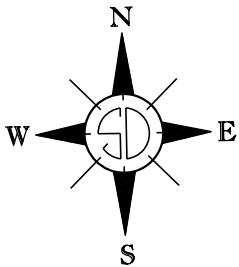


STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	014-351 014B-351	1	7



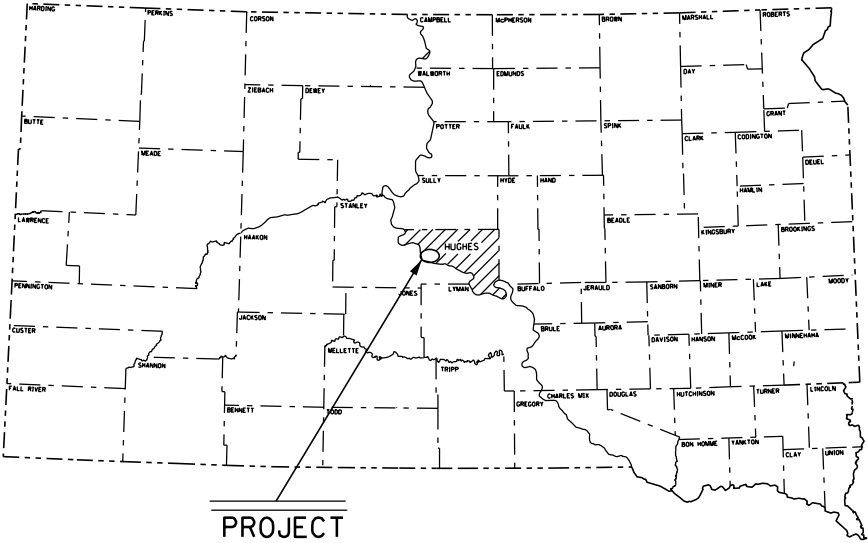
STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
PROJECTS 014-351 & 014B-351
US HIGHWAYS 14 & 14B
HUGHES COUNTY

CONCRETE CURB REPAIR

PCN 13CN & 13CP

INDEX OF SHEETS

SHEET 1	TITLE SHEET
SHEETS 2&3	ESTIMATE OF QUANTITIES, PLAN NOTES & SIGN TABULATION
SHEETS 4&5	CURB REPAIR DETAILS
SHEETS 6&7	STANDARD PLATES



PROJECT

BEGIN - 014-351
MRM 228.35

END - 014-351
MRM 229.13

BEGIN - 014B-351
MRM 229.13

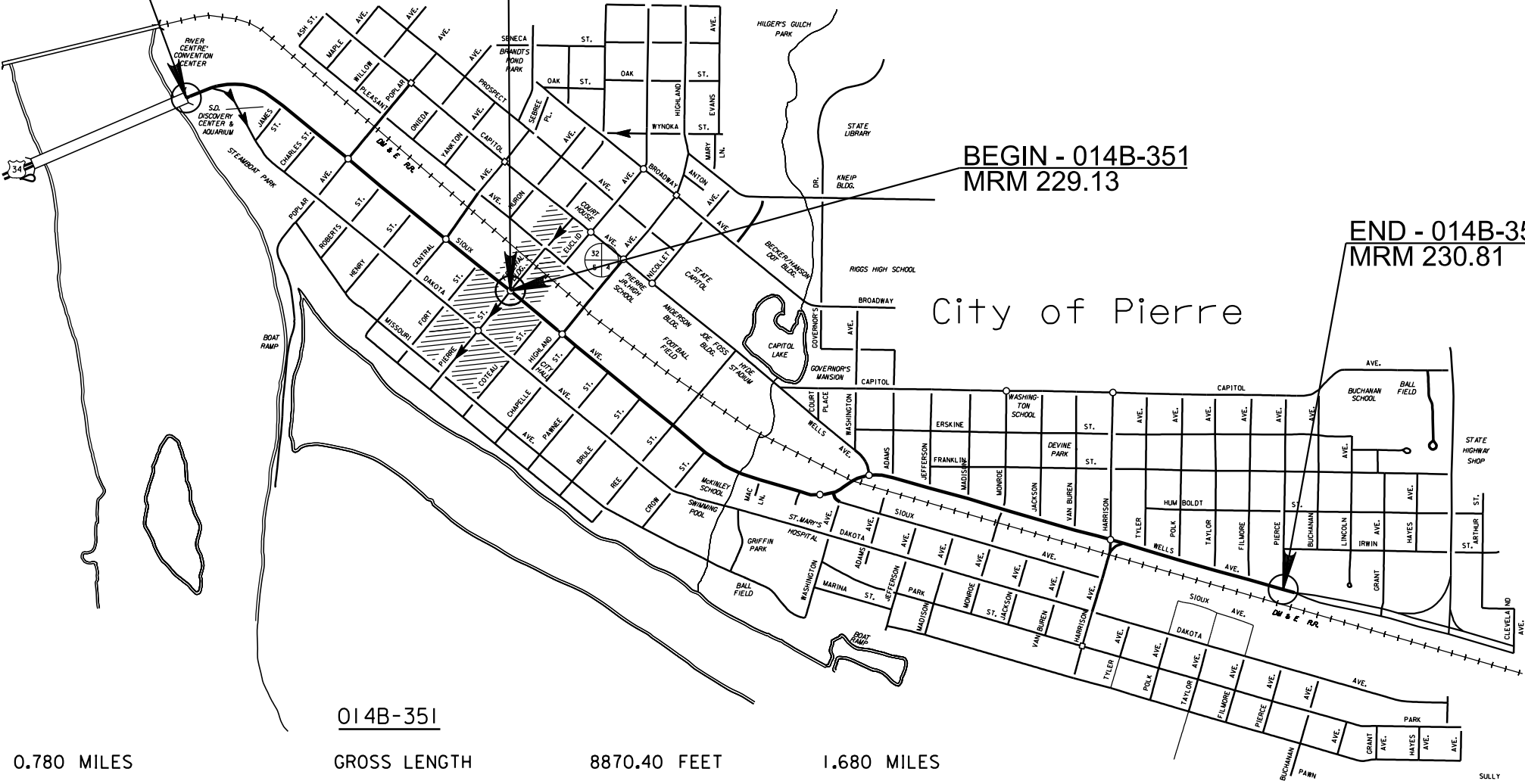
END - 014B-351
MRM 230.81

DESIGN DESIGNATION

ADT (2013)	9723
ADT (2033)	13565
DHV	2297
D	51%
T DHV	3.1%
T ADT	6.8%
V	35 MPH

STORM WATER PERMIT

(None Required)



014-351

GROSS LENGTH	4118.40 FEET	0.780 MILES
LENGTH OF EXCEPTIONS	0.0 FEET	0.0 MILES
NET LENGTH	4118.40 FEET	0.780 MILES

014B-351

GROSS LENGTH	8870.40 FEET	1.680 MILES
LENGTH OF EXCEPTIONS	0.0 FEET	0.0 MILES
NET LENGTH	8870.40 FEET	1.680 MILES

ESTIMATE OF QUANTITIES

014-351 PCN I3CN

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
634E0100	Traffic Control	233	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
650E3060	Type B6 Concrete Curb	449	Ft

014B-351 PCN I3CP

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
634E0100	Traffic Control	233	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
650E3060	Type B6 Concrete Curb	486	Ft

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and/or Special Provisions as included in the Proposal.

SEQUENCE OF OPERATIONS

There shall only be a maximum of two work areas unless approved by the Engineer. No more than two blocks may be worked on at a time, with a minimum spacing of three blocks between work areas. Traffic control shall be removed from the work zone within 5 days of pouring the curb in that area.

No work shall be allowed from November 1st 2014 to April 12th 2015 (inclusive).

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.

Storage of vehicles and equipment shall be outside the clear zone and as near as possible to the right-of-way line. Contractor's employees should mobilize at a location off the right-of-way and arrive at the work sites in a minimum number of vehicles necessary to perform the work.

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

The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP Report 350 or MASH crashworthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

TRAFFIC CONTROL

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

Signing placed more than two days prior to the start of curb repair work shall be covered until that work begins. The cost of materials, labor and equipment necessary to complete this work shall be incidental to the various contract items. No separate payment will be made.

WASTE DISPOSAL SITE

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

Construction/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 Highway, Road, and Railway Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Environment and Natural Resources.

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

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

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the 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".

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.

CURB REPAIR

All costs to remove broken curb concrete, furnish, install, drill and epoxy rebar, furnish and install expansion joint material, cleaning of surface area prior to concrete placement, sandblast, etc... will be incidental to the contract unit price per foot for Type B6 Concrete Curb.

The Concrete placed shall be protected and cured in accordance with Section 460.3, except the minimum curing time shall be 72 hours.

Cleaning of the existing surface shall be to the satisfaction of the Engineer. Grout shall be used on all surfaces prior to placement of new concrete. Grout shall consist of: 2 parts cement to 1 part sand and add approximately 1 part water to make a creamy consistency. Grout shall not be allowed to dry before it's covered with concrete. The front of the curb joint line shall have grout applied to help promote bonding of the new and old concrete.

Epoxy coated deformed steel bars shall be inserted on 12 inch centers. The first steel bar shall be placed a minimum of 3 inches and a maximum of 6 inches from the outside edge of the existing curb and gutter.

Epoxy resin adhesive shall be from the type intended for horizontal applications, and shall conform to the requirements of ASTM C 881, Type IV, Grade 3 (equivalent to AASHTO M235, Type IV, Grade 3).

ITEMIZED LIST FOR TRAFFIC CONTROL 014-351

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	1	17	17
W1-6	48" x 24"	LARGE ARROW	1	24	24
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	1	34	34
W20-1	48" x 48"	ROAD WORK ##### FT. OR AHEAD	2	34	68
W20-5	48" x 48"	LT. OR RT. LANE CLOSED ##### FT. OR AHEAD	1	34	34
*****	*****	TYPE III BARRICADE - 8 FT. DOUBLE SIDED	1	56	56
TOTAL UNITS					233

SUMMARY TABLE BY BLOCK FOR CURB REPAIR AREAS & LOCATIONS

Block	Total length (ft)	Number of Locations
Bridge to James	41	2
James to Charles	17	1
Charles to Poplar	35	1
Poplar to Robert	40	3
Robert to Henry	99	4
Henry to Central	62	6
Central to Fort	119	5
Fort to Pierre	36	3
Pierre to Coteau	5	1
Coteau to Highland	21	3
Highland to Chapelle	11	1
Chapelle to Pawnee	5	1
Pawnee to Brule	54	4
Brule to Ree	52	6
Ree to Crow	51	4
Crow to Mac	53	7
Mac to High	0	0
High to Sioux	0	0
Sioux to Wells	2	1
Wells to Adams	6	1
Adams to Jefferson	37	7
Jefferson to Madison	3	1
Madison to Monroe	38	4
Monroe to Jackson	31	5
Jackson to Van Buren	35	3
Van Buren to Harrison	30	2
Harrison to Tyler	22	3
Tyler to Polk	5	1
Polk to Taylor	8	2
Taylor to Filmore	3	1
Filmore to Pierce	7	1
Pierce to Grant	7	3
Total	935	87

ITEMIZED LIST FOR TRAFFIC CONTROL 014B-351

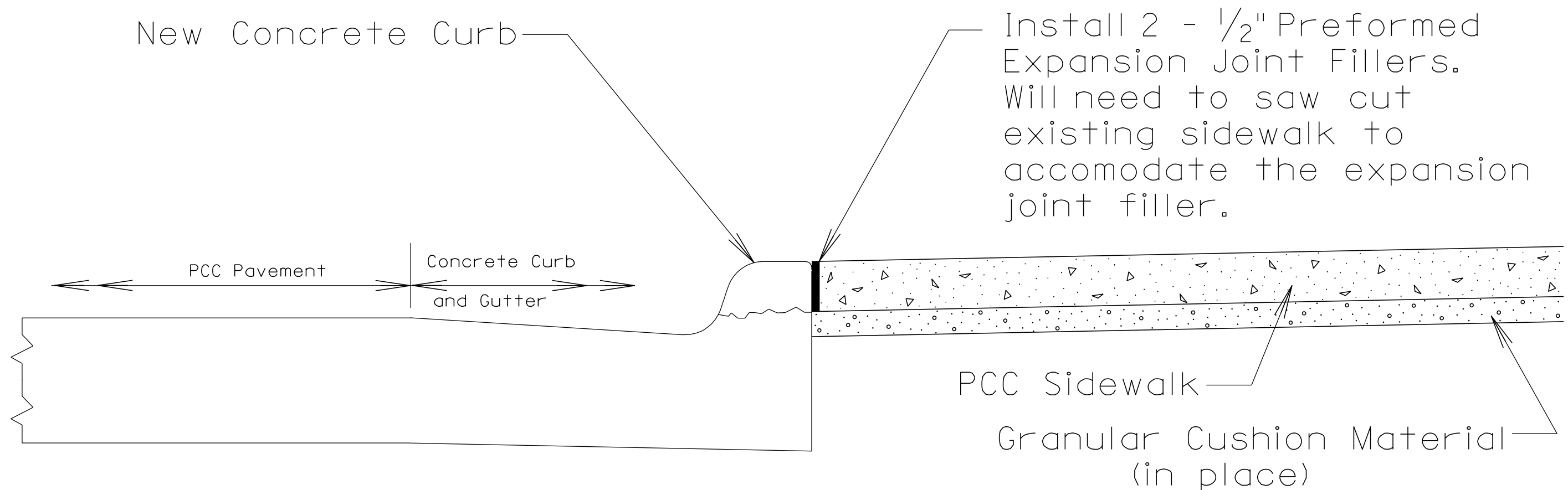
SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	1	17	17
W1-6	48" x 24"	LARGE ARROW	1	24	24
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	1	34	34
W20-1	48" x 48"	ROAD WORK ##### FT. OR AHEAD	2	34	68
W20-5	48" x 48"	LT. OR RT. LANE CLOSED ##### FT. OR AHEAD	1	34	34
*****	*****	TYPE III BARRICADE - 8 FT. DOUBLE SIDED	1	56	56
TOTAL UNITS					233

DETAIL TABLE BY BLOCK FOR CURB REPAIR AREAS & LOCATIONS

Block	Length (ft)	Lane	Block	Length (ft)	Lane	Block	Length (ft)	Lane	Block	Length (ft)	Lane
Bridge to James St.	16	WB	Coteau to Highland	13	WB	Sioux to Wells	2	EB	Tyler to Polk	5	WB
Bridge to James St.	25	EB	Coteau to Highland	5	EB	Block Total	2		Block Total	5	
Block Total	41		Coteau to Highland	3	EB						
			Block Total	21		Wells to Adams	6	WB	Polk to Taylor	2	WB
James to Charles	17	EB				Block Total	6		Polk to Taylor	6	EB
Block Total	17		Highland to Chapelle	11	EB				Block Total	8	
			Block Total	11		Adams to Jefferson	5	WB			
Charles to Poplar	35	EB				Adams to Jefferson	4	WB	Taylor to Filmore	3	WB
Block Total	35		Chapelle to Pawnee	5	WB	Adams to Jefferson	7	WB	Block Total	3	
			Block Total	5		Adams to Jefferson	2	WB			
Poplar to Robert	12	WB				Adams to Jefferson	6	EB	Filmore to Pierce	7	EB
Poplar to Robert	10	EB	Pawnee to Brule	13	EB	Adams to Jefferson	7	EB	Block Total	7	
Poplar to Robert	18	EB	Pawnee to Brule	14	EB	Adams to Jefferson	6	EB			
Block Total	40		Pawnee to Brule	7	EB	Block Total	37		Pierce to Grant	2	EB
			Pawnee to Brule	20	EB				Pierce to Grant	3	WB
Robert to Henry	41	EB	Block Total	54		Jefferson to Madison	3	WB	Pierce to Grant	2	WB
Robert to Henry	36	EB				Block Total	3		Block Total	7	
Robert to Henry	9	EB	Brule to Ree	12	EB						
Robert to Henry	13	WB	Brule to Ree	14	WB	Madison to Monroe	6	WB			
Block Total	99		Brule to Ree	8	WB	Madison to Monroe	15	EB			
			Brule to Ree	6	WB	Madison to Monroe	8	EB			
Henry to Central	18	WB	Brule to Ree	10	WB	Madison to Monroe	9	EB			
Henry to Central	10	EB	Brule to Ree	2	WB	Block Total	38				
Henry to Central	12	EB	Block Total	52							
Henry to Central	10	EB				Monroe to Jackson	11	EB			
Henry to Central	7	EB	Ree to Crow	10	WB	Monroe to Jackson	6	EB			
Henry to Central	5	EB	Ree to Crow	16	EB	Monroe to Jackson	10	WB			
Block Total	62		Ree to Crow	5	EB	Monroe to Jackson	2	WB			
			Ree to Crow	20	EB	Monroe to Jackson	2	WB			
Central to Fort	14	EB	Block Total	51		Block Total	31				
Central to Fort	11	EB									
Central to Fort	69	WB	Crow to Mac	11	EB	Jackson to Van Buren	9	WB			
Central to Fort	9	WB	Crow to Mac	3	WB	Jackson to Van Buren	9	WB			
Central to Fort	16	WB	Crow to Mac	4	WB	Jackson to Van Buren	17	EB			
Block Total	119		Crow to Mac	5	WB	Block Total	35				
			Crow to Mac	5	WB						
Fort to Pierre	8	WB	Crow to Mac	7	WB	Van Buren to Harrison	24	EB			
Fort to Pierre	8	WB	Crow to Mac	18	WB	Van Buren to Harrison	6	WB			
Fort to Pierre	20	EB	Block Total	53		Block Total	30				
Block Total	36										
			Mac to High	NONE		Harrison to Tyler	11	WB			
Pierre to Coteau	5	WB				Harrison to Tyler	7	EB			
Block Total	5		High to Sioux	NONE		Harrison to Tyler	4	EB			
						Block Total	22				

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	014-351 014B-351		
		4	7

CURB REPAIR DETAILS

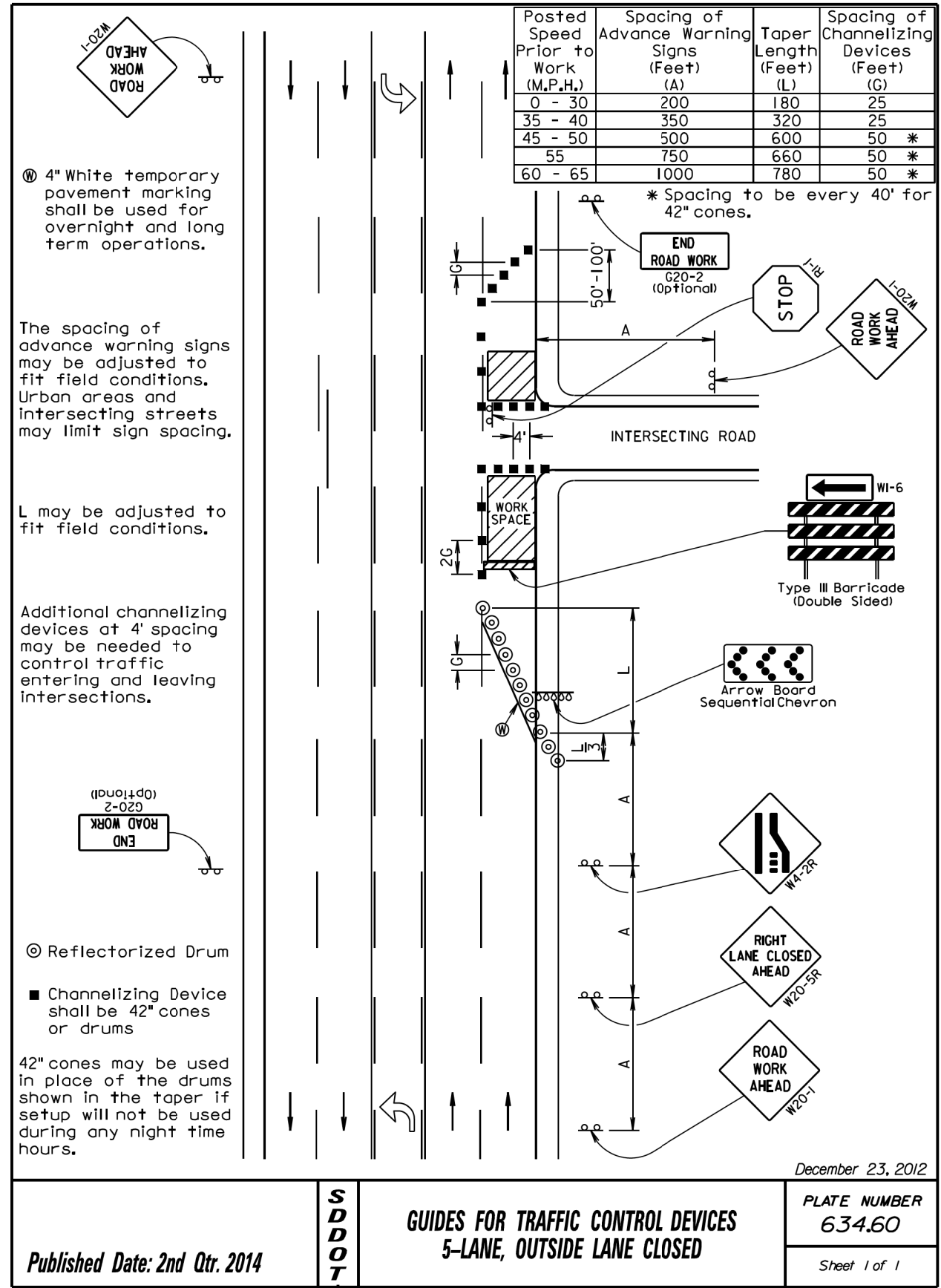
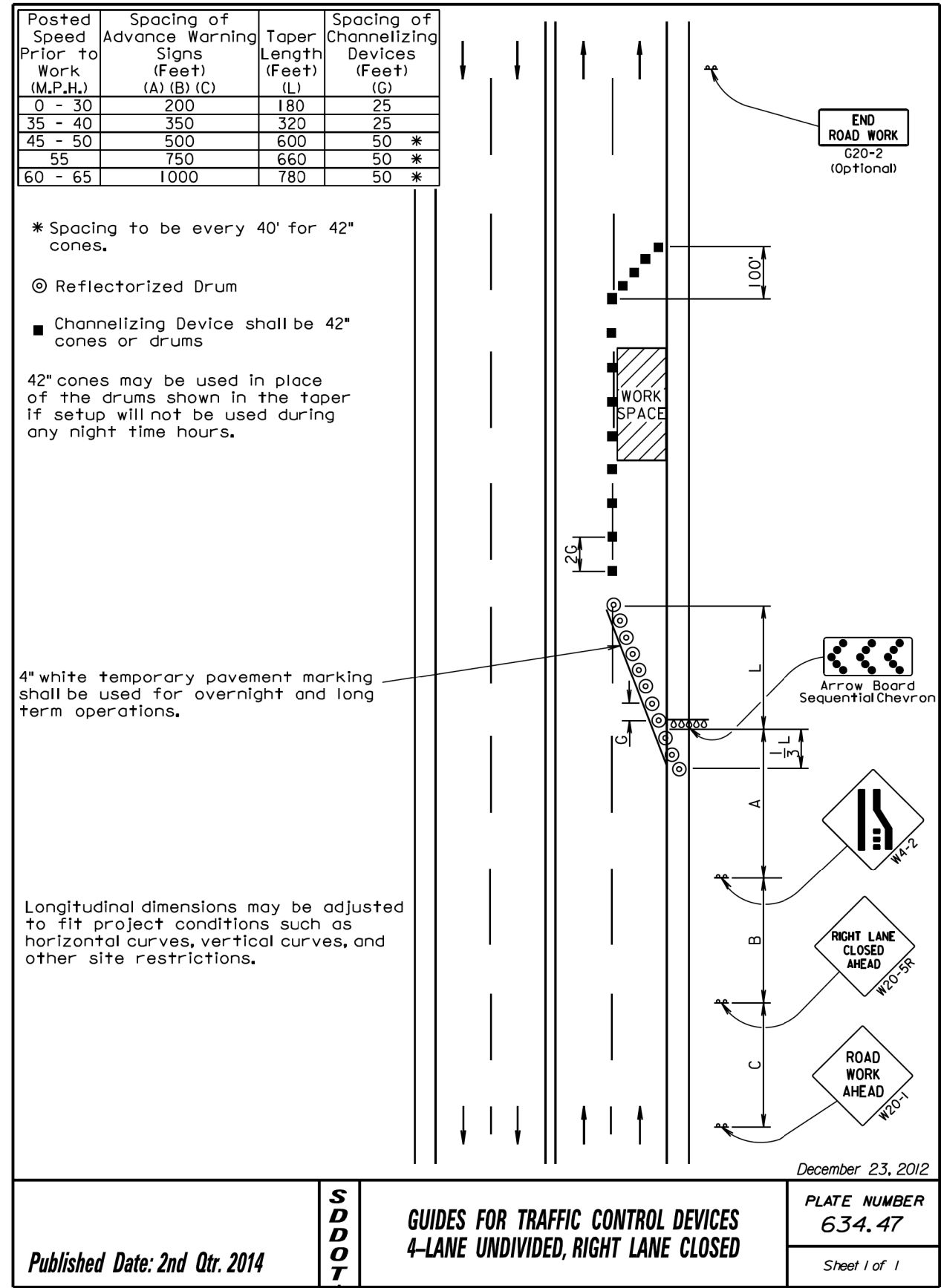


ELEVATION VIEW
(Pre-formed Expansion Joint Detail)

NOTES: Expansion joints between NEW CONCRETE CURB & exisiting PCC sidewalk shall consist of 2 - 1/2 inch thick preformed expansion joint filler material placed full depth and width of the NEW CONCRETE CURB replacement.

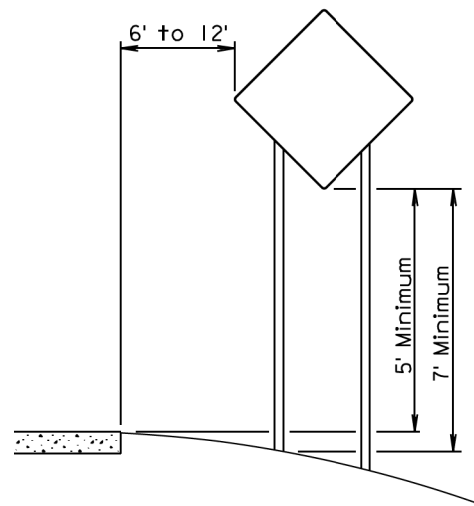
Sawing for expansion joint filler material shall be incidental to the contract unit price per foot for Type B6 Concrete Curb.

Any damaged sidewalk shall be repaired by the Contractor at no cost to the State.

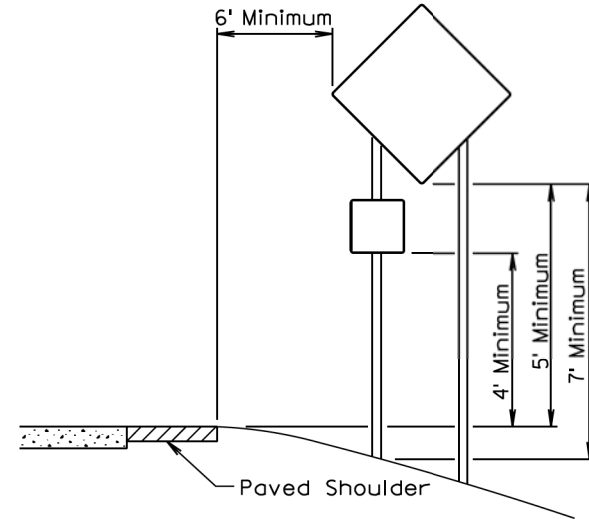


STATE OF SOUTH DAKOTA	PROJECT 014-351 014B-351	SHEET 7	TOTAL SHEETS 7
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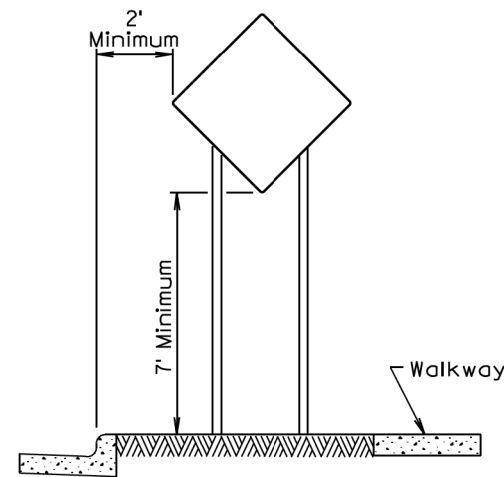
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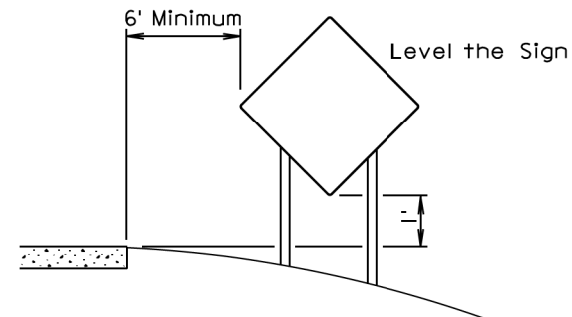
RURAL DISTRICT



RURAL DISTRICT WITH
SUPPLEMENTAL PLATE



URBAN DISTRICT

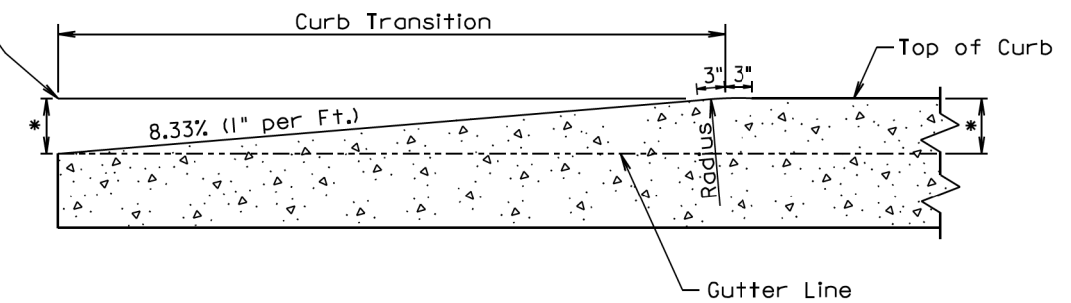


RURAL DISTRICT
3 DAY MAXIMUM

February 14, 2011

Published Date: 2nd Qtr. 2014	S D D O T	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1

End and theoretical elevation of top of curb
and gutter shown on plans and cross sections.



* Height of Curb

LONGITUDINAL SECTION OF CONCRETE CURB TAPER

September 14, 2005

Published Date: 2nd Qtr. 2014	S D D O T	CONCRETE CURB TAPER	PLATE NUMBER 650.35
			Sheet 1 of 1