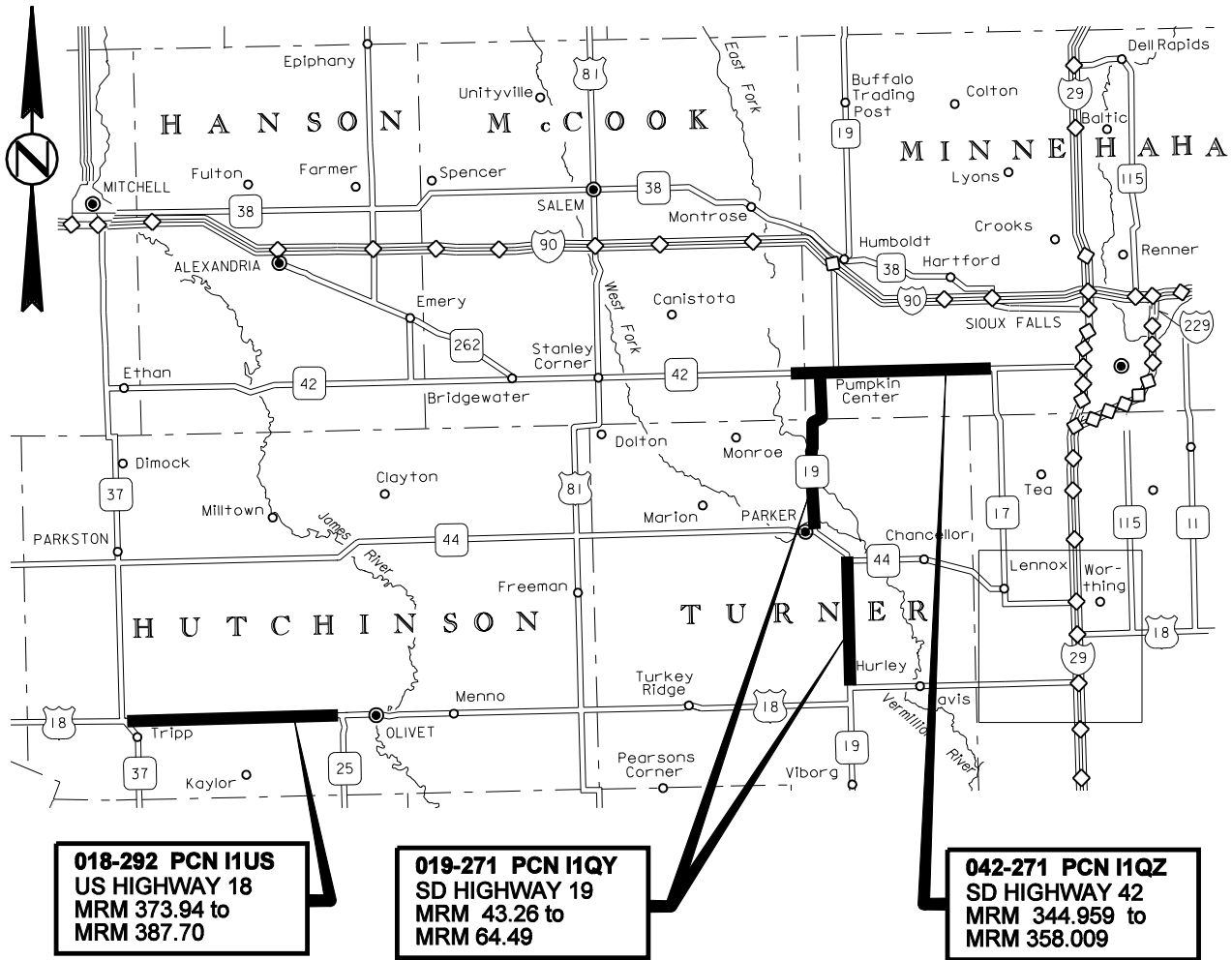


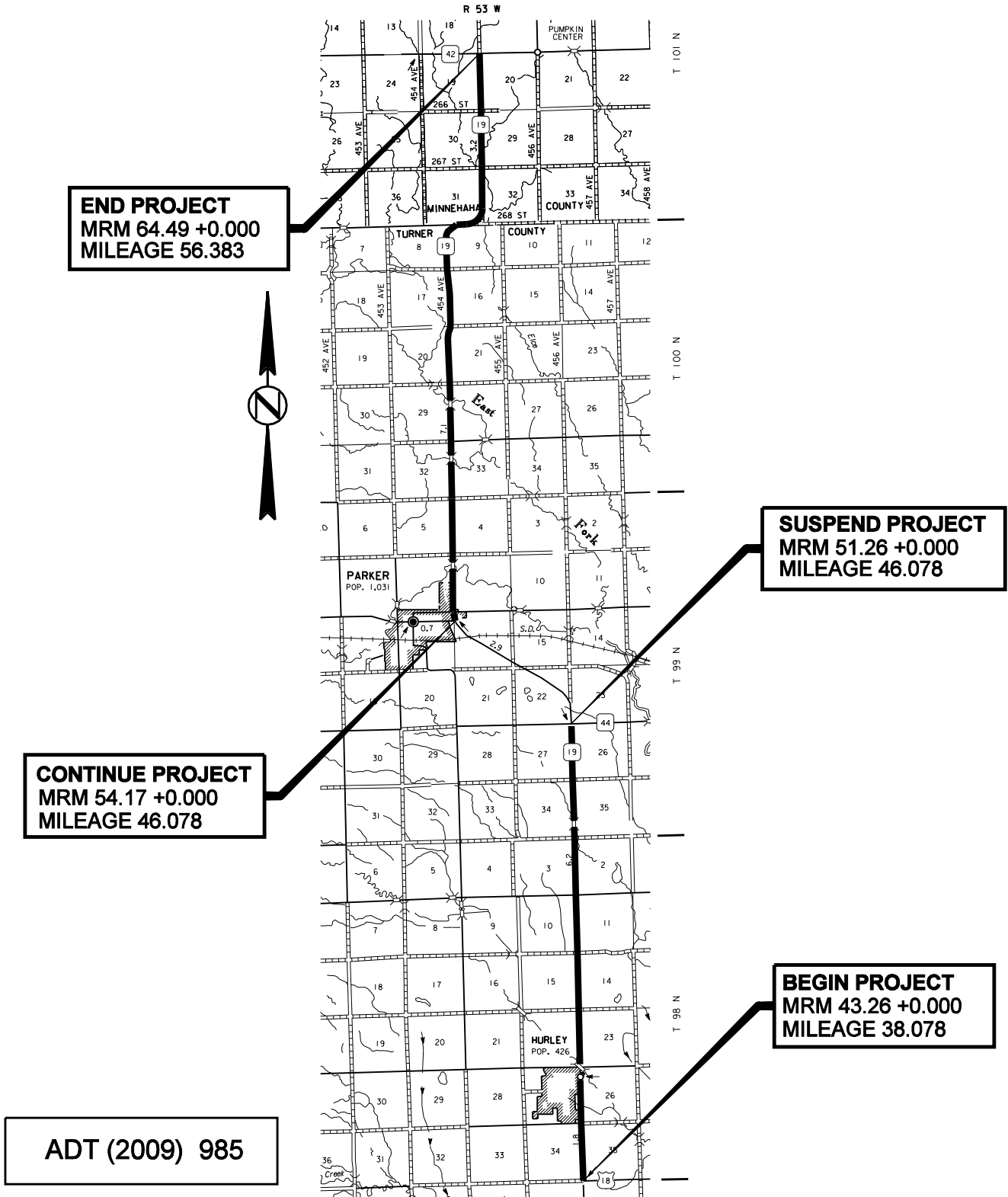
**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED**

**019-271, 042-271 & 018-292
MINNEHAHA, TURNER, McCOOK & HUTCHINSON COUNTIES**

**SIOUX FALLS & YANKTON AREAS
ASPHALT CONCRETE CRACK SEALING
PCN I1QY, I1QZ & I1US**

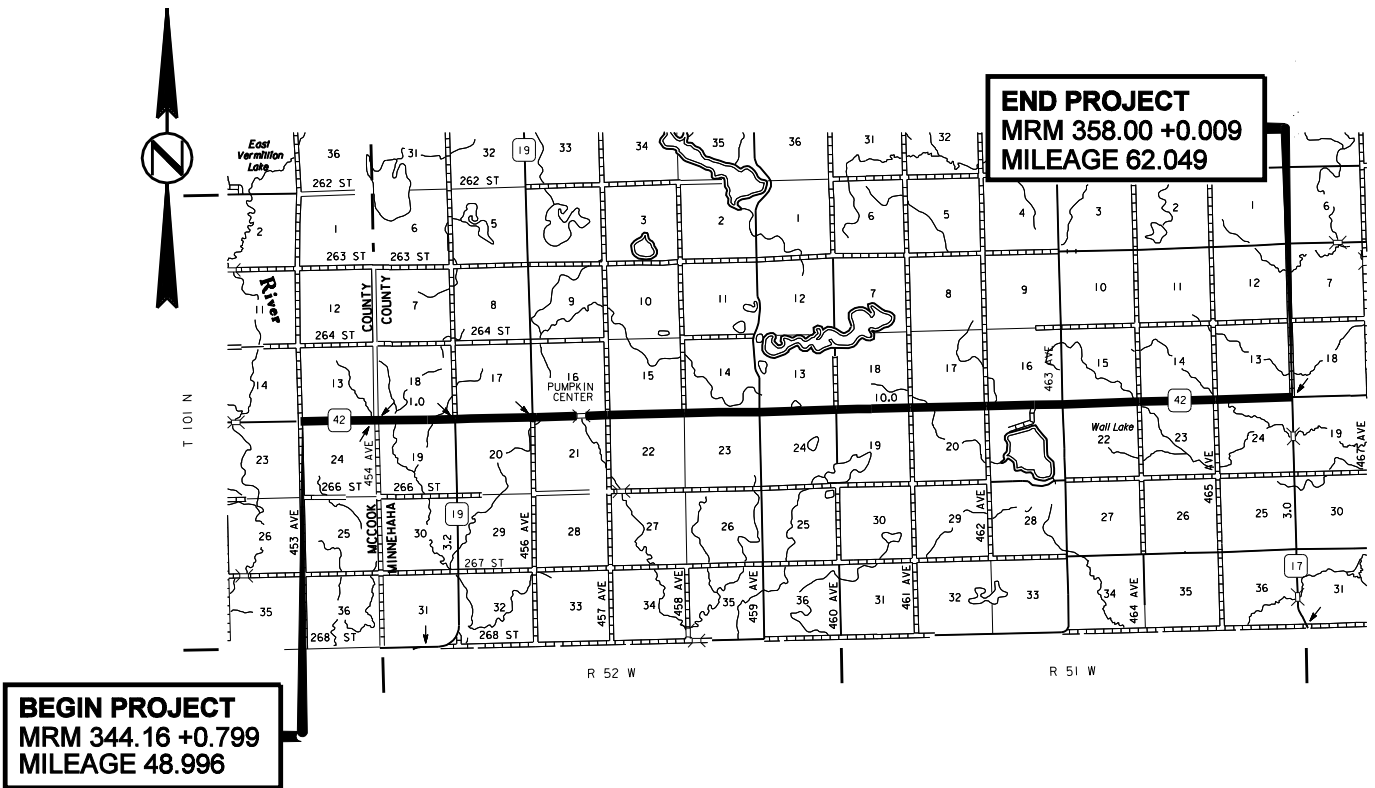


019-271
MINNEHAHA & TURNER COUNTIES
ASPHALT CONCRETE CRACK SEALING
LENGTH: 18.305 MILES
PCN I1QY



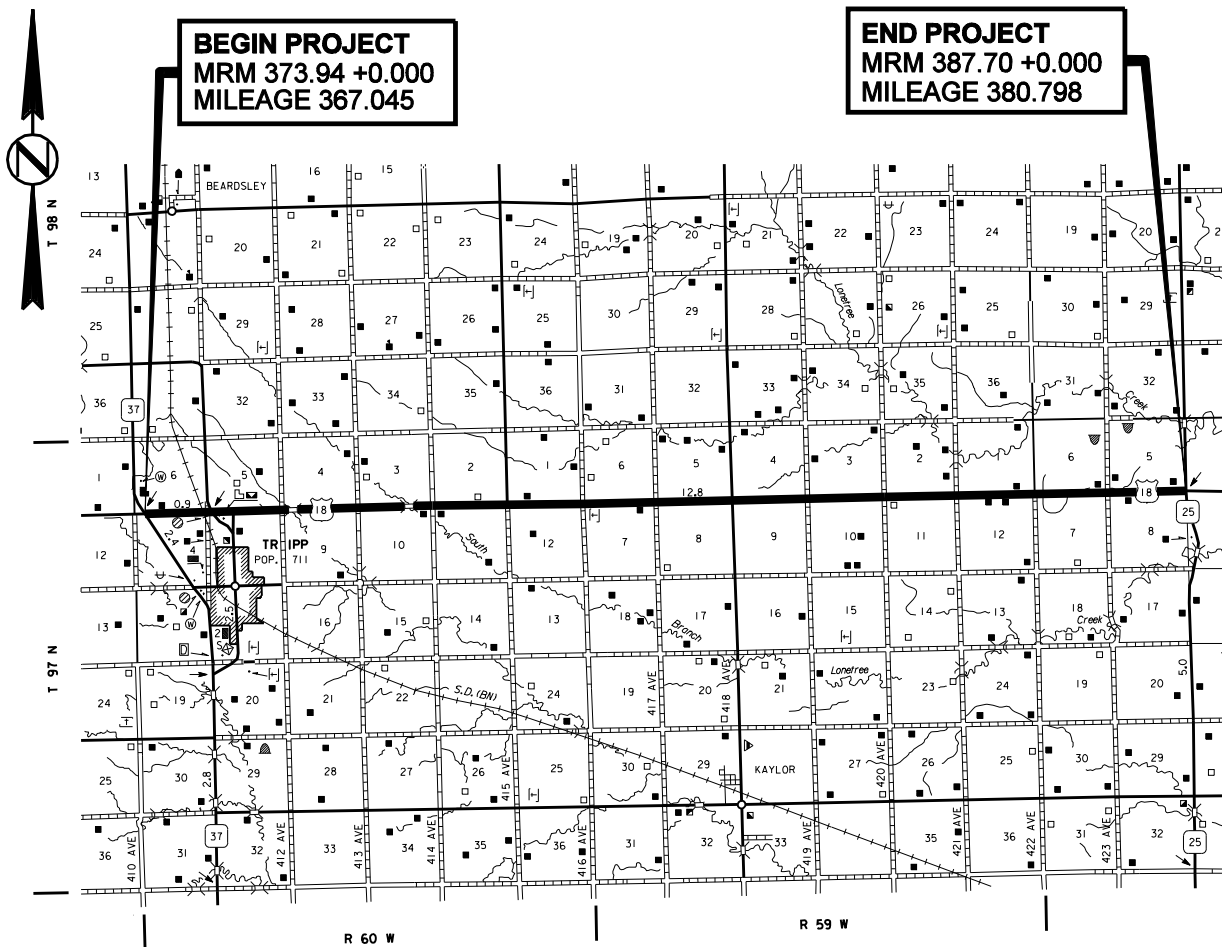
ADT (2009) 985

042-271
MINNEHAHA & McCOOK COUNTIES
ASPHALT CONCRETE CRACK SEALING
LENGTH: 13.053 MILES
PCN 11QZ



ADT (2009) 2590

**018-292
HUTCHINSON COUNTY
ASPHALT CONCRETE CRACK SEALING
LENGTH: 13.753 MILES
PCN 11US**



ADT (2009) 652

**019-271, 042-271 & 018-292
MINNEHAHA, TURNER, McCOOK & HUTCHINSON COUNTIES**

INDEX OF SHEETS

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Sheet 5	Index of Sheets
Sheets 6 & 7	Estimate of Quantities
Sheets 8 & 9	Plan Notes
Sheet 10	Traffic Control
Sheet 11	Typical Reservoir Section

**019-271, 042-271 & 018-292
MINNEHAHA, TURNER, McCOOK & HUTCHINSON COUNTIES**

ESTIMATE OF QUANTITIES

**019-271 PCN I1QY
MINNEHAHA & TURNER COUNTIES**

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
350E0010	Asphalt Concrete Crack Sealing	25,000	Lb
634E0010	Flagging	150	Hour
634E0020	Pilot Car	75	Hour
634E0100	Traffic Control	306	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

**042-271 PCN I1QZ
MINNEHAHA & McCOOK COUNTIES**

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
350E0010	Asphalt Concrete Crack Sealing	36,000	Lb
634E0010	Flagging	216	Hour
634E0020	Pilot Car	108	Hour
634E0100	Traffic Control	306	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

**018-292 PCN I1US
HUTCHINSON COUNTY**

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
350E0010	Asphalt Concrete Crack Sealing	25,000	Lb
634E0010	Flagging	150	Hour
634E0020	Pilot Car	75	Hour
634E0100	Traffic Control	306	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

**019-271, 042-271 & 018-292
MINNEHAHA, TURNER, McCOOK & HUTCHINSON COUNTIES**

**TABLE OF PROJECT QUANTITIES
FOR INFORMATION ONLY**

ITEM	019-271 SF Area	042-271 SF Area	018-292 Yankton Area	TOTAL QUANTITY
Mobilization	<-----Lump Sum----->			Lump Sum
Asphalt Concrete Crack Sealing	25,000	36,000	25,000	86,000 Lbs
Flagging	150	216	150	516 Hours
Pilot Car	75	108	75	258 Hours
Traffic Control	306	306	306	918 Units
Traffic Control, Miscellaneous	<-----Lump Sum----->			Lump Sum

**019-271, 042-271 & 018-292
MINNEHAHA, TURNER, McCOOK & HUTCHINSON COUNTIES**

SPECIFICATIONS

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

ASPHALT CONCRETE CRACK SEALING

The Typical Reservoir Section shall be 5/8 inch wide x 5/8 inch deep as shown on the sheet titled Typical Reservoir Section, NOT 3/4 to 7/8 inch wide and deep as noted in Section 350.3 of the Standard Specifications.

Cracks less than 5/8 inch in width or depth will require routing to a width and depth of 5/8 inch.

Cracks 5/8 inch or greater in width and depth will not require routing, but shall be thoroughly cleaned of foreign materials to a depth equal to the width of the crack.

Cleaning shall be accomplished with an air compressor producing a minimum of 125 CFM output and equipped with a maximum 5/8 inch nozzle.

The tool used to level the sealant shall be a maximum of three inches wide.

A blotting material such as toilet tissue shall be placed over the sealant material immediately after placement on all sealed cracks.

Only the top of the road shall be routed and sealed. No routing and sealing shall be done on the Asphalt Concrete bevel.

The width of crack sealing will vary but the typical roadway widths for information only are as follows:

On projects with curb and gutter the asphalt concrete will typically be sealed gutter to gutter.

On Project 019-271 PCN I1QY the top width is typically 28 feet wide from MRM 43.26 to MRM 51.26, and 28 to 52 feet wide from MRM 54.17 to MRM 54.30, and 30 feet wide from MRM 54.30 to MRM 64.49.

On Project 042-271 PCN I1QZ the top width is typically 28 feet wide.

On Project 018-292 PCN I1US the top width is typically 24 feet wide.

All other requirements stated in Section 350 of the Standard Specifications shall apply.

Cost for routing, cleaning, furnishing and installing blocking medium and furnishing and placing blotting material shall be incidental to the contract unit price per pound for Asphalt Concrete Crack Sealing.

GENERAL MAINTENANCE OF TRAFFIC

Flaggers and a pilot car shall be used when traffic must be routed out of its normal lane for a distance greater than the two flaggers are able to communicate with each other.

Removing, relocating, covering, salvaging and resetting of permanent 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 350 crash-worthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

Work activities shall be confined to one-half roadway, leaving the adjoining lane open to traffic. Routing traffic onto gravel or asphalt shoulders during any phase of the construction will not be allowed. Damage to the shoulders due to the Contractor's operation shall be repaired by the Contractor, to the satisfaction of the Engineer, at no expense to the State.

**019-271, 042-271 & 018-292
MINNEHAHA, TURNER, McCOOK & HUTCHINSON COUNTIES**

GENERAL MAINTENANCE OF TRAFFIC (CONTINUED)

Overnight lane closures will not be allowed.

Sufficient traffic control devices have been included in these plans to sign one workspace. If the Contractor elects to work on additional sites simultaneously, the cost for additional traffic control devices shall be incidental to the contract unit price per unit for Traffic Control.

ITEMIZED LISTS FOR TRAFFIC CONTROL

019-271 MINNEHAHA & TURNER COUNTIES PCN I1QY

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	2	17	34
W3-4	48" x 48"	BE PREPARED TO STOP	2	34	68
W20-1	48" x 48"	ROAD WORK AHEAD	2	34	68
W20-4	48" x 48"	ONE LANE ROAD AHEAD	2	34	68
W20-7a	48" x 48"	FLAGGER	2	34	68
TOTAL UNITS					306

042-271 MINNEHAHA & McCOOK COUNTIES PCN I1QZ



SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	2	17	34
W3-4	48" x 48"	BE PREPARED TO STOP	2	34	68
W20-1	48" x 48"	ROAD WORK AHEAD	2	34	68
W20-4	48" x 48"	ONE LANE ROAD AHEAD	2	34	68
W20-7a	48" x 48"	FLAGGER	2	34	68
TOTAL UNITS					306

018-292 HUTCHINSON COUNTY PCN I1US

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	2	17	34
W3-4	48" x 48"	BE PREPARED TO STOP	2	34	68
W20-1	48" x 48"	ROAD WORK AHEAD	2	34	68
W20-4	48" x 48"	ONE LANE ROAD AHEAD	2	34	68
W20-7a	48" x 48"	FLAGGER	2	34	68
TOTAL UNITS					306

**019-271, 042-271 & 018-292
MINNEHAHA, TURNER, McCOOK & HUTCHINSON COUNTIES**

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 - 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 type II barricades if traffic control must remain overnight or longer. During daylight hours, 42" cones may be used in lieu of drums or type II barricades along the centerline.

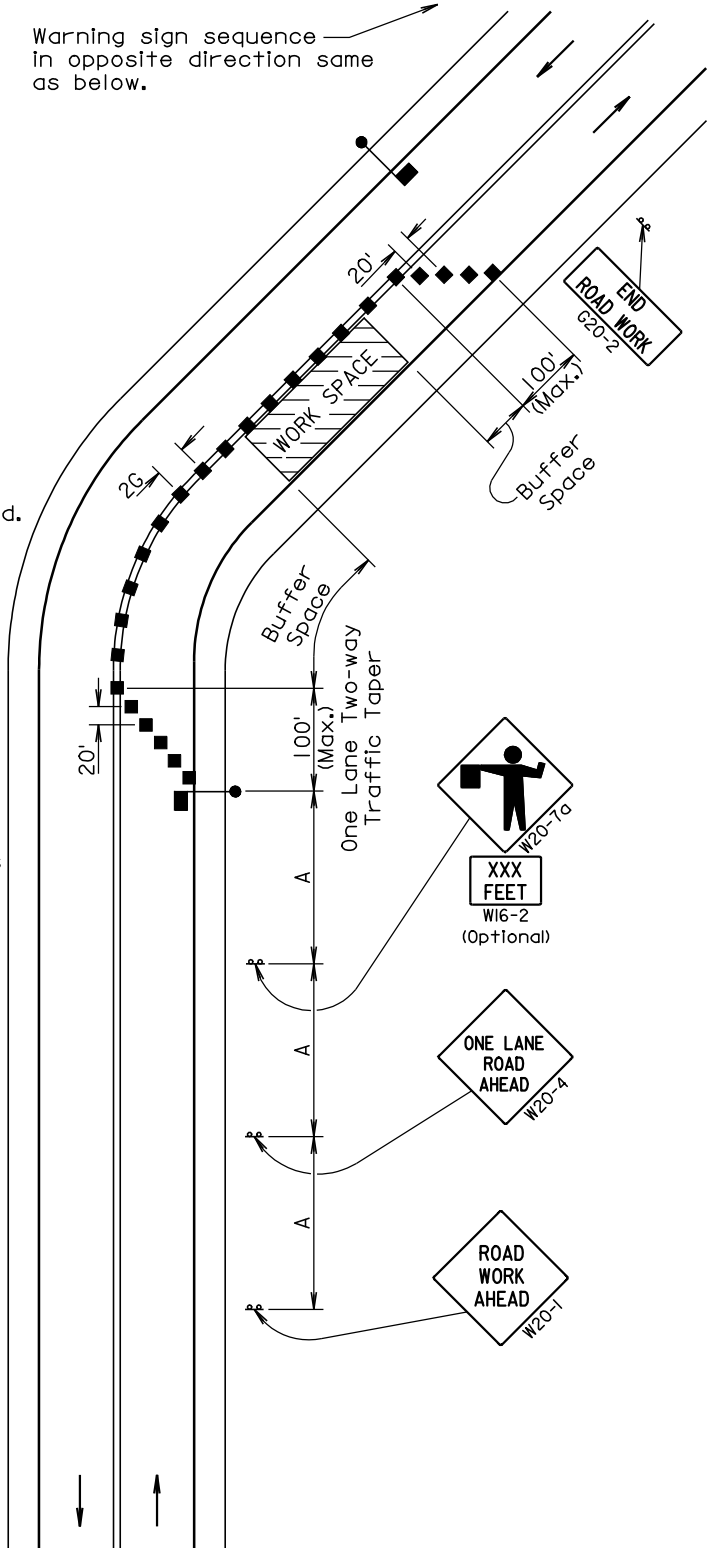
2-0-2
ROAD WORK
END

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 shall be a sufficient length so that the channelizing devices are visible to approaching traffic.

Warning sign sequence in opposite direction same as below.



June 26, 2006

Published Date: 2nd Qtr. 2010

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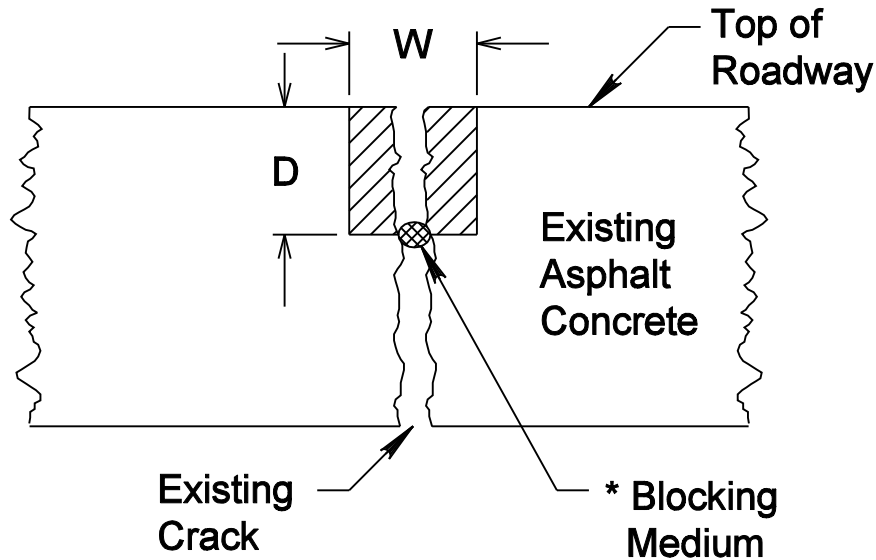
**GUIDES FOR TRAFFIC CONTROL DEVICES
LANE CLOSURE WITH FLAGGER PROVIDED**

PLATE NUMBER
634.23

Sheet 1 of 1

Plotting Date: 30-APR-2010

TYPICAL RESERVOIR SECTION



* Inert compressable material required for cracks 3/8" or more in width. The backer rod shall be a nonmoisture absorbing, resilient material approximately 25 percent larger in diameter than the width of the joint to be sealed. The backer rod shall be compatible with the sealant and no bond or reaction shall occur between the rod and the sealant.

Recommended Backer Rod Diameter for Joint Width	
Joint Width	Rod Diameter
3/16" - 1/4"	3/8"
1/4" - 3/8"	1/2"
3/8" - 1/2"	5/8"
5/8" - 3/4"	7/8"
3/4" - 7/8"	1"
7/8" - 1"	1 1/4"
1" - 1 1/4"	1 1/2"
1 1/4" - 1 1/2"	2"