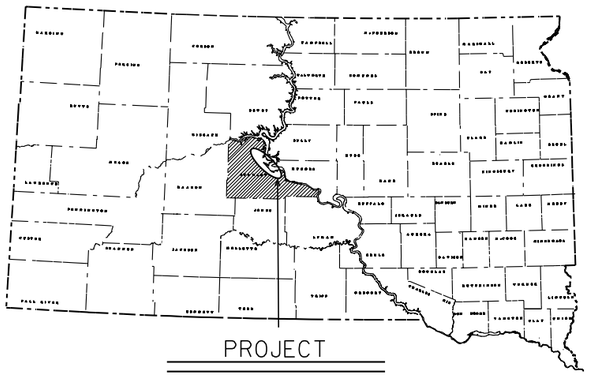
STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	1806-351	1	6

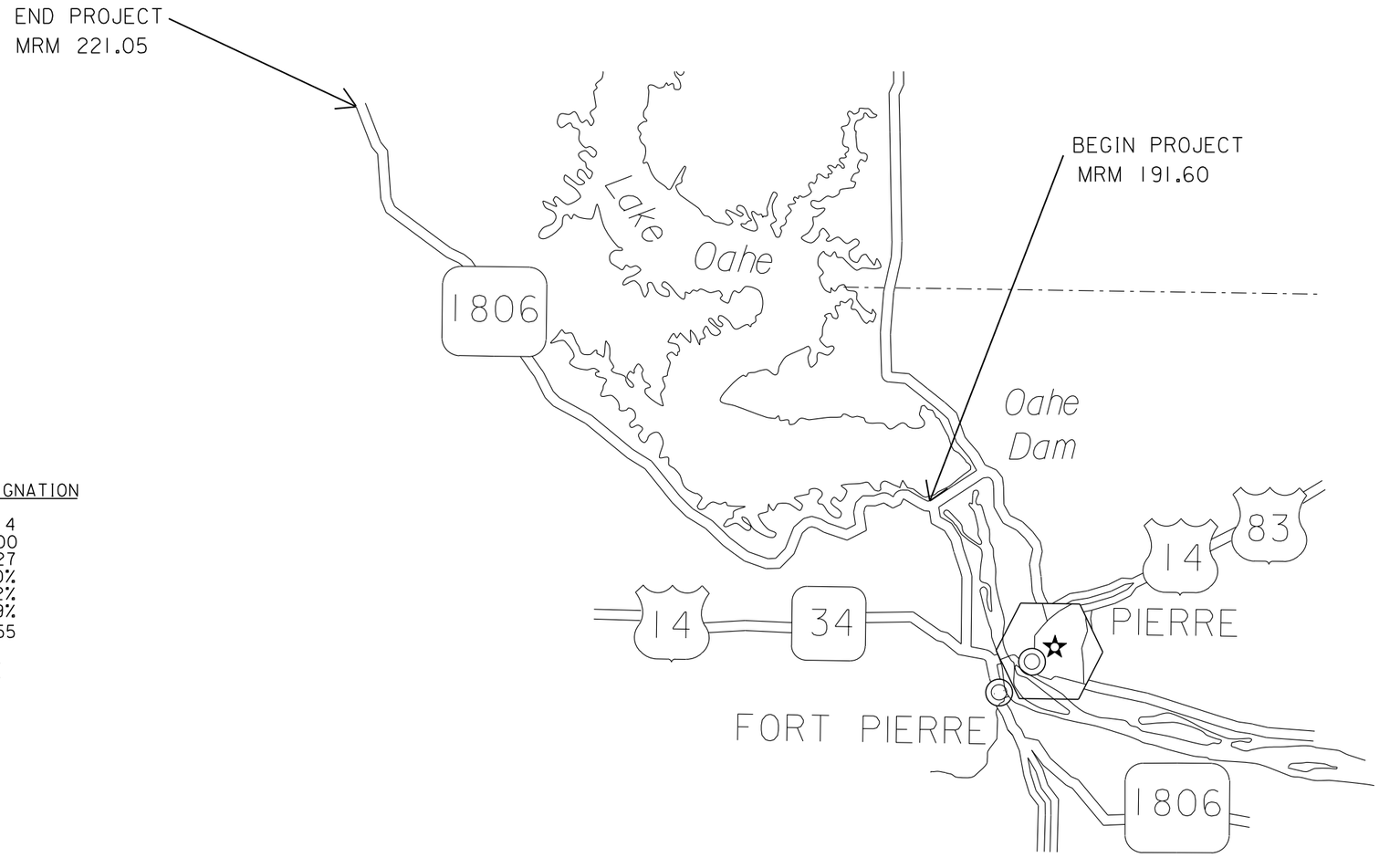


STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

PROJECT 1806–351
SD HIGHWAY 1806

STANLEY COUNTY
ASPHALT CRACK SEALING
PCN I2W0

INDEX OF SHEETS



SD 1806 DESIGN DESIGNATION

ADT (2012)	114
ADT (2032)	200
DHV	27
D	50%
T DHV	8.2%
T ADT	17.9%
V	55

STORM WATER PERMIT

None Required

SPECIFICATIONS & PLAN NOTES

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	1806-351	2	6

ESTIMATE OF QUANTITIES

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
350E0010	Asphalt Concrete Crack Sealing	324,864	Lb
634E0010	Flagging	500	Hour
634E0020	Pilot Car	250	Hour
634E0100	Traffic Control	524	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

SPECIFICATIONS

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

ENGINEER NOTIFICATION

The Contractor is required to notify the Area Engineer at least 10 days prior to beginning asphalt crack sealing operations.

SEQUENCE OF OPERATIONS

The Contractor shall not work on the full roadway width at any one time.

BLOCKING MEDIUM MATERIAL

All costs for furnishing and placing the blocking material medium shall be incidental to the contract unit price per pound for Asphalt Concrete Crack Sealing.

BLOTTING MATERIAL

Blotting material shall be placed over the sealant material immediately following placement of sealant on all cracks.

ESTIMATED CRACK SEALING BY SECTION

No transverse cracks will be sealed.

SD 1806 is divided into 4 sections for estimate purposes The actual quantity used in the field will be the basis for payment, with no adjustment in unit bid price allowed.(See table for Crack Sealant Lbs. & Ft. to be Routed per section)

These sections shall be routed as per “Typical Reservoir Section” (sheet #4). For information only and for estimate purposes it has been determined that each section will have the following amount of crack sealant (lbs.) and distance (ft.) to be routed prior to crack sealant. No routing will occur when within 1 foot of the top of slough.

There are also “Non Typical Reservoir Sections” (sheet #5) which will not be able to be routed because the location of the crack is within 1 foot of the

ESTIMATED CRACK SEALING BY SECTIONS(CONT’D)

slough. **Non-Typical Reservoirs will need more than one application**. These shall be filled with crack sealant level with existing pavement. The approximate locations of Non Typical reservoirs are from MRM 209.10 to MRM 221.05.

Section	MRM to MRM	(Approx.) Crack Sealant Lbs.	(Approx.) Feet to be Routed
1	191.60 to 198.70	6253.0	6000.0
2	198.70 to 209.10	41138.0	39600.0
3	209.10 to 217.00	143481.0	33792.0
4	217.00 to 221.05	133992.0	8448.0
		324864.0	87840.0

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.

Fixed location signing placed more than two days prior to the start of asphalt crack sealing 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.

WASTE DISPOSAL SITE(CONT’D)

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 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/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/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.

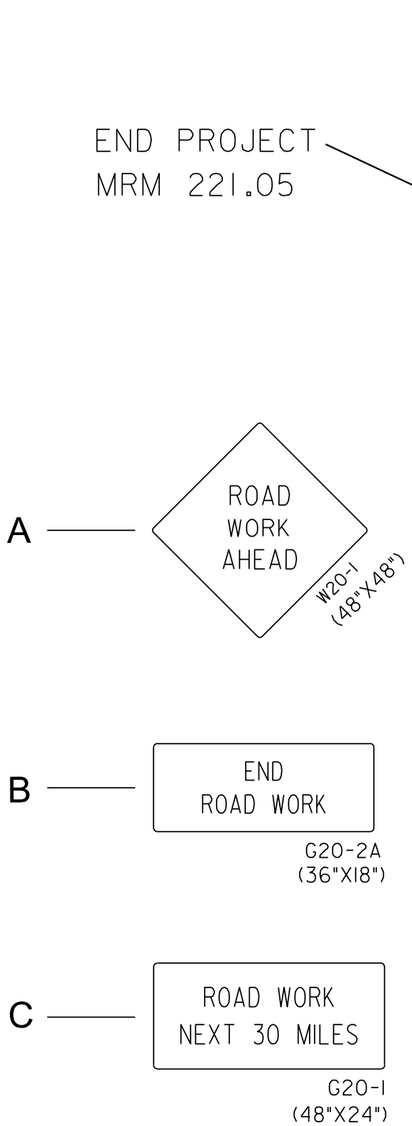
All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) shall be incidental to the various contract items.

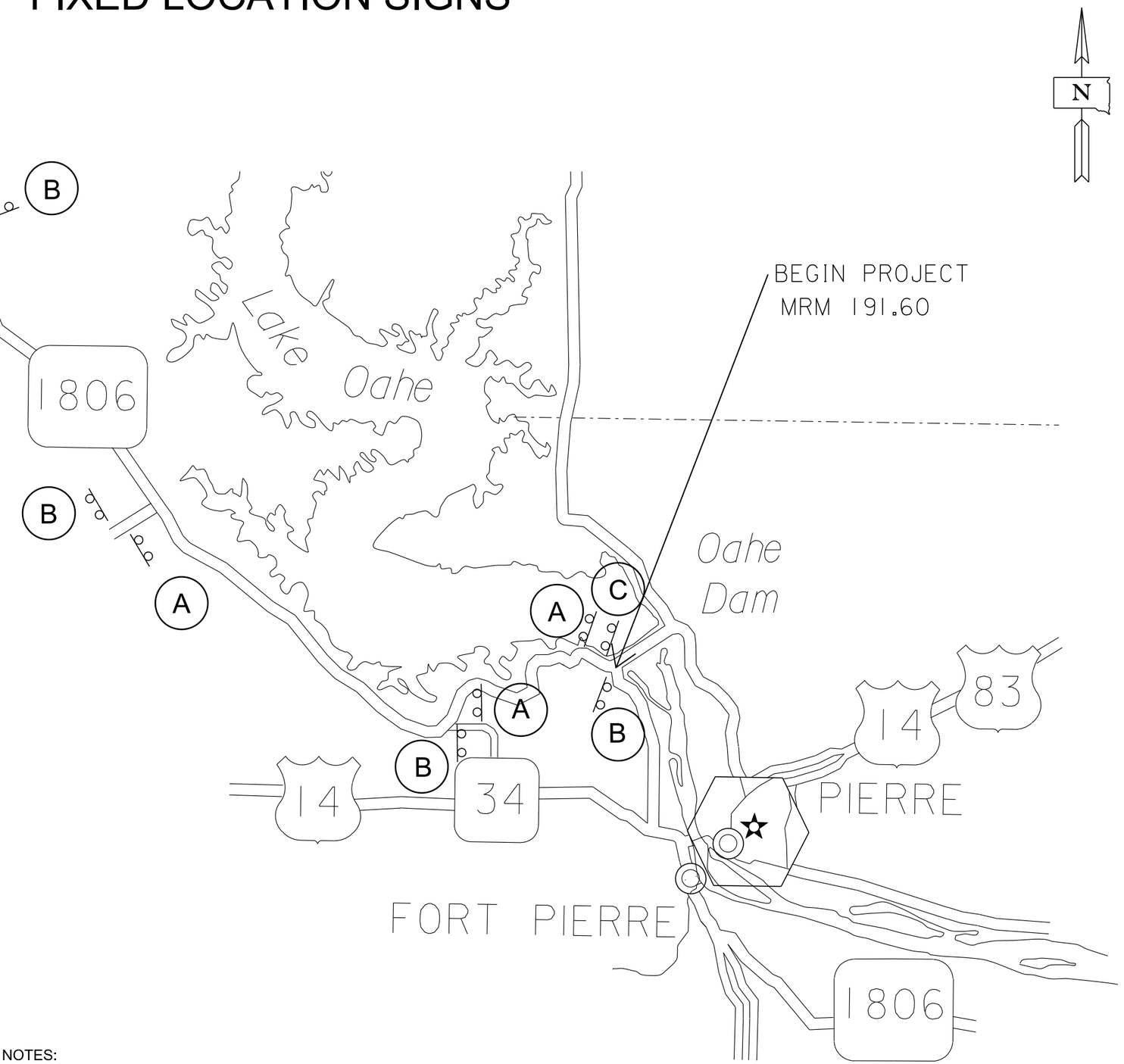
ITEMIZED LIST FOR TRAFFIC CONTROL

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-1	48" x 24"	ROAD WORK NEXT ## MILES	2	24	48
G20-2	36" x 18"	END ROAD WORK	4	17	68
W20-1	48" x 48"	ROAD WORK #### FT. OR AHEAD	6	34	204
W20-4	48" x 48"	ONE LANE ROAD #### FT. OR AHEAD	2	34	68
W20-7a	48" x 48"	FLAGGER	2	34	68
W20-7b	48" x 48"	BE PREPARED TO STOP (also shown as W3-4)	2	34	68
				TOTAL UNITS	524

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	1806-351	3	6

FIXED LOCATION SIGNS



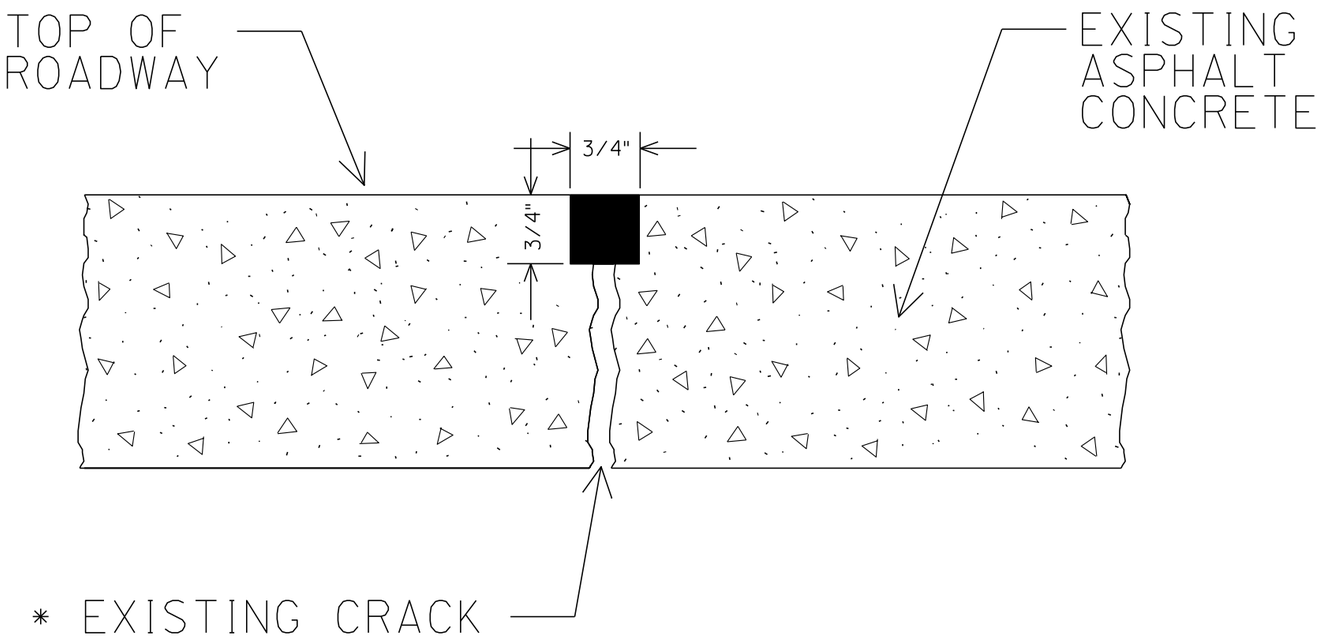


NOTES:

- Sign locations will be verified in the field by the Engineer prior to installation.

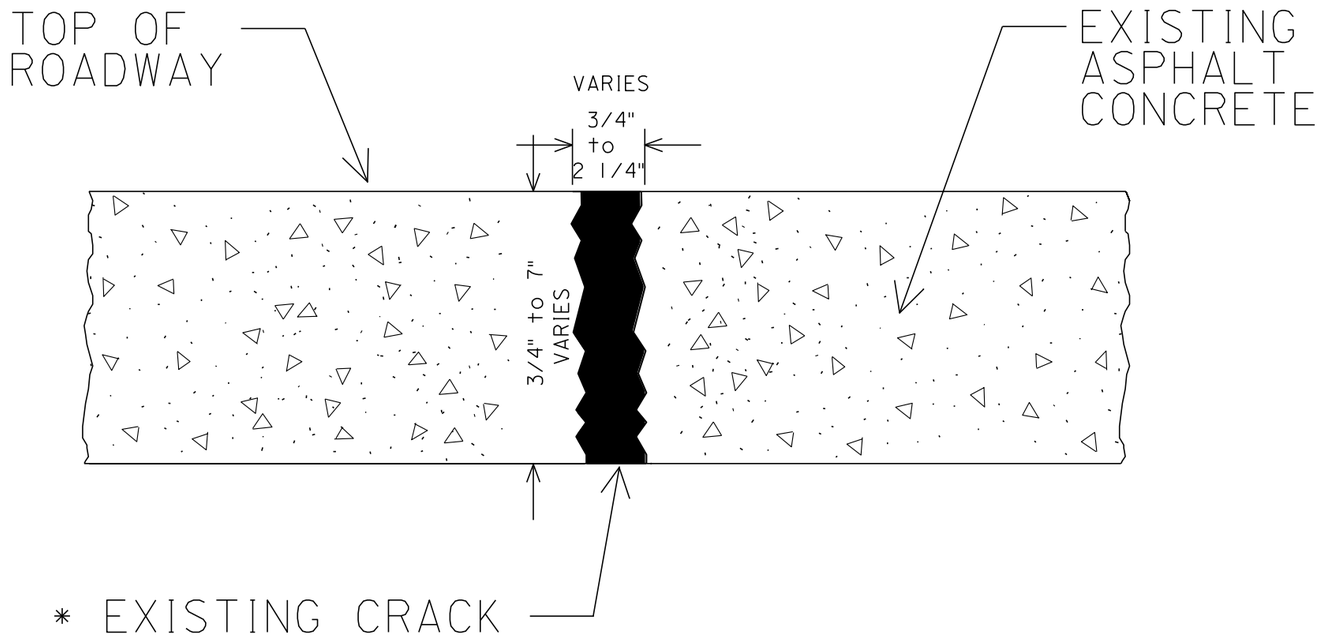
STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	1806-351	4	6

TYPICAL RESERVOIR SECTION

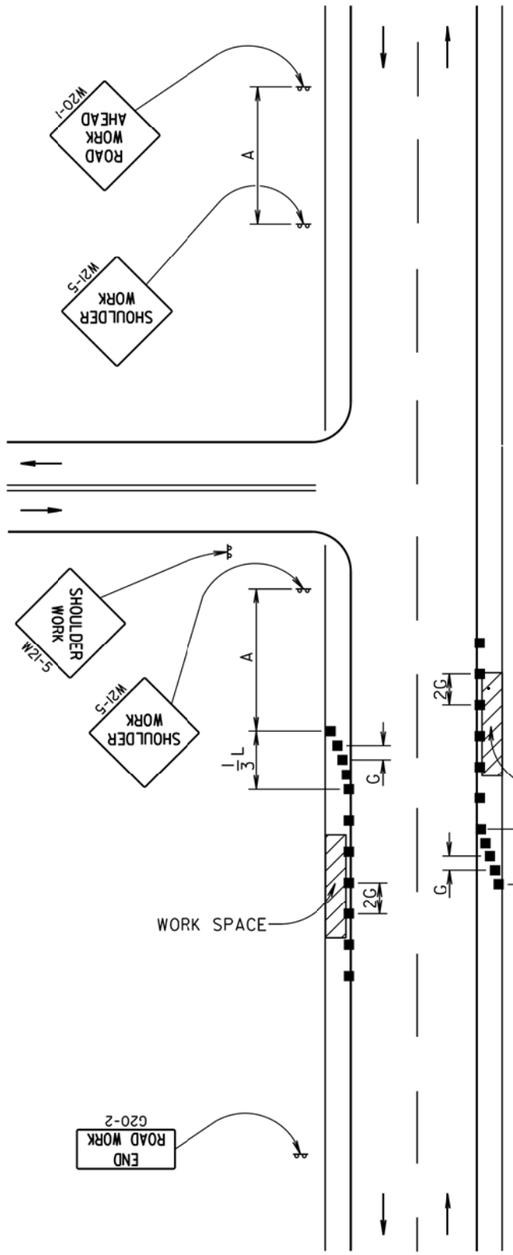


STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	1806-351	5	6

NON-TYPICAL RESERVOIR SECTION



* These non typical reservoirs vary in width and depth. These cracks shall be sealed without blocking material.



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	100 - 200	180	25
35 - 40	350	320	25
45 - 50	500	600	50
55	750	660	50
60 - 65	1000	780	50

■ Channelizing Device

END ROAD WORK G20-2

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

For short duration operations (1 hour or less) all signs and 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.

February 14, 2011

Published Date: 1st Qtr. 2013	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 - 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.

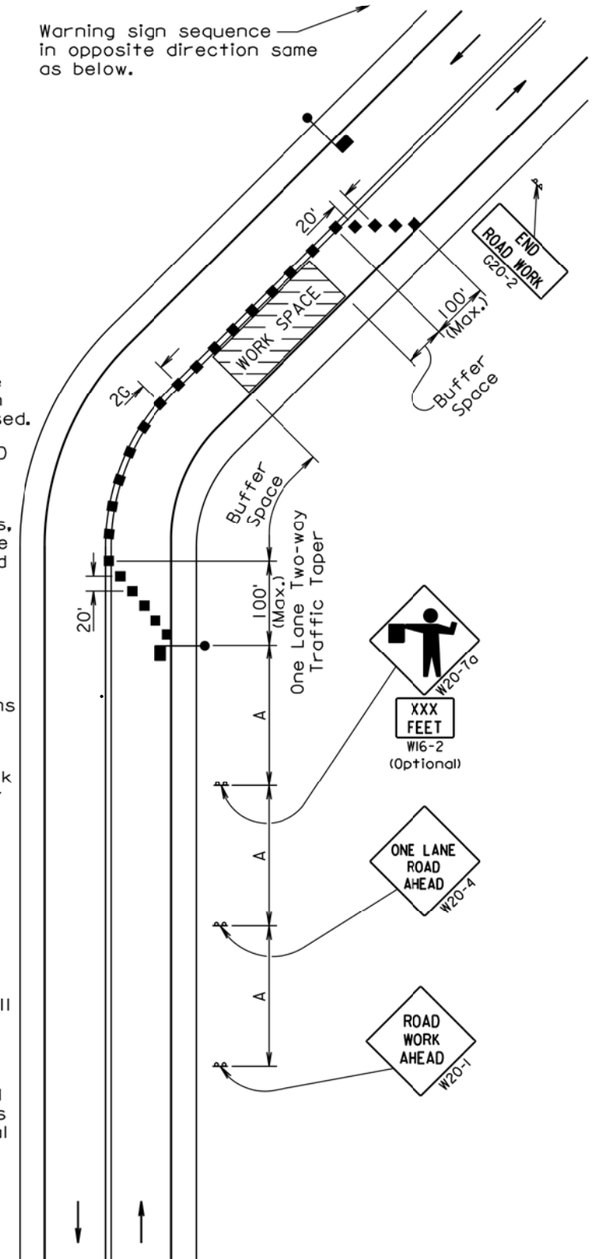
The channelizing devices shall be drums or 42" cones.

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

END ROAD WORK G20-2

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.



February 14, 2011

Published Date: 1st Qtr. 2013	SDDOT	GUIDES FOR TRAFFIC CONTROL DEVICES LANE CLOSURE WITH FLAGGER PROVIDED	PLATE NUMBER 634.23
			Sheet 1 of 1

PLOT SCALE - 1:194.118

PLOT NAME - 1

FILE - ...\DGN FILES\63403_63423.DGN

PLOTTED FROM - TRPR22411