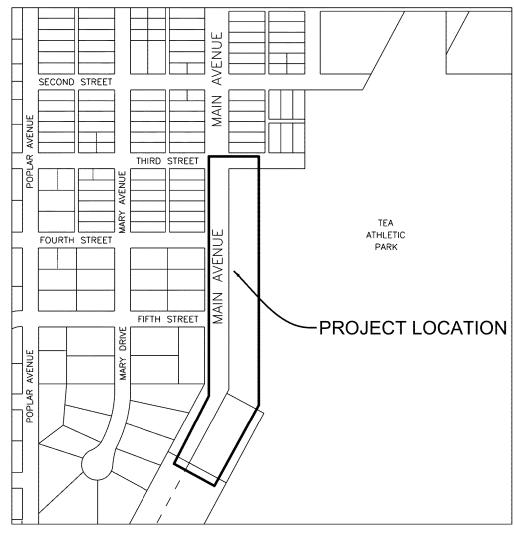


# STATE OF SOUTH DAKOTA <u>DEPARTMENT OF TRANSPORTATION</u> PLANS FOR PROPOSED PROJECT P TAPU(18) CITY OF TEA - SHARED USE PATH LINCOLN COUNTY

GRADING AND CONCRETE SIDEWALK PCN 05MW



Gross Length	1011.44 Feet	0.192 Miles
Length of Exceptions	0 Feet	0 Miles
Net Length	1011.44 Feet	0.192 Miles



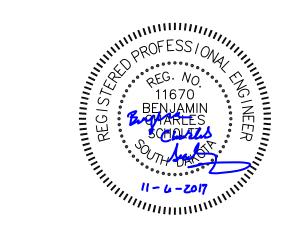
#### STORM WATER PERMIT

Major Stream: Big Sioux River Area Disturbed: 0.50 Acres Total Project Area: 0.50 Acres Approx. Begin Lat/Long: 81°18'48" N, 97°16'04" W

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SOUTH DAKOTA			1	
Plotting Date:	11/6/2017	Revised:	11/6/2017	

## INDEX OF SHEETS

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	Prevention Plan (SWPPP)
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	Alignment Table
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## **ESTIMATE OF QUANTITIES**

Std. Bid Item	Item Description	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
009E3230	Grade Staking	0.192	Mile
009E3250	Miscellaneous Staking	0.192	Mile
009E3300	Three Man Survey Crew	10.0	Hour
110E0300	Remove Concrete Curb and/or Gutter	28.0	Ft
110E1693	Remove Erosion Control Wattle	200	Ft
120E0010	Unclassified Excavation	225	CuYd
120E0600	Contractor Furnished Borrow Excavation	165	CuYd
230E0100	Remove and Replace Topsoil	Lump Sum	LS
250E0020	Incidental Work, Grading	Lump Sum	LS
634E0110	Traffic Control Signs	126.5	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E2025	Longitudinal Pedestrian Barrier	40	Ft
650E4660	Type P6 Concrete Gutter	28.0	Ft
651E0060	6" Concrete Sidewalk	10,250	SqFt
651E7000	Type 1 Detectable Warnings	40	SqFt
730E0100	Cover Crop Seeding	1	Bu
730E0204	Type C Permanent Seed Mixture	9	Lb
732E0250	Fiber Mulching	559	Lb
734E0154	12" Diameter Erosion Control Wattle	200	Ft
734E0165	Remove and Reset Erosion Control Wattle	100	Ft
734E0847	Sediment Control at Type S Reinforced Concrete Drop Inlet	8	Ft
734E5010	Sweeping	4	Hour
735E4000	Tree Trimming	13	Each
900E1310	Concrete Washout Facility	1	Each
900E1320	Construction Entrance	1	Each

## **SPECIFICATIONS**

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

## **PROJECT COORDINATION**

The City of Tea has developed a multi-phase project to develop and improve an athletic park for the community that includes pedestrian pathways along existing public right-of-way and throughout the outdoor complex. The installation of this shared-use pedestrian path is part of the second phase of these improvements. The City of Tea will be performing some minor maintenance to landscaping in the project area. Coordination with the City's maintenance staff shall be incidental to other bid items.

All vegetation watering will be completed by the City of Tea.

The existing curb along the east side of S Main Avenue varies in profile between a mountable (roll-over) and standard type curbs. Design efforts have been made to account for the existing variable curb types at proposed handicapped accessible curb ramp and curb transition locations. Contractor shall coordinate with the Tea City Engineer when removing and replacing curb for ramp placement and shall be incidental to other bid items.

Several residential mailboxes are located behind the existing curb on the east side of Main Avenue, within the proposed boulevard and project area. These mailboxes shall not be disturbed and will remain in-place during the project. Access to these mailboxes must be maintained at all times to enable delivery of daily postal services.

Contractor shall coordinate Concrete Washout Area location with the City of Tea Maintenance Staff prior to placement.

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SOUTH DAKOTA	P TAPU(18)	2	26
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#### **ENVIRONMENTAL COMMITMENTS**

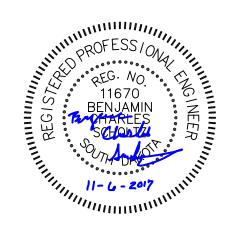
An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with 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 E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

#### Action Taken/Required:

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



#### COMMITMENT H: WASTE DISPOSAL SITE

The Contractor 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 Public ROW.

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

The waste disposal site(s) 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 Public 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 Public 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.

## COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

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

#### Action Taken/Required:

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

The Contractor 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 Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered species, or waterways. The Contractor shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

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#### **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 5 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".

Compaction of earth embankment shall be per the Specified Density Method.

Rock is not anticipated to be encountered within the project limits.

#### **INCIDENTAL WORK, GRADING**

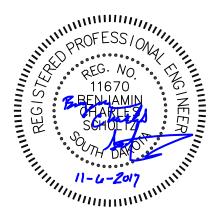
Grading activities for the installation of the shared-use path will require the removal and replacement of small portions of asphalt concrete pavement in S Main Avenue and the extension and/or re-orientation of a small drainage pipe behind the existing curb that discharges toward a swale in the adjacent Athletic Park. All costs for materials, labor, and equipment necessary to construct items in the following table shall be included in the contract lump sum price for "Incidental Work, Grading".

Station	L/R	Remarks
3+25	R	Removal & Replacement of Asphalt Concrete Pavement adjacent to Curb & Gutter to accommodate gutter forms (approx. 2 ft wide by 16 ft long)
6+10	L	Extend 8" PVC drainage pipe beyond path embankment. Maintain positive drainage from extended pipe toward Athletic Park
6+55	R	Removal & Replacement of Asphalt Concrete Pavement adjacent to Curb & Gutter to accommodate gutter forms (approx 2 ft wide by 16 ft long)

#### **UNSTABLE MATERIAL EXCAVATION**

All areas deemed as Unstable by the Engineer shall be excavated. The unstable material excavated on this project shall be placed outside the subgrade shoulder in fill sections or stockpiled and used as topsoil.

Field measurement of unstable material excavation shall be made, if necessary and shall be paid for at the contract unit price per cubic yard for "Unclassified Excavation".



#### PROCEDURES FOR DETERMINING UNCLASSIFIED EXCAVATION QUANTITY

The final Unclassified Excavation quantity shall be based on plan quantities of 225 CY.

When finalizing the project, the Unstable Material Excavation quantity, if necessary, shall be measured and added to the plan Unclassified Excavation quantity of 225 CY to determine final total amount paid for "Unclassified Excavation".

#### 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.

#### DRAINAGE DURING CONSTRUCTION

Drainage during construction is the Contractor's responsibility. Contractor shall be aware of existing drainage conditions and facilities, and shall provide for drainage during all phases of construction. Damage caused by improper temporary drainage facilities shall be repaired at the Contractor's expense and to the satisfaction of the Engineer.

#### TABLE OF CONCRETE CURB AND GUTTER REMOVAL

				Quantity
Station	to	Station	L/R	(Ft)
3+17		3+31	R	14.0
6+48		6+62	R	14.0
			Total:	28.0

#### **TABLE OF TYPE P6 CONCRETE GUTTER**

Station	to	Station	L/R	Quantity (Ft)
3+17		3+31	R	14.0
6+48		6+62	R	14.0

Total: 28.0

#### **TYPE 1 DETECTABLE WARNINGS**

Detectable warnings shall be in compliance with the Americans with Disability 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 a 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.

Contractor to coordinate handicapped accessible ramp locations, handicapped accessible sign locations, and other items as necessary with Athletic Complex Contractor prior to concrete placement. See plan sheets for additional information. Coordination with Athletic Complex Contractor shall be incidental to other bid items.

Type 1 Detectable Warnings			
Product	<u>Manufacturer</u>		
Detectable Warning Plate	Neenah Foundry Company		
Cast Iron Plate	Neenah, WI		
	800-558-5075		
	http://neenahfoundry.com		
Detectable Warning Plate	Deeter Foundry		
Cast Iron Plate	Lincoln, NE		
	800-234-7466		
	http://deeter.com		
Detectable Warning Plate	East Jordan Iron Works, Inc.		
Cast Iron Plate	301 Spring Street		
	East Jordan, MI 49727		
	800-626-4653		
	http://www.ejiw.com		
CAST-DWD	Key 3 Casting (Northern Foundry)		
Cast Iron Plate	555 West 25 <sup>th</sup> Street		
	Hibbing, MN 55746		
	218-263-8871		
	http://www.armorcastprod.com		

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#### TABLE OF TYPE 1 DETECTABLE WARNINGS

		Quantity
Station		(SqFt)
3+25 – R		10
6+55 – R		10
10+11 - R		20
	Total:	40

#### CONCRETE SIDEWALK

Placement of cushion material beneath the sidewalk is incidental to sidewalk installation. A quantity of 375 tons of gravel cushion is estimated for bidding purposes.

# purposes. TABLE OF 6" CONCRETE SIDEWALK

Station	to	Station	L/R	Quantity (SqFt)
00+04.39		10+15.83	0'	10,250
			Total:	10,250

### SURFACING THICKNESS DIMENSIONS

Plans quantity will be applied even though the thickness may vary from that shown on the plans.

At those locations where material must be placed to achieve a required elevation, plans quantity may be varied to achieve the required elevation.

TABLE OF CONSTRUCTION STAKING									
						Grac	le Staking		
Roadway and Description	Begin Station	End Station	Number of Lanes	Length (Ft)	Length (Mile)	Lane Factor	Sets of Stakes	Grade Staking Quantity (Mile)	Misc. Staking Quantity (Mile)
Shared Used Path	0+04.39	10+15.83	1	1011.44	0.192	1	1	0.192	0.192
							Total	0.192	0.192

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#### LOCATION OF CONCRETE SIDEWALK JOINTS

Contraction and Expansion Joints are to be installed according to Section 651.3.

#### UTILITIES

Existing utilities are not planned to be affected on this project. If utilities are identified near the improvement area through the SD One Call Process as required by South Dakota Codified Law 49-7:00 AM and Administrative Rule Article 20:25, the Contractor shall Contact the Project Engineer to determine modifications that will be necessary to avoid utility impacts.

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, might be relocated or replaced by a new utility facility during the construction of this project, or might not require adjustment and may remain in its current location. The Contractor 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 Contractor shall be responsible for notifying South Dakota One Call 1-800-781-7474 to have utilities field located. The following utility companies are known to have facilities on the project:

POWER	GAS
Xcel Energy	MidAmerican Energy
500 W. Russell Street	1200 S. Blauvelt
Sioux Falls, SD 57104	Sioux Falls, SD 57105
Attn: Mike Ronfeldt	Attn: Tim Galbraith
Office # 605-339-8358	(605) 373-6047
Email:	Email: tjgalbraith@midamerican.com
michael.a.ronfeldt@xcelenergy.com	
Southeastern Electric Cooperative	MUNICIPAL
47102 280 <sup>th</sup> Street	City of Tea
Worthing, SD 57077	600 E. First Street
Attn: Doug Bartling	Tea, SD 57064
Cell: (605) 940-0873	Attn: Thad Konrad
Email: dougb@southeasternelectric.com	Office: 605-498-2906
	Email: teamaint1@iw.net
COMMUNIC	CATIONS
MidContinent Communications	Century Link
3507 S. Duluth Ave.	125 S. Dakota Ave.
Sioux Falls, SD 57105	Sioux Falls, SD 57104
Attn: Al Mullinix	Attn: Jon Fischer
(605) 274-8546	(605) 977-2821
Čell: (605) 231-0388	Èmail:
Email: <u>al_mullinix@mmi.net</u>	jsfisch@centurylink.com
SDN Communications	Wide Open West
Jerry Andersen	Shawn Anderson
2900 W. 10 <sup>th</sup> Street	5100 S. Broadband Lane
Sioux Falls, SD 57104	Sioux Falls, SD 57108
605-321-0234	(605) 809-5462
Email:	Èmail:

#### **TRAFFIC CONTROL – GENERAL**

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

Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage of the vegetation, surfacing, embankment, delineators, and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor, at no expense to the State, and to the satisfaction of the Engineer.

Existing guide, route, informational logo, regulatory, and warning signs shall be temporarily reset and maintained during construction. Removing, relocating, covering, salvaging and resetting of existing traffic control devices, including but not limited to, traffic signal heads, delineation, and signing shall be the responsibility of the Contractor. Non-applicable signing and all traffic control devices shall be covered or removed during periods of inactivity. Periods of inactivity shall be defined as no work taking place for a period of more than 24 hours. The cost of removing or covering nonapplicable traffic control devices shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous". If traffic is routed to a completed section and the permanent signing is not complete, the Contractor shall use temporary signing consisting of salvaged permanent signs or temporary traffic control signs for traffic direction and safety. The cost of the temporary signing shall be at the Contractor's expense to install and maintain signs.

Construction signing mounted on portable supports shall not be used for a duration of more than 3 days, unless approved by the Engineer. Construction signing that remains in the same location for more than 3 days shall be mounted on fixed location, ground mounted, breakaway supports.

Any delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the State.

All materials and equipment shall be stored a minimum distance of 30' from the traveled way during nonworking hours.

The Contractor shall be required to have a person available 24 hour/day, 7 days/week to maintain traffic control devices. The name and cellular telephone number of this individual shall be given to the Engineer at the preconstruction meeting.

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

If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD - whichever is more stringent shall be used, as determined by the Engineer.

The Contractor will be required to maintain access to each residence and business throughout the project.

#### COVERING/BAGGING OF EXISTING TRAFFIC SIGNS

The Contractor shall cover/bag existing traffic signs that conflict with the proposed traffic control. The bags used to cover the signs shall fully conceal the sign. The Contractor shall have the bags, used to cover the signs, approved by the Engineer, prior to installation.

SIGN CODE	SIGN DESCRIPTION	QTY		SIGN SIZE		SQFT PER SIGN	SQFT
R9-9	SIDEWALK CLOSED	4	24"	х	12"	2.0	8.0
W20-1	ROAD WORK AHEAD	5	48"	x	48"	16.0	80.0
W21-5	SHOULDER WORK	1	48"	х	48"	16.0	16.0
G20-2	END ROAD WORK	5	36"	х	18"	4.5	22.5
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT 126.5							

#### LONGITUDINAL PEDESTRIAN BARRICADE

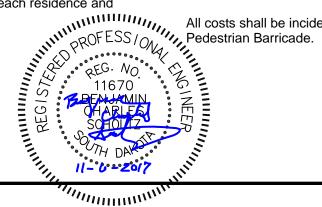
protection for pedestrians.

Barricade rail supports may not project into pedestrian routes more than 4 inches from the face of the barricade. To prevent any tripping hazard to pedestrians, ballast shall be located behind or internal to the device.

When Longitudinal Pedestrian Barricades are combined in a series, the maximum gap between devices that do not interlock shall be one inch. Joints between devices that do interlock shall be closed and flush to prevent canes or small wheels from being trapped and to facilitate safe hand trailing. Longitudinal Pedestrian Barricade must run the entire width of the sidewalk. Longitudinal Pedestrian Barricade should provide a color contrasting pattern. Black should not be used to color any base on a device. The devices should comply with the general color and stripe pattern requirements of Section 6F.68 of the MUTCD.

Longitudinal Pedestrian Barricade shall have continuous bottom and top surfaces. A gap height or opening from the walkway surface up to a maximum of 2 inches is allowed for drainage purposes. The top edge of the bottom portion shall be a minimum of 8 inches above the walkway. The top of the top portion shall be between 34 and 38 inches above the walkway. The top surface shall be smooth to allow safe hand trailing. Both upper and lower surfaces shall share a common vertical plane.

All costs shall be incidental to the contract unit price per foot for Longitudinal



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#### ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

Longitudinal Pedestrian Barricades should not be used to provide positive

#### TABLE OF LONGITUDINAL PEDESTRIAN BARRICADES

_	l	_ocation		Quant	tity
	STA	0+04		10	Ft
	STA	8+48	R	10	Ft
	STA	8+48	L	10	Ft
_	STA	10+04		10	Ft
_			Total:	40	Ft

#### **REMOVE AND REPLACE TOPSOIL**

Prior to beginning sidewalk operations, a 4" depth of topsoil shall be removed or bladed away from the Main Avenue and left in a windrow a minimum of 3' from back of the existing curb. Following completion of construction, topsoil shall be spread evenly over the disturbed areas.

The estimated amount of topsoil to be removed and replaced is 215 CuYd.

All costs associated with removing and replacing the topsoil along areas to be resurfaced shall be incidental to the contract lump sum price for "Remove and Replace Topsoil".

#### PERMANENT SEEDING

Type C Permanent Seed Mixture shall consist of the following:

Grass Species	Variety		Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Arriba, Flintlock, Rodan, Rosana, Walsh		16
Canada Wildrye	Mandan		2
		Total:	18

#### **COVER CROP SEEDING**

Oats or spring wheat seed shall be used April through July and winter wheat seed shall be used August through November.

Cover crop seeding may be used on this project as a temporary erosion control measure. The quantity of cover crop seeding was estimated at 25% of the disturbed earthen areas. The actual limits and use of cover crop seeding shall be determined by the Engineer during construction.

Cover Crop Seeding for temporary stabilization:

- Cover Crop Seeding can be used on inslopes on high fills, long backslopes, and steeply sloping ditch channels because these areas are susceptible to erosion.
- Stabilize disturbed areas in summer because of seasonal seeding limitations.
- Stabilize disturbed areas for winter stablilization.

A quantity of 1.0 bushel of cover crop seed is included in the estimate of quantities.

#### FIBER MULCHING

Fiber mulch shall be applied in a separate operation following permanent seeding.

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

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

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

#### TABLE OF FIBER MULCHING

Station	to	Station	L/R	Quantity (Lb)
0+04		10+16	R	233
0+04		10+16	L _	326
			Total <sup>.</sup>	559

#### **TREE MAINTENANCE**

Approximately 13 trees are located in close proximity of the shared-use path. All tree branches extending over the shared-use path shall be trimmed to maintain a 10 foot vertical clearance from the surface of the shared-use path to the lowest hanging portion of the tree branch.

If the trees that are supposed to remain within the limits of work are damaged or destroyed by the Contractor, the Contractor shall replace them with the same size and type at the Contractor's expense.

All costs for removal, handling, storing, and disposal of tree branches including the materials, equipment, and labor, shall be incidental to the contract unit price per each for "Tree Trimming".

#### **EROSION CONTROL WATTLE**

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

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

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

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

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

## TABLE C Location Field Determi

#### **REMOVE EROSION CONTROL WATTLE**

Erosion control wattles shall be removed when vegetation is established. Some or all of the erosion control wattles may be left on the project until vegetation is established.

#### **REMOVE AND RESET EROSION CONTROL WATTLE**

Reset Erosion Control Wattle".

## **CONCRETE WASHOUT AREA**

**Construction Requirements:** A concrete washout area shall be installed on the project site at a location approved by the Engineer if concrete trucks deliver concrete to the site. No washout area is necessary if all concrete trucks are going to wash out at approved site constructed by the concrete supplier.

Maintenance Requirements: The concrete washout area must be kept in a condition to maintain the capacity for all wasted concrete and washout water on the project.

**Measurement**: Concrete washout area will only be measured if the concrete washout area has been constructed on the project site. Measurement for the concrete washout area will be per each.

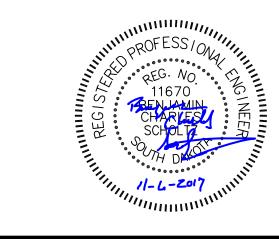
Payment: Payment for the concrete washout area will be at the contract unit price per each. Payment shall be full compensation for all materials, labor, equipment, and incidentals required to install, maintain, and remove the concrete washout area. If the corresponding bid item has not been included in the plans the concrete washout area will be considered incidental to the contract.

	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		P TAPU(18)	7	26

Revised: 11/6/2017

OF EROSION CONTROL WATTLE							
	L/R	Diameter	Quantity				
	IJΚ	(In)	(Ft)				
ined		12	200				
		TOTAL	200				

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



#### STREET SWEEPING

Vehicle tracking of sediment from the construction site shall be minimized. Street sweeping shall be used if erosion and sediment control best management practices are not adequate to prevent sediment from being tracked onto the street.

The Contractor shall use a pickup broom having integral self-contained storage to clean the roadway. The pickup broom used shall be a minimum of 6 feet wide and have working gutter brooms.

At a minimum, sweeping will be required:

- 1. Prior to opening any segment or roadway to traffic.
- 2. Following pavement grooving operations and prior to the application of the pavement marking tape.

All costs for cleaning the roadway with a pickup broom shall be incidental to the contract unit price per hour for "Sweeping".

#### CONSTRUCTION ENTRANCE

The Contractor shall install a Construction Entrance at locations where there is a potential for mud tracking and sediment flow from the construction site and work area onto a paved public roadway.

It is the Contractor's option to use the SDDOT Construction Entrance (See SDDOT Construction Entrance notes and details), a product from the list provided in these notes, or other products or processes as approved by the Engineer during construction.

If the Contractor elects to use one of the products listed in the table, then the Contractor shall install the construction entrance product in accordance with the manufacturer's installation instructions or as directed by the Engineer.

The Contractor shall maintain the construction entrance such that mud tracking and sediment flow will not enter the roadway or adjacent drainage areas. The construction entrance shall be routinely inspected and the Contractor shall repair or replace material as deemed necessary by the Engineer.

All costs for furnishing, installing, maintaining, and removal of the construction entrance including equipment, labor, materials, and incidentals shall be included in the contract unit price per each for "Construction Entrance".

The following table is a list of known construction entrance products available for use:

#### Product

Manufacturer

Grizzly Rumble Grate (10' width and 24' length required) Trackout Control, LLC Tempe, AZ Phone: 1-800-761-0056 www.trackoutcontrol.com

Rumble Grid (12' width and 24' length including combination of grids and ramps required)

Pro-Tec Equipment, Inc. Charlotte, MI Phone: 1-800-292-1225 www.pro-tecequipment.com

#### **SDDO**

If the S install and the

Pit run material shall be obtained from a granular source and shall confor	rn
to the following gradation:	

The pit

The ac gradat

			STATE OF SOUTH	PROJECT	SHEET	TOTAL SHEET
			DAKOTA	P TAPU(18)	8	26
OT CONSTRUCTION ENTRANC	<u>E</u>	SEDIMENT CONTROL AT T			d: 11/6/2017 DROP	
		<u>INLETS</u>				
SDDOT Construction Entrance is utilized, then the Contractor shall If the SDDOT Construction Entrance in accordance with these notes he detail drawings.		The sediment control device provided shall be from the list shown below. Refer to Standard Plate 734.11 for details.				
In material shall be obtained from e following gradation:	a granular source and shall conform	Product	Ī	Manufacturer		
<u>Sieve Size</u>	Percent Passing	Dandy Curb		roducts Inc.		
6"	100%		Dublin, C			
#4	0-60%			1-800-591-2284		
#200	0-20%		www.dandyproducts.com			
it run material shall be compacted to the satisfaction of the Engineer.		Gutterbuddy		ACF Environmental Richmond, VA		
aggregate for the granular materia ation requirements:	I shall conform to the following		Phone:	1-800-448-3636 environmental.com		
' Sieve Size	Percent Passing					
3"	100%	SS-300	Silt-Save			
2 1/2"	90-100%		Conyers			
1 1⁄2"	25-60%			1-888-382-7458		
3/"	0-10%		www.silt	saver.com		
1/2"	0-5%					
ranular material shall be placed in 6" maximum lifts.		Curb Inlet Guard	ECTEC Environmental Systems LLC Alameda, CA Phone: 1-866-521-0724			
anticipated that the granular mater oved and replaced as it becomes in				ecsystems.com		
		TARI E OF S		TROL AT TYPE S		
MSE geotextile shall conform to S	ection 831 of the Specifications. The			E DROP INLETS		
	ad Dradueta List for this material or	REINFORC				

The gr

It is an remov

The M MSE geotextile shall be on the Approved Products List for this material or will be certified by the supplier to meet this specification prior to installation.

The MSE geotextile should be kept as taut as possible prior to placing.

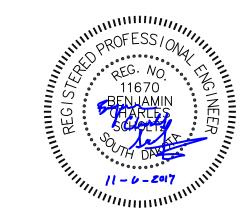
Equipment shall not be allowed on the MSE geotextile until the first lift of granular material is in place.

All seams in the MSE geotextile shall be overlapped at least 2' and shingled.

ſ							
	TABLE OF SEDIMENT CONTROL AT TYPE S						
	REINFORCED CONCRETE DROP INLETS						
	Station L/R Clear Opening Width (Ft) Quantity (F						
	3+38	R	6	8			
		8					

payment.

Quantity shown is the minimum length required and shall be the basis of



#### STORM WATER POLLUTION PREVENTION PLAN CHECKLIST

The GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES is being applied for by the SD DOT during the project's bidding process. The permit number will be available at the preconstruction meeting.

#### SITE DESCRIPTION (4.2 1)

- Project Limits: See Title Sheet (4.2 1.b)
- Project Description: See Title Sheet (4.2 1.a.) ≻
- Site Map(s): See Title Sheet and Plans (4.2 1.f. (1)-(6))
- Major Soil Disturbing Activities (check all that apply)  $\triangleright$ 
  - Clearing and grubbing
  - Excavation/borrow
  - $\overline{\boxtimes}$ Grading and shaping .
  - ⊠Filling

 $\triangleright$ 

- Cutting and filling
- Other (describe):
- Total Project Area 0.50 acres (4.2 1.b.)
- Total Area To Be Disturbed 0.50 acres (4.2 1.b.)  $\triangleright$
- Existing Vegetative Cover (%) 100%  $\geq$
- Soil Properties: AASHTO Soil or USDA-NRCS Soil Series Classification Silty Clay (4.2 1. d.)
- Name of Receiving Water Body/Bodies Big Sioux River (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.)

- > Install stabilized construction entrance(s).
- Install perimeter protection where runoff sheets from the site.  $\succ$
- Install channel and ditch bottom protection.  $\geq$
- Remove and store topsoil.  $\geq$
- Stabilize disturbed areas.  $\geq$
- $\geq$ Install utilities, storm sewers, curb and gutter.
- Install inlet and culvert protection after completing storm drainage and  $\geq$ other utility installations.
- Complete final grading. ≻
- $\geq$ Complete final paving and sealing of concrete.
- Reseed areas disturbed by removal activities.  $\geq$

#### 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
- C 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
- Erosion Control Blanket

#### Wetland Avoidance $\geq$

Will construction and/or erosion and sediment controls impinge on regulated wetlands? Yes No X 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.

#### $\geq$ 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.

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.

### Non-Storm Water Discharges (3.0)

- $\triangleright$

Hazardous Waste

	STATE OF	PROJECT	SHEET	TOTAL SHEETS
SOUTH DAKOTA	P TAPU(18)	9	26	

### Maintenance and Inspection (4.2 3. and 4.2 4.)

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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  $\frac{1}{3}$  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  $\frac{1}{2}$  the height of the dam.

All seeded areas will be checked for bare spots, washouts, and vigorous growth free of significant weed infestations.

Inspection and maintenance reports will be prepared on form DOT 298 for each site inspection, this form will also be used to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents.

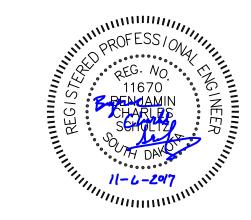
The SDDOT Project Engineer and contractor's site superintendent are responsible for inspections. Maintenance, repair activities are the responsibility of the contractor. The SDDOT Project Engineer will complete the inspection and maintenance reports and distribute copies per the distribution instructions on DOT 298.

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 ≻
- $\geq$ Metals
- Bituminous Materials ≻
- Petroleum Based Products  $\triangleright$
- Cleaning Solvents  $\geq$
- ⊠Wood ≻
- $\geq$ Cure
- $\triangleright$ Texture
- Chemical Fertilizers  $\geq$
- Other  $\geq$

#### \* 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, 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.

#### 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.

#### Paints

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

Concrete Trucks

Contractors will provide designated truck washout 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 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.

STAT	PROJECT	SHEET	TOTAL SHEETS
SO	TAPU(18)	10	26

Revised: 11/6/2017

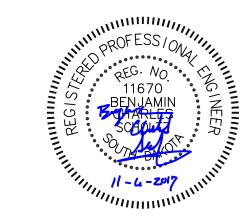
#### > Spill Response (4.2 2 c.(2))

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.

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 74:54:01.
  - The discharge of any substance that exceeds the surface water quality standards of ARSD chapter 74:54:01.
  - 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.

#### ♦ 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 Info

- Contractor
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- ContracAddress
- Address
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	STATE OF SOUTH	PROJECT	SHEET	TOTAL SHEETS
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## CONTROL DATA

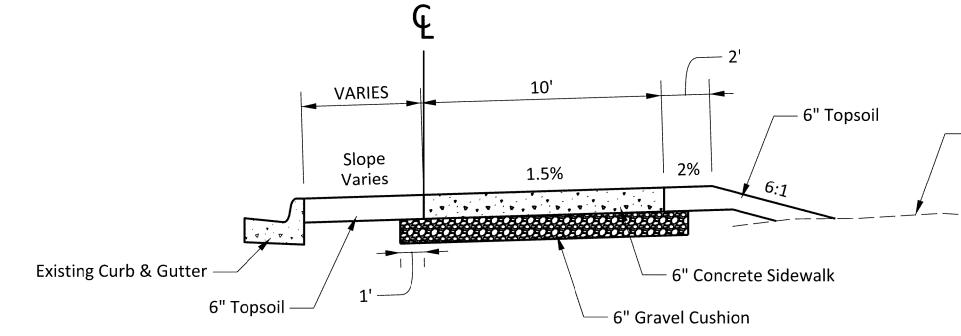
HORIZONTAL AND VERTICAL CONTROL POINTS							
POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION			
CP1	TRISTA-NAIL	15788645	2214853	1487.485			
CP2	TRISTA-NAIL	15788144	2214894	1487.824			

	Horizontal Alignment Table								
Туре	Type Station Tangent Length/Radius Bearing of Tangent/Delta of Curve Northing Easting								
POB	0+00.00			15788887.189	2214886.231				
		TL = 819.28	S01°11'57"E						
PI	8+19.28			15788068.088	2214903.375				
		R = 250.00	28°05'43" R						
PT	9+41.87			15787949.762	2214876.387				
		TL = 271.38	S26°53'47"W						
POE	12+13.24			15787707.742	2214753.623				

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone (NAD 83/96) Vertical Datum:

	STATE OF	PROJECT	SHEET	TOTAL
	STATE OF SOUTH DAKOTA	P TAPU(18)	12	SHEETS 26
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# **TYPICAL SECTION**



## TYPICAL SHARED USE PATH SECTION STA 00+04.39 TO 10+15.83

STATE OF	PROJEC	г	SHEET	TOTAL SHEETS
SOUTH DAKOTA	P TAPU(	18)	13	26
Plotting Date:	11/6/2017	Revised: 1	1/6/2017	

Existing Ground

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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
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
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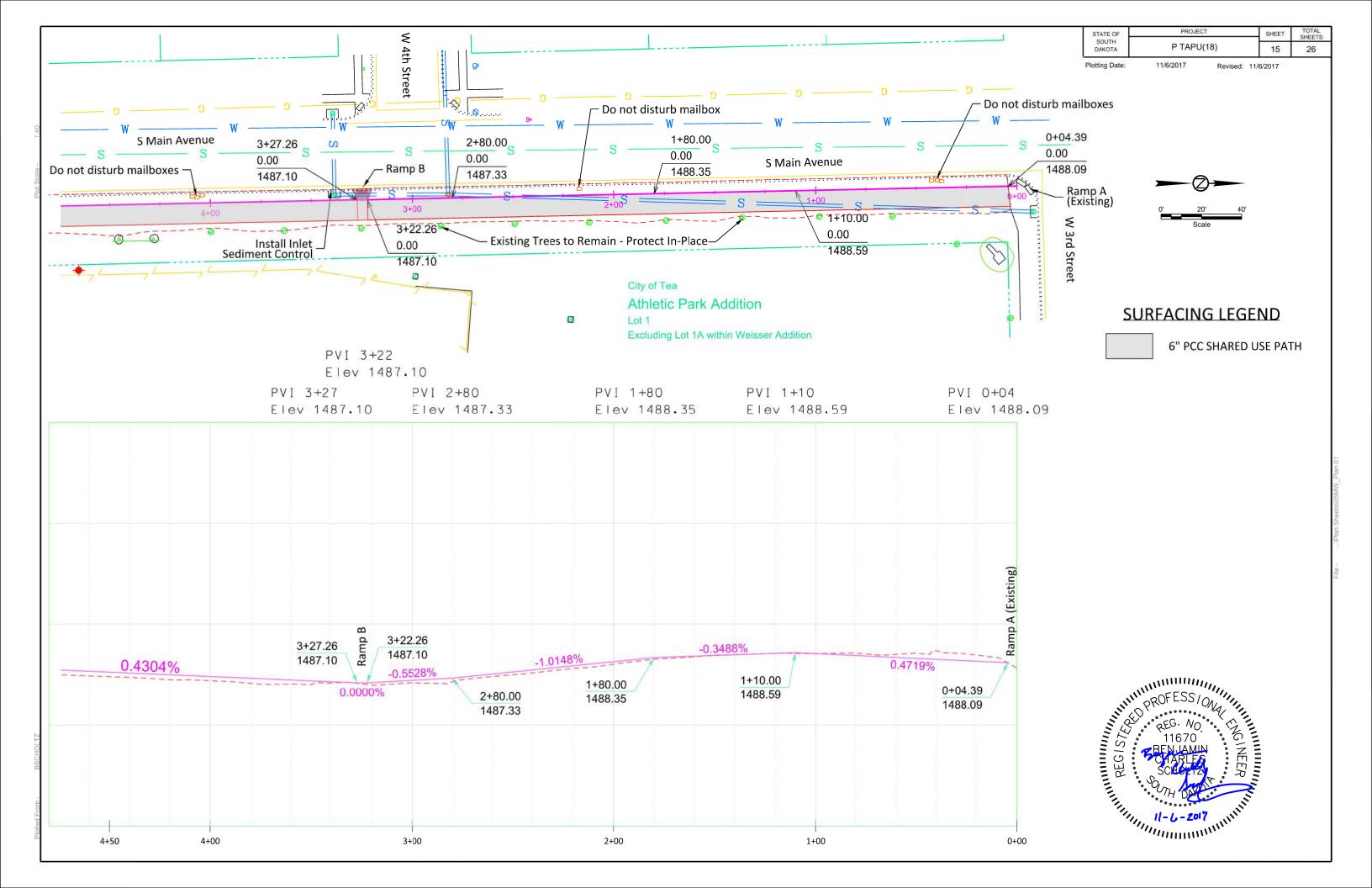
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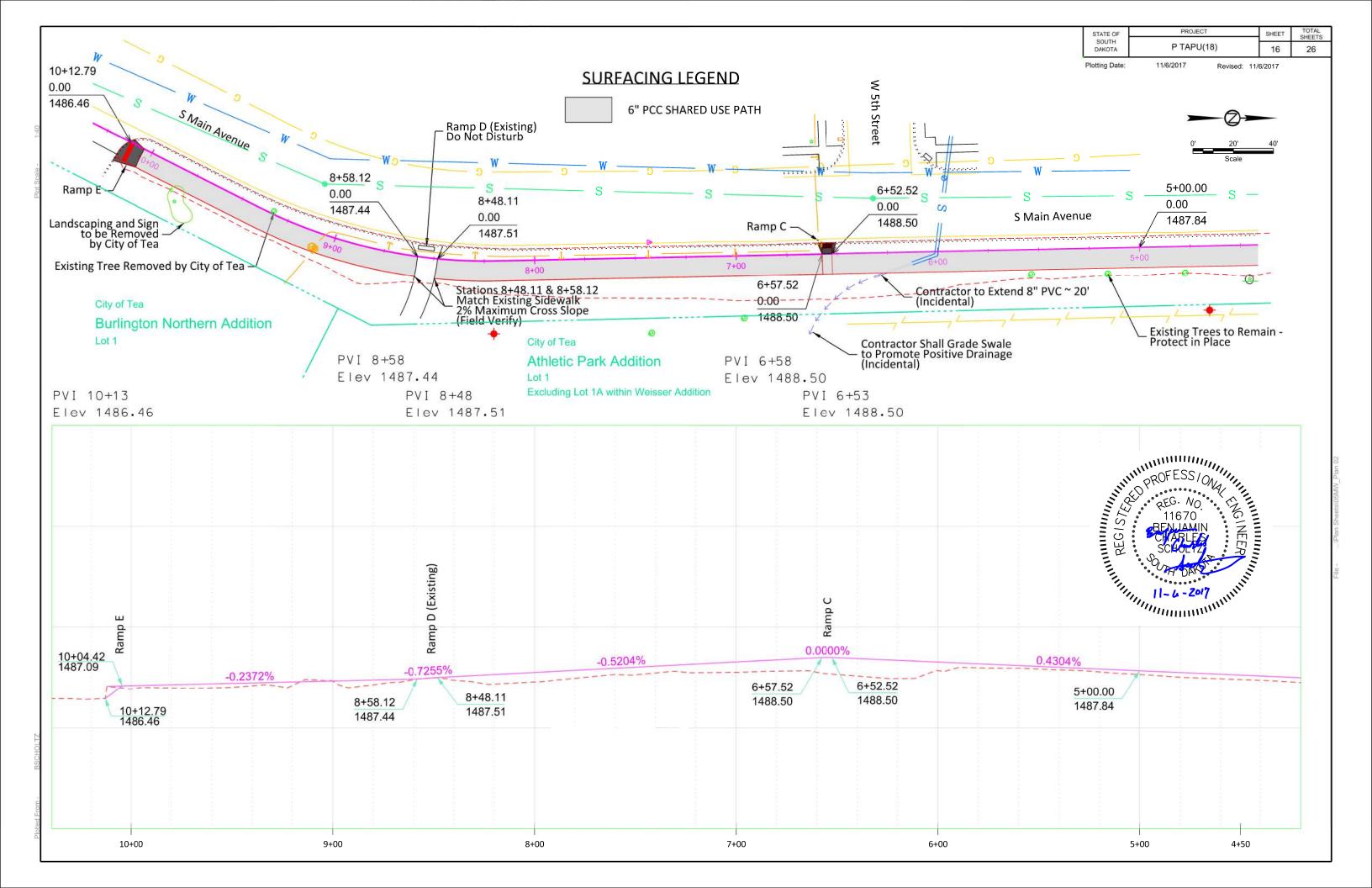
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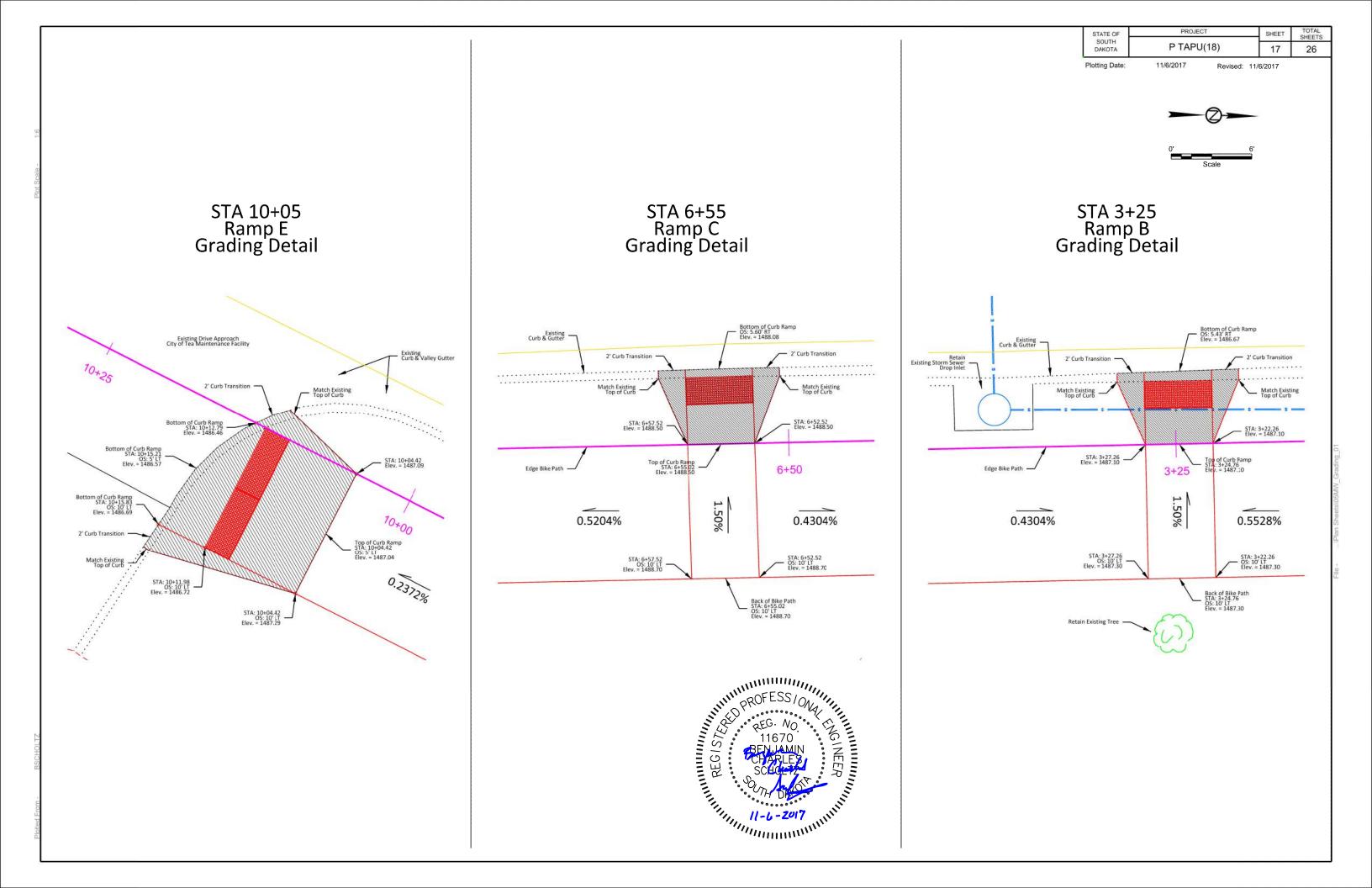
Shrub Tr Sidewalk Sign Fac Sign Pos Slough C Spring Stream ( Street M Subsurfa Telephor Telephor Telephor Televisio Televisio Test Wel Traffic S Trash Ba Tree Bel Tree Co Tree Dec Tree Stu Triangula Undergro Undergro Undergro Undergro Undergro Undergro Undergro Undergro Undergro Warning Warning Water Fe Water H Water M Water To Water Va Water W Weir Roo Windmill Wingwal Witness State and County L Section Quarter Sixteentl Property Construc R. O. W. New R. Cut and Control c New Control of Access Proposed ROW (After Property Disposal)

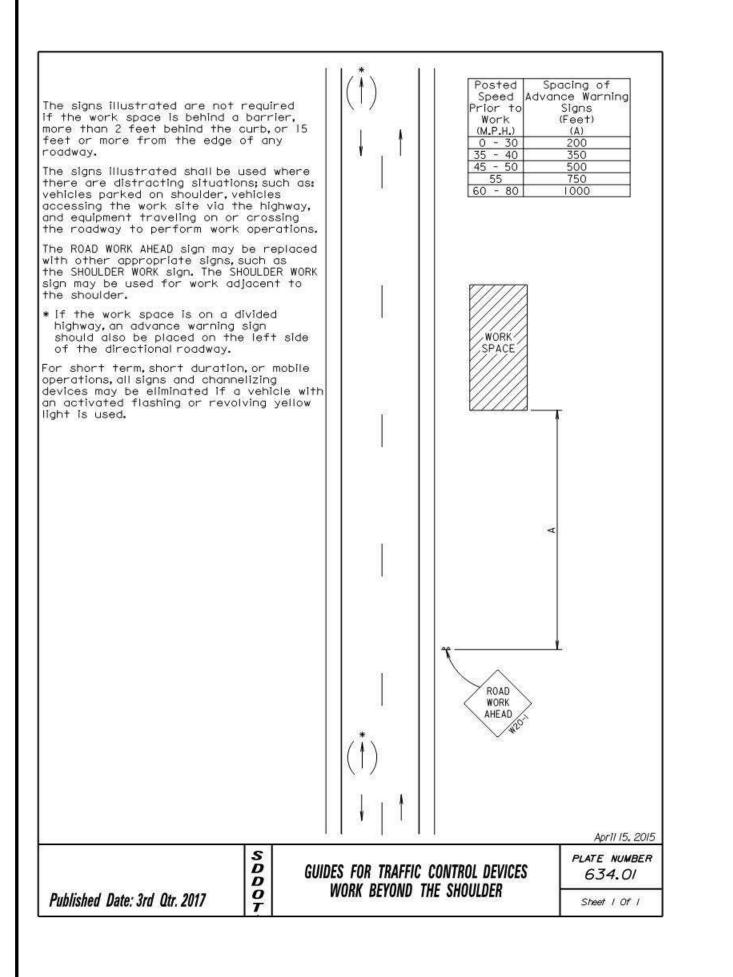
STATE OF	PROJECT		SHEET	TOTAL SHEETS
SOUTH DAKOTA	P TAPU(18	3)	14	26
Plotting Date:	11/6/2017	Revised: 11/6	6/2017	ng addarau ng
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Gauge	ø			
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one Pole	0			
on Cable Jct Box on Tower	@ *			
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round Electric Line	— P —			
round Gas Line	- G -			
round High Pressure Gas Line	— HG — — S —			
round Sanitary Sewer round Storm Sewer	= s =			
round Tank				
round Telephone Line	- T -			
round Television Cable	— TV —			
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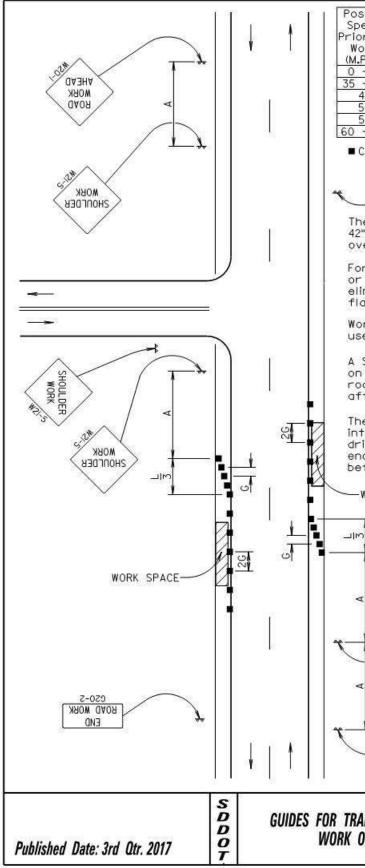
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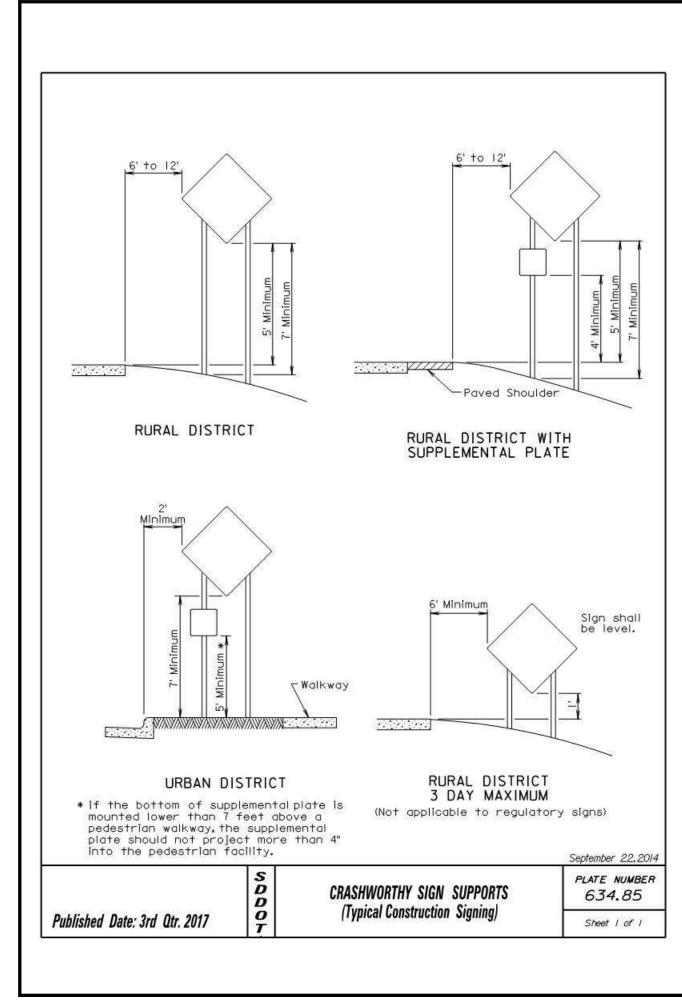


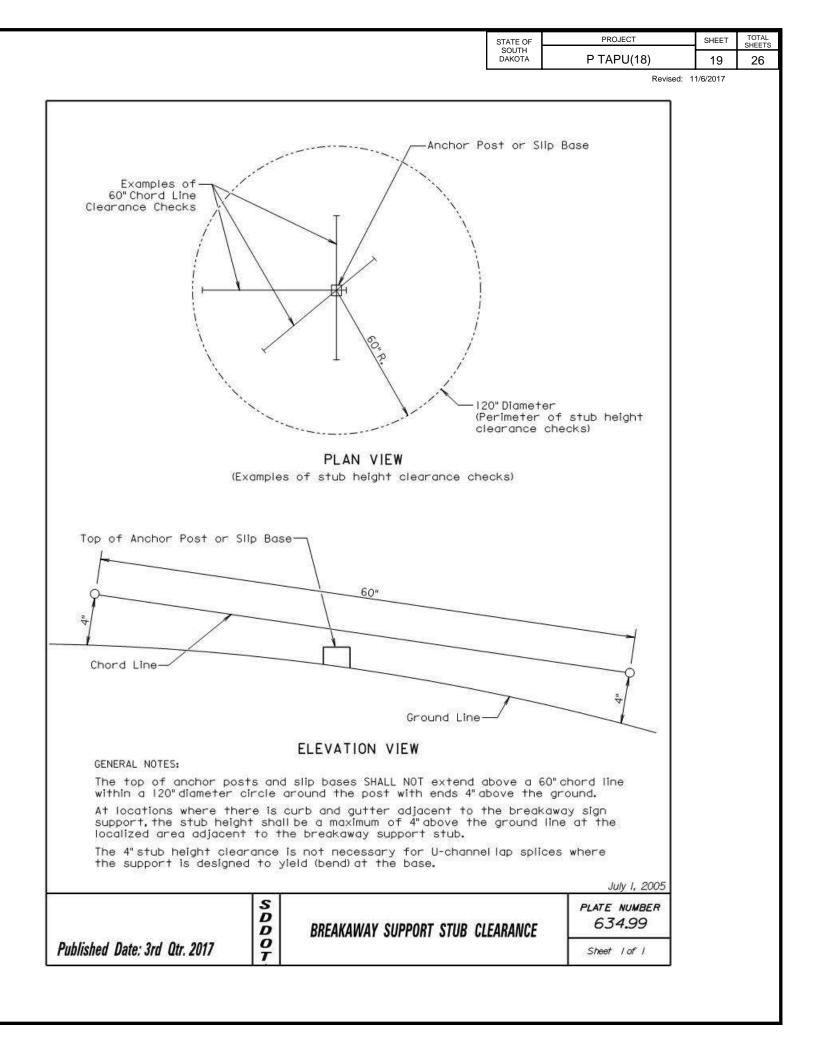


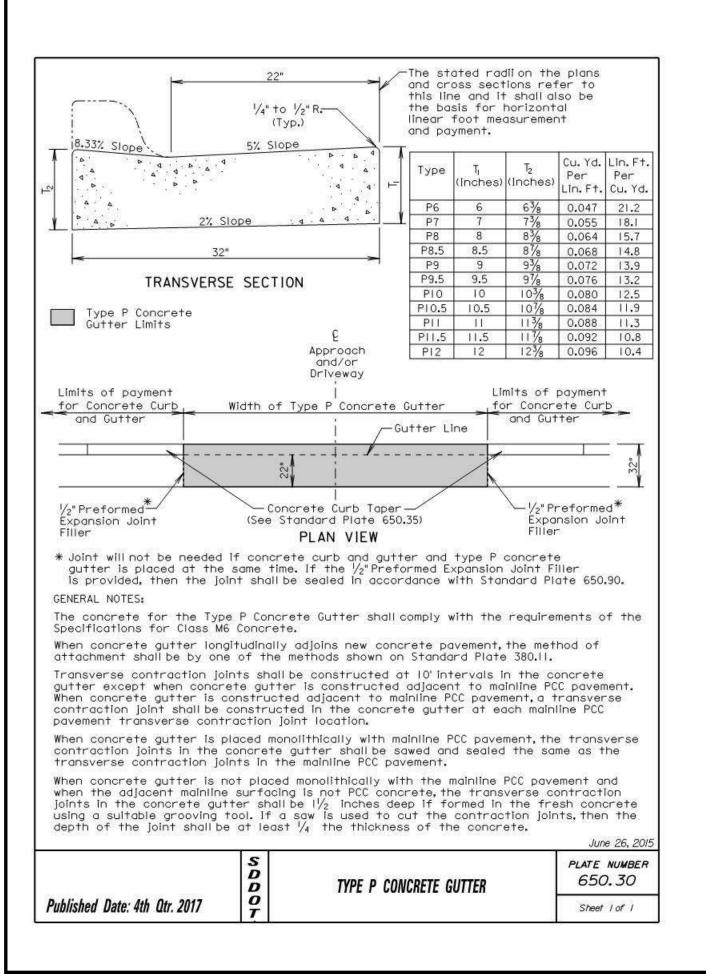


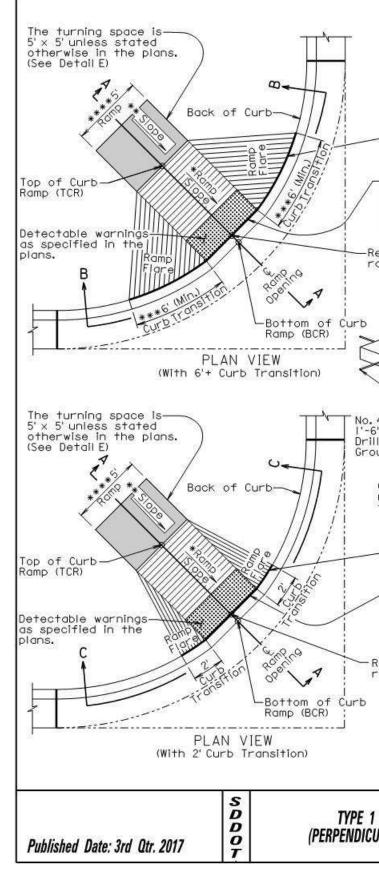


		STATE OF		PROJECT	SHEET	TOTAL SHEETS
		SOUTH DAKOTA	P	P TAPU(18)	18	26
		<b>!</b>		Revised:	11/6/2017	
-						
Posted	Space	cing of e Warning	Tanar	Spacing of		
Speed rior to		e warning igns	Taper Lenath	Channelizing Devices		
Work		eet)	(Feet)	(Feet)		
M.P.H.)	0.050	(A)	(L)	(G)		
0 - 30		200	180	25		
5 - 40		350	320	25		
45		500	600	25		
50		500	600	50		
55	1	750	660	50		
0 - 65		000	780	50		
■ Chann	END ROAD W G20-	ORK				
	es if t			be drums or ust remain		
or less eliminat	all cho		device with ar	s (I hour s may be n activated ight is used.		
		(W21-1 or of SHOULD				
on the	left s y only	RK sign st ide of a if the le	divided	or one-way		
interse drivers encoun	eting r emerg ter and	ing from other adv	s not r that r ance w	equired if oadway will arning sign tivity area.		
-WORK	SPACE					
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A		SHOULDER WORK				
t		255				
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			1.0	June 3, 2016		
RAFFIC	CONTRO	L DEVICES	F	CLATE NUMBER 634.03		
( ON SI	HOULDER	S		Sheet I of I		
			niniti			

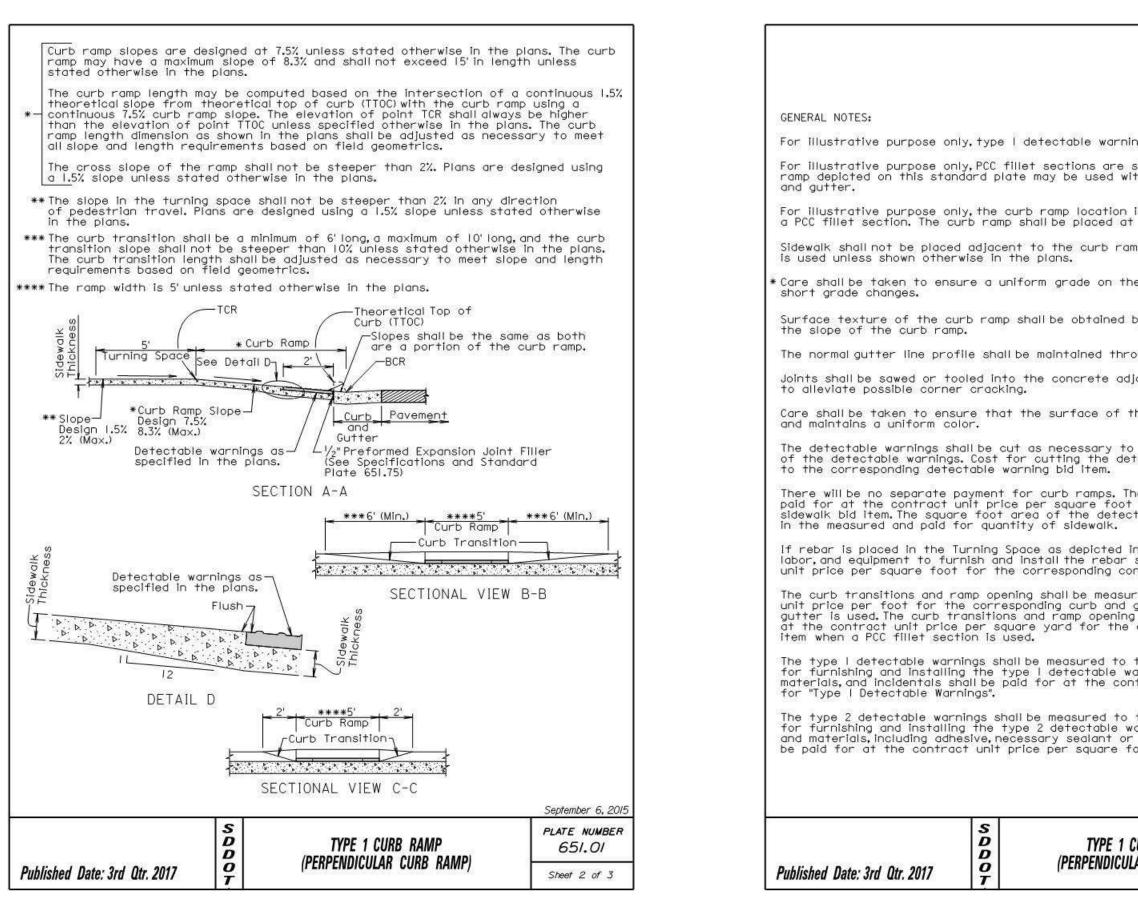




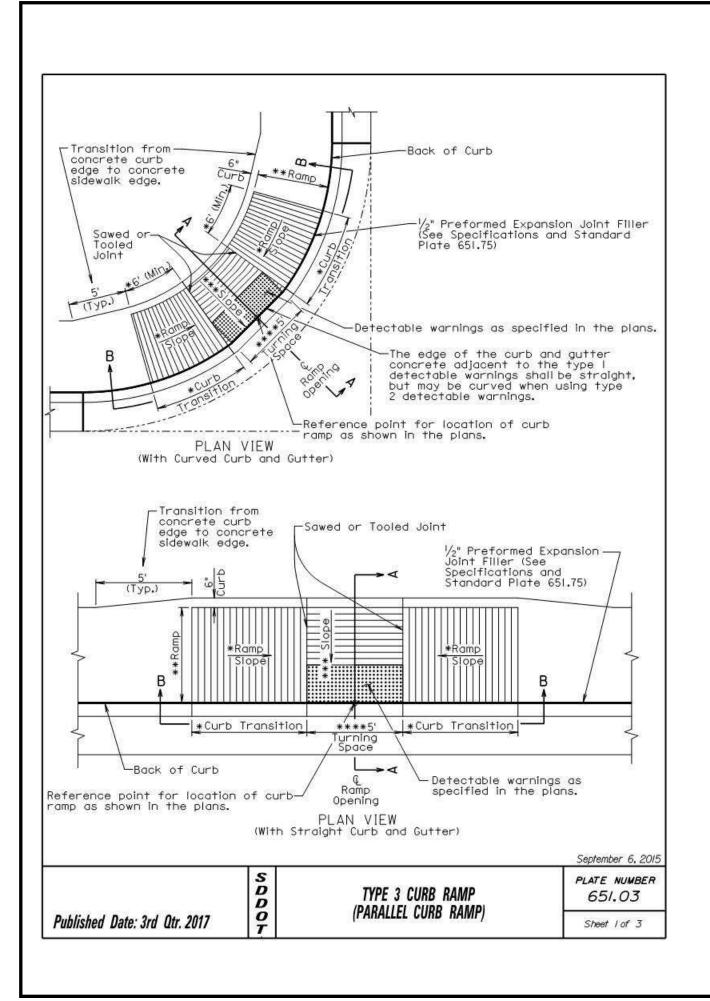


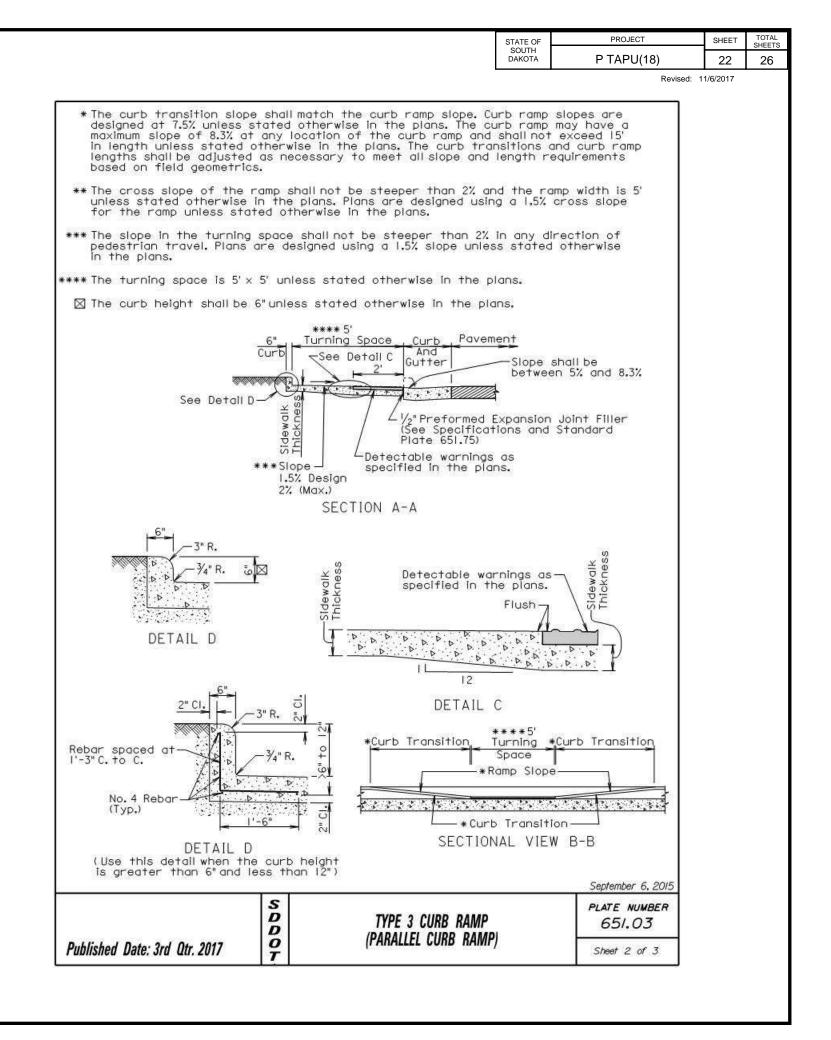


	STATE OF	PROJECT	SHEET	TOTAL SHEETS
	SOUTH DAKOTA	P TAPU(18)	20	26
			11/6/2017	
/2" Prefo	rmed Exp	pansion Joint Filler is and Standard		
Plate 651 —The edge o concrete ad detectable	.75) f the cu djacent - warnings curved	rb and gutter to the type I shall be straight, when using type		
leference poi amp as showr	nt for la n in the	ocation of curb plans.		
	6" (TYP.)	Turning Space Concrete		
(If Turning S monolithic wi	of Co DETAIL METRIC Space cou th surro			
(See Spec Plate 651 The edge c concrete c detectable	offication (75) of the cu udjacent warning of curved	oansion Joint Filler is and Standard urb and gutter to the type I s shall be straight, when using type ngs.		
Reference po ramp as show		location of curb plans.		
		September 6, 2015		
1 CURB RAMP ULAR CURB RA	MP)	PLATE NUMBER 651.01		
	17435136V)	Sheet I of 3		

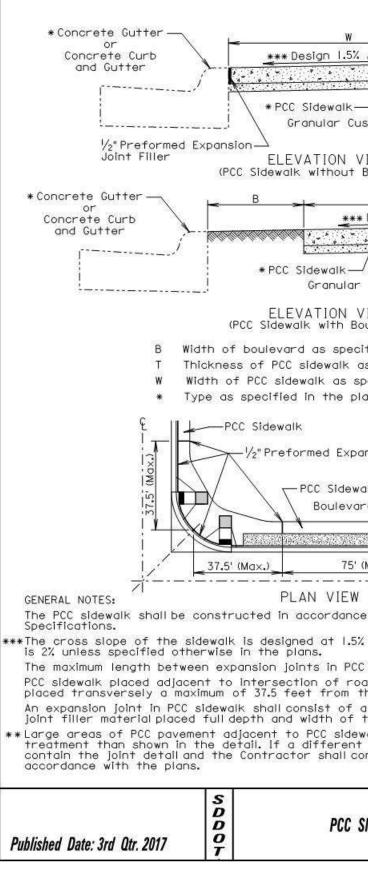


	STATE OF	PROJECT	SHEET	TOTAL SHEETS
	SOUTH DAKOTA	P TAPU(18)	21	26
	ı	Revised:	11/6/2017	
	2 12	8 X		
nings are sho				
e shown in th with a PCC fi	llet sect	ion or curb		
n is shown at	t the cer	nter of		
at the locati	on state	d in the plans.		
amp flares w	hen a 2'	curb transition		
the curb ram	p,free o	f sags and		
d hu sasaa '		trapavarat ta		
u by codrse i	orooming	transverse to		
nrough the ar	rea of th	ne ramp opening.		
adjacent to t	he detec	table warnings		
the detecto	ble warn	ings are clean		
to fit the pl detectable wa	an specit Irnings st	nali be incidental		
The curb ran	no shall b	e measured and		
ot for the c ectable warni	orrespon	ding concrete		
	idental to	of the materials, o the contract item.		
sured and pai	d for at	the contract		
d gutter bid ing shall be m	item whe easured	and paid for		
le correspond	ling PCC ·	fillet section bid		
o the neares warnings incl	t square udina lab	foot. All costs or, equipment,		
ontract unit	price pe	r square foot		
o the neares	t square	foot. All costs		
or grout, and	necessa necessa	oor,equipment, ry grinding shall ectable Warnings".		
		in the second seco		
		September 6, 2015		
1 CURB RAMP		PLATE NUMBER 651.01		
CULAR CURB RA	MP)	Sheet 3 of 3		

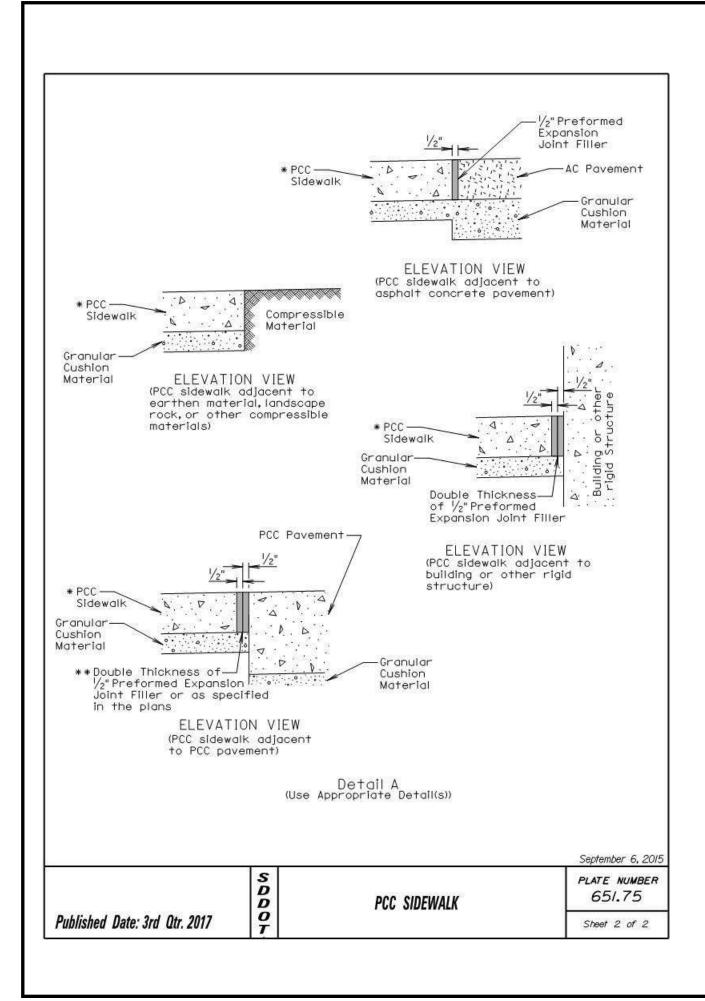


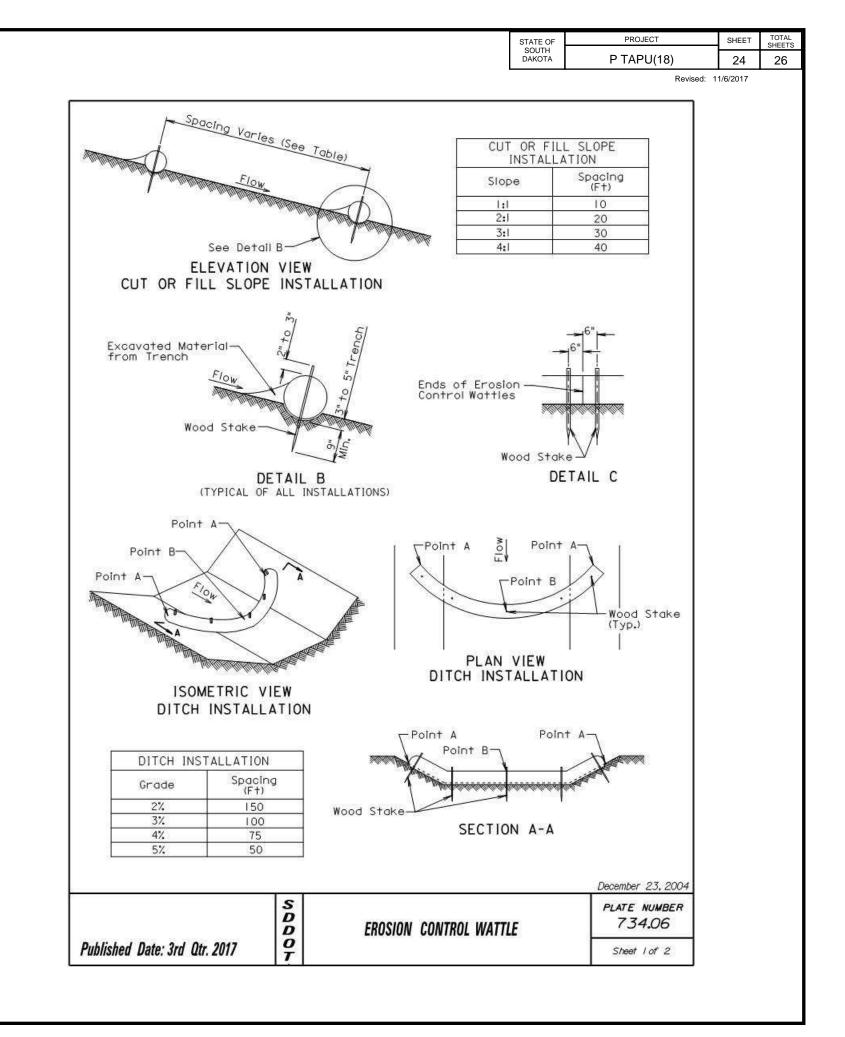


ublished Date: 3rd Qtr. 2017		TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	651.03 Sheet 3 of 3
	S D		September 6, 201 PLATE NUMBER
			Contantos 6.00
and materials, including adhe	sive, necess	2 detectable warnings includ ary sealant or grout, and no e per square foot for "Type	ecessary arindina shall
The type 2 detectable warni	inas shall b	e measured to the nearest	square foot. All costs
for furnishing and installing	the type all be paid	e measured to the nearest a I detectable warnings includ for at the contract unit pr	ing labor, equipment.
oid item when a PCC fillet s	ection is u		
unit price per foot for the putter is used.The curb tro	correspor	shall be measured and paid ading curb and gutter bid ite nd ramp opening shall be meas	em when curb and sured and paid for
sidewalk bid item.The square	e foot are	curb ramps. The curb ramp er square foot for the corr a of the detectable warning he measured and paid for qu	s and the curb along
to the contract unit price bid item.	per square	d installing the reinforcing s foot for the corresponding	g concrete sidewalk
When curb height is greater accordance with the detail of	than 6" ar	d less than 12", reinforcing of 3. The reinforcing steel	steel is required in shall conform to ASTM
The detectable warnings sha of the detectable warnings, to the corresponding detect	Cost for	s necessary to fit the plan cutting the detectable warn ng bid item.	specified limits ings shall be incidental
Care shall be taken to ensur and maintains a uniform cold	re that th or.	e surface of the detectable	e warnings are clean
		ne concrete adjacent to the see plan view for joint loca	
The normal gutter line profi	le shall be	maintained through the area	of the ramp opening.
Surface texture of the cur the slope of the curb ramp.	b ramp sho •	all be obtained by coarse bro	coming transverse to
Care shall be taken to ensu short grade changes.	re a unifor	rm grade on the curb ramp,	free of sags and
idewalk adjacent to the cu	rb ramp sh	all be as shown in the plans.	
The curb ramp shall be place	ed at the	ocation stated in the plans.	
or illustrative purpose only the curb ramp depicted on or with curb and gutter.	y, a PCC fill this stando	et section is shown in one o ird plate may be used with o	of the drawings. 9 PCC fillet section
	y,type   de	etectable warnings are showr	n in the drawings.
or illustrative purpose only			



				TOTAL
	STATE OF SOUTH DAKOTA	PROJECT P TAPU(18)	SHEET	SHEETS
	DANOTA	P TAPU(10) Revised:	23 11/6/2017	26
<u>% , 2% (Max.)</u> Sushion Materi VIEW Boulevard) <u>W</u> ** Design 1.5% or Cushion Materi VIEW Boulevard) cified in the	Se . 2% (Max terial	-See Detail A ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓		
specified in t plans. pansion Joint walk ard	Filler	~		
V Ce with Secti	لى	f the		
5% and the matrix $CC$ sidewalk is oadways shall the intersec a $V_2$ inch the	75 feet. have an tion. See			
ewalk may rea	quire a d Lis neces	lifferent joint ssary,plans will		
SIDEWALK		PLATE NUMBER 651.75		
		Sheet I of 2		

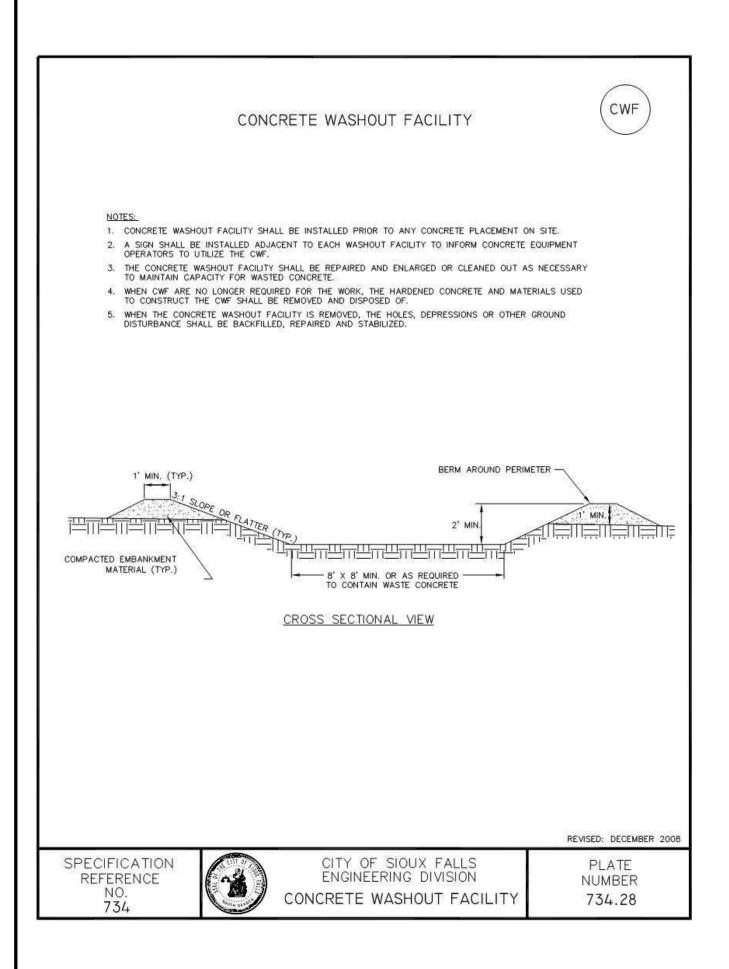




GENERAL NOTES:			
At cut or fill slope installar perpendicular to the water	tions, flow.	wattles shall be installed along the contou	r and
At ditch installations, point flows over the wattle and	A mus not ai	st be higher than point B to ensure that round the ends.	water
that daylight can not be se	en ur	" trench, install the wattle tightly in the t nder the wattle, and then compact the soil the on the uphill side. See Detail B.	rench so excavated
rebar may be used only if	approv	wood stakes, however, other types of stake ved by the Engineer. The stakes shall be pl and the spacing of the stakes along the	aced
Where installing running len- wattle tightly against the	gths c first	of wattles, the Contractor shall butt the s and shall not overlap the ends. See Detail (	second
week and within 24 hours a	fter e Dose, d	Il inspect the erosion control wattles once overy rainfall event greater than $\frac{1}{2}$ ". The or reshape the accumulated sediment when Engineer.	34 - 12234 <b>29</b> 3
All costs for removing accu	mulate	essary shaping shall be as directed by the ad sediment, disposal of sediment, and neces contract unit price per cubic yard for "F	sary
All costs for furnishing and equipment, and materials sho for the corresponding eros	II be I	Illing the erosion control wattles including incldental to the contract unit price per - ontrol wattle bid litem.	labor, foot
All costs for removing the equipment, and materials sho "Remove Erosion Control Wat	II be i	n control wattle from the project includir incidental to the contract unit price per	ig labor, foot for
	s		December 23, 2004 PLATE NUMBER
	D D	EROSION CONTROL WATTLE	734.06
Published Date: 3rd Qtr. 2017			Sheet 2 of 2

The type of sediment control device used shall be one the plans. The sediment control device shall be placed at the dr manufacturers' installation instructions. The sediment control at inlet for type S reinforced of placed at locations stated in the plans or at locatio The Contractor shall inspect and maintain the sediment week and within 24 hours after every rainfall event, the sediment control device by removing the device, r and resetting the device. The removed sediment shall be placed at a location and the sediment will not be washed back into the drop in
GENERAL NOTES:         The type of sediment control device shown is for illu         The type of sediment control device shown is for illu         The type of sediment control device shown is for illu         The sediment control device shown is for illu         The sediment control device used shall be one         The sediment control device shall be placed at the dr         The sediment control device shall be placed at the dr         The sediment control device by removing the device, r         In the contractor shall inspect and maintain the sediment         The contractor shall inspect and maintain the device, r         Ind resetting the device.         The removed sediment shall be placed at a location on         The sediment will not be washed back into the drop in         The removed sediment shall be placed at a location on         The sediment will not be washed back into the drop in         The removed sediment shall be placed at a location on         The sediment will not be washed back into the drop in         Payment for the "Sediment Control at Lype S propolation
GENERAL NOTES:         The type of sediment control device shown is for illu         The type of sediment control device shown is for illu         The type of sediment control device used shall be one         The contractor shall inspect and maintain the sediment         week and within 24 hours after every rainfall event, the         week and within 24 hours after every rainfall event, and resetting the device.         The removed sediment shall be placed at a location on
GENERAL NOTES:         The type of sediment control device shown is for illu         The type of sediment control device shown is for illu         The sediment control device used shall be one         The sediment control device shown is for illu         The sediment control device shown is illusted in the plane or at location         The sediment control device by removing the device, r         and resetting the device.
GENERAL NOTES:         The type of sediment control device shown is for Illu         The type of sediment control device shown is for Illu         The sediment control device shown is for the placed at location
GENERAL NOTES:         The type of sediment control device shown is for illu         The type of sediment control device used shall be one the plans.
GENERAL NOTES:         The type of sediment control device shown is for illu
CENERAL NOTES: The type of sediment control device shown is for illu
GENERAL NOTES:
ISOMETRIC VIEW
Sediment Control Device

Type S Reinforced Concrete Drop Inlet	SHEET 25 1: 11/6/2017	SHEETS 26
Revised:		
Type S Reinforced Concrete Drop Inlet		
Type S Reinforced Concrete Drop Inlet		
EW illustrative purposes only.		
one of the types as specified in		
drop inlets according to the		
ed concrete drop inlet shall be stions determined by the Engineer.		
iment control device once every nt. The Contractor shall maintain e, removing accumulated sediment,		
n away from the drop inlet where op inlet or other storm sewer system.		
Inlet" shall be based on the of the sediment control devices to available length.		
aining, removing, and resetting uding labor, equipment, and materials foot for "Sediment Control at		
September 14, 2005		
CONTROL AT INLETS REINFORCED CONCRETE ROP INLETS PLATE NUMBER 734.11 Sheet 1 of 1		
noven, supersentation below		



STATE OF	PROJECT	SHEET	TOTAL SHEETS
STATE OF SOUTH DAKOTA	P TAPU(18)	26	26
	Revised: 1		