

ENVIRONMENTAL COMMITMENTS

The SDDOT is committed to protecting the environment and uses Section A Environmental Commitments as a communication tool for the Engineer and Contractor to ensure that attention is given to avoid, minimize, and/or mitigate an environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency with permitting authority can delay a project if identified environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office.

Additional guidance on SDDOT's Environmental Commitments can be accessed through the Environmental Procedures Manual found at: <https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf

For questions regarding change orders in the field that may have an effect on an Environmental Commitment, the Project Engineer will contact the Environmental Office at 605-773-3098 or 605-773-4336 to determine whether an environmental analysis and/or resource agency coordination is necessary.

COMMITMENT B2: WHOOPING CRANE

The Whooping Crane is a spring and fall migratory bird in South Dakota that is about 5 feet tall and typically stops on wetlands, rivers, and agricultural lands along their migration route. An adult Whooping Crane is white with a red crown and a long, dark, pointed bill. Immature Whooping Cranes are cinnamon brown. While in flight, their long necks are kept straight and their long dark legs trail behind. Adult Whooping Cranes' black wing tips are visible during flight.

Action Taken/Required:

Harassment or other measures to cause the Whooping Crane to leave the site is a violation of the Endangered Species Act. If a Whooping Crane is sighted roosting in the vicinity of the project, borrow pits, or staging areas associated with the project, cease construction activities in the affected area until the Whooping Crane departs and immediately contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

COMMITMENT C: WATER SOURCE

The Contractor will not withdraw water with equipment previously used outside the State of South Dakota or previously used in aquatic invasive species waters within South Dakota without prior approval from the SDDOT Environmental Office. Thoroughly wash all construction equipment to prevent and control the introduction and spread of invasive species into the project vicinity.

Action Taken/Required:

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

Additional information and mapping of Aquatic Invasive Species in South Dakota can be accessed at: http://sdleastwanted.com/maps/default.aspx.

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.

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		079 S-452	2	14

COMMITMENT H: WASTE DISPOSAL SITE

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

Action Taken/Required:

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

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

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

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

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

COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

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

Action Taken/Required:

All earth disturbing activities require a cultural resource review prior to scheduling the pre-construction meeting. This work includes, but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

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

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

The Contractor will submit the cultural resources survey report to SDDOT Environmental Office, 700 East Broadway Avenue, Pierre, SD 57501-2586. SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

In the event of an inadvertent discovery of human remains, funerary objects, or if evidence of cultural resources is identified during project construction activities, then such activities will immediately cease and the Project Engineer will be immediately notified. The Project Engineer will contact the SDDOT Environmental Office to determine an appropriate course of action.

The Contractor is responsible for obtaining any additional permits and clearances for Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered species, or waterways. The Contractor will not utilize a site known or suspected of having contaminated soil or water. The Contractor will provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

COMMITMENT K: RAPID CITY AREA AIR QUALITY CONTROL ZONE

Administrative Rule of South Dakota (ARSD) 74:36:18:03 states that "no state facility or state contractor may engage in any construction activity or continuous operation activity within the Rapid City air quality control zone which may cause fugitive emissions of particulate to be released into the ambient air without first obtaining a permit issued by the board or the secretary."

Construction activity is defined as any temporary activity which involves the removal or alteration of the natural or pre-existing cover of one acre or more of land. One acre of surface area is based on a cumulative area of disturbance to be completed for the entire project. Construction activity will include, but not be limited to, stripping of topsoil, drilling, blasting, excavation, dredging, ditching, grading, street maintenance and repair, or earth moving. It also includes stockpiles, access roads, and disposal areas. An off-site disposal area of excess material will require an additional permit.

Action Taken/Required:

To be considered eligible for authorization to conduct a construction activity under the terms and conditions of this permit, the owner operator must submit a Notice of Intent (NOI) form. The form must be submitted to the address below at least seven business days prior to the anticipated date of beginning the construction activity.

South Dakota Department of Environment and Natural Resources Air Quality Program, 523 East Capitol, Joe Foss Building, Pierre, SD 57501-3181, Phone: 605-773-3151.

The permit requires the Contractor to use reasonably available technology to control fugitive dust emissions. The Contractor is required to use control measures for track out, paved areas, unpaved roads, unpaved parking lots, disturbed areas, and for material handling and storage. The control measures that the Contractor is required to use are listed in the permit.

The Rapid City Air Quality Permit will need to be renewed annually by the Contractor until construction activities are completed.

The online form can be found at: http://denr.sd.gov/des/aq/airpermits.aspx

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SOUTH DAKOTA	079 S-452	3	14

ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
380E5100	Continuously Reinforced PCC Pavement Repair	18.0	SqYd
390E0200	Repair Type A Spall	11.3	SqFt
460E0300	Breakout Structural Concrete	1.1	CuYd
480E0504	No. 4 Rebar Splice	62	Each
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	2	Each
734E0840	Sediment Control at Type B Reinforced Concrete Drop Inlet	1	Each

SPECIFICATIONS

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

COORDINATION OF WORK WITH MOTOR CARRIER, SD DEPARTMENT OF PUBLIC SAFETY

The Contractor must contact Zone Four – Motor Carrier, SD Department of Public Safety – Highway Patrol (Sergeant Brian Lyons, 605-773-5531; Cell 605-641-1520) prior to work.

UTILITIES

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

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

EXISTING PCC PAVEMENT

The existing 9" Continuously Reinforced P.C.C. Pavement is reinforced with #4 bars spaced 1' on center. The aggregate in the existing Continuously Reinforced P.C.C. Pavement is Crushed Ledge Rock.

TABLE OF CONCRETE PAVEMENT QUANTITIES

		For Information Only						
Breakout	Continuously Reinforced PCC	Remove	Deformed	Deformed	Deformed	Deformed	Deformed	Deformed
Structural	Pavement	Concrete	Bars #4 -					
Concrete	Repair	Pavement	1.25'	4.25'	22'	16'	14'	13.5'
CuYd	SqYd	SqYd	Each	Each	Each	Each	Each	Each
1.1	18.0	13.5	44	10	4	2	2	3
1.1	18.0	13.5	44	10	4	2	2	3

CONCRETE BREAKOUT

The scale pit wall will be broken out to the limits shown on the plans. Breakout limits shall be defined with a 3/4" deep sawcut (unless specified otherwise in these plans), where practical, as approved by the Engineer. Reinforcing steel that is exposed and is scheduled for use in the new construction will be cleaned and straightened to the satisfaction of the Engineer. Care will be taken not to damage the existing reinforcing steel that is to be reused in the new construction during concrete breakout. Any reinforcing steel that is damaged during concrete breakout will be replaced or repaired, as approved by the Engineer, by the Contractor at no cost to the Department.

All broken out concrete and discarded reinforcing bars will be disposed of by the Contractor. Any disposal of discarded material will be in accordance with the Environmental Commitments.

The contract unit price per cubic yard for Breakout Structural Concrete will include breaking out concrete, cleaning, straightening existing reinforcing steel, removal of the existing armored angle to be reset, and disposal of all broken out material.

CONTINUOUSLY REINFORCED PCC PAVEMENT REPAIR

Locations and size (length or width) of pavement repair areas are subject to change in the field, at the discretion of the Engineer, at no additional cost to the state. Payment will be based on actual area replaced.

The Engineer will mark the location of the area to be repaired on construction.

The Contractor will saw the in-place concrete at two locations for the repair area. One saw cut will be full depth. The other saw cut will be partial depth saw cuts and will be made to a depth just above the in-place reinforcing steel and be placed outside of the previous full depth saw cut. The outside cuts will be a minimum of 6" full depth cut.

The Contractor will lift out or break out the full depth section (including reinforcing steel). In the salvaged rebar sections of the repair areas, the use of 15-pound hammers will be allowed. To prevent damage to the surrounding concrete, only light chipping hammers (not exceeding 15 pounds) will be allowed within the last six inches adjacent to the newly created header joint to remove the remaining concrete of the repair area, leaving the reinforcing steel in place.

Saw cuts that extend beyond the repair area will be minimized and filled with a non-shrinkage mortar mix at the Contractor's expense.

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Care will be taken not to cut, bend or otherwise damage the in-place reinforcing steel. Damage to in-place reinforcing steel or to in-place concrete beyond the repair area will be replaced at the Contractor's expense, to the satisfaction of the Engineer.

The Contractor will remove and dispose of the in-place concrete.

Existing exposed reinforcing steel and concrete faces will be cleaned by sandblasting and compressed air to remove dirt and debris prior to placement of concrete.

Concrete will not be placed in the repair areas before 12:00pm and should be placed in the late afternoon. Temperature of the concrete at the time of placement will be between 50°F and 90°F. The temperature of the concrete will be maintained above 40°F during the curing period.

Concrete will meet the requirements stated in Section 380 of the specifications, except as modified by the following notes:

The fine aggregate will be screened over a one-inch square-opening screen just prior to introduction into the concrete paving mix if required by the Engineer.

The slump requirement will be limited to 3" maximum after water reducer is added and the concrete will contain 4.5% to 7.0% entrained air. The concrete will contain a minimum of 50% coarse aggregate by weight. Coarse aggregate will be crushed ledge rock, Size No. 1 unless an alternative gradation is approved by the Concrete Engineer as part of the mix design submittal. The mix design will contain at least 650 lbs of Type I or II cement or 600 lbs of Type III cement per cubic yard. The minimum 28-day compressive strength will be 4,000 psi. The Contractor is responsible for the mix design used. The Contractor will submit a mix design and supporting documentation for approval at least 2 weeks prior to use.

The use of a water reducer at manufacturer's recommended dosage will be required.

Concrete will be cured with white pigmented curing compound (AASHTO M148, Type 2) applied as soon as practical at a rate of 125 square feet per gallon. Concrete will be cured a minimum of 48 hours before opening to traffic. The 48 hours is based upon a concrete surface temperature of 60°F or higher throughout the cure period. If the concrete temperature falls below 60°F, the cure time will be extended, or other measures taken, at no additional cost to the State. A strength of 3,500 psi must be attained prior to opening to traffic.

Concrete will be covered with suitable insulation blanket consisting of a layer of closed cell polystyrene foam protected by at least one layer of plastic. Insulation blanket will have an R-value of at least 0.5, as rated by the manufacturer. Insulation blanket will be left in place, except for joint sawing operations until 3,500 psi is attained. Insulation blanket will be overlapped on to the existing concrete by 4'. This requirement for covering repair areas with insulation blankets may be waived during periods of hot weather upon approval of the Engineer.

Cost for performing the aforementioned work including sawing, chipping and removing concrete, sandblasting, cleaning, furnishing and placing concrete and reinforcing steel, finishing and curing, labor, resetting 3" steel angle and equipment will be incidental to the contract unit price per square yard for Continuously Reinforced PCC Pavement Repair.

SAW AND SEAL LONGITUDINAL JOINTS (CRCP)

Longitudinal joints (in line with existing longitudinal joints) at concrete repair areas will be sawed and sealed.

Joint sealing will conform to Section 380.3 P.

joints will be sealed with Hot Poured Elastic Joint Sealer.

Acceptance of the Hot Poured Elastic Joint Sealer will be based on visual inspection by the Engineer.

Cost for sawing and sealing of the construction joint will be incidental to the contract unit price per square yard for Continuously Reinforced PCC Pavement Repair.

REPAIR TYPE A SPALLS

Concrete Patch Material will be Type III conforming to Section 390.2 B.3.

Spalls which are repaired according to plans and specifications and exhibit partial re-spalling or cracking, will be repaired to the satisfaction of the Engineer at no additional cost to the State.

TABLE OF REPAIR TYPE A SPALL

Length	Width	Area
Ft	FT	SqFt
2	1.5	3
2.5	2.5	6.3
1	1	1
1	1	1
	TOTAL:	11.3

MAINTENANCE OF TRAFFIC

Existing guide, route, informational logo, regulatory, and warning signs will be temporarily reset and maintained during construction. Removing, relocating, covering, salvaging, and resetting of existing traffic control devices, including delineation, will be the responsibility of the Contractor. Cost for this work will be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost will be replaced by the Contractor at no cost to the State.

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

Portable sign supports will not be located on sidewalks or other areas designated for pedestrian.

Type 3 Barricades will be installed at the end of the lane closure.

TRAFFIC CONTROL, MISCELLANEOUS

All costs for traffic control, including signs, will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

SEDIMENT CONTROL AT INLETS WITH FRAMES AND GRATES

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

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

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

Sediment collection devices will be:

A sediment control device as shown on Standard Plate 734.10. Filter fabric used for constructing the sediment control at inlets with frames and grates will 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

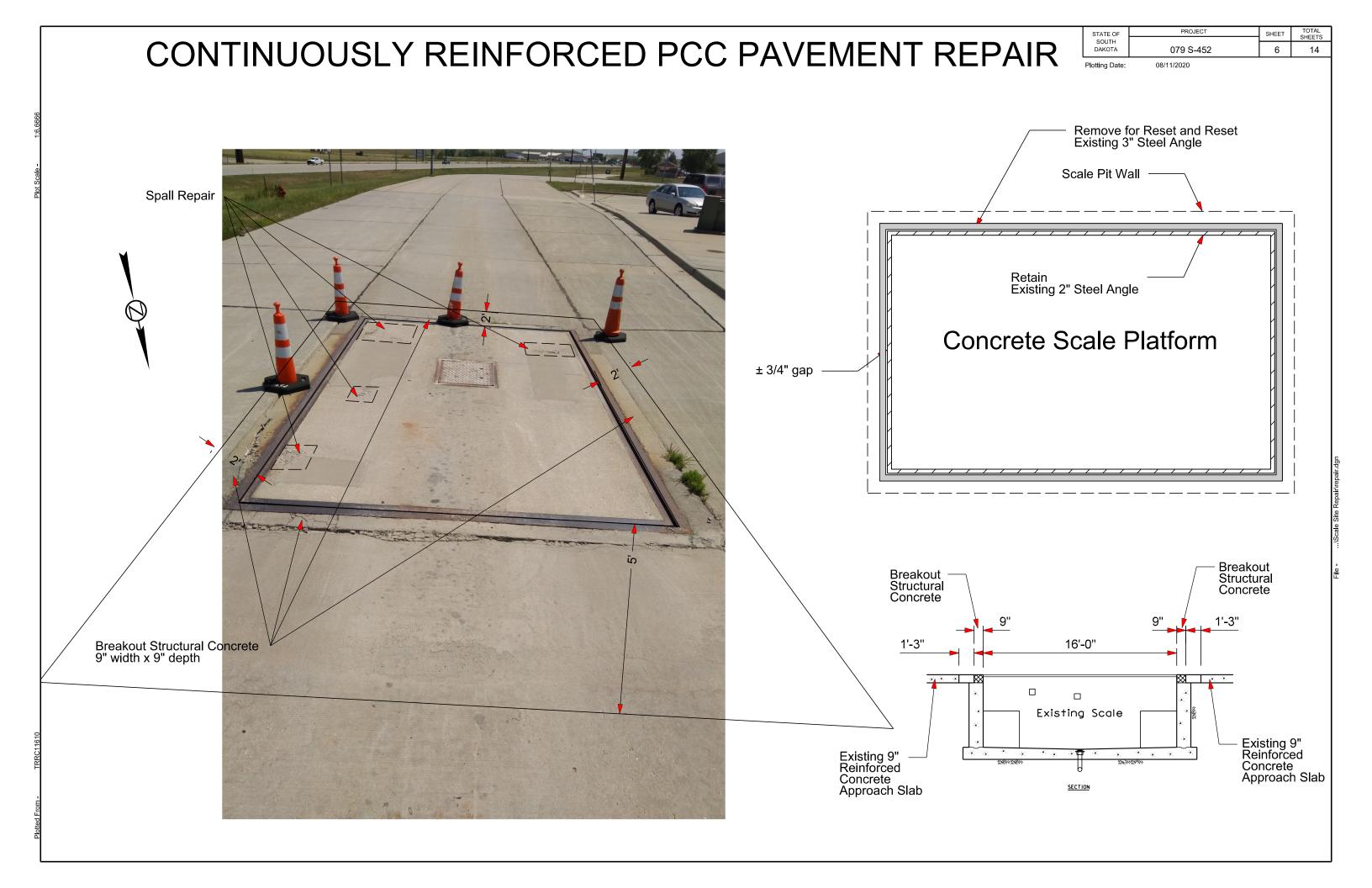
STATE OF	PROJECT	SHEET	TOTAL SHEETS
SOUTH			SHEETS
DAKOTA	079 S-452	5	14

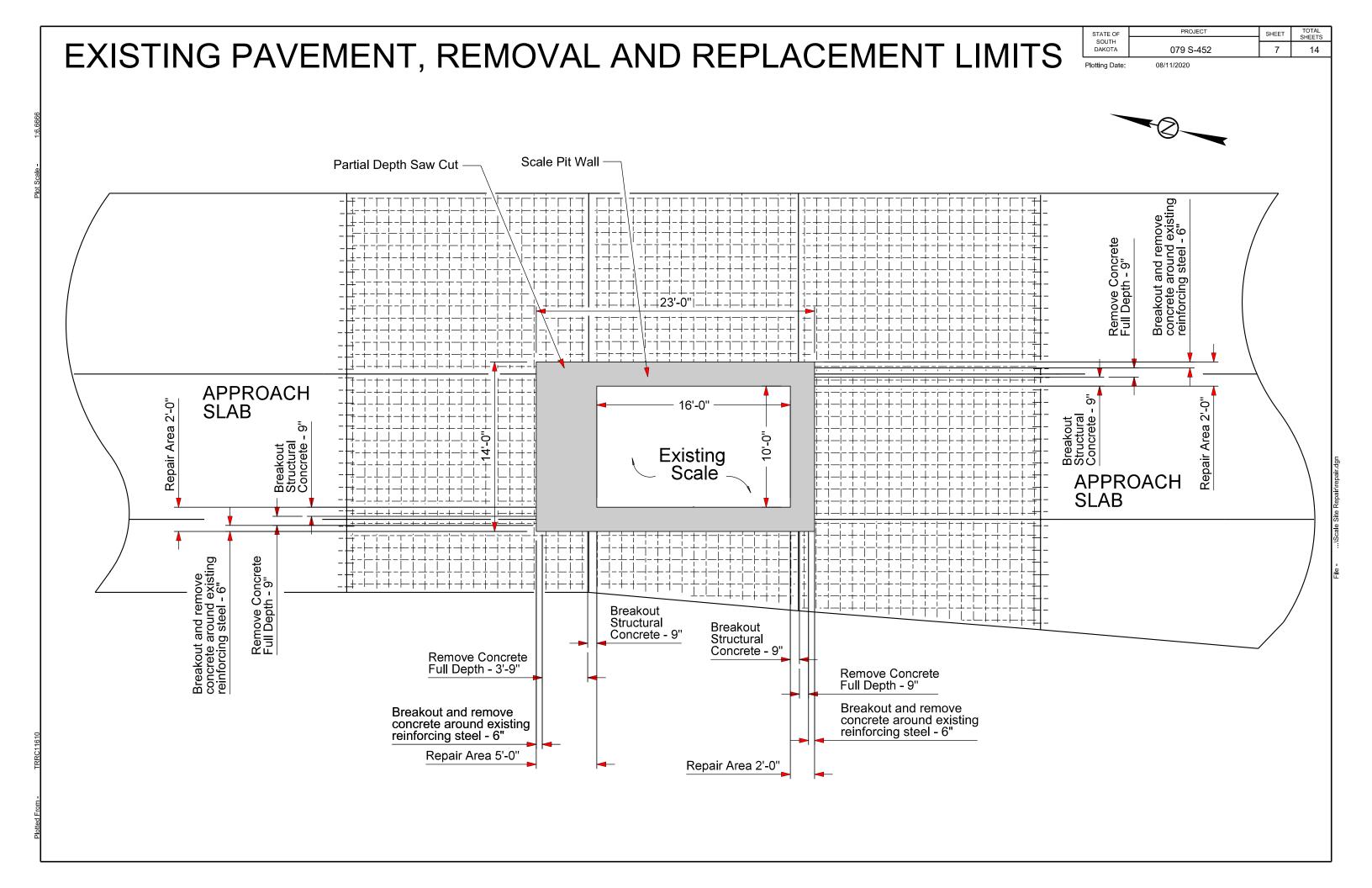
Sediment Control at Inlet with Frame and Grate Approved List:			
<u>Product</u>	<u>Manufacturer</u>		
InfraSafe Debris Collection Device with filter sock	Royal Environmental Systems, Inc. Stacy, MN Phone: 1-800-817-3240 www.royalenterprises.net		
Dandy Curb Sack and Dandy Curb Bag for curb inlets. Dandy Bag, Dandy Sack, and Dandy Pop for median drains.	Dandy Products Inc. 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 Summit, SD Phone: 1-605-520-0555		
FLEXSTORM Inlet Filters	Inlet and Pipe Protection, Inc. Naperville, IL Phone: 1-866-287-8655 www.inletfilters.com		
GR-8 Guard	ERTEC Environmental Systems		
or Combo Guard	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 VertiPro	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		
EZ-Flo and EZ-Catch	Flo-Water, LLC West Des Moines, IA Phone: 1-515-577-6763 www.flo-water.net		

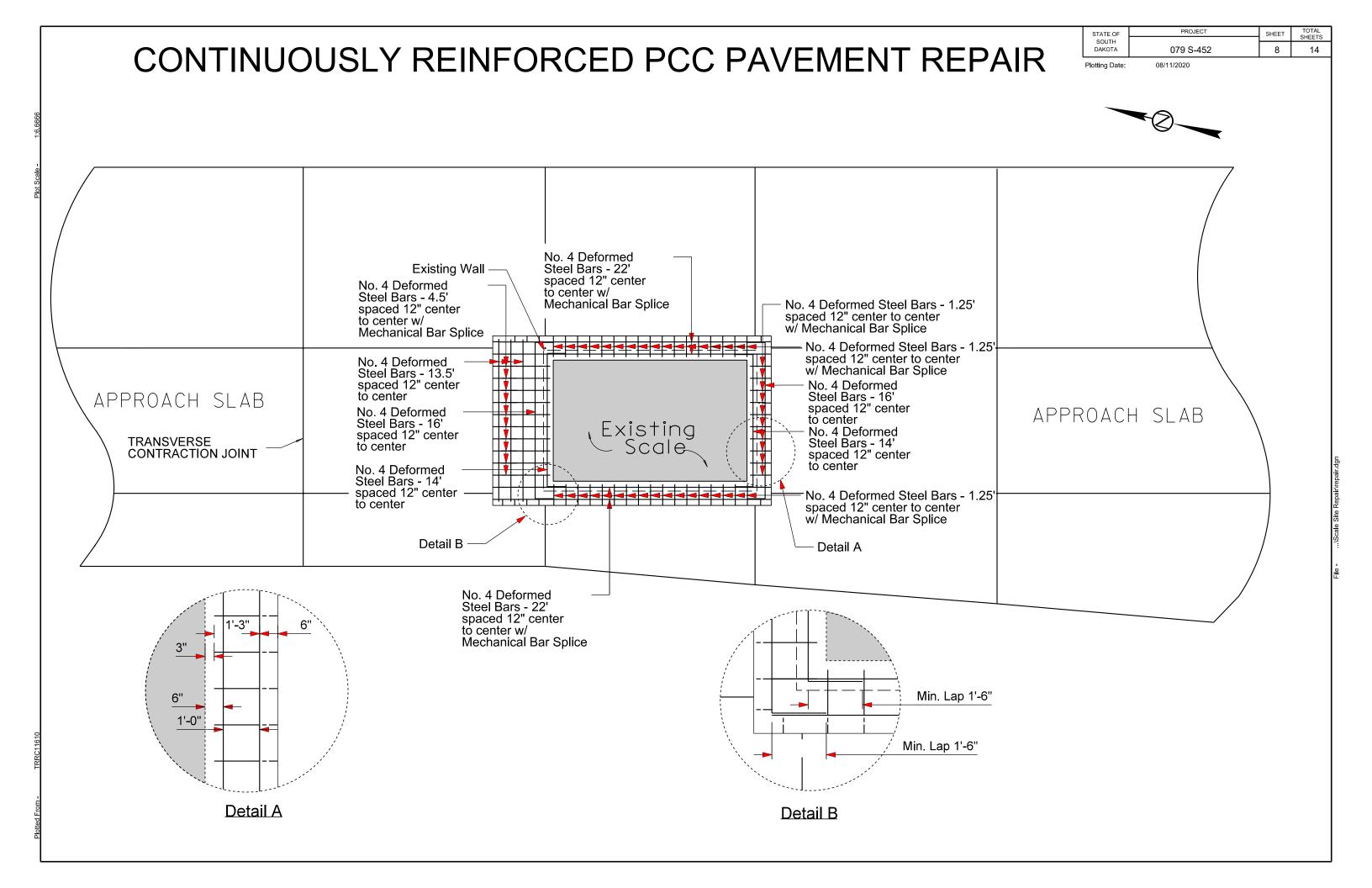
Basin Bag Pro Drain Systems, Inc.

Highland, MI

Phone: 1-248-329-7001 www.prodrainsystems.com



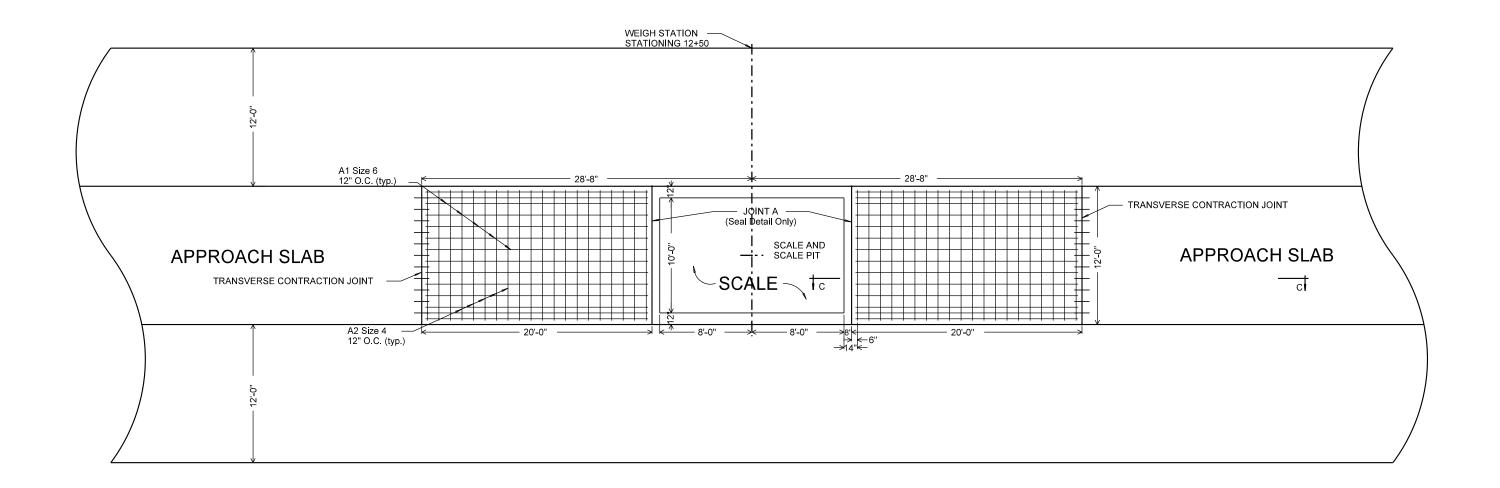


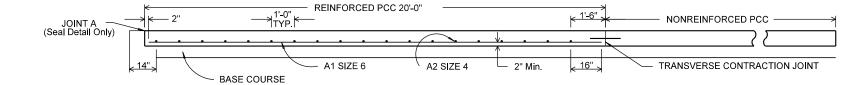


LAYOUT FOR SCALE PIT, AND APPROACH SLABS Original Construction Plan (1990) (FOR INFORMATION ONLY)

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08/11/2020





SECTION C-C

TYPICAL BOTH ENDS OF SCALE

STEEL FOR REINFORCED APPROACH SLABS IS TO BE ABSORBED IN THE BID ITEM, PCC PAVEMENT 9 INCH NONREINFORCED.



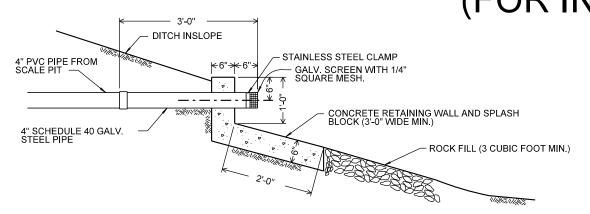
JOINT A

LAYOUT FOR SCALE PIT, AND APPROACH SLABS Original Construction Plan (1990) (FOR INFORMATION ONLY)

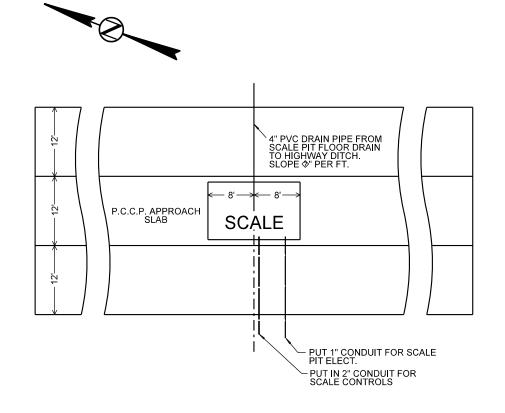
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PROJECT

Plotting Date: 08/11/2020



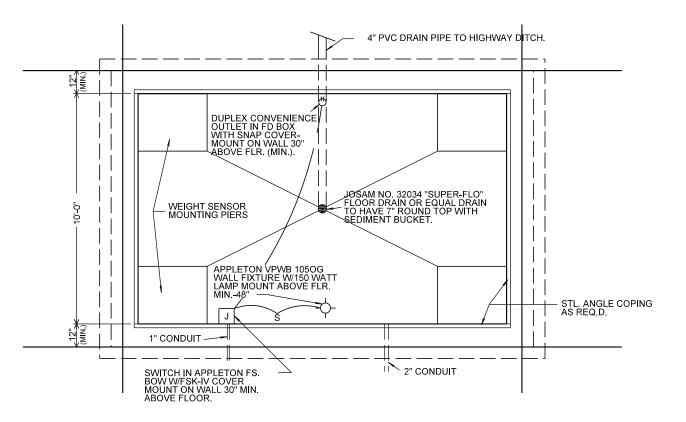
DRAIN PIPE OUTLET DETAIL



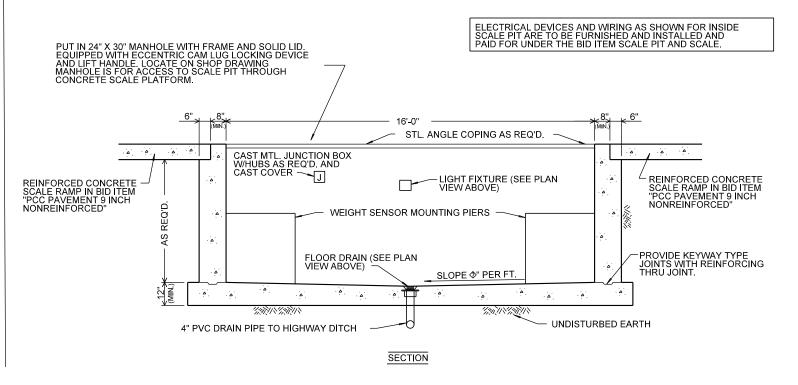
SCALE LOCATION PLAN

THE SCALE MANUFACTURER SHALL SUBMIT CERTIFIED SCALE PIT DRAWING SHOWING, IN DETAIL, ALL DIMENSIONS, LOCATIONS AND SIZE OF REINFORCING ANCHOR BOLT LOCATIONS AND ANY OTHER INFORMATION PERTINENT TO SCALE PIT CONSTRUCTION, THESE DRAWINGS, ONCE APPROVED, SHALL THEN BE USED FOR FIELD CONSTRUCTION.

ALL CONDUITS EXTENDED THRU SCALE PIT WALLS SHALL BE SEALED TO PROHIBIT MOISTURE FROM ENTERING PIT THRU WALL AT CONDUIT PENETRATIONS.



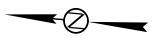
PLAN VIEW

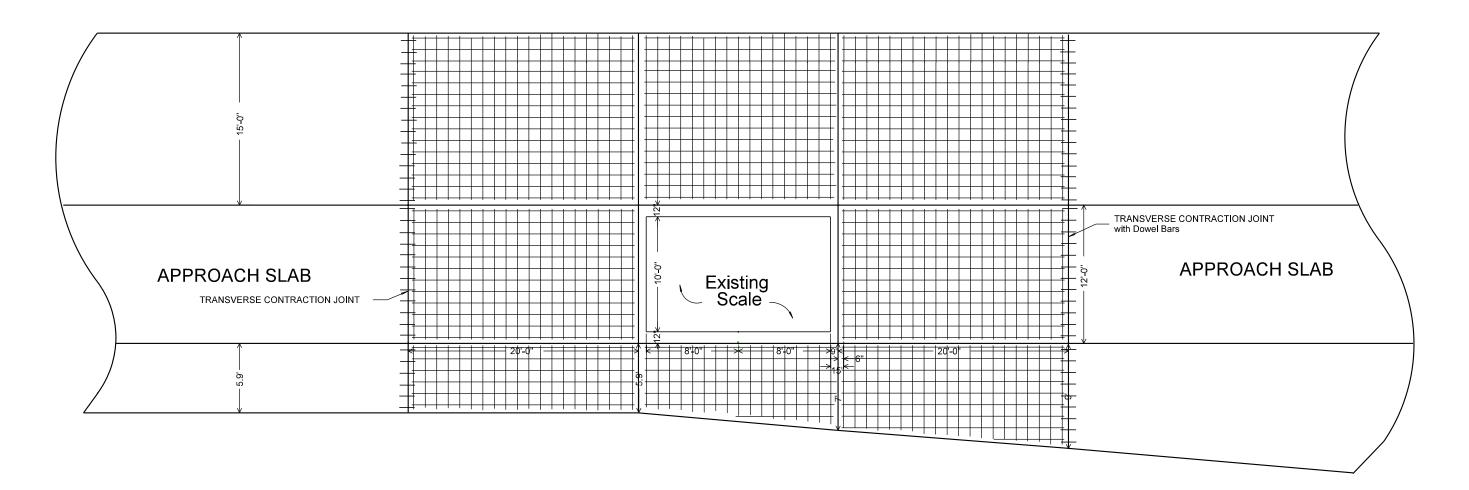


Scale Pit Details

Layout For Special Reinforced Approach Slabs
Replacement of Concrete Around Scale Pit Construction Plan (2002)

(FOR INFORMATION ONLY)



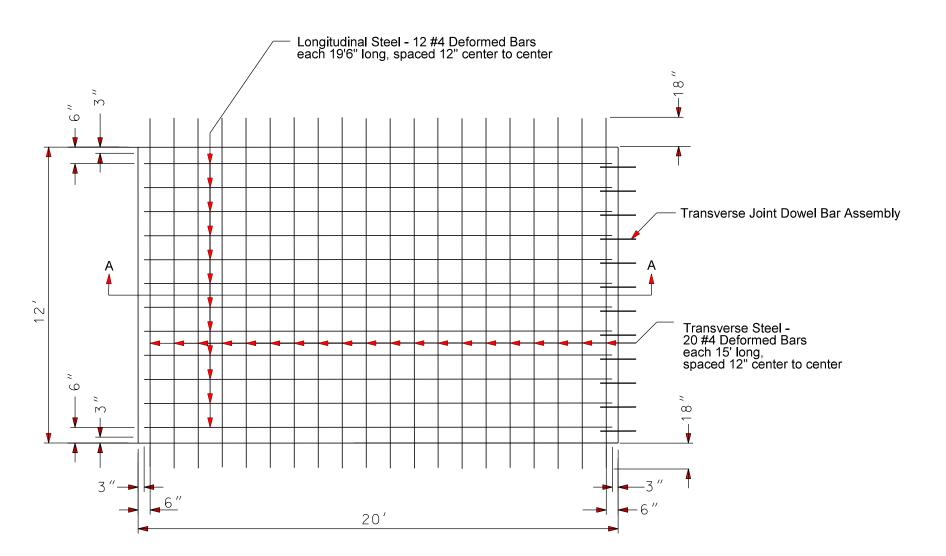


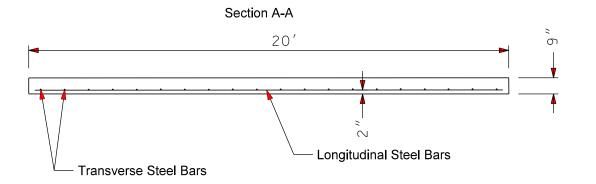
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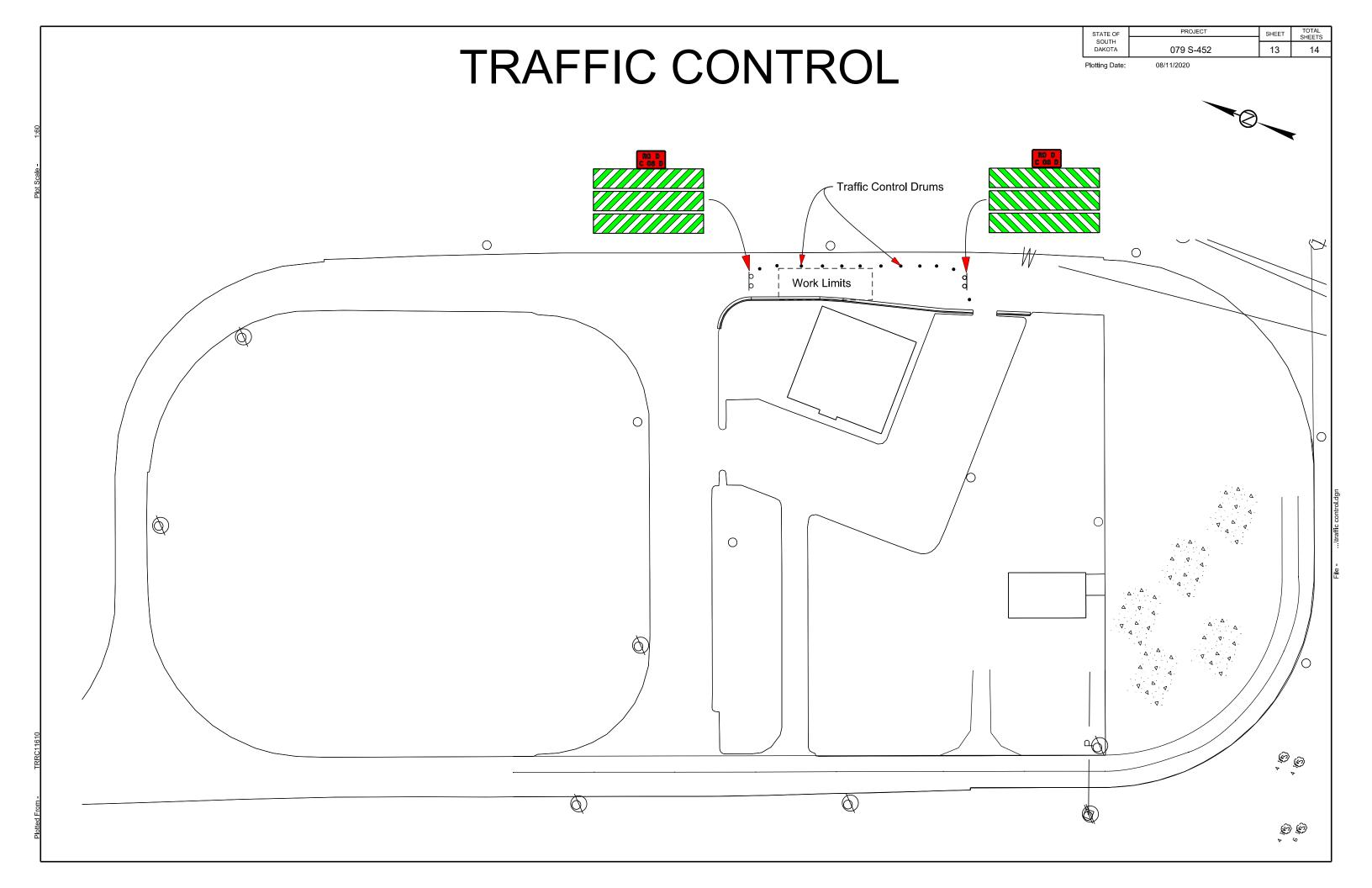
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Plotting Date: 08/11/2020

Scale 1 Inch = 4 Feet



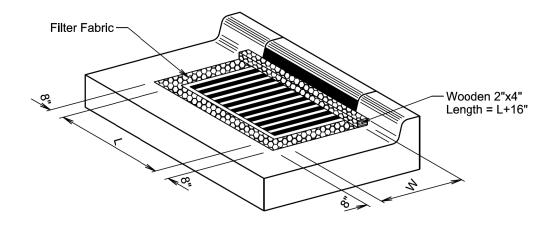




- TRRC11610

Published Date: 3rd Qtr. 2020

L = Length of Grate W = Width of Grate



GENERAL NOTES:

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

S D D O T

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

ISOMETRIC VIEW

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

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

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

The removed sediment will be placed at a location away from the drop inlet where the sediment will not be washed back into the drop inlet or other storm sewer system.

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

February 14, 2020

SEDIMENT CONTROL AT INLETS
WITH FRAMES AND GRATES

PLATE NUMBER 734.10

Sheet I of I

STATE OF	PROJECT	SHEET	TOTAL
SOUTH			SHEETS
DAKOTA	079 S-452	14	14

Plotting Date: 08/11/2020

stdPlates.dgn