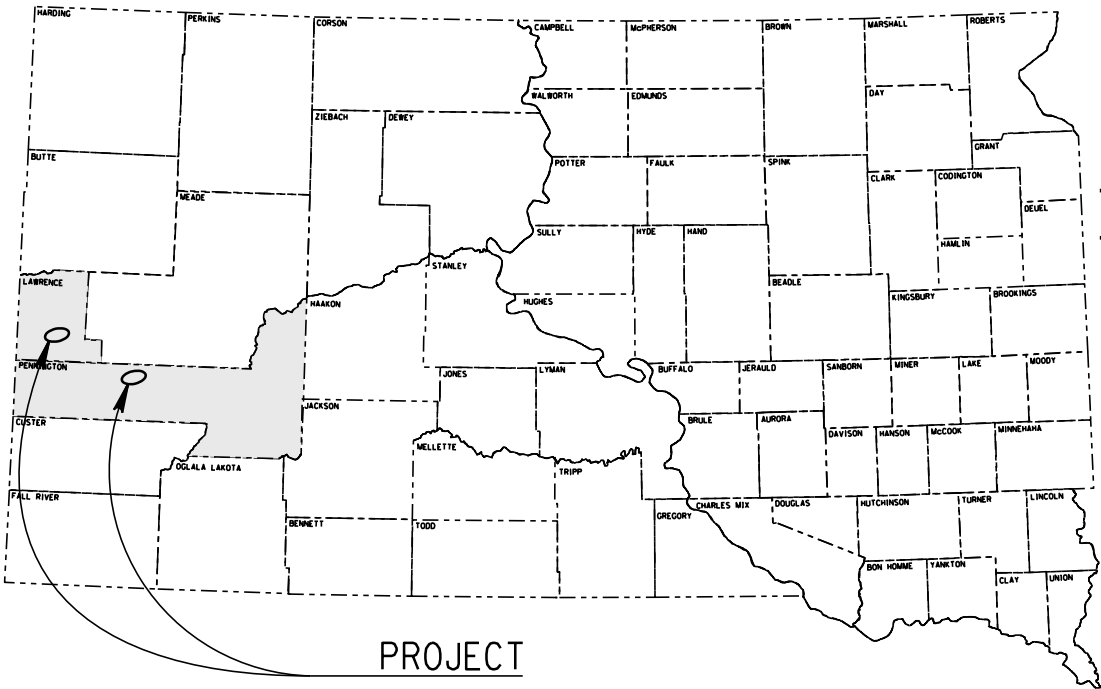


Plot Scale - 1:200

trc11951

Plotted From -



STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION  
PLANS FOR PROPOSED

PROJECTS 014A-451 & 016WB-452  
U.S. HIGHWAYS 14A & 16B  
LAWRENCE AND PENNINGTON  
COUNTIES

Bridge Deck and PCC Pavement Grinding  
PCN i5e9 & i5ea

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	014A-451 & 016WB-452	1	17

Plotting Date: 07/25/2018

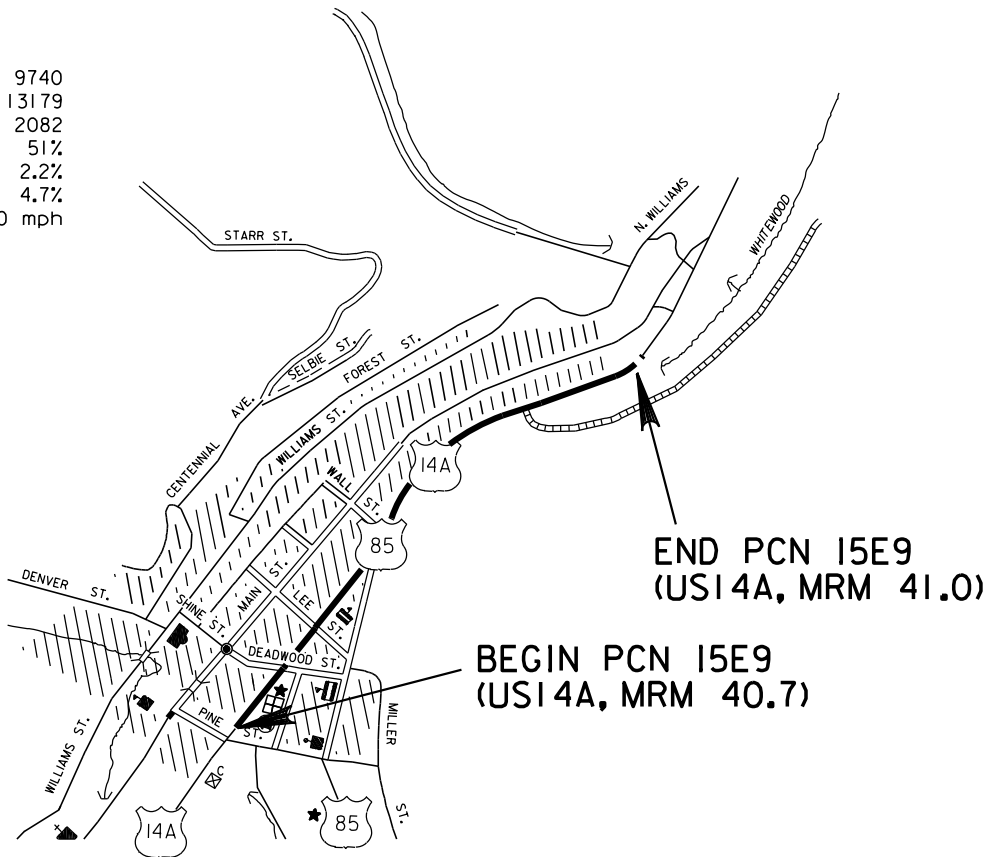
INDEX OF SHEETS

- Sheet 1: Title Sheet  
Sheet 2 - 4: Plan Notes and Quantities  
Sheet 5 - 6: PCCP Grinding Limits  
Sheet 7 - 8: Pavement Marking Layout US14A  
Sheet 9 - 14: Epoxy Chip Seal Removal Sheets  
Sheet 15 - 17: Standard Plates



DEADWOOD  
LAWRENCE COUNTY  
Sec.23 T 5 N - R 3 E

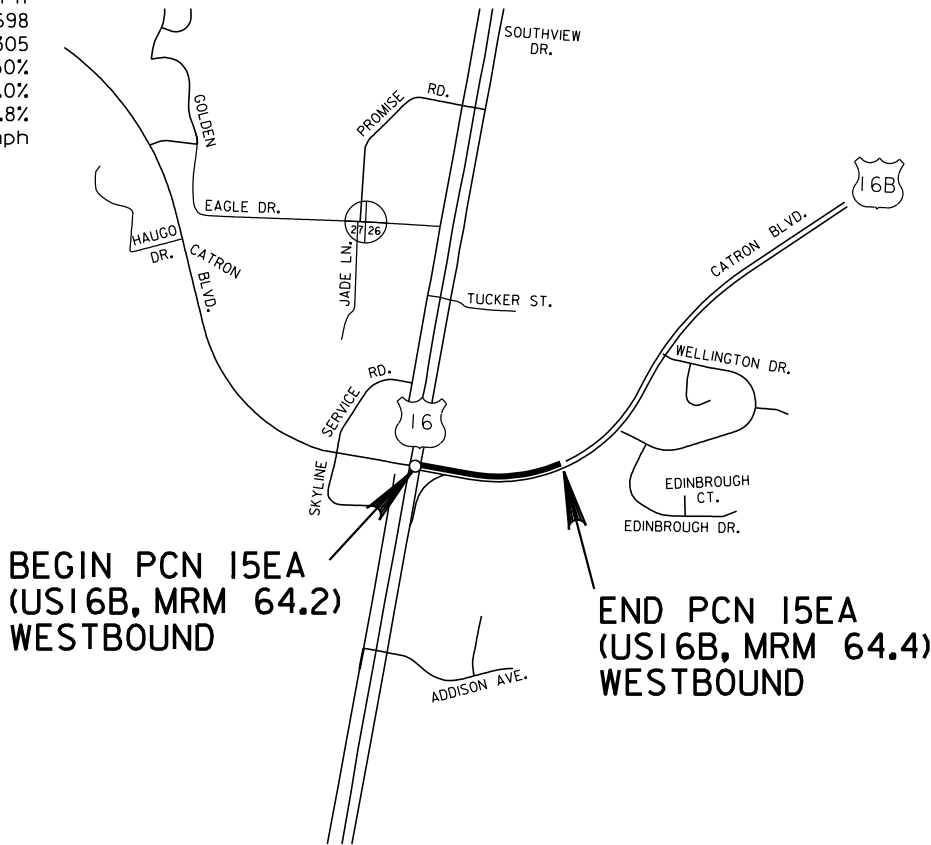
US14A/85  
ADT (2017) 9740  
ADT (2037) 13179  
DHV 2082  
D 51%  
T DHV 2.2%  
T ADT 4.7%  
V 40 mph



STORM WATER PERMIT  
None Required

RAPID CITY  
PENNINGTON COUNTY  
Sec. 26 T1N R7E

US16B Westbound  
ADT (2017) 6141  
ADT (2037) 10698  
DHV 1305  
D 50%  
T DHV 4.0%  
T ADT 8.8%  
V 60 mph



ESTIMATE OF QUANTITIES (PCN i5e9, US14A)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
491E0120	Bridge Deck Grinding	9,155.1	SqYd
633E1200	Waterborne Pavement Marking Paint with High Grade Polymer, White	5	Gal
633E1205	Waterborne Pavement Marking Paint with High Grade Polymer, Yellow	20	Gal
633E1430	Pavement Marking Paint, 24" White	520	Ft
634E0010	Flagging	80	Hour
634E0110	Traffic Control Signs	158.6	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0285	Type 3 Barricade, 8' Double Sided	2	Each
634E0420	Type C Advance Warning Arrow Board	2	Each
734E0847	Sediment Control at Type S Reinforced Concrete Drop Inlet	65	Ft

ESTIMATE OF QUANTITIES (PCN i5ea, US16B)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
380E6510	Grinding PCC Pavement	1,974.0	SqYd
634E0010	Flagging	40.0	Hour
634E0110	Traffic Control Signs	176.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Board	1	Each
734E0847	Sediment Control at Type S Reinforced Concrete Drop Inlet	20	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

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

COMMITMENT 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 State 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:

- 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 State 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 State ROW through the use of fences, gates, and placement of a sign or signs at the entrance to the site stating "No Dumping Allowed".
- 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

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.

GRINDING PCC PAVEMENT

The US16B PCC Pavement grinding is needed to create a uniform surface texture. Pavement marking that was removed with grooving conflicts with the new pavement marking that was installed. The PCC Pavement grinding depth shall be no greater than the existing depth of grooving for the existing pavement marking.

Grinding of the PCC Pavement on US16B shall be done in accordance with Bridge Deck Grinding, Section 491.3.A.2 of the Standard Specifications. Measurement and payment will be per square yard. All costs associated with this work shall be incidental to the contract unit price per square yard for Grinding PCC Pavement.

TABLE OF GRINDING PCC PAVEMENT (US16B, i5EA)

Sta. to	Sta.	L	W AVG.		Grinding PCC Pavement SqYd
		FT	FT		
2+83	8+00	517	10	Driving Lane	574
8+00	14+00	600	10.5	Driving Lane	700
8+00	14+00	600	10.5	Passing Lane	700
					1974

WATERBORNE PAVEMENT MARKING PAINT WITH HIGH GRADE POLYMER

All materials shall be applied as per manufacturer’s recommendations.

This material shall consist of a durable high build, low VOC, fast drying, waterborne traffic paint with a 100% acrylic polymer (Dow DT-400 or Dow HD-21A or equivalent). The Contractor shall provide certification that the material is one of the following products or an equivalent as approved by the Operations Traffic Engineer:

Diamond Vogel's Waterborne High Build Polymer Marking Paint  
Ennis-Flint's High Build Polymer Marking Paint

No further testing of this material will be required. Reflective media consisting of glass beads as well as bonded core reflective elements shall be adhered to the paint.

The bonded core reflective elements shall contain either clear or yellow tinted microcrystalline ceramic beads bonded to the outer surface. All microcrystalline ceramic beads bonded to reflective elements shall have a minimum index of refraction of 1.8 when tested using the liquid oil immersion method.

The Department will take retroreflectivity readings on the pavement marking lines no sooner than 3 days and no later than 30 days after the completion of all line applications required for an individual highway route using a portable retroreflectometer conforming to 30-meter geometry. Retroreflectivity readings will be taken on a test location with cleaning being limited to light hand brooming.

Pavement markings not conforming to the retroreflectivity requirements shall be removed and replaced. If replacement of markings cannot be applied within the same year, the Contractor shall schedule subject work to be

completed no later than June 15<sup>th</sup> in the following year. Upon replacement, the retroreflectivity testing process will be done again requiring new readings.

The Department will randomly select one test location per mile of each edge line including ramps and one test location per mile of centerline (solid and/or skip line will be considered as one centerline). Three retroreflectivity readings will be taken at each test location. The three readings will be averaged and become the reading for that test location.

Initial readings:

Pavement Marking Color	Minimum Value
White	350 mc/m²/lux
Yellow	275 mc/m²/lux

All pavement markings not conforming to the requirements provided in these plans will be considered deficient and shall be removed and replaced. Additional retroreflectivity readings will be taken by the Department to determine the limits of removal. The removal shall be accomplished using suitable sand blasting or grinding equipment unless the Engineer authorizes other means. The removal process shall remove at least 90% of the deficient line, with no excessive scarring of the existing pavement. The removal width shall be one inch wider all around the nominal width of the pavement marking to be removed. Removal and replacement of the pavement markings shall be at the Contractor’s expense, with no cost incurred by the State.

RATES OF MATERIALS FOR WATERBORNE PAVEMENT MARKING PAINT WITH HIGH GRADE POLYMER

Solid 4" line = 27.8 Gals/Mile  
Glass Beads = 5.3 Lbs/Gal.  
Composite Reflective Elements = 2.1 Lbs/Gal.

All cost for materials, labor and equipment necessary to furnish and install the pavement markings shall be incidental to the contract unit price per gallon for “Waterborne Pavement Marking Paint with High Grade Polymer, White or Yellow”.

TABLE OF PAVEMENT MARKING PAINT WITH HIGH GRADE POLYMER

Location Description	Waterborne Pavement Marking Paint with High Grade Polymer, Yellow (Gal)	Waterborne Pavement Marking Paint with High Grade Polymer, White (Gal)	Pavement Marking Paint, 24" White (Ft)
US14A Double Yellow	20		
US14A White Skips		5	
US14A Crosswalks			520

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	014A-451 & 016WB-452	3	17

TRAFFIC CONTROL – GENERAL NOTES

- Unless otherwise stated in these plans, no work will be allowed during hours of darkness.
- Existing guide, route, informational logo, regulatory, warning signs and delineation shall be temporarily reset and maintained during construction as directed by the Engineer. Removing, relocating, salvaging and resetting of the above items shall be the responsibility of the Contractor.
- Non-applicable traffic control devices shall be completely covered or removed during periods of inactivity. Periods of inactivity shall be defined as no work taking place for a period of more than 2 calendar days.
- All regulatory signs shall have a minimum mounting height of 5' in rural locations, even when mounted on portable supports.
- All materials and equipment shall be stored a minimum distance of 30' from the traveled way during nonworking hours.
- The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.
- All haul trucks shall be equipped with a second flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights shall be incidental to the various related contract bid items.
- All construction operations shall be conducted in the general direction of traffic movement.
- If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD – whichever is more stringent shall be used, as determined by the Engineer.
- Temporary Flexible Vertical Markers (Tabs) shall be used for lane closure tapers or lane shift tapers and shall be installed at 5' spacing. Tabs used for tapers and shifts will not be measured for payment. All costs associated to furnish, install, maintain (including replacement as required by the Engineer at no added cost to the Department), and remove all markers will be incidental to the contract lump sum price for Traffic Control, Miscellaneous.
- Access to the side streets in Deadwood shall be maintained at all times during the work on US14A. The lane closures shall be adjusted to maintain this access.

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS (US16B, i5ea)

SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W4-2	LEFT or RIGHT LANE ENDS (symbol)	2	48" x 48"	16.0	32.0
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
W21-5	SHOULDER WORK	2	48" x 48"	16.0	32.0
G20-2	END ROAD WORK	2	48" x 24"	8.0	16.0
		EXPRESSWAY / INTERSTATE TRAFFIC CONTROL SIGNS SQFT		176.0	

ARROW BOARDS

ITEM DESCRIPTION	QUANTITY
Type C Advance Warning Arrow Board	1 Each

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS (US14A, i5e9)

SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R3-7L	LEFT LANE MUST TURN LEFT	2	30" x 30"	6.3	12.6
W9-2	LANE ENDS MERGE LEFT	2	48" x 48"	16.0	32.0
W20-1	ROAD WORK AHEAD	4	48" x 48"	16.0	64.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	2	48" x 48"	16.0	32.0
G20-2	END ROAD WORK	4	36" x 18"	4.5	18.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT		158.6	

TYPE 3 BARRICADES

ITEM DESCRIPTION	QUANTITY
Type 3 Barricade, 8' Double Sided	2 Each

ARROW BOARDS

ITEM DESCRIPTION	QUANTITY
Type C Advance Warning Arrow Board	2 Each

SEDIMENT CONTROL AT INLETS

The sediment control devices shall be placed in a “L” shape or as directed by the Engineer to prevent any slurry debris from entering the inlet during grinding operations.

The sediment control device provided shall be from the list shown below.

Product	Manufacturer
Dandy Curb	Dandy Products Inc. Dublin, OH Phone: 1-800-591-2284 <a href="http://www.dandyproducts.com">www.dandyproducts.com</a>
Gutterbuddy	ACF Environmental Richmond, VA Phone: 1-800-448-3636 <a href="http://www.acfenvironmental.com">www.acfenvironmental.com</a>
Curb Inlet Guard	ECTEC Environmental Systems LLC

EZ-ClipGuard

12” Compost Filter Sock

12” Silt Sock

GeoCurve

Alameda, CA  
Phone: 1-866-521-0724  
[www.ertecsystems.com](http://www.ertecsystems.com)

Flo-Water, LLC  
West Des Moines, IA  
Phone: 1-515-577-6763  
[www.flo-water.net](http://www.flo-water.net)

Dioten Engineering, Inc.  
Rapid City, SD  
Phone: 1-605-430-7213

Aspen Ridge Lawn and Landscaping,LLC  
Rapid City, SD  
Phone: 1-605-415-0695  
[www.siltsocksd.com](http://www.siltsocksd.com)

GeoSolutions, Inc.  
Austin, TX  
Phone: 1-512-445-0796  
[www.geosolutionsinc.com](http://www.geosolutionsinc.com)

TABLE OF SEDIMENT CONTROL AT INLETS (US16B, i5e9)

MRM	L/R	Sediment Control at Type S Reinforced Concrete Drop Inlet
64.360	R	5
64.320	R	5
64.280	R	5
64.240	R	5
Totals:		20

TABLE OF SEDIMENT CONTROL AT INLETS (US14A,i5e9)

MRM	L/R	Sediment Control at Type S Reinforced Concrete Drop Inlet
		FT
40.744	R	5
40.784	R	5
40.824	R	5
40.824	L	5
40.854	R	5
40.854	L	5
40.874	R	5
40.874	L	5
40.904	R	5
40.904	L	5
40.964	R	5
40.984	R	5
41.024	R	5
Totals:		65

Plot Scale - 1:40

Plotted From - trc11951

# PCCP GRINDING LIMITS

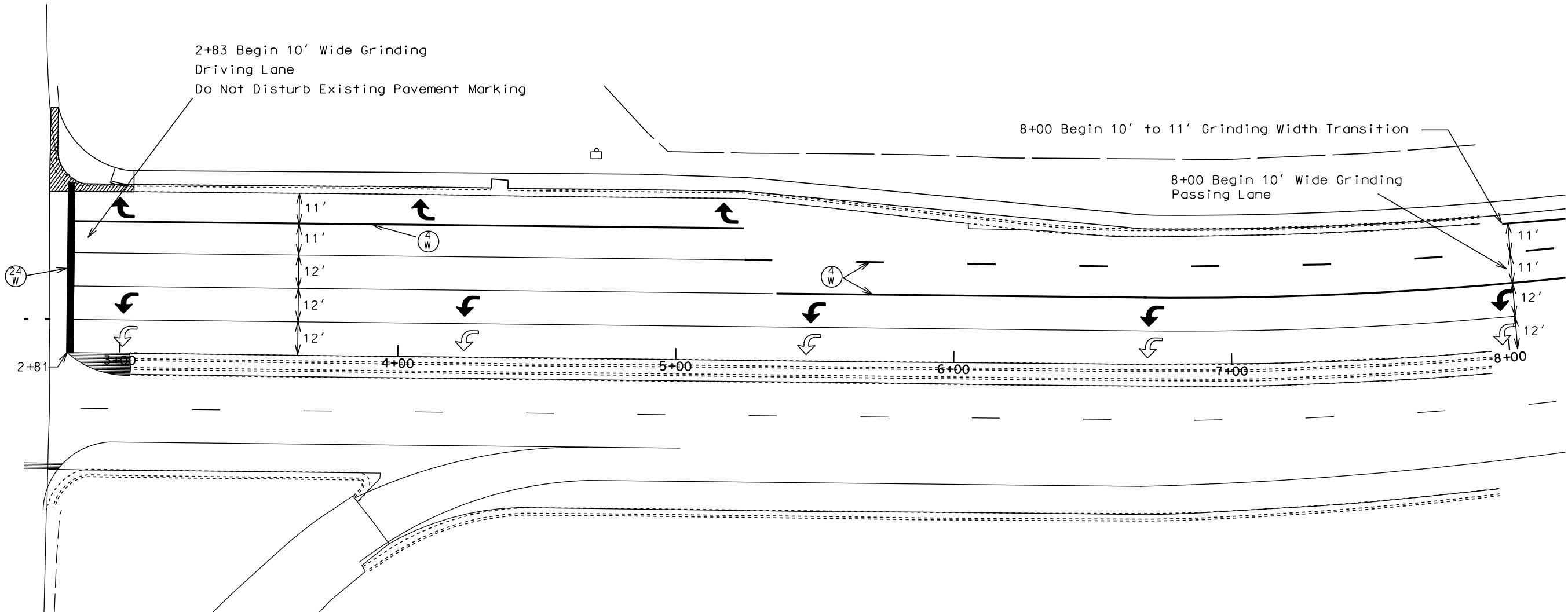
## US HWY 16B

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	014A-451 & 016WB-452	5	17

Plotting Date: 07/25/2018

- ④ W Existing Plastic Pavement Marking, 4" White
- ④ Y Existing Plastic Pavement Marking, 4" Yellow
- ②④ W Existing Plastic Pavement Marking, 24" White

SCALE  
1" = 40'



Plot Scale - 1:40




Plotted From - trc11951

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	014A-451 & 016WB-452	6	17

Plotting Date: 07/25/2018

PCCP GRINDING LIMITS

US HWY 16B

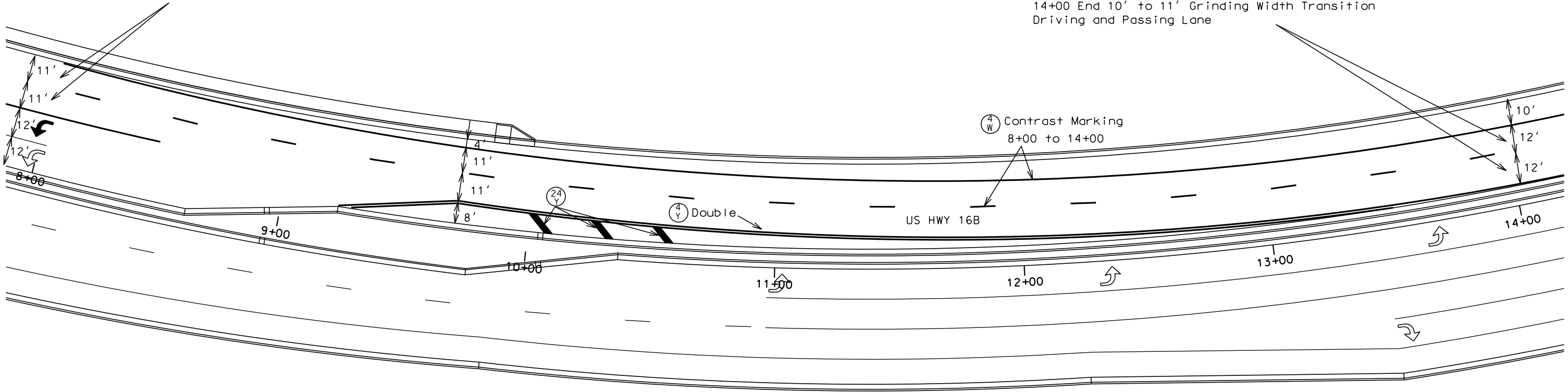
-  Existing Plastic Pavement Marking, 4" White
-  Existing Plastic Pavement Marking, 4" Yellow
-  Existing Plastic Pavement Marking, 24" Yellow

SCALE  
1" = 40'



8+00 Begin 10' to 11' Grinding Width Transition  
8+00 Begin 10' Grinding Width Passing Lane  
Do Not Disturb Existing Pavement Marking

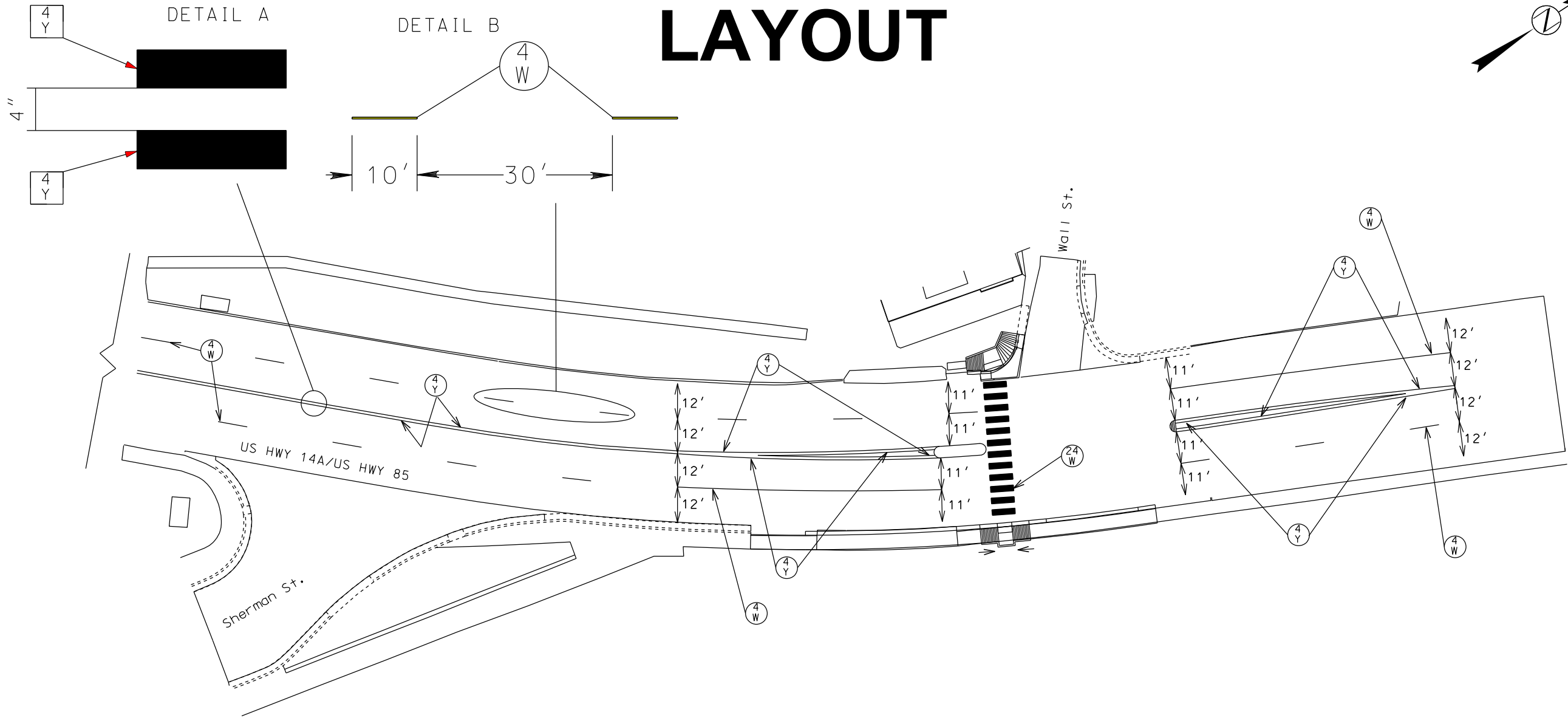
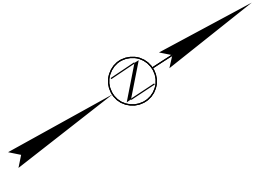
14+00 End 10' to 11' Grinding Width Transition  
Driving and Passing Lane



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	014A-451 & 016WB-452	7	17

Plotting Date: 07/16/2018

# PAVEMENT MARKING LAYOUT



- ④ W - 4" White Paint
- ④ Y - 4" Yellow Paint
- ②④ W - 24" White Paint

1:40

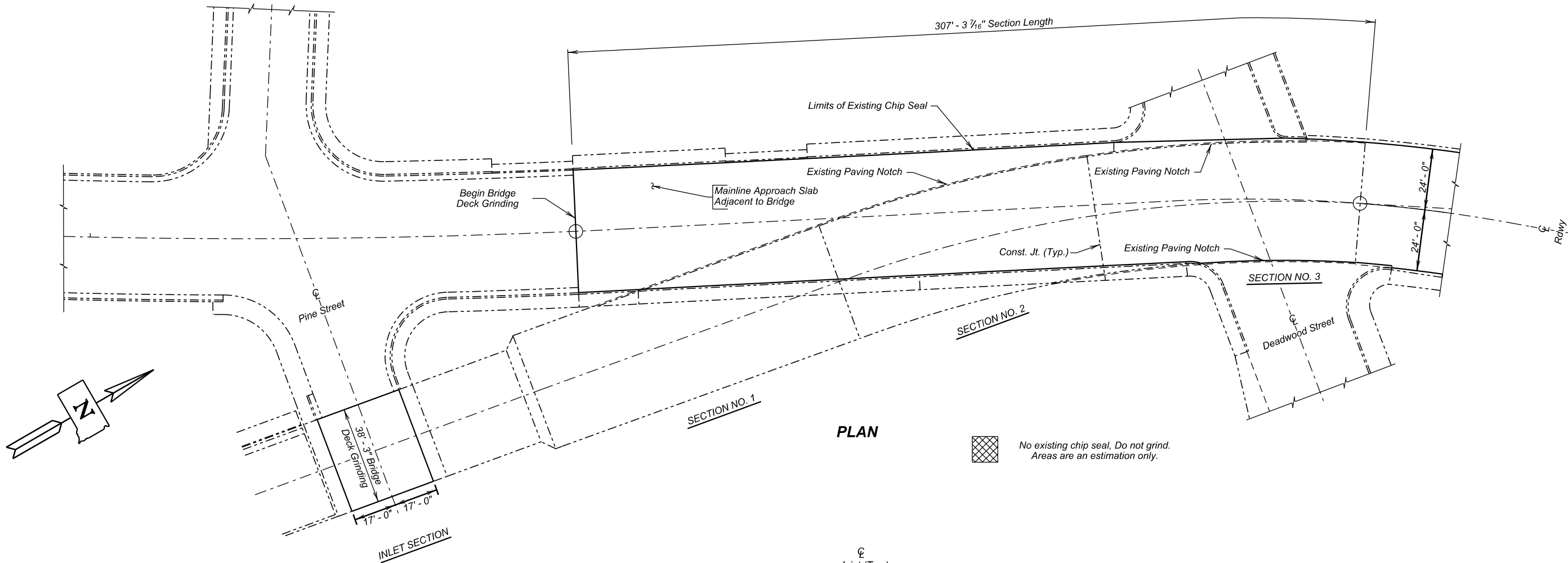
Plot Scale -

Plotted From -

trc11951







#### SPECIFICATIONS FOR BRIDGE

Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, 2015 Edition and required provisions, supplemental specifications, and special provisions as included in the proposal.

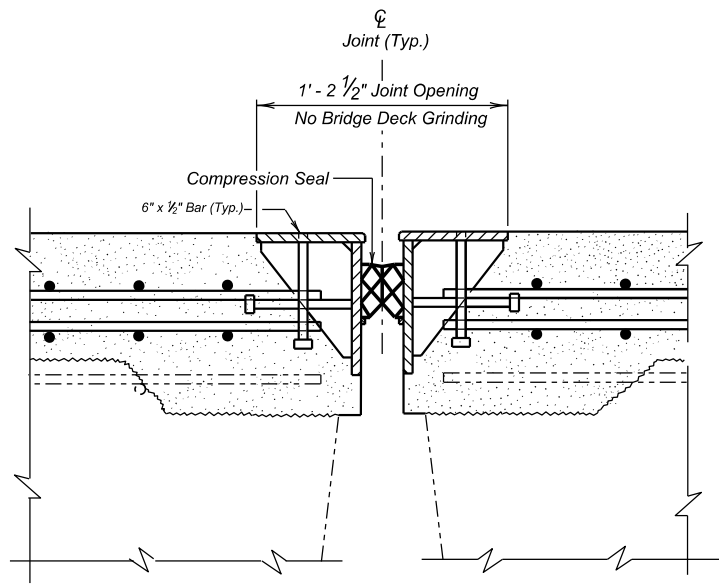
#### DETAILS AND DIMENSIONS OF EXISTING BRIDGE

All details and dimensions of the existing bridge, contained in these plans, are based on the original construction plans and shop plans. It is the Contractor's responsibility to inspect and verify the actual field conditions and any necessary as-built dimensions affecting the satisfactory completion of the work required for this project.

#### SCOPE OF BRIDGE WORK AND SEQUENCE OF OPERATIONS

All work on this structure shall be accomplished with the traffic control shown elsewhere in the plans. Alternate sequence of operations may be submitted by the contractor for approval by the engineer a minimum of two weeks prior to the preconstruction meeting.

Complete bridge deck grinding to remove the existing epoxy chip seal with minimal disturbance of underlying concrete. Areas where chip seal is no longer present are located in this plan set. There are additional localized areas of concrete patching and recent chip seal failures that are not marked on this plan set.



Typical Joint

#### ESTIMATED QUANTITIES

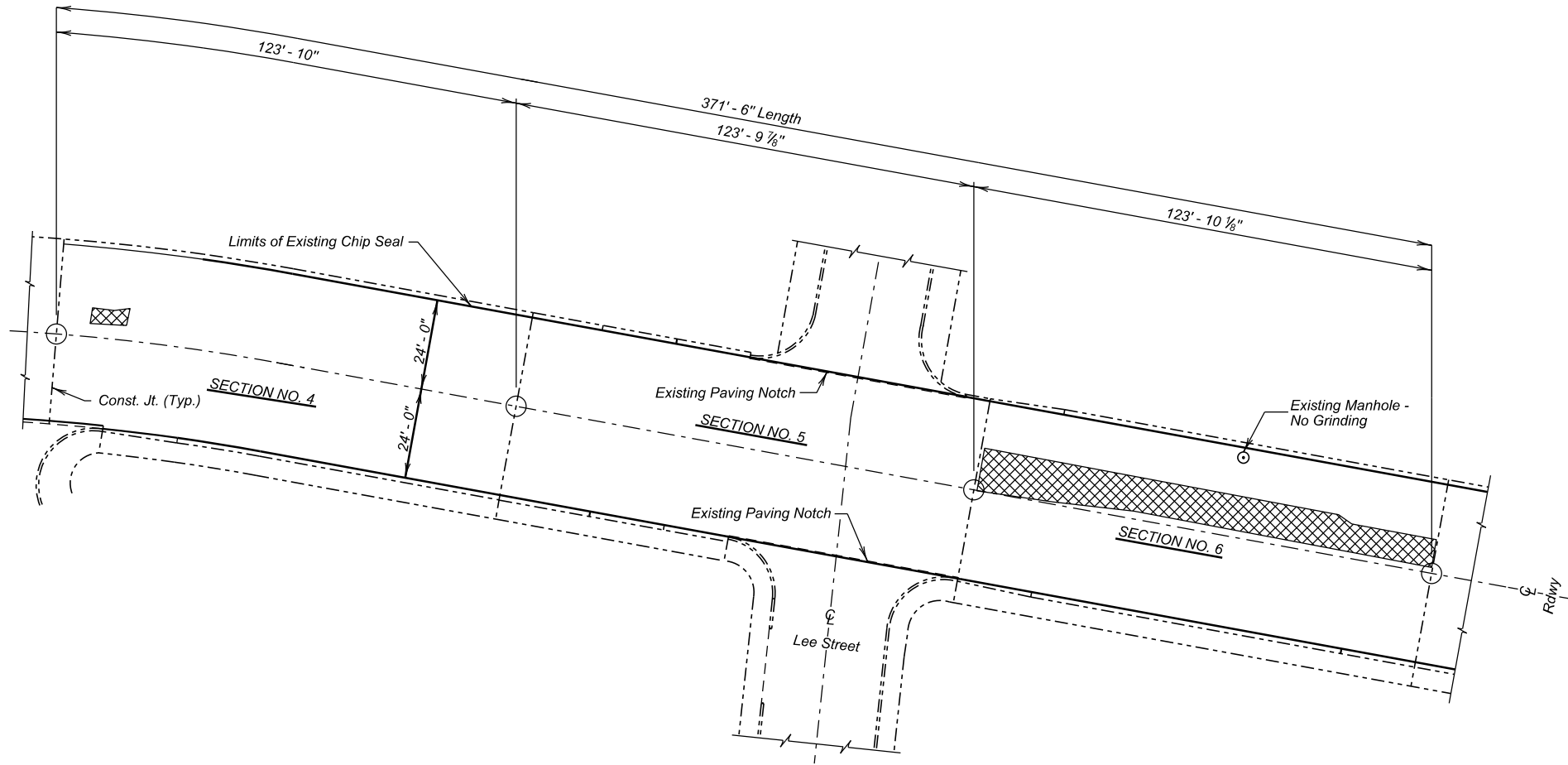
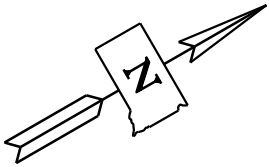
ITEM	UNIT	QUANTITY
Bridge Deck Grinding	Sq. Yd.	9155.1


EPOXY CHIP SEAL REMOVAL (INLET & SECTIONS 1 - 3)  
FOR

45' SPAN SPECIAL CULVERT-BRIDGE  
48' - 0" & 52' - 0" ROADWAY CITY OF DEADWOOD  
OVER WHITEWOOD CREEK  
STR. NO. 4I-16I-156

LAWRENCE COUNTY  
S. D. DEPT. OF TRANSPORTATION  
JULY 2018

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	014A-451 & 016WB-452	10	17



 No existing chip seal, Do not grind.  
Areas are an estimation only.

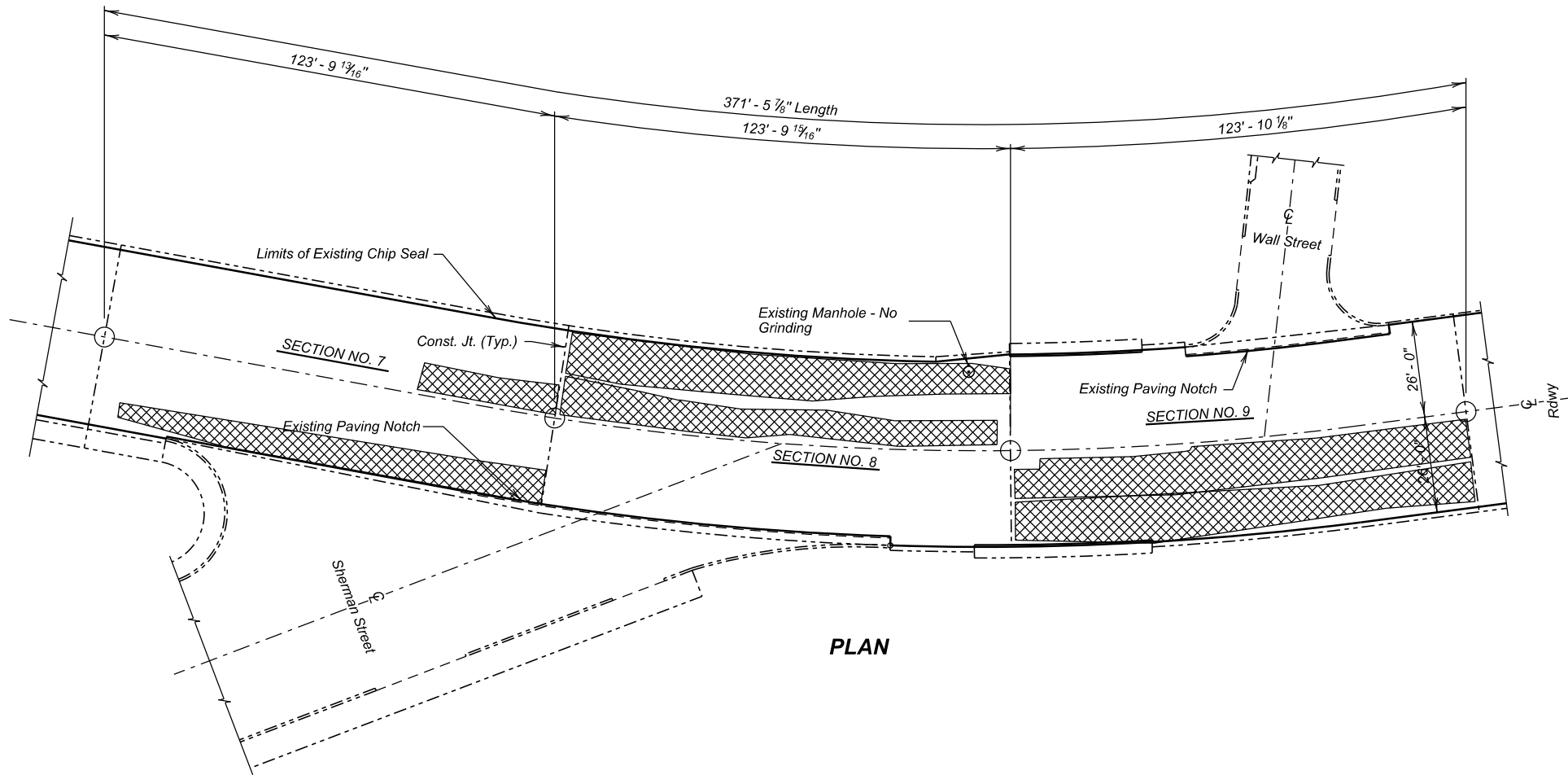
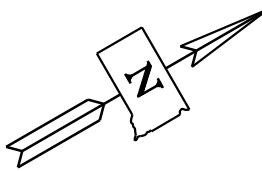
EPOXY CHIP SEAL REMOVAL (SECTIONS 4 - 6)  
FOR  
**45' SPAN SPECIAL CULVERT-BRIDGE**  
48' - 0" & 52' - 0" ROADWAY CITY OF DEADWOOD  
OVER WHITEWOOD CREEK  
STR. NO. 4I-161-I56

LAWRENCE COUNTY  
S. D. DEPT. OF TRANSPORTATION  
JULY 2018


2 OF 6

DESIGNED BY BWS LAWRI5E9	DRAWN BY BWS I5E9LAI5		
--------------------------------	-----------------------------	--	--

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	014A-451 & 016WB-452	11	17



PLAN

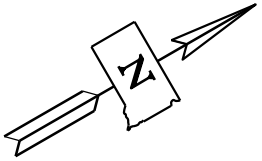
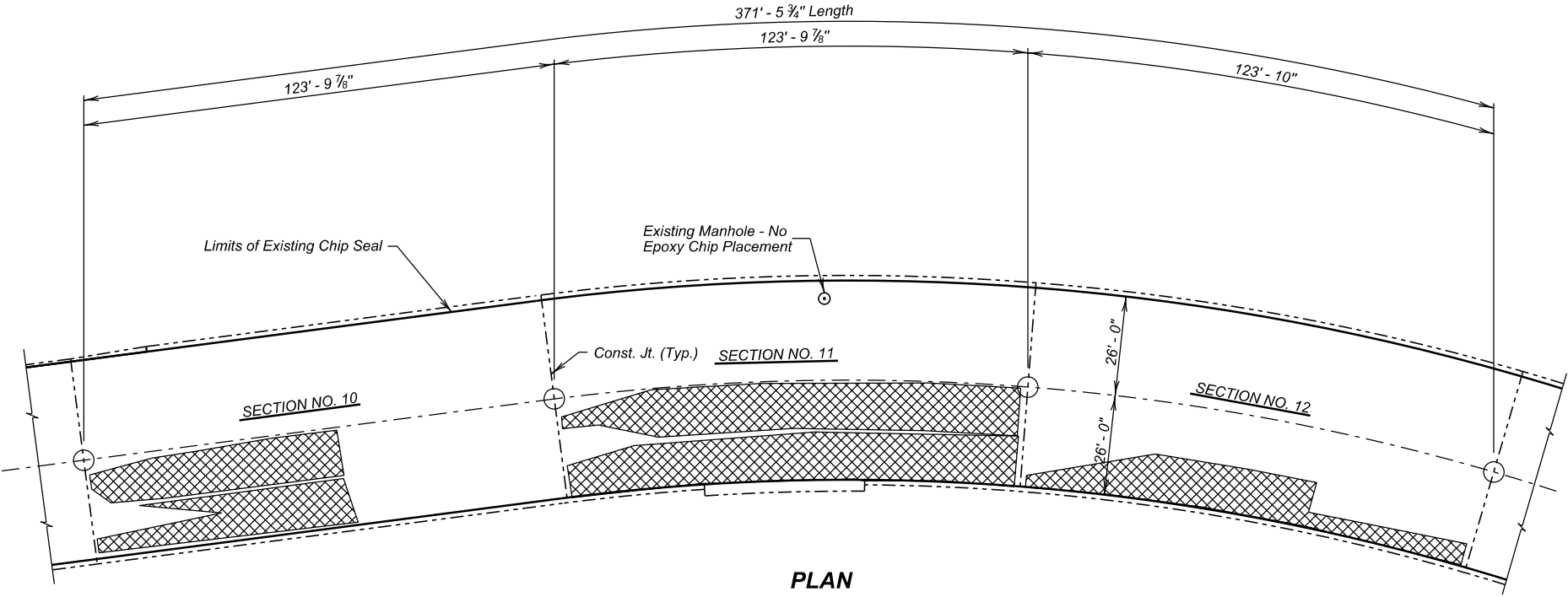
 No existing chip seal, Do not grind.  
Areas are an estimation only.

EPOXY CHIP SEAL REMOVAL (SECTIONS 7 - 9)  
FOR  
**45' SPAN SPECIAL CULVERT-BRIDGE**  
48' - 0" & 52' - 0" ROADWAY CITY OF DEADWOOD  
OVER WHITEWOOD CREEK  
STR. NO. 4I-16I-156

LAWRENCE COUNTY  
S. D. DEPT. OF TRANSPORTATION  
JULY 2018

DESIGNED BY BWS LAWR15E9	DRAWN BY BWS 15E9LA16		
--------------------------------	-----------------------------	--	--

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	014A-451 & 016WB-452	12	17



No existing chip seal, Do not grind.  
Areas are an estimation only.

EPOXY CHIP SEAL REMOVAL (SECTIONS 10 - 12)  
FOR

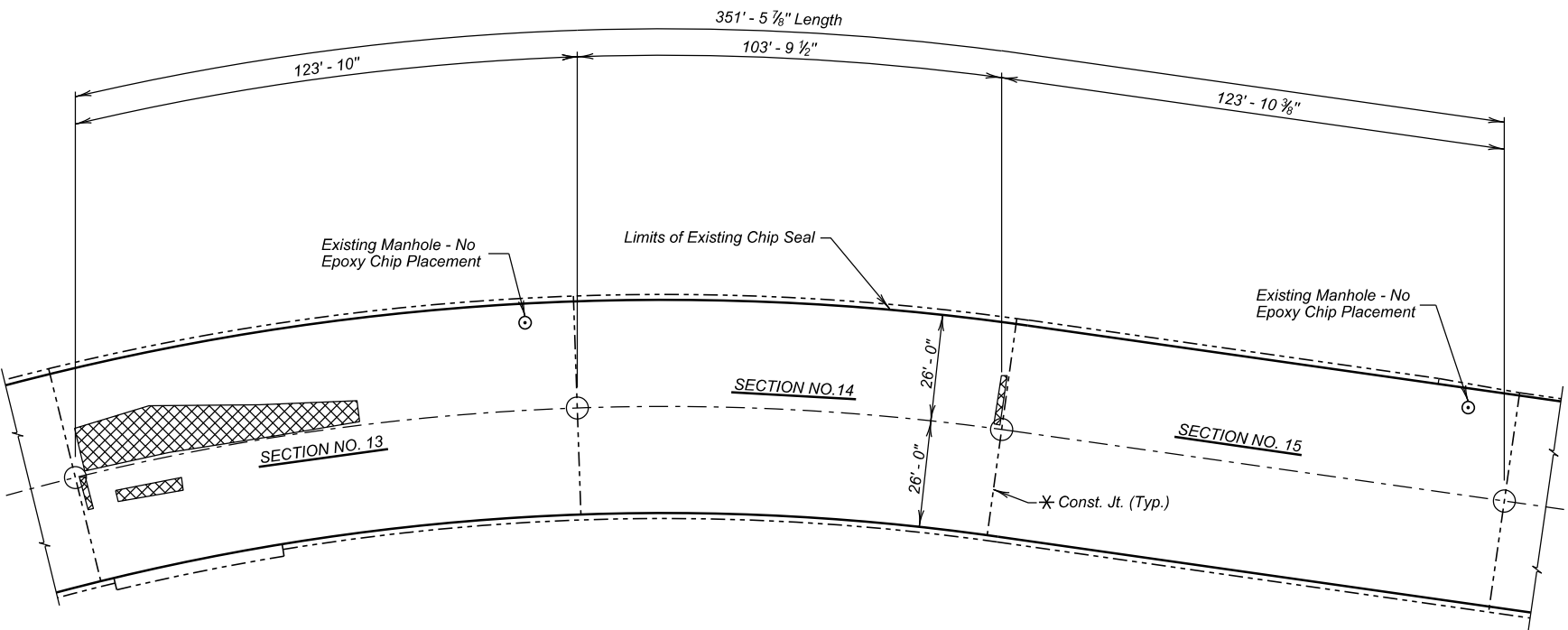
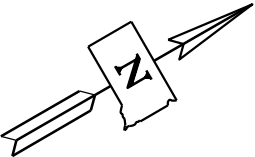
**45' SPAN SPECIAL CULVERT-BRIDGE**

48' - 0" & 52' - 0" ROADWAY CITY OF DEADWOOD  
OVER WHITEWOOD CREEK  
STR. NO. 4I-161-156

LAWRENCE COUNTY  
S. D. DEPT. OF TRANSPORTATION  
JULY 2018

DESIGNED BY BWS LAWR15E9	DRAWN BY BWS 15E9LA17		
--------------------------------	-----------------------------	--	--

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	014A-451 & 016WB-452	13	17



PLAN

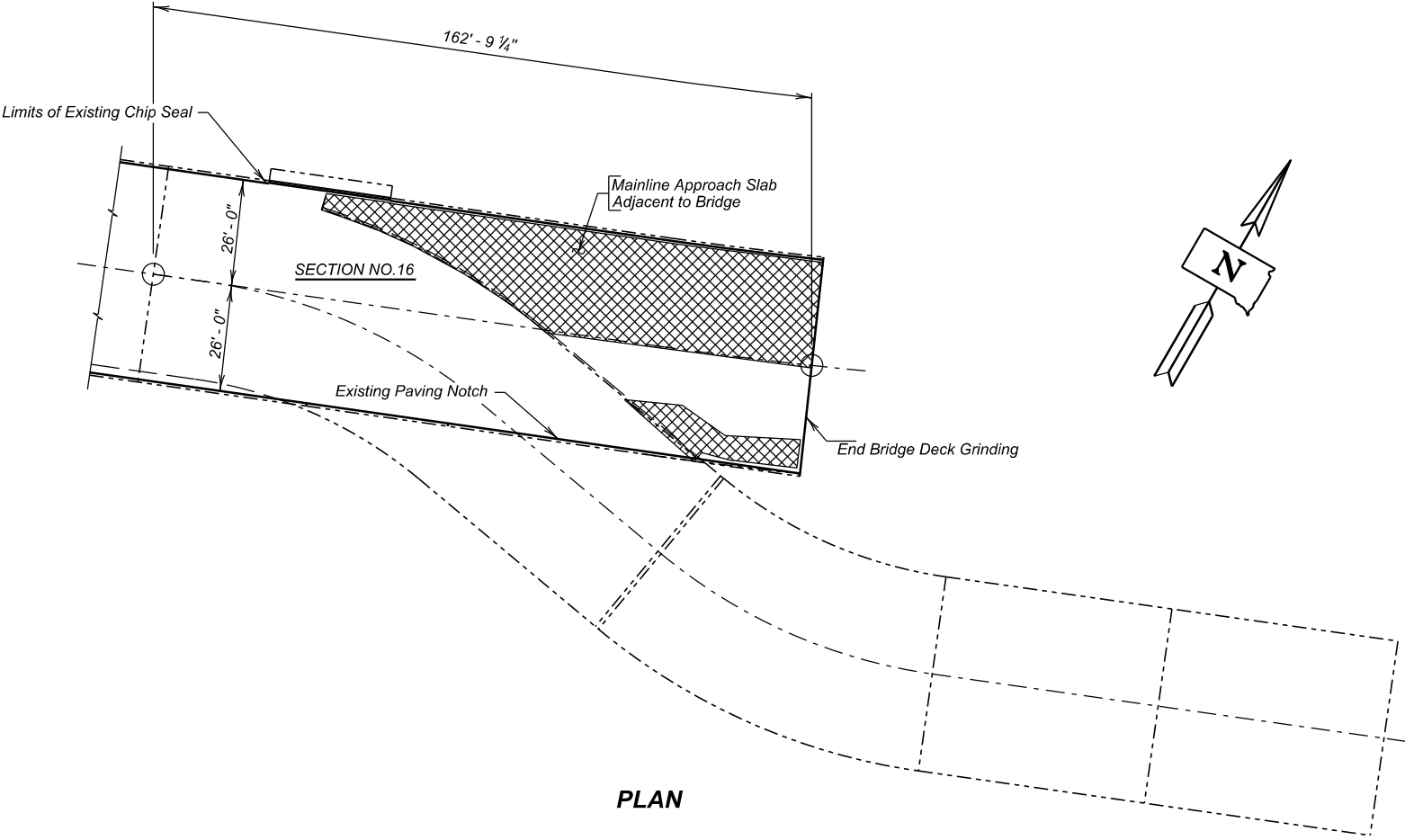
No existing chip seal, Do not grind.  
Areas are an estimation only.


EPOXY CHIP SEAL REMOVAL (SECTIONS 13 - 15)  
FOR  
45' SPAN SPECIAL CULVERT-BRIDGE  
48' - 0" & 52' - 0" ROADWAY CITY OF DEADWOOD  
OVER WHITEWOOD CREEK  
STR. NO. 4I-16I-156

LAWRENCE COUNTY  
S. D. DEPT. OF TRANSPORTATION  
JULY 2018

DESIGNED BY BWS LAWR15E9	DRAWN BY BWS 15E9LA18		
--------------------------------	-----------------------------	--	--

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	014A-451 & 016WB-452	14	17



 No existing chip seal, Do not grind.  
Areas are an estimation only.

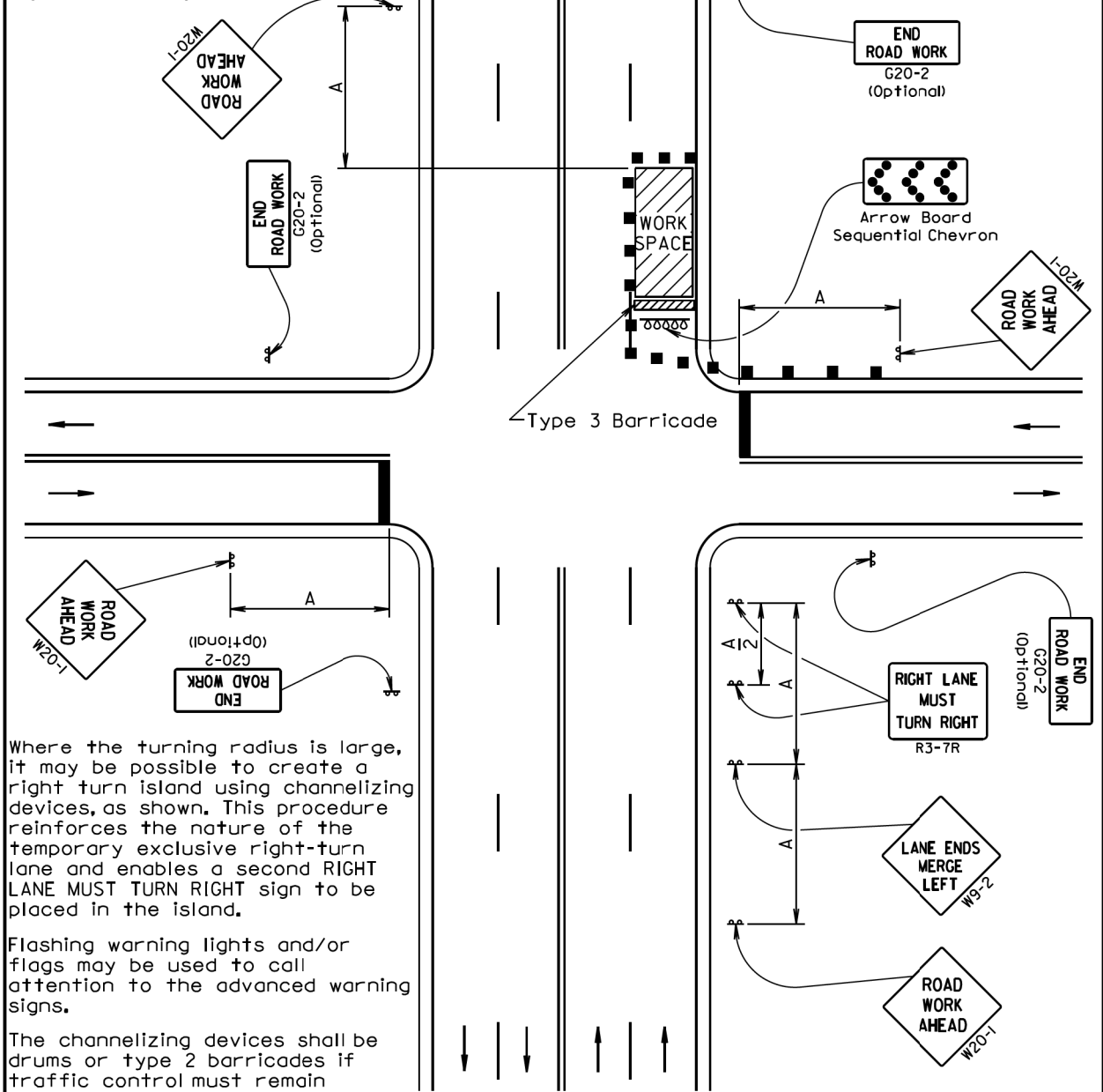
EPOXY CHIP SEAL REMOVAL (SECTION 16)  
FOR  
**45' SPAN SPECIAL CULVERT-BRIDGE**  
48' - 0" & 52' - 0" ROADWAY CITY OF DEADWOOD  
OVER WHITEWOOD CREEK  
STR. NO. 4I-16I-156

LAWRENCE COUNTY  
S. D. DEPT. OF TRANSPORTATION  
JULY 2018

DESIGNED BY BWS LAWR15E9	DRAWN BY BWS 15E9LA19		
--------------------------------	-----------------------------	--	--

For intersection approaches reduced to a single lane, left-turning movements may be prohibited to maintain capacity for through traffic.

The standard procedure is to close on near side of the intersection any lane that is not carried through the intersection. However, when this results in the closing of a right lane having significant right-turning movements, then the right lane may be restricted to right turns only, as shown.

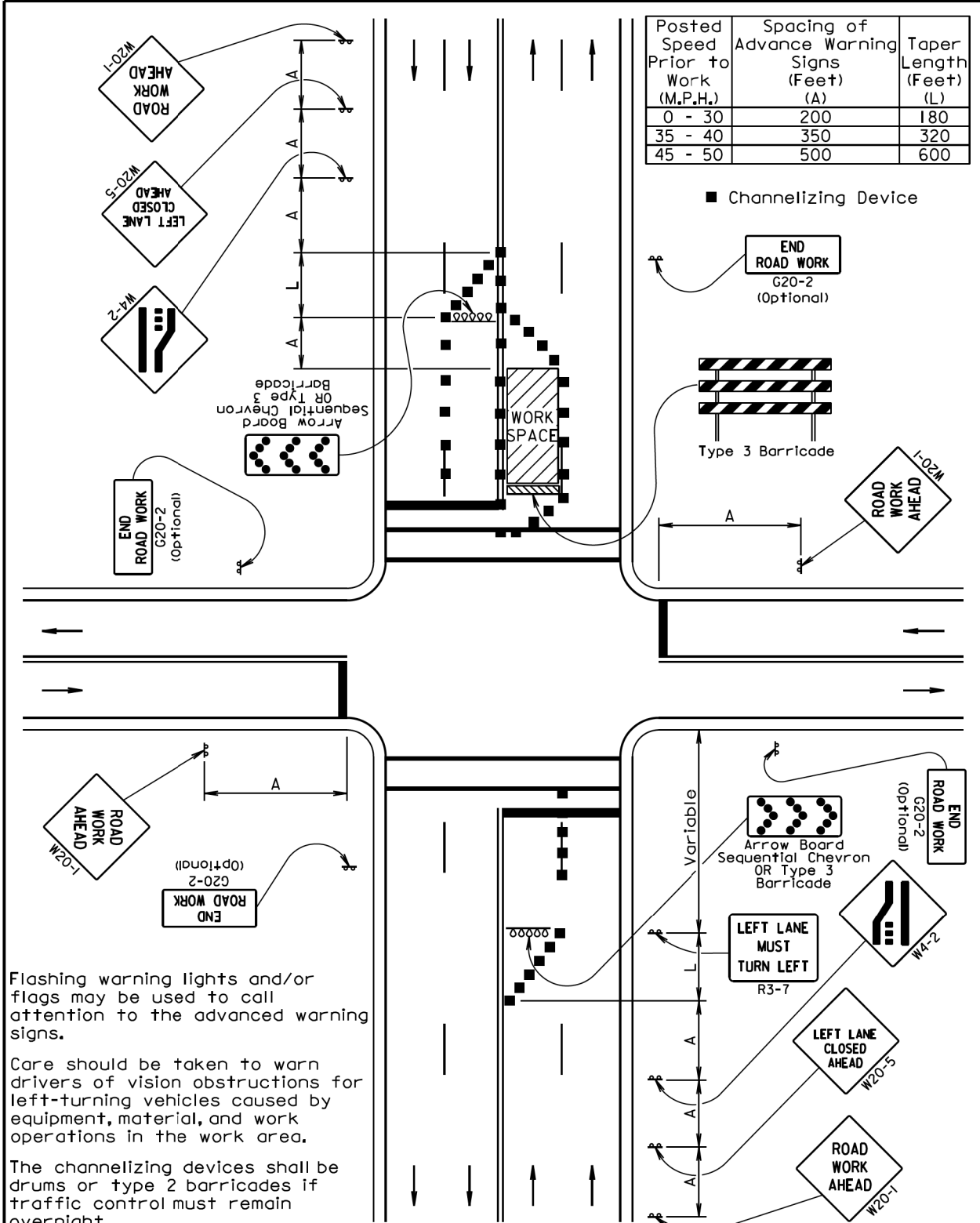


Where the turning radius is large, it may be possible to create a right turn island using channelizing devices, as shown. This procedure reinforces the nature of the temporary exclusive right-turn lane and enables a second RIGHT LANE MUST TURN RIGHT sign to be placed in the island.

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

The channelizing devices shall be drums or type 2 barricades if traffic control must remain overnight.

September 22, 2014



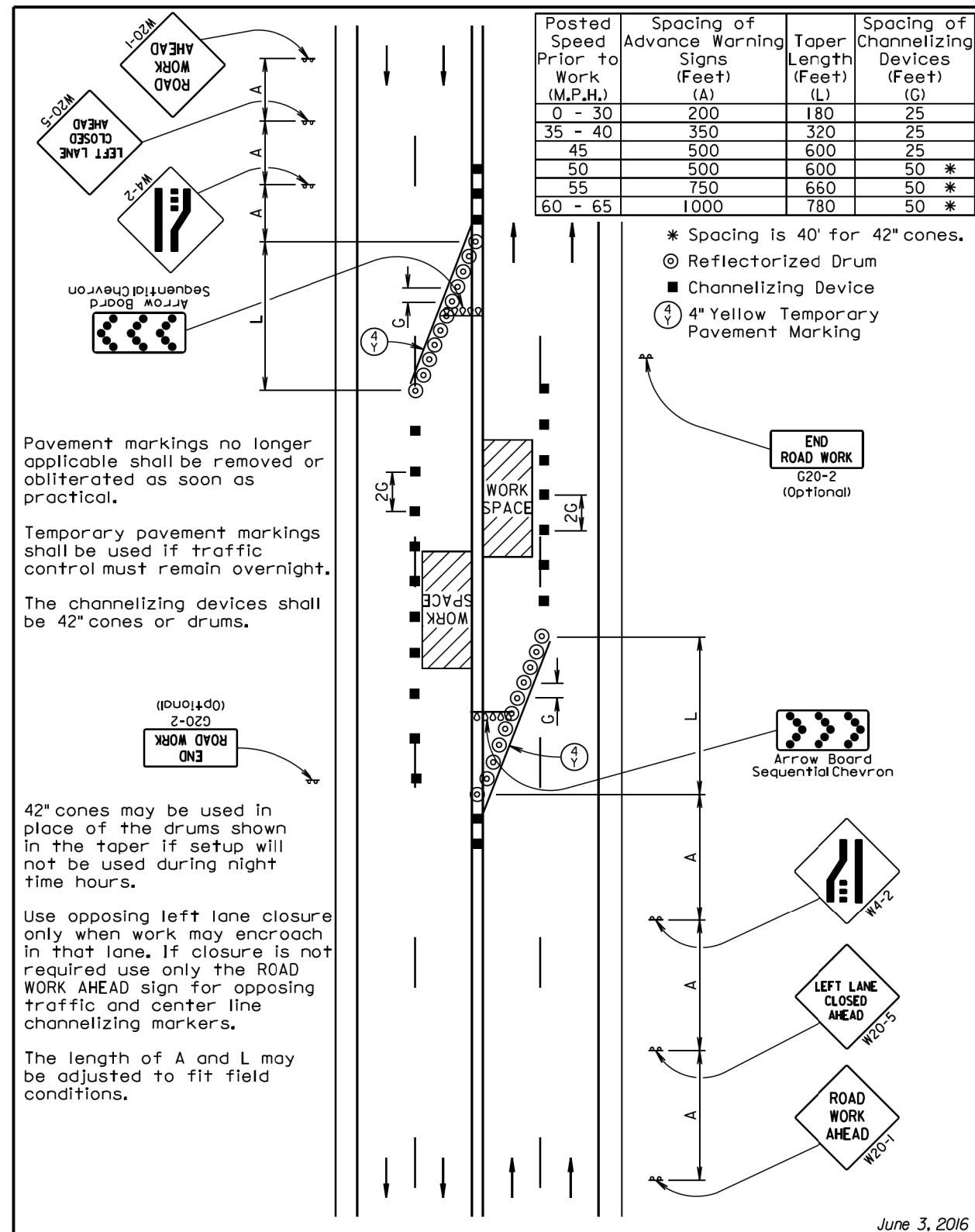
Flashing warning lights and/or flags may be used to call attention to the advanced warning signs.

Care should be taken to warn drivers of vision obstructions for left-turning vehicles caused by equipment, material, and work operations in the work area.

The channelizing devices shall be drums or type 2 barricades if traffic control must remain overnight.

September 22, 2014

Plotting Date: 07/18/2018



June 3, 2016

***SDDOT***

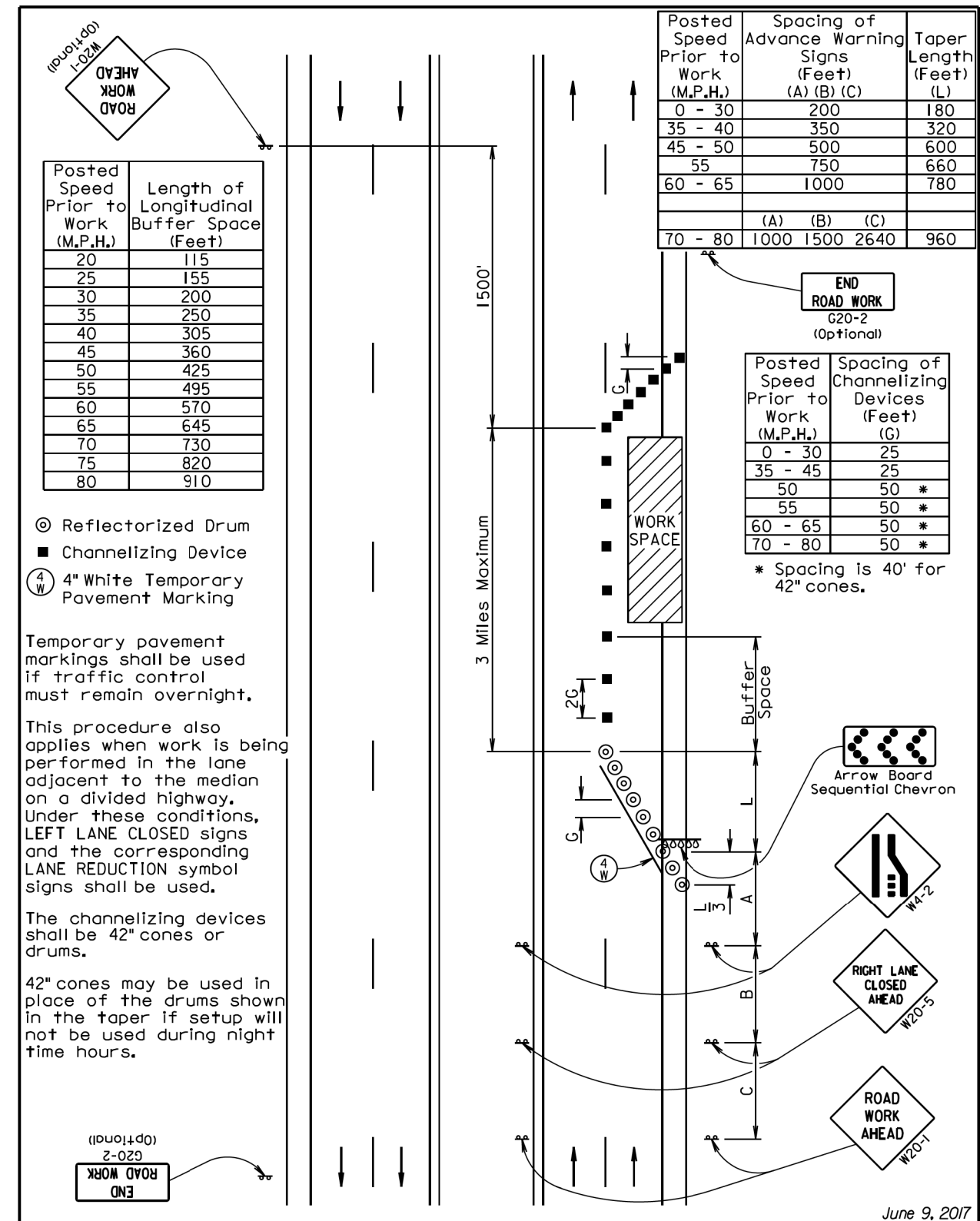
## GUIDES FOR TRAFFIC CONTROL DEVICES

### 4-LANE UNDIVIDED, LEFT LANE CLOSED

PLATE NUMBER  
634.48

Sheet 1 of 1

***Published Date: 2nd Qtr. 2018***



June 9, 2017

SDDOT

## GUIDES FOR TRAFFIC CONTROL DEVICES

### LANE CLOSURE WITHOUT BARRIER

PLATE NUMBER  
634.64

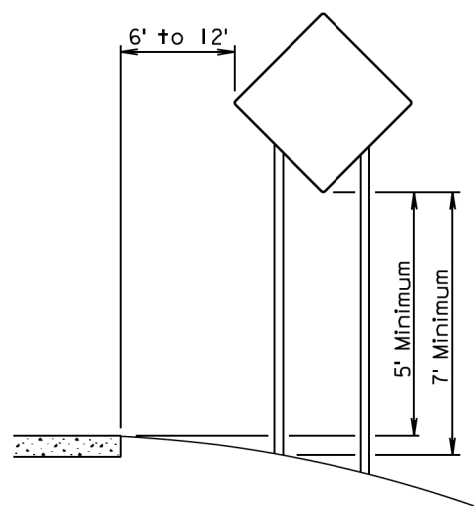
Sheet 1 of 1

**Published Date: 2nd Qtr. 2018**

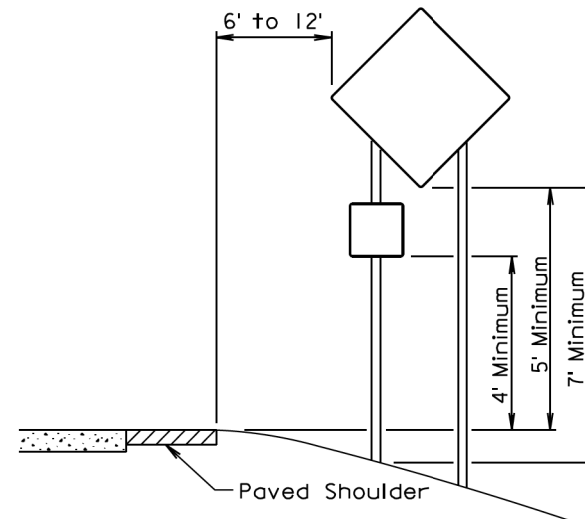


STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	014A-451 & 016WB-452	17	17

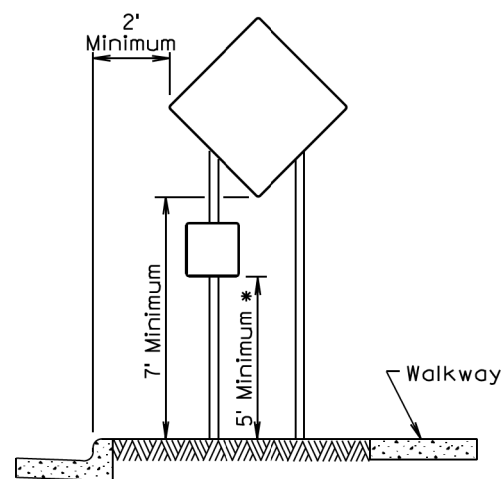
Plotting Date: 07/18/2018



RURAL DISTRICT

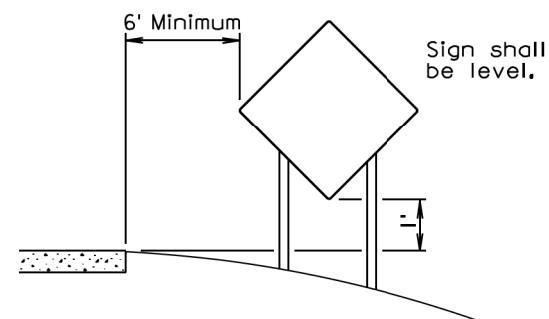


RURAL DISTRICT WITH  
SUPPLEMENTAL PLATE



URBAN DISTRICT

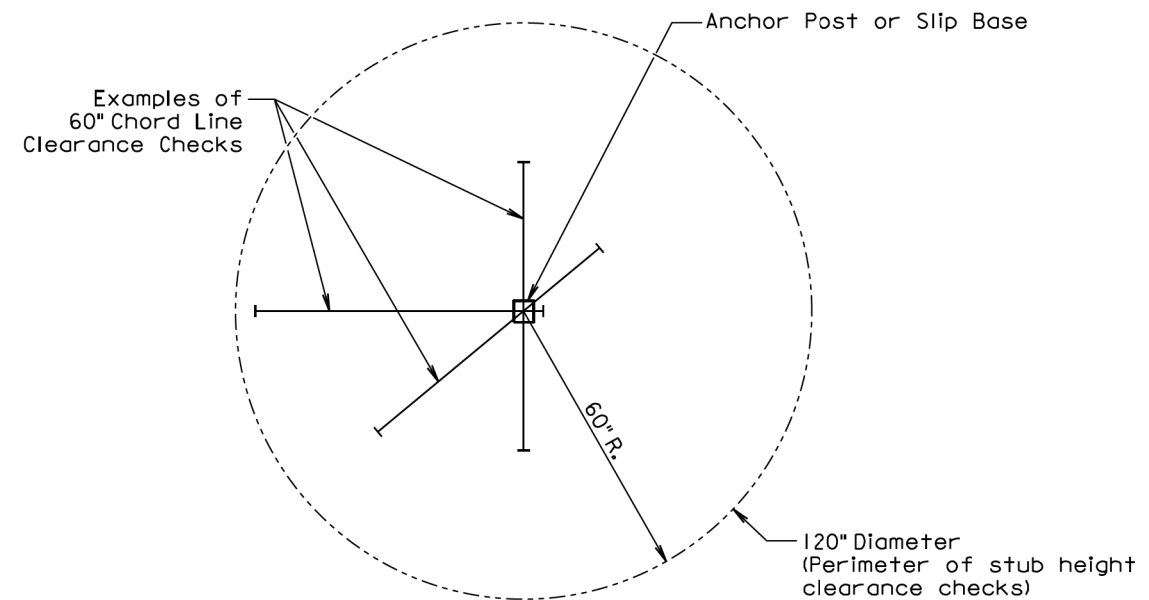
\* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.



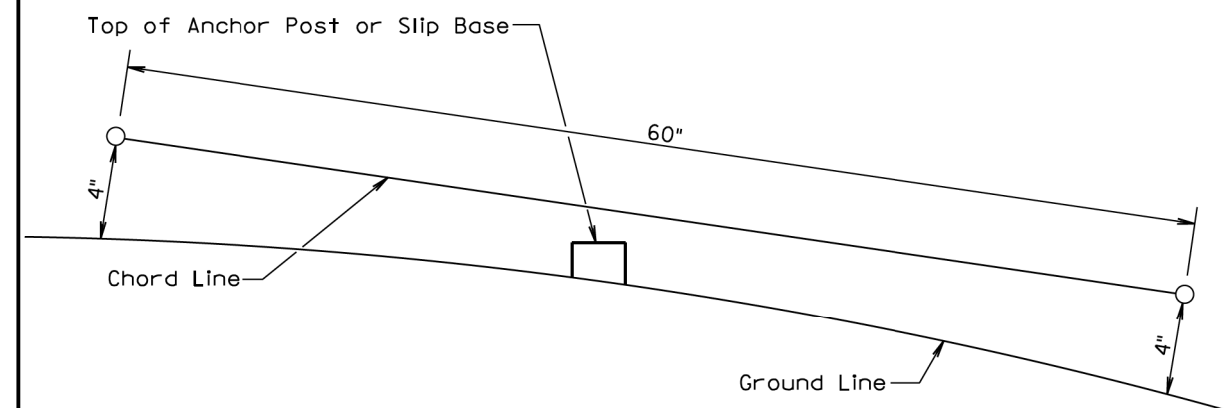
RURAL DISTRICT  
3 DAY MAXIMUM  
(Not applicable to regulatory signs)

September 22, 2014

Published Date: 2nd Qtr. 2018	S D D O T	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	S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1