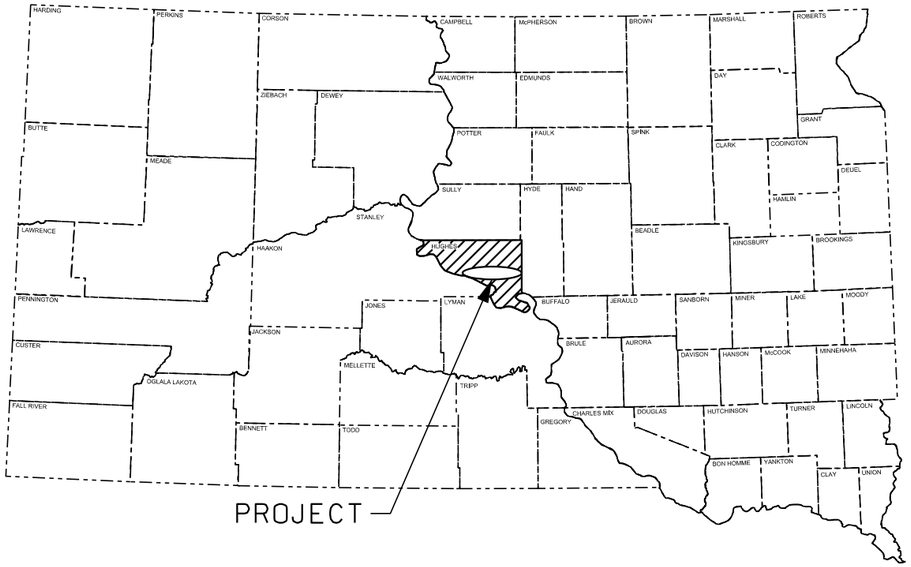
STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	034-351	1	15



STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

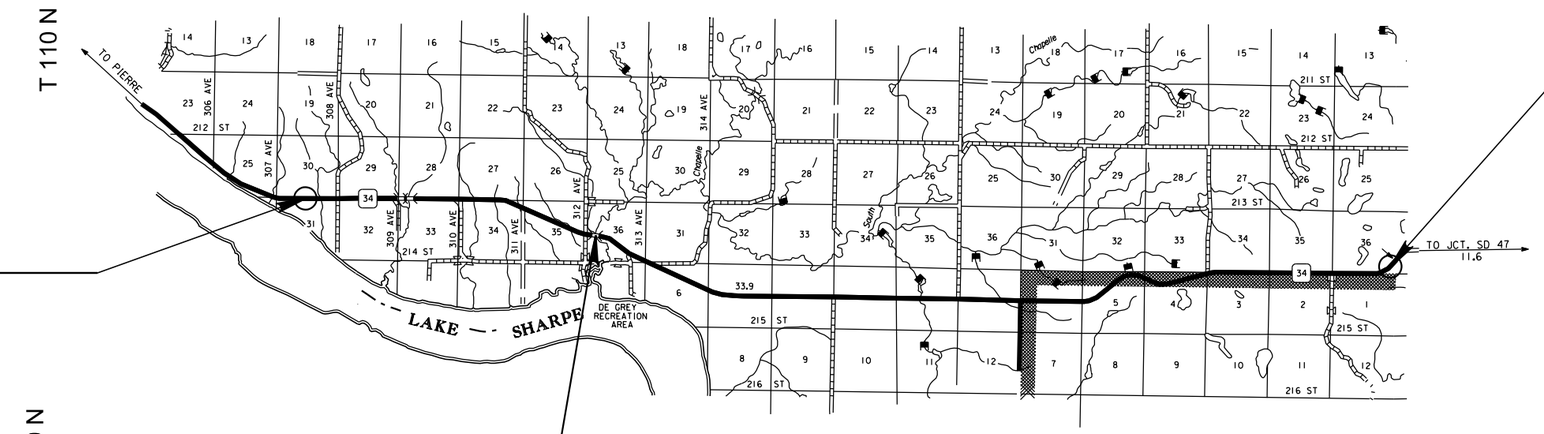
PLANS FOR PROPOSED

PROJECT 034-351
SD HIGHWAY 34
HUGHES COUNTY

INSLOPE DROP-OFF REPAIR

PCN I4XT

INDEX OF SHEETS



END 034-351
Station 960+37.92
MRM = 245.56+0.000

BEGIN 034-351
Station 0+00
MRM = 227.00+0.400

Str. No. 33-322-176
Sta. 255+22.38 to Sta. 257+18.88
196.5' Composite I-Beam Bridge
MRM 232.23

DESIGN DESIGNATION

ADT (2017)	615
ADT (2038)	814
DHV	103
D	50%
T DHV	5.5%
T ADT	12.1%
V	65 Mph

STORM WATER PERMIT

Major Receiving
Body of Water: Tributary to Missouri River
Area Disturbed: 25.9 Acres
Total Project Area: 330.7 Acres
Approx. Begin Lat/Long 44.309/-100.059

GROSS LENGTH	96,037.92 FEET	18.189 MILES
LENGTH OF EXCEPTIONS	196.50 FEET	0.037 MILES
NET LENGTH	95,841.42 FEET	18.152 MILES

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	034-351	2	15

Revised 7-26-18 SML

ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
120E6200	Water for Granular Material	73.0	MGal
120E6300	Water for Vegetation	717.0	MGal
230E0100	Remove and Replace Topsoil	Lump Sum	LS
260E1030	Base Course, Salvaged	12,158.2	Ton
260E6000	Granular Material, Furnish	6,079.1	Ton
270E0220	Blend and Stockpile Granular Material	12,158.2	Ton
634E0010	Flagging	360.0	Hour
634E0020	Pilot Car	180.0	Hour
634E0110	Traffic Control Signs	402.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
730E0212	Type G Permanent Seed Mixture	673	Lb
731E0200	Fertilizing	19.40	Ton
732E0100	Mulching	51.7	Ton
734E0154	12" Diameter Erosion Control Wattle	200	Ft

SPECIFICATIONS

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

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: http://www.sddot.com/resources/Manuals/EnvironProcManual.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 B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES

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 pit, or staging site associated with the project, cease construction activities in the affected area until the Whooping Crane departs and contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

COMMITMENT B4: BALD EAGLE

Bald eagles are known to occur in this area.

Action Taken/Required:

If a nest is observed within one mile of the project site, notify the Project Engineer immediately so that he/she can consult with the Environmental Office for an appropriate course of action.

COMMITMENT C: WATER SOURCE

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

Action Taken/Required:

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

COMMITMENT E: STORM WATER

Construction activities constitute 1 acre or more of earth disturbance.

Action Taken/Required:

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

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

The Contractor shall adhere to the "Special Provision Regarding Storm Water Discharge to Waters of the United States within Indian Reservations".

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

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

SDDOT:

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

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

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

Contractor Certification Form:

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

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

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

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	034-351	3	15

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”.

COMMITMENT H: WASTE DISPOSAL SITE

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

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

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.

PLAN NOTES & SIGN TABULATION

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	034-351	4	15

REPAIR SHOULDER DROP OFF

Included in the Estimate of Quantities are 2.0 MGAL of Water for Granular Material per shoulder per mile for compaction.

Shoulder drop-offs will not be allowed to remain overnight. Any shoulder drop-off present during daylight hours must be contained within the active work zone(s).

The exceptions to this work are intersecting roads, mailbox turnouts, guardrail for structure #33-322-176 and any other areas as determined by the Engineer.

The Contractor shall not damage any existing asphalt pavement. Any damage to the existing asphalt concrete mentioned above, or to any pavement markings, shall be repaired at no cost to the State.

The Contractor shall use a broom to clean the roadway of any loose material. All costs for “Brooming” shall be incidental to the various contract items.

SHOULDER PREPARATION

The Contractor shall notify the Pierre Area (605) 773-5294 at least two weeks prior to beginning work on this project so SDDOT personnel can mow or spray along the shoulder inslopes. The Department will not be responsible for the effectiveness of the mowing or spraying.

MAINTENANCE OF TRAFFIC

Removing, relocating, covering, salvaging and resetting of existing traffic control devices, including delineation, shall be the responsibility of the Contractor. Cost for this work shall be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the State.

TRAFFIC CONTROL

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

Fixed location signing placed more than four calendar days prior to the start of construction shall be covered until the time of construction. The cost of materials, labor and equipment necessary to complete this work shall be incidental to the other contract items. No separate payment will be made.

The Contractor shall install Road Work Ahead signs at all intersecting roads within the work zone. These can be on temporary sign supports as long as they are not up in one location for more than 72 hours.

SIGN TABULATION

		CONVENTIONAL ROAD			
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W8-6	TRUCK CROSSING	2	48" x 48"	16.0	32.0
W8-17	SHOULDER DROP-OFF (symbol)	4	48" x 48"	16.0	64.0
W20-1	ROAD WORK AHEAD	6	48" x 48"	16.0	96.0
W20-4	ONE LANE ROAD AHEAD	4	48" x 48"	16.0	64.0
W20-7	FLAGGER (symbol)	4	48" x 48"	16.0	64.0
W21-5	SHOULDER WORK	4	48" x 48"	16.0	64.0
G20-1	ROAD WORK NEXT _19_ MILES	2	36" x 18"	4.5	9.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			402.0

GRANULAR MATERIAL, FURNISH

Granular Material shall be furnished by the Contractor for use in blending with the reclaimed asphalt pavement (RAP) material from the Salvaged Asphalt Mix Material, State Furnished stockpile.

The Granular Material shall be Gravel Surfacing meeting the requirements of Section 882.

All other costs for stockpiling and blending asphalt mix material and Granular Material, Furnish shall be incidental to the contract unit price per ton for “Blend and Stockpile Granular Material”.

SALVAGED ASPHALT MIX MATERIAL, STATE FURNISHED

The Salvaged Asphalt Mix Material, State Furnished shall be obtained from the Stockpile 3542Z. The State Stockpile Site is located in the SE1/4 Section 11 – T109N – R72W adjacent to US Highway 47 in Hyde County. The approximate haul from the end of the project to the stockpile site is 11.6 miles on SD Highway 34.

The Contractor will be allowed to utilize the State Stockpile Site to setup equipment to size and blend Salvaged Asphalt Mix Material, State Furnished and Granular Material, Furnish.

The Salvaged Asphalt Mix Material, State Furnished is royalty free to the Contractor.

There is approximately 11,657 Tons of Salvaged Asphalt Mix Material in stockpile 3542Z.

For Information only, the Salvaged Asphalt Mix Material are 100% Asphalt Millings that were stockpiled in 2015 with project P 0034(154)225. The material was crushed and sized before being placed in the stockpile. The Salvaged Asphalt Material stockpile may have hardened up and may require heavy equipment to break up the stockpile. This material shall be processed to meet section 884.2.D.2 of the SDDOT Specifications book prior to blending with Granular Material, Furnish.

This blended material shall be processed by the Central Plant Mix Method as set forth in section 260.3.A of the specification book to ensure proper blending of material including water to obtain approximately 5% moisture content prior to being hauled and placed on the project.

Revised 5/17/18 SML

BLEND & STOCKPILE GRANULAR MATERIAL

Salvaged asphalt mix material estimated at 6,079.1 tons shall be blended with 6,079.1 tons of Granular Material, Furnish and shall be blended and stockpiled at the stockpile site located in the SE1/4 Section 11 – T109N – R72E adjacent to US Highway 47 in Hyde County.

The Contractor shall use a portable platform scale, stationary commercial scale, stationary commercial plant, portable plant scale, or a belt scale to control the blending and weighing of the salvaged asphalt mix material with Contractor furnished granular material.

Salvaged asphalt concrete material shall be blended with Granular Material, Furnish at a rate of 50% asphalt mix material and 50% Granular Material, Furnish to obtain Base Course, Salvaged.

The use of a pugmill to blend the materials will be accepted.

All costs for crushing the salvaged asphalt mix material, State Furnished, stockpiling, and blending asphalt mix material, State Furnished, and Granular Material, Furnish shall be incidental to the contract unit price per ton for “Blend & Stockpile Granular Material”.

BASE COURSE, SALVAGED

Base Course, Salvaged shall be obtained from the material blended and stockpiled with this project at the state stockpile site. This stockpile site is located approximately 11.6 miles from the east end of the project. This material shall be hauled and placed by the Contractor to obtain the typical section as set forth in the plans for this project.

The Base Course, Salvaged may be used without further testing. All costs associated with the haul and placement of the blended material shall be incidental to the contract unit price per ton for Base Course, Salvaged.

This material shall be placed in accordance with section 260.3.A.2.b.1 and compacted in accordance with section 260.3.E.

The Rates of Materials for the Base Course, Salvaged vary throughout the project. It is estimated that the westbound shoulder will average approximately 318 ton/mile and the eastbound shoulder will average approximately 344 ton/mile. These rates are for information only and will vary throughout the project. See Tables for more information.

PLAN NOTES & SIGN TABULATION

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	034-351	5	15

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REMOVE AND REPLACE TOPSOIL

Prior to beginning in-slope drop off repair, topsoil shall be bladed down the respective inslope and left in a windrow as indicated on the typical section. Following completion of in-slope drop off repair, topsoil shall be bladed back up the inslope to the point indicated on the typical section.

The estimated amount of topsoil to be removed and replaced is 4743 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

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

Seasonal Limitations for Permanent Seeding shall be waived for this project.

Type G Permanent Seed Mixture shall consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Arriba, Flintlock, Rodan, Rosana, Walsh	7
Switchgrass	Dacotah, Forestburg, Nebraska 28, Pathfinder, Summer, Sunburst, Trailblazer	3
Indiangrass	Holt, Tomahawk, Chief, Nebraska 54	3
Big Bluestem	Bison, Bonilla, Champ, Sunnyview, Rountree, Bonanza	3
Oats or Spring Wheat: April through May; Winter Wheat: August through November		10
	Total:	26

MYCORRHIZAL INOCULUM

Mycorrhizal inoculum shall consist of mycorrhizal fungi spores and mycorrhizal fungi-infected root fragments in a solid carrier. The carrier may include organic materials, calcinated clay, or other materials consistent with application and good plant growth. The supplier shall provide certification of the fungal species claimed and the live propagule count. The inoculum shall include the following fungal species:

25% *Glomus intraradices*
25% *Glomus aggregatum or deserticola*
25% *Glomus mosseae*
25% *Glomus etunicatum*

All seed shall be inoculated by the seed supplier with a minimum of 100,000 live propagules of mycorrhizal fungi per acre. All costs of inoculating the seed shall be incidental to the contract unit price per pound for the corresponding permanent seed mixture.

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

Product	Manufacturer
MycoApply	Mycorrhizal Applications, Inc. Grants Pass, OR Phone: 1-866-476-7800 www.mycorrhizae.com

FERTILIZING

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

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

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

Product	Manufacturer
Sustane	Sustane Corporate Headquarters Cannon Falls, Minnesota Phone: 1-800-352-9245 www.sustane.com
Perfect Blend	Perfect Blend, LLC Bellevue, WA Phone: 1-866-456-8890 www.perfect-blend.com

WATER FOR VEGETATION

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

Immediately after seeding:

- Keep the topsoil moist but not excessively wet until the seed has germinated.
- Water a minimum of 3 days a week for 2 weeks, or as directed by the Engineer. Use fine spray and low pressure to avoid topsoil wash and to prevent uncovering buried seeds.

After emergence:

- Never apply water at a rate faster than the topsoil can absorb.
- Water during early morning hours or early evening hours.
- Do not water when rain is forecasted for the area.
- If rainfall occurs, suspend watering according to rainfall amount.

An estimated 5.6 Gallons of water per square yard of seeding area was used to compute the quantity for the bid item “Water for Vegetation”.

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

MULCHING (GRASS HAY OR STRAW)

Grass Hay or Straw Mulch shall be applied to the disturbed area at a rate of 2 tons/acre following the completion of the permanent seeding.

EROSION CONTROL WATTLE

Erosion control wattles for restraining the flow of runoff and sediment shall be installed 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 to decompose.

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:

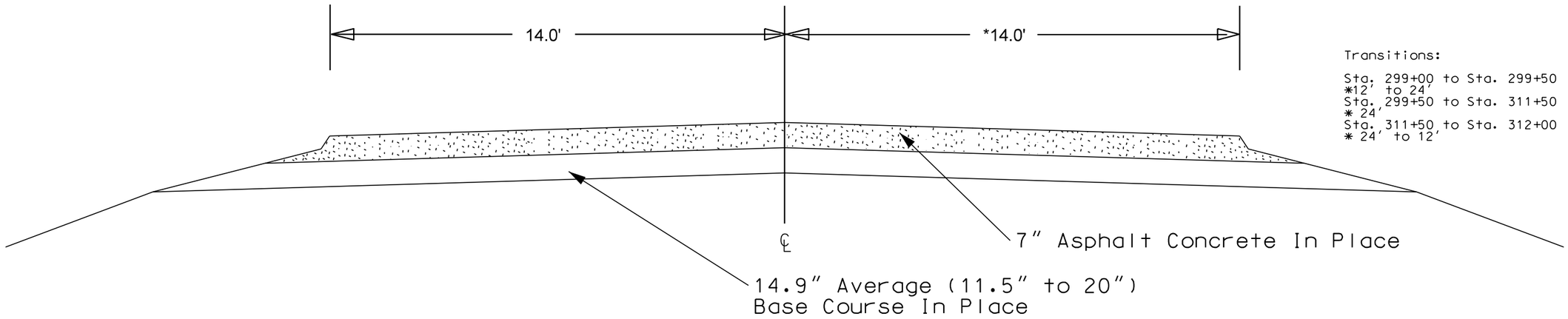
http://sddot.com/business/certification/products/Default.aspx

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	034-351	6	15

TYPICAL SECTION

SD 34
Station 0+00 to 960+37.92

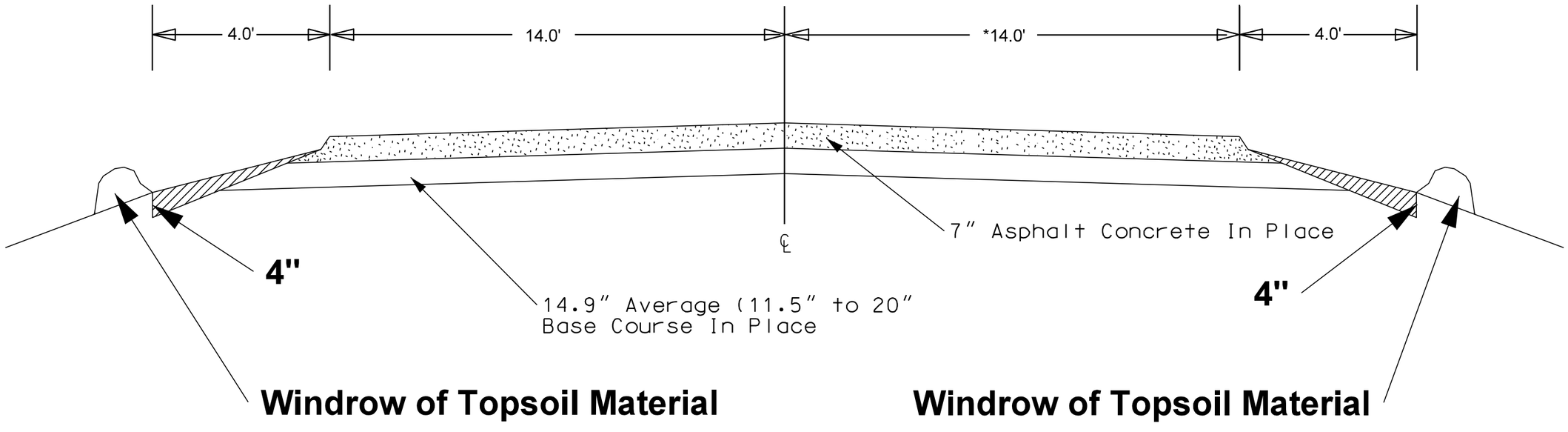
EXISTING



Transitions:

Sta. 299+00 to Sta. 299+50
*12' to 24'
Sta. 299+50 to Sta. 311+50
* 24'
Sta. 311+50 to Sta. 312+00
* 24' to 12'

TOPSOIL PULLDOWN



Pull-down Topsoil Material (For Information Only~Assume 0"(top) to 4" (toe) Removal)

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	034-351	7	15

TYPICAL SECTION

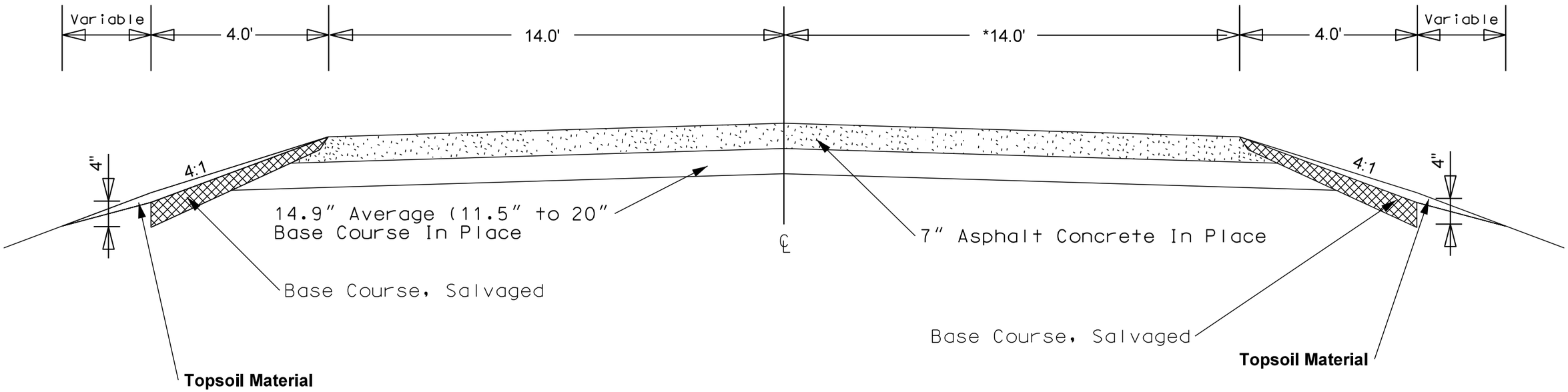
SHOULDER DROP-OFF REPAIR

SD 34

Station 0+00 to 960+37.92

Transitions:

Sta. 299+00 to Sta. 299+50
*12' to 24'
Sta. 299+50 to Sta. 311+50
* 24'
Sta. 311+50 to Sta. 312+00
* 24' to 12'



- Base Course, Salvaged

TABLES

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	034-351	8	15

TABLES OF BASE COURSE SALVAGED (For Information Only)

Hwy 34 WB Shoulder			
MRM	to	MRM	Quantity (Tons)
227.00 + 0.400	to	227.00 + 0.747	128.9
227.00 + 0.747	to	227.00 + 0.997	93.8
227.00 + 0.997	to	228.00 + 0.247	90.0
228.00 + 0.247	to	228.00 + 0.497	103.0
228.00 + 0.497	to	228.00 + 0.747	100.6
228.00 + 0.747	to	228.00 + 0.997	73.2
228.00 + 0.997	to	229.00 + 0.247	67.4
229.00 + 0.247	to	229.00 + 0.497	78.0
229.00 + 0.497	to	229.00 + 0.747	88.1
229.00 + 0.747	to	229.00 + 0.997	77.5
229.00 + 0.997	to	230.00 + 0.249	58.2
230.00 + 0.249	to	230.00 + 0.497	56.8
230.00 + 0.497	to	230.00 + 0.747	63.5
230.00 + 0.747	to	230.00 + 0.997	78.4
230.00 + 0.997	to	231.00+0.247	74.6
231.00+0.247	to	231.00 + 0.497	63.0
231.00 + 0.497	to	231.00 + 0.747	71.2
231.00 + 0.747	to	231.00 + 0.997	78.4
231.00 + 0.997	to	232.00 + 0.247	39.9
232.00 + 0.247	to	232.00 + 0.497	24.1
232.00 + 0.497	to	232.00 + 0.747	59.2
232.00 + 0.747	to	232.00 + 0.997	62.1
232.00 + 0.997	to	233.00 + 0.247	62.6
233.00 + 0.247	to	233.00 + 0.497	67.9
233.00 + 0.497	to	233.00 + 0.747	67.4
233.00 + 0.747	to	233.00 + 0.997	85.2
233.00 + 0.997	to	234.00 + 0.247	80.9
234.00 + 0.247	to	234.00 + 0.497	60.6
234.00 + 0.497	to	234.00 + 0.747	66.4
234.00 + 0.747	to	234.00 + 0.997	84.2
234.00 + 0.997	to	235.00 + 0.247	94.8
235.00 + 0.247	to	235.00 + 0.497	95.3
235.00 + 0.497	to	235.00 + 0.747	98.2
235.00 + 0.747	to	235.00 + 0.997	93.8
235.00 + 0.997	to	236.00 + 0.247	84.2
236.00 + 0.247	to	236.00 + 0.497	75.1
236.00 + 0.497	to	236.00 + 0.747	82.3
236.00 + 0.747	to	236.00 + 0.997	88.6
236.00 + 0.997	to	237.00 + 0.247	84.7

Hwy 34 EB Shoulder			
MRM	to	MRM	Quantity (Tons)
227.00 + 0.400	to	227.00 + 0.690	104.4
227.00 + 0.690	to	227.00 + 0.940	104.0
227.00 + 0.940	to	228.00 + 0.00	23.8
228.00 + 0.00	to	228.00 + 0.250	92.4
228.00 + 0.250	to	228.00 + 0.500	90.0
228.00 + 0.500	to	228.00 + 0.750	92.9
228.00 + 0.750	to	229.00 + 0.287	217.1
229.00 + 0.287	to	229.00 + 0.500	91.0
229.00 + 0.500	to	229.00 + 0.750	100.1
229.00 + 0.750	to	230.00 + 0.00	101.1
230.00 + 0.00	to	230.00 + 0.250	96.3
230.00 + 0.250	to	230.00 + 0.500	85.7
230.00 + 0.500	to	230.00 + 0.750	83.7
230.00 + 0.750	to	231.00 + 0.000	82.8
231.00 + 0.000	to	231.00 + 0.250	76.0
231.00 + 0.250	to	231.00 + 0.500	77.0
231.00 + 0.500	to	231.00 + 0.750	86.6
231.00 + 0.750	to	232.00 + 0.00	75.1
232.00 + 0.00	to	232.00 + 0.360	109.5
232.00 + 0.360	to	232.00 + 0.500	49.0
232.00 + 0.500	to	232.00 + 0.750	99.1
232.00 + 0.750	to	233.00 + 0.000	97.2
233.00 + 0.000	to	233.00 + 0.250	93.4
233.00 + 0.250	to	233.00 + 0.500	87.6
233.00 + 0.500	to	233.00 + 0.750	75.1
233.00 + 0.750	to	234.00 + 0.000	81.8
234.00 + 0.000	to	234.00 + 0.250	78.9
234.00 + 0.250	to	234.00 + 0.500	73.2
234.00 + 0.500	to	234.00 + 0.750	83.7
234.00 + 0.750	to	235.00 + 0.00	93.4
235.00 + 0.00	to	235.00 + 0.250	98.2
235.00 + 0.250	to	235.00 + 0.500	95.3
235.00 + 0.500	to	235.00 + 0.750	101.1
235.00 + 0.750	to	236.00 + 0.00	107.8
236.00 + 0.00	to	236.00 + 0.250	99.1
236.00 + 0.250	to	236.00 + 0.500	95.3
236.00 + 0.500	to	236.00 + 0.750	90.5
236.00 + 0.750	to	237.00 + 0.000	82.8
237.00 + 0.000	to	237.00 + 0.250	74.1

TABLES OF BASE COURSE SALVAGED (For Information Only)

Hwy 34 WB Shoulder			
237.00 + 0.247	to	237.00 + 0.497	80.4
237.00 + 0.497	to	237.00 + 0.747	86.6
237.00 + 0.747	to	237.00 + 0.997	94.8
237.00 + 0.997	to	238.00 + 0.247	89.0
238.00 + 0.247	to	238.00 + 0.497	80.4
238.00 + 0.497	to	238.00 + 0.747	87.1
238.00 + 0.747	to	238.00 + 0.997	102.0
238.00 + 0.997	to	239.00 + 0.247	89.0
239.00 + 0.247	to	239.00 + 0.497	74.6
239.00 + 0.497	to	239.00 + 0.747	75.1
239.00 + 0.747	to	239.00 + 0.997	74.1
239.00 + 0.997	to	240.00 + 0.247	69.3
240.00 + 0.247	to	240.00 + 0.497	74.1
240.00 + 0.497	to	240.00 + 0.747	84.2
240.00 + 0.747	to	240.00 + 0.997	74.6
240.00 + 0.997	to	241.00 + 0.247	73.2
241.00 + 0.247	to	241.00 + 0.497	73.2
241.00 + 0.497	to	241.00 + 0.747	93.4
241.00 + 0.747	to	241.00 + 0.997	106.4
241.00 + 0.997	to	242.00 + 0.247	98.7
242.00 + 0.247	to	242.00 + 0.497	95.3
242.00 + 0.497	to	242.00 + 0.747	68.8
242.00 + 0.747	to	242.00 + 0.997	74.1
242.00 + 0.997	to	243.00 + 0.247	86.1
243.00 + 0.247	to	243.00 + 0.497	14.5
243.00 + 0.497	to	243.00 + 0.747	150.7
243.00 + 0.747	to	243.00 + 0.997	103.0
243.00 + 0.997	to	244.00 + 0.247	93.4
244.00 + 0.247	to	244.00 + 0.497	83.3
244.00 + 0.497	to	244.00 + 0.747	77.0
244.00 + 0.747	to	244.00 + 0.997	77.5
244.00 + 0.997	to	245.00 + 0.247	85.2
245.00 + 0.247	to	245.00 + 0.560	89.2

Hwy 34 EB Shoulder			
237.00 + 0.250	to	237.00 + 0.500	88.6
237.00 + 0.500	to	237.00 + 0.750	110.7
237.00 + 0.750	to	238.00 + 0.000	98.2
238.00 + 0.000	to	238.00 + 0.250	81.8
238.00 + 0.250	to	238.00 + 0.500	97.2
238.00 + 0.500	to	238.00 + 0.750	113.6
238.00 + 0.750	to	239.00 + 0.000	105.9
239.00 + 0.000	to	239.00 + 0.250	103.0
239.00 + 0.250	to	239.00 + 0.500	92.4
239.00 + 0.500	to	239.00 + 0.750	69.3
239.00 + 0.750	to	240.00 + 0.000	76.0
240.00 + 0.000	to	240.00 + 0.250	80.9
240.00 + 0.250	to	240.00 + 0.500	70.3
240.00 + 0.500	to	240.00 + 0.750	78.0
240.00 + 0.750	to	241.00 + 0.000	84.7
241.00 + 0.000	to	241.00 + 0.250	92.4
241.00 + 0.250	to	241.00 + 0.500	91.4
241.00 + 0.500	to	241.00 + 0.750	74.1
241.00 + 0.750	to	242.00 + 0.000	65.5
242.00 + 0.000	to	242.00 + 0.250	76.0
242.00 + 0.250	to	242.00 + 0.520	100.8
242.00 + 0.520	to	242.00 + 0.750	88.5
242.00 + 0.750	to	243.00 + 0.000	95.3
243.00 + 0.000	to	243.00 + 0.250	88.6
243.00 + 0.250	to	243.00 + 0.500	84.7
243.00 + 0.500	to	243.00 + 0.750	78.0
243.00 + 0.750	to	244.00 + 0.000	69.3
244.00 + 0.000	to	244.00 + 0.250	74.1
244.00 + 0.250	to	244.00 + 0.500	77.0
244.00 + 0.500	to	244.00 + 0.750	79.9
244.00 + 0.750	to	245.00 + 0.000	78.0
245.00 + 0.000	to	245.00 + 0.560	168.2

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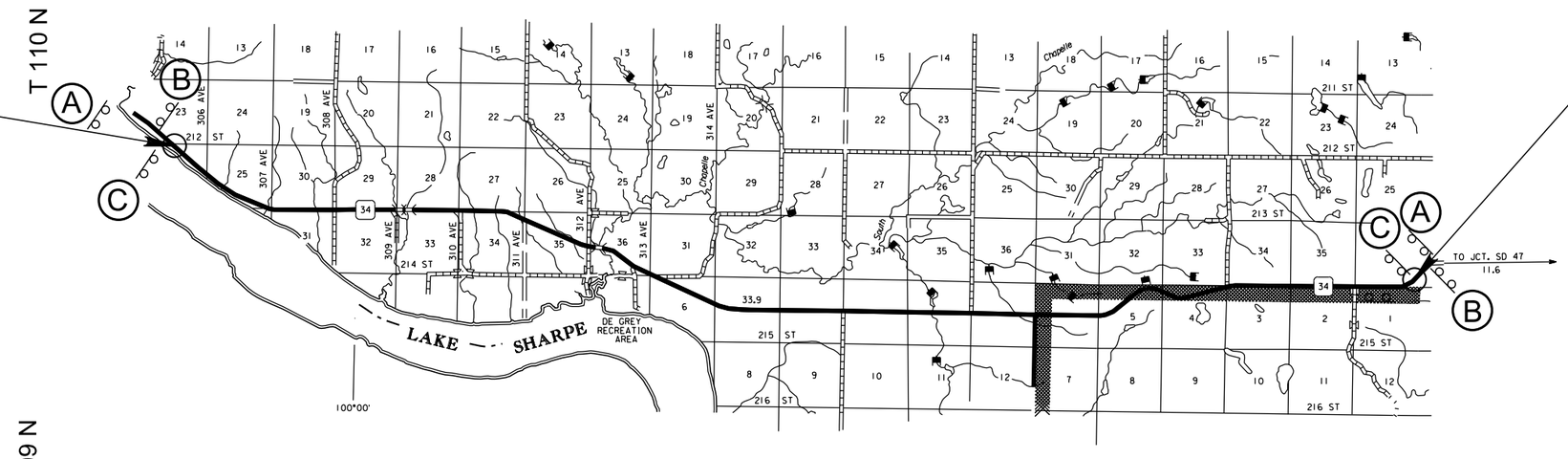
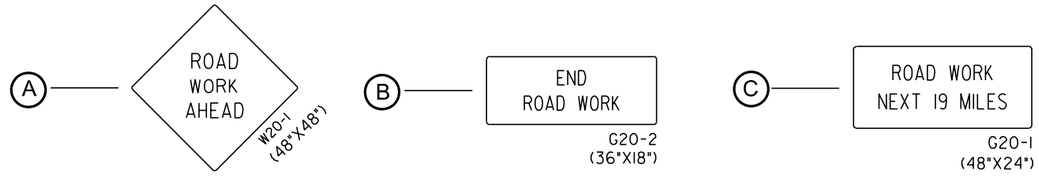
FIXED LOCATION SIGN LAYOUT
BREAKAWAY SUPPORT SIGNS





NOTE: Sign locations willbe verified in the field by the Engineer prior to installation.

Stormwater Pollution Prevention Plan Checklist

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Revised 5/17/18 SML

STORM WATER POLLUTION PREVENTION PLAN CHECKLIST
*(The numbers right of the title headings are **reference numbers** to the GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES*

SITE DESCRIPTION (4.2 1)

- **Project Limits: See Title Sheet (4.2 1.b)**
- **Project Description: See Title Sheet (4.2 1.a.)**
- **Site Map(s): See Title Sheet and Plans (4.2 1.f. (1)-(6))**
- **Major Soil Disturbing Activities** (check all that apply)
  - ☐ Clearing and grubbing
  - ☐ Excavation/borrow
  - ☒ Grading and shaping
  - ☐ Filling
  - ☐ Cutting and filling
  - ☐ Other (describe):
- **Total Project Area** 330.7 acres **(4.2 1.b.)**
- **Total Area To Be Disturbed** 25.9 acres **(4.2 1.b.)**
- **Existing Vegetative Cover (%)** 60%
- **Soil Properties:** AASHTO Soil Classification: A-1, A-2, A-7
  USDA-NRCS Soil Series Classification: Gravelly Loam, Clay **(4.2 1. d.)**
- **Name of Receiving Water Body/Bodies** Chapelle Creek **(4.2 1.e.)**

ORDER OF CONSTRUCTION ACTIVITIES (4.2 1.c.)

(Stabilization measures shall be initiated as soon as possible, but in no case later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Initiation of final or temporary stabilization may exceed the 14-day limit if earth disturbing activities will be resumed within 21 days.)

- **Pulldown topsoil.**
- **Place base course, salvaged.**
- **Replace topsoil**
- **Reseed areas disturbed**.

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)
  - ☐ Fiber Mulching (Wood Fiber Mulch)
  - ☐ Soil Stabilizer
  - ☐ Bonded Fiber Matrix
  - ☐ Fiber Reinforced Matrix
  - ☐ Erosion Control Blankets
  - ☐ Vegetation Buffer Strips
  - ☐ Surface Roughening (e.g. tracking)
  - ☐ Dust Control
  - ☐ Other:
- **Structural Temporary Erosion and Sediment Controls**
  - ☐ Silt Fence
  - ☐ Floating Silt Curtain
  - ☐ Erosion Bales
  - ☐ Temporary Berm (Windrow)
  - ☐ Temporary Slope Drain
  - ☒ Erosion Control Wattles
  - ☐ Temporary Sediment Barriers
  - ☐ Turf Reinforcement Mat
  - ☐ Riprap
  - ☐ Gabions
  - ☐ Rock Check Dams
  - ☐ Sediment Traps/Basins
  - ☐ Culvert Inlet Protection
  - ☐ Transition Mats
  - ☐ Median/Area Drain Inlet Protection
  - ☐ Curb Inlet Protection
  - ☐ Stabilized Construction Entrances
  - ☐ Entrance/Exit Equipment Tire Wash
  - ☐ Interceptor Ditch
  - ☐ Concrete Washout Facility
  - ☐ Temporary Diversion Channel
  - ☐ Work Platform
  - ☐ Temporary Water Barrier
  - ☐ Temporary Water Crossing
  - ☐ Other:
- **Wetland Avoidance**
  Will construction and/or erosion and sediment controls impinge on regulated wetlands? Yes ☐ No ☒ If yes, the structural and erosion and sediment controls have been included in the total project wetland impacts and have been included in the 404 permit process with the USACE.
- **Storm Water Management (4.2 2.b., (1) and (2))**
  Storm water management will be handled by temporary controls outlined in "EROSION AND SEDIMENT CONTROLS" above, and any permanent controls needed to meet permanent storm water management needs in the post construction period. Permanent controls will be shown on the plans and noted as permanent.
- **Other Storm Water Controls (4.2 2.c., (1) and (2))**
  - **Waste Disposal**
    All liquid waste materials will be collected and stored in sealed metal containers approved by the project engineer. All trash and construction debris from the site will be deposited in the approved containers. Containers will be serviced as necessary, and the trash will be hauled to an approved disposal site or licensed landfill. All onsite personnel will be instructed in the proper procedures for waste disposal, and notices stating proper practices will be posted in the field office. The general Contractor's representative responsible for the conduct of work on the site will be responsible for seeing waste disposal procedures are followed.
  - **Hazardous Waste**
    All hazardous waste materials will be disposed of in a manner specified by local or state regulations or by the manufacturer. Site personnel will be instructed in these practices, and the individual designated as the Contractor's on-site representative will be responsible for seeing that these practices are followed.
  - **Sanitary Waste**
    Portable sanitary facilities will be provided on all construction sites. Sanitary waste will be collected from the portable units in a timely manner by a licensed waste management Contractor or as required by any local regulations.

MAINTENANCE AND INSPECTION (4.2 3. and 4.2 4.)

- **Maintenance and Inspection Practices**
  - Inspections will be conducted at least one time per week and after a storm event of 0.50 inches or greater.
  - All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report.
  - Silt fence will be inspected for depth of sediment and for tears in order to ensure the fabric is securely attached to the posts and that the posts are well anchored. Sediment buildup will be removed from the silt fence when it reaches $^1/_3$ of the height of the silt fence.
  - Sediment basins and traps will be checked. Sediment will be removed when depth reaches approximately 50 percent of the structure's capacity, and at the conclusion of the construction.
  - Check dams will be inspected for stability. Sediment will be removed when depth reaches ½ the height of the dam.
  - All seeded areas will be checked for bare spots, washouts, and vigorous growth free of significant weed infestations.
  - Inspection and maintenance reports will be prepared on form DOT 298 for each site inspection, this form will also be used to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents.
  - The SDDOT Project Engineer and Contractor's Erosion Control Supervisor are responsible for inspections. Maintenance, repair activities are the responsibility of the Contractor. The SDDOT Project Engineer will complete the inspection and maintenance reports and distribute copies per the distribution instructions on DOT 298.

NON-STORM WATER DISCHARGES (3.0)

The following non-storm water discharges are anticipated during the course of this project (check all that apply).

- ☐ Discharges from water line flushing.
- ☐ Pavement wash-water, where no spills or leaks of toxic or hazardous materials have occurred.
- ☐ Uncontaminated ground water associated with dewatering activities.

MATERIALS INVENTORY (4.2. 2.c.(2))

The following materials or substances are expected to be present on the site during the construction period. These materials will be handled as noted under the headings "EROSION AND SEDIMENT CONTROLS" and "SPILL PREVENTION" (check all that apply).

- ☐ Concrete and Portland Cement
- ☐ Detergents
- ☐ Paints
- ☐ Metals
- ☐ Bituminous Materials
- ☒ Petroleum Based Products
- ☐ Cleaning Solvents
- ☐ Wood
- ☐ Cure
- ☐ Texture
- ☒ Chemical Fertilizers
- ☐ Other:

Stormwater Pollution Prevention Plan Checklist

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SPILL PREVENTION (4.2 2.c.(2))

- **Material Management**
  - Housekeeping
    - Only needed products will be stored on-site by the Contractor.
    - Except for bulk materials the contractor will store all materials under cover and in appropriate containers.
    - Products must be stored in original containers and labeled.
    - Material mixing will be conducted in accordance with the manufacturer's recommendations.
    - When possible, all products will be completely used before properly disposing of the container off-site.
    - The manufacturer's directions for disposal of materials and containers will be followed.
    - The Contractor's site superintendent will inspect materials storage areas regularly to ensure proper use and disposal.
    - Dust generated will be controlled in an environmentally safe manner.
    - Vegetation areas not essential to the construction project will be preserved and maintained as noted on the plans.

  - Hazardous Materials
    - Products will be kept in original containers unless the container is not resealable.
    - Original labels and material safety data sheets will be retained in a safe place to relay important product information.
    - If surplus product must be disposed of, manufacturer's label directions for disposal will be followed.
    - Maintenance and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, de-greasing operations, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants will be conducted on an impervious surface and under cover during wet weather to prevent the release of contaminants onto the ground.
    - Wheel wash water will be collected and allowed to settle out suspended solids prior to discharge. Wheel wash water will not be discharged directly into any storm water system or storm water treatment system.
    - Potential pH-modifying materials such as: bulk cement, cement kiln dust, fly ash, new concrete washings, concrete pumping, residuals from concrete saw cutting (either wet or dry), and mixer washout waters will be collected on site and managed to prevent contamination of storm water runoff.

- **Product Specific Practices (6.8)**

  - Petroleum Products
    All on-site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled.
  - 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 facilities on the site. These areas must be self-contained and not connected to any storm water outlet of the site. Upon completion of construction, the area at the washout facility 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 cleanup will be clearly posted. Site personnel will be made aware of the procedures and the locations of the information and cleanup supplies.
- Appropriate cleanup materials and equipment will be maintained by the Contractor in the materials storage area on-site. As appropriate, equipment and materials may include items such as brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for cleanup purposes.
- All spills will be cleaned immediately after discovery and the materials disposed of properly.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- After a spill a report will be prepared describing the spill, what caused it, and the cleanup measures taken. The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring, as well as clean up instructions in the event of reoccurrences.
- The Contractor's site superintendent, responsible for day-to-day operations, will be the spill prevention and cleanup coordinator. The Contractor is responsible for ensuring that the site superintendent has had appropriate training for hazardous materials handling, spill management, and cleanup.

- **Spill Response (4.2 2 c.(2))**

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

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

SPILL NOTIFICATION

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

- A release or spill of a regulated substance (includes petroleum and petroleum products) must be reported to DENR immediately **if any one of the following** conditions exists:
  - The discharge threatens or is in a position to threaten the waters of the state (surface water or ground water).
  - The discharge causes an immediate danger to human health or safety.
  - The discharge exceeds 25 gallons.
  - The discharge causes a sheen on surface water.
  - The discharge of any substance that exceeds the ground water quality standards of ARSD (Administrative Rules of South Dakota) chapter 74:51:01.
  - The discharge of any substance that exceeds the surface water quality standards of ARSD chapter 74:51:01.
  - The discharge of any substance that harms or threatens to harm wildlife or aquatic life.
  - The discharge of crude oil in field activities under SDCL (South Dakota Codified Laws) chapter 45-9 is greater than 1 barrel (42 gallons).

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

CONSTRUCTION CHANGES (4.4)

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

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CERTIFICATIONS

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

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

- **South Dakota Department of Transportation**

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

Tom Kabisch

Authorized Signature (See the General Permit, Section 6.9.1.C.)

- **Prime Contractor**

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

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

_____

Authorized Signature

CONTACT INFORMATION

- **Contractor Information**:
  - Prime Contractor Name: _____
  - Contractor Contact Name: _____
  - Address: _____
  - _____
  - City: _____State: _____Zip: _____
  - Office Phone: _____Field: _____
  - Cell Phone: _____Fax: _____
- **Erosion Control Supervisor**
  - Name: _____
  - Address: _____
  - _____
  - City: _____State: _____Zip: _____
  - Office Phone: _____Field: _____
  - Cell Phone: _____Fax: _____
- **SDDOT Project Engineer**
  - Name: _____
  - Business Address: _____
  - Job Office Location: _____
  - City: _____State: _____Zip: _____
  - Office Phone: _____Field: _____
  - Cell Phone: _____Fax: _____
- **SD DENR Contact Spill Reporting**
  - Business Hours Monday-Friday (605) 773-3296
  - Nights and Weekends (605) 773-3231
- **SD DENR Contact for Hazardous Materials.**
  - (605) 773-3153
- **National Response Center Hotline**
  - (800) 424-8802.

The signs illustrated are not required if the work space is behind a barrier, more than 2 feet behind the curb, or 15 feet or more from the edge of any roadway.

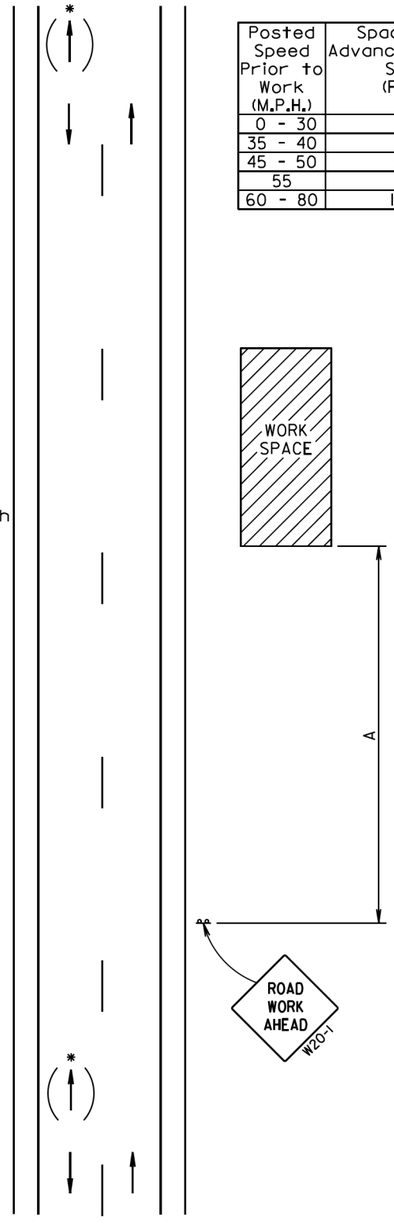
The signs illustrated shall be used where there are distracting situations; such as: vehicles parked on shoulder, vehicles accessing the work site via the highway, and equipment traveling on or crossing the roadway to perform work operations.

The ROAD WORK AHEAD sign may be replaced with other appropriate signs, such as the SHOULDER WORK sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.

* If the work space is on a divided highway, an advance warning sign should also be placed on the left side of the directional roadway.

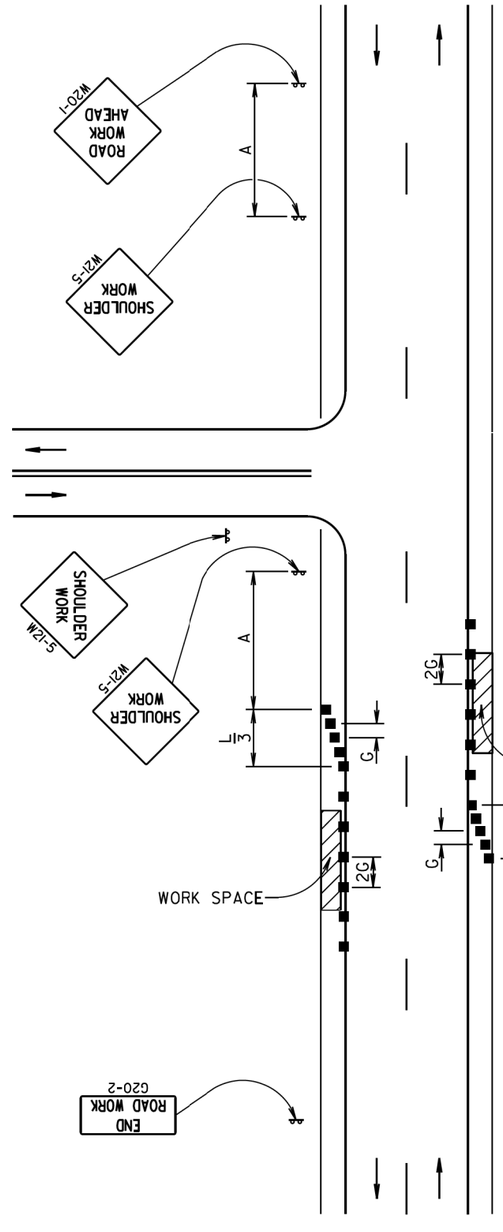
For short term, short duration, or mobile operations, all signs and channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 80	1000



April 15, 2015

Published Date: 2nd Qtr. 2018	SDDOT	GUIDES FOR TRAFFIC CONTROL DEVICES WORK BEYOND THE SHOULDER	PLATE NUMBER 634.01 Sheet 1 Of 1



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

■ Channelizing Device

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

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

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

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

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

June 3, 2016

Published Date: 2nd Qtr. 2018	SDDOT	GUIDES FOR TRAFFIC CONTROL DEVICES WORK ON SHOULDERS	PLATE NUMBER 634.03 Sheet 1 of 1

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

Flagger

Channelizing Device

For low-volume traffic situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger may be used.

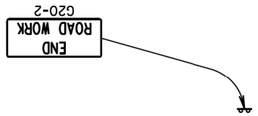
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) shall be displayed in advance of the liquid asphalt areas.

Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

The channelizing devices shall be drums or 42" cones.

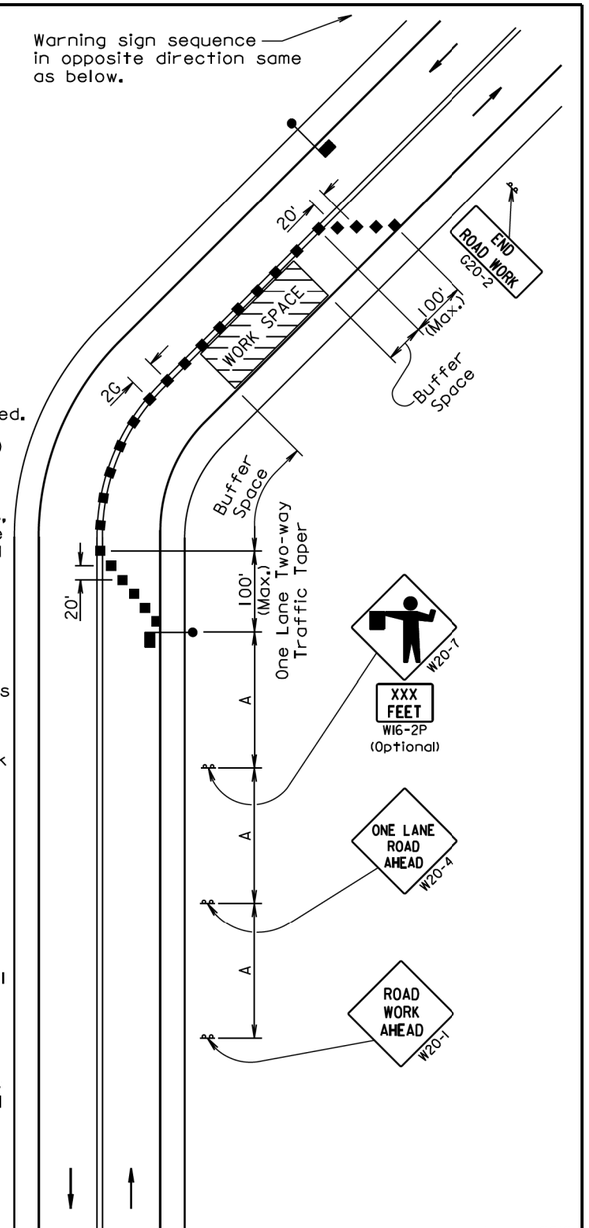
Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.



Channelizing devices and flaggers shall be used at intersecting roads to control intersecting road traffic as required.

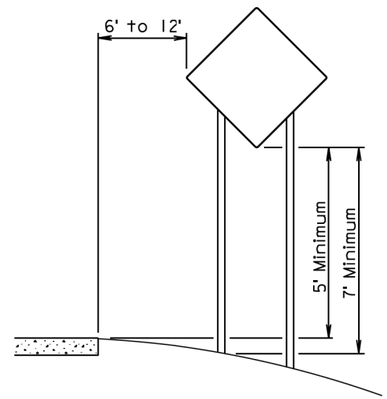
The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

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

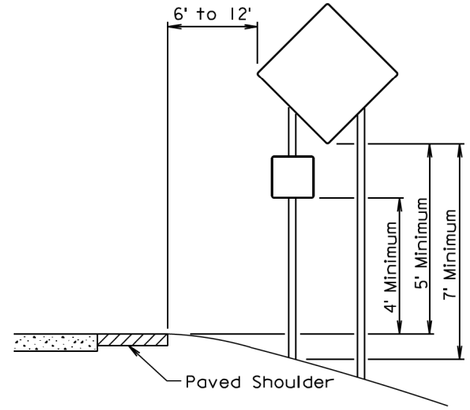


June 3, 2016

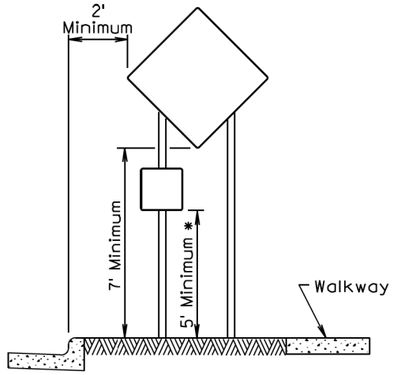
Published Date: 2nd Qtr. 2018	SDDOT	GUIDES FOR TRAFFIC CONTROL DEVICES LANE CLOSURE WITH FLAGGER PROVIDED	PLATE NUMBER 634.23
			Sheet 1 of 1



RURAL DISTRICT

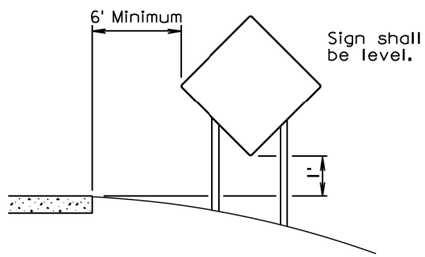


RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT

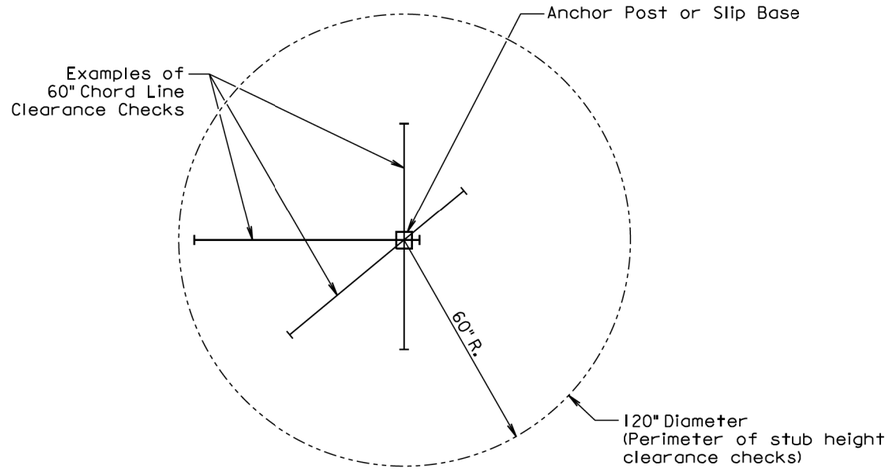
* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.



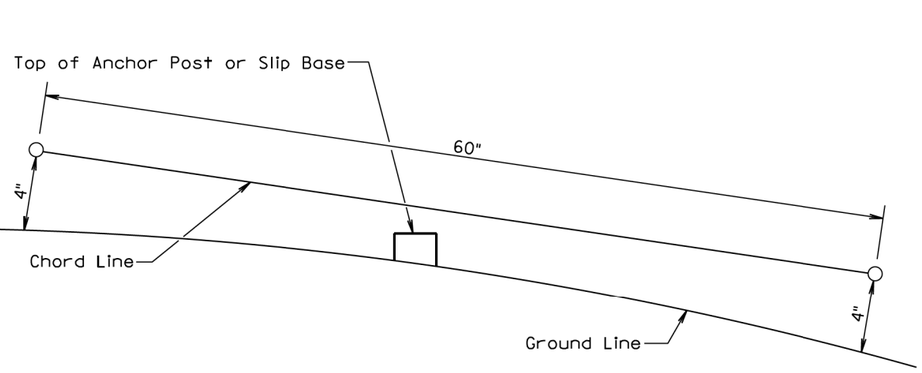
RURAL DISTRICT
3 DAY MAXIMUM
(Not applicable to regulatory signs)

September 22, 2014

Published Date: 2nd Qtr. 2018	SDDOT	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1



PLAN VIEW
(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

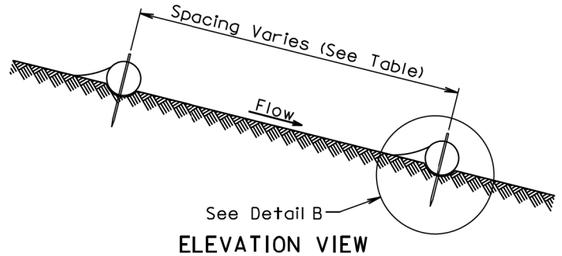
The top of anchor posts and slip bases SHALL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height shall be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

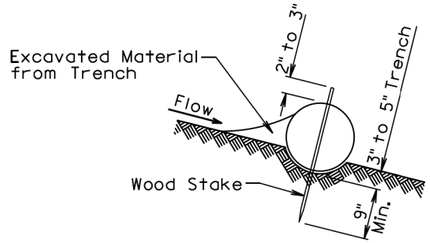
July 1, 2005

Published Date: 2nd Qtr. 2018	SDDOT	**BREAKAWAY SUPPORT STUB CLEARANCE**	*PLATE NUMBER* 634.99
			Sheet 1 of 1

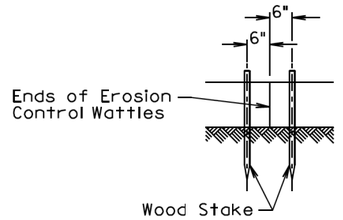


ELEVATION VIEW
CUT OR FILL SLOPE INSTALLATION

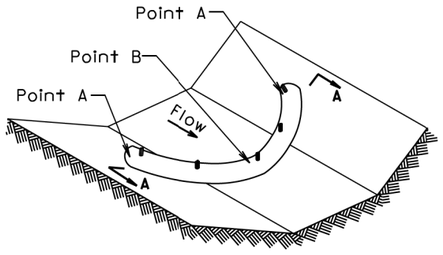
CUT OR FILL SLOPE INSTALLATION	
Slope	Spacing (Ft)
1:1	10
2:1	20
3:1	30
4:1	40



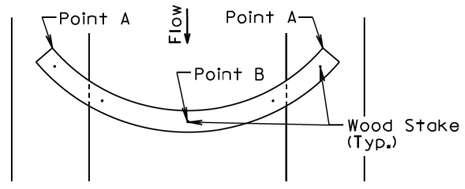
DETAIL B
(TYPICAL OF ALL INSTALLATIONS)



DETAIL C

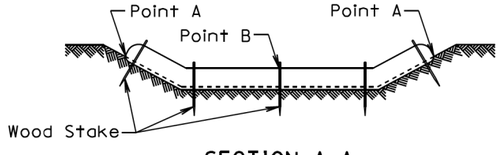


ISOMETRIC VIEW
DITCH INSTALLATION



PLAN VIEW
DITCH INSTALLATION

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



SECTION A-A

December 23, 2004

Published Date: 2nd Qtr. 2018	SDDOT	**EROSION CONTROL WATTLE**	*PLATE NUMBER* 734.06
			Sheet 1 of 2