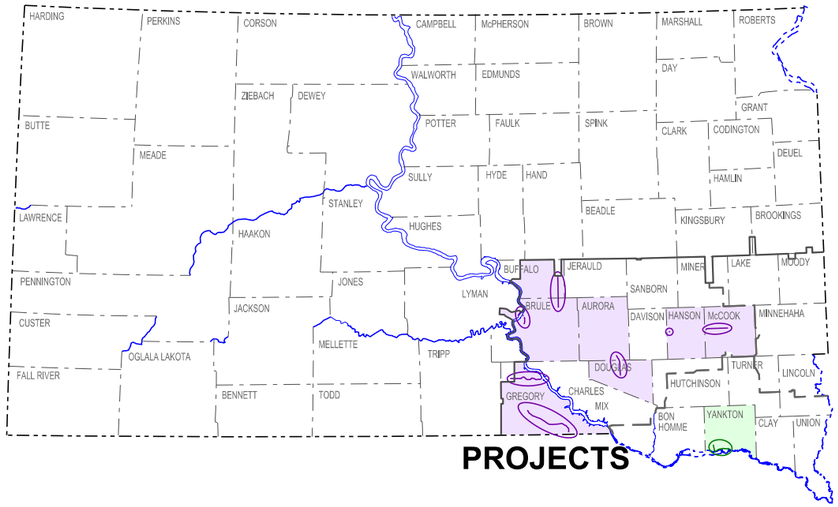


PROJECTS

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

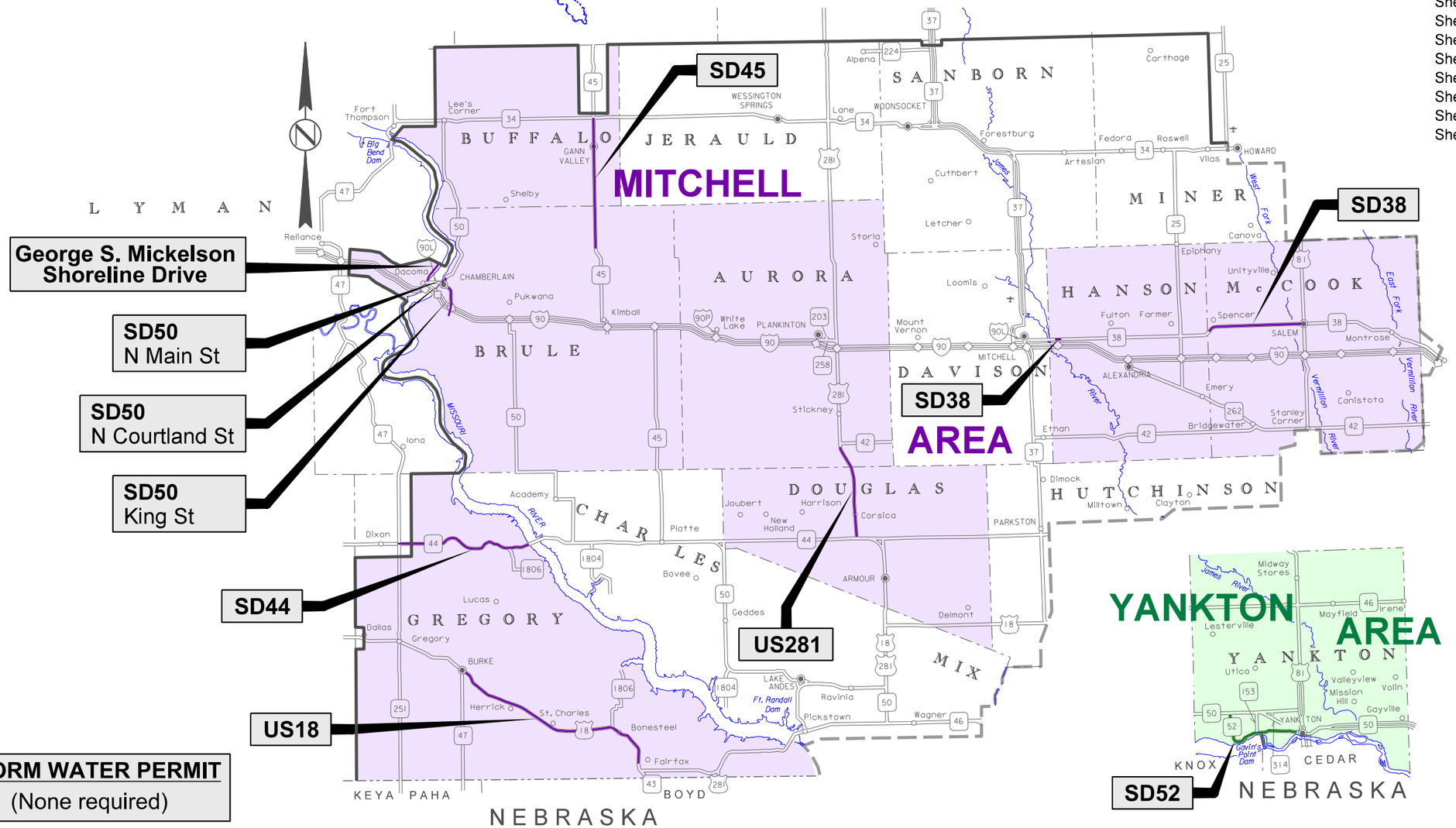
PROJECT NH-P 0021(187)
US HIGHWAYS 18 & 281,
SD HIGHWAYS 38, 44, 45 & 50,
GEORGE S. MICKELSON SHORELINE DRIVE (ROUTE 6594)
AURORA, BRULE, BUFFALO, DOUGLAS, GREGORY,
HANSON, LYMAN & McCOOK COUNTIES
ASPHALT CONCRETE CRACK SEALING
PCN 09KM

PROJECT P 0023(70)
SD HIGHWAY 52
YANKTON COUNTY
ASPHALT CONCRETE
CRACK SEALING
PCN 09KU

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0021(187) & P 0023(70)	1	28

Plotting Date: 03/21/2025

INDEX OF SHEETS



STORM WATER PERMIT
(None required)

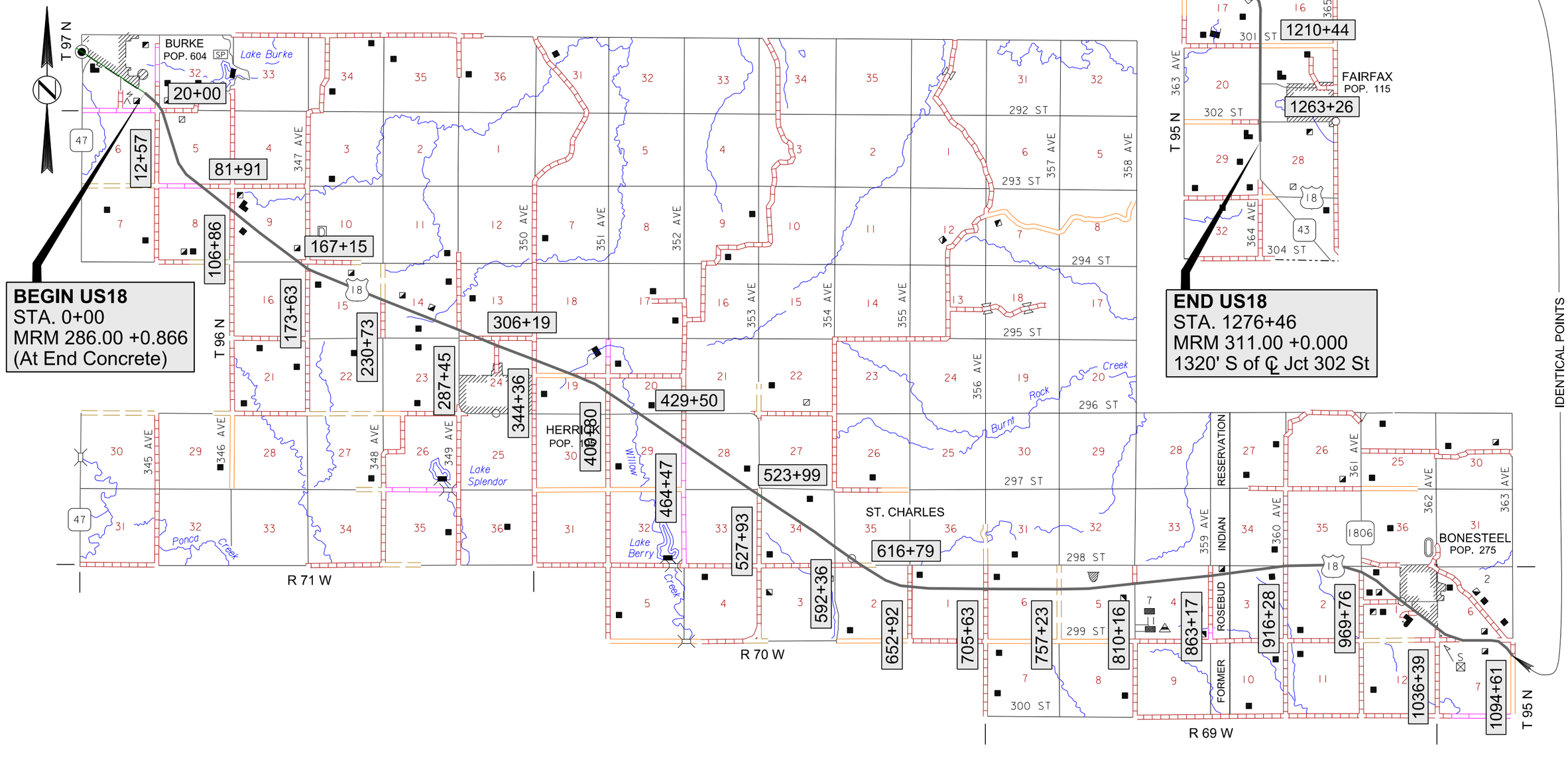
5

May 21, 2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0021(187) & P 0023(70)	2	28

Plotting Date: 03/21/2025

US HIGHWAY 18
GREGORY COUNTY
ASPHALT CONCRETE CRACK SEALING
LENGTH: 24.175 MILES



PLOT SCALE - 1:70000

PLOTTED FROM - TRM11NT06

PLOT NAME - 2

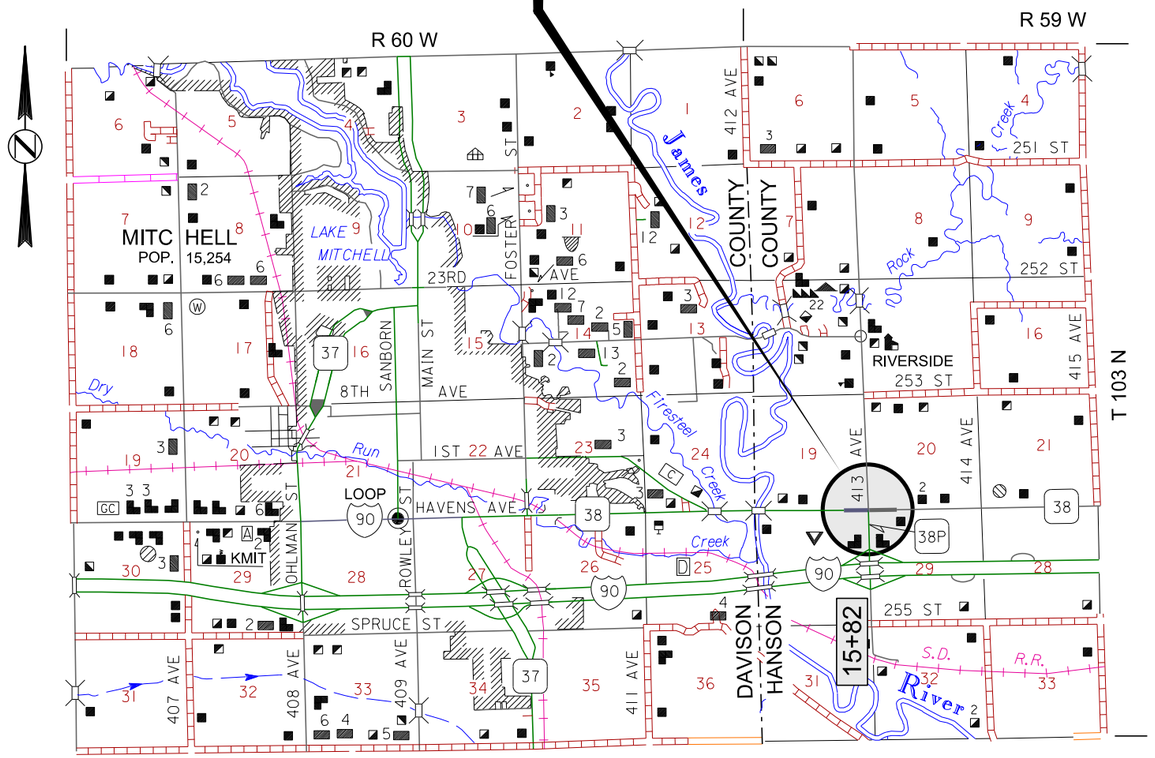
FILE - ...\2025 MIT YAN AREA CRACK SEAL TITL09KM 09KU.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0021(187) & P 0023(70)	3	28

Plotting Date: 03/21/2025

SD HIGHWAY 38
HANSON COUNTY
ASPHALT CONCRETE CRACK SEALING
LENGTH: 0.622 MILE

SD38 @ JCT SD38P / 413TH AVE
STA. 0+00 to STA. 32+84
MRM 303.00 +0.597 to MRM 304 +0.218



PLOT SCALE - 1:7000

PLOT NAME - 3

FILE - ...\2025 MIT YAN AREA CRACK SEAL TITL09KM 09KU.DGN

PLOTTED FROM - TRM1INT06

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0021(187) & P 0023(70)	4	28

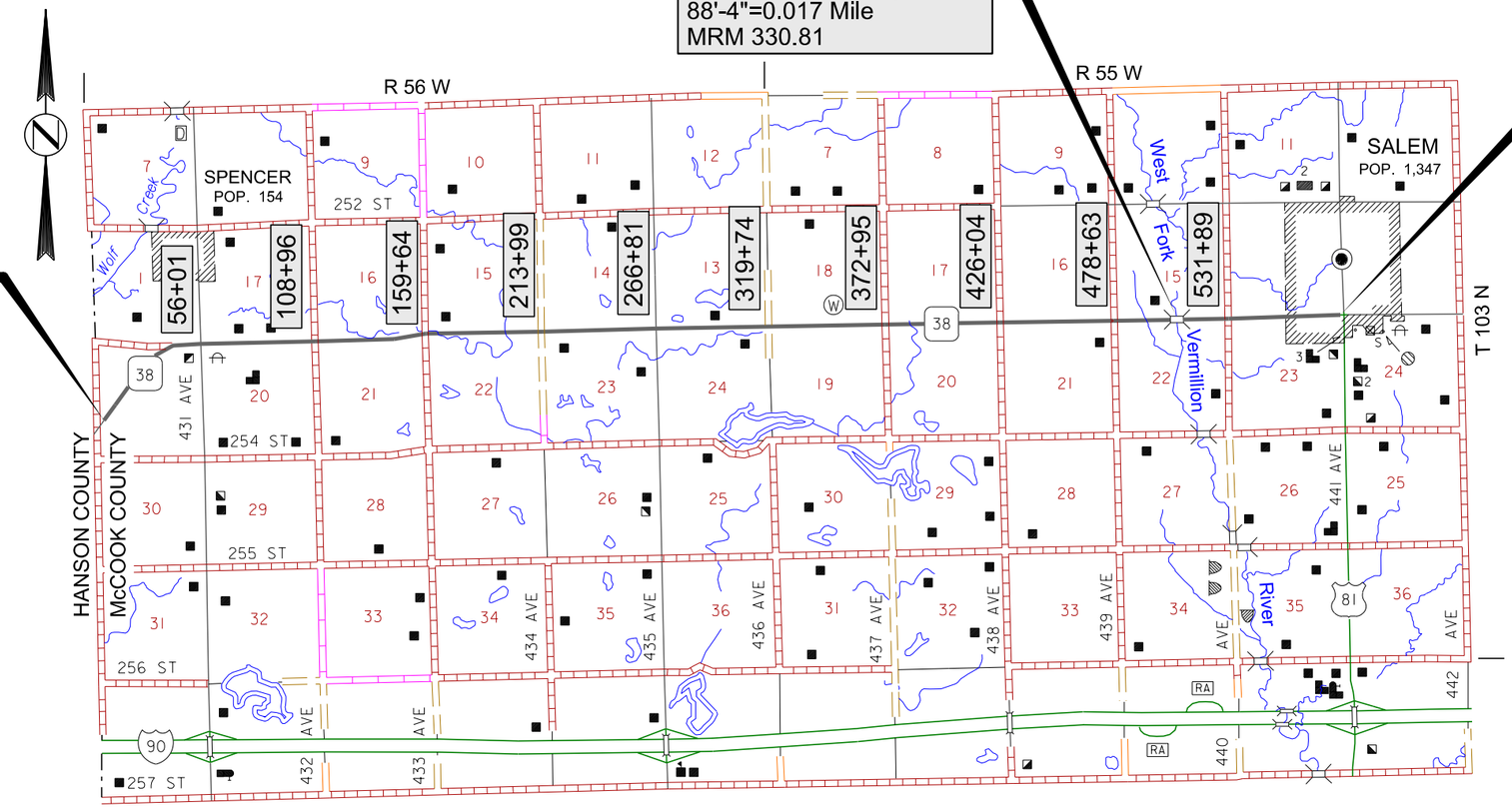
Plotting Date: 03/21/2025

SD HIGHWAY 38
McCOOK COUNTY
ASPHALT CONCRETE CRACK SEALING
GROSS LENGTH: 11.061 MILES
BRIDGE LENGTH: 0.017 MILE
NET LENGTH: 11.044 MILES

STR. NO. 44-095-090
Sta. 507+46 to Sta. 508+34
Continuously Reinforced
Concrete Slab Bridge
88'-4"=0.017 Mile
MRM 330.81

BEGIN SD38
STA. 0+00
MRM 321.00 +0.201
(769' NE of the
County Line)

END SD38
STA. 584+02
MRM 332.00 +0.248
(At Concrete 103' W
of Jct of US81)



ADT (2023) 947

PLOT SCALE - 1:70000
PLOTTED FROM - TRM1INT06
PLOT NAME - 4
FILE - ...\2025 MIT YAN AREA CRACK SEAL TITL09KM 09KU.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0021(187) & P 0023(70)	5	28

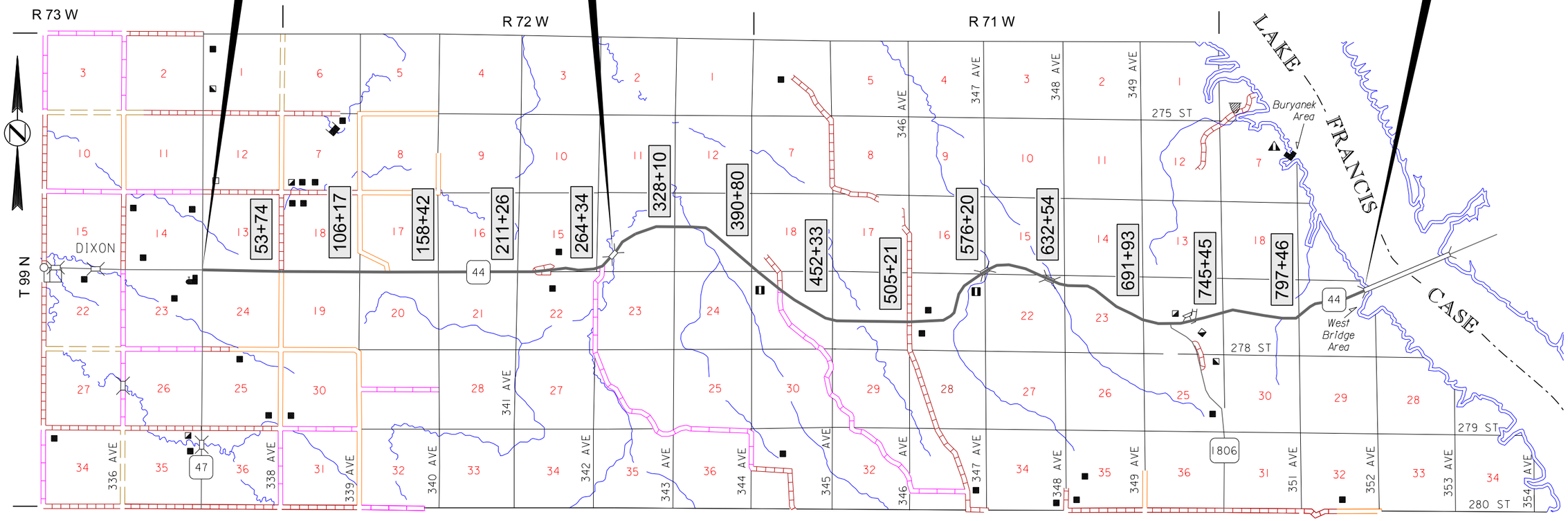
Plotting Date: 03/21/2025

SD HIGHWAY 44
GREGORY COUNTY
ASPHALT CONCRETE CRACK SEALING
GROSS LENGTH: 16.072 MILES
BRIDGE & APPROACH SLABS LENGTH: 0.035 MILE
NET LENGTH: 16.037 MILES

BEGIN SD44
STA. 0+00
MRM 274.00 +0.466
(100' W of Jct SD47

STR. NO. 27-105-075
279+91.6 to 281+78.1
I Beam Viaduct Bridge
143'-3 11/16"=0.027 Mile
MRM 279.79
Two Appr/Slpr Slabs =
43.24'=0.008 Mile

END SD44
STA. 848+58
MRM 290.00 +0.519



ADT (2023) 594

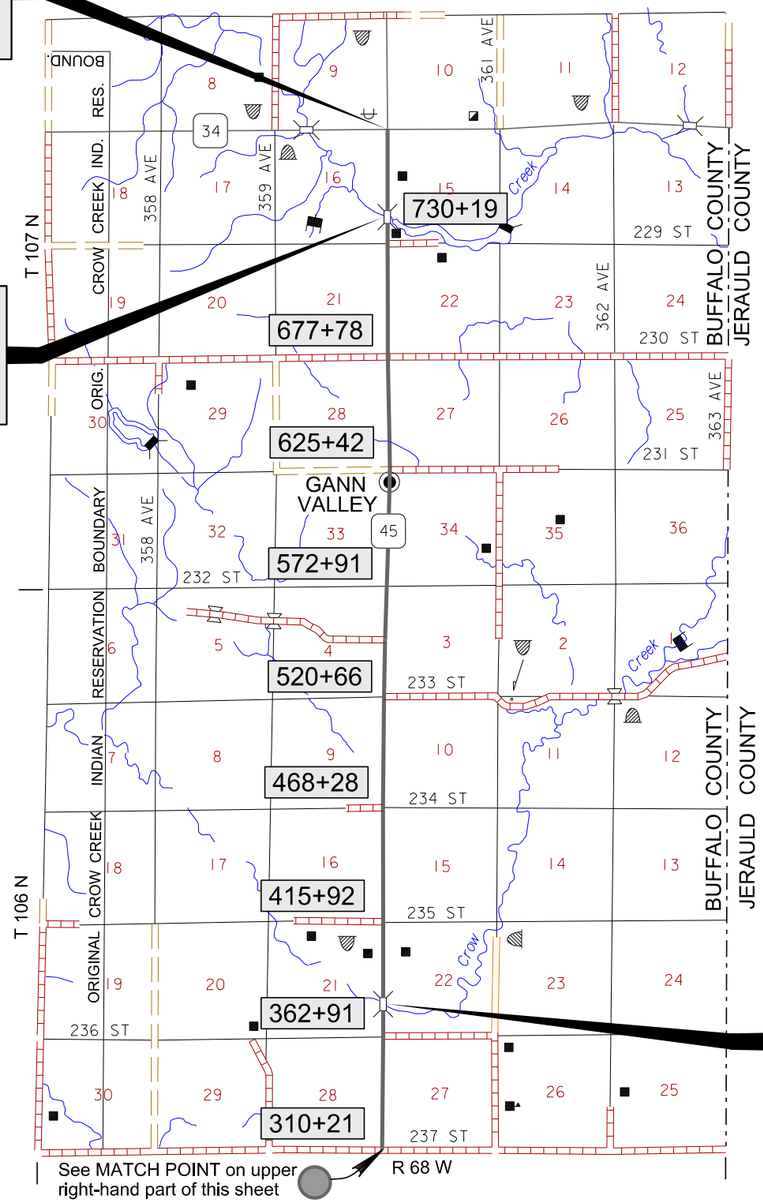
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0021(187) & P 0023(70)	6	28

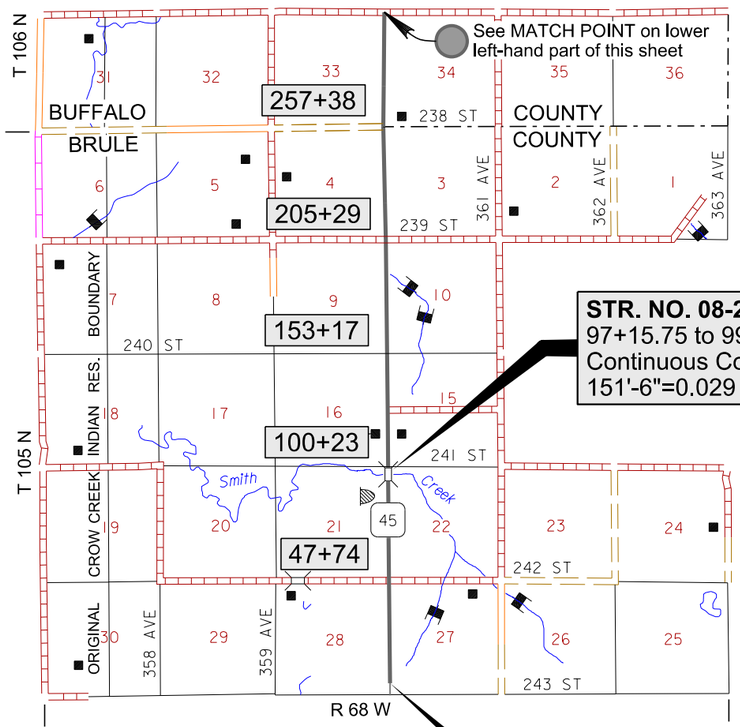
Plotting Date: 03/21/2025

SD HIGHWAY 45
BUFFALO & BRULE COUNTIES
ASPHALT CONCRETE CRACK SEALING
GROSS LENGTH: 14.834 MILES
BRIDGE & APPROACH/SLEEPER SLABS LENGTH: 0.120 MILE
NET LENGTH: 14.714 MILES

END SD45
STA. 783+25
MRM 81.09 +0.013
(At Jct SD34)

STR. NO. 09-290-087
742+57.25 to 744+92.75
I Beam Bridge
235'-6"=0.044 Mile
MRM 80.33





STR. NO. 08-240-031
97+15.75 to 99+15.75
Continuous Concrete Bridge
151'-6"=0.029 Mile MRM 68.16

BEGIN SD45
STA. 0+00
MRM 66.00 +0.266
(40' onto prj to S)

STR. NO. 09-290-157
376+66.12 to 379+15.87
Composite I Beam Bridge
205'-9"=0.039 Mile MRM 73.41
Two Approach/Sleeper Slabs
2@22'=44' = 0.008 Mile

ADT (2023) 918

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0021(187) & P 0023(70)	7	28

Plotting Date: 03/21/2025

SD HIGHWAY 50
N MAIN ST PORTION
BRULE COUNTY
ASPHALT CONCRETE
CRACK SEALING
LENGTH: 0.323 MILE

SD HIGHWAY 50
N COURTLAND ST PORTION
BRULE COUNTY
ASPHALT CONCRETE
CRACK SEALING
LENGTH: 0.374 MILE

SD HIGHWAY 50
KING ST PORTION
BRULE COUNTY
ASPHALT CONCRETE
CRACK SEALING
LENGTH: 2.948 MILES

BEGIN SD50
N MAIN ST PORTION
STA. 21+64
MRM 231.00 +0.069
(At 73' S of Jct ℄ K St)

BEGIN SD50
N COURTLAND ST PORTION
STA. 47+20
MRM 231.45 +0.106
(At End Concrete)

BEGIN SD50
KING ST PORTION
STA. 94+57
MRM 232.44 +0.005
(At End Approach Slab
394' SE of Paul Gust Rd)

END SD50
N MAIN ST PORTION
STA. 38+72
MRM 231.00 +0.392
(At Begin Approach Slab)

END SD50
N COURTLAND ST PORTION
STA. 66+97
MRM 231.91 -0.001
(At Concrete 50' N of Jct ℄ I90 Loop)

SUSPEND SD50
KING ST PORTION
STA. 238+87
MRM 235.00 +0.160
(At Begin Approach Slab)

CONTINUE SD50
KING ST PORTION
STA. 242+12
MRM 235.22 +0.007
(At End Approach Slab)

END SD50
KING ST PORTION
STA. 253+50
1176' S of MRM 235.22
(At Touchdown Point
355' N of Jct ℄ Airport Rd)

CHAMBERLAIN

R 71 W

T 104 N

176+15

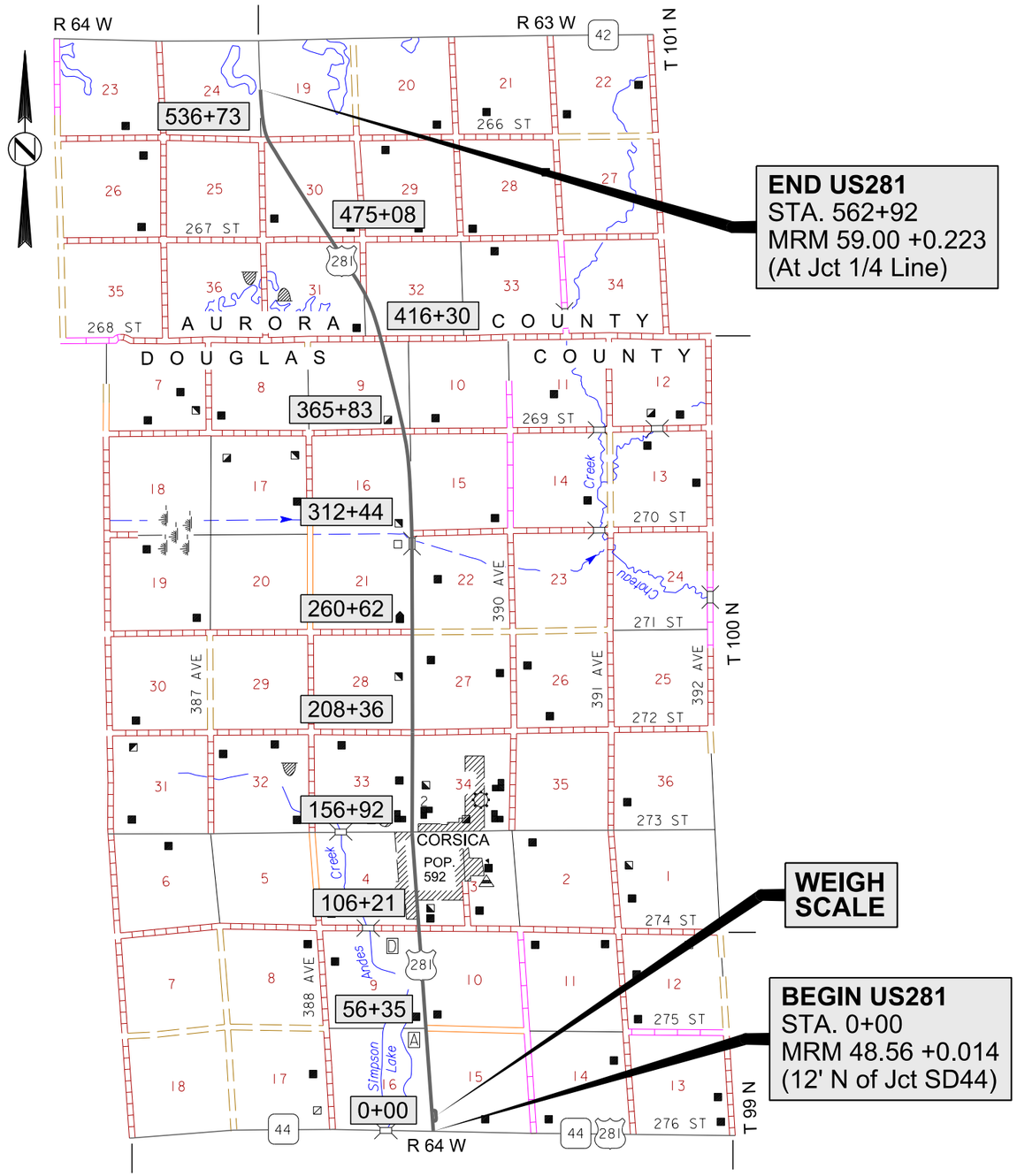
130+68

SD50 (N MAIN ST) ADT (2023) 3,199
SD50 (N COURTLAND ST) ADT (2023) 3,199
SD50 (KING ST) ADT (2023) 4,145

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0021(187) & P 0023(70)	8	28

Plotting Date: 03/21/2025

US HIGHWAY 281
DOUGLAS & AURORA COUNTIES
ASPHALT CONCRETE CRACK SEALING
LENGTH: 10.661 MILES

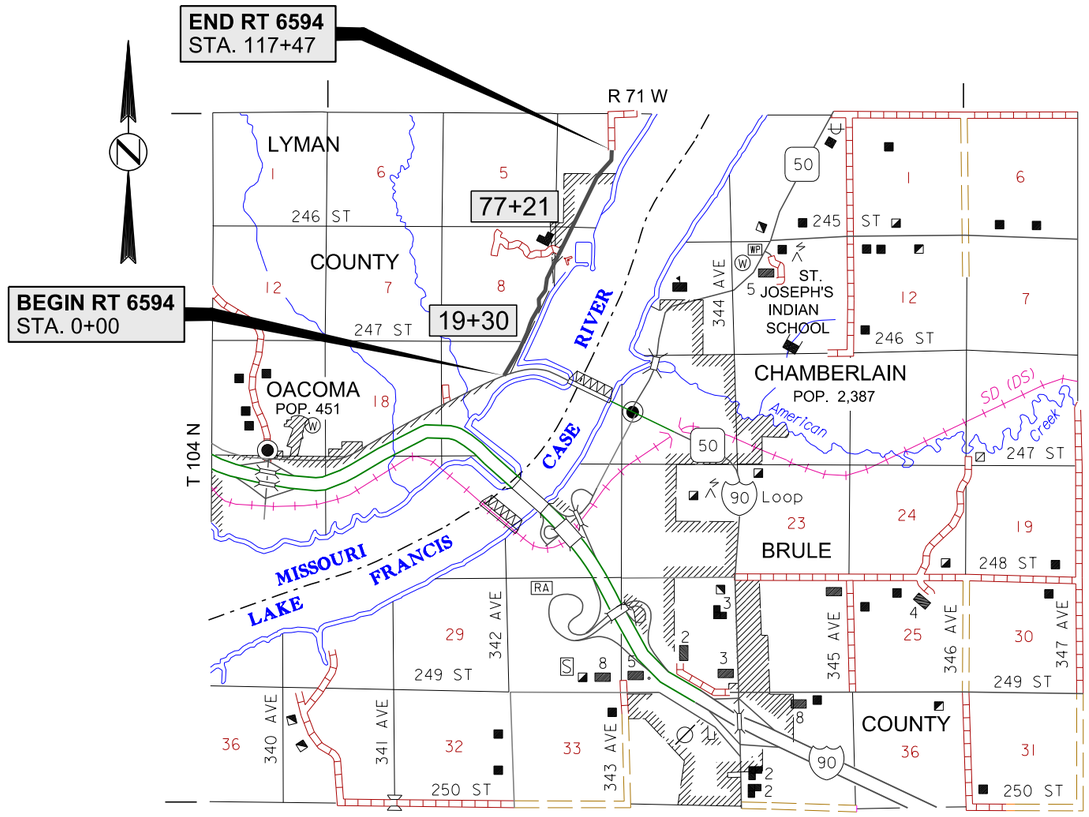


ADT (2023) 1,366

GEORGE S. MICKELSON SHORELINE DRIVE (ROUTE 6594)
LYMAN COUNTY
ASPHALT CONCRETE CRACK SEALING
LENGTH: 2.225 MILES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0021(187) & P 0023(70)	9	28

Plotting Date: 03/21/2025



ADT (2011) 535

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0021(187) & P 0023(70)	10	28

Plotting Date: 03/21/2025

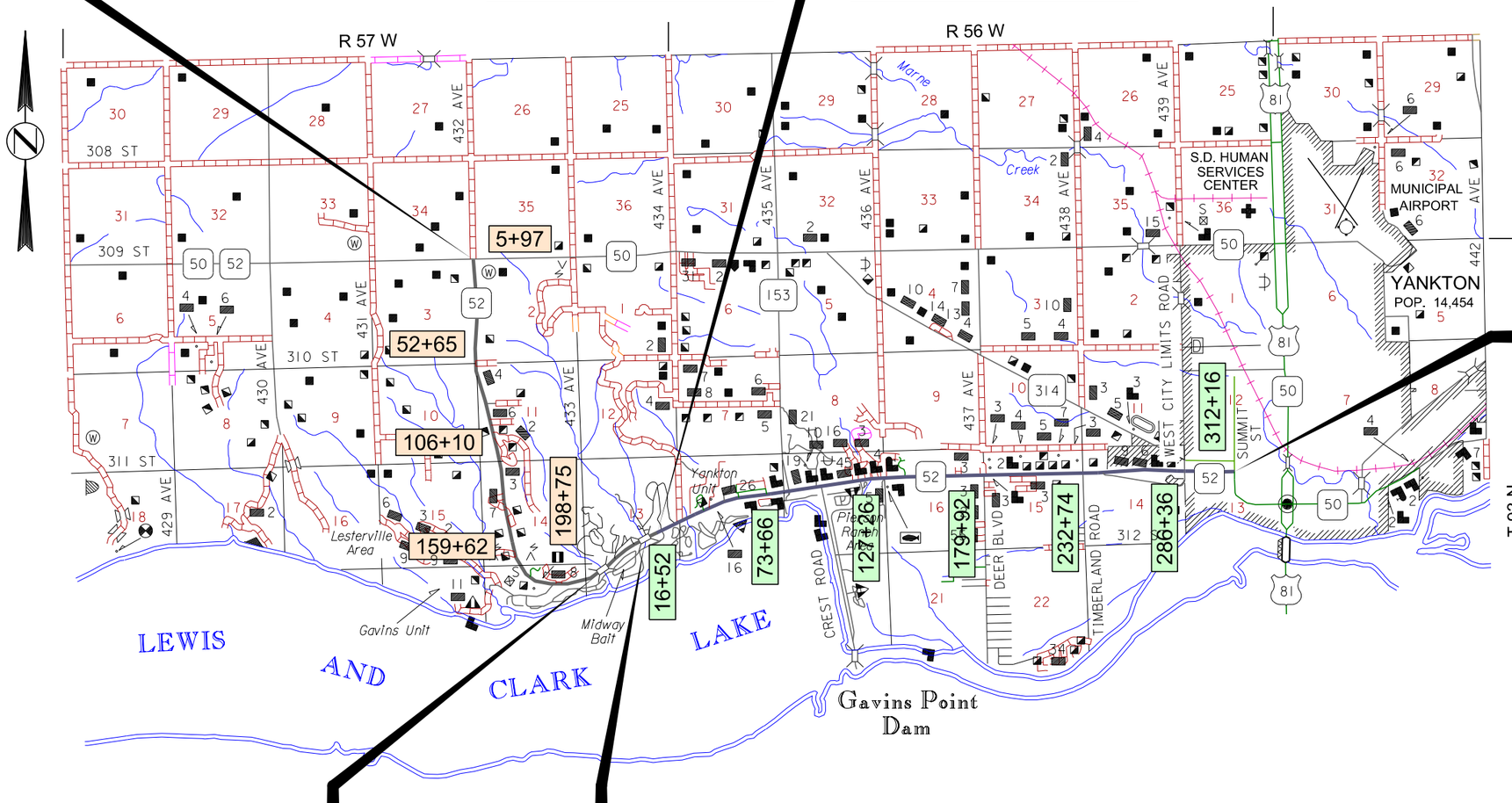
SD HIGHWAY 52 WEST SEGMENT
YANKTON COUNTY
ASPHALT CONCRETE CRACK SEALING
GROSS LENGTH: 4.617 MILES
BRIDGES LENGTH: 0.063 MILE
NET LENGTH: 4.554 MILES

SD HIGHWAY 52 EAST SEGMENT
YANKTON COUNTY
ASPHALT CONCRETE CRACK SEALING
LENGTH: 5.917 MILES

BEGIN SD52
WEST SEGMENT
STA. 0+20
33' N of MRM 332.25
(30' S of Jct ℄ SD50)

END SD52
WEST SEGMENT
STA. 243+96
MRM 336.80 +0.081
(At Begin Underlying Concrete, 430' ENE of Str. No. 68-057-208)

BEGIN SD52
EAST SEGMENT
STA. 0+00
MRM 336.80 +0.081
(At Begin Underlying Concrete, 430' ENE of Str. No. 68-057-208



END SD52
EAST SEGMENT
STA. 312+44
MRM 342.00 +0.816
(28'± E of ℄ Summit St)

STR. NO. 68-052-212
211+63 to 213+30
I Beam Bridge
167'-0" = 0.0315 Mile
MRM 336.30

STR. NO. 68-057-208
237+99 to 239+66
I Beam Bridge
167'-0" = 0.0315 Mile
MRM 336.80

ADT (2023) 3,822

PLOT SCALE - 1:7000
PLOTTED FROM - TRMIINT06
PLOT NAME - 10
FILE - ...\2025 MIT YAN AREA CRACK SEAL TITL09KM 09KU.DGN

ESTIMATE OF QUANTITIES

NH-P 0021(187)
PCN 09KM

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
350E0010	Asphalt Concrete Crack Sealing	341,944	Lb
633E1200	High Build Waterborne Pavement Marking Paint, White	4,245	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	1,509	Gal
634E0010	Flagging	2,100.0	Hour
634E0020	Pilot Car	1,015.0	Hour
634E0110	Traffic Control Signs	1,079.2	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	2	Each
634E0420	Type C Advance Warning Arrow Board	2	Each

P 0023(70)
PCN 09KU

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
350E0010	Asphalt Concrete Crack Sealing	20,014	Lb
633E1200	High Build Waterborne Pavement Marking Paint, White	535	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	429	Gal
634E0010	Flagging	250.0	Hour
634E0020	Pilot Car	115.0	Hour
634E0110	Traffic Control Signs	307.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	6	Each
634E0420	Type C Advance Warning Arrow Board	2	Each

SPECIFICATIONS

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

ESTIMATE OF QUANTITIES (CONTINUED)

(FOR INFORMATION ONLY)

BID ITEM	ITEM	NH 0021(187) 09KM US18 Gregory	P 0021(187) 09KM SD38 Hanson	P 0021(187) 09KM SD38 McCook	P 0021(187) 09KM SD44 Gregory	P 0021(187) 09KM SD45 Buffalo & Brule	P 0021(187) 09KM SD50 Brule	NH 0021(187) 09KM US281 Douglas & Aurora	P 0021(187) 09KM GSMSD Lyman	NH-P 0021(187) 09KM Mitchell Quantity	P 0023(70) 09KU SD52 West Segment Yankton	P 0023(70) 09KU SD52 East Segment Yankton	P 0023(70) 09KU Yankton Quanty	TOTAL QUANTITY 09KM & 09KU
009E0010	Mobilization	◄——— LUMP SUM ———►								**Lump Sum**	◄——LUMP SUM——►		**Lump Sum**	**Lump Sum**
350E0010	Asphalt Concrete Crack Sealing	143,180	882	41,522	28,700	34,189	7,096	75,192	11,183	**341,944**	3,519	16,495	**20,014**	**361,958 Lb**
633E1200	Highbuild Waterborne Pavement Marking Paint, White	1,068	36	985	729	680	179	469	99	**4,245**	206	329	**535**	**4,780 Gal**
633E1205	Highbuild Waterborne Pavement Marking Paint, Yellow	365	50	130	390	258	183	107	26	**1,509**	108	321	**429**	**1,938 Gal**
634E0010	Flagging	140	20	480	335	390	100	500	135	**2,100**	50	200	**250**	**2,350 Hour**
634E0020	Pilot Car	65	5	240	165	195	40	240	65	**1,015**	20	95	**115**	**1,130 Hour**
634E0110	Traffic Control Signs	112.6	112.6	112.6	112.6	112.6	291.0	112.6	112.6	**1,079**	307		**307**	**1,386 SqFt**
634E0120	Traffic Control, Miscellaneous	◄——— LUMP SUM ———►								**Lump Sum**	◄——LUMP SUM——►		**Lump Sum**	**Lump Sum**
634E0275	Type 3 Barricade	----	----	----	----	----	2	----	----	**2**	6		**6**	**8 Each**
634E0420	Type C Advance Warning Arrow Board	----	----	----	----	----	2	----	----	**2**	2		**2**	**4 Each**

ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0021(187) & P 0023(70)	13	28

ENVIRONMENTAL COMMITMENTS

The SDDOT is committed to protecting the environment and uses 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. During construction, the Project Engineer will verify that the Contractor has met Environmental Commitment requirements. 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: <https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.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 Engineer at 605-773-3180 or 605-773-4336 to determine whether an environmental analysis and/or resource agency coordination is necessary.

Once construction is complete, the Project Engineer will review all environmental commitments for the project and document their completion.

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

COMMITMENT C: WATER SOURCE

The Contractor will not withdraw water with equipment previously used outside the State of South Dakota or previously used in aquatic invasive species (AIS) positive waters within South Dakota without prior approval from the SDDOT Environmental Office. To prevent and control the introduction and spread of invasive species into the project vicinity, all equipment will be power washed with hot water (≥140 °F) and completely dried for a minimum of 7 days prior to subsequent use. South Dakota administrative rule 41:10:04:02 forbids the possession and transport of AIS; therefore, all attached dirt, mud, debris and vegetation must be removed and all compartments and tanks capable of holding standing water must be drained. This includes, but is not limited to, all equipment, pumps, lines, hoses and holding tanks.

COMMITMENT C: WATER SOURCE (CONTINUED)

Action Taken/Required:

The Contractor will obtain the necessary permits from the regulatory agencies such as the South Dakota Department of Agriculture and Natural Resources (DANR) and the United States Army Corps of Engineers (USACE) prior to water extraction activities.

Additional information and mapping of water sources impacted by Aquatic Invasive Species in South Dakota can be accessed at:
< https://sdleastwanted.sd.gov/maps/default.aspx>

< South Dakota Administrative Rule 41:10:04 Aquatic Invasive Species: https://sdlegislature.gov/rules/DisplayRule.aspx?Rule=41:10:04 >

COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

Action Taken/Required:

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor will 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) will 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 Agriculture and Natural Resources.

The waste disposal site(s) will 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 Environmental Office and the Project Engineer.

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

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials will be buried in a trench separate from wood debris. The final cover over the construction and/or demolition debris will consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public ROW will be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor will control the access to waste disposal sites not within the Public ROW with 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 not to exceed the duration of the project. Prior to project completion, the waste will 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.

COMMITMENT H: WASTE DISPOSAL SITE (CONTINUED)

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) will be incidental to the various contract items.

COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historic Preservation Office (SHPO or THPO) for all work included within the project limits and all department designated sources and designated option material sources, stockpile sites, storage areas, and waste sites provided within the plans.

Action Taken/Required:

All earth disturbing activities not designated within the plans require a cultural resource review prior to scheduling the pre-construction meeting. 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 will arrange and pay for a record search and when necessary, a cultural resource survey. 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 if the site was previously surveyed; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor will provide ARC with the following: a topographical map or aerial view in 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 will submit the cultural resources survey report to SDDOT Environmental Office, 700 East Broadway Avenue, Pierre, SD 57501-2586. 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.

In the event of an inadvertent discovery of human remains, funerary objects, or if evidence of cultural resources is identified during project construction activities, then such activities within 100 feet of the inadvertent discovery will immediately cease and the Project Engineer will be immediately notified. The Project Engineer will contact the SDDOT Environmental Office, who will contact the appropriate SHPO/THPO within 48 hours of the discovery 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 will not utilize a site known or suspected of having contaminated soil or water. The Contractor will provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

COORDINATION BETWEEN CONTRACTORS

A separate contract for Project NH-P 0021(188) - PCN 09L0 has been awarded to another Contractor for asphalt surface treatment on US18 and SD38 adjacent to the routes on this contract. On US18, the project starts at Dallas and ends east of Burke. On SD38, the project starts at Salem and ends at Humboldt.

The Contractor will schedule work so as not to interfere with or hinder the progress of the work performed by other Contractors on the asphalt surface treatment project.

ASPHALT CONCRETE CRACK SEALING

Only the top of the road will be routed and sealed. No routing and sealing will 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 routes with curb and gutter the asphalt concrete will typically be sealed gutter to gutter.

On US 18 the top width is typically 30 feet wide.

On SD38 Hanson County the top width varies from 40 feet to 62 feet wide.

On SD38 McCook County the top width is typically 32 feet wide.

On SD44 the top width varies from 32 feet wide to 44 feet wide.

On SD45 the top width is typically 32 feet wide. The Gann Valley service road is typically 24 feet wide. The parking area is typically 28 feet wide.

On SD50 the top width of the North Main Street Portion varies from 56 feet wide to 48 feet wide. The North Courtland Street Portion varies from 32 feet wide to 48 feet wide. The King Street Portion varies from 38 feet to 96 feet wide.

On US281 the top width varies from 38 feet to 52 feet wide.

On George S. Mickelson Shoreline Drive the top width is 40 feet wide.

SD52 West Segment the top width varies from 38 to 40 feet wide.

SD52 East Segment the top width varies from 37 to 77 feet wide.

The crack sealant will conform to the supplemental specifications for Section 871 A. or B. and be one of those listed below:

Product	Manufacturer
Deery 101 ELT Hot Poured Elastic Joint Sealer ASTM D-6690 Type IV (Modified)	Crafco, Inc. Chandler, AZ 602-276-0406 http://www.crafco.com
W.R. Meadows 3405-M Hot Poured Elastic Joint Sealer ASTM D-6690 Type IV	W.R. Meadows Hampshire, IL 800-342-5976 http://www.wrmeadows.com

The reservoir for all longitudinal cracks will be slightly recessed so the sealant will not be picked up by vehicle tires or snowplow cutting edges.

Seasonal and Temperature Limitations

Routing and sealing of asphalt concrete surfaces will be permitted between May 1 and November 15.

Application of the sealant material will only be allowed when the ambient air temperature is between 40°F and 95°F.

ASPHALT CONCRETE CRACK SEALING (CONTINUED)

Seasonal and Temperature Limitations (Continued)

Application of the sealant material will only be allowed when the relative humidity is less than 85%.

All other requirements of Section 350 will apply.

TABLE OF LONGITUDINAL AND TRANSVERSE CRACKS

ROUTE	LONGITUDINAL	TRANSVERSE
US18	26%	74%
SD38 Hanson	38%	65%
SD38 McCook	63%	37%
SD44	88%	12%
SD45	2%	98%
SD50 North Main St	42%	58%
SD50 North Courtland St	0%	100%
SD50 King St	26%	74%
US281	31%	69%
GSMSD	11%	89%
SD52 West Segment	7%	93%
SD52 East Segment	65%	35%

HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

All materials will be applied as per manufacturer's recommendations. High build waterborne pavement marking paint will conform to the supplemental specifications for Section 980.1 B.

Cold weather waterborne paint will not be required after October 15th per Supplemental Specification Section 633.3 B.

Reflective media will consist of glass beads. Reflective media will require a Certificate of Compliance for each source and lot. Acceptance sampling will not be required.

RATES OF MATERIALS FOR HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

Solid 4" line = 22.5 Gals/Mile
Dashed 4" line = 6.2 Gal/Mile
Glass Beads = 8 Lbs/Gal.

All cost for materials, labor, and equipment necessary to furnish and install the pavement markings will be incidental to the contract unit price for the respective High Build Waterborne Pavement Marking Paint items.

PERMANENT PAVEMENT MARKING

The application of permanent pavement marking may not begin until 7 calendar days following completion of the crack seal and will be completed within 14 calendar days following completion of the crack seal.

Marking eight-inch edgelines and gore areas will require the use of two spray nozzles to achieve the required width. Marking twelve-inch gore lines will require the use of three spray nozzles to achieve the required width.

The Contractor will be required to repaint existing pavement marking including centerline, edgeline, dashed edgelines, dashed lane lines, lane lines, turn lanes, gore areas, etc.

Flush sealing will not be allowed as an option for correction of markings that are not within tolerance due to the occurrence of shadow through.

PERMANENT PAVEMENT MARKING (CONTINUED)

The following table contains locations of existing pavement marking to be painted by hand.

TABLE OF HAND WORK FOR PAVEMENT MARKING

ROUTE	LOCATION
US18	24" Hatches in Gore Area at Turney Ave
US18	Arrows in Turn Bay at Turney Ave
SD38 Hanson	24" Hatches in Gore Areas at Jct SD38P
SD38 Hanson	Arrows in Turn Bays at Jct SD38P
SD38 McCook	STOP Message at Jct US81 – EB
SD38 McCook	AHEAD Message at Jct US81 – EB
SD44	Stop Line at Jct SD47 – EB
SD44	Stop Line at Jct SD47 - SB
SD44	Stop Line At Jct SD47 - NB
SD44	Stop Line at Jct SD47 - WB
SD44	STOP Messages at Jct SD47 – WB
SD44	AHEAD Message at Jct SD47 - WB
SD45	STOP Messages at Jct SD34 - NB
SD45	AHEAD Message at Jct SD 34 - NB
SD45	Stop Line at Jct SD34 – NB
SD45	Stop Line at Jct SD34 – EB
SD45	Stop Line at Jct SD34 – WB
SD50	Arrows in Center Turn Lane – North Main
SD50	Arrows in Center Turn Lane – North Courtland
SD50	24" Hatches in Lt Turn Bay at Sorensen
SD50	24" Hatches in Rt Turn Lane Gore Area at Sorensen
SD50	Lt Arrows in Turn Bays at Sorensen
SD50	Rt Arrows in Turn Lane at Sorensen
SD50	Arrows in Center Turn Lane – King St
SD50	Arrow in Turn Bay at WB I90 On Ramp
US281	Stop Line at Jct SD44 – SB
US281	24" Hatches in Turn Bays through Corsica
US281	Arrows in Turn Bays through Corsica
SD52 W Segment	Stop Line at Jct SD50 - NB
SD52 W Segment	STOP Messages at Jct SD50 – NB
SD52 W Segment	AHEAD Message at Jct SD50 - NB
SD52 E Segment	Left Arrows
SD52 E Segment	Right Arrows
SD52 E Segment	Combo Arrows

PERMANENT PAVEMENT MARKING (CONTINUED)

TABLES OF PERMANENT PAVEMENT MARKING

US18	White	Yellow
4” Yellow Centerline Dashes = 22.620 miles @ 6.2 Gal/Mile		140.2
4” Solid Yellow Centerline = 8.523 miles @ 22.5 Gal/Mile		191.8
Double Yellow for Turn Bays = (2-4” lines) 0.605 miles @ 45.0 Gal/Mile		27.2
24” Yellow Hatches for Turn Bays = 0.044 miles @ 135.0 Gal/Mile		5.9
4” Solid White Edgeline = 47.260 miles @ 22.5 Gal/Mile	1063.4	
4” White Edgeline Dashes = 0.202 miles @ 6.2 Gal/Mile	1.3	
4” Solid White Lane Lines = 0.019 miles @ 22.5 Gal/Mile	0.4	
4” White Lane Line Dashes = 0.317 miles @ 6.2 Gal/Mile	2.0	
White Arrows = 2 Each @ 0.19 Ga//Each	0.4	
TOTAL GALLONS	**1068**	**365**

SD38 Hanson	White	Yellow
4” Yellow for Turn Bays = 1.759 miles @ 22.5 Gal/Mile		39.6
24” Yellow Hatches for Turn Bays = 0.074 miles @ 135.0 Gal/Mile		10.0
4” Solid White Edgeline = 1.250 miles @ 22.5 Gal/Mile	28.1	
4” Solid White Lane Lines = 0.289 miles @ 22.5 Gal/Mile	6.5	
White Arrows = 9 Each @ 0.19 Ga//Each	1.7	
TOTAL GALLONS	**36**	**50**

SD38 McCook	White	Yellow
4” Yellow Centerline Dashes = 10.735 miles @ 6.2 Gal/Mile		66.6
4” Solid Yellow Centerline = 2.803 miles @ 22.5 Gal/Mile		63.1
8” Solid White Edgeline = 21.873 miles @ 45.0 Gal/Mile	984.3	
White STOP Message = 1 Each @ 0.34 Gal/Each	0.3	
White AHEAD Message = 1 Each @ 0.43 Gal/Each	0.4	
TOTAL GALLONS	**985**	**130**

SD44	White	Yellow
4” Yellow Centerline Dashes = 12.205 miles @ 6.2 Gal/Mile		75.7
4” Solid Yellow Centerline = 13.969 miles @ 22.5 Gal/Mile		314.3
4” Solid White Edgeline = 32.053 miles @ 22.5 Gal/Mile	721.2	
4” White Lane Dashes = 0.780 miles @ 6.2 Gal/Mile	4.8	
24” White Stop Line = 0.014 miles @ 135.0 Gal/Mile	1.9	
White STOP Messages = 2 Each @ 0.34 Gal/Each	0.7	
White AHEAD Message = 1 Each @ 0.43 Gal/Each	0.4	
TOTAL GALLONS	**729**	**390**

PERMANENT PAVEMENT MARKING (CONTINUED)

TABLES OF PERMANENT PAVEMENT MARKING

SD45	White	Yellow
4” Yellow Centerline Dashes = 14.092 miles @ 6.2 Gal/Mile		87.4
4” Solid Yellow Centerline = 7.580 miles @ 22.5 Gal/Mile		170.6
4” Solid White Edgeline = 30.140 miles @ 22.5 Gal/Mile	678.2	
White STOP Messages = 2 Each @ 0.34 Gal/Each	0.7	
White AHEAD Message = 1 Each @ 0.43 Gal/Each	0.4	
24” White Stop Line = 0.007 miles @ 135.0 Gal/Mile	0.9	
TOTAL GALLONS	**680**	**258**

SD50	White	Yellow
4” Yellow Center Turn Lane Dashes = 2.980 miles @ 6.2 Gal/Mile		18.5
4” Solid Yellow Center Turn Lane = 3.180 miles @ 22.5 Gal/Mile		71.6
4” Solid Yellow Centerline = 0.555 miles @ 22.5 Gal/Mile		12.5
4” Yellow Centerline Dashes = 0.014 miles @ 6.2 Gal/Mile		0.1
4” Yellow Solid Centerline 4-Lane = 2.842 miles @ 22.5 Gal/Mile		63.9
Double Yellow for Turn Bays = (2-4” lines) 0.314 miles @ 45.0 Gal/Mile		14.2
24” Yellow Hatches for Turn Bays = 0.014 miles @ 135.0 Gal/Mile		1.9
4” White Lane Line Dashes 4-Lane = 3.248 miles @ 6.2 Gal/Mile	20.1	
4” Solid White Edgeline = 5.863 miles @ 22.5 Gal/Mile	131.9	
4” Solid White Lane Lines = 0.092 miles @ 22.5 Gal/Mile	2.1	
8” Solid White for Gore Area = (2-4” Lines) 0.133 miles @ 45.0 Gal/Mile	6.0	
8” Solid White Lane Line = (2-4” Lines) 0.023 miles @ 45.0 Gal/Mile	1.0	
24” White Chevrons = 0.046 miles @ 135.0 Gal/Mile	6.2	
24” White Stop Line = 0.010 miles @ 135.0 Gal/Mile	1.4	
White ONLY Message = 2 Each @ 0.27 Gal/Each	0.5	
White Arrows = 50 each @ 0.19 Gal/Each	9.5	
TOTAL GALLONS	**179**	**183**

PERMANENT PAVEMENT MARKING (CONTINUED)

TABLES OF PERMANENT PAVEMENT MARKING

US281	White	Yellow
4” Yellow Centerline Dashes = 9.905 miles @ 6.2 Gal/Mile		61.4
4” Solid Yellow Centerline = 0.145 miles @ 22.5 Gal/Mile		3.3
Double Yellow for Turn Bays = (2-4” lines) 0.147 miles @ 45.0 Gal/Mile		6.6
24” Yellow Hatches for Turn Bays = 0.011 miles @ 135.0 Gal/Mile		1.5
4” Yellow Center Turn Lane Dashes = 1.159 miles @ 6.2 Gal/Mile		7.5
4” Solid Yellow Center Turn Lane = 1.183 miles @ 22.5 Gal/Mile		26.6
4” Solid White Edgeline = 20.525 miles @ 22.5 Gal/Mile	461.8	
4” Solid White Lane Lines = 0.033 miles @ 22.5 Gal/Mile	0.7	
24” White Stop Line = 0.005 miles @ 135.0 Gal/Mile	0.7	
White Arrows = 30 Each @ 0.19 Ga//Each	5.7	
TOTAL GALLONS	**469**	**107**

George S. Mickelson Shoreline Drive	White	Yellow
4” Yellow Centerline Dashes = 2.095 miles @ 6.2 Gal/Mile		13.0
4” Solid Yellow Centerline = 0.579 miles @ 22.5 Gal/Mile		13.0
4” Solid White Edgeline = 4.400 miles @ 22.5 Gal/Mile	99.0	
TOTAL GALLONS	**99**	**26**

SD52 West Segment	White	Yellow
4” Yellow Centerline Dashes = 3.794 miles @ 6.2 Gal/Mile		23.5
4” Solid Yellow Centerline = 3.751 miles @ 22.5 Gal/Mile		84.4
4” Solid White Edgeline = 9.073 miles @ 22.5 Gal/Mile	204.1	
24” White Stop Line = 0.004 miles @ 135.0 Gal/Mile	0.5	
White STOP Messages = 2 Each @ 0.34 Gal/Each	0.7	
White AHEAD Message = 1 Each @ 0.43 Gal/Each	0.4	
TOTAL GALLONS	**206**	**108**

SD52 East Segment	White	Yellow
4” Yellow Centerline Dashes = 10.142 miles @ 6.2 Gal/Mile		62.9
4” Solid Yellow Centerline = 11.400 miles @ 22.5 Gal/Mile		256.5
24” Yellow Hatches for Turn Bays = 0.009 miles @ 135.0 Gal/Mile		1.2
8” Solid Yellow Edgeline = 0.015 miles @ 45.0 Gal/Mile		0.7
4” Solid White Edgeline = 10.488 miles @ 22.5 Gal/Mile	236	
4” White Centerline Dashes = 7.960 miles @ 6.2 Gal/Mile	49.4	
4” Solid White Lane Lines = 0.409 miles @ 22.5 Gal/Mile	9.2	
8” Solid White Edgeline = 0.057 miles @ 45.0 Gal/Mile	2.6	
White Arrows = 167 Each @ 0.19 Ga//Each	31.7	
TOTAL GALLONS	**329**	**321**

RETROREFLECTIVITY FOR PAVEMENT MARKING PAINT

The Department may take retroreflectivity readings on the pavement marking lines after 14 days and within 42 days of the line application using either a portable or mobile retroreflectometer that conforms to 30-meter geometry. If the Department chooses to take retroreflectivity readings, three retroreflectivity readings will be taken on each line at each test location. The three readings will be averaged and become the reading for that test location.

If the Department chooses to take retroreflectivity readings, three readings will be taken on the edge lines and lane lines in the direction of application. For combination solid yellow and skip yellow lines for turn lanes and for centerline markings on two-way roadways, three readings will be taken in one direction, the reflectometer will be turned 180 degrees and three more readings will be taken. The six readings for the centerline markings will be averaged and become the test reading for that test location.

If the Department chooses to take readings, the minimum retroreflectivity values will be 275 mc/m^2/lux for white and 170 mc/m^2/lux for yellow.

SEQUENCE OF OPERATION & MAINTENANCE OF TRAFFIC NOTES

The Contractor will submit a sequence of operations for approval two weeks prior to the preconstruction meeting. If changes to the sequence of operations are proposed during the project, these must be submitted for review a minimum of one week prior to potential implementation. Approval for changes to the sequence of operations will only be allowed when the proposed changes meet with the Department's intent for traffic control and sequencing of the work.

GENERAL TRAFFIC CONTROL

Existing guide, route, informational logo, regulatory, and warning signs will be temporarily reset and maintained during construction. Removing, relocating, covering, salvaging, and resetting of existing traffic control devices, including delineation, will be the responsibility of the Contractor. Cost for this work will be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost will be replaced by the Contractor at no cost to the State.

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

Portable sign supports will not be located on sidewalks, bicycle facilities, or other areas designated for pedestrian or bicycle traffic.

If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD, whichever is more stringent will be used, as determined by the Engineer.

Unless otherwise stated in these plans, work will not be allowed during hours of darkness.

Traffic will be maintained on the driving lanes. Use of the shoulder as a driving lane will not be permitted. Any damage to the shoulder due to rerouted traffic or Contractor's equipment will be repaired at no expense to the Department.

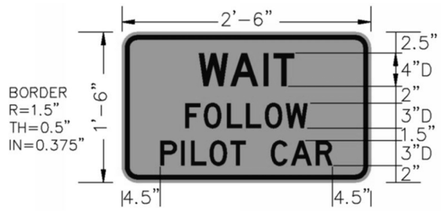
TRAFFIC CONTROL SIGNS

Traffic control signs have been included in a table for each route. Payment will only be for those signs used on each route.

FLAGGING

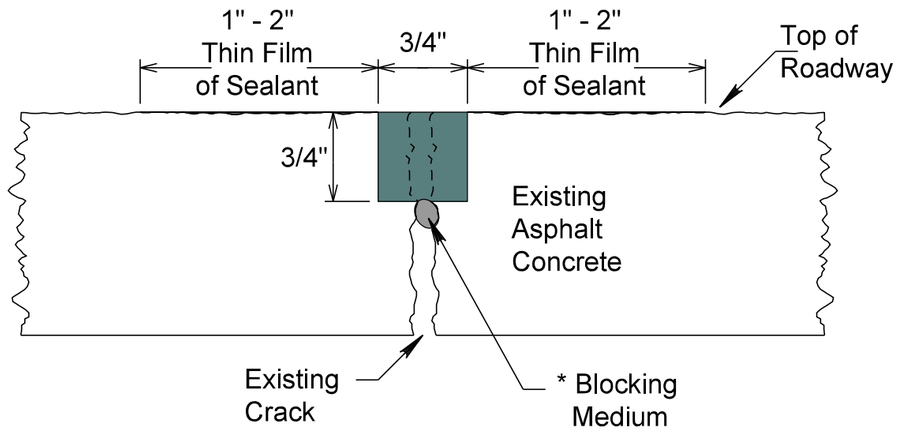
Operations will be conducted so that the traveling public will not have to wait longer than 15 minutes at the flagger station.

Additional flagger warning signs and flagger hours have been included in the Estimate of Quantities for use on intersecting roads. These flaggers will be used as directed by the Engineer and will be used primarily during daytime hours. Also included in the Estimate of Quantities are WAIT FOLLOW PILOT CAR signs for use on low volume intersecting roads as determined by the Engineer. WAIT FOLLOW PILOT CAR signs will not block the view of the stop sign.



It is required that the flaggers and pilot car operators be able to communicate with one another. If an emergency vehicle needs to pass through the project, the Contractor will be required to expedite traffic movement. All costs associated with this will be incidental to the contract unit price per hour for "Flagging".

TYPICAL RESERVOIR SECTION TRANSVERSE CRACK

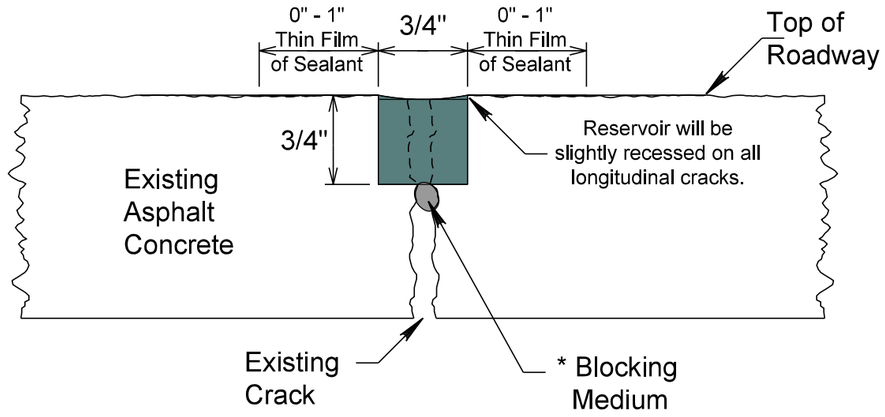


* Inert compressible material required for cracks 3/8" or more in width. The backer rod will be a nonmoisture absorbing, resilient material approximately 25 percent larger in diameter than the width of the joint to be sealed. The backer rod will be compatible with the sealant and no bond or reaction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

April 2023

TYPICAL RESERVOIR SECTION LONGITUDINAL CRACK



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

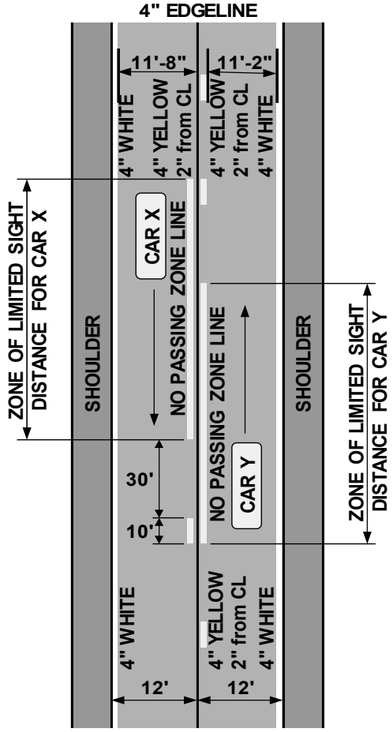
Recommended Backer Rod Diameter for Joint Width	
Joint Width	Rod Diameter
3/16" - 1/4"	3/8"
1/4" - 3/8"	1/2"
3/8" - 1/2"	5/8"
5/8" - 3/4"	7/8"
3/4" - 7/8"	1"
7/8" - 1"	1 1/4"
1" - 1 1/4"	1 1/2"
1 1/4" - 1 1/2"	2"

April 2023

FURNISHING AND APPLYING PAVEMENT MARKING PAINT

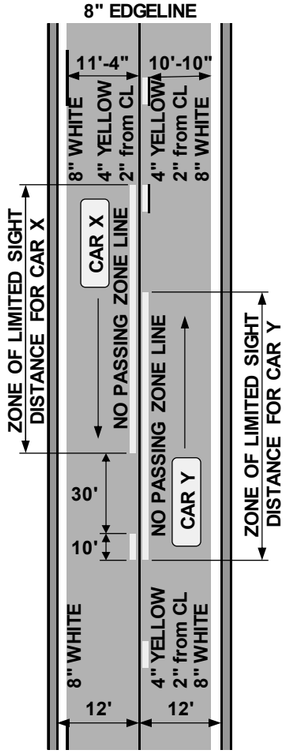
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0021(187) & P 0023(70)	18	28

UNDIVIDED ROADWAY
4" EDGELINE



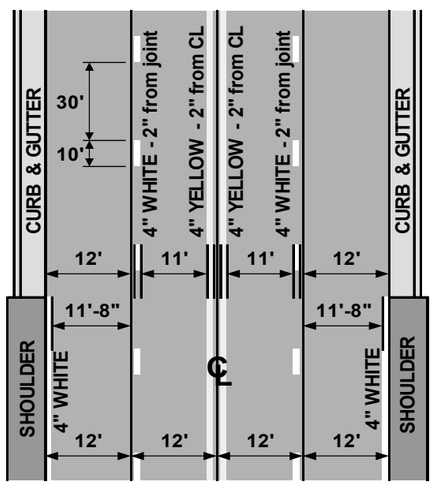
US18-Partial
SD44-Partial
SD45
SD50-Partial
US281
GSMSD
SD52 West Segment

UNDIVIDED ROADWAY
8" EDGELINE



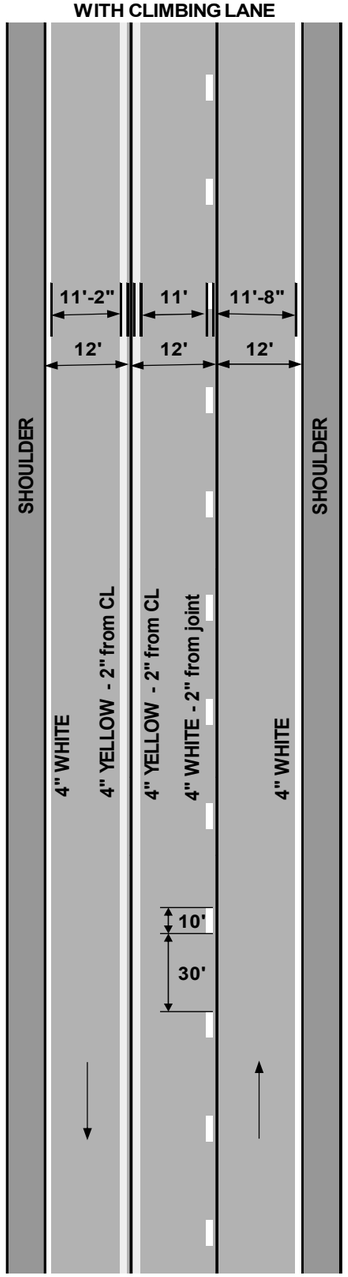
SD38 McCook

UNDIVIDED ROADWAY



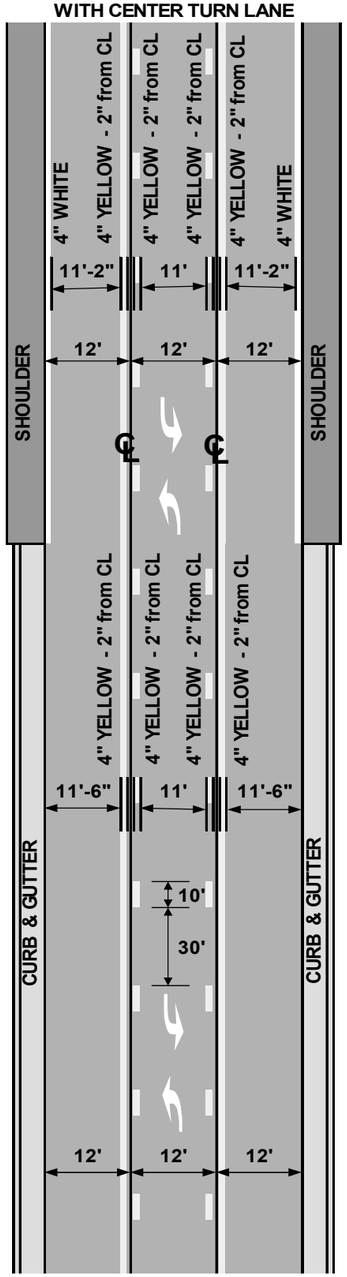
US18-Partial
SD50-Partial

TWO LANE ROADWAY
WITH CLIMBING LANE



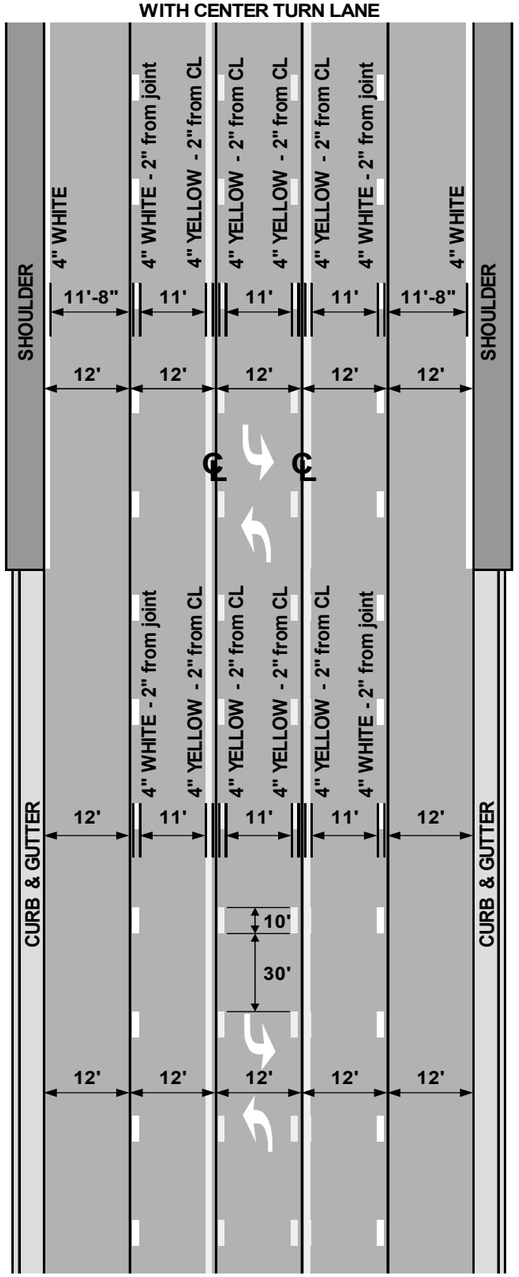
SD44-Partial

TWO LANE ROADWAY
WITH CENTER TURN LANE



SD50-Partial
SD52 East Segment-Partial

FOUR LANE ROADWAY
WITH CENTER TURN LANE



SD52 East Segment-Partial

FURNISHING AND APPLYING PAVEMENT MARKING PAINT (CONTINUED)

Application rates will be as follows:

UNDIVIDED ROADWAY				
ROUTES **US18 - Partial** **SD50 – Partial**	**ROUTES** **SD50 – Partial** **SD52 West Segment**	**ROUTES** **US18 – Partial** **SD44** **SD45** **SD50 – Partial** **US281** **GSMSD** **SD52 East Segment - Partial**	**ROUTES** **SD38**	**ROUTES** **SD52 - Partial**
FOUR LANE ROADWAY	**THREE LANE ROADWAY**	**TWO LANE ROADWAY**		**FOUR LANE ROADWAY**
	WITH CENTER TURN LANE			**WITH CENTER TURN LANE**
(Rate for one line)	(Rate for one line)	(Rate for one line)		(Rate for one line)
Solid Yellow Centerline Rate = 22.5 Gal/Pass-Mile	Solid Yellow Centerline Rate = 22.5 Gal/Pass-Mile	Solid Yellow Centerline Rate = 22.5 Gal/Pass-Mile		Solid Yellow Edgeline Rate = 22.5 Gal/Pass-Mile
Dashed White Lane Line Rate = 6.2 Gal/Pass-Mile	Dashed Yellow Centerline Rate = 6.2 Gal/Pass-Mile	Dashed Yellow Centerline Rate = 6.2 Gal/Pass-Mile		Solid White Edgeline Rate = 22.5 Gal/Pass-Mile
Solid White Edgeline (Not applicable in curb and gutter) Rate – 22.5 Gal/Pass-Mile	Solid White Edgeline (Not applicable in curb and gutter) Rate – 22.5 Gal/Pass-Mile	Solid White Edgeline – 4” Rate = 22.5 Gal/Pass-Mile	Solid White Edgeline – 8” Rate = 45.0 Gal/Pass-Mile	

Typical pavement marking as shown on the previous sheet and the following sheets will be applied throughout the entire length of applicable sections of roadway.

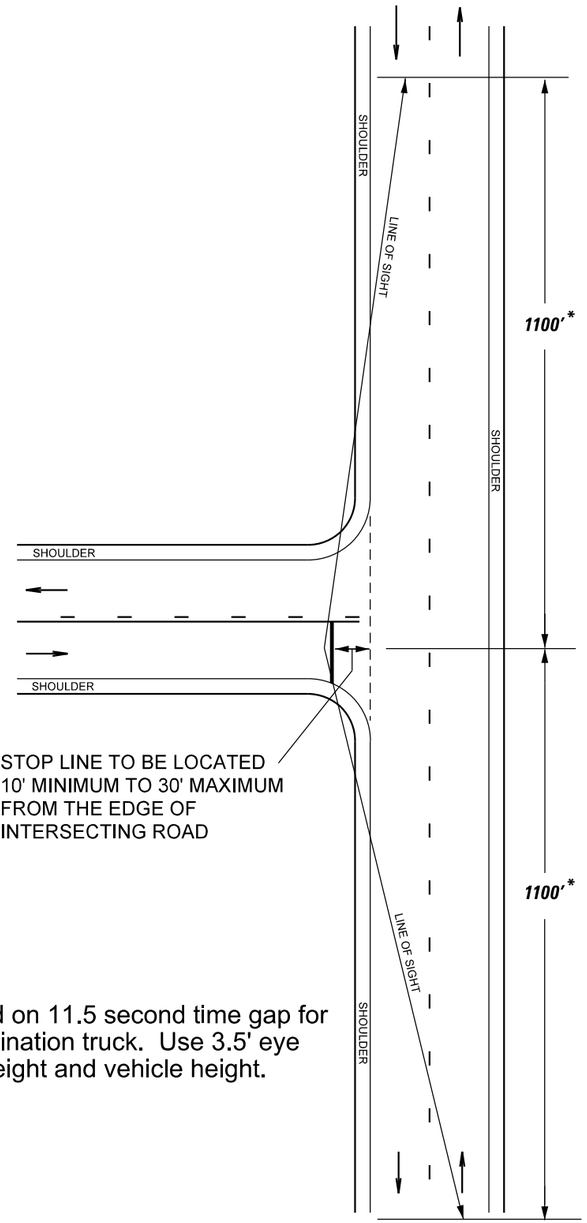
Traffic Control will be incidental to the cost of application. The striper and advance or trailing warning vehicle will be equipped with flashing amber lights and advance warning arrow board. The trailing warning vehicle will also be equipped with a truck mounted attenuator. This mobile work operation will be as per Standard Plate 634.06.

4” Yellow Skip Centerline (when not adjacent to a 4” Yellow No Passing Zone) will be placed consistently to the south or east of centerline.

NH-P 0021(187)		
09KM		
ESTIMATED QUANTITIES		
	PAVEMENT MARKING PAINT	
ROUTES	WHITE	YELLOW
US18	1068	365
SD38 Hanson	36	50
SD38 McCook	985	130
SD44	729	390
SD45	680	258
SD50	179	183
US281	469	107
GSMSD	99	26
TOTAL GALLONS	4245	1509

P 0023(70)		
09KU		
ESTIMATED QUANTITIES		
	PAVEMENT MARKING PAINT	
ROUTES	WHITE	YELLOW
SD52 West Segment	206	108
SD52 East Segment	329	321
TOTAL GALLONS	535	429

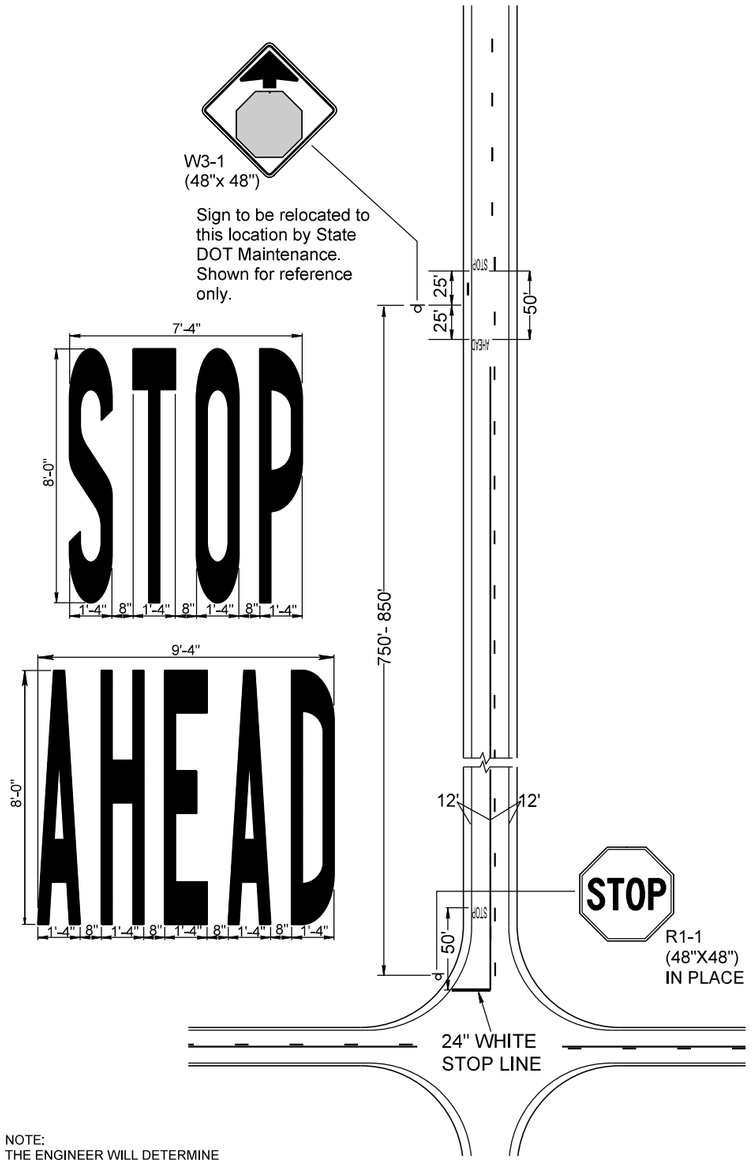
TOTAL PAVEMENT MARKING PAINT	
WHITE	YELLOW
4780	1938



* - Based on 11.5 second time gap for combination truck. Use 3.5' eye height and vehicle height.

STOP LINE PAVEMENT MARKING INSTALLATION

INTERSECTION APPROACH PAVEMENT MARKING (Typical)



NOTE:
THE ENGINEER WILL DETERMINE THE LOCATION OF THE STOP LINE.

Revised 12-28-20, PEH

* Messages on signs will vary depending on the operation being conducted.

Vehicle-mounted signs will be mounted in a manner such that they are not obscured by equipment or supplies. Sign legends on vehicle-mounted signs will be covered or turned from view when work is not in progress.

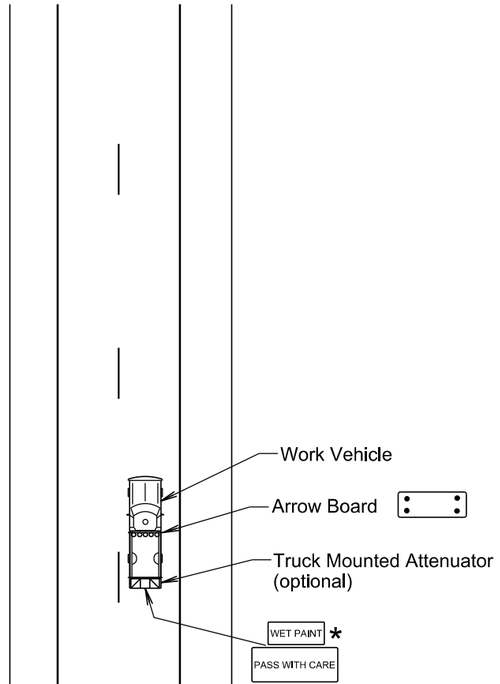
Shadow and Work vehicles will display high-intensity rotating, flashing, oscillating, or strobe lights, flags, signs, or arrow boards.

Vehicle hazard warning signals will not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

When an arrow board is used, it will be used in the caution mode. Marching Diamonds are acceptable.

Arrow boards will, as a minimum, be Type B, with a size of 60" x 30".

All costs associated with the traffic control for mobile operation including signs, arrow boards and equipment will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".



January 22, 2021

Published Date: 2025	SDDOT	MOBILE OPERATIONS ON 2-LANE ROAD	PLATE NUMBER 634.06 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.

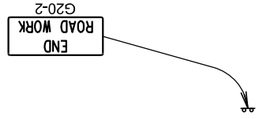
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) will 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 will be drums or 42" cones.

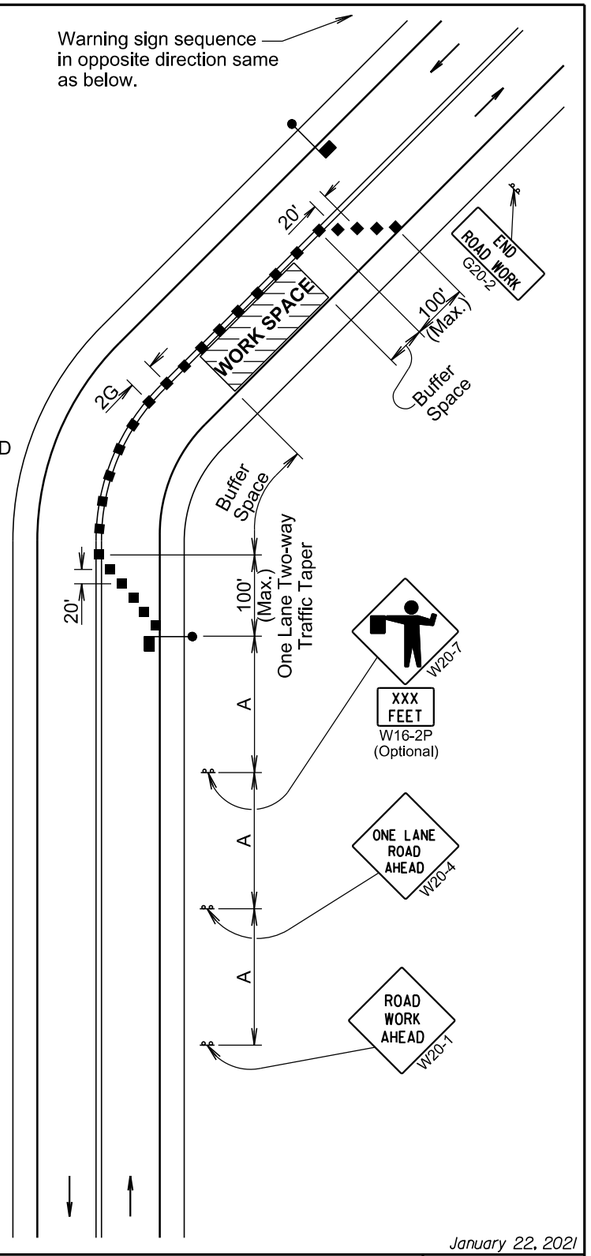
Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.



Channelizing devices and flaggers will 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.



January 22, 2021

Published Date: 2025	SDDOT	LANE CLOSURE WITH FLAGGER PROVIDED	PLATE NUMBER 634.23 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 *

* Spacing is 40' for 42" cones.

◎ Reflectorized Drum

■ Channelizing Device

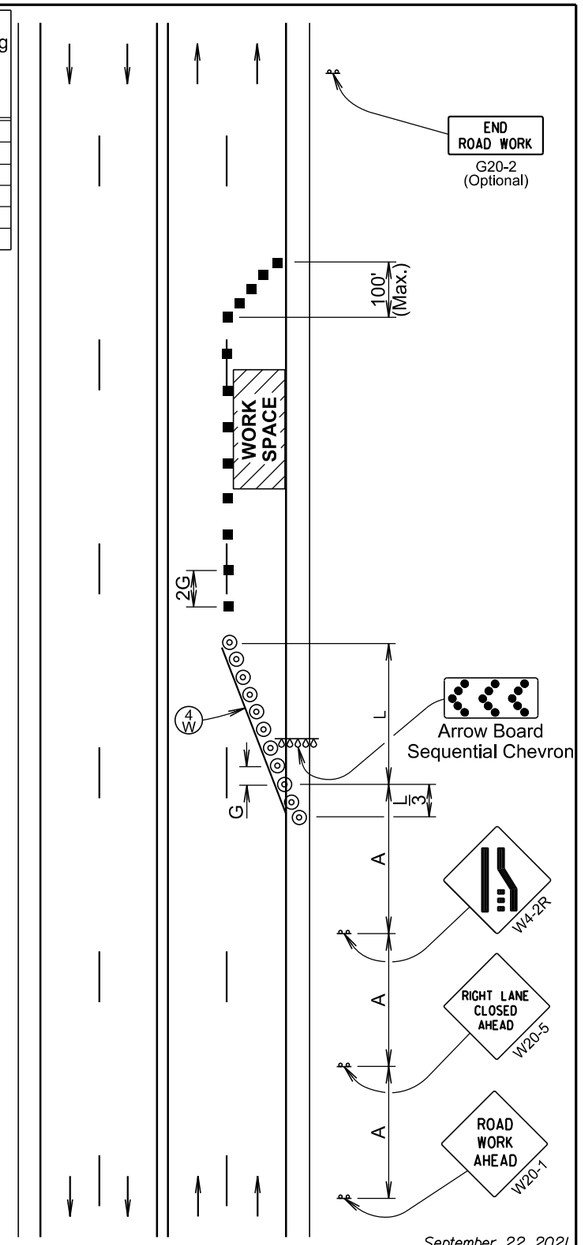
(4W) 4" White Temporary Pavement Marking

The channelizing devices will be 42" cones or drums.

42" cones may be used in place of the drums shown in the taper if setup will not be used during night time hours.

Temporary pavement markings will be used if traffic control must remain overnight.

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



September 22, 2021

Published Date: 2025	SDDOT	4-LANE UNDIVIDED, RIGHT LANE CLOSED	PLATE NUMBER 634.47
			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 *

* Spacing is 40' for 42" cones.

◎ Reflectorized Drum

■ Channelizing Device

(4Y) 4" Yellow Temporary Pavement Marking

Pavement markings no longer applicable will be removed or obliterated as soon as practical.

Temporary pavement markings will be used if traffic control must remain overnight.

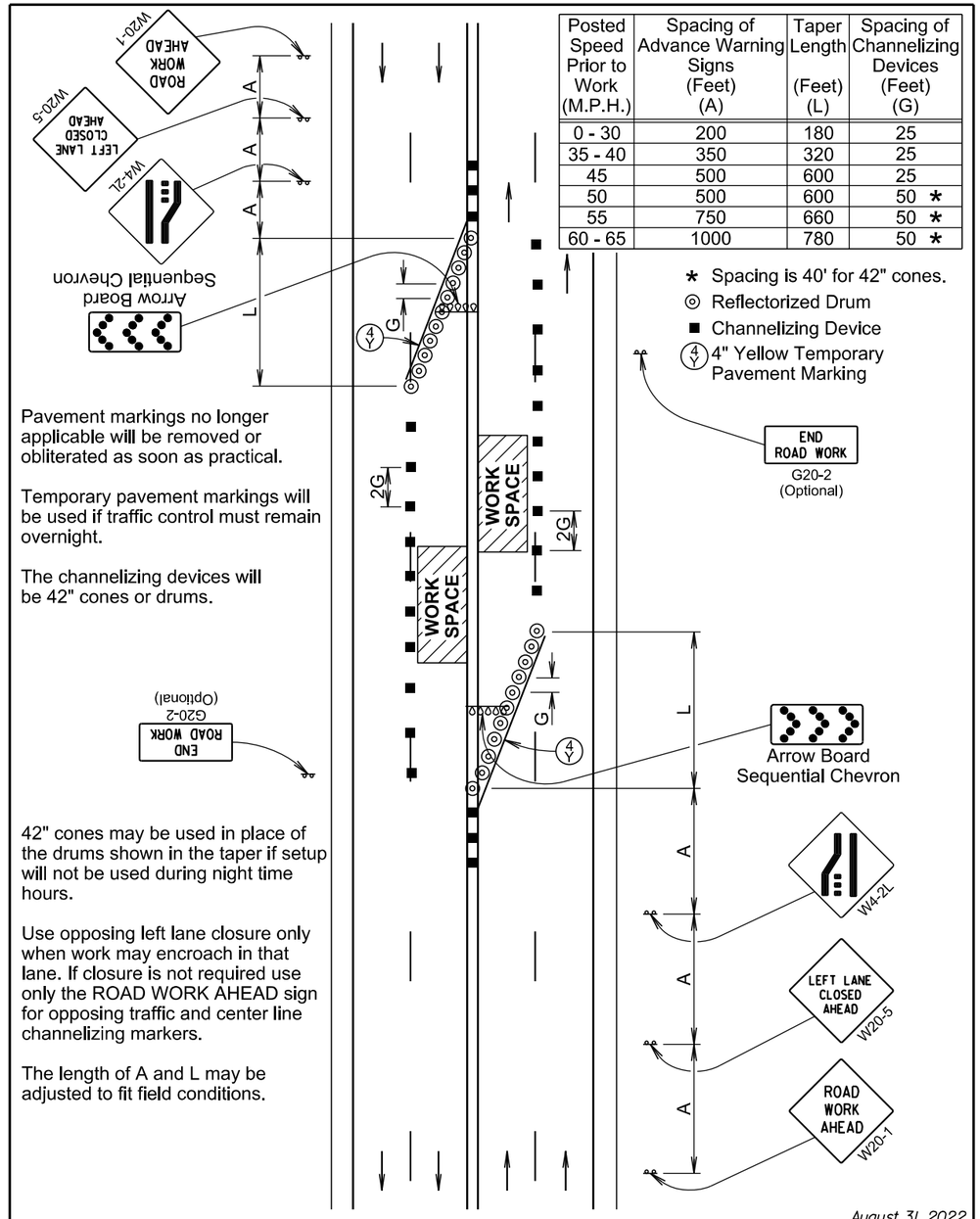
The channelizing devices will be 42" cones or drums.

(Optional) G20-2 END ROAD WORK

42" cones may be used in place of the drums shown in the taper if setup will not be used during night time hours.

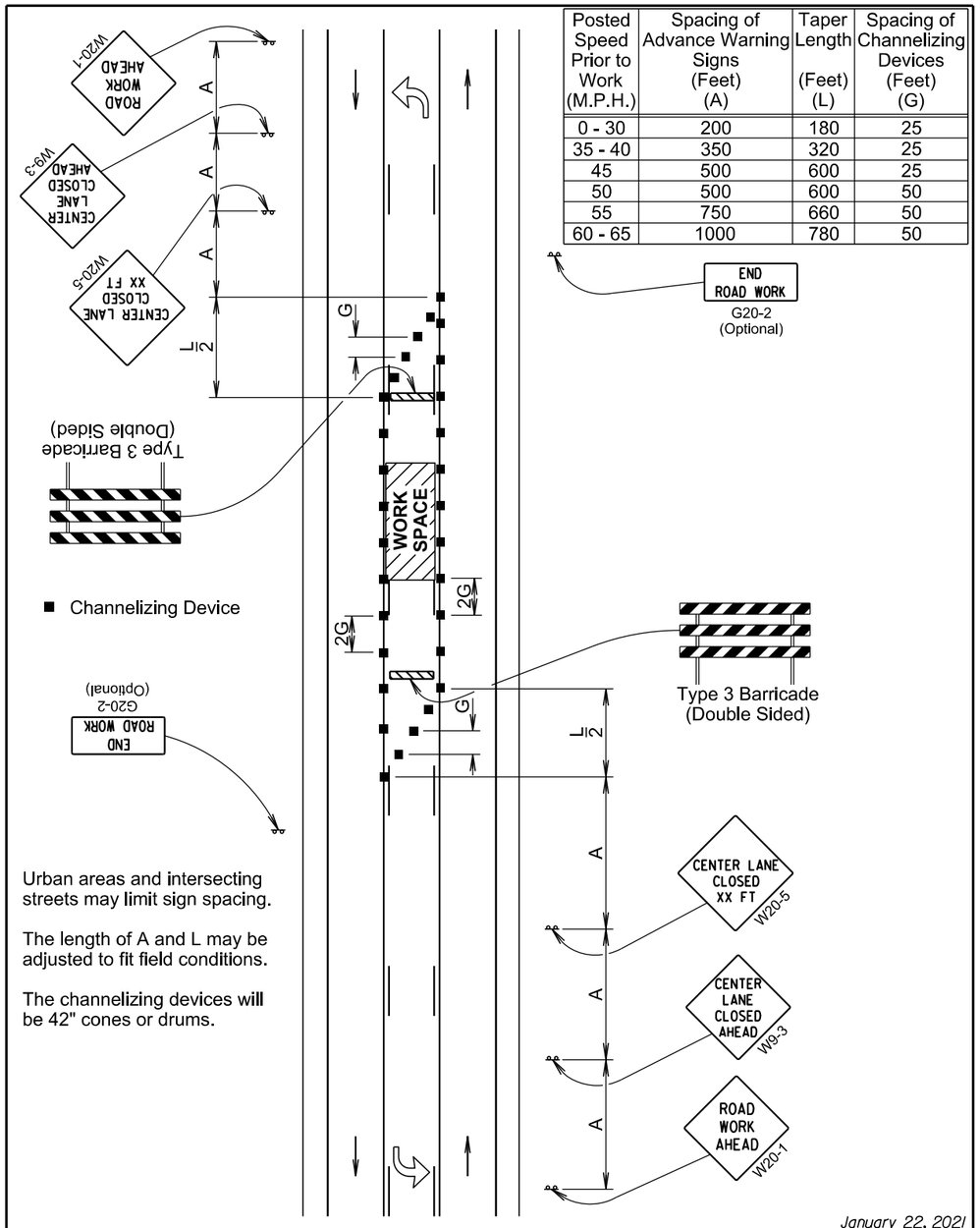
Use opposing left lane closure only when work may encroach in that lane. If closure is not required use only the ROAD WORK AHEAD sign for opposing traffic and center line channelizing markers.

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



August 31, 2022

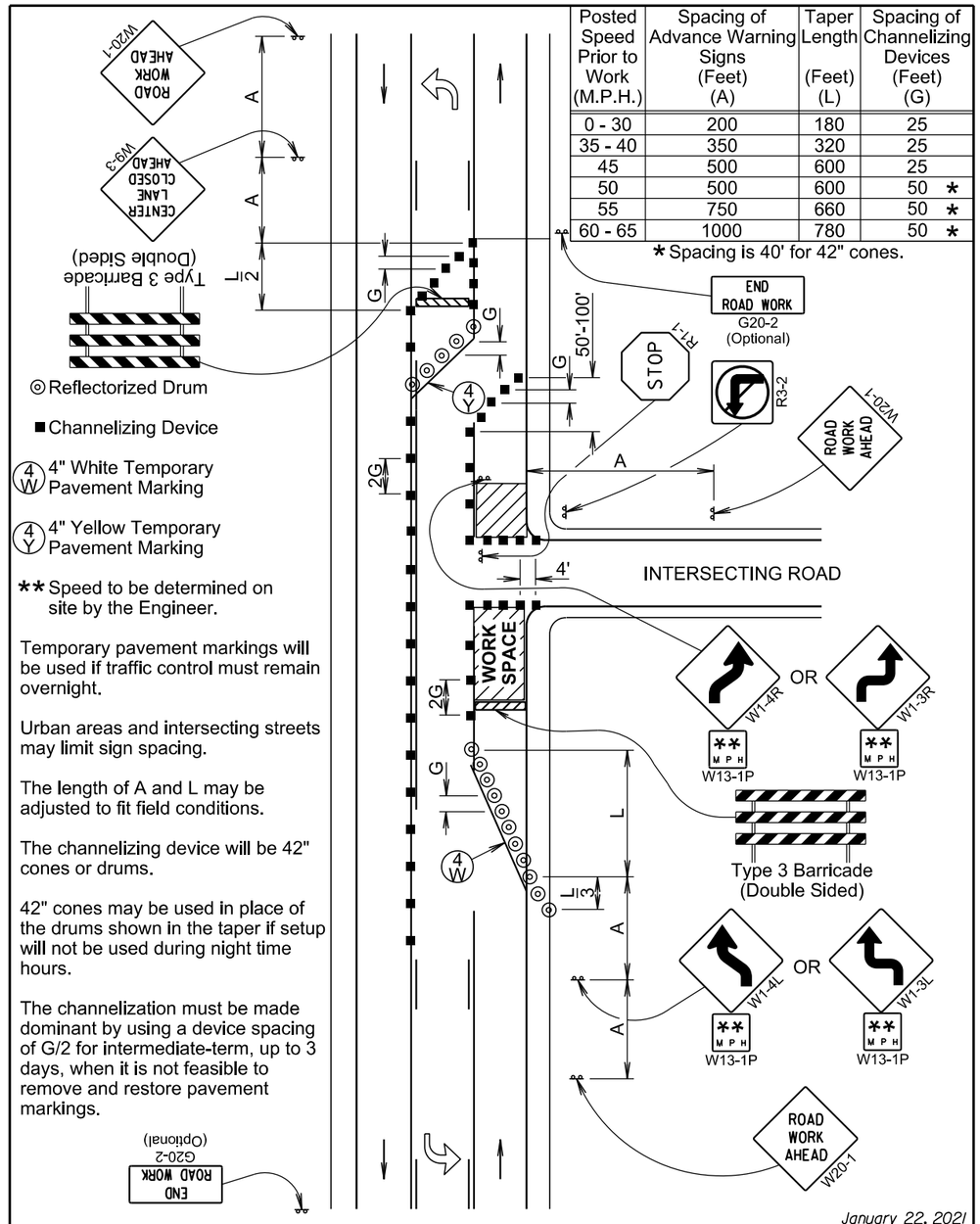
Published Date: 2025	SDDOT	4-LANE UNDIVIDED, LEFT LANE CLOSED	PLATE NUMBER 634.48
			Sheet 1 of 1



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

January 22, 2021

Published Date: 2025	SDDOT	3-LANE, CENTER LANE CLOSED	PLATE NUMBER 634.52
			Sheet 1 of 1

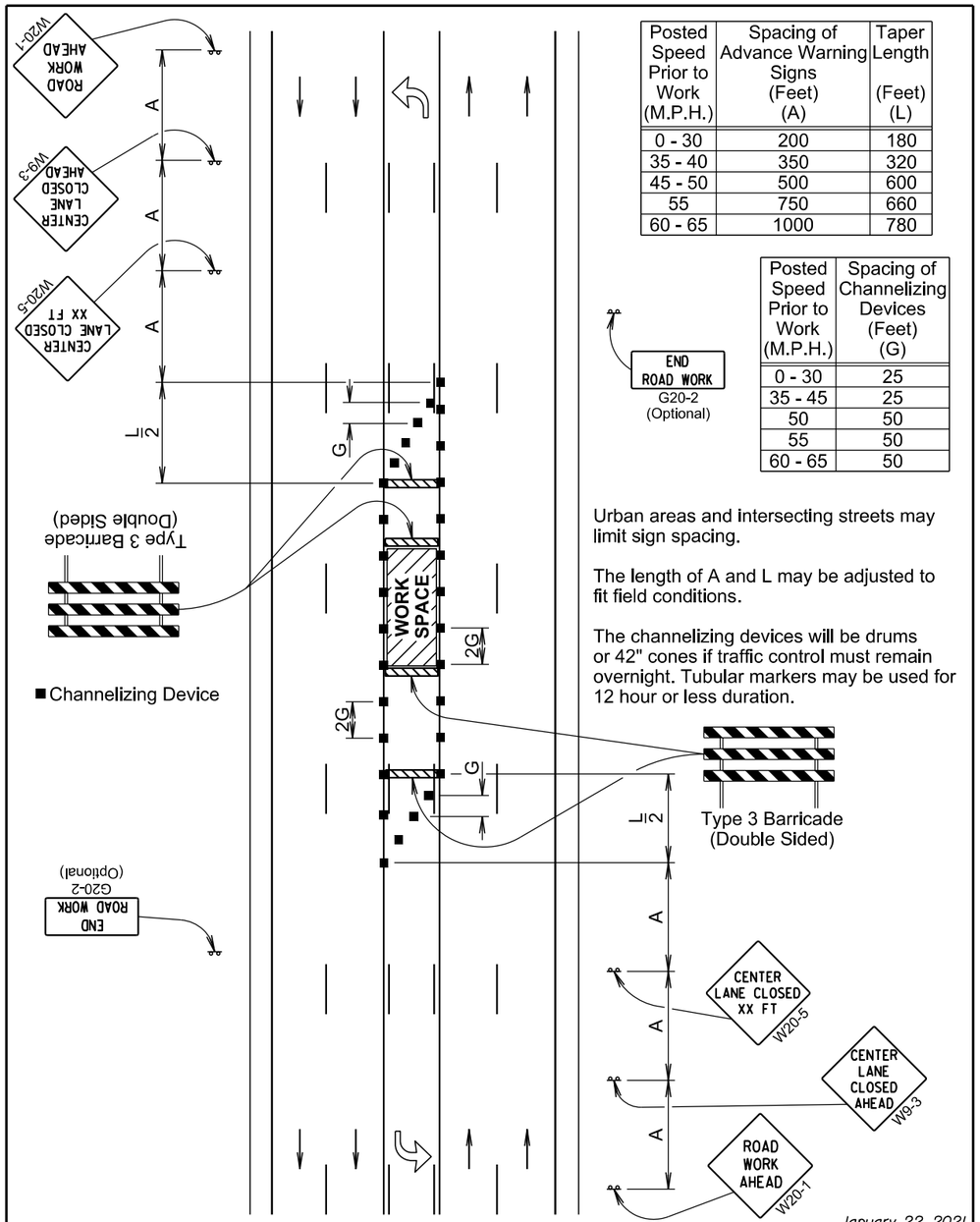


Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45	500	600	25
50	500	600	50 *
55	750	660	50 *
60 - 65	1000	780	50 *

* Spacing is 40' for 42" cones.

January 22, 2021

Published Date: 2025	SDDOT	3-LANE, OUTSIDE LANE CLOSED	PLATE NUMBER 634.53
			Sheet 1 of 1



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

END ROAD WORK
G20-2
(Optional)

Posted Speed Prior to Work (M.P.H.)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	25
35 - 45	25
50	50
55	50
60 - 65	50

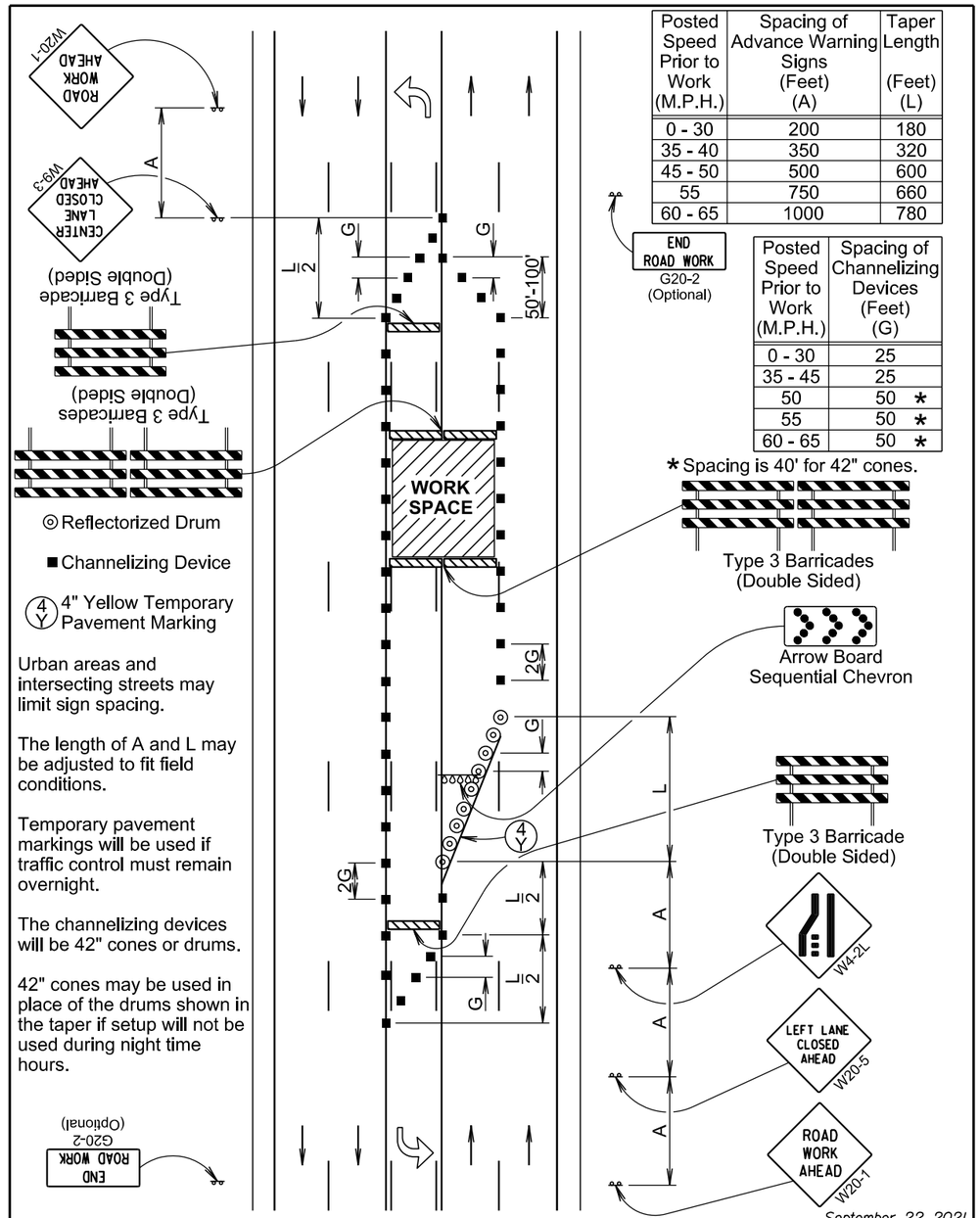
Urban areas and intersecting streets may limit sign spacing.

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

The channelizing devices will be drums or 42" cones if traffic control must remain overnight. Tubular markers may be used for 12 hour or less duration.

January 22, 2021

Published Date: 2025	SDDOT	5-LANE, CENTER LANE CLOSED	PLATE NUMBER 634.55
			Sheet 1 of 1



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

END ROAD WORK
G20-2
(Optional)

Posted Speed Prior to Work (M.P.H.)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	25
35 - 45	25
50	50 *
55	50 *
60 - 65	50 *

* Spacing is 40' for 42" cones.

Urban areas and intersecting streets may limit sign spacing.

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

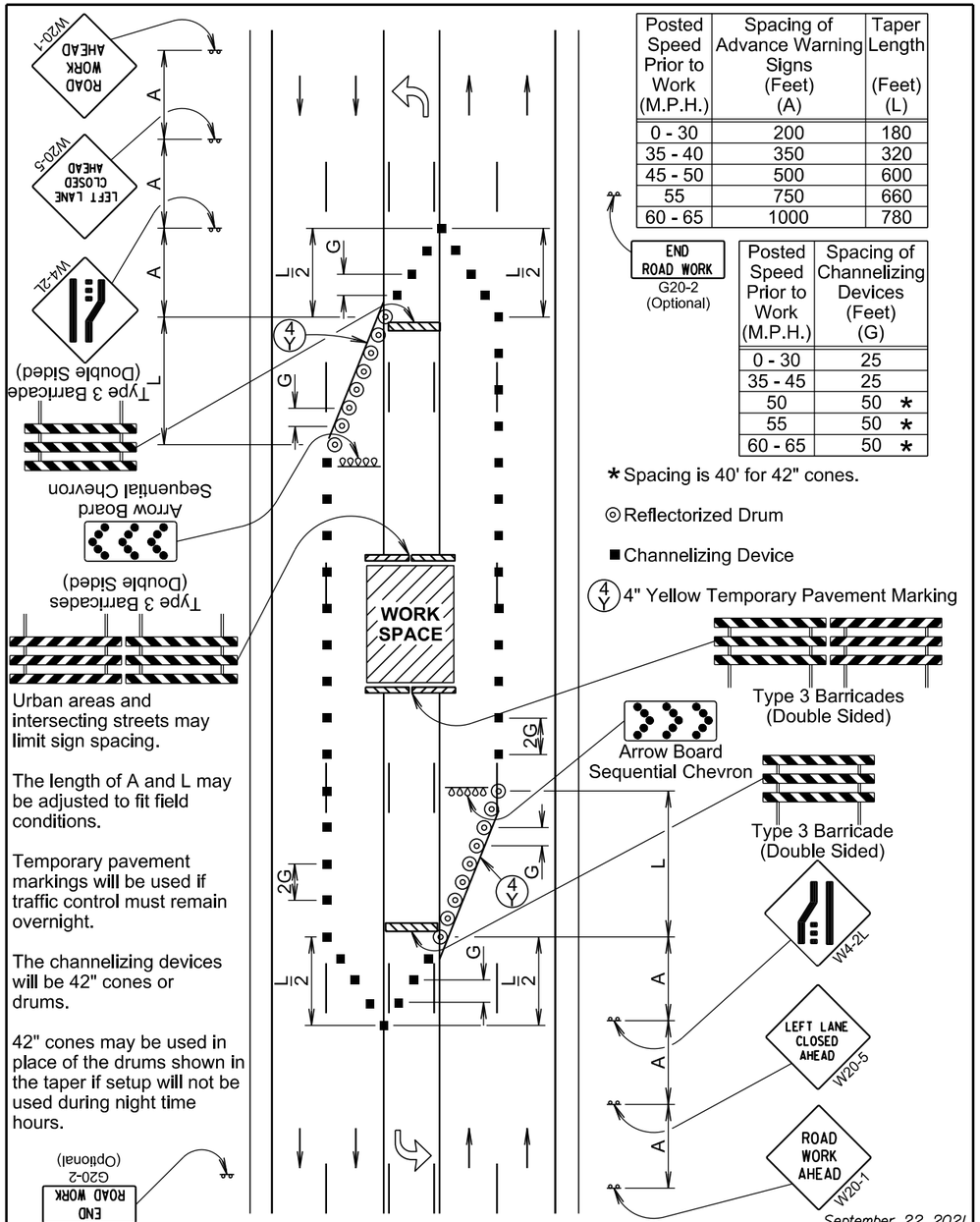
Temporary pavement markings will be used if traffic control must remain overnight.

The channelizing devices will be 42" cones or drums.

42" cones may be used in place of the drums shown in the taper if setup will not be used during night time hours.

September 22, 2021

Published Date: 2025	SDDOT	5-LANE, INSIDE 2 LANES CLOSED	PLATE NUMBER 634.56
			Sheet 1 of 1



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

END ROAD WORK
G20-2
(Optional)

Posted Speed Prior to Work (M.P.H.)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	25
35 - 45	25
50	50 *
55	50 *
60 - 65	50 *

* Spacing is 40' for 42" cones.

◎ Reflectorized Drum

■ Channelizing Device

(4 Y) 4" Yellow Temporary Pavement Marking

Urban areas and intersecting streets may limit sign spacing.

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

Temporary pavement markings will be used if traffic control must remain overnight.

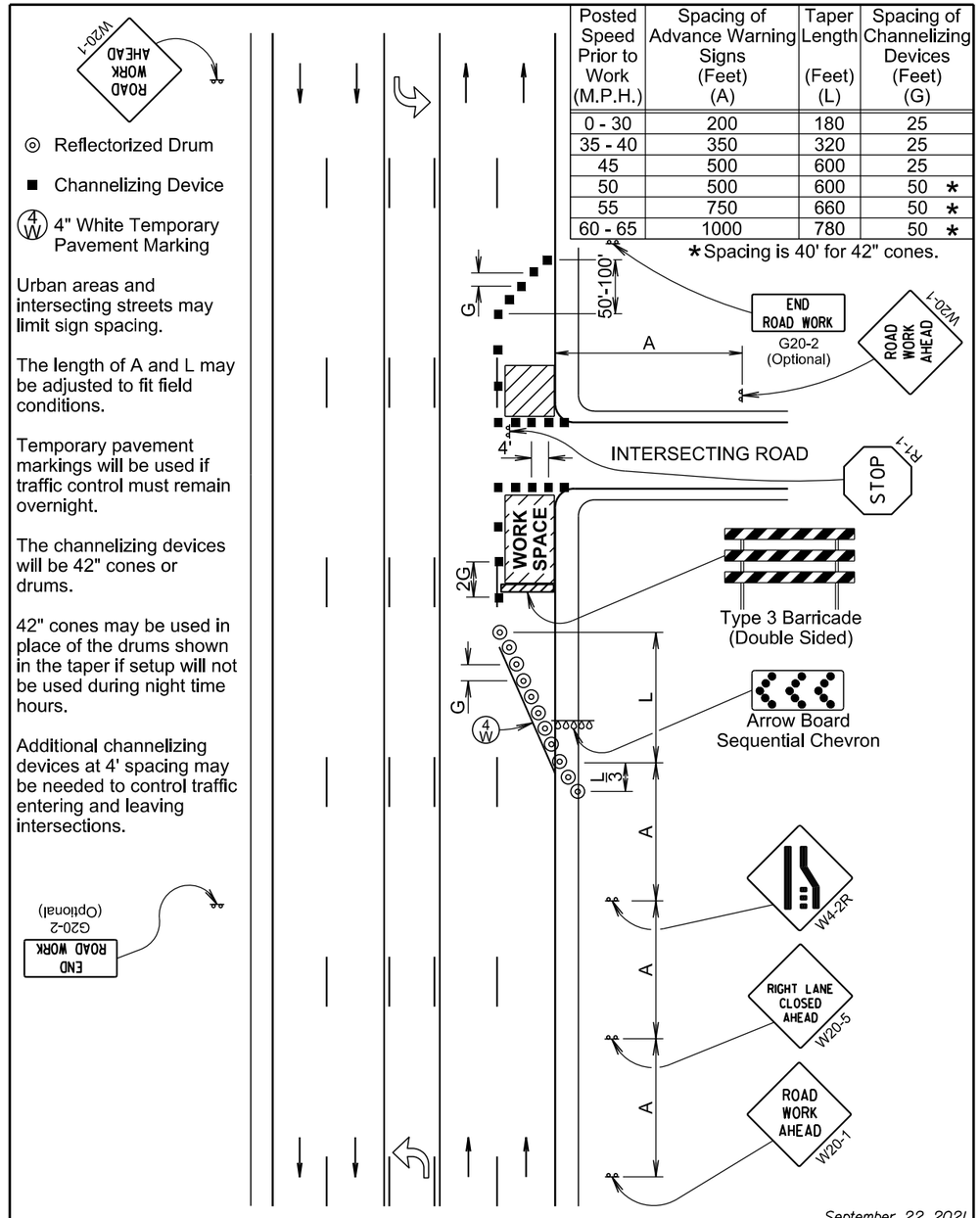
The channelizing devices will be 42" cones or drums.

42" cones may be used in place of the drums shown in the taper if setup will not be used during night time hours.

(Optional)
G20-2
END ROAD WORK

September 22, 2021

Published Date: 2025	SDDOT	5-LANE, CENTER 3 LANES CLOSED	PLATE NUMBER 634.57
			Sheet 1 of 1

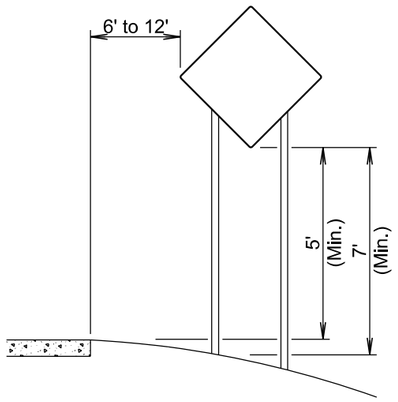


Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45	500	600	25
50	500	600	50 *
55	750	660	50 *
60 - 65	1000	780	50 *

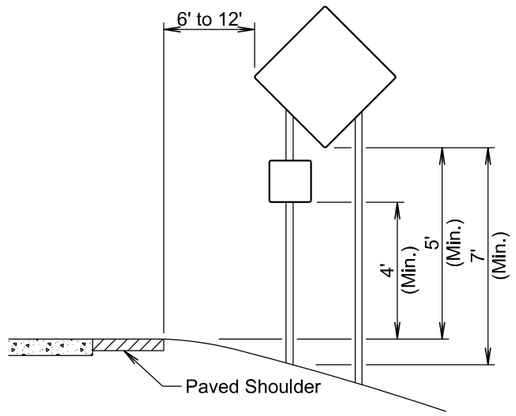
* Spacing is 40' for 42" cones.

September 22, 2021

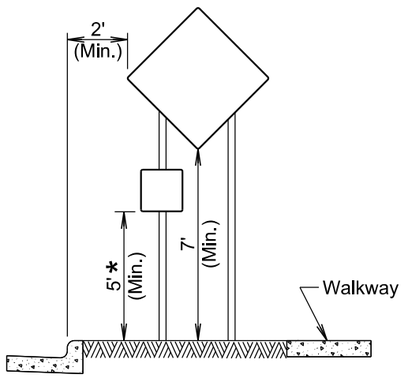
Published Date: 2025	SDDOT	5-LANE, OUTSIDE LANE CLOSED	PLATE NUMBER 634.60
			Sheet 1 of 1



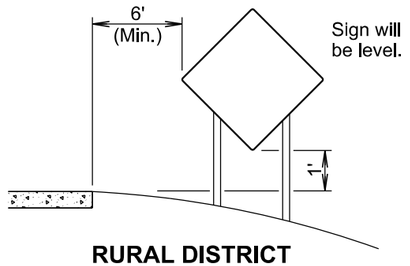
RURAL DISTRICT



RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT

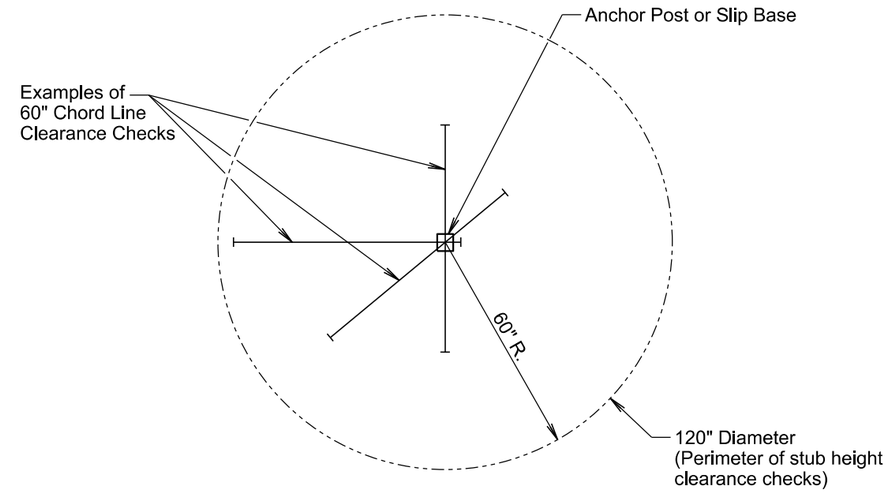


RURAL DISTRICT
3 DAY MAXIMUM
(Not applicable to regulatory signs)

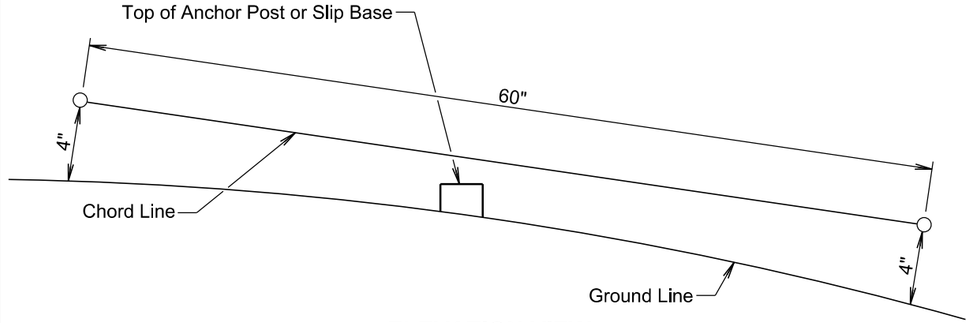
* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

January 22, 2021

Published Date: 2025	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 WILL 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 will 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.

January 22, 2021

Published Date: 2025	SDDOT	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1

ITEMIZED LIST FOR TRAFFIC CONTROL

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0021(187) & P 0023(70)	27	28

US18 – GREGORY COUNTY

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
SPECIAL	WAIT FOLLOW PILOT CAR	2	30" x 18"	3.8	7.6
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			112.6

SD 38 – HANSON COUNTY

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
SPECIAL	WAIT FOLLOW PILOT CAR	2	30" x 18"	3.8	7.6
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			112.6

SD38 – McCOOK COUNTY

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
SPECIAL	WAIT FOLLOW PILOT CAR	2	30" x 18"	3.8	7.6
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			112.6

SD44 – GREGORY COUNTY

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
SPECIAL	WAIT FOLLOW PILOT CAR	2	30" x 18"	3.8	7.6
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			112.6

SD45 – BUFFALO & BRULE COUNTIES

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
SPECIAL	WAIT FOLLOW PILOT CAR	2	30" x 18"	3.8	7.6
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			112.6

SD50 – BRULE COUNTY

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	2	30"	5.2	10.4
R3-2	LEFT TURN PROHIBITION (symbol)	2	24" x 24"	4.0	8.0
W1-4	REVERSE CURVE (L or R)	2	48" x 48"	16.0	32.0
W4-2	LEFT or RIGHT LANE ENDS (symbol)	2	48" x 48"	16.0	32.0
W9-3	CENTER LANE CLOSED AHEAD	2	48" x 48"	16.0	32.0
W20-1	ROAD WORK AHEAD	3	48" x 48"	16.0	48.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-5	LEFT, RIGHT or CENTER LANE CLOSED AHEAD or XX FT	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	3	48" x 48"	16.0	48.0
SPECIAL	WAIT FOLLOW PILOT CAR	2	30" x 18"	3.8	7.6
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			291.0

US281 – DOUGLAS & AURORA COUNTIES

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
SPECIAL	WAIT FOLLOW PILOT CAR	2	30" x 18"	3.8	7.6
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			112.6

ITEMIZED LIST FOR TRAFFIC CONTROL (CONTINUED)

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0021(187) & P 0023(70)	28	28

GEORGE S. MICKELSON SHORELINE DRIVE (ROUTE 6594) – LYMAN COUNTY

		CONVENTIONAL ROAD			
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
SPECIAL	WAIT FOLLOW PILOT CAR	2	30" x 18"	3.8	7.6
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			112.6

SD52 – YANKTON COUNTY

		CONVENTIONAL ROAD			
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	2	30"	5.2	10.4
R3-2	LEFT TURN PROHIBITION (symbol)	2	24" x 24"	4.0	8.0
W1-4	REVERSE CURVE (L or R)	2	48" x 48"	16.0	32.0
W4-2	LEFT or RIGHT LANE ENDS (symbol)	2	48" x 48"	16.0	32.0
W9-3	CENTER LANE CLOSED AHEAD	2	48" x 48"	16.0	32.0
W20-1	ROAD WORK AHEAD	3	48" x 48"	16.0	48.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-5	LEFT, RIGHT or CENTER LANE CLOSED AHEAD or XX FT	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	4	48" x 48"	16.0	64.0
SPECIAL	WAIT FOLLOW PILOT CAR	2	30" x 18"	3.8	7.6
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			307.0