of granular cushion material shall be placed below the Type 1 Detectable Warnings. When concrete is placed below the detectable warnings then the concrete thickness shall be transitioned at the rate of 1" per foot to match the adjacent concrete sidewalk thickness.

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

When Type 1 Detectable Warnings are specified, the Contractor shall furnish and install only one of the products listed in the Type 1 Detectable Warnings table.

Type 1 Detectable Warnings

Product	Manufacturer
Detectable Warning Plate Cast Iron Plate	Neenah Foundry Company Neenah, WI 800-558-5075 http://www.neenahfoundry.com/
Detectable Warning Plate Cast Iron Plate	Deeter Foundry Lincoln, NE 800-234-7466 http://www.deeter.com/
Detectable Warning Plate Cast Iron Plate(No Coating)	East Jordan Iron Works, Inc. 301 Spring Street East Jordan, MI 49727 800-626-4653 http://www.ejiw.com
TufTile (wet-set) Cast Iron Replaceable Tile	TufTile 1200 Flex Court Lake Zurich, IL 60047 888-960-8897 http://www.tuftile.com/

TABLE OF TYPE 1 DETECTABLE WARNING PANNELS

Station	L/R	Quantity (SqFt)
0+02	0.00 L/R	19
1+35	0.00 L/R	19
1+59	0.00 L/R	19
27+64	0.00 L/R	19
27+74	0.00 L/R	19
28+46	0.00 L/R	19
	Total:	114

CONTRACTOR FURNISHED BORROW EXCAVATION

The Contractor shall provide a suitable site for Contractor furnished borrow excavation material. The Contractor is responsible for obtaining all required permits and clearances for the borrow site. The borrow material shall be approved by the Engineer. The plans quantity for "Contractor Furnished Borrow Excavation" as shown in the Estimate of Quantities will be the basis of payment for this item

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

ENVIRONMENTAL COMMITMENTS AND PROJECT NOTES

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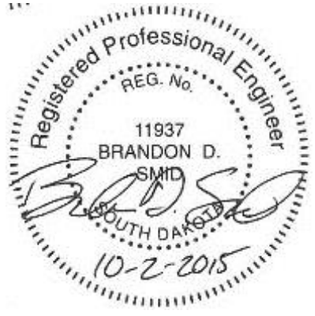
TABLE OF CONSTRUCTION STAKING
(See Special Provision for Contractor Staking)

					Grade Staking					
Roadway and Description	Begin Station	End Station	Number of Lanes	Length (Ft)	Length (Mile)	Lane Factor	*Sets of Stakes	**Grade Staking Quantity (Mile)	Miscellaneous Staking Quantity (Mile)	Slope Staking Quantity (Mile)
North Roosevelt Shared Use Path	0+00	10+60	1	1060	0.201	1	2	0.402	0.201	.201
North Roosevelt Shared Use Path	11+63	28+73	1	1710	0.324	1	2	0.648	0.324	0.324
							Totals:	1.050	0.525	0.525

* 1 = Blue Top Stakes Only (Asphalt Concrete Pavement)
2 = Blue Top and Paving Hub Stakes (PCC Pavement)

** Grade Staking Quantity = (Length) x (Lane Factor) x (Sets of Stakes)



ENVIRONMENTAL COMMITMENTS AND PROJECT NOTES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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TRAFFIC CONTROL GENERAL NOTES

1. Requests to deviate from the sequence of operations shall be submitted in writing to the Engineer for review. Approval of an alternate sequence of operations will only be allowed when the proposed changes meet with the Department's intent for traffic control and sequencing of the work. An alternate sequence shall be submitted for review a minimum of one week prior to potential implementation.

2. Unless otherwise stated in these plans, no work will be allowed during hours of darkness.

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

TRAFFIC CONTROL NOTES

Traffic control devices listed are minimum requirements and depending on exact construction sequences, may not be a complete inventory of all signs, barricades and devices required. The exact location of all traffic control devices shall be determined at the site. Any damage to the public or private property caused by the Contractor's signing shall be repaired at the Contractor's expense. Failure to adequately follow the traffic control plan will result in the project being shut down until deficiencies are corrected.

In the event additional signs are needed, but not listed in the traffic control sheets, payment to the Contractor will be based on the unit value of the sign(s) as listed in the current SDDOT traffic control list.

Signs and barricades are periodically required to be moved due to construction operations. They shall be placed at locations where they give sufficient warning to motorists and pedestrians of the condition ahead and shall be relocated as needed to keep signing current at required locations.

SEQUENCE OF OPERATIONS

Place silt fence.

Remove the topsoil and stockpile within right-of-way and temporary easements.

Perform grading operations.

Placement of gravel cushion.

Placement of 6" PCC Driveway and 5" Reinforced Concrete Sidewalk.

Placement of top soil and permanent seeding operations.

PLACING TOPSOIL

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

The estimated amount of topsoil to be placed is as follows:

Station	to	Station	L / R	Topsoil (CuYd)
0+00		1+44	L & R	43
1+52		4+16	L & R	78
4+36		10+22	L & R	174
11+27		11+48	L & R	6
11+78		15+89	L & R	122
16+06		26+28	L & R	303
26+64		27+66	L & R	30
27+74		28+48.5	L & R	22
			TOTAL	778

FERTILIZING

The Contractor shall apply an all-natural slow release fertilizer prior to seeding or placing sod. The all-natural fertilizer shall have a minimum guaranteed analysis of 4-6-4 and be USDA Certified BioBased. It should provide a minimum of 4% (N) nitrogen with a minimum water insoluble nitrogen (WIN) fraction of 3.2%, a minimum of 6% (P_2O_5) available phosphate, a minimum of 4% (K_2O) soluble potash, and a maximum carbon to nitrogen ratio (C:N ratio) of 5:1. The all-natural fertilizer shall 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 shall 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 shall 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 all-natural slow release fertilizer shall be applied according to the manufacturer's application recommendations.

The application rate is 1,500 pounds per acre.

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

Product	Manufacturer
Sustane	Sustane Corporate Headquarters Cannon Falls, Minnesota Phone: 1-800-352-9245 http://www.sustane.com/

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.

The Permanent Seed Mixture to be used in the Hydroseeding operations shall consist of the following:

TYPE D PERMANENT SEED MIXTURE

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

FIBER REINFORCED MATRIX

Fiber reinforced matrix shall be applied to the areas noted in the table. Fiber reinforced matrix shall be applied after hydroseeding and before water for vegetation. Areas designated for fiber reinforced matrix application do not require a grass hay or straw mulch application. Fiber reinforced matrix is effective upon application. The application rate is 2,000 pounds per acre.

The fiber reinforced matrix shall be from the list below:

Product	Manufacturer
Flexterra FGM or CocoFlex ET-FGM	Profile Products LLC Buffalo Grove, IL Phone: 1-800-508-8681 www.profileproducts.com
Flex Guard	Mat, Inc. Floodwood, MN Phone: 1-888-477-3028 www.matinc.biz

ENVIRONMENTAL COMMITMENTS AND PROJECT NOTES

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TABLE OF FIBER REINFORCED MATRIX

Station	to	Station	L/R	Area (SqYd)	Quantity (Lb)
0+00		1+48	L	164.4	68
0+00		1+48	R	164.4	68
1+48		4+16	L	297.8	123
1+48		4+16	R	297.8	123
4+36		5+00	L	71.1	29
4+36		5+00	R	71.1	29
5+00		10+23	L	581.1	240
5+00		10+23	R	581.1	240
11+27		16+00	L	473.0	196
11+27		16+00	R	473.0	196
16+00		22+00	L	666.7	276
16+00		22+00	R	666.7	276
22+00		27+00	L	555.6	230
22+00		27+00	R	555.6	230
27+00		28+48.5	L	165.0	68
27+00		28+48.5	R	165.0	68
				Total:	2460

HIGH FLOW SILT FENCE

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

http://sddot.com/business/certification/products/Default.aspx

High flow silt fence shall be placed at the locations noted in the table and at locations that will minimize siltation of adjacent streams, lakes, dams, or drainage areas as determined by the Engineer during construction. Refer to Standard Plate 734.05 for details.

The contractor shall make every effort to keep debris out of the water while working around the bridge.

TABLE OF HIGH FLOW SILT FENCE

Station	L/R	Location	Quantity (Ft)
9+50 to 10+29	L	12.6'- 7'	90
10+81 to 11+49	L	15' - 16'	68
		Total:	158

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 shall be installed prior to working in the vicinity of the drop inlets.

The Contractor shall be responsible for maintaining and repairing the sediment control devices for the duration of the project for which sediment control measures are required. Maintenance shall 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 shall be incidental to the contract unit price per each for "Sediment Control at Inlet with Frame and Grate".

Sediment collection devices shall be:

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

A sediment control device as shown on Standard Plate 734.10. Filter fabric used for constructing the sediment control at inlets with frames and grates shall be the same type of fabric that is used in high flow silt fence from the approved product list. The approved product list may be viewed at the following internet site:

http://sddot.com/business/certification/products/Default.aspx

SEDIMENT CONTROL AT INLETS WITH FRAMES AND GRATES (CONTINUED)

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	Dandy Products Inc. Dublin, 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 Waubay, SD Phone: 1-605-520-0555 www.skyviewconst.com
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
Sediment Catchers	Shaun Jensen Brookings, SD Phone: 1-605-690-4950
Grate FX, Slammer, or VertPro	Enviroscape ECM, Ltd. Oakwood, OH Phone: 1-419-594-3210 www.strawblanket.com
BX Inlet Sediment Boxes	BX Civil and Construction Dell Rapids, SD Phone: 1-605-428-5483 bx-cc.com

TABLE OF SEDIMENT CONTROL AT INLETS WITH FRAMES AND GRATES

Station	L/R	Quantity (Each)
0+36.0	13.7 R	1
5+66.6	12.7 R	1
7+90.0	12.7 R	1
10+03.2	9.1 R	1
15+27.9	13.4 R	1
19+29.1	12.4 R	1
21+89.0	12.4 R	1
24+69.0	12.5 R	1
	Total:	8

ENVIRONMENTAL COMMITMENTS AND PROJECT NOTES

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REVISED 3/9/2016

GRAVEL CUSHION

Gravel Cushion shall be in accordance with the requirements of section 260 of the Specifications. The gravel cushion to be used under the shared use path will be incidental to the Bid Item “6” PCC Driveway Pavement” and “5” Reinforced Concrete Sidewalk”

TABLE OF 6” PCC APPROACH PAVEMENT

Station	Opening (Ft)	Type	Quantity (SqYd)
4+16.00	20.00	A	62.2
11+48.00	30.40	A	60.0
15+89.00	17.00	A	33.5
26+28.00	36.00	A	71.0
		Total:	226.7

TABLE OF 5” REINFORCED CONCRETE SIDEWALK

Station	to	Station	Quantity (SqFt)
00+00.00		1+44.00	1438.0
1+52.00		4+16.00	2508.0
4+36.00		10+22.00	5567.0
11+27.00		11+48.00	199.5
11+78.40		15+89.00	3900.7
16+06.00		26+28.00	9709.0
26+64.00		27+66.00	969.0
27+74.00		28+48.50	74.5
		Total	24,365.7

FIBER MESH REINFORCEMENT

Fiber mesh reinforcing shall be used with all concrete sidewalk and pavement. The fiber mesh shall be added at the rate of 1 bag per cubic yard or as otherwise recommended by the manufacturer. The fiber shall be added directly to the truck at the time of mixing. The synthetic fiber reinforcement shall have the following specifications:

- Material: 100 percent virgin homopolymer polypropylene multifilament fibers, containing no reprocessed olefin materials.
- Conformance: ASTM C 1116, Type III.
- Fire Classifications: UL Report File No. R8534-11 and Southwest Certification Services (SWCS), Omega Point Laboratories No. 8662-1.
- Fiber Length: Single-cut lengths.
- Alkali Resistance: Alkali proof.
- Absorption: Nil.
- Specific Gravity: 0.91.
- Melt Point: 324 degrees F (162 degrees C).

SUPPLYING AS BUILT PLANS

If the roadway signing is constructed other than what is stated in the plans, the Contractor shall supply as built plans to the Engineer.

ACCEPTANCE OF SIGN INSTALLATIONS

Acceptance of completed signs will be considered on a sign by sign basis in accordance with Section 5.16 of the Specifications.

NEW PERMANENT SIGNING

The Contractor shall furnish all signs, posts, stiffeners, bases, hardware, and labor for installation of permanent signs in size, type, and quantity as shown in these plans and/or as required by the Engineer.

The Contractor shall provide all labor and equipment necessary to install permanent signing as detailed in these plans and/or as required by the Engineer. Payment for furnishing and installing permanent signs will be paid for at the contract unit price for each type of sign based on sheeting requirements per square foot of sign. Payment for new signposts, hardware, bases, and labor will be made at the contract unit price per foot for 2.0" x 2.0" Perforated Tube Post. See breakaway post details regarding posts, hardware, bases, and footings. The Contractor is urged to cut posts to length on job site after verification of post length. The installation height of the signs shall not exceed the minimum by more than 0.5 feet.

The Contractor shall stake the signs and the Engineer will verify the location prior to installation. The lateral distance from the roadway and the height of the sign shall be established by the Contractor according to the Standard Plates and Special Details in the plans and the Manual on Uniform Traffic Control Devices (MUTCD).

When signs are vertically mounted in succession, they shall be 1-2 inches apart. Lateral placement of signs shall be determined by the Engineer."

PERFORATED TUBE POST

The Contractor shall use Telespar® brand (or approved equal) posts and bases on all new standard highway signs as approved by the Engineer. All post materials shall conform to Section 982 of the Specifications, and be in accordance with ASTM specifications. Signs designated as requiring a shear slip base shall have a 4 foot long base assembly with a shear breakaway base connecting the base to the signpost. The height of the post shall not exceed the minimum height needed by more than 0.5 feet. Any portion that extends above the sign shall be cut off. No separate payment will be made for cutting the post or for that length cut off. All posts, anchors, and bases shall by accompanied by Certificates of Compliance."

FURNISH & INSTALL FLAT ALUMINUM SIGNS / NON-REMOVABLE COPY HIGH INTENSITY & SUPER/VERY HIGH INTENSITY

The payment for new signs in the Table of Permanent Signing shall include all labor (including installing date decals), equipment, and materials to complete the work, and shall be paid for at the contract unit price per square foot for “Flat Aluminum Sign, Nonremovable Copy High Intensity” or “Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity”."

W-10-1 shall be mounted on same support as the R-15-1 as shown in MUTCD Figure 8B-2

SIGN INSTALATION HARDWARE

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

TABLE OF PERMANENT SIGNS

SIGN CODE	DESCRIPTION	Sheeting Type	NUMBER	Post Length Ft (each)	SIGN SIZE	SQFT PER SIGN	TOTAL
W 10-1	RAILROAD CROSSING ADVANCE	XI	4	8	15” Dia	1.2	4.8
R 1-1	STOP	XI	4		18” X 18”	2.2	8.8
R 15-1	RAILROAD CROSSING (CROSSBUCK)	IV	4	8	24” x 4.5”	1.5	6
					TOTAL SqFt		19.6

SQUARE TUBE ANCHOR SLEEVE

The Contractor shall furnish and install new square tube anchor sleeves.

HARDWARE

Perforated tube signpost base material shall be fastened with 5/16” diameter corner bolts (Grade 2).

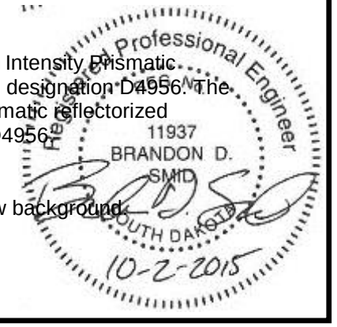
All perforated tube signposts shall have a soil stabilizer attached to the base. Soil stabilizers shall be a MPJ Sign Wedge manufactured by MPJ Enterprises, Inc., 207 Park Ave., Lake Preston, SD 57249 or equal as approved by the Engineer."

SHEETING REQUIREMENTS

All signs, except as noted below, shall have High Intensity Prismatic retroreflecitve background, Type IV as per ASTM designation D4956. The following signs shall have micro-cube corner prismatic reflectorized background, Type XI as per ASTM designation D4956.

R1-1 STOP
All Warning Signs

The warning signs shall have a fluorescent yellow background.



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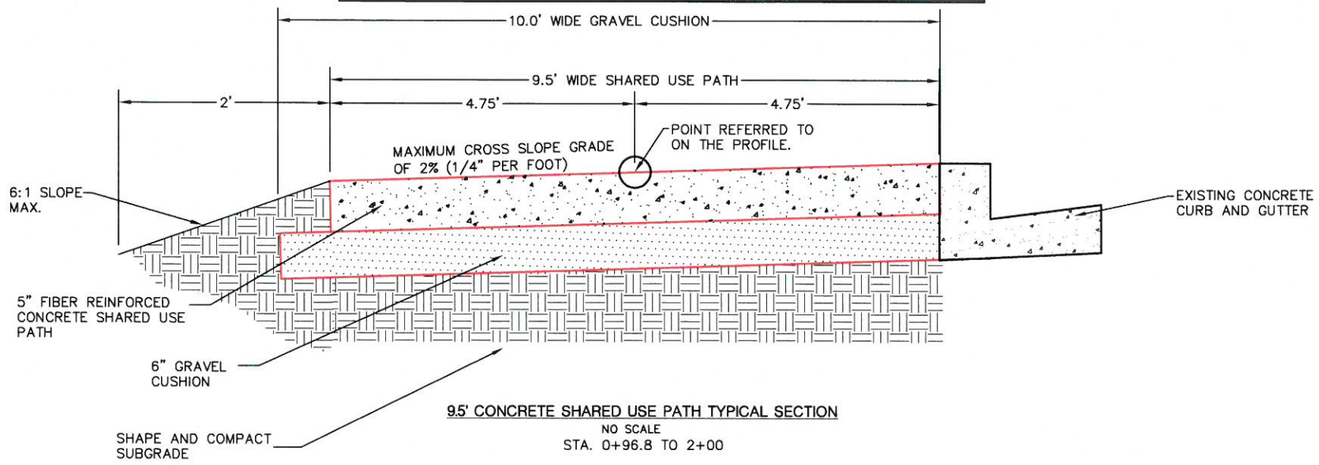
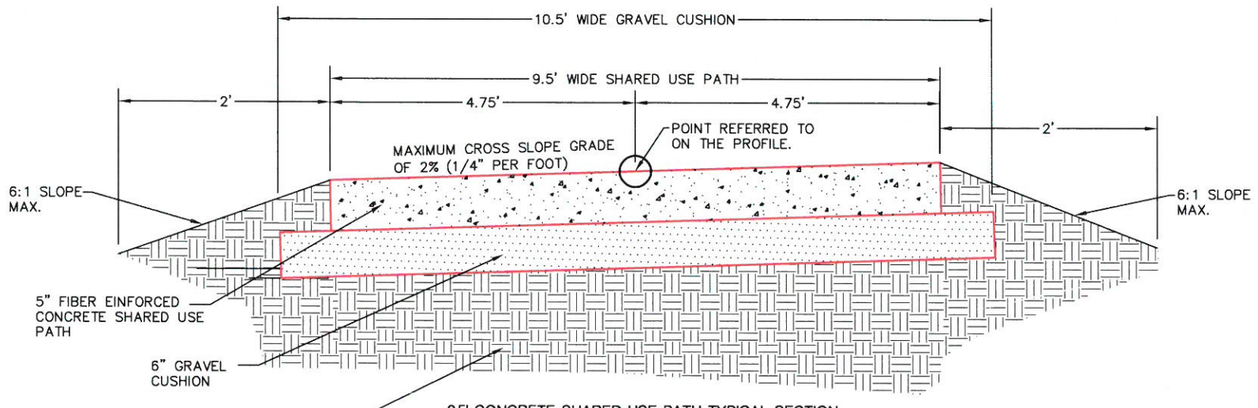
REVISED 12/1/2015

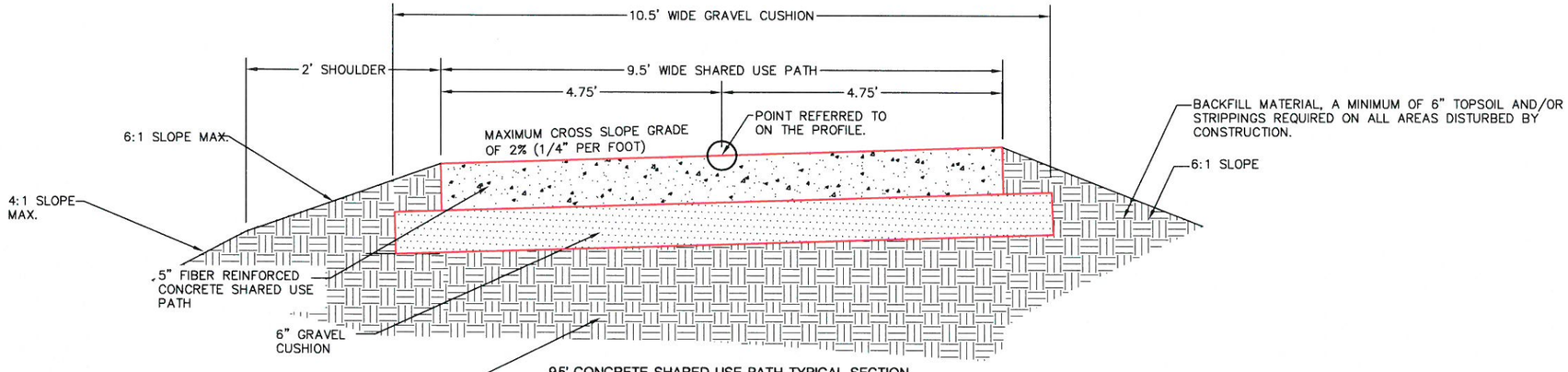
TYPICAL SECTIONS



9.5' CONCRETE SHARED USE PATH TYPICAL SECTION
NO SCALE
STA. 0+96.8 TO 2+00



9.5' CONCRETE SHARED USE PATH TYPICAL SECTION
NO SCALE
STA. 0+00 TO 0+96.8
STA. 2+00 TO 2+25
STA. 12+49 TO 28+48



9.5' CONCRETE SHARED USE PATH TYPICAL SECTION
NO SCALE
STA. 2+25 TO 10+23
STA. 11+26 TO 12+49

Registered Professional Engineer
REG. No.
11937
BRANDON D.
SMID
SOUTH DAKOTA
10-2-2015

STORMWATER POLLUTION PREVENTION PLAN

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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STORM WATER POLLUTION PREVENTION PLAN CHECKLIST
*(The numbers right of the title headings are **reference numbers** to the GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES*

❖ **SITE DESCRIPTION (4.2 1)**
- **Project Limits: See Title Sheet (4.2 1.b**
- **Project Description: See Title Sheet (4.2 1.b.)**
- **Site Map(s): See Title Sheet and Plans (4.2 1.f. (1)-(6))**
- **Major Soil Disturbing Activities** (check all that apply)
  - ☐ Clearing and grubbing
  - ☒ Excavation/borrow
  - ☒ Grading and shaping
  - ☐ Filling
  - ☐ Cutting and filling
  - ☐ Other (describe):
- **Total Project Area** 1.96 ACRES **(4.2 1.b.)**
- **Total Area To Be Disturbed** 1.75 ACRES **(4.2 1.b.)**
- **Existing Vegetative Cover (%)** 90
- **Soil Properties:** AASHTO Soil or USDA-NRCS Soil Series Classification **(4.2 1. d.)**
- **Name of Receiving Water Body/Bodies** Moccasin Creek **(4.2 1.e.)**

❖ **ORDER OF CONSTRUCTION ACTIVITIES (4.2 1.c.)**
(Stabilization measures shall be initiated as soon as possible, but in no case later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Initiation of final or temporary stabilization may exceed the 14-day limit if earth disturbing activities will be resumed within 21 days.)
- **Clearing and grubbing.**
- **Remove and store topsoil.**
- **Stabilize disturbed areas.**
- **Complete final grading.**
- **Complete final paving and sealing of concrete.**
- **Complete traffic control installation and protection devices.**
- **Reseed areas disturbed by removal activities**.

❖ **EROSION AND SEDIMENT CONTROLS (4.2 2.a.(1)(a)-(f))**
(Check all that apply)
- **Stabilization Practices (See Detail Plan Sheets)**
  - ☐ Temporary Seeding (Cover Crop Seeding)
  - ☒ Permanent Seeding
  - ☐ Sodding
  - ☐ Planting (Woody Vegetation for Soil Stabilization)
  - ☐ Mulching (Grass Hay or Straw)
  - ☐ Hydraulic Mulch (Wood Fiber Mulch)
  - ☐ Soil Stabilizer
  - ☒ Bonded Fiber Matrix
  - ☐ Erosion Control Blankets or Mats
  - ☐ Vegetation Buffer Strips
  - ☐ Roughened Surface (e.g. tracking)
  - ☐ Dust Control (See Section F – Surfacing Plans)
  - ☐ Other:

- **Structural Temporary Erosion and Sediment Controls**
  - ☒ Silt Fence
  - ☐ Floating Silt Curtain
  - ☐ Straw Bale Check
  - ☐ Temporary Berm
  - ☐ Temporary Slope Drain
  - ☐ Straw Wattles or Rolls
  - ☐ Turf Reinforcement Mat
  - ☐ Rip Rap
  - ☐ Gabions
  - ☐ Rock Check Dams
  - ☐ Sediment Traps/Basins
  - ☐ Inlet Protection
  - ☐ Outlet Protection
  - ☐ Surface Inlet Protection (Area Drain)
  - ☒ Curb Inlet Protection
  - ☐ Stabilized Construction Entrances
  - ☐ Entrance/Exit Equipment Tire Wash
  - ☐ Interceptor Ditch
  - ☐ Concrete Washout Area
  - ☐ Temporary Diversion Channel
  - ☐ Work Platform
  - ☐ Temporary Water Barrier
  - ☐ Temporary Water Crossing
  - ☐ Other:
- **Wetland Avoidance**
  Will construction and/or erosion and sediment controls impinge on regulated wetlands? Yes ☐ No ☒ If yes, the structural and erosion and sediment controls have been included in the total project wetland impacts and have been included in the 404 permit process with the USACE.
- **Storm Water Management (4.2 2.b., (1) and (2))**
  Storm water management will be handled by temporary controls outlined in "EROSION AND SEDIMENT CONTROLS" above, and any permanent controls needed to meet permanent storm water management needs in the post construction period. Permanent controls will be shown on the plans and noted as permanent.
- **Other Storm Water Controls (4.2 2.c., (1) and (2))**
  - **Waste Disposal**
    All liquid waste materials will be collected and stored in sealed metal containers approved by the project engineer. 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 in the field office. The general contractor's representative responsible for the conduct of work on the site will be responsible for seeing 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 individual designated as the contractor's on-site representative 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 in a timely manner by a licensed waste management contractor or as required by any local regulations.

❖ **Maintenance and Inspection (4.2 3. and 4.2 4.)**
- **Maintenance and Inspection Practices**
  - Inspections will be conducted at least one time per week and after a storm event of 0.50 inches or greater.
  - 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 in order to ensure the fabric is securely attached to the posts and that the posts are well anchored. Sediment buildup will be removed from the silt fence when it reaches 1/3 of the height of the silt fence.
  - Sediment basins and traps will be checked. Sediment will be removed when depth reaches approximately 50 percent of the structure's capacity, and at the conclusion of the construction.
  - Check dams will be inspected for stability. Sediment will be removed when depth reaches ½ the height of the dam.
  - All seeded areas will be checked for bare spots, washouts, and vigorous growth free of significant weed infestations.
  - Inspection and maintenance reports will be prepared on form DOT 298 for each site inspection, this form will also be used to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents.
  - The SDDOT Project Engineer and contractor's site superintendent are responsible for inspections. Maintenance, 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.

❖ **Non-Storm Water Discharges (3.0)**
The following non-storm water 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.

❖ **Materials Inventory (4.2. 2.c.(2))**
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 headings "EROSION AND SEDIMENT CONTROLS" and "SPILL PREVENTION" (check all that apply).
- ☒ Concrete and Portland Cement
- ☐ Detergents
- ☒ Paints
- ☒ Metals
- ☐ Bituminous Materials
- ☐ Petroleum Based Products
- ☐ Cleaning Solvents
- ☐ Wood
- ☒ Cure
- ☐ Texture
- ☐ Chemical Fertilizers
- ☐ Other:

STORMWATER POLLUTION PREVENTION PLAN

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❖ **Spill Prevention (4.2 2.c.(2))**

➢ **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 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.
  - Vegetation areas not essential to the construction project will be preserved and maintained as noted on the plans.

- Hazardous Materials
  - Products will be kept in original containers unless the container is not resealable.
  - 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 storm water system or storm water 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 storm water runoff.

➢ **Product Specific Practices (6.8)**

- 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.

➢ **Product Specific Practices (6.8) (CONTINUED)**

- 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 storm water. Fertilizers will be stored in an enclosed area. The contents of partially used fertilizer bags will be transferred to sealable containers to avoid spills.
- Concrete Trucks
  Contractors will provide designated truck washout areas on the site. These areas must be self contained and not connected to any storm water outlet of the site. Upon completion of construction washout areas will be properly stabilized.

➢ **Spill Control Practices (4.2 2 c.(2))**

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 clean up 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 clean up 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. The contractor is responsible for ensuring that the site superintendent has had appropriate training for hazardous materials handling, spill management, and cleanup.

➢ **Spill Response (4.2 2 c.(2))**

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

- The contractor's site superintendent will be notified immediately when a spill or the threat of a spill is observed. The superintendent will assess the situation and determine the appropriate response.
- If spills represent an imminent threat of escaping erosion and sediment controls and entering receiving waters, personnel will be directed to respond immediately to contain the release and notify the superintendent after the situation has been stabilized.
- Spill kits containing appropriate materials and equipment for spill response and cleanup will be maintained by the contractor at the site.
- If oil sheen is observed on surface water (e.g. settling ponds, detention ponds, swales), action will be taken immediately to remove the material causing the sheen. The contractor will use appropriate materials to contain and absorb the spill. The source of the oil sheen will also be identified and removed or repaired as necessary to prevent further releases.
- If a spill occurs the superintendent or the superintendent's designee will be responsible for completing the spill reporting form and for reporting the spill to SD DENR.
- Personnel with primary responsibility for spill response and clean up 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.

❖ **Spill Notification**

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

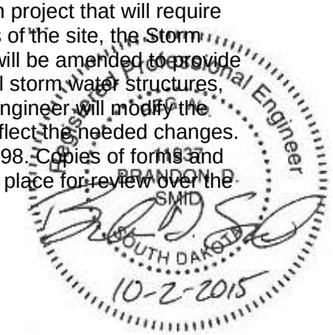
➢ A release or spill of a regulated substance (includes petroleum and petroleum products) must be reported to DENR immediately **if any one of the following** conditions exists:

- The discharge threatens or is in a position to threaten the waters of the state (surface water or ground water).
- The discharge causes an immediate danger to human health or safety.
- The discharge exceeds 25 gallons.
- The discharge causes a sheen on surface water.
- The discharge of any substance that exceeds the ground water quality standards of ARSD (Administrative Rules of South Dakota) chapter 74:51:01.
- The discharge of any substance that exceeds the surface water quality standards of ARSD chapter 74:51:01.
- The discharge of any substance that harms or threatens to harm wildlife or aquatic life.
- The discharge of crude oil in field activities under SDCL (South Dakota Codified Laws) chapter 45-9 is greater than 1 barrel (42 gallons).

To report a release or spill, call DENR at 605-773-3296 during regular office hours (8 a.m. to 5 p.m. Central time). To report the release after hours, on weekends or holidays, call State Radio Communications at 605-773-3231. Reporting the release to DENR does not meet any obligation for reporting to other state, local, or federal agencies. Therefore, the responsible person must also contact local authorities to determine the local reporting requirements for releases. DENR recommends that spills also be reported to the National Response Center at (800) 424-8802.

❖ **Construction Changes (4.4)**

When changes are made to the construction project that will require alterations in the temporary erosion controls of the site, the Storm Water Pollution Prevention Plan (SWPPP) will be amended to provide appropriate protection to disturbed areas, all storm water structures, and adjacent waters. The SDDOT Project Engineer will modify the SWPPP plan (DOT 298) and drawings to reflect the needed changes. Copies of changes will be routed per DOT 298. Copies of forms and the SWPPP will be retained in a designated place for review over the course of the project.



STORMWATER POLLUTION PREVENTION PLAN

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❖ 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 6.7.1.C.)

➢ **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

➢ **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: _____

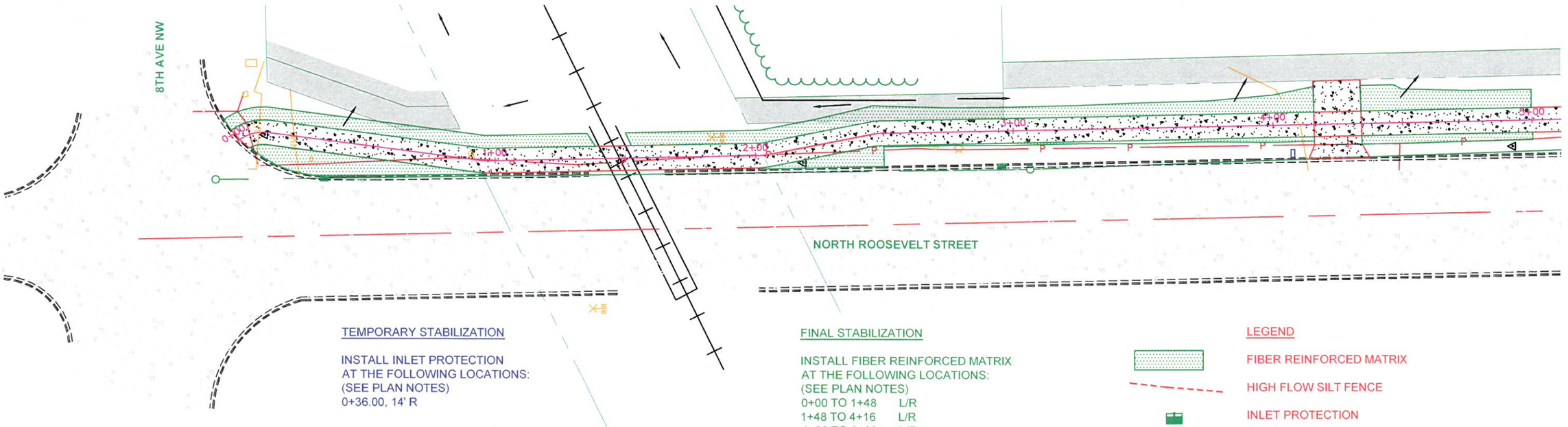
➢ **SD DENR Contact Spill Reporting**
- Business Hours Monday-Friday (605) 773-3296
- Nights and Weekends (605) 773-3231

➢ **SD DENR Contact for Hazardous Materials.**
- (605) 773-3153

➢ **National Response Center Hotline**
- (800) 424-8802.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	14	47

EROSION AND SEDIMENT CONTROL PLANS



TEMPORARY STABILIZATION

INSTALL INLET PROTECTION
AT THE FOLLOWING LOCATIONS:
(SEE PLAN NOTES)
0+36.00, 14' R

FINAL STABILIZATION

INSTALL FIBER REINFORCED MATRIX
AT THE FOLLOWING LOCATIONS:
(SEE PLAN NOTES)
0+00 TO 1+48 L/R
1+48 TO 4+16 L/R
4+36 TO 5+00 L/R

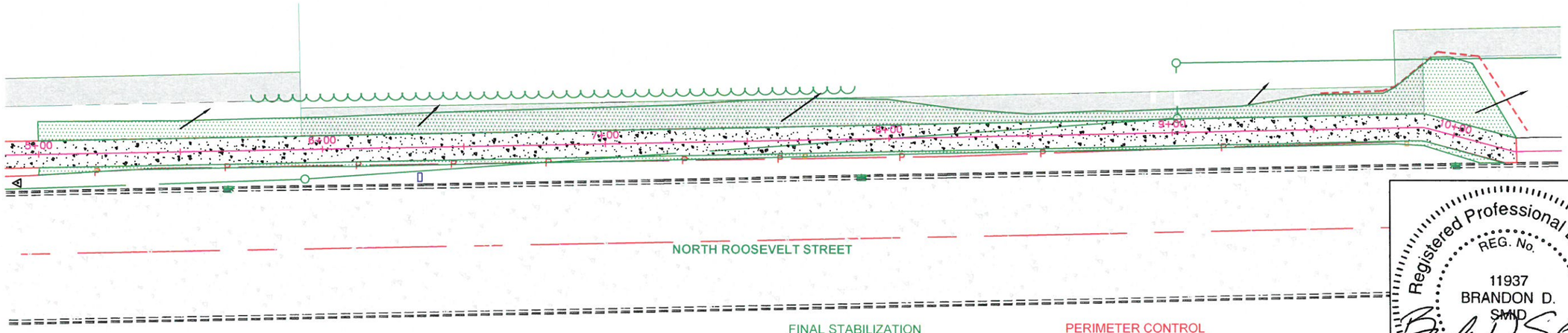
LEGEND

FIBER REINFORCED MATRIX

HIGH FLOW SILT FENCE

INLET PROTECTION

FLOW ARROW



TEMPORARY STABILIZATION

INSTALL INLET PROTECTION
AT THE FOLLOWING LOCATIONS:
(SEE PLAN NOTES)
5+67, 13' R
7+90, 13' R

FINAL STABILIZATION

INSTALL FIBER REINFORCED MATRIX
AT THE FOLLOWING LOCATIONS:
(SEE PLAN NOTES)
5+00 TO 10+23 L/R

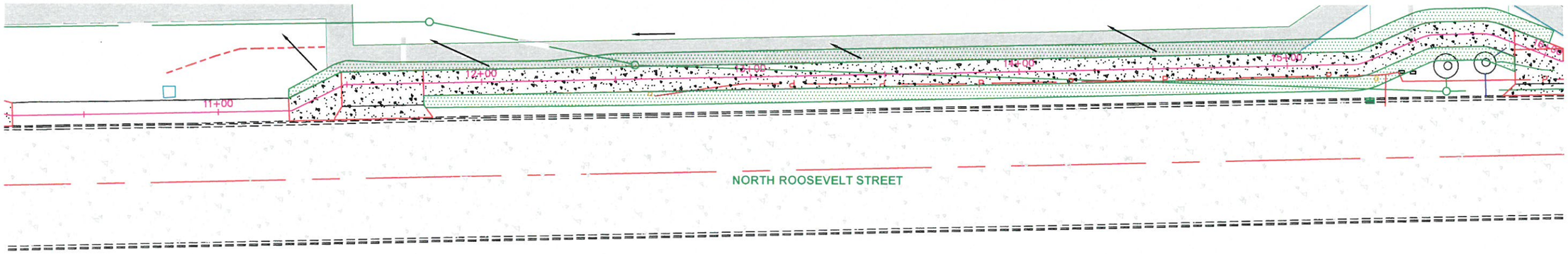
PERIMETER CONTROL

INSTALL HIGH FLOW SILT FENCE
AT THE FOLLOWING LOCATIONS:
9+50, 12.6' L TO 10+29, 7' L

Registered Professional Engineer
REG. No.
11937
BRANDON D.
SMID
SOUTH DAKOTA
10-2-2015

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	15	47

EROSION AND SEDIMENT CONTROL PLANS



TEMPORARY STABILIZATION

INSTALL INLET PROTECTION
AT THE FOLLOWING LOCATIONS:
(SEE PLAN NOTES)
10+04, 9' R
15+28, 13' R

PERIMETER CONTROL

INSTALL HIGH FLOW SILT FENCE
AT THE FOLLOWING LOCATIONS:
10+81, 15' L TO 11+49, 16' L

FINAL STABILIZATION

INSTALL FIBER REINFORCED MATRIX
AT THE FOLLOWING LOCATIONS:
(SEE PLAN NOTES)
11+27 TO 16+00 L/R

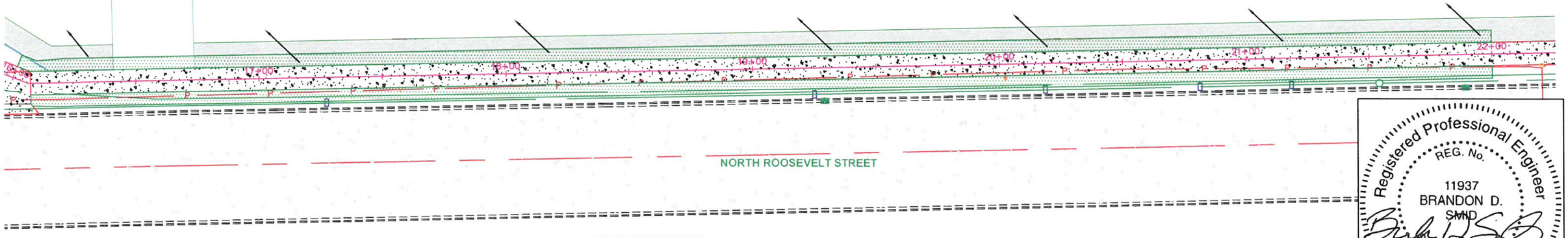
LEGEND

FIBER REINFORCED MATRIX

HIGH FLOW SILT FENCE

INLET PROTECTION

FLOW ARROW



TEMPORARY STABILIZATION

INSTALL INLET PROTECTION
AT THE FOLLOWING LOCATIONS:
(SEE PLAN NOTES)
19+29, 12' R
21+89, 12' R

FINAL STABILIZATION

INSTALL FIBER REINFORCED MATRIX
AT THE FOLLOWING LOCATIONS:
(SEE PLAN NOTES)
16+00 TO 22+00 L/R

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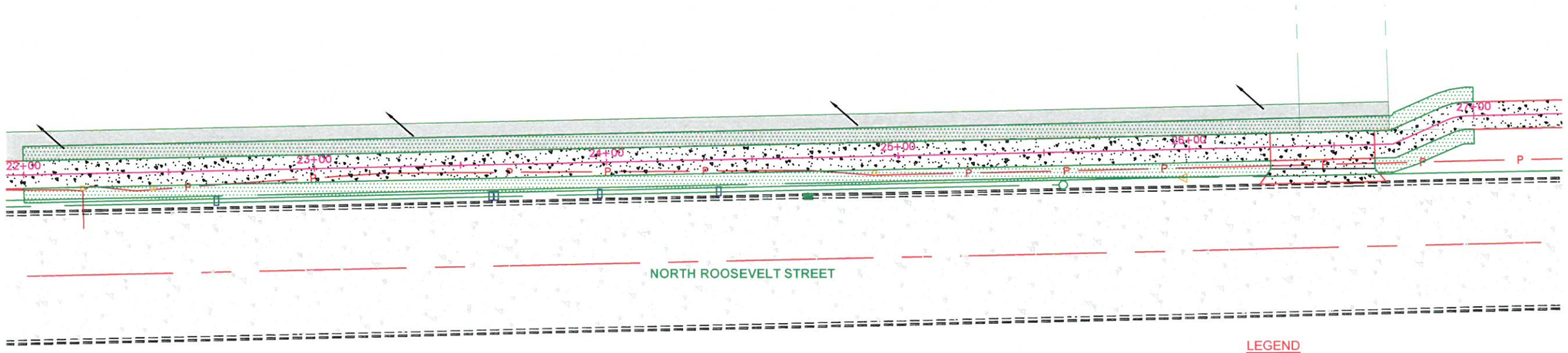
10-2-2015

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	16	47

EROSION AND SEDIMENT CONTROL PLANS



TEMPORARY STABILIZATION

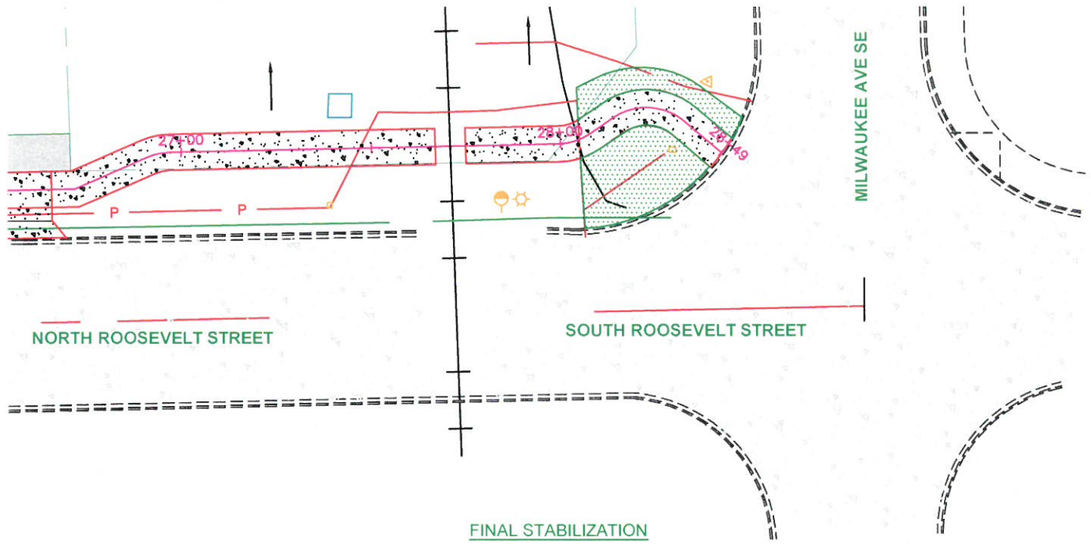
INSTALL INLET PROTECTION
AT THE FOLLOWING LOCATIONS:
(SEE PLAN NOTES)
24+69, 13' R

FINAL STABILIZATION

INSTALL FIBER REINFORCED MATRIX
AT THE FOLLOWING LOCATIONS:
(SEE PLAN NOTES)
22+00 TO 27+00 L/R

LEGEND

- FIBER REINFORCED MATRIX
- HIGH FLOW SILT FENCE
- INLET PROTECTION
- FLOW ARROW



FINAL STABILIZATION

INSTALL FIBER REINFORCED MATRIX
AT THE FOLLOWING LOCATIONS:
(SEE PLAN NOTES)
27+00 TO 28+48.5 L/R

Registered Professional Engineer
REG. No. 11937
BRANDON D. SMID
SOUTH DAKOTA
10-2-2015

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	17	47

Plotting Date: 03/19/2014

EXISTING TOPOGRAPHY SYMBOLOGY AND LEGEND

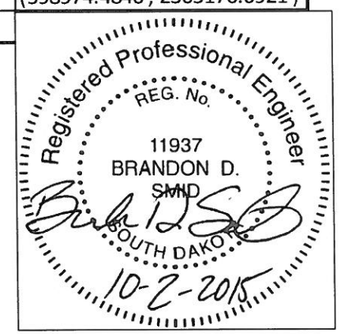
- Anchor
- Antenna
- Approach
- Assumed Corner
- Azimuth Marker
- BBQ Grill/ Fireplace
- Bearing Tree
- Bench Mark
- Box Culvert
- Bridge
- Brush
- Buildings
- Bulk Tank
- Cattle Guard
- Cemetery
- Centerline
- Cistern
- Clothes Line
- Commercial Sign Double Face
- Commercial Sign One Post
- Commercial Sign Overhead
- Commercial Sign Two Post
- Concrete Symbol
- Creek Edge
- Curb/Gutter
- Curb
- Dam Grade/Dike/Levee
- Deck Edge
- Ditch Block
- Doorway Threshold
- Drainage Profile
- Drop Inlet
- Edge Of Asphalt
- Edge Of Concrete
- Edge Of Gravel
- Edge Of Other
- Edge Of Shoulder
- Elec. Trans./Power Jct. Box
- Fence Barbwire
- Fence Chainlink
- Fence Electric
- Fence Misc.
- Fence Rock
- Fence Snow
- Fence Wood
- Fence Woven
- Fire Hydrant
- Flag Pole
- Flower Bed
- Gas Valve Or Meter
- Gas Pump Island
- Grain Bin
- Guardrail
- Guide Sign One Post
- Guide Sign Two Post
- Gutter
- Guy Pole
- Haystack
- Hedge
- Highway R.O.W. Marker
- Interstate Close Gate
- Iron Pin
- Irrigation Ditch
- Lake Edge
- Lawn Sprinkler
- Mailbox
- Manhole Electric
- Manhole Gas
- Manhole Misc
- Manhole Sanitary Sewer
- Manhole Storm Sewer
- Manhole Telephone
- Manhole Water
- Merry-Go-Round
- Microwave Radio Tower
- Misc. Line
- Misc. Property Corner
- Misc. Post
- Overhang Or Encroachment
- Overhead Utility Line — OH —
- Parking Meter
- Pipe With End Section
- Pipe With Headwall
- Pipe Without End Section
- Playground Slide
- Playground Swing
- Power And Light Pole
- Power And Telephone Pole
- Power Meter
- Power Pole
- Power Pole And Transformer
- Power Tower Structure
- Propane Tank
- Property Pipe
- Property Pipe With Cap
- Property Stone
- Public Telephone
- Railroad Crossing Signal
- Railroad Milepost Marker
- Railroad Profile
- Railroad R.O.W. Marker
- Railroad Signs
- Railroad Switch
- Railroad Track
- Railroad Trestle
- Rebar
- Rebar With Cap
- Reference Mark
- Regulatory Sign One Post
- Regulatory Sign Two Post
- Retaining Wall
- Riprap
- River Edge
- Rock And Wire Baskets
- Rockpiles
- Satellite Dish
- Septic Tank
- Shrub Tree
- Sidewalk
- Sign Face
- Sign Post
- Slough Or Marsh
- Spring
- Stream Gauge
- Street Marker
- Subsurface Utility Exploration Test Hole
- Telephone Fiber Optics — T/F —
- Telephone Junction Box
- Telephone Pole
- Television Cable Jct Box
- Television Tower
- Test Wells/Bore Holes
- Traffic Signal
- Trash Barrel
- Tree Belt
- Tree Coniferous
- Tree Deciduous
- Tree Stumps
- Triangulation Station
- Underground Electric Line — P —
- Underground Gas Line — G —
- Underground High Pressure Gas Line — HG —
- Underground Sanitary Sewer — S —
- Underground Storm Sewer — S —
- Underground Tank
- Underground Telephone Line — T —
- Underground Television Cable — TV —
- Underground Water Line — W —
- Warning Sign One Post
- Warning Sign Two Post
- Water Fountain
- Water Hydrant
- Water Meter
- Water Tower
- Water Valve
- Water Well
- Weir Rock
- Windmill
- Wingwall
- Witness Corner

- State and National Line
- County Line
- Section Line
- Quarter Line
- Sixteenth Line
- Property Line
- Construction Line
- R. O. W. Line
- New R. O. W. Line
- Cut and Fill Limits
- Control of Access
- New Control of Access
- Proposed ROW (After Property Disposal)

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	18	47

HORIZONTAL ALIGNMENT DATA

Number	Start Station	End Station	Length	Radius	Direction	Delta angle	Chord length	External Tangent	PI Station	Start Point	End Point	PI Point
1	0+00.00	0+01.71	1.71'		S32° 18' 32"E					(601785.7888', 2365096.2956')	(601784.3473', 2365097.2072')	
2	0+01.71	0+12.28	10.57'	15.25'		39.7183 (d)	10.36'	5.51'	0+07.21'	(601784.3473', 2365097.2072')	(601774.2298', 2365099.4409')	(601779.6919', 2365100.1512')
3	0+12.28	0+94.46	82.18'		S7° 24' 34"W					(601774.2298', 2365099.4409')	(601692.7339', 2365088.8429')	
4	0+94.46	0+96.68	2.22'	14.75'		8.6269 (d)	2.22'	1.11'	0+95.57'	(601692.7339', 2365088.8429')	(601690.5184', 2365088.7231')	(601691.6307', 2365088.6994')
5	0+96.68	2+01.77	105.09'		S1° 13' 03"E					(601690.5184', 2365088.7231')	(601585.4554', 2365090.9560')	
6	2+01.77	2+04.34	2.57'	14.75'		10.0000 (d)	2.57'	1.29'	2+03.06'	(601585.4554', 2365090.9560')	(601582.8995', 2365091.2345')	(601584.1653', 2365090.9834')
7	2+04.34	2+45.58	41.24'		S11° 13' 03"E					(601582.8995', 2365091.2345')	(601542.4514', 2365099.2563')	
8	2+45.58	2+48.24	2.66'	15.25'		10.0018 (d)	2.66'	1.33'	2+46.91'	(601542.4514', 2365099.2563')	(601539.8083', 2365099.5442')	(601541.1425', 2365099.5158')
9	2+48.24	4+15.94	167.70'		S1° 12' 57"E					(601539.8083', 2365099.5442')	(601372.1417', 2365103.1025')	
10	4+15.94	9+87.01	571.07'		S1° 12' 57"E					(601372.1417', 2365103.1025')	(600801.2022', 2365115.2194')	
11	9+87.01	9+91.31	4.30'	15.25'		16.1555 (d)	4.29'	2.16'	9+89.18'	(600801.2022', 2365115.2194')	(600796.9471', 2365114.7073')	(600799.0383', 2365115.2653')
12	9+91.31	10+22.41	31.10'		S14° 56' 23"W					(600796.9471', 2365114.7073')	(600766.8982', 2365106.6896')	
13	10+22.41	11+27.30	104.89'		S1° 08' 30"E					(600766.8982', 2365106.6896')	(600662.0260', 2365108.7794')	
14	11+27.30	11+49.11	21.80'		S26° 43' 43"E					(600662.0260', 2365108.7794')	(600642.5514', 2365118.5863')	
15	11+49.11	15+24.75	375.64'		S1° 12' 57"E					(600642.5514', 2365118.5863')	(600266.9961', 2365126.5566')	
16	15+24.75	15+30.55	5.80'	14.75'		22.5147 (d)	5.76'	2.94'	15+27.69'	(600266.9961', 2365126.5566')	(600261.3731', 2365127.8004')	(600264.0608', 2365126.6189')
17	15+30.55	15+52.15	21.60'		S23° 43' 50"E					(600261.3731', 2365127.8004')	(600241.5981, 2365136.4936')	
18	15+52.15	15+58.14	5.99'	15.25'		22.5000 (d)	5.95'	3.03'	15+55.18'	(600241.5981', 2365136.4936')	(600235.7885', 2365137.7795')	(600238.8212', 2365137.7143')
19	15+58.14	15+74.88	16.75'		S1° 13' 50"E					(600235.7885', 2365137.7795')	(600219.0462', 2365138.1391')	
20	15+74.88	15+80.87	5.99'	15.25'		22.5000 (d)	5.95'	3.03'	15+77.91'	(600219.0462', 2365138.1391')	(600213.1866', 2365137.1038')	(600216.0134, 2365138.2042')
21	15+80.87	16+06.48	25.61'		S21° 16' 10"W					(600213.1866', 2365137.1038')	(600189.3197', 2365127.8131')	
22	16+06.48	26+28.06	1021.58'		S1° 13' 50"E					(600189.3197', 2365127.8131')	(599167.9790', 2365149.7503')	
23	26+28.06	26+70.15	42.09'		S1° 13' 50"E					(599167.9790', 2365149.7503')	(599125.8970', 2365150.6542')	
24	26+70.15	26+90.99	20.84'		S23° 43' 50"E					(599125.8970', 2365150.6542')	(599106.8215', 2365159.0398')	
25	26+90.99	26+96.98	5.99'	15.25'		22.5000 (d)	5.95'	3.03'	26+94.02'	(599106.8215', 2365159.0398')	(599101.0118', 2365160.3257')	(599104.0445', 2365160.2606')
26	26+96.98	27+99.58	102.61'		S1° 13' 50"E					(599101.0118', 2365160.3257')	(598998.4275', 2365162.5291')	
27	27+99.58	28+08.17	8.59'	14.75'		33.3697 (d)	8.47'	4.42'	28+04.00'	(598998.4275', 2365162.5291')	(598990.3685', 2365165.1345',)	(598994.0076', 2365162.6240')
28	28+08.17	28+15.77	7.60'		S34° 36' 01"E					(598990.3685', 2365165.1345')	(598984.1167', 2365169.4473')	
29	28+15.77	28+35.73	19.96'	15.25'		75.0000 (d)	18.57'	11.70'	28+27.47'	(598984.1167', 2365169.4473')	(598965.5733', 2365168.5080')	(598974.4846', 2365176.0921')
30	28+35.73	28+48.50	12.77'		S40° 23' 59"W					(598965.5733', 2365168.5080')	(598955.8476', 2365160.2308')	



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	19	47

HORIZONTAL ALIGNMENT DATA

POINT	STATION AND OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP1	0+11, 0.93' L	REBAR WITH CAP MARKED CONTROL	601775.54	2365098.63	1303.07
CP2	25+59.92, 9.87' R	REBAR WITH CAP MARKED CONTROL	599197.90	2365139.24	1301.62
CP3	28+34.57, 12.06' L	REBAR WITH CAP MARKED CONTROL	598959.40	2365178.98	1302.62

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	20	47

REVISED 12/1/2015

SCALE 1"=40'

0+00-10.75' L -10.75'R
REMOVE CURB AND GUTTER

0+30-7.5' R
STREET LIGHT TO REMAIN

0+91-2' L
SIGN TO BE REMOVED AND RELOCATED BY OTHERS

1+15-71' L TO 1+81-72' R
RAILROAD TRACKS TO REMAIN

1+87-10' L
RAILROAD SIGN TO REMAIN

2+14-9' L
TELEPHONE UTILITY POST TO REMAIN

2+16-8' L
TELEPHONE UTILITY POST TO REMAIN

2+23-7' L
PUBLIC WARNING SYSTEM POLE TO REMAIN

2+25-6' L
PUBLIC WARNING SYSTEM POLE TO REMAIN

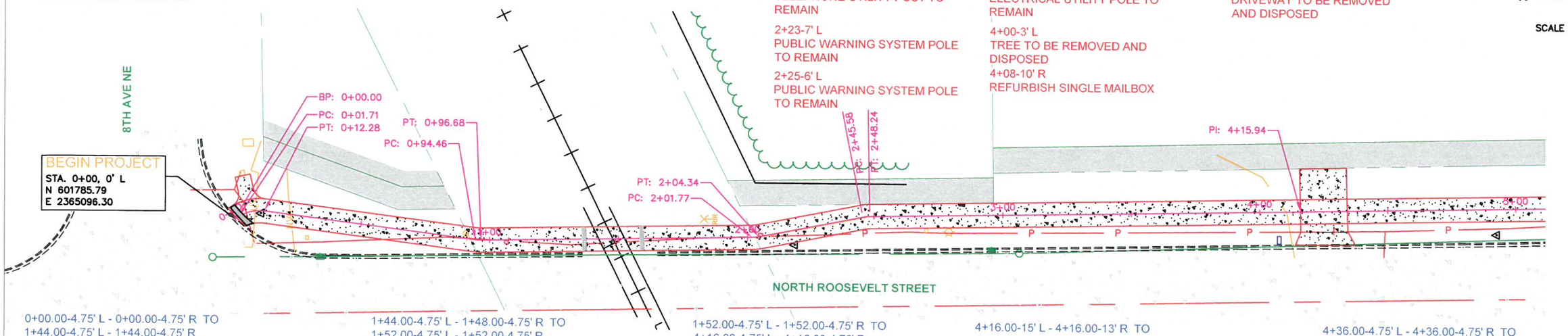
2+70-5' R
STREET LIGHT TO REMAIN

2+79-6' R
ELECTRICAL UTILITY POLE TO REMAIN

4+00-3' L
TREE TO BE REMOVED AND DISPOSED

4+08-10' R
REFURBISH SINGLE MAILBOX

4+16-15' L TO 4+35-15' L
DRIVEWAY TO BE REMOVED AND DISPOSED



0+00.00-4.75' L - 0+00.00-4.75' R TO
1+44.00-4.75' L - 1+44.00-4.75' R
CONSTRUCT
9.5' WIDE 5" THICK CONCRETE SHARED USE PATH

1+44.00-4.75' L - 1+48.00-4.75' R TO
1+52.00-4.75' L - 1+52.00-4.75' R
CONSTRUCT
9.5' WIDE RAILROAD CROSSING AND ASPHALT CONCRETE COMPOSITE TRANSITION BY OTHERS

1+52.00-4.75' L - 1+52.00-4.75' R TO
4+16.00-4.75' L - 4+16.00-4.75' R
CONSTRUCT
9.5' WIDE 5" THICK CONCRETE SHARED USE PATH

4+16.00-15' L - 4+16.00-13' R TO
4+36.00-15' L - 4+36.00-13' R
CONSTRUCT
6" THICK CONCRETE TYPE A APPROACH PAVEMENT. ASPHALT CONCRETE COMPOSITE TRANSITION TO EXISTING DRIVEWAY SHALL BE INCIDENTAL TO THE TYPE A APPROACH PAVEMENT

4+36.00-4.75' L - 4+36.00-4.75' R TO
5+00.00-4.75' L - 5+00.00-4.75' R
CONSTRUCT
9.5' WIDE 5" THICK CONCRETE SHARED USE PATH

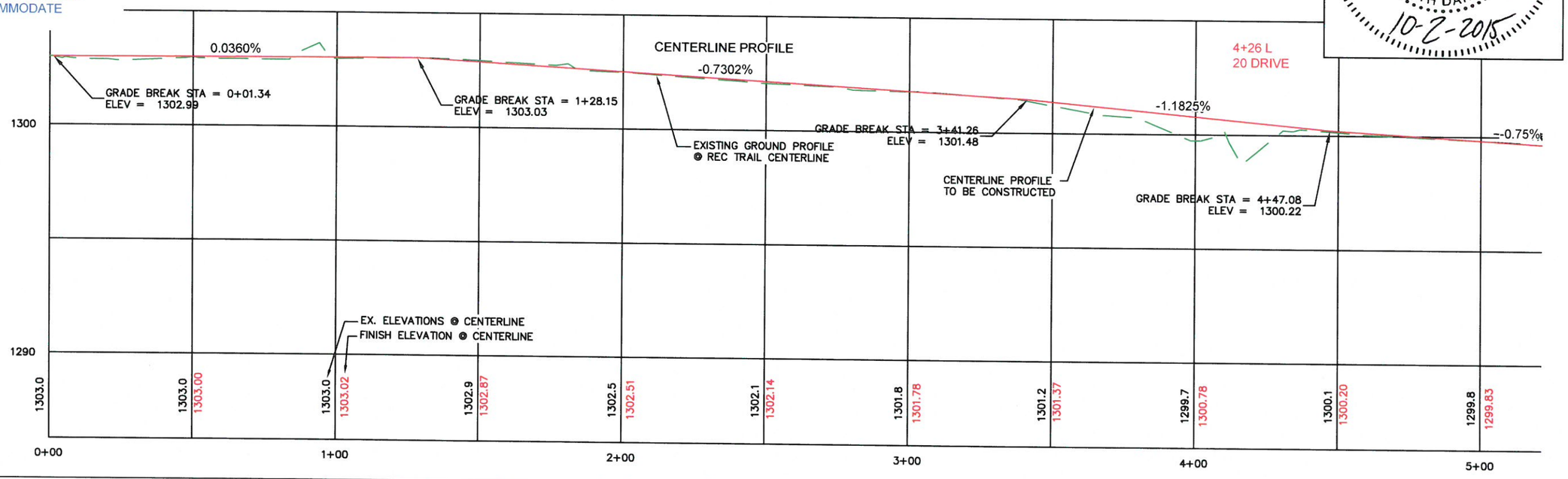
0+01.00-4.5' L - 0+01.00-4.5' R TO
0+03.00-4.5' L - 0+03.00-4.5' R
CONSTRUCT
19 S.F. OF TYPE 1 DETECTABLE WARNING PANELS

1+35.00-4.5' L - 1+35.00-4.5' R TO
1+37.00-4.5' L - 1+37.00-4.5' R
CONSTRUCT
19 S.F. OF TYPE 1 DETECTABLE WARNING PANELS

1+59.00-4.5' L - 1+59.00-4.5' R TO
1+61.00-4.5' L - 1+61.00-4.5' R
CONSTRUCT
19 S.F. OF TYPE 1 DETECTABLE WARNING PANELS

0+00-10.75' L -10.75'R
CONSTRUCT
21.5' CONCRETE CURB AND GUTTER

0+30-7.5' R
THE CITY OF ABERDEEN WILL TIME THE TRAFFIC LIGHTS TO ACCOMMODATE PEDESTRIANS



Registered Professional Engineer
REG. No. 11937
BRANDON D. SMID
SOUTH DAKOTA
10-2-2015

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	21	47

5+21-5' R
STREET LIGHT TO REMAIN

5+94-11' L
SEWER MANHOLE TO REMAIN
UNDISTURBED

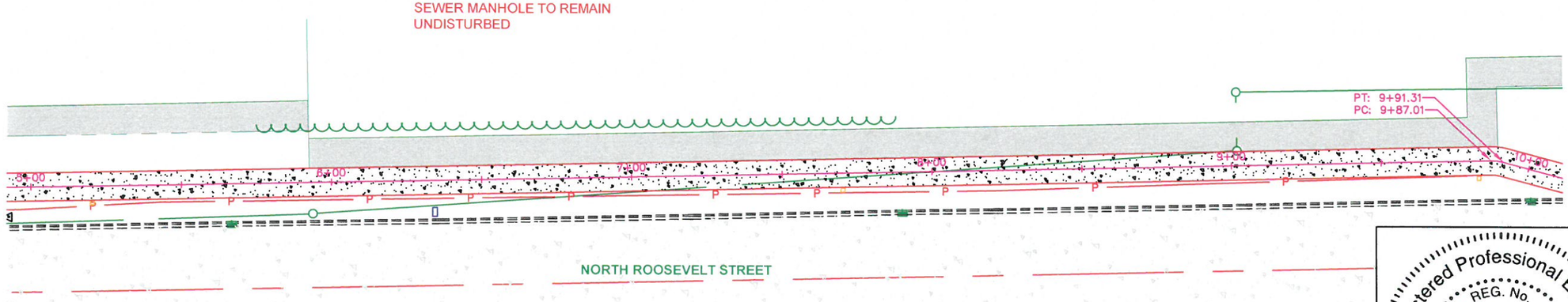
6+34-10' R
REFURBISH SINGLE MAILBOX

7+70-5' R
STREET LIGHT TO REMAIN

9+02-5' L
SEWER MANHOLE TO HAVE RIM
AND CASTING ADJUSTED

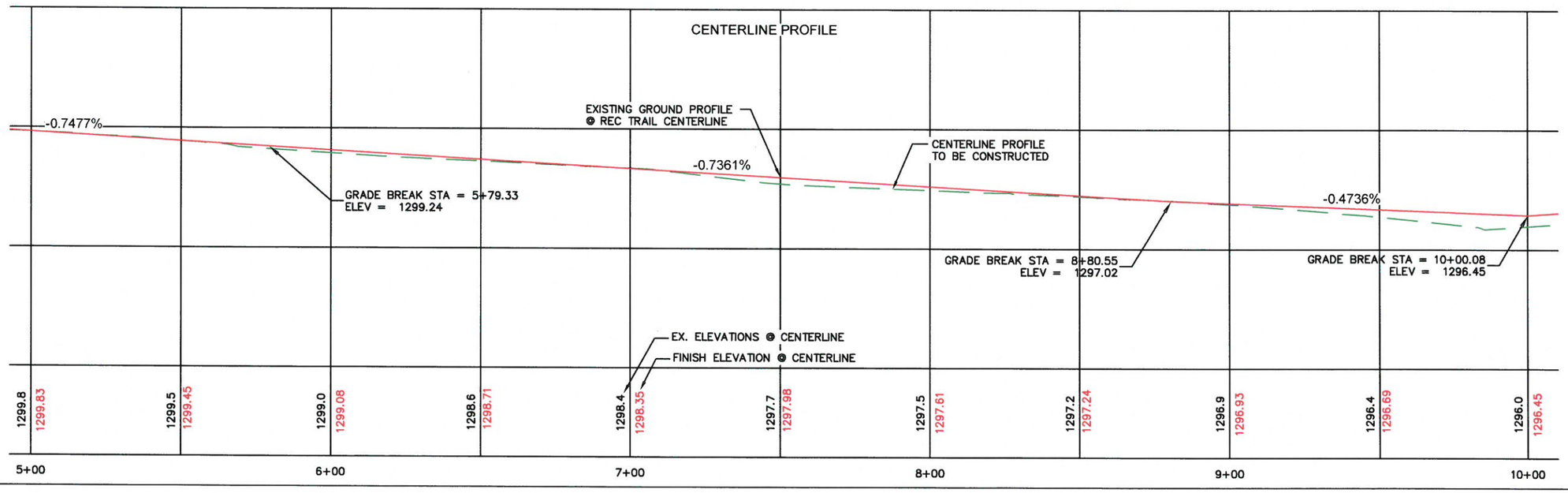
9+02-25' L
SEWER MANHOLE TO REMAIN
UNDISTURBED

9+83-5' R
STREET LIGHT TO REMAIN



5+00.00-4.75' L - 5+00.00-4.75' R TO
10+00.00-4.75' L - 10+00.00-4.75' R
CONSTRUCT
9.5' WIDE 5" THICK CONCRETE SHARED USE
PATH

Registered Professional Engineer
REG. No.
11937
BRANDON D.
SMID
SOUTH DAKOTA
10-2-2015



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	22	47

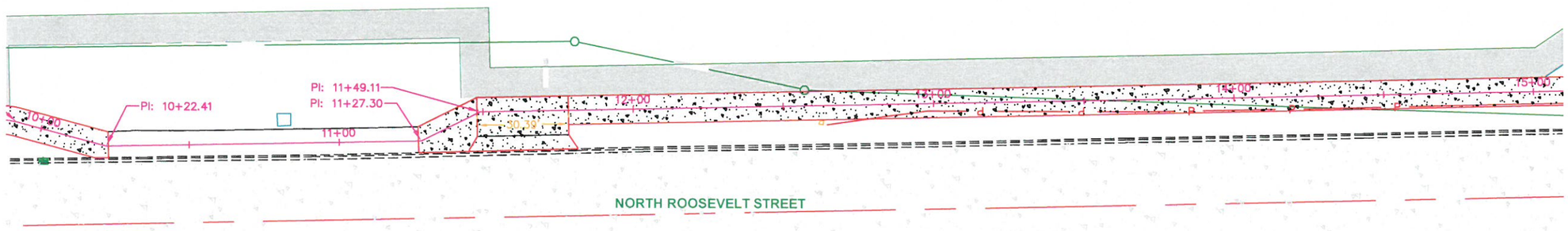
10+22-0' L TO 11+27R
BRIDGE TO REMAIN

11+48-5' L TO 11+78-5' L
DRIVEWAY TO BE REMOVED
AND DISPOSED

11+81-23' L
SEWER MANHOLE TO REMAIN
UNDISTURBED

12+57-5' R
SEWER MANHOLE TO HAVE RIM
AND CASTING ADJUSTED

12+63-5' R
STREET LIGHT TO REMAIN



10+00.00-4.75' L - 10+00.00-4.75' R TO
10+22.00-4.75' L - 10+22.00-4.75' R
CONSTRUCT
9.5' WIDE 5" THICK CONCRETE SHARED USE PATH

11+27.00-4.75' L - 11+27.00-13' R TO
11+48-.004.75' L - 11+48.00-13' R
CONSTRUCT
9.5' WIDE 5" THICK CONCRETE SHARED USE PATH

11+48.00-4.75' L - 11+48.00-13' R TO
11+78.00-4.75' L - 11+78.00-13' R
CONSTRUCT
6" THICK CONCRETE TYPE A APPROACH PAVEMENT

11+78.00-4.75' L - 11+78.00-4.75' R TO
15+00.00-4.75' L - 15+00.00-4.75' R
CONSTRUCT
9.5' WIDE 5" THICK CONCRETE SHARED USE PATH

Registered Professional Engineer
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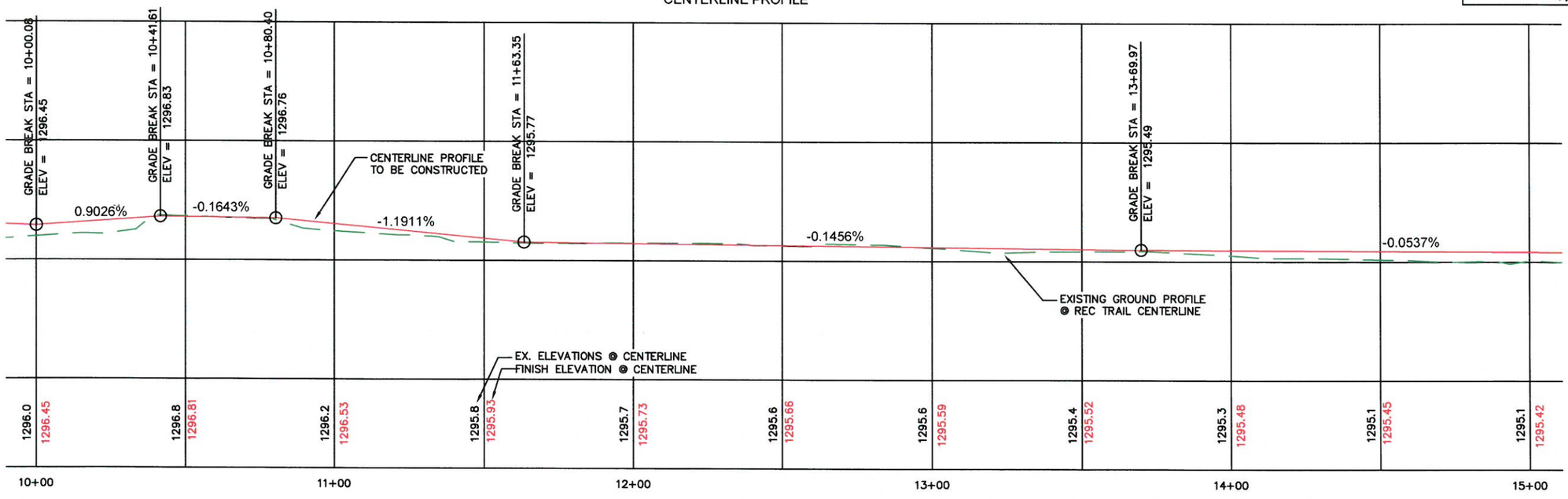
SMID
SOUTH DAKOTA
10-2-2015

CENTERLINE PROFILE



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	23	47

15+31-6' R
STREET LIGHT TO REMAIN

15+41-8' R
LIFT STATION CONTROL PANEL
TO REMAIN

15+44-10' R
LIFT STATION CONTROL PANEL
TO REMAIN

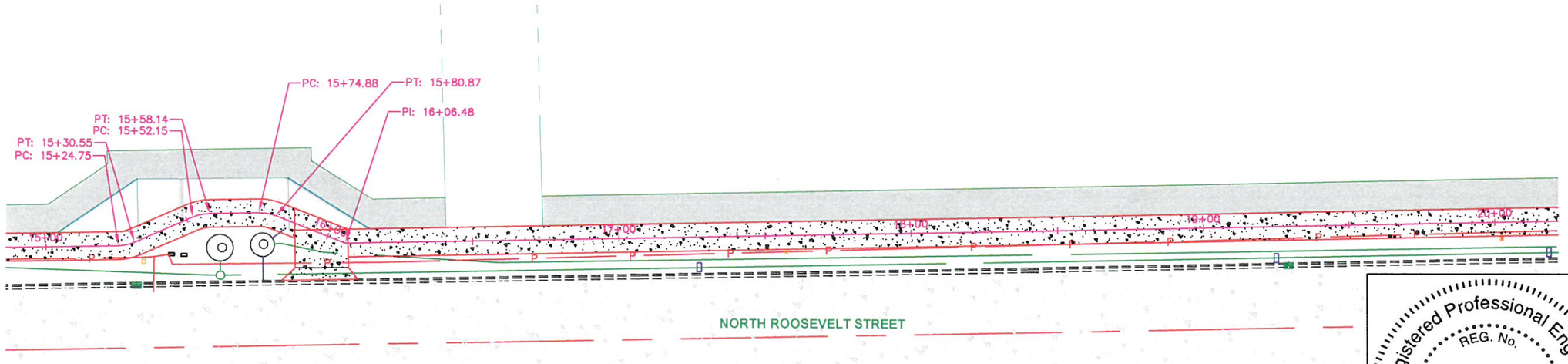
15+61-7' R
LIFT STATION CONTROL PANEL
TO REMAIN

15+76-7' R
LIFT STATION CONTROL PANEL
TO REMAIN

17+27-9' R
REFURBISH SINGLE MAILBOX

17+57-5' R
STREET LIGHT TO REMAIN

19+25-9' R
REFURBISH SINGLE MAILBOX



15+00.00-4.75' L - 15+00.00-4.75' R TO
15+89.00-4.75' L - 15+89.00-4.75' R
CONSTRUCT
9.5' WIDE 5" THICK CONCRETE SHARED USE PATH

15+89.00-4.75' L - 15+89.00-13' R TO
16+06.00-4.75' L - 16+06.00-13' R
CONSTRUCT
6" THICK CONCRETE TYPE A APPROACH PAVEMENT

16+06.00-4.75' L - 16+06.00-4.75' R TO
20+00.00-4.75' L - 20+00.00-4.75' R
CONSTRUCT
9.5' WIDE 5" THICK CONCRETE SHARED USE PATH

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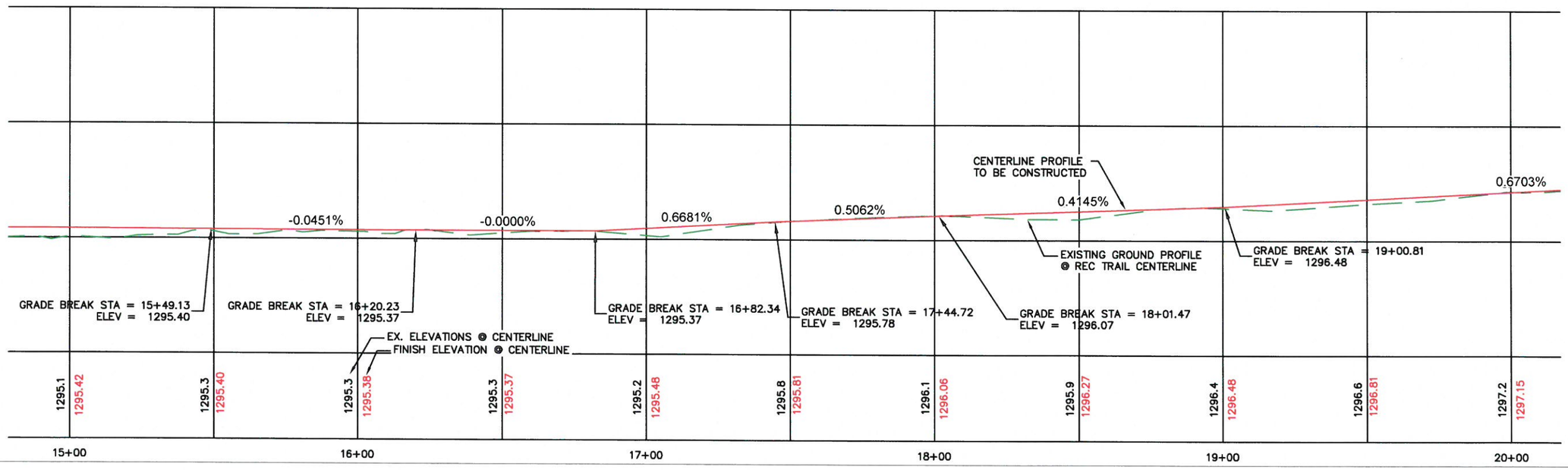
SOUTH DAKOTA
10-2-2015

CENTERLINE PROFILE



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	24	47

20+02-5' R
STREET LIGHT TO REMAIN

20+19-9' R
REFURBISH SINGLE MAILBOX

20+81-9' R
REFURBISH SINGLE MAILBOX

21+18-9' R
REFURBISH SINGLE MAILBOX

22+20-5' R
ELECTRICAL SERVICE METER SOCKET TO BE REMOVED AND REINSTALLED WITH BREAK AWAY COUPLER

22+45-5' R
STREET LIGHT TO REMAIN

22+66-9' R
REFURBISH SINGLE MAILBOX

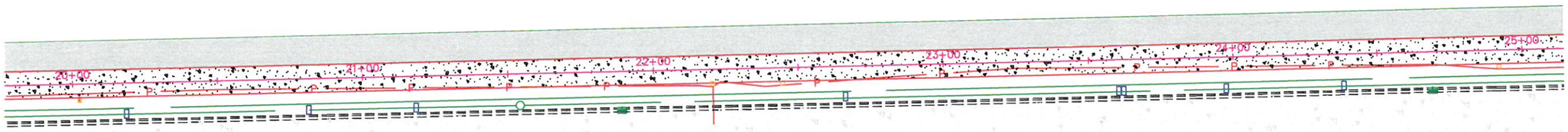
23+60-9' R
REFURBISH SINGLE MAILBOX

23+62-9' R
REFURBISH SINGLE MAILBOX

23+97-9' R
REFURBISH SINGLE MAILBOX

24+38-9' R
REFURBISH SINGLE MAILBOX

24+92-5' R
STREET LIGHT TO REMAIN



NORTH ROOSEVELT STREET

20+00.00-4.75' L - 20+00.00-4.75' R TO
25+00.00-4.75' L - 25+00.00-4.75' R
CONSTRUCT
9.5' WIDE 5" THICK CONCRETE SHARED USE PATH

Registered Professional Engineer
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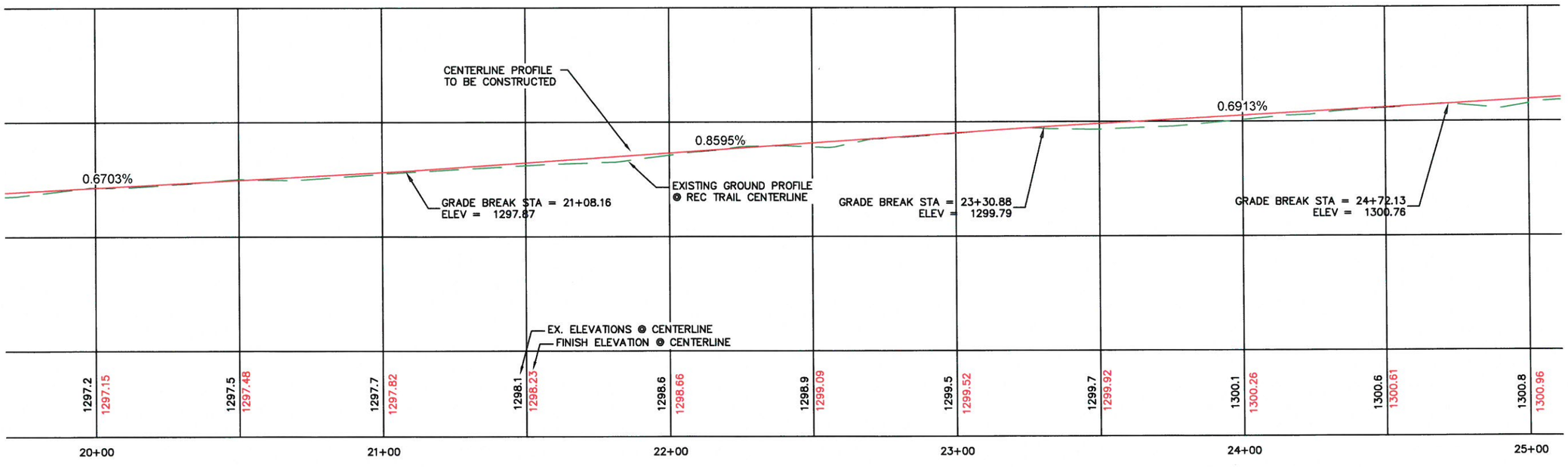
SOUTH DAKOTA
10-2-2015

CENTERLINE PROFILE



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	25	47

26+28-8' R TO 26+64-8' R
CONCRETE APPROACH TO BE REMOVED AND DISPOSED

27+38-14' R
STREET LIGHT TO REMAIN

27+42-8' L
RAILROAD BUILDING TO REMAIN

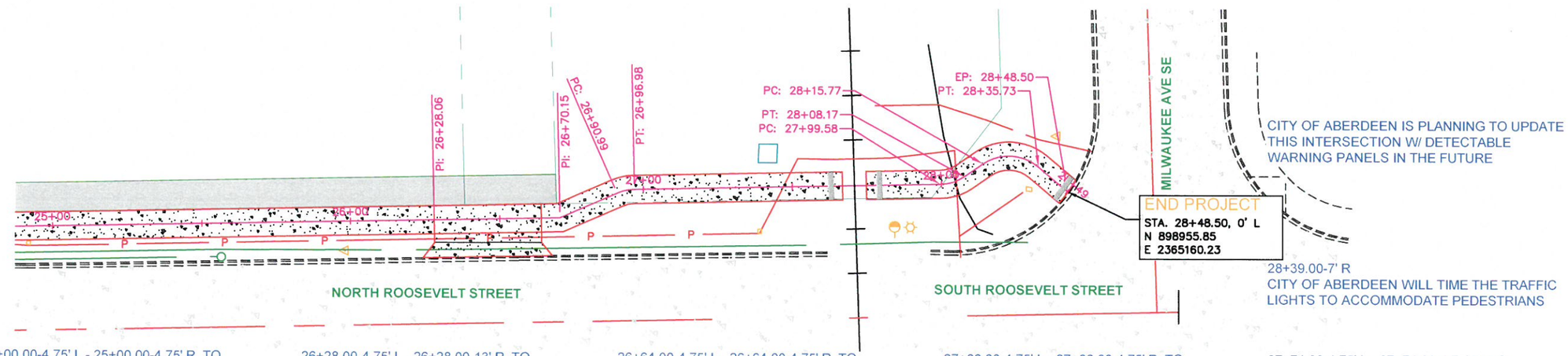
27+70-71' L TO 27+70-72' R
RAILROAD TRACKS TO REMAIN

27+84-12' R
RAILROAD LIGHT AND CROSS BAR TO REMAIN

27+89-13' R
RAILROAD SIGN TO REMAIN

28+39-7' R
STREET SIGNAL LIGHT TO REMAIN

28+48.50-10.75' L -10.75'R
REMOVE CURB AND GUTTER



CITY OF ABERDEEN IS PLANNING TO UPDATE THIS INTERSECTION W/ DETECTABLE WARNING PANELS IN THE FUTURE

28+39.00-7' R
CITY OF ABERDEEN WILL TIME THE TRAFFIC LIGHTS TO ACCOMMODATE PEDESTRIANS

25+00.00-4.75' L - 25+00.00-4.75' R TO
26+28.00-4.75' L - 26+28.00-4.75' R
CONSTRUCT
9.5' WIDE 5" THICK CONCRETE SHARED USE PATH

26+28.00-4.75' L - 26+28.00-13' R TO
26+64.00-4.75' L - 26+64.00-13' R
CONSTRUCT
6" THICK CONCRETE TYPE A APPROACH PAVEMENT

26+64.00-4.75' L - 26+64.00-4.75' R TO
27+66.00-4.75' L - 27+66.00-4.75' R
CONSTRUCT
9.5' WIDE 5" THICK CONCRETE SHARED USE PATH

27+64.00-4.5' L - 27+64.00-4.5' R TO
27+66.00-4.5' L - 27+66.00-4.5' R
CONSTRUCT
19 S.F. OF TYPE 1 DETECTABLE WARNING PANELS

27+66.00-4.75' L - 27+66.00-4.75' R TO
27+74.00-4.75' L - 27+74.00-4.75' R
CONSTRUCT
9.5' WIDE RAILROAD CROSSING AND ASPHALT CONCRETE COMPOSITE TRANSITION CONSTRUCTED BY OTHERS

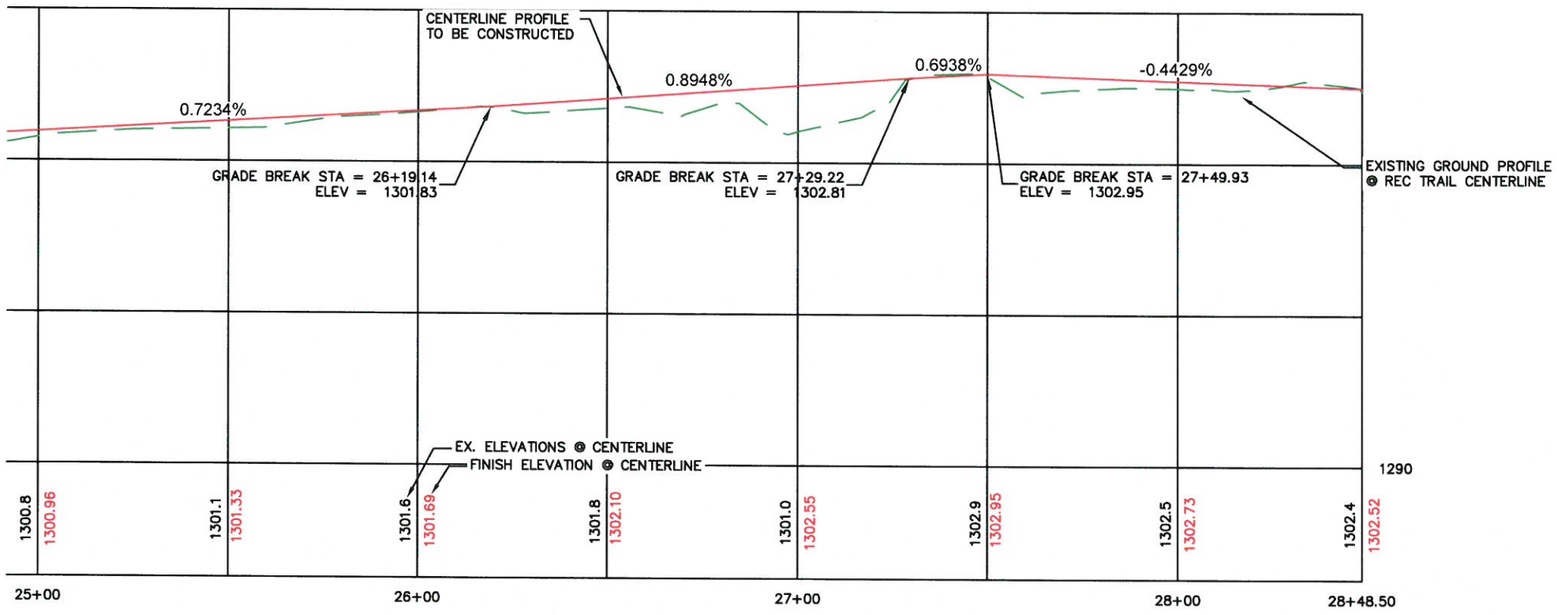
27+74.00-4.5' L - 27+74.00-4.5' R TO
27+76.00-4.5' L - 27+76.00-4.5' R
CONSTRUCT
19 S.F. OF TYPE 1 DETECTABLE WARNING PANELS

27+74.00-4.75' L - 27+74.00-4.75' R TO
28+48.50-4.75' L - 28+48.50-4.75' R
CONSTRUCT
9.5' WIDE 5" THICK CONCRETE SHARED USE PATH

28+46.00-4.5' L - 28+46.00-4.5' R TO
28+48.00-4.5' L - 28+48.00-4.5' R
CONSTRUCT
19 S.F. OF TYPE 1 DETECTABLE WARNING PANELS

28+48.50, 10.75' L -10.75'R
CONSTRUCT
21.5' CONCRETE CURB AND GUTTER

CENTERLINE PROFILE



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	26	47

RIGHT OF WAY INFORMATION

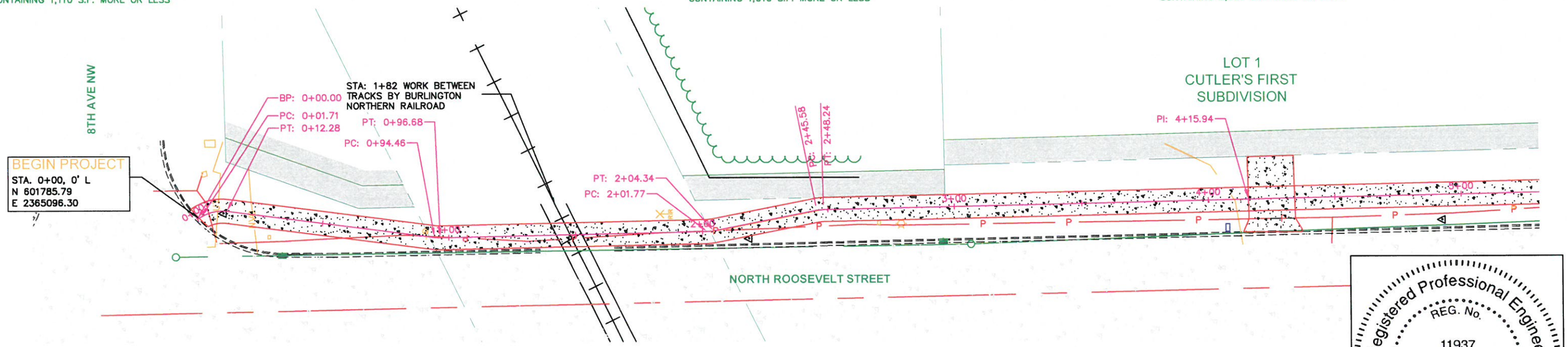
N E S W

SCALE 1"=40'

UNPLATTED PARCEL
UNPLATTED PARCEL, NW 1/4 SECTION 17 T123N–R63W OF THE 5TH P.M., BROWN COUNTY, SOUTH DAKOTA
UNPLATTED PARCEL
MARY CUTLER
STA: 0+11 TO 0+85 TEMPORARY EASEMENT FOR GRADING OF SHARED USE PATH CONTAINING 1,110 S.F. MORE OR LESS

UNPLATTED PARCEL
UNPLATTED PARCEL, NW 1/4 SECTION 17 T123N–R63W OF THE 5TH P.M., BROWN COUNTY, SOUTH DAKOTA
UNPLATTED PARCEL
MARY CUTLER
STA: 1+97 TO 2+97 TEMPORARY EASEMENT FOR GRADING OF SHARED USE PATH CONTAINING 1,010 S.F. MORE OR LESS

LOT 1
CUTLER'S FIRST SUBDIVISION OF THE NW 1/4 SECTION 17 T123N–R63W OF THE 5TH P.M., BROWN COUNTY, SOUTH DAKOTA
LOT 1
F & L INVESTMENTS, LLC.
STA: 2+97 TO 5+93 TEMPORARY EASEMENT FOR GRADING OF SHARED USE PATH CONTAINING 2,963 S.F. MORE OR LESS



Registered Professional Engineer
REG. No. 11937
BRANDON D. SMID
SOUTH DAKOTA
10-2-2015

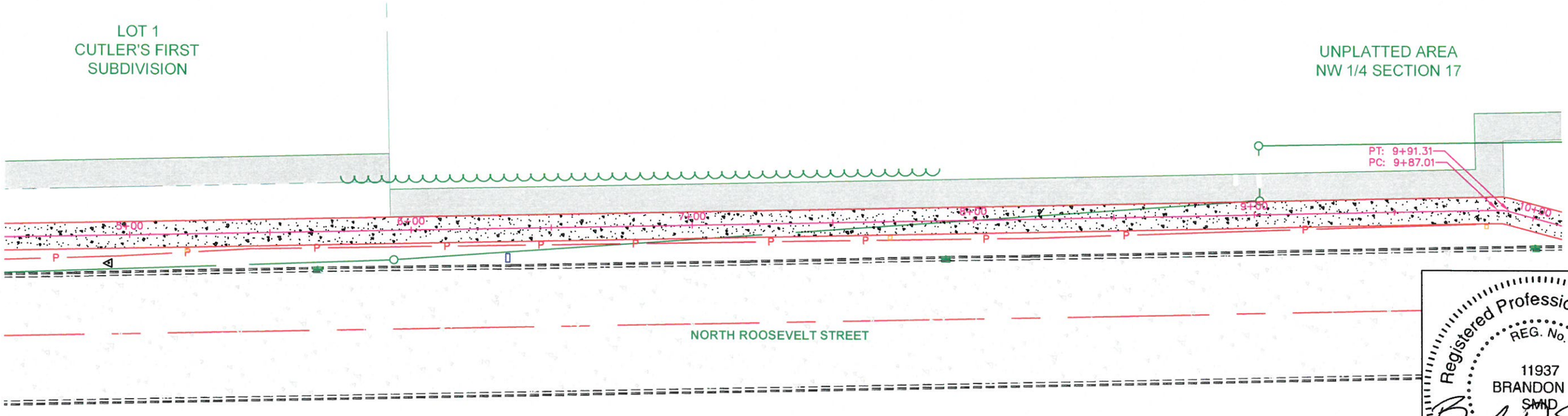
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	27	47

RIGHT OF WAY INFORMATION

LOT 1
CUTLER'S FIRST SUBDIVISION OF THE NW 1/4 SECTION 17 T123N–R63W OF THE 5TH P.M., BROWN COUNTY, SOUTH DAKOTA

LOT 1
F & L INVESTMENTS, LLC.
STA: 2+97 TO 5+93 TEMPORARY EASEMENT FOR GRADING OF SHARED USE PATH CONTAINING 2,963 S.F. MORE OR LESS

UNPLATTED PARCEL
UNPLATTED PARCEL, NW 1/4 SECTION 17 T123N–R63W OF THE 5TH P.M., BROWN COUNTY, SOUTH DAKOTA
UNPLATTED PARCEL
MARY CUTLER
STA: 5+93 TO 16+41 TEMPORARY EASEMENT FOR GRADING OF SHARED USE PATH CONTAINING 11,168 S.F. MORE OR LESS



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SOUTH DAKOTA
10-2-2015

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	28	47

RIGHT OF WAY INFORMATION

N E S W

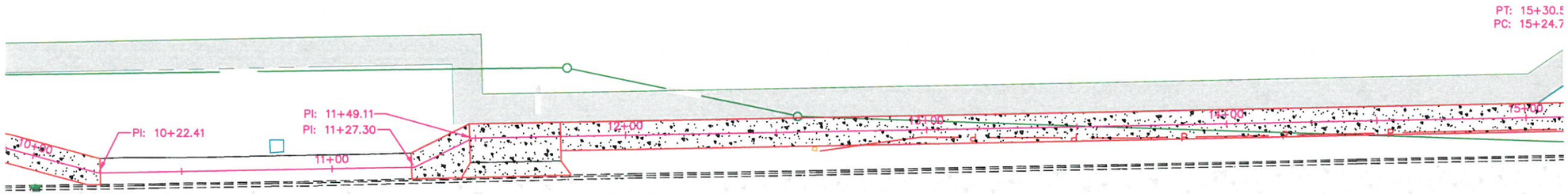
UNPLATTED PARCEL

UNPLATTED PARCEL, NW 1/4 SECTION 17 T123N-R63W OF THE 5TH P.M., BROWN COUNTY, SOUTH DAKOTA

UNPLATTED PARCEL
MARY CUTLER

STA: 5+93 TO 16+41 TEMPORARY EASEMENT FOR GRADING OF SHARED USE PATH CONTAINING 11,168 S.F. MORE OR LESS

UNPLATTED AREA
NW 1/4 SECTION 17



NORTH ROOSEVELT STREET

Registered Professional Engineer
REG. No. 11937
BRANDON D. SMID
SOUTH DAKOTA
10-2-2015

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	29	47

RIGHT OF WAY INFORMATION

UNPLATTED PARCEL
UNPLATTED PARCEL, NW 1/4 SECTION 17 T123N–R63W OF THE 5TH P.M., BROWN COUNTY, SOUTH DAKOTA

UNPLATTED PARCEL
MARY CUTLER
STA: 5+93 TO 16+41 TEMPORARY EASEMENT FOR GRADING OF SHARED USE PATH CONTAINING 11,168 S.F. MORE OR LESS

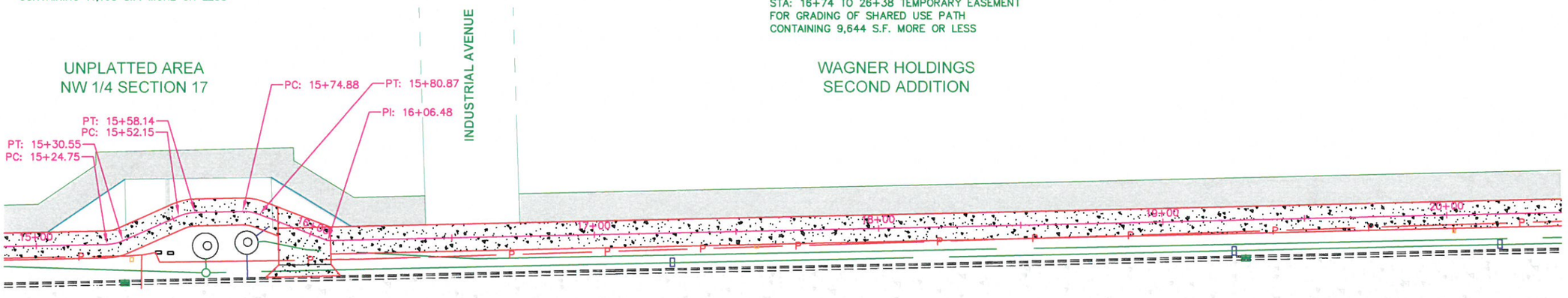
LOT 1
WAGNER HOLDINGS
SECOND ADDITION
W 1/2 SECTION 17 T123N–R63W OF THE 5TH P.M., BROWN COUNTY, SOUTH DAKOTA

LOT 1
WAGNER HOLDINGS SECOND ADDITION
RDA, LLC.
STA: 16+74 TO 26+38 TEMPORARY EASEMENT FOR GRADING OF SHARED USE PATH CONTAINING 9,644 S.F. MORE OR LESS

UNPLATTED AREA
NW 1/4 SECTION 17

WAGNER HOLDINGS
SECOND ADDITION

INDUSTRIAL AVENUE



NORTH ROOSEVELT STREET

Registered Professional Engineer
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BRANDON D. SMID
SOUTH DAKOTA
10-2-2015

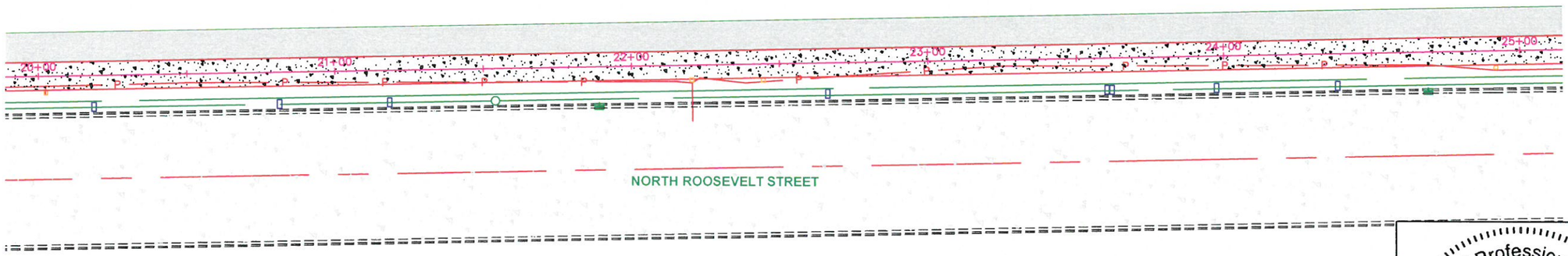
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	30	47

RIGHT OF WAY INFORMATION

LOT 1
WAGNER HOLDINGS
SECOND ADDITION
W 1/2 SECTION 17 T123N–R63W OF THE 5TH P.M., BROWN COUNTY, SOUTH DAKOTA

LOT 1
WAGNER HOLDINGS SECOND ADDITION
RDA, LLC.
STA: 16+74 TO 26+38 TEMPORARY EASEMENT FOR GRADING OF SHARED USE PATH
CONTAINING 9,644 S.F. MORE OR LESS

WAGNER HOLDINGS
SECOND ADDITION



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10-2-2015

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	31	47

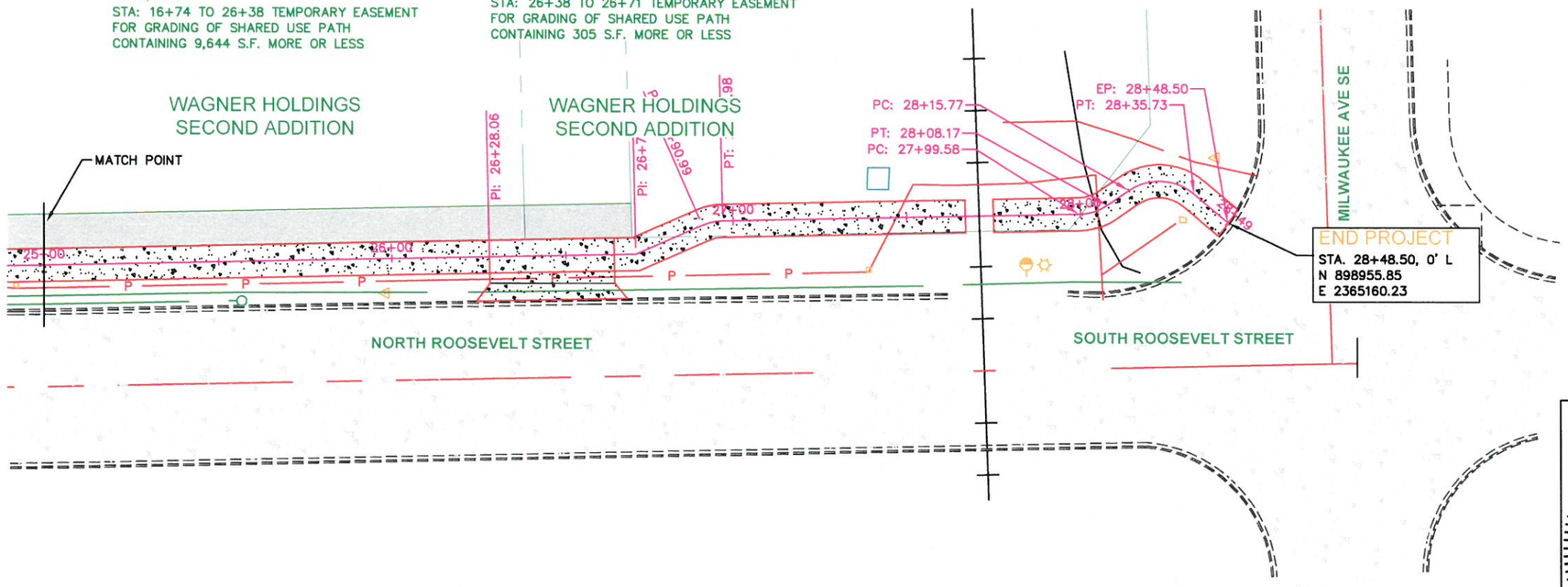
RIGHT OF WAY INFORMATION

LOT 1
WAGNER HOLDINGS
SECOND ADDITION
W 1/2 SECTION 17 T123N–R63W OF THE 5TH P.M., BROWN COUNTY, SOUTH DAKOTA

LOT 1
WAGNER HOLDINGS SECOND ADDITION
RDA, LLC.
STA: 16+74 TO 26+38 TEMPORARY EASEMENT FOR GRADING OF SHARED USE PATH CONTAINING 9,644 S.F. MORE OR LESS

S 23.1' OUTLOT 1 ROCHES
EAST SIDE ADDITION
SW 1/4 SECTION 17 T123N–R63W OF THE 5TH P.M., BROWN COUNTY, SOUTH DAKOTA

S 23.1' OUTLOT 1 ROCHES EAST
SIDE ADDITION
N. W. ENERGY
STA: 26+38 TO 26+71 TEMPORARY EASEMENT FOR GRADING OF SHARED USE PATH CONTAINING 305 S.F. MORE OR LESS



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10-2-2015

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	32	47

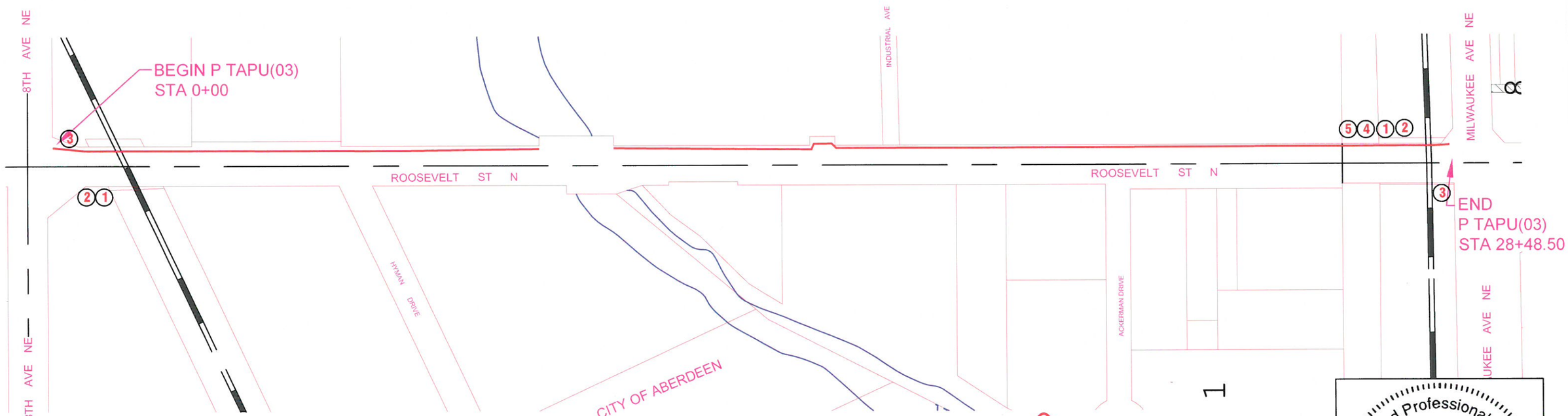
REVISED 12/1/2015

N E S W

ITEMIZED LIST FOR TRAFFIC CONTROL						
	SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	SQFT PER SIGN	SQFT
	G 20-2	48"X 48"	END ROAD WORK	2	16	32
	W 20-1	36"X 18"	ROAD WORK AHEAD	2	4.5	9
	W 21-5	48"X 48"	SHOULDER WORK	2	16	32
	W 13-1P	30"X 30"	ADVISORY SPEED PLAGUE	1	6.25	6.25
	W 1-4L	48"X 48"	HORIZONTAL ALIGNMENT	1	16	16
					TOTAL	95.25

CONES, DRUMS, TYPE II BARRICADES OR FENCING SHALL BE USED TO BLOCK DRIVEWAY ENTRANCES AS NEEDED DURING CONSTRUCTION. MISCELLANEOUS SAFETY DEVICES SHALL BE INCIDENTAL TO THE CONTRACT LUMP SUM PRICE FOR "TRAFFIC CONTROL, MISCELLANEOUS

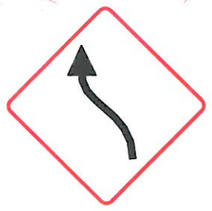
SIX (6) TRAFFIC CONTROL DRUMS SHALL BE UTILIZED TO DIRECT TRAFFIC AROUND THE WORK WHEN IT IS ADJACENT THE CURB AND GUTTER. THE DRUMS SHALL BE SPACED NO GREATER THEN SIX (6) FEET APART. MISCELLANEOUS SAFETY DEVICES SHALL BE INCIDENTAL TO THE CONTRACT LUMP SUM PRICE FOR "TRAFFIC CONTROL, MISCELLANEOUS



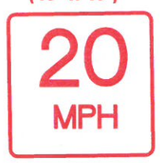
1
W21-5
(48" X 48")

2
W20-1
(48" X 48")

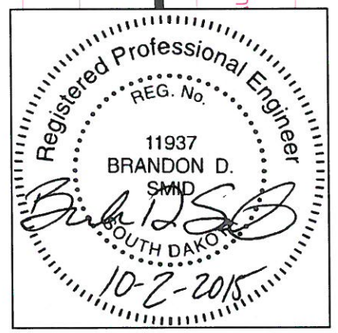
3
G20-2
(36" X 18")



5
W1-4L
(48" X 48")

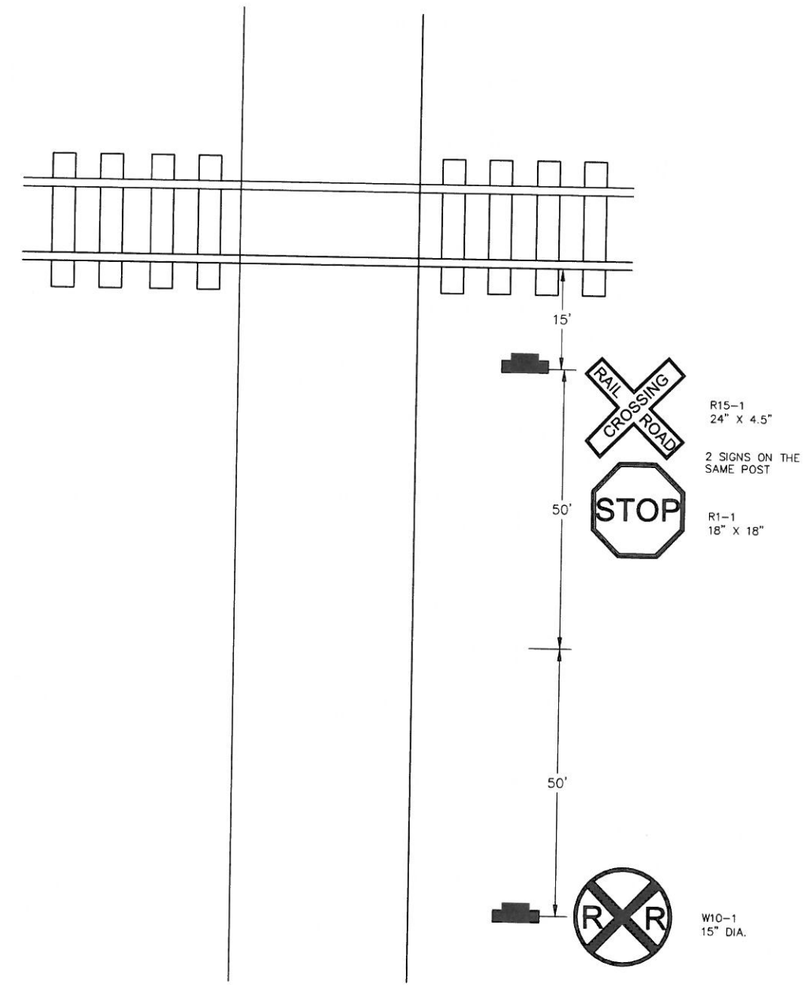


4
W13-1P
(30" X 30")



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	33	47

PERMANENT SIGNING



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	34	47

REVISED 12/1/2015

N
W E
S

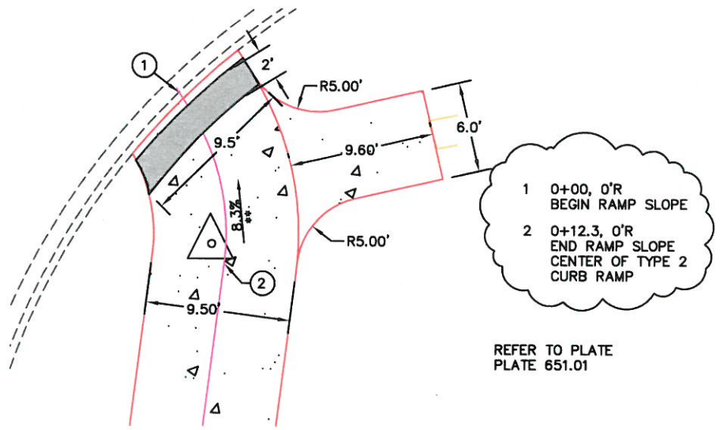
SCALE 1"=40'

CURB RAMP DETAILS

LEGEND

** CURB RAMP WITH 8.3% MAXIMUM SLOPE AND 2% CROSS SLOPE

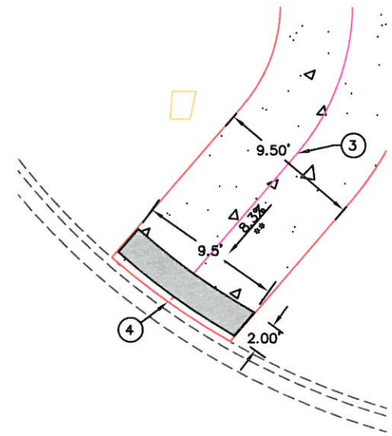
DETECTABLE WARNING PANEL



1 0+00, 0'R
BEGIN RAMP SLOPE

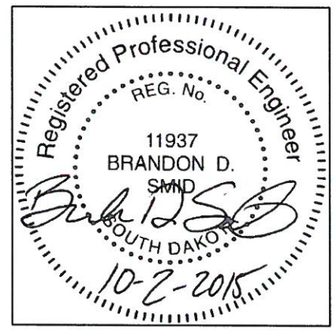
2 0+12.3, 0'R
END RAMP SLOPE
CENTER OF TYPE 2
CURB RAMP

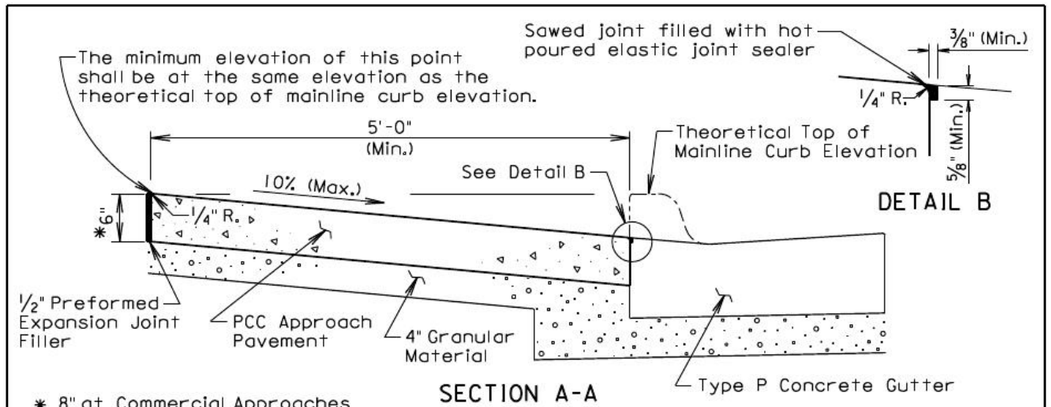
REFER TO PLATE
PLATE 651.01



3 28+35.7, 0'R
BEGIN RAMP SLOPE

4 28+48.5, 0'R
END RAMP SLOPE
CENTER OF TYPE 2
CURB RAMP

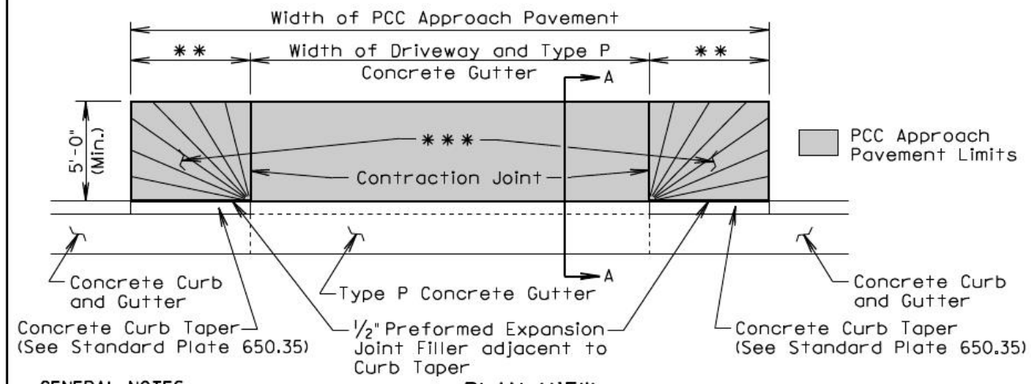




* 8" at Commercial Approaches

** Width for 6" high curb is 6' (See Standard Plate 650.35)

*** Within these areas, the surface of the type A PCC approach pavement shall be sloped transitionally as approved by the Engineer.



GENERAL NOTES:

The concrete for the type A PCC approach pavement and adjacent driveway shall comply with the requirements of the Specifications for class M6 concrete unless otherwise stated in the plans.

Contraction joints in the type A PCC approach pavement shall be 1½ inches deep if formed in the fresh concrete using a suitable grooving tool. If a saw is used to cut the contraction joints, then the depth of the joint shall be at least ¼ the thickness of the approach pavement. Additional contraction joints not shown in the Plan View shall be spaced as follows:

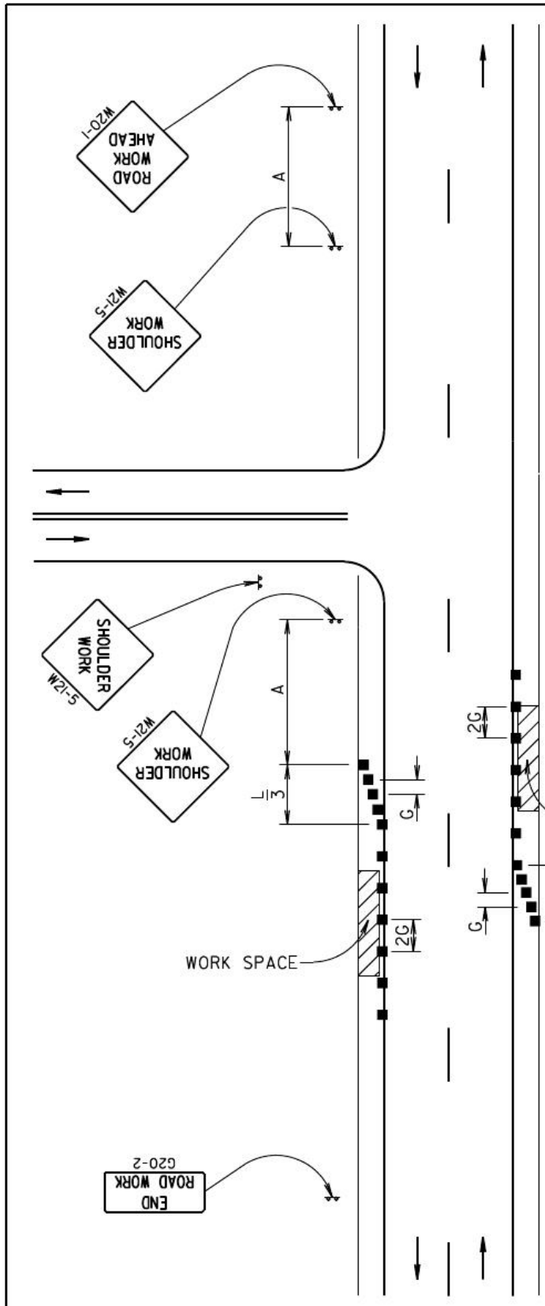
One joint at the center of the approach for driveways 16' to 24' wide.
Two joints spaced at equal intervals for driveways greater than 24' to 40' wide.

All costs for furnishing and placing the type A PCC approach pavement and constructing the expansion and contraction joints including labor, equipment, and materials including the earthen backfill shall be incidental to the contract unit price per square yard for the corresponding PCC Approach Pavement bid item.

All costs for excavation required for placing the type A PCC approach pavement and granular material shall be incidental to the contract unit price per cubic yard for "Unclassified Excavation". All costs for furnishing and placing the granular material shall be incidental to the contract unit price per ton for the corresponding granular material bid item.

June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	TYPE A PCC APPROACH PAVEMENT	PLATE NUMBER 380.40
			Sheet 1 of 1



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

■ Channelizing Device

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

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

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

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

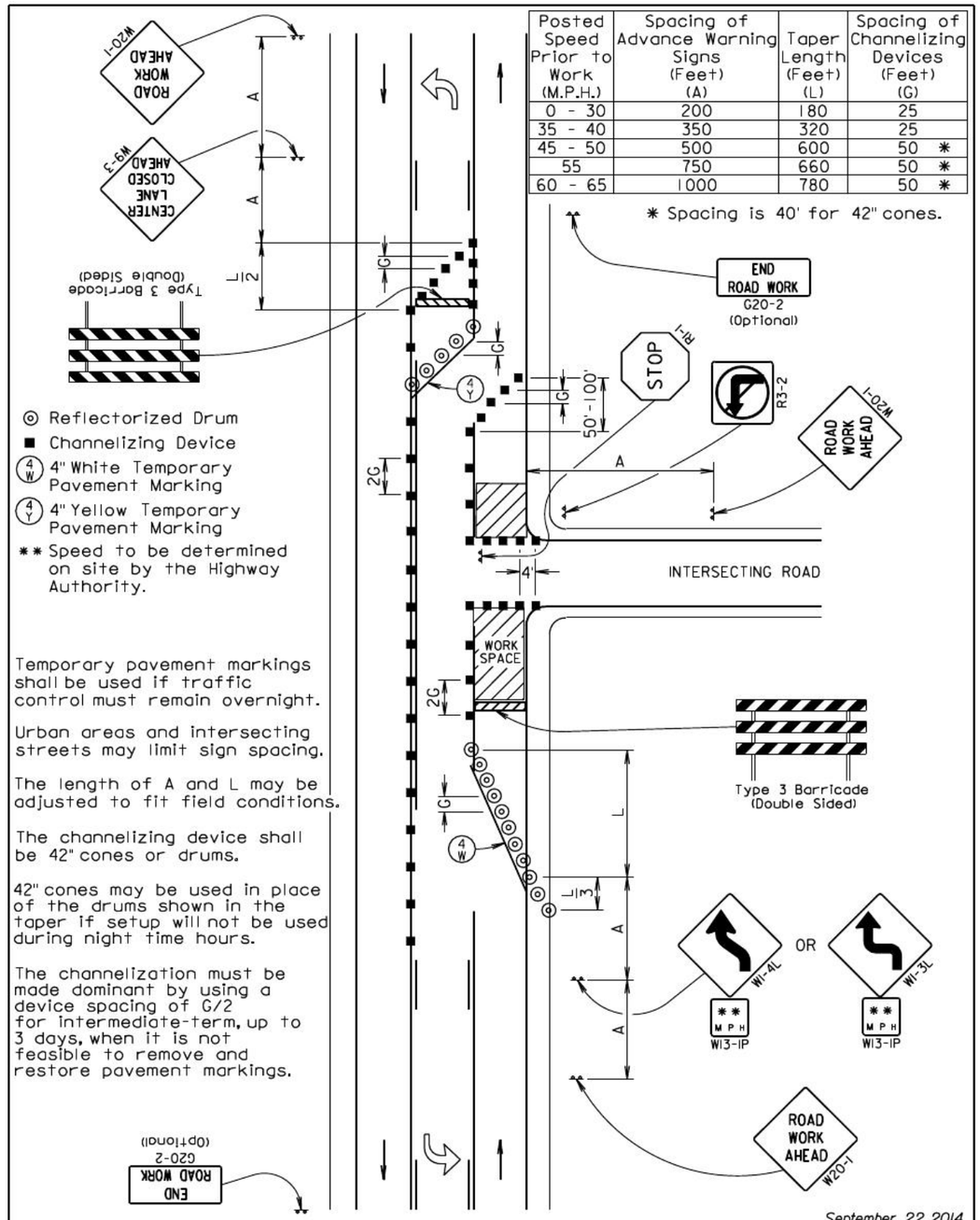
The SHOULDER WORK sign on an intersecting roadway is not required if drivers emerging from that roadway will encounter another advance warning sign before they reach a work activity area.

September 22, 2014

Published Date: 3rd Qtr. 2015	SDDOT	GUIDES FOR TRAFFIC CONTROL DEVICES WORK ON SHOULDERS	PLATE NUMBER 634.03
			Sheet 1 of 1

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

* Spacing is 40' for 42" cones.



- ◎ Reflectorized Drum
- ■ Channelizing Device
- (4W) 4" White Temporary Pavement Marking
- (4Y) 4" Yellow Temporary Pavement Marking
- ** Speed to be determined on site by the Highway Authority.

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

Urban areas and intersecting streets may limit sign spacing.

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

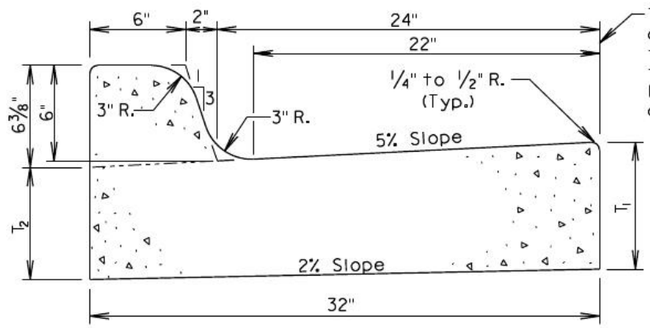
The channelizing device shall be 42" cones or drums.

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

The channelization must be made dominant by using a device spacing of G/2 for intermediate-term, up to 3 days, when it is not feasible to remove and restore pavement markings.

September 22, 2014

Published Date: 3rd Qtr. 2015	SDDOT	GUIDES FOR TRAFFIC CONTROL DEVICES 3-LANE, OUTSIDE LANE CLOSED	PLATE NUMBER 634.53
			Sheet 1 of 1



The stated radii on the plans and cross sections refer to this line and it shall also be the basis for horizontal linear foot measurement and payment.

Type	T_1 (Inches)	T_2 (Inches)	Cu. Yd. Per Lin. Ft.	Lin. Ft. Per Cu. Yd.
B66	6	5 1/16	0.057	17.7
B67	7	6 1/16	0.065	15.4
B68	8	7 1/16	0.073	13.7
B68.5	8.5	7 9/16	0.077	13.0
B69	9	8 1/16	0.081	12.3
B69.5	9.5	8 9/16	0.085	11.7
B610	10	9 1/16	0.090	11.2
B610.5	10.5	9 9/16	0.094	10.7
B611	11	10 1/16	0.098	10.2
B611.5	11.5	10 9/16	0.102	9.8
B612	12	11 1/16	0.106	9.4

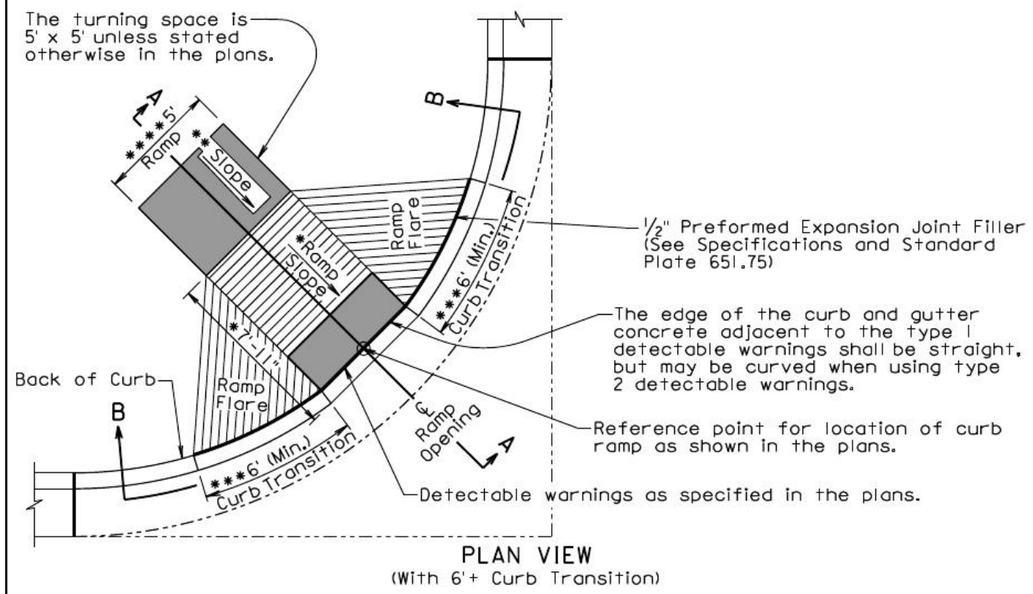
GENERAL NOTES:

When concrete curb and gutter longitudinally adjoins new concrete pavement, the method of attachment shall be by one of the methods shown on Standard Plate 380.11.

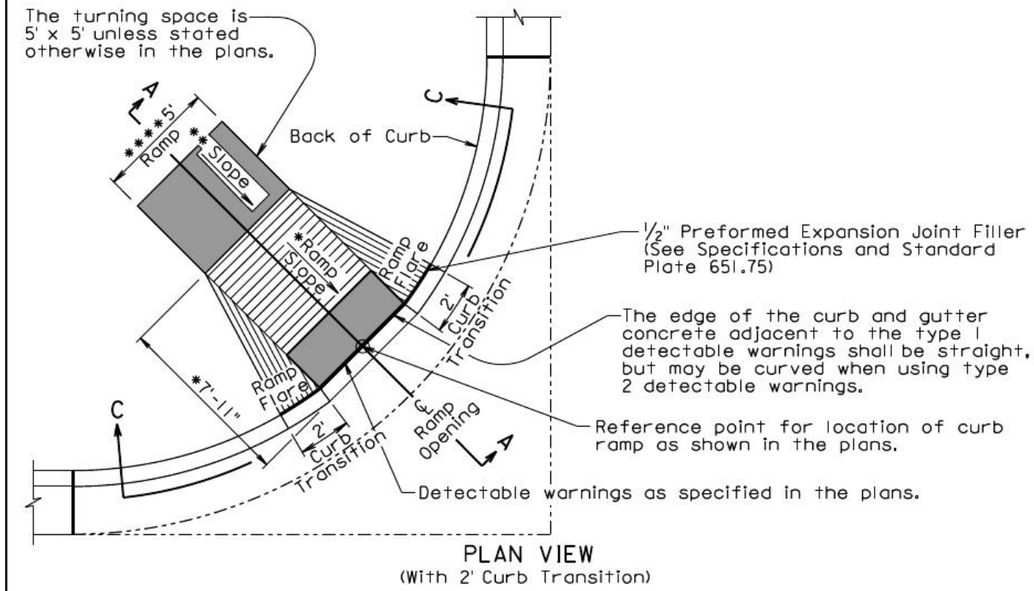
See Standard Plate 650.90 for expansion and contraction joints in the curb and gutter.

September 6, 2008

Published Date: 3rd Qtr. 2015	SDDOT	TYPE B CONCRETE CURB AND GUTTER	PLATE NUMBER 650.01
			Sheet 1 of 1



PLAN VIEW
(With 6'+ Curb Transition)



PLAN VIEW
(With 2' Curb Transition)

June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)	PLATE NUMBER 651.01
			Sheet 1 of 3

The ramp slope shall be 12:1 (8.3%) maximum. The ramp length shall not exceed 15' unless stated otherwise in the plans. Ramp slopes are designed at 12:1 (8.3%) unless stated otherwise in the plans.

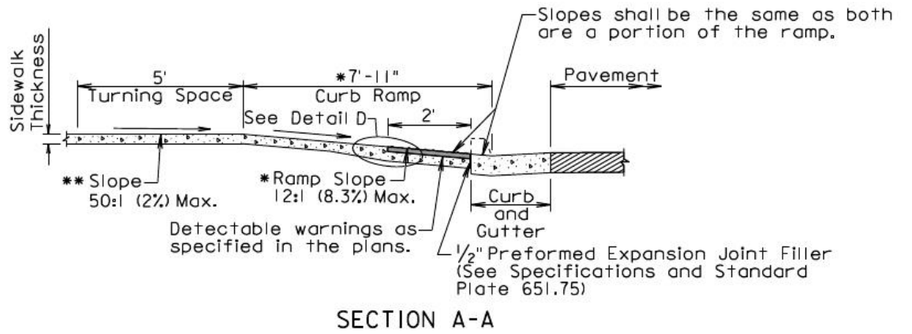
* The cross slope of the ramp shall not be steeper than 50:1 (2%).

The 7'-11" dimension was computed based on a flat roadway profile, a continuous 2% theoretical slope from top of theoretical curb to the top of ramp, and a 6" high curb. The dimension shall be adjusted based on the curb type shown in the plans, the roadway geometrics, and the sidewalk geometrics.

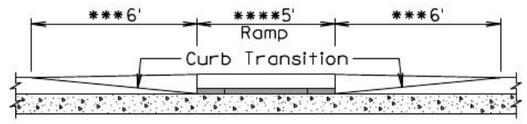
** The slope in the turning space shall not be steeper than 50:1 (2%) in any direction of pedestrian travel.

*** The curb transition shall be a minimum of 6' long, a maximum of 10' long, and the curb transition slope shall not be steeper than 10:1 (10%) unless stated otherwise in the plans.

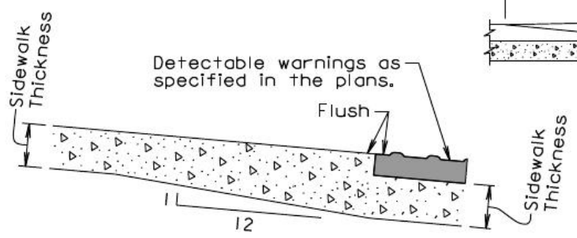
**** The ramp width is 5' unless stated otherwise in the plans.



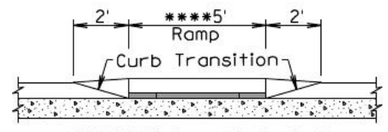
SECTION A-A



SECTIONAL VIEW B-B



DETAIL D



SECTIONAL VIEW C-C

June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)	PLATE NUMBER 651.01
			Sheet 2 of 3

GENERAL NOTES:

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

For illustrative purpose only, PCC fillet sections are shown in the drawings. The curb ramp depicted on this standard plate may be used with a PCC fillet section, with curved curb and gutter, or with straight curb and gutter.

For illustrative purpose only, the curb ramp location is shown at the center of a PCC fillet section. The curb ramp shall be placed at the location stated in the plans.

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

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

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

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

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

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

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

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

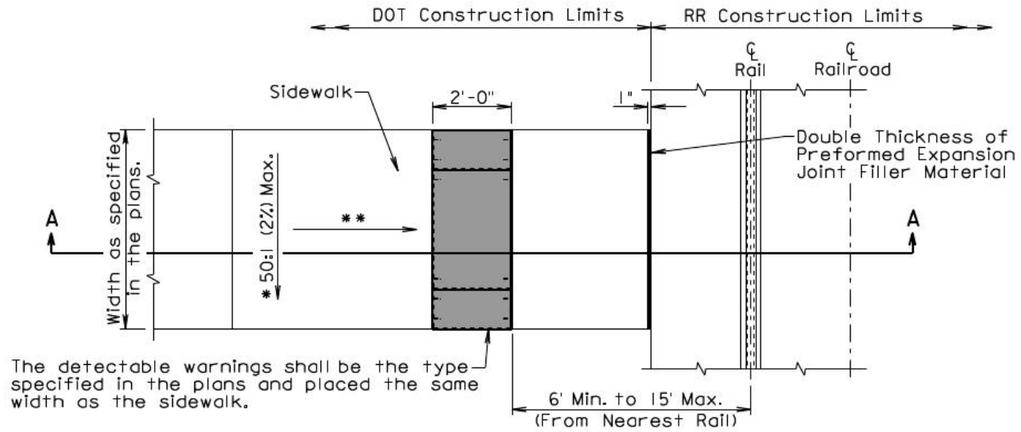
The curb transitions and ramp opening shall be measured and paid for at the contract unit price per foot for the corresponding curb and gutter bid item when curb and gutter is used. The curb transitions and ramp opening shall be measured and paid for at the contract unit price per square yard for the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

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

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

June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)	PLATE NUMBER 651.01
			Sheet 3 of 3

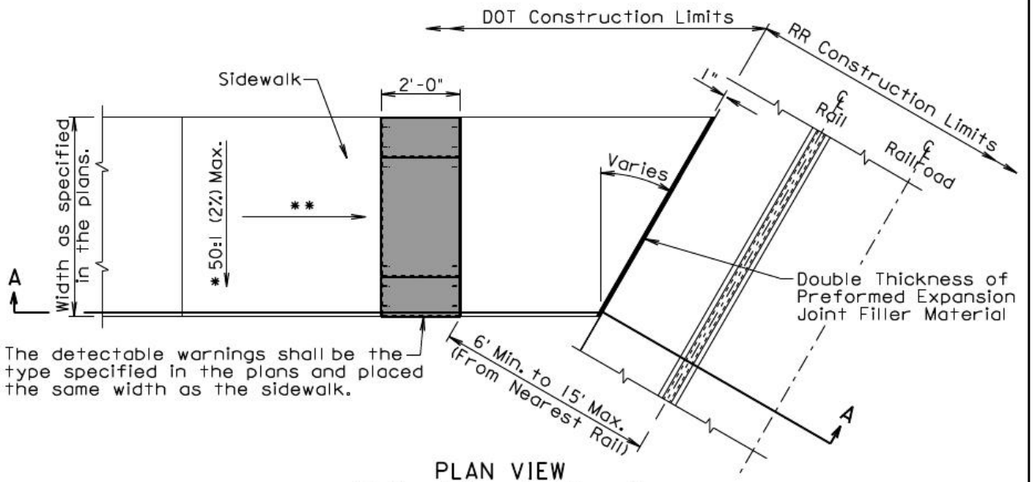


PLAN VIEW
(Railroad Crossing Not Skewed)

* The cross slope of the sidewalk shall not be steeper than a 50:1 (2%) unless stated otherwise in the plans.

** If the sidewalk is curbside, then the surface of the curbside sidewalk shall match the slope of the curb transition. The longitudinal slope of the sidewalk and curb transition, where the sidewalk transitions to the railroad crossing elevation, shall not be steeper than 20:1 (5%) unless stated otherwise in the plans.

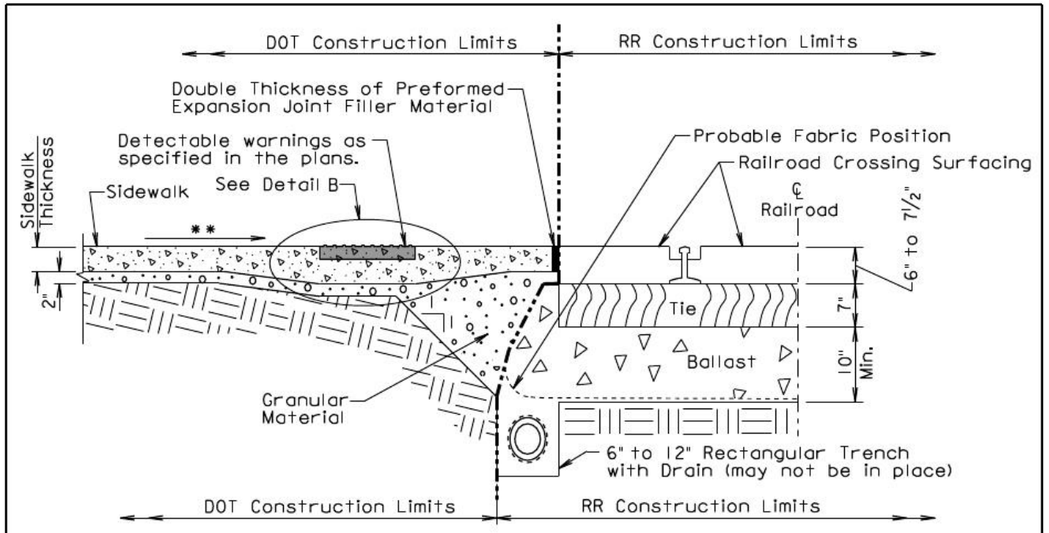
** If there is a boulevard sidewalk, then the curb and gutter transition shall be in accordance with standard plate 650.35. The longitudinal slope of the sidewalk, where the sidewalk transitions to the railroad crossing elevation, shall not be steeper than 20:1 (5%) unless stated otherwise in the plans.



PLAN VIEW
(Railroad Crossing Skewed)

June 26, 2009

Published Date: 3rd Qtr. 2015	SDDOT	SIDEWALK AND DETECTABLE WARNINGS ADJACENT TO RAILROAD CROSSING	PLATE NUMBER 651.20
			Sheet 1 of 2



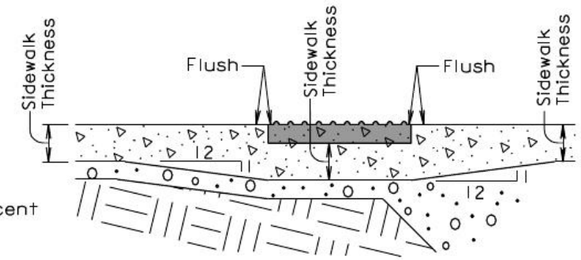
SECTION A-A

GENERAL NOTES:

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

Ballast material shall not be disturbed during construction work adjacent to the railroad crossing unless the adjacent work involves reconstruction or maintenance of the railroad crossing.

The sidewalk shall be placed at the location stated in the plans.



DETAIL B

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

If curb and gutter is required adjacent to the railroad crossing, the curb transition shall be measured and paid for at the contract unit price per foot for the corresponding curb and gutter bid item.

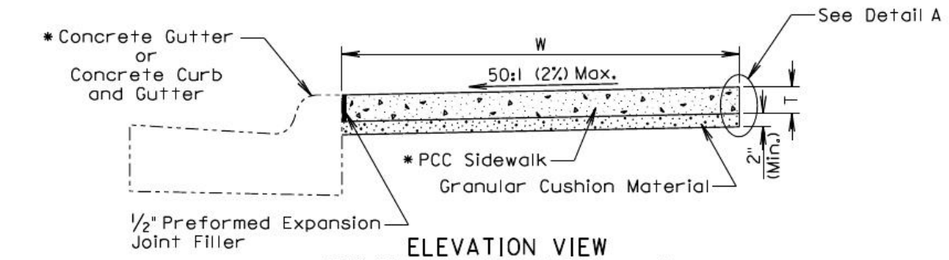
The type 1 detectable warnings shall be measured to the nearest square foot. All costs for furnishing and installing the type 1 detectable warnings including labor, equipment, materials, and incidentals shall be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".

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

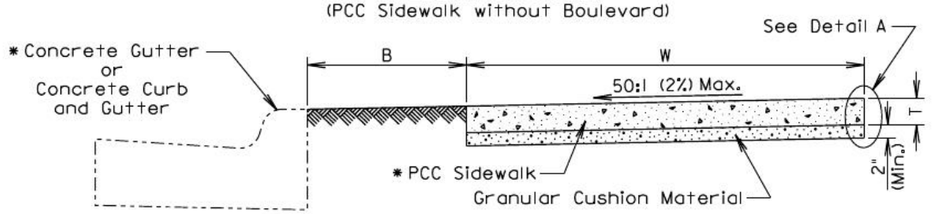
The square foot area of the detectable warnings shall be included in the measured and paid for quantity of sidewalk.

June 26, 2009

Published Date: 3rd Qtr. 2015	SDDOT	SIDEWALK AND DETECTABLE WARNINGS ADJACENT TO RAILROAD CROSSING	PLATE NUMBER 651.20
			Sheet 2 of 2

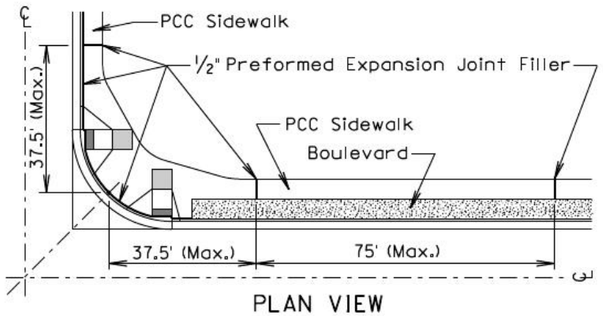


ELEVATION VIEW
(PCC Sidewalk without Boulevard)



ELEVATION VIEW
(PCC Sidewalk with Boulevard)

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



PLAN VIEW

GENERAL NOTES:

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

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

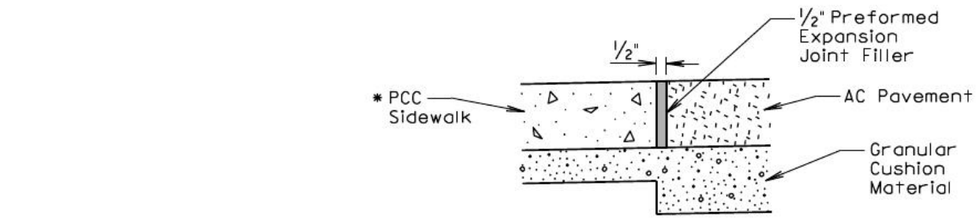
PCC sidewalk placed adjacent to intersection of roadways shall have an expansion joint placed transversely a maximum of 37.5 feet from the intersection. See PLAN VIEW.

An expansion joint in PCC sidewalk shall consist of a ½ inch thick preformed expansion joint filler material placed full depth and width of the PCC sidewalk.

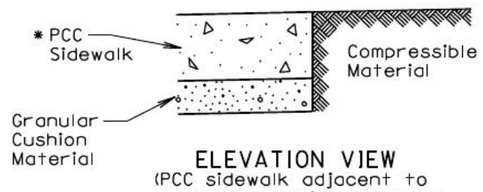
** Large areas of PCC pavement adjacent to PCC sidewalk may require a different joint treatment than shown in the detail. If a different joint detail is necessary, plans will contain the joint detail and the Contractor shall construct the joint treatment in accordance with the plans.

June 26, 2015

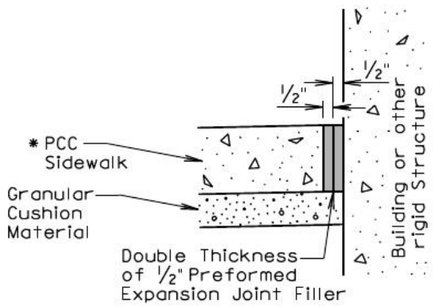
Published Date: 3rd Qtr. 2015	SDDOT	PCC SIDEWALK	PLATE NUMBER 651.75
			Sheet 1 of 2



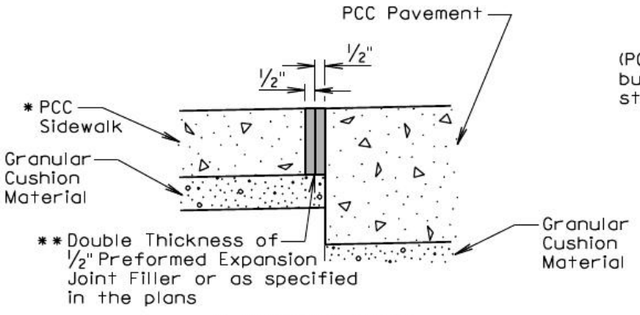
ELEVATION VIEW
(PCC sidewalk adjacent to asphalt concrete pavement)



ELEVATION VIEW
(PCC sidewalk adjacent to earthen material, landscape rock, or other compressible materials)



ELEVATION VIEW
(PCC sidewalk adjacent to building or other rigid structure)



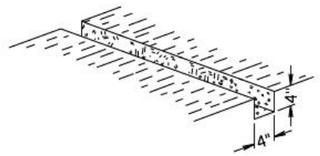
ELEVATION VIEW
(PCC sidewalk adjacent to PCC pavement)

Detail A
(Use Appropriate Detail(s))

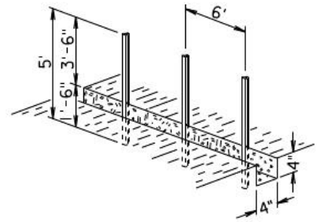
June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	PCC SIDEWALK	PLATE NUMBER 651.75
			Sheet 2 of 2

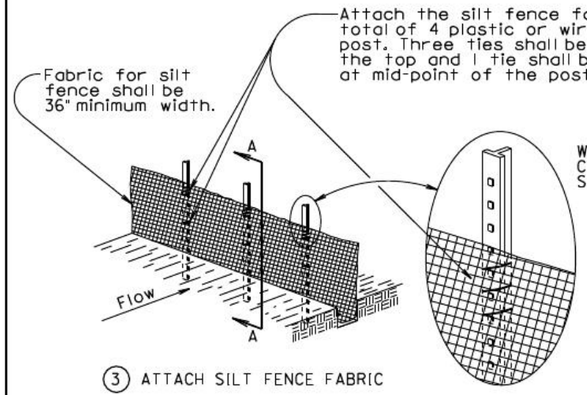
MANUAL HIGH FLOW SILT FENCE INSTALLATION



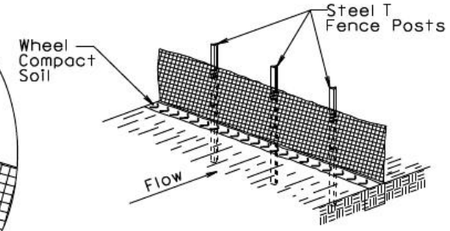
(1) EXCAVATE TRENCH



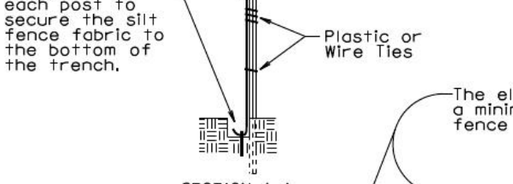
(2) DRIVE STEEL T FENCE POSTS



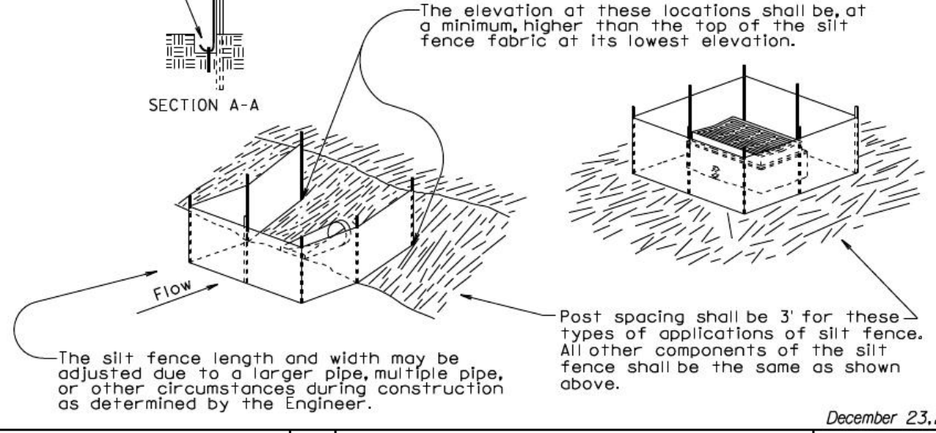
(3) ATTACH SILT FENCE FABRIC



(4) BACKFILL TRENCH AND WHEEL COMPACT SOIL



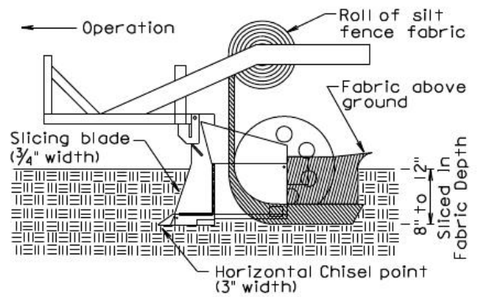
SECTION A-A



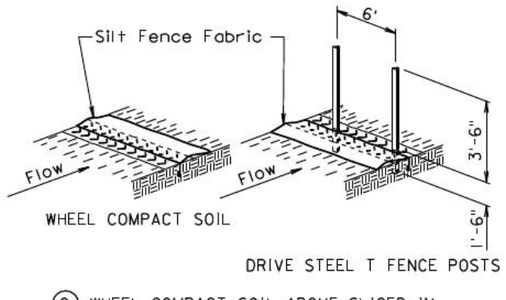
December 23, 2003

Published Date: 3rd Qtr. 2015	SDDOT	HIGH FLOW SILT FENCE	PLATE NUMBER 734.05
			Sheet 1 of 2

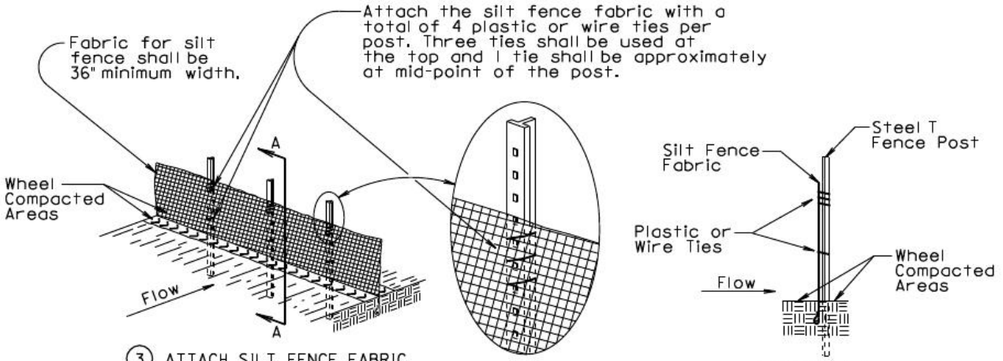
MACHINE SLICED HIGH FLOW SILT FENCE INSTALLATION



(1) INSTALL SILT FENCE FABRIC BY MACHINE SLICING METHOD.

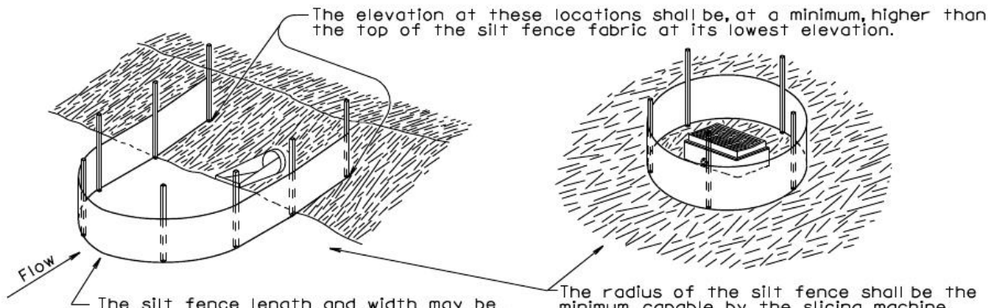


(2) WHEEL COMPACT SOIL ABOVE SLICED IN PORTION OF FABRIC AND THEN DRIVE STEEL T FENCE POSTS.



(3) ATTACH SILT FENCE FABRIC

SECTION A-A



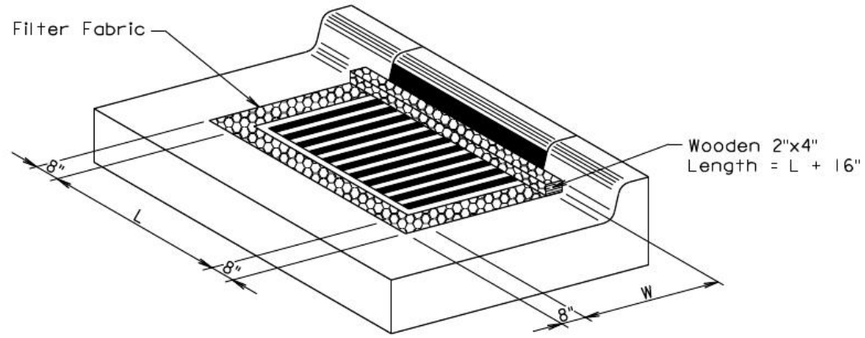
GENERAL NOTE:

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

December 23, 2003

Published Date: 3rd Qtr. 2015	SDDOT	HIGH FLOW SILT FENCE	PLATE NUMBER 734.05
			Sheet 2 of 2

L = Length of Grate
W = Width of Grate



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 shall be placed at locations stated in the plans or at locations determined by the Engineer.

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

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

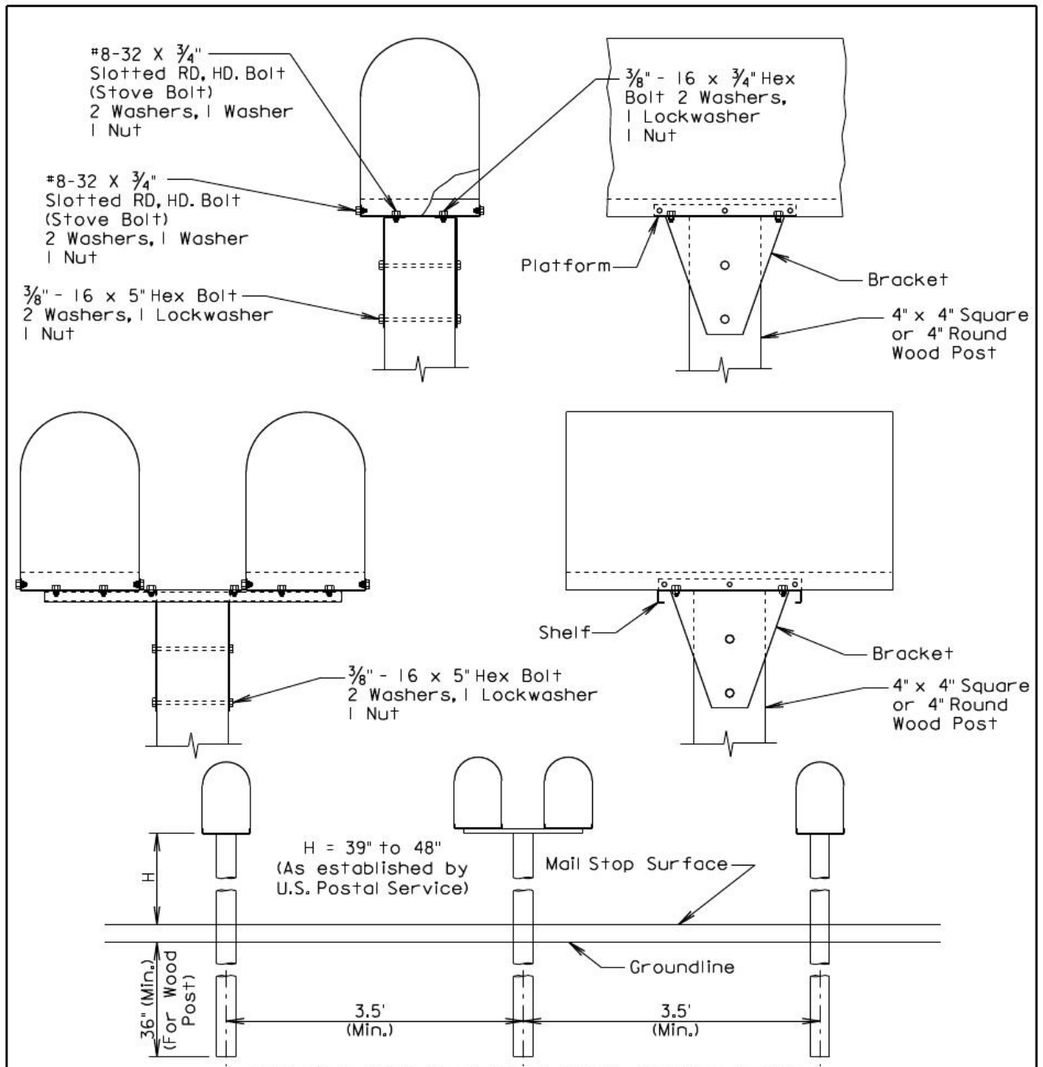
The Contractor shall inspect and maintain the sediment control device once every week and within 24 hours after every rainfall event. The Contractor shall maintain the sediment control device by removing accumulated sediment and replacing torn filter fabric with new filter fabric.

The removed sediment shall 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 shall be incidental to the contract unit price per each for "Sediment Control at Inlet with Frame and Grate".

September 14, 2005

Published Date: 3rd Qtr. 2015	SDDOT	SEDIMENT CONTROL AT INLETS WITH FRAMES AND GRATES	PLATE NUMBER 734.10
			Sheet 1 of 1



SPACING FOR MULTIPLE POST INSTALLATION

GENERAL NOTES:

The post support assemblies provided should be consistant throughout the project.

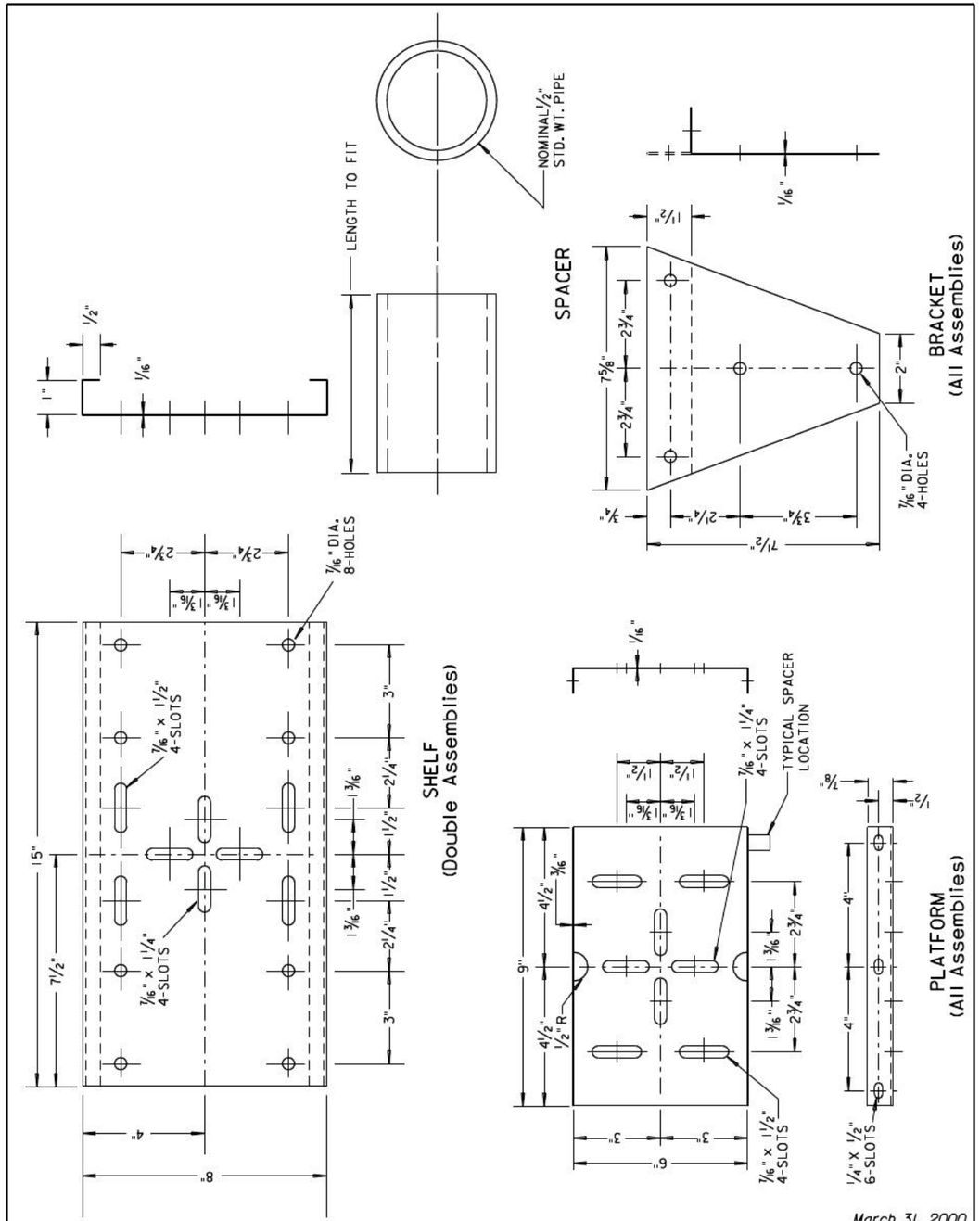
Single and double mailboxes may be in any sequence.

Post support assemblies shall be one from the approved products list, a 4"x4" or 4" round wood post, or an alternate post support assembly that meets the test level 3 crash testing requirements of NCHRP 350 or MASH.

Alternate mailbox support assemblies shall be approved by the Engineer prior to installation. The Contractor shall provide the Engineer written certification that the mailbox support assembly has met the crash testing requirements and will be installed in accordance with the manufacturer's installation instructions.

September 6, 2013

Published Date: 3rd Qtr. 2015	SDDOT	***SINGLE AND DOUBLE MAILBOX ASSEMBLIES***	***PLATE NUMBER*** 900.02
			Sheet 1 of 1



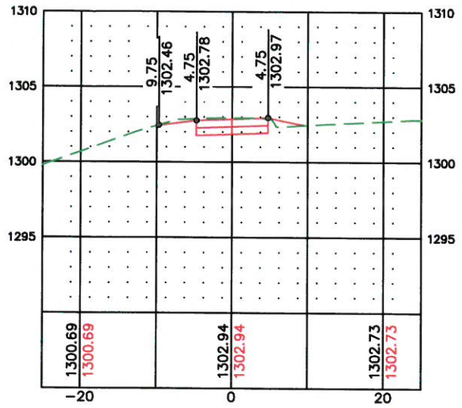
March 31, 2000

Published Date: 3rd Qtr. 2015	SDDOT	***MAILBOX SUPPORT HARDWARE***	***PLATE NUMBER*** 900.03
			Sheet 1 of 1

CROSS SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	43	47

1+50



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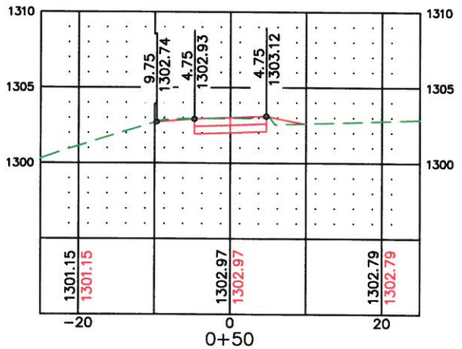

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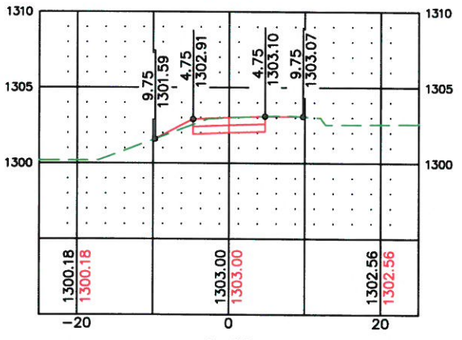

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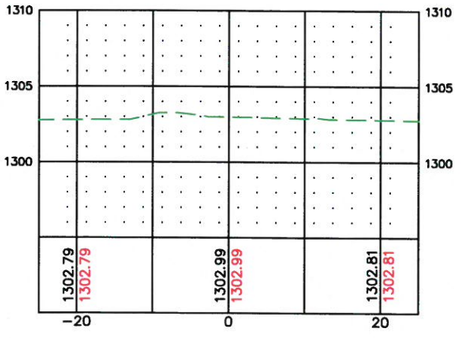

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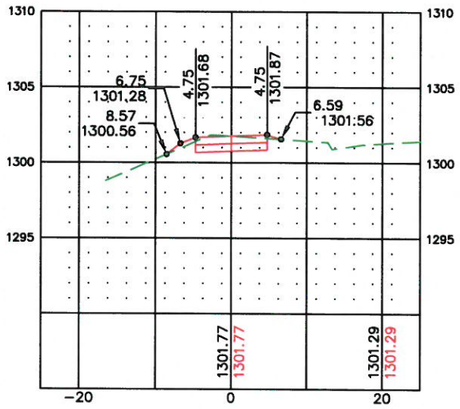

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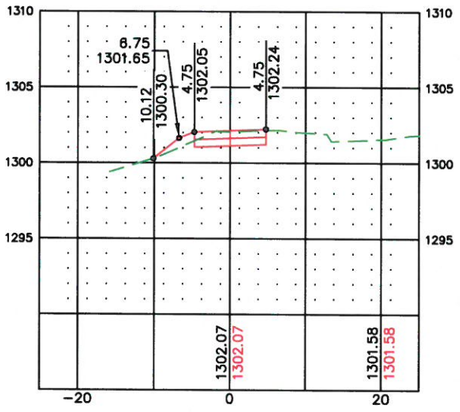

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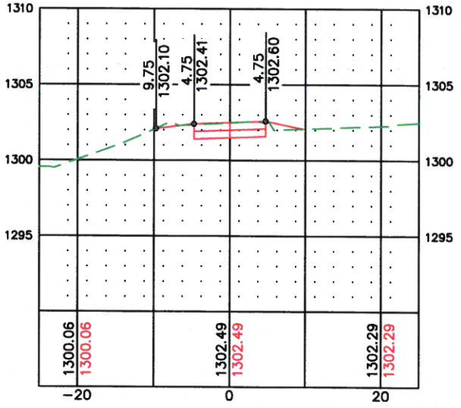

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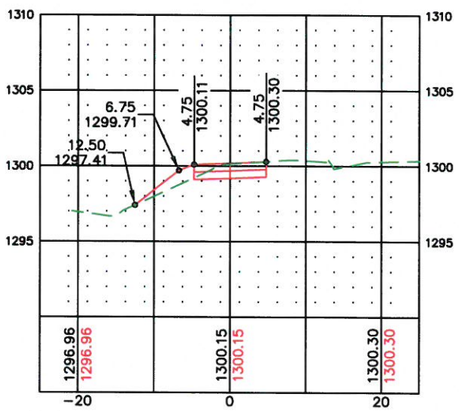

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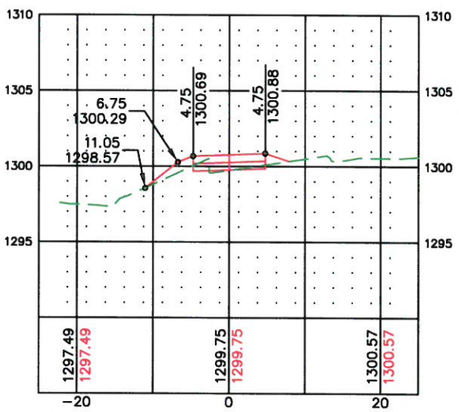

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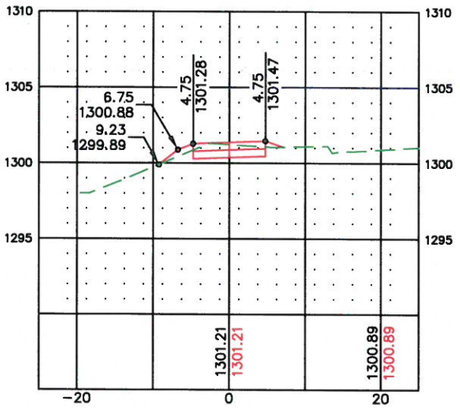

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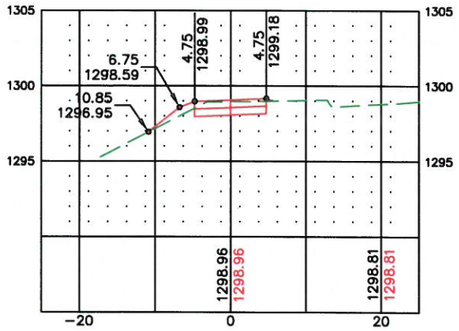

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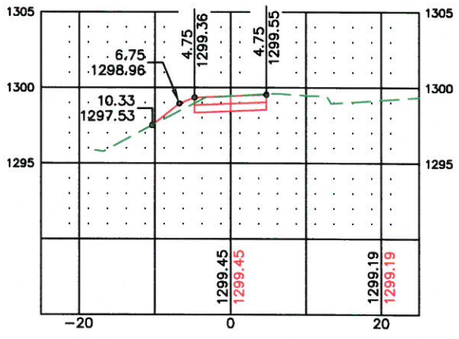

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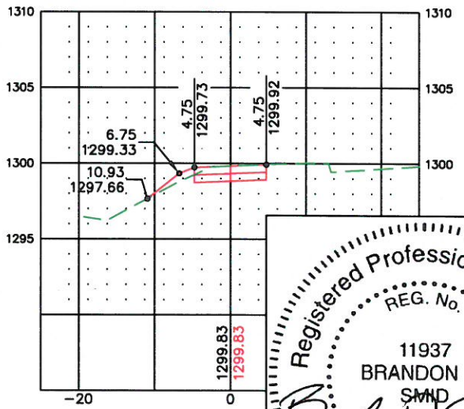
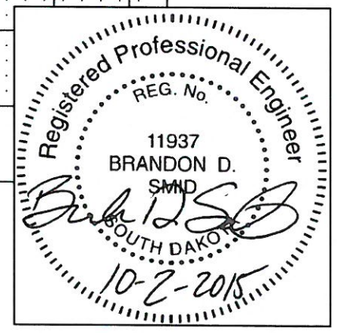
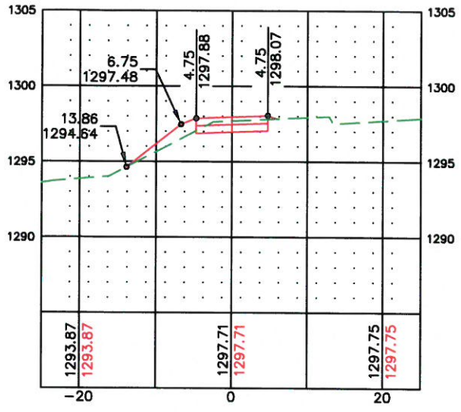




STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	44	47

7+50



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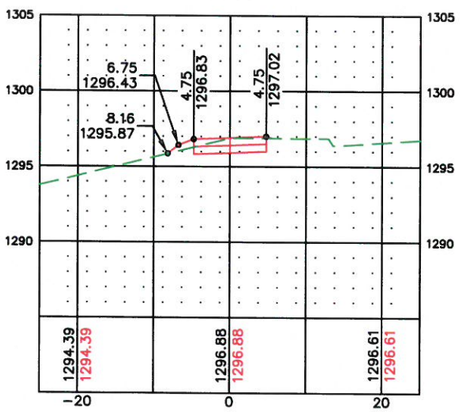

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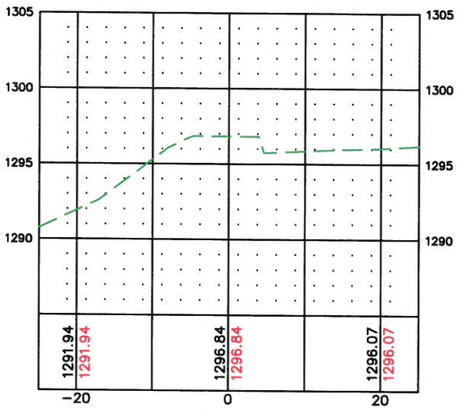

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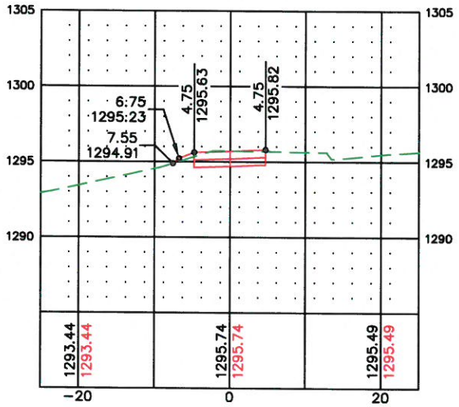

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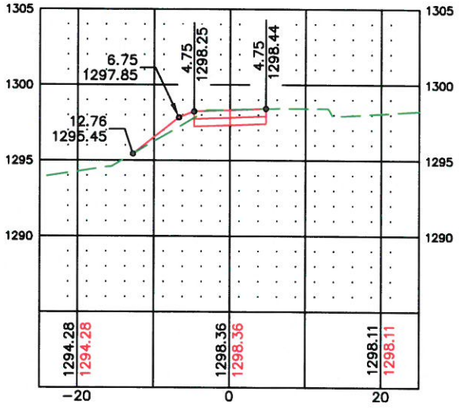

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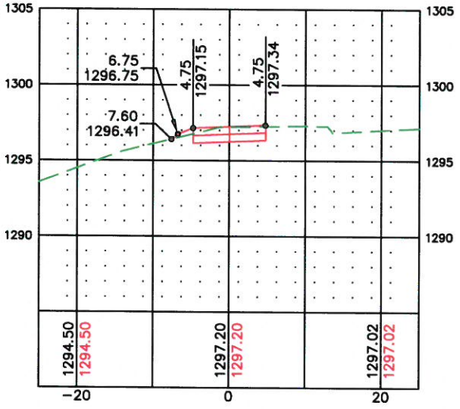

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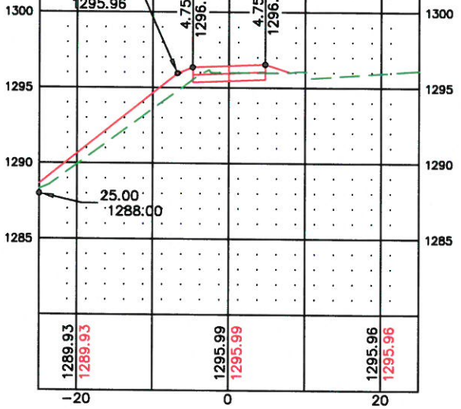

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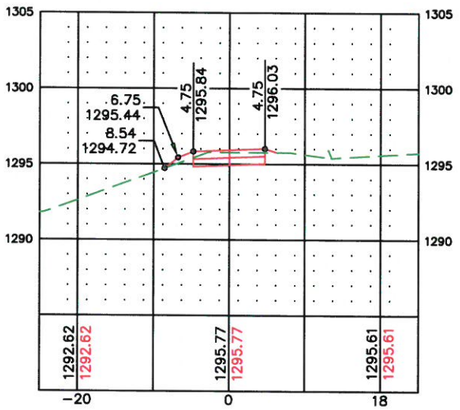

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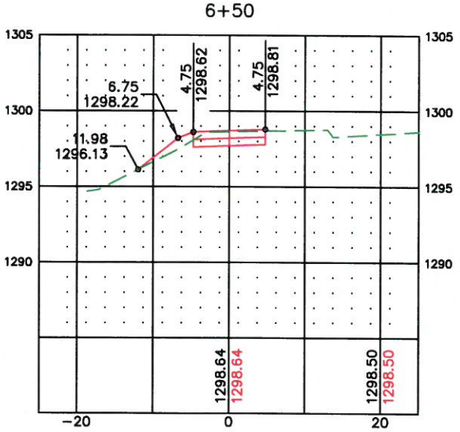

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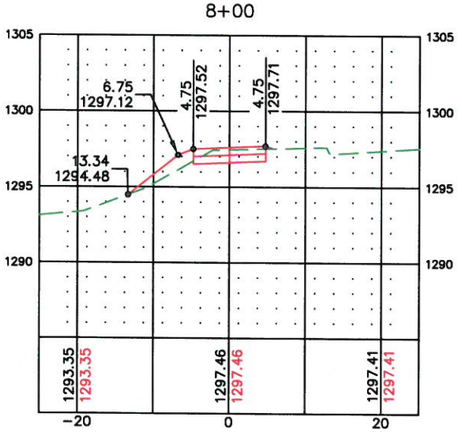

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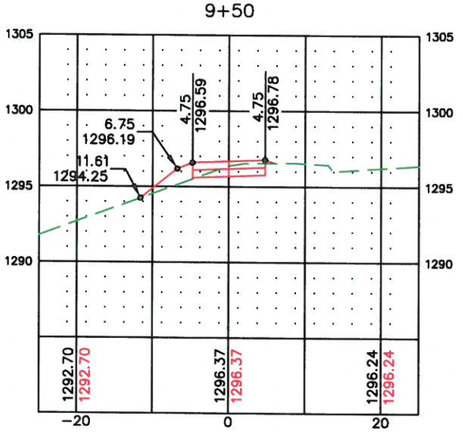

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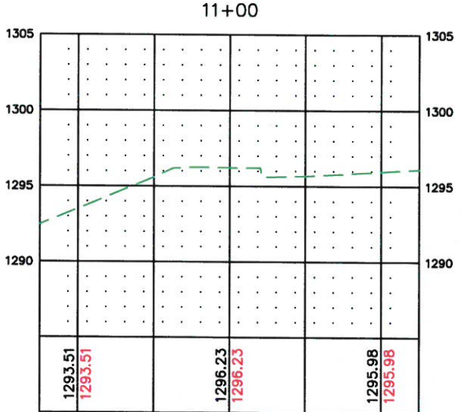
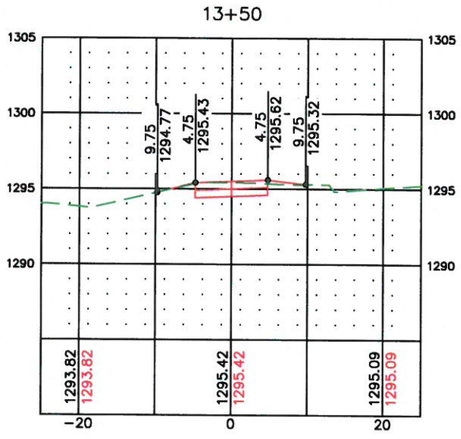
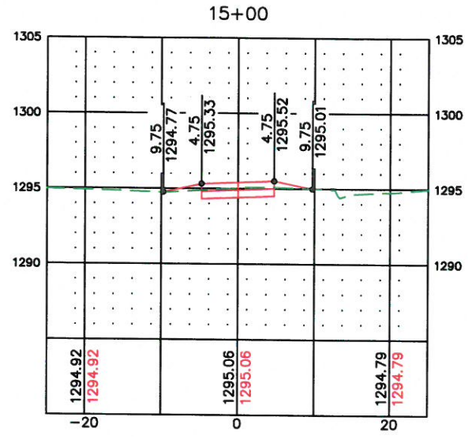
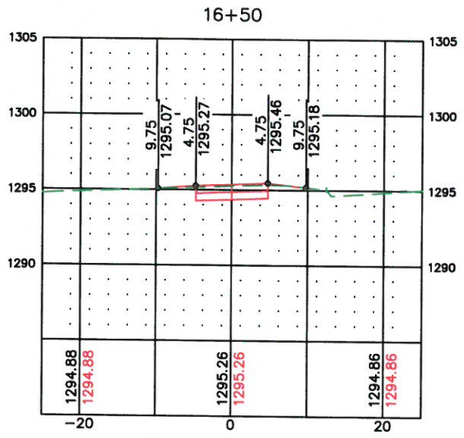
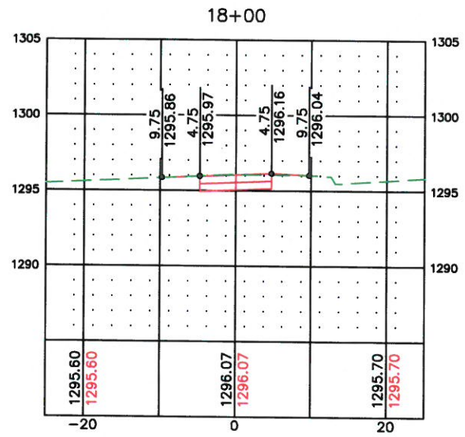


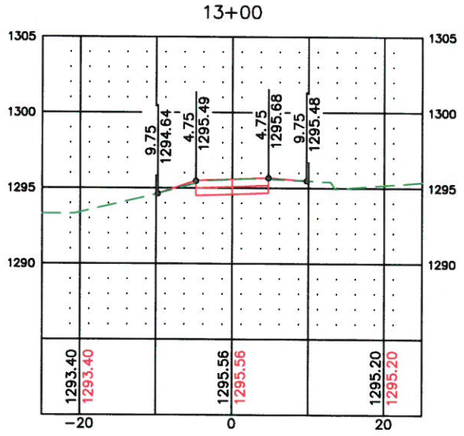
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	45	47

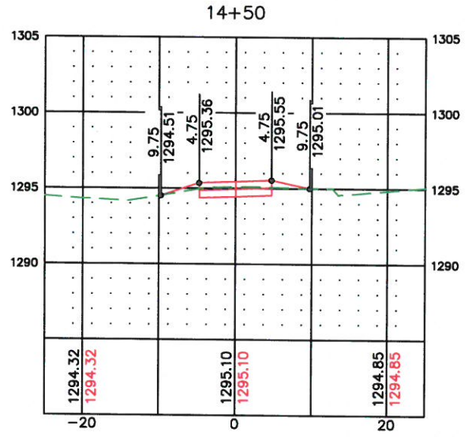


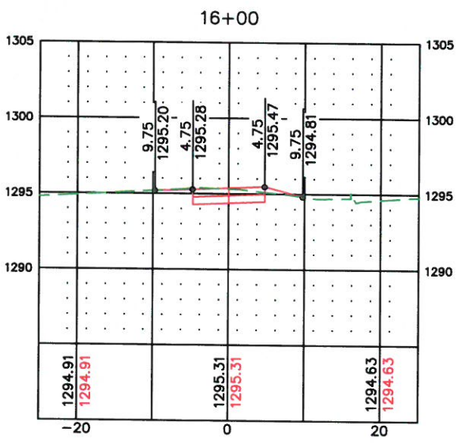


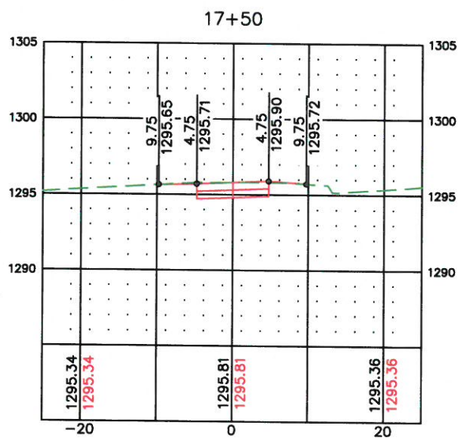


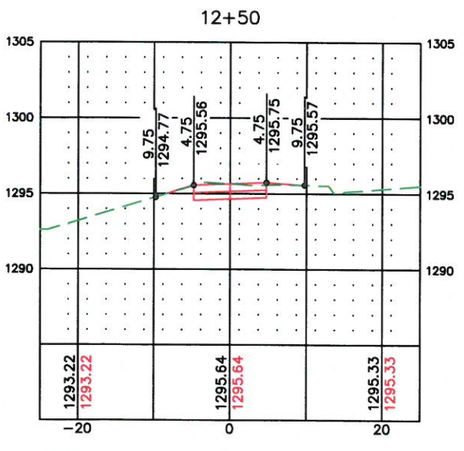


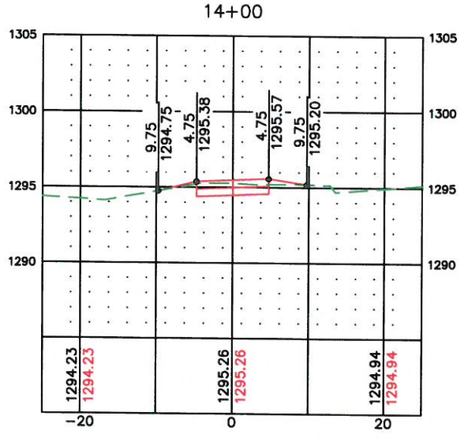


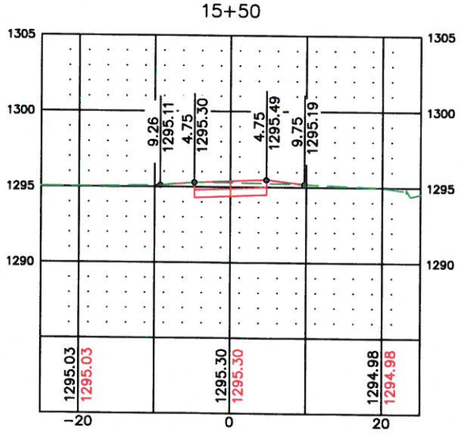


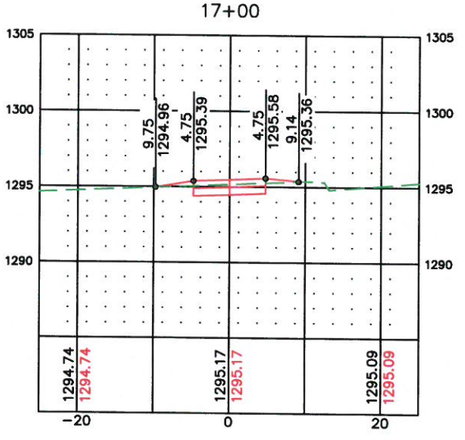


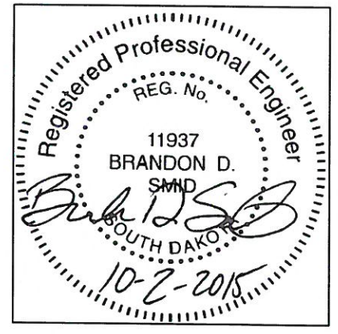






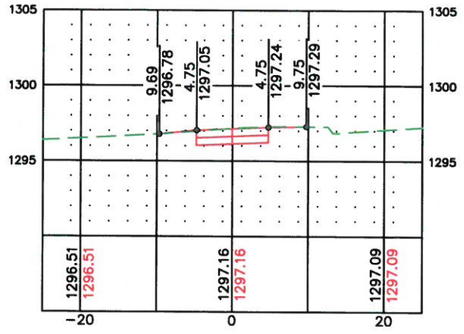






STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	46	47

20+00



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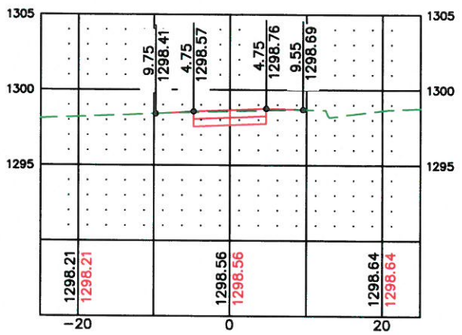

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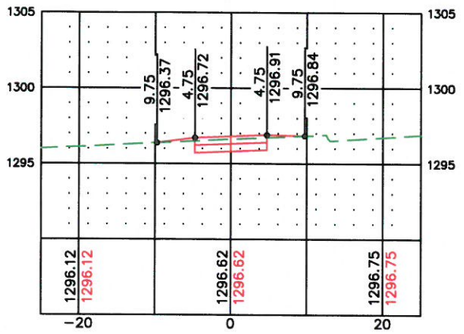

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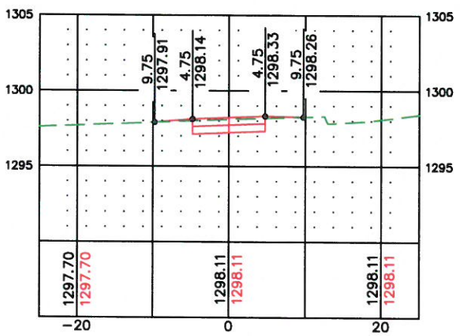

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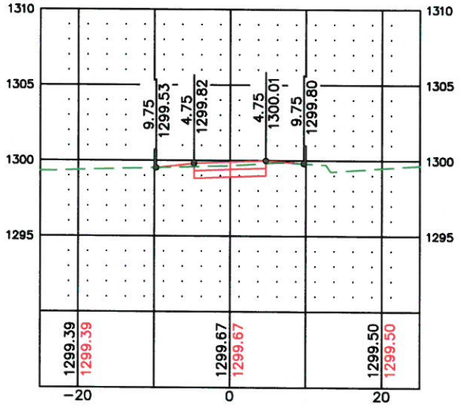

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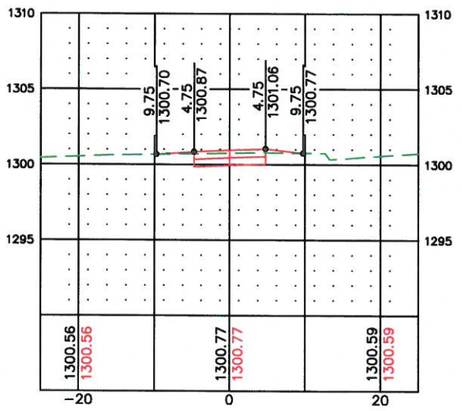

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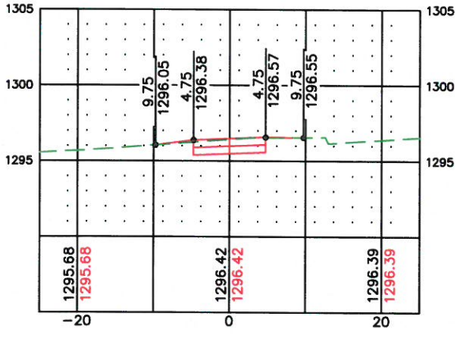

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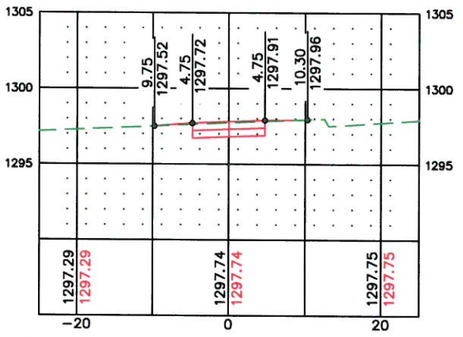

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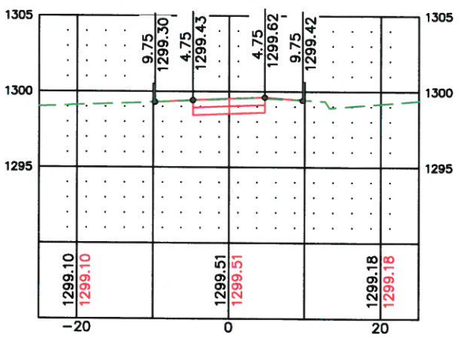

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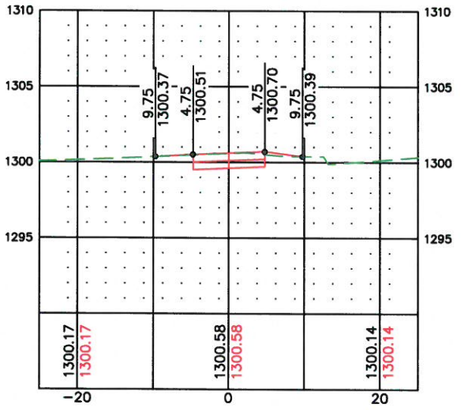

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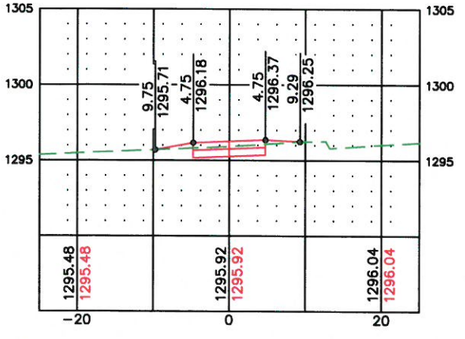

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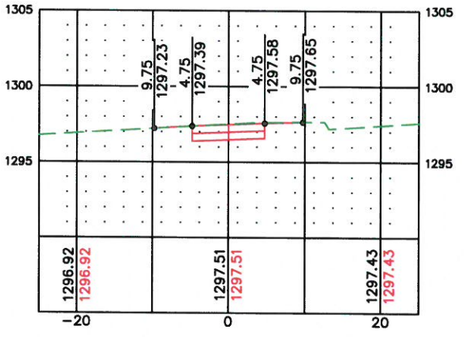

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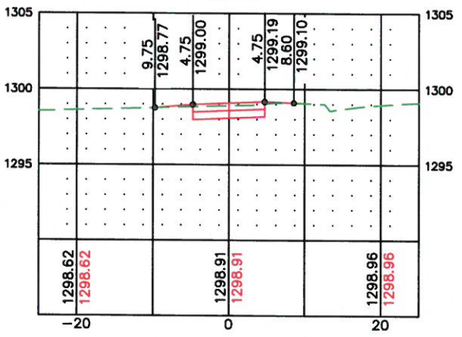

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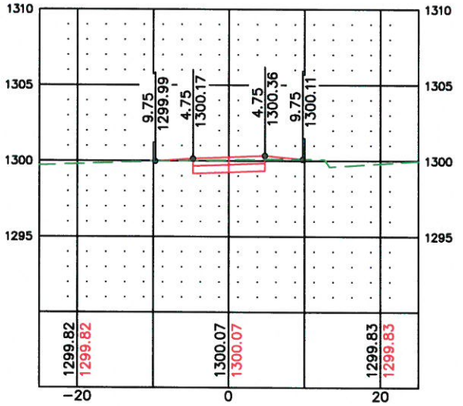
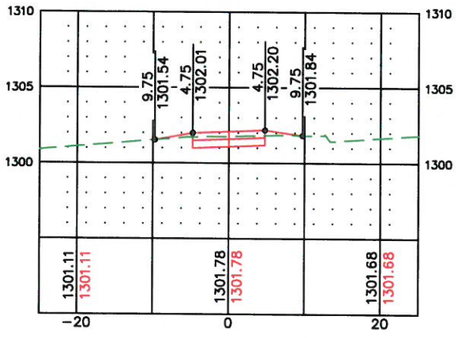


STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P TAPU(03)	47	47

26+50



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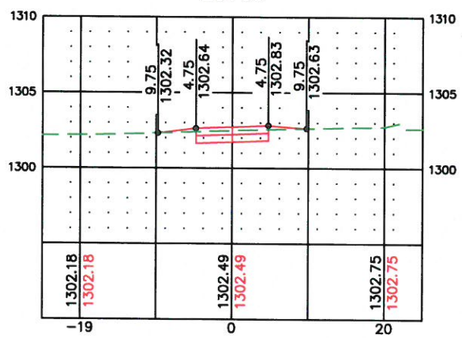

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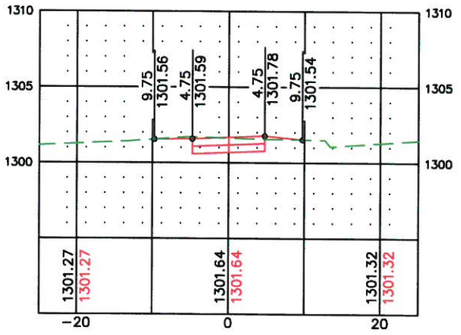

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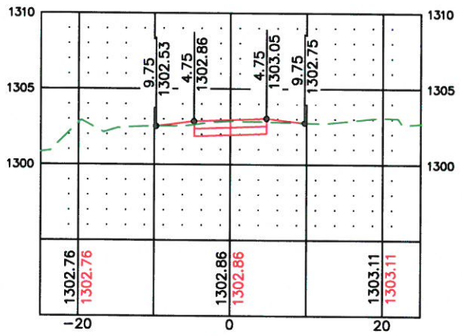

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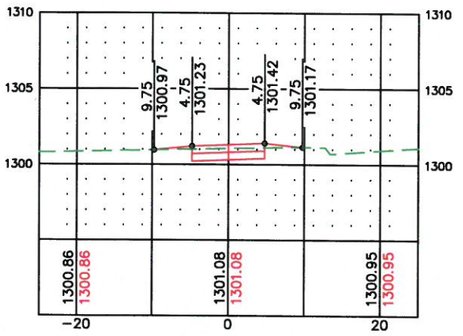

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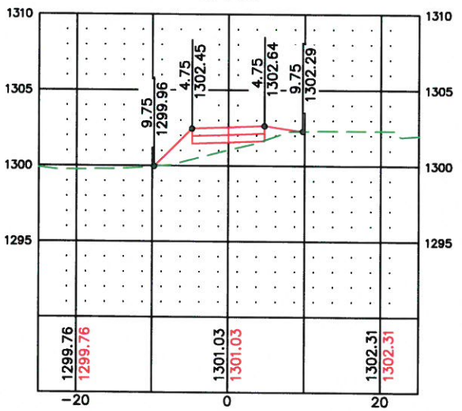

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