

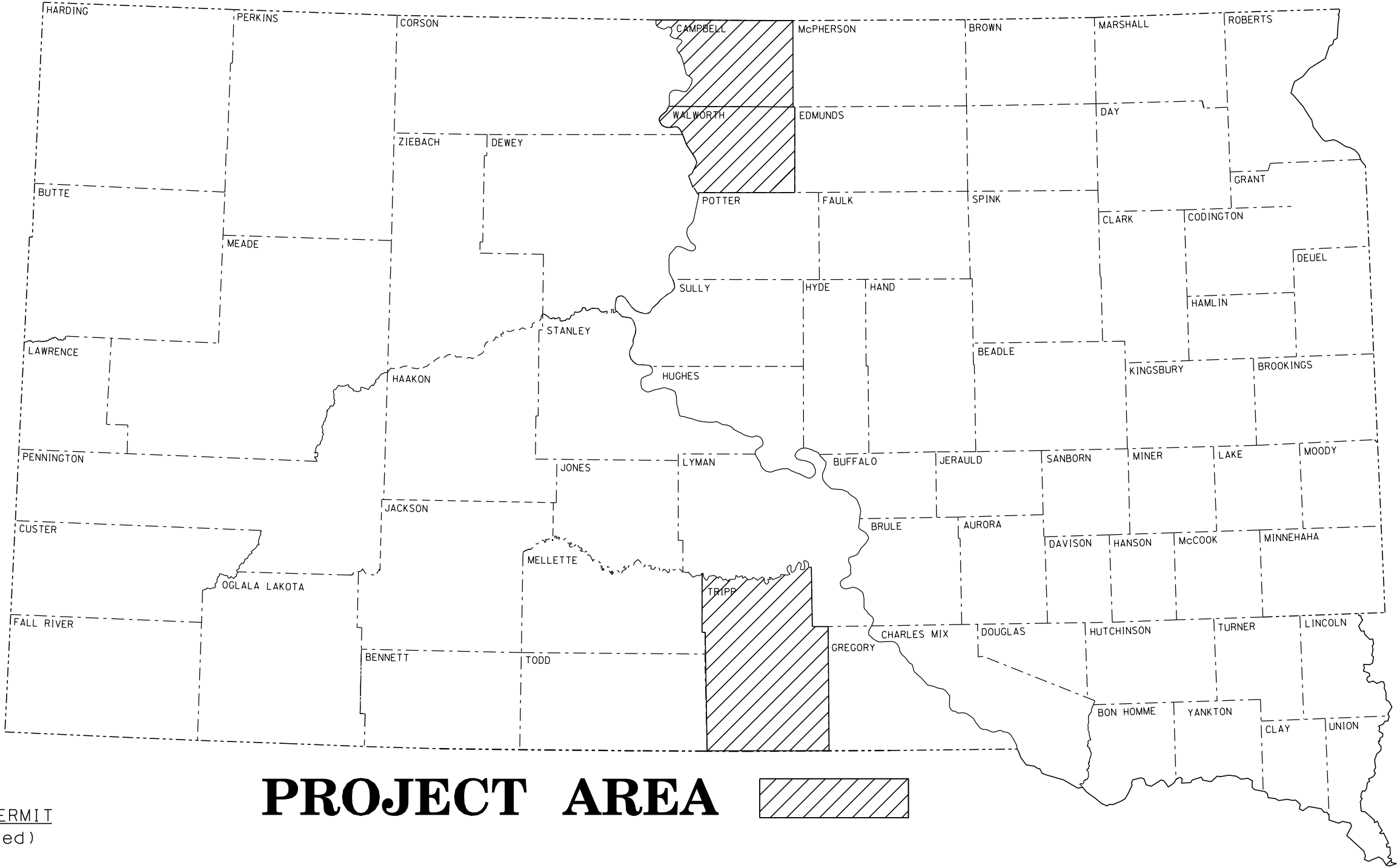
PLOT SCALE - 1:200

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR
PROJECT P 000S(00)228
COUNTY PAVEMENT MARKING
PIERRE REGION
PCN 04M6

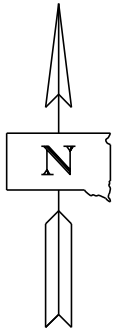
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 000S(00)228	1	15

Plotting Date: 04/15/2021

INDEX OF SHEETS	
1	TITLE SHEET
2-3	ESTIMATE & ENVIRONMENTAL COMMITMENTS
4-6	PLAN NOTES
7	CAMPBELL COUNTY
8-9	TRIPP COUNTY
10	WALWORTH COUNTY
11	PAVEMENT MARKING DETAIL
12-15	STANDARD PLATES



STORM WATER PERMIT
(None Required)



ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 000S(00)228	2	15

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
633E1200	High Build Waterborne Pavement Marking Paint, White	3,805	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	521	Gal
633E1290	High Build Waterborne Pavement Marking Paint, Railroad Crossing	2	Each
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

SPECIFICATIONS

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

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 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 Environment 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.

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

State Historic Preservation Office (SHPO or THPO) concurrence has not been obtained for this project.

Action Taken/Required:

All earth disturbing activities 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**

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 000S(00)228	3	15

**COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES -
Continued**

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.

The Contractor is responsible 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.

GENERAL NOTES AND TABLES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 000S(00)228	4	15

GENERAL NOTES

The Contractor will be required to repaint all existing pavement marking including centerline, edge line, and lane lines. This list is approximate. Additional quantities are included in the estimate of quantities to paint the additional pavement marking.

The in-place pavement markings will be duplicated when striping. The Contractor will take the necessary action to retain widths, locate tapers, and to be able to reproduce those that are in-place. Quantities of paint are included in the Estimate of Quantities and the cost of this work will be incidental to the contract unit price per gallon for “High Build Waterborne Pavement Marking Paint, White” and “High Build Waterborne Pavement Marking Paint, Yellow”.

Pavement edge lines will be marked 10 to 12 feet from centerline, as directed by the County Highway Superintendent. Driving surfaces less than 20 feet wide for 2 lanes of traffic will not require edgelines. Edgelines on 2-lane roads 20 feet wide or greater will be located as shown on the details in these plans. The pavement will be cleaned of dirt, loose stones, and other foreign material by the County before the paint is applied.

Some of the miles shown in these plans are scheduled to be resealed or overlaid prior to painting. The Contractor will provide written notice to the Engineer and each County Highway Superintendent at least 20 calendar days in advance of the begin workday for that county. The Contractor will also give the County Highway Superintendent a verbal 48 hour notice, before beginning work in that County.

When the Contractor starts work in a County, they will pursue the work in that County to completion before commencing work available in another County. Routes that are continuous from one County to another may be marked in one operation.

The Contractor will limit their operation so that no more than 2 crews are working in one county at any one time.

The Contractor must inform the Engineer weekly of the quantity of paint applied and the location of where the Contractor will be working.

The Contractor will provide a detailed list showing route, length of route and gallons of paint applied on each route in each county. This list will be signed by a representative of the County and Contractor before submittal to the State for payment. Payment will not be made until the State receives a detailed and signed list of paint applied. There will be no payment made to the Contractor until the Certificate(s) of Compliance for the Pavement Marking Paint and beads have been received by the Engineer.

The Contractor will have a satisfactorily calibrated meter to measure the quantity for each color of paint used. The Contractor will provide data that the meter was calibrated prior to use on the project.

Due to annual surfacing or sealing projects it may be necessary to delete a small amount of the total miles to be marked in some or all of the counties. Changes in quantities will not constitute changes in the unit prices.

It is expected that some of the roads will not be ready for striping until after September 15, 2021. The Contractor will be required to return after September 15, 2021 to complete the project if any roads are not ready due to sealing operations. The Contractor will wait seven calendar days before striping a newly chip sealed roadway.

All materials will be applied as per manufacturer’s recommendations. Project centerline markings will be applied using a three gun system.

COUNTY RESPONSIBILITIES

If a portion of the total miles are to be deleted due to scheduled surfacing or sealing operations, the County Highway Superintendent will notify the Contractor and the Engineer upon receipt of the Contractor's written notice.

Excess material on resealed roads will be removed by brooming full width, including edgeline locations, and will be accomplished by County Maintenance forces in advance of the Contractor's operations.

The County will provide a representative on the project to coordinate, observe and document quantities for the striping operations. The County will coordinate with the Engineer for acceptance sampling for paint and beads. The County Highway Superintendent representative will provide the Contractor all the information needed for No Passing Zones and Railroad Crossings as noted in the following paragraphs.

NO PASSING ZONES

No Passing Zones will be established under the direction of the County Highway Superintendent. The County Highway Superintendent will verify the No Passing Zones have been checked, according to the MUTCD, prior to painting by the Contractor. (The passing sight distance on a vertical curve is the distance at which an object 3.5 feet above the pavement surface can be seen from a point 3.5 feet above the pavement.)

If No Passing Zones need to be established or reestablished, the County will do so at its own expense.

Beginning and ending of No Passing Zones will be marked by each County Highway Department prior to the start of work under this contract. The exact starting/ending point for each route to be marked will be determined by the County Highway Superintendent. The County will mark the centerline of the road. When there is a seam that does not fall on the center of the road, the center of the road will be marked every 100 feet to establish the center of the road.

If a No Passing Zone is painted incorrectly, it will be the Contractor’s responsibility to completely remove the incorrect markings and paint correctly at no cost to the State or County. Pavement marking lines painted in a non-straight manner, with excessive overspray, in a poor workmanship like manner, not conforming within the tolerances stated in Section 633.3 B of the Specifications, or not as shown in the typical marking details in the plans will be completely removed and repainted at no cost to the State or County.

RAILROAD CROSSINGS

The County Highway Superintendents will check the location of Advance Warning Signs and adjust their location as per the MUTCD prior to painting the new markings on the roadway. See Plate Number 633.10.

Pavement marking for each Railroad Crossing will consist of marking both approaches - crossing symbol, 24" bars before and after each crossing symbol and stop bars in accordance with the details shown in Plate Number 633.10.

All costs for traffic control devices, signs and flaggers used for Railroad Crossing pavement markings will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

NOTE: Railroad Crossing pavement markings will be paid for at the contract unit price per each for “High Build Waterborne Pavement Marking Paint, Railroad Crossing.” (Rate = 6.7 gallons of white for each on chip seals, 5.36 gallons of white for each on all other surfaces, and 8 pounds of beads per gallon)

HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

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

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

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

No further testing of this material will be required. Reflective media will consist of glass beads.

High Build Waterborne Pavement Marking Paint applied after October 15 must be formulated as cold-weather waterborne paint. Cold weather waterborne paint will meet the requirements of Section 980.1 B.

RATES OF MATERIALS FOR HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

Solid 4” line = 27.8 Gals/Mile (use when placed on chip seals) **OR**
Solid 4” line = 22.5 Gals/Mile (use when placed on all other surfaces)
Dashed 4” line = 7.6 Gal/Mile (use when placed on chip seals) **OR**
Dashed 4” line = 6.2 Gal/Mile (use when placed on all other surfaces)
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.

RETROREFLECTIVITY FOR PAVEMENT MARKING PAINT

The Department may take retroreflectivity readings on the pavement marking lines after 2 days and within 30 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/m²/lux for white and 170 mc/m²/lux for yellow.

TRAFFIC CONTROL

Painting will be allowed only during daylight hours.

Cost of traffic control, including arrow panel and any flagging necessary will be incidental to the contract lump sum price for “Traffic Control, Miscellaneous”.

If flagging operation is used per Standard Plate 634.23, signs will be mounted on portable supports. The bottom of signs on portable supports will not be less than seven feet above the pavement in urban areas and one foot above the pavement in rural areas.

DEPARTMENT OF TRANSPORTATION CONTACT

John Villbrandt, Mobridge Area Engineer, South Dakota Department of Transportation, PO Box 488, Mobridge, SD 57601, phone number (605)-845-3844

COUNTY HIGHWAY SUPERINTENDENT CONTACTS

County	Name	Address	Phone No.	Cell No.
Campbell	Terry Madden	PO Box 167, Mound City 57646-0167 campbellcountyhwydept@yahoo.com	(605) 955-3575	848-0389
Tripp	Roger Sund	PO Box 548, Winner 57580-0548 tchd@gwtc.net	(605) 842-3661	840-2139
Walworth	Gary Byre	PO Box 242, Selby 57472 walcohwy@sbtc.net	(605) 649-7982	848-0696

TABLE OF QUANTITIES

The following table is for information only.

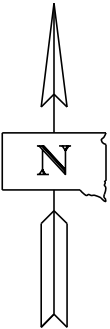
		NABI	NABI			NABI
	County	Railroad	Turn	Paint	Paint	Glass
	Roads	Crossings	Lanes	White	Yellow	Beads
County	(Mile)	(Qty)	(Qty)	(Gal)	(Gal)	(Lb)
CAMPBELL	17.5	0	0	973	133	8,848.0
TRIPP	45.0	0	0	2,025	279	18,432.0
WALWORTH	14.3	2	0	807	109	7,326.1
	76.8	2	0	3,805	521	34,606.1

NABI = Not a Bid Item

Plotting Date: 03/24/2021

SOUTH DAKOTA
COUNTY PAVEMENT
MARKING 2021








CAMPBELL
COUNTY



Co. Rd. 830A

17.5 MILES OF CENTERLINE & EDGELINE
NEW CHIP SEAL

LEGEND

-  CENTERLINE & EDGELINES
-  CENTERLINE ONLY
-  EDGELINES ONLY
-  RAILROAD CROSSING
-  CENTERLINE & EDGELINES
NEW CHIP SEAL
-  CENTERLINE ONLY
NEW CHIP SEAL
-  EDGELINES ONLY
NEW CHIP SEAL

PLOT SCALE - 1"=200'

R 80 W

R 79 W

R 78 W

R 77 W

R 76 W

R 74 W

T 128 N

T 128 N

Co. Rd. 20A

T 127 N

T 127 N

T 126 N

T 126 N

T 125 N

T 125 N

Co. Rd. 477A

R 79 W

R 78 W

R 77 W

R 76 W

R 75 W

R 74 W

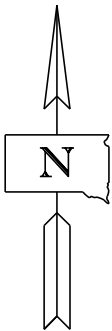
PLOT SCALE - 1"=200'

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 000S(00)228	8	15

Plotting Date: 03/24/2021



TRIPP COUNTY (North)



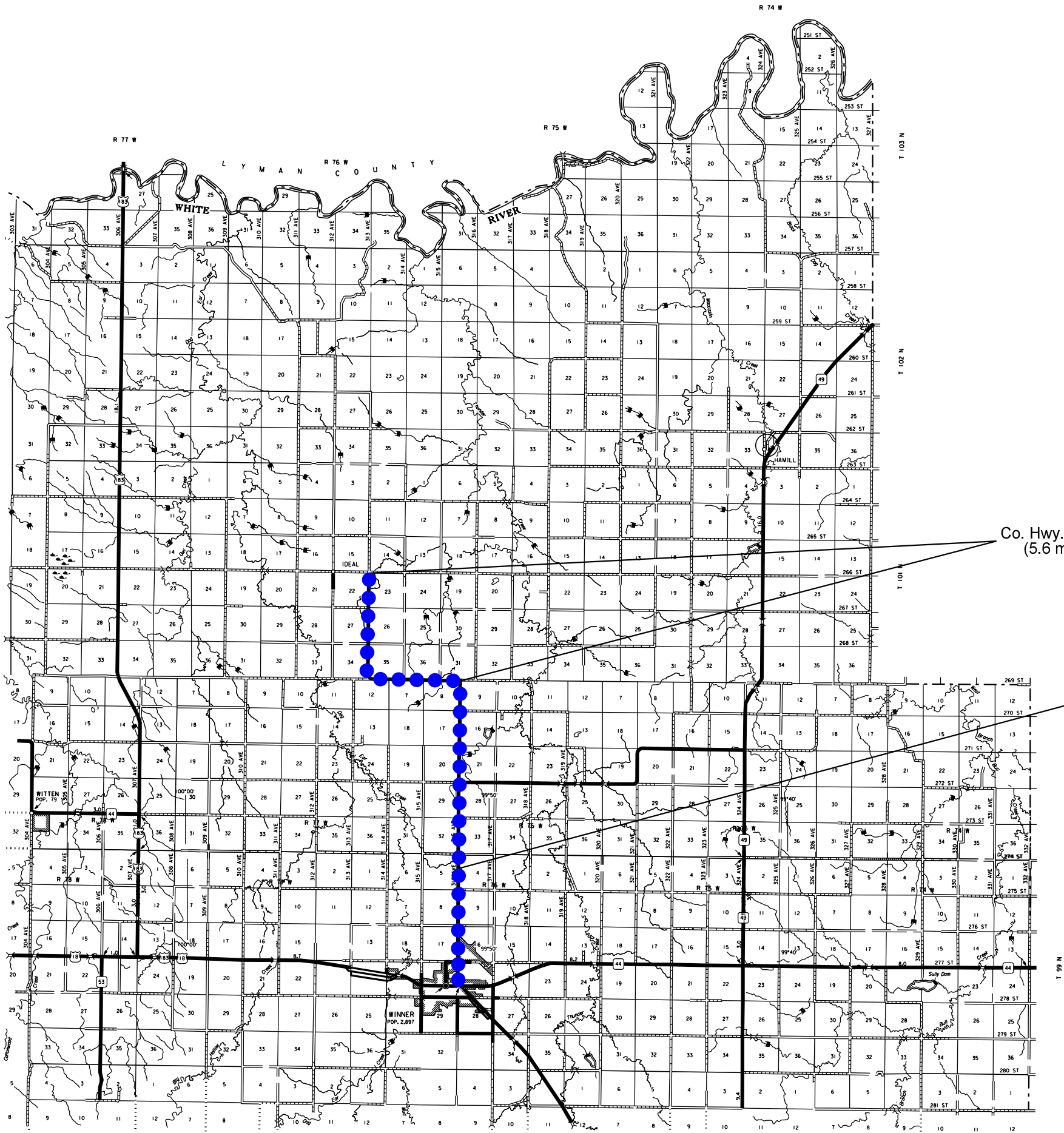
45.0 MILES OF CENTERLINE & EDGELINE

Co. Hwy. 6132
(5.6 mi.)

Co. Hwy. 6139-N
(8.5 mi.)

LEGEND

- CENTERLINE & EDGELINES
- CENTERLINE ONLY
- EDGELINES ONLY
- RAILROAD CROSSING
- CENTERLINE & EDGELINES
NEW CHIP SEAL
- CENTERLINE ONLY
NEW CHIP SEAL
- EDGELINES ONLY
NEW CHIP SEAL



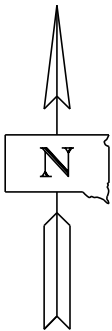
PLOT SCALE - 1:200

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 000S(00)228	9	15

Plotting Date: 03/24/2021










TRIPP COUNTY (South)

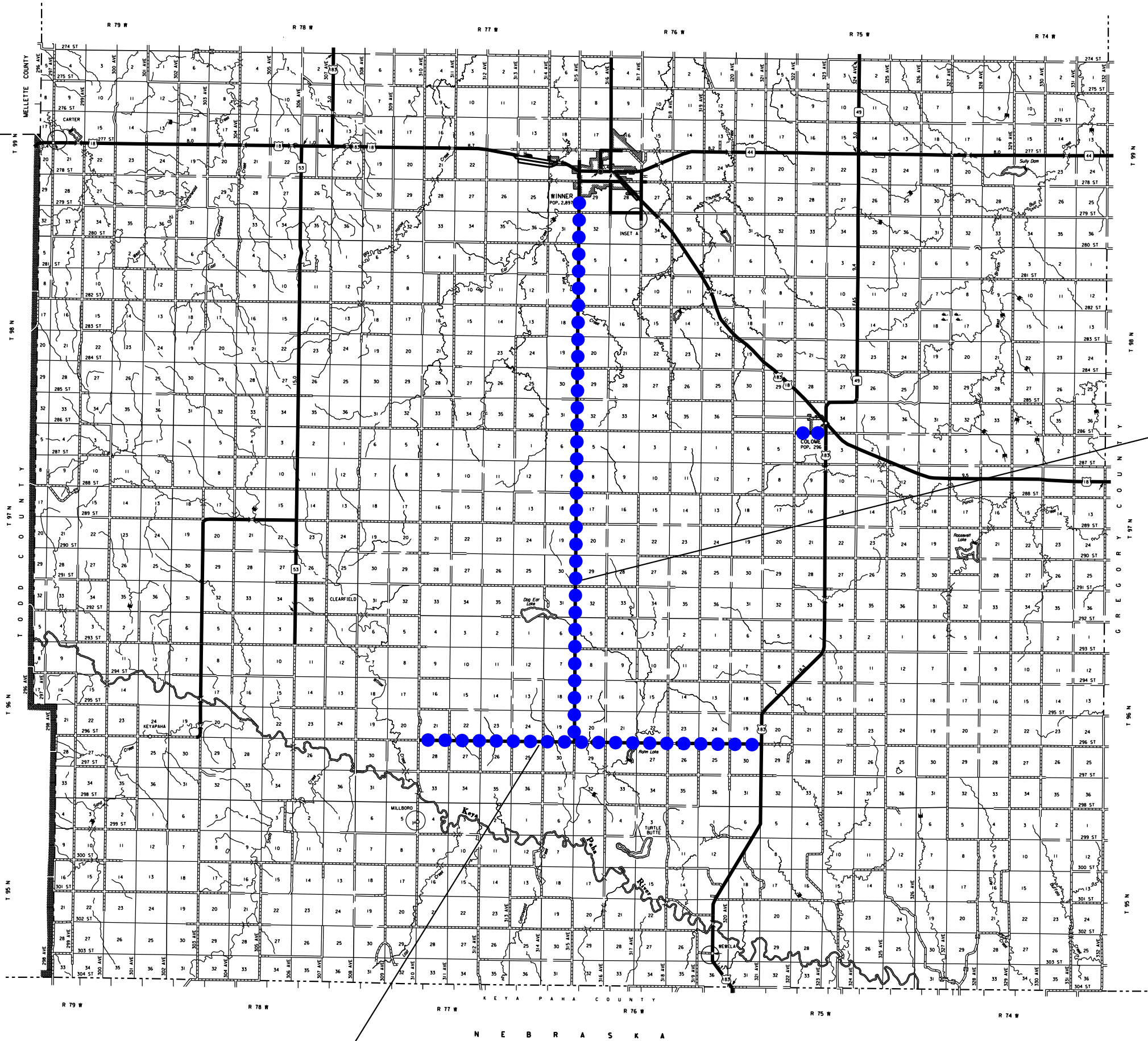


Co. Hwy. S6319

45.0 MILES OF CENTERLINE & EDGELINE

LEGEND

-  CENTERLINE & EDGELINES
-  CENTERLINE ONLY
-  EDGELINES ONLY
-  RAILROAD CROSSING
-  CENTERLINE & EDGELINES
NEW CHIP SEAL
-  CENTERLINE ONLY
NEW CHIP SEAL
-  EDGELINES ONLY
NEW CHIP SEAL

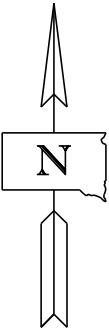


Co. Hwy. 6302

Plotting Date: 03/24/2021

SOUTH DAKOTA
COUNTY PAVEMENT
MARKING 2021








WALWORTH COUNTY



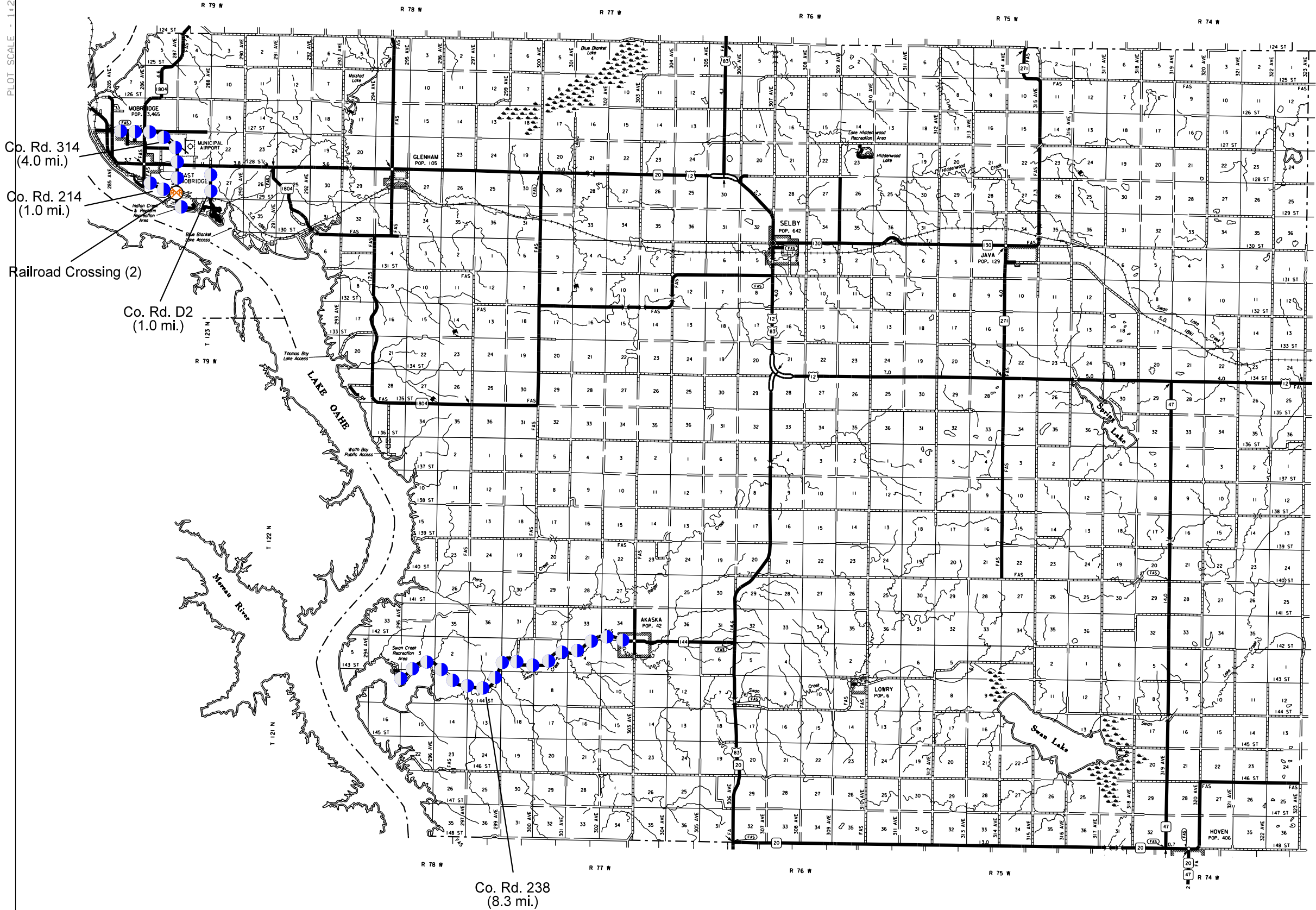
14.3 MILES OF CENTERLINE & EDGELINE
NEW CHIP SEAL

2 RAILROAD CROSSINGS

LEGEND

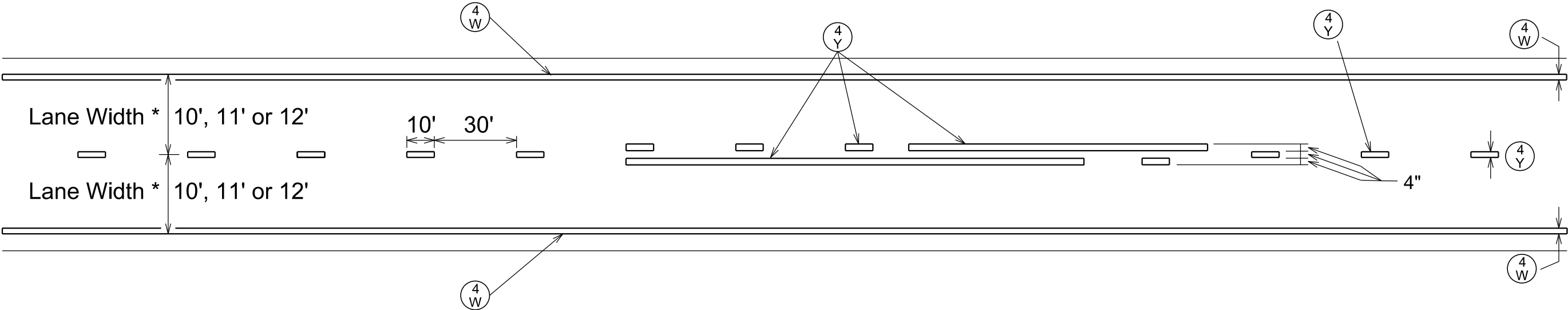
-  CENTERLINE & EDGELINES
-  CENTERLINE ONLY
-  EDGELINES ONLY
-  RAILROAD CROSSING
-  CENTERLINE & EDGELINES
NEW CHIP SEAL
-  CENTERLINE ONLY
NEW CHIP SEAL
-  EDGELINES ONLY
NEW CHIP SEAL

PLOT SCALE - 1"=200'



PAVEMENT MARKING DETAIL
FOR COUNTY ROADS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 000S(00)228	11	15

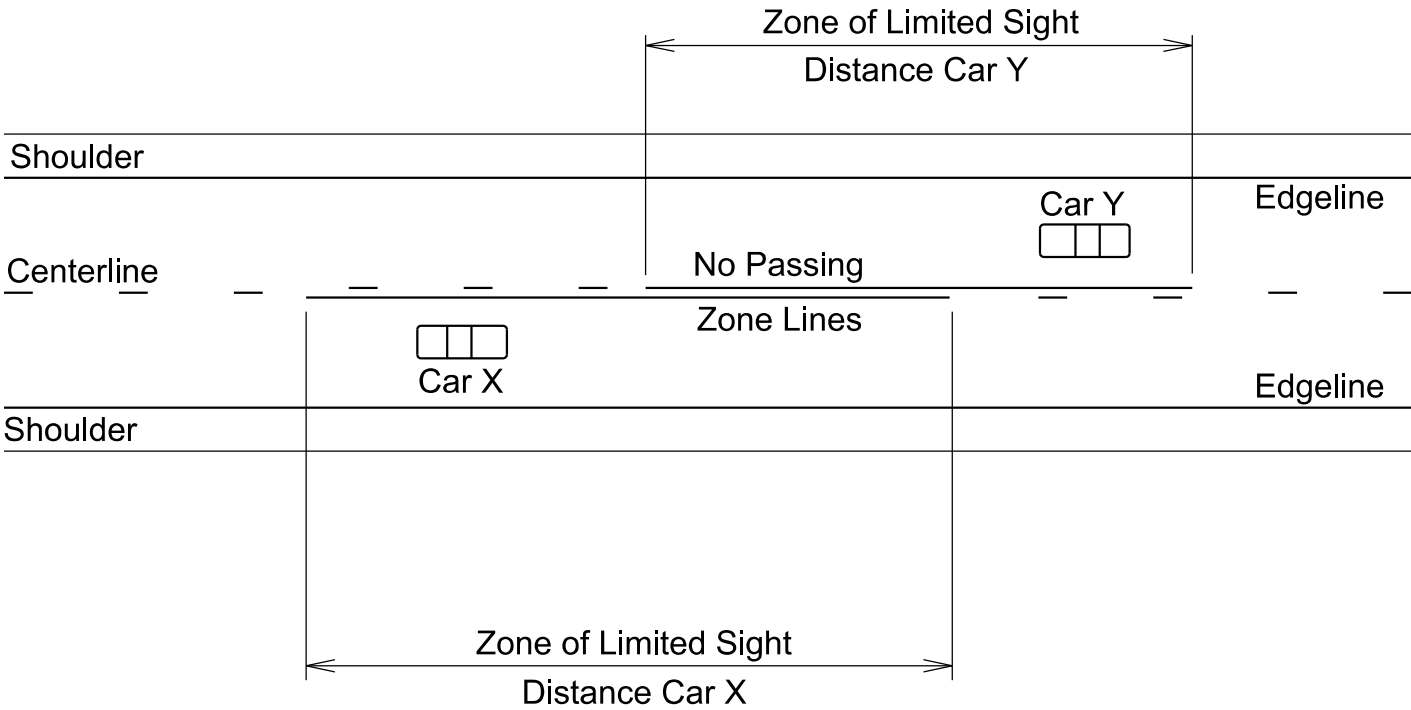


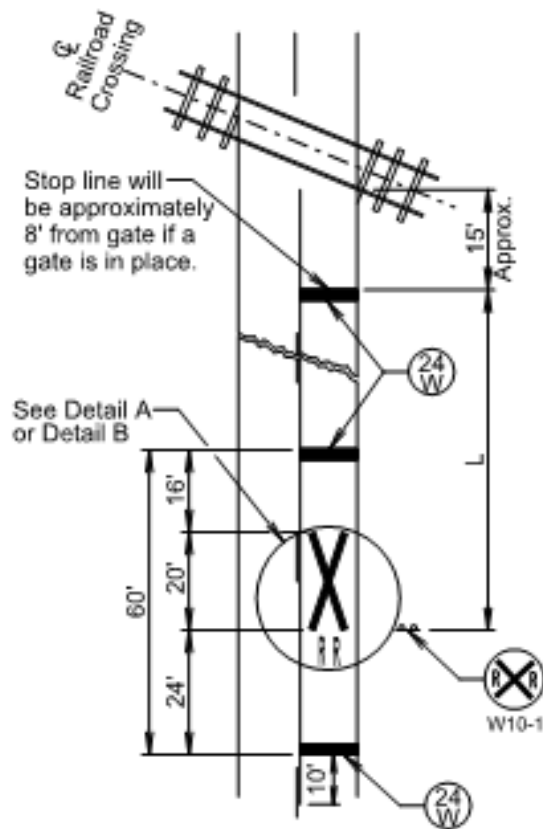
KEY	ITEM
4 W	4" White
4 Y	4" Yellow

GENERAL NOTES:

Project centerline marking will be applied using a three gun system.

The typical pavement marking as shown on this sheet is to be applied on the county roads of this project.





PLAN VIEW

KEY	ITEM
	24" White
	White

Posted Speed Limit (M.P.H.)	L (Ft.)
≤ 30	100
35	100
40	125
45	175
50	250
55	325
60	400
65	475
70	550

GENERAL NOTES:

The railroad crossing pavement markings will be placed symmetrically about the centerline of the railroad crossing. DETAIL A should be used unless the railroad crossing pavement markings are installed in existing grooves that match DETAIL B.

When pavement markings are used, a portion of the RXR symbol will be placed directly opposite of the advance warning sign W10-1.

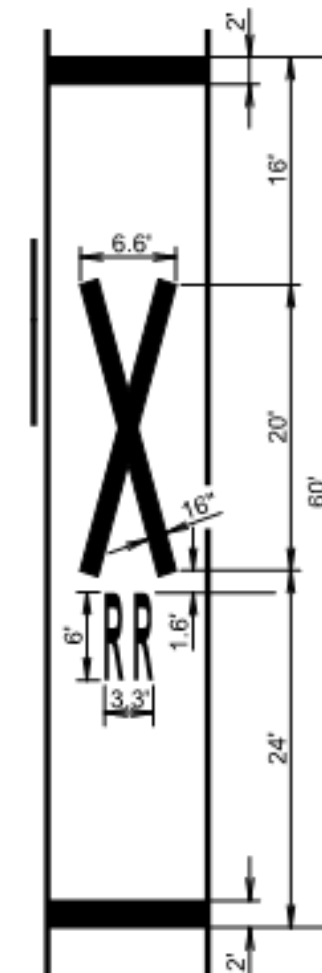
On multi-lane roads the transverse bands will extend across all approach lanes and individual RXR symbols will be placed in each approach lane.

The railroad crossing pavement markings will consist of all the transverse bands, stop lines, and RXR symbols.

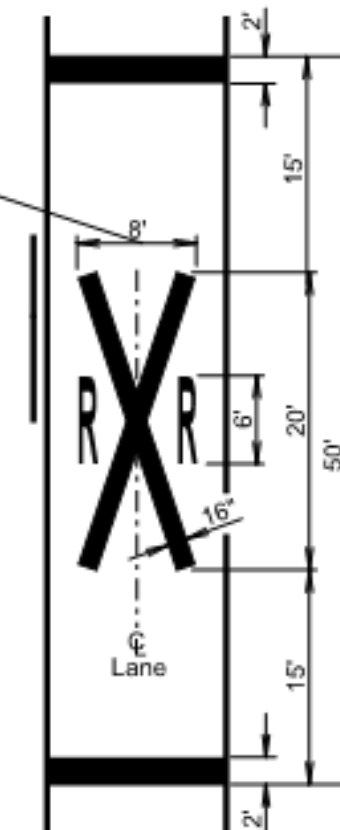
All costs for furnishing and installing the markings, materials, labor, and necessary equipment for the railroad crossing markings will be paid for at the contract unit price per gallon or per each for the type of marking material specified in the plans.

November 19, 2020

Published Date: 2nd Qtr. 2021	S D D O T	PAVEMENT MARKINGS AT RAILROAD CROSSING	PLATE NUMBER 633.10
			Sheet 1 of 2



DETAIL A



DETAIL B

November 19, 2020

Published Date: 2nd Qtr. 2021	S D D O T	PAVEMENT MARKINGS AT RAILROAD CROSSING	PLATE NUMBER 633.10
			Sheet 2 of 2

* 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.

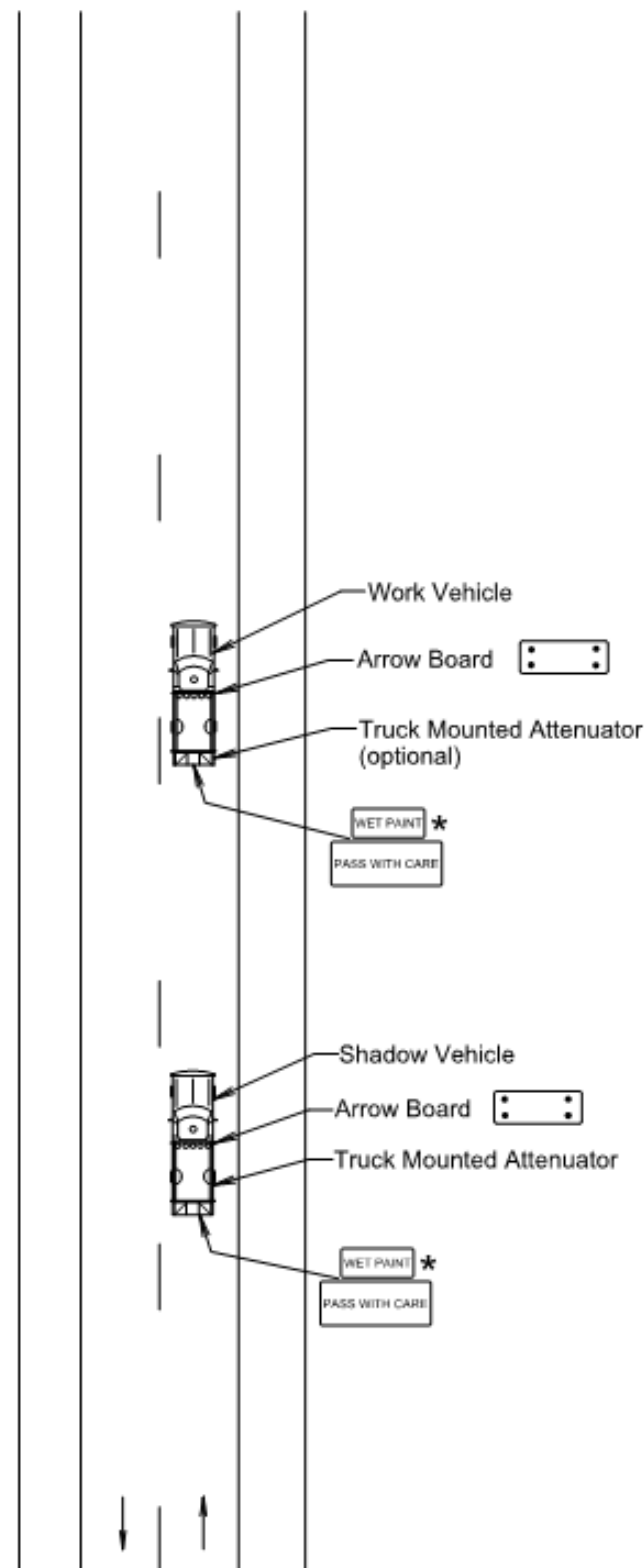
Shadow and Work vehicles will display high-intensity rotating, flashing, oscillating, or strobe lights, flags, signs, or arrow boards.

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

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

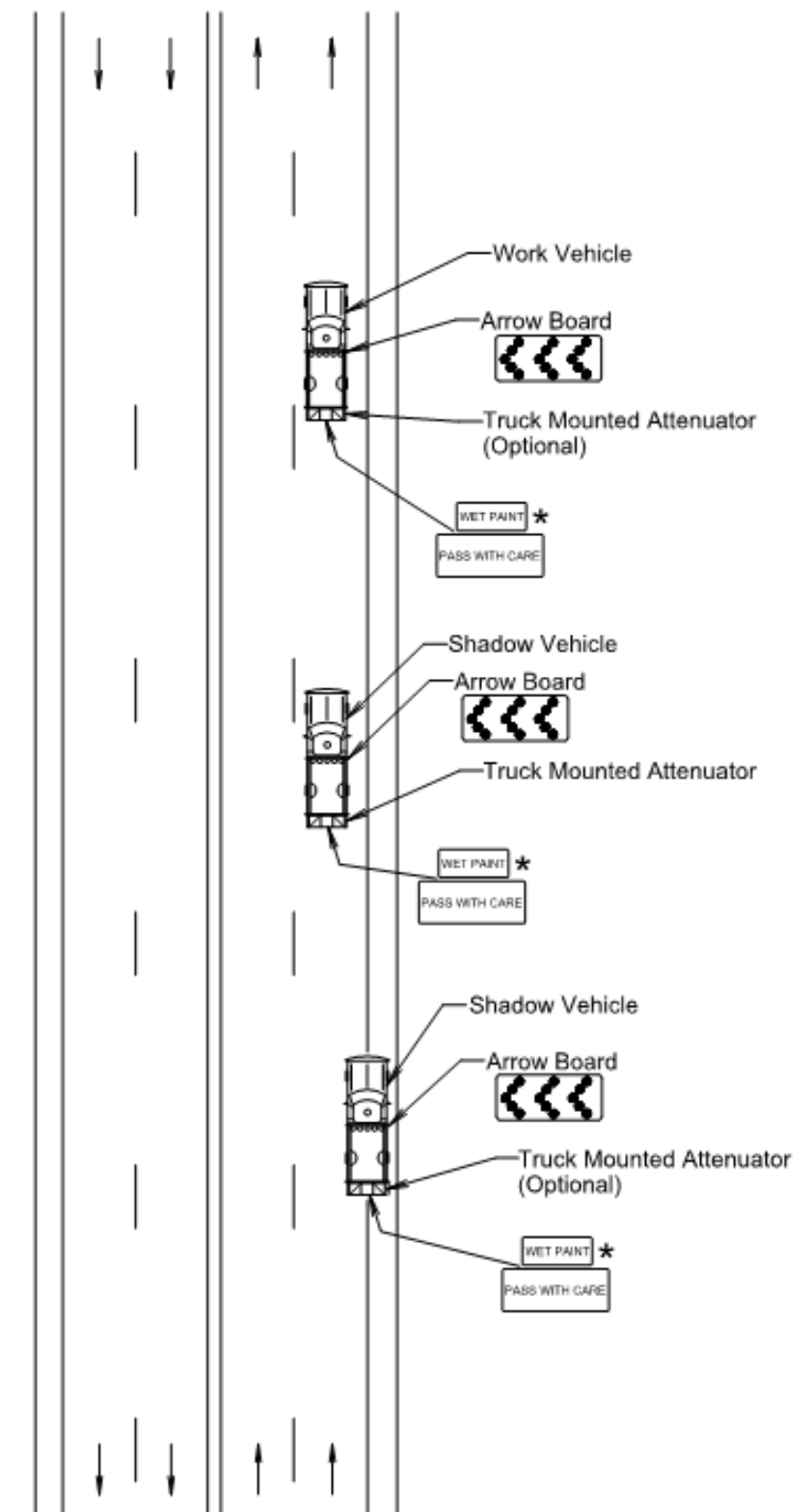
Vehicle-mounted signs will be mounted in a manner such that they are not obscured by equipment or supplies. Sign legends on vehicle-mounted signs will be covered or turned from view when work is not in progress.

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.

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

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.

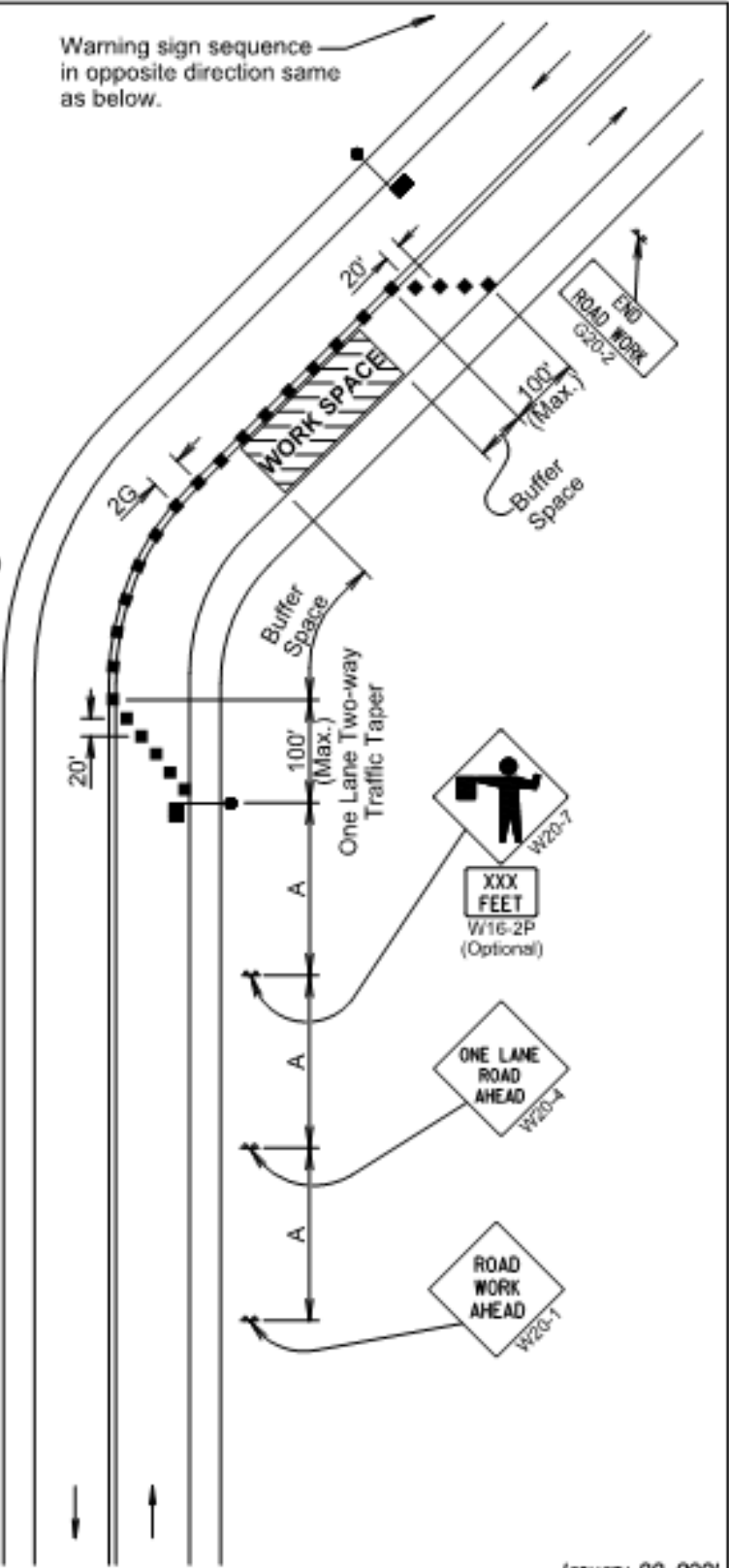
2-020
ROAD WORK
END

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.

Warning sign sequence in opposite direction same as below.



January 22, 2021