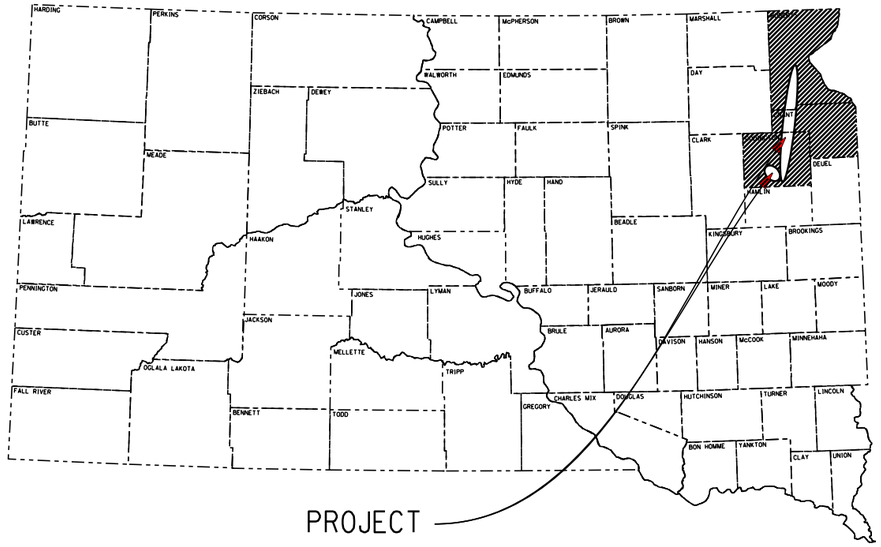
PLOT SCALE - 1:35000



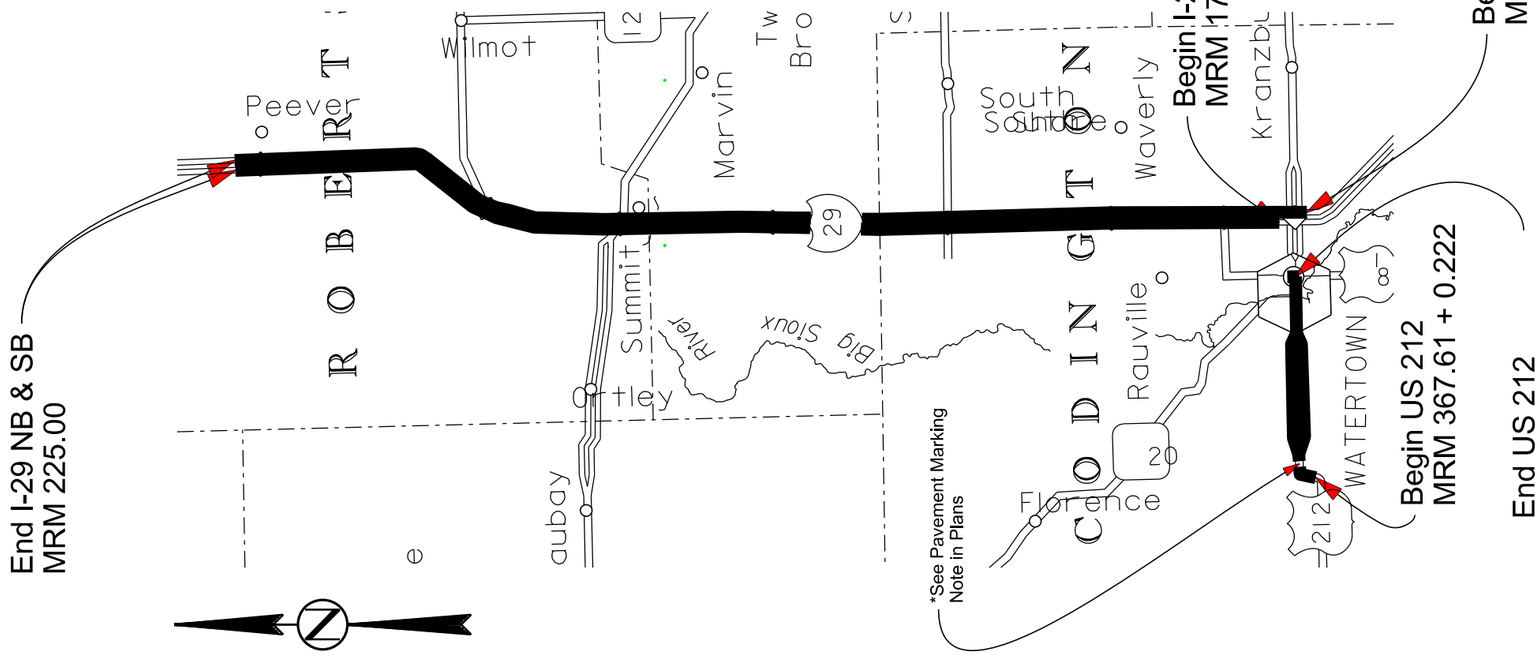
STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

PROJECT PH 0010(143)
INTERSTATE 29 &
US HIGHWAY 212
CODINGTON, GRANT &
ROBERTS COUNTIES

DURABLE PAVEMENT MARKINGS
PCN 05VL

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(143)	1	15
Plotting Date: 07/30/2024			

INDEX OF SHEETS



DESIGN DESIGNATION (I-29)

AADT (2023)	3356
AADT (2043)	4741
DHV	590
D	50%
DHV T%	15%
AADT T%	33%
V	80 MPH

DESIGN DESIGNATION (US 212)

AADT (2023)	5908
AADT (2043)	8405
DHV	944
D	50%
DHV T%	5.7%
AADT T%	12.6%
V	65 MPH

STORM WATER PERMIT
NONE REQUIRED

I-29 LENGTH	488,666.8 FEET	92.533 MILES
US 212 LENGTH	44,362.56 FEET	8.402 MILES
US 212 LENGTH OF EXCEPTIONS	2122.56 FEET	0.402 MILES
US 212 NET LENGTH	42240.00 FEET	8.000 MILES

5

October 2, 2024

PLOTTED FROM - TRAB17879B

PLOT NAME - 1

FILE - ...\PRJ\CODN05VL\TITLE PAGE.DGN

ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
633E0235	Preformed Thermoplastic Pavement Marking, Arrow	44	Each
633E0240	Preformed Thermoplastic Pavement Marking, Combination Arrow	3	Each
633E3000	Durable Pavement Marking, 4" White	722,636	Ft
633E3005	Durable Pavement Marking, 4" Yellow	569,793	Ft
633E3030	Durable Pavement Marking, 24" White	806	Ft
633E3035	Durable Pavement Marking, 24" Yellow	295	Ft
633E5050	Surface Preparation for Pavement Marking	1,299,035	Ft
633E5052	Surface Preparation for Pavement Marking	47	Each
634E0110	Traffic Control Signs	240.2	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	2	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.

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 B4: BALD EAGLE

Bald eagles are known to occur in this area.

Action Taken/Required:

If a nest is observed within one mile of the project site, notify the Project Engineer immediately so that he/she can consult with the Environmental Office for an appropriate course of action.

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.
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.

Breakdown of Pavement Marking Quantities (For Information Only)

		Length (mi)	Length (Ft)	Durable Pavement Marking, 4" White (Ft)	Durable Pavement Marking, 4" Yellow (Ft)	Preformed Thermoplastic Pavement Marking, Arrow (Each)	Preformed Thermoplastic Pavement Marking, Combination Arrow (Each)	Durable Pavement Marking, 24" White (Ft)	Durable Pavement Marking, 24" Yellow (Ft)	Surface Preparation for Pavement Marking (Ft)	Surface Preparation for Pavement Marking (Each)
Interstate 29 & Exit 177	I-29 NB	46.534	245,746.1	307,182.6	245,746.1	-	-	-	-	1,299,035	47
	I-29 SB	45.999	242,920.7	303,650.9	242,920.7	-	-	-	-		
	NE Ramp		1,175.0	1,175.0	1,175.0	-	-	-	-		
	NW Ramp		1,235.0	1,235.0	1,215.0	-	-	85	-		
	SE Ramp		1,175.0	1,175.0	1,175.0	-	-	55	-		
US 212	2 Lane	1.939	10,237.9	20,475.8	2,559.5	-	-	-			
	4 Lane Divided	5.324	56,221.4	70,276.8	56,221.4	-	-	-	295		
	4 TWTL	1.139	6,013.9	15,034.8	15,034.8	20	-	-	-		
	SD 20 Intersection			2,430.00	3,745.00	24	3	666	-		

COORDINATION BETWEEN CONTRACTORS

The Contractor will schedule work so as not to interfere with or hinder the progress of the work performed by the other Contractors on PCNs 03R6 and 07D8. Conflicting traffic control devices may need to be temporarily adjusted or removed as directed by the Engineer and at no additional cost to the contract.

SEQUENCE OF OPERATIONS

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.

All construction operations will be conducted in the general direction of traffic movement.

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.

Fixed location signing placed more than 4 calendar days prior to the start of construction will be covered or laid down until the time of construction. The covers must be approved by the Engineer prior to installation. The cost of materials, labor, and equipment necessary to complete this work will be incidental to other contract items. No separate payment will be made.

A Type 3 Barricade will be installed at the end of a lane closure taper as detailed in these plans. Additional Type 3 Barricades will be installed facing traffic within the closed lane at a spacing of ¼ mile.

GENERAL PAVEMENT MARKING NOTES

The turn lanes recently installed on US 212 at the intersection of 447th Ave (MRM 369.00+0.151 to MRM 369.00+0.552) and the westbound left turn lane at 33rd St (MRM 374.00+0.298 to MRM 374.00+0.415) were **EXCLUDED** from these plans.

The measurements used for the Exit 177 ramps were from the intersection of US 212, including the 24" White stop lines on the SE & NW ramps, to the beginning of the 12" white line.

Any questions during installation can be directed to the Aberdeen Region Traffic Engineer:

Matt Dorfschmidt: matt.dorfschmidt@state.sd.us
Cell: 605-380-9011; Office: 605-626-7879

SURFACE PREPARATION FOR PAVEMENT MARKING

The Contractor will prepare the pavement surface prior to applying the durable pavement marking in accordance with the following.

In areas where the existing groove meets the required depth and existing markings are still in place, the Contractor will clean the existing groove without adding additional depth beyond the required depth for the new pavement marking, including reflective media as noted below.

Description	Specification	Tolerance
Depth of Groove	Marking Thickness[1] + 15 mils	+ 5 mils

[1] Marking thickness will include the thickness of marking material and reflective media.

The cleaning will result in the existing pavement marking being adequately scuffed, abraded, and removed by light grinding or abrasive blasting or both to allow proper adhesion of the new durable pavement marking as per the manufacturer's recommendations to comply with product warranties.

Existing grooves not meeting the required depth will be re-grooved to the required depth for the new pavement marking, including reflective media. Equipment for grooving will be capable of the following:

- Grooving the total width of the groove in one pass or uniform depths with multiple passes.
- Grooving without causing damage to the pavement joints or joint sealant material.
- Provide uniform alignment and depth.
- Moving continuously to permit a mobile traffic work operation.

All costs associated with cleaning of the existing groove, including re-grooving, if needed, will be included in the contract unit price per foot for "Surface Preparation for Pavement Marking". Surface preparation will be measured as 4" equivalent.

Grooving on bridge decks will start and stop a sufficient distance from the expansion joints so no damage occurs in these areas. Markings on bridge decks will be surface applied.

PREFORMED THERMOPLASTIC PAVEMENT MARKING

General

- Made of prefabricated retroreflective, resilient thermoplastic material;
- Contains glass beads uniformly distributed through the entire cross-sectional area;
- Capable of being affixed to bituminous or concrete pavement by heating;
- Resistant to deterioration due to exposure to sunlight, water, salt, and adverse weather conditions;
- Under traffic wear, shows no appreciable fading in accordance with the color requirements, lifting, or shrinkage throughout the life of the marking;
- Capable of conforming to pavement contours, breaks, and faults through the action of traffic at normal pavement temperatures;
- Possesses resealing characteristics, such that it is capable of fusing with itself and previous thermoplastic markings when heated; and
- Protected during shipment and in storage.

Apply the preformed thermoplastic pavement marking as recommended by the manufacturer to provide a neat, durable marking that will not flow, distort, or crack due to temperature if the pavement surface remains stable. Use equipment and application methods specified by the manufacturer. Primer as required by the manufacturer will be provided with the material.

Application of the markings will include the use of any manufacturer recommended sealers. Sealers may be required on concrete pavements, inside grooves, or on older asphalt pavements. Prior to placing any markings on new concrete, the Contractor will remove any curing compounds. Removal will be by sandblasting or other standard industry methods.

Any required primers or sealers will be included in the contract unit price for the various preformed thermoplastic pavement marking items.

Provide precut messages and symbols meeting the requirements of the MUTCD and the Standard Signs Manual in custom kits. Use separate pieces or segments to form individual letters or symbols only to the extent supplied by the manufacturer. Provide shapes, sizes, and colors as required by the contract.

Color

- Will meet the color specification limits and luminance factors for Cold Applied Plastic Pavement Marking and Legends (Section 983.2 D, Tables 1 and 2).

Glass Beads

- Ensure the preformed thermoplastic pavement marking contains a minimum 30% intermixed glass beads by weight and a minimum 80% true spheres.
- Ensure preformed thermoplastic pavement markings contain only clear beads.

PREFORMED THERMOPLASTIC PAVEMENT MARKING (CONTINUED)

Skid Resistance

- Ensure the surface of the preformed thermoplastic pavement marking provides a skid resistance value of at least 45 British Pendulum Number (BPN) when tested in accordance with ASTM E303.

Retroreflectivity

- Provide preformed thermoplastic pavement marking meeting the minimum initial pavement marking retroreflectivity values using 30 m geometry and meeting the testing procedures of ASTM E1710:

Minimum Initial Pavement Marking Retroreflectivity		
	White	**Yellow**
Thermoplastic	400 mcd/sq. ft./ft.	250 mcd/sq. ft./ft.
Thermoplastic, enhanced skid resistance (ESR)	250 d/sq. ft./ft.	150 d/sq. ft./ft.

Thickness

- A longitudinal marking is a minimum 90 mils thick at the edges, and a maximum 125 mils thick at the center of the stripe.
- Transverse markings and symbols are a minimum 125 mils thick at the edges, and a maximum 160 mils thick at the center.

Sample

- Prior to application, the Contractor will provide a sample of the preformed thermoplastic pavement marking to be used on the project to the Region Traffic Engineer for inspection and approval.
- Do not begin application of the preformed thermoplastic pavement marking prior to obtaining the Region Traffic Engineer’s approval of the preformed thermoplastic pavement marking material. The Region Traffic Engineer’s approval of the preformed thermoplastic pavement marking does not void other preformed thermoplastic pavement marking requirements specified.

* 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.

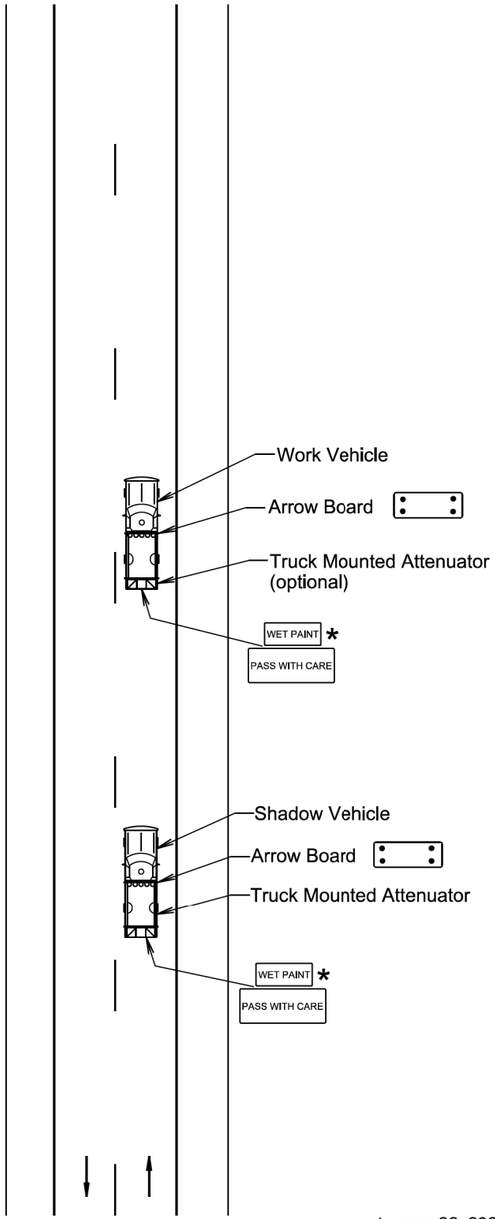
Shadow and Work vehicles will display high-intensity rotating, flashing, oscillating, or strobe lights, flags, signs, or arrow boards.

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

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

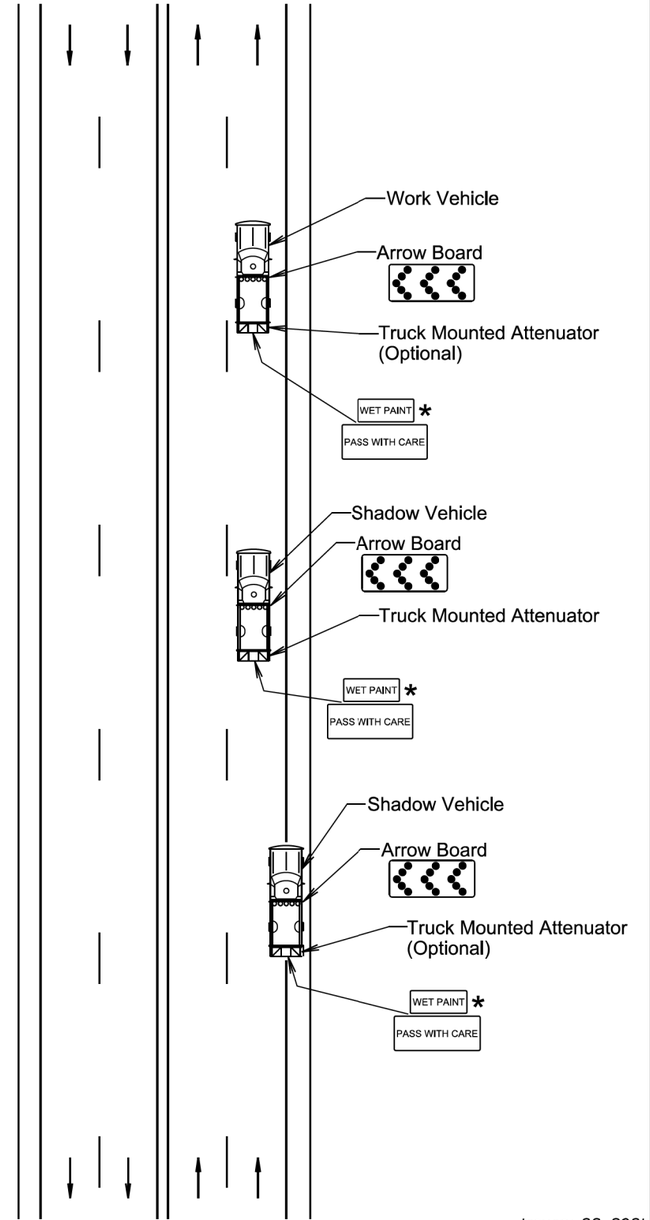
Vehicle-mounted signs will be mounted in a manner such that they are not obscured by equipment or supplies. Sign legends on vehicle-mounted signs will be covered or turned from view when work is not in progress.

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

Published Date: 2025

SDDOT

MOBILE OPERATIONS ON MULTI-LANE HIGHWAYS

PLATE NUMBER 634.08

Sheet 1 of 1

PLOT SCALE - 1:200

PLOT NAME - 2

FILE - ...\PRJ\CODN05VL\TRAFPLATE1.DGN

PLOTTED FROM - TRAB17879B

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

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

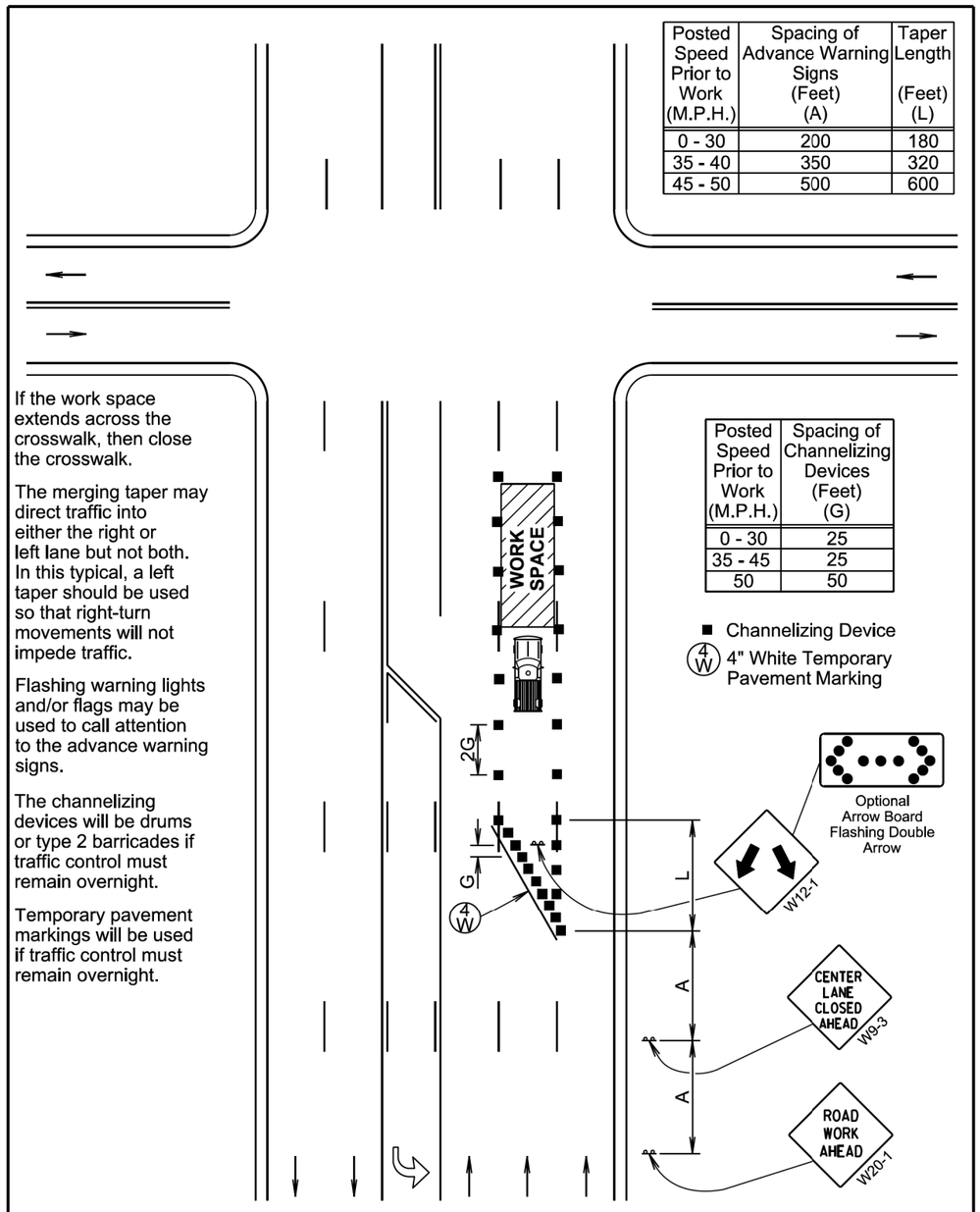
If the work space extends across the crosswalk, then close the crosswalk.

The merging taper may direct traffic into either the right or left lane but not both. In this typical, a left taper should be used so that right-turn movements will not impede traffic.

Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

The channelizing devices will be drums or type 2 barricades if traffic control must remain overnight.

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



January 22, 2021

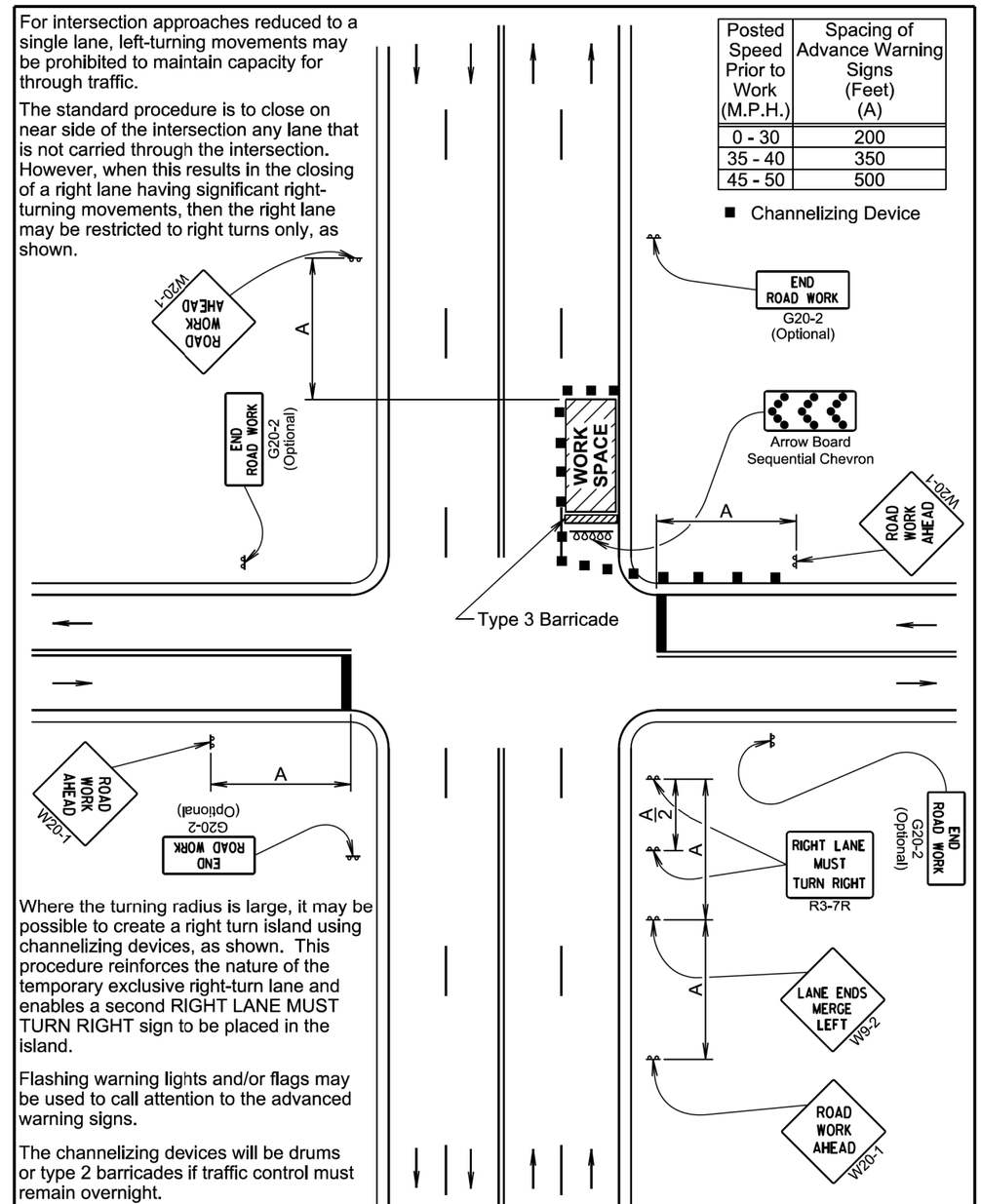
Published Date: 2025	SDDOT	LANE CLOSURE NEAR SIDE OF INTERSECTION	PLATE NUMBER 634.41 Sheet 1 of 1

For intersection approaches reduced to a single lane, left-turning movements may be prohibited to maintain capacity for through traffic.

The standard procedure is to close on near side of the intersection any lane that is not carried through the intersection. However, when this results in the closing of a right lane having significant right-turning movements, then the right lane may be restricted to right turns only, as shown.

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)
0 - 30	200
35 - 40	350
45 - 50	500

■ Channelizing Device



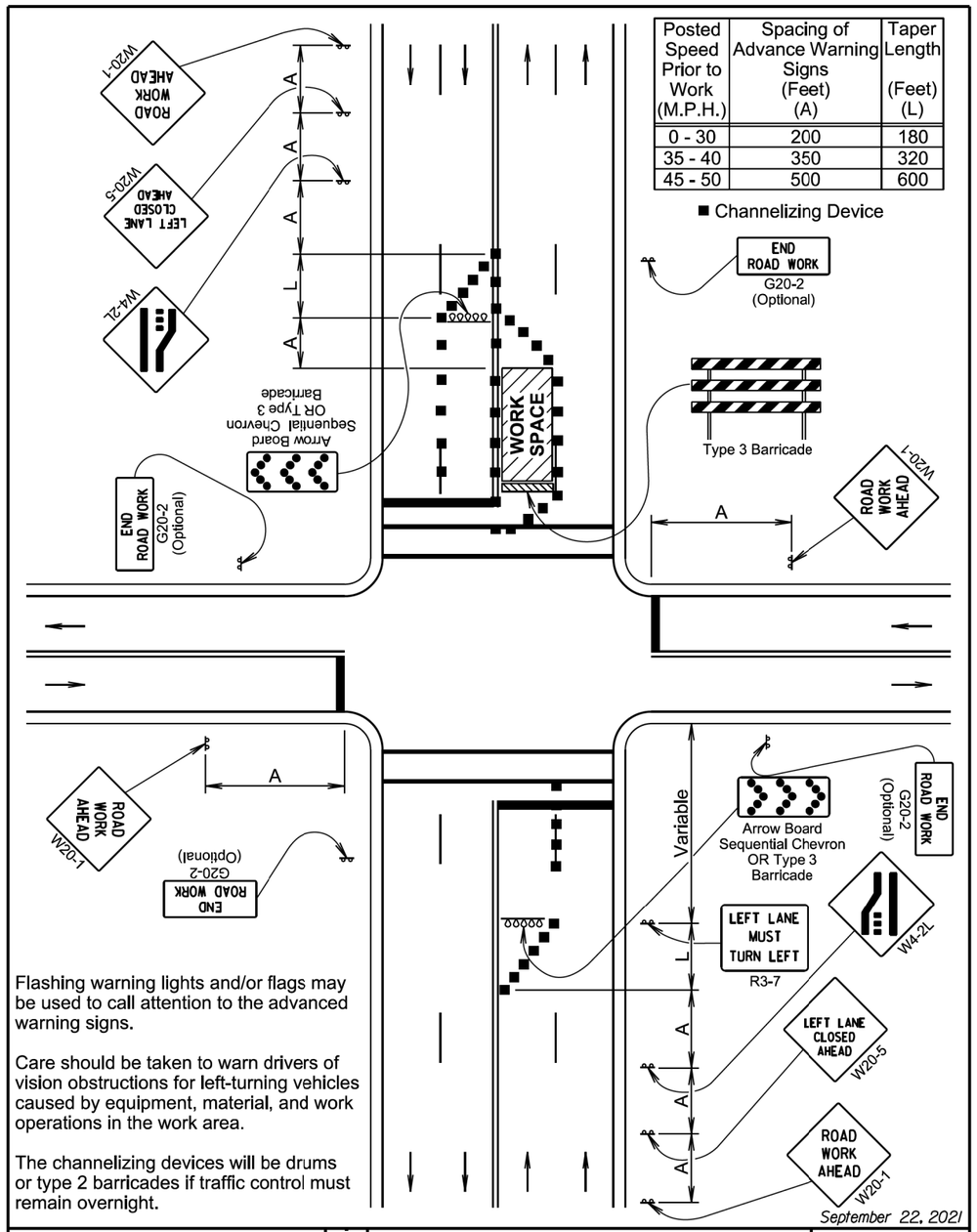
Where the turning radius is large, it may be possible to create a right turn island using channelizing devices, as shown. This procedure reinforces the nature of the temporary exclusive right-turn lane and enables a second RIGHT LANE MUST TURN RIGHT sign to be placed in the island.

Flashing warning lights and/or flags may be used to call attention to the advanced warning signs.

The channelizing devices will be drums or type 2 barricades if traffic control must remain overnight.

January 22, 2021

Published Date: 2025	SDDOT	RIGHT LANE CLOSURE FAR SIDE OF INTERSECTION	PLATE NUMBER 634.42 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

■ Channelizing Device

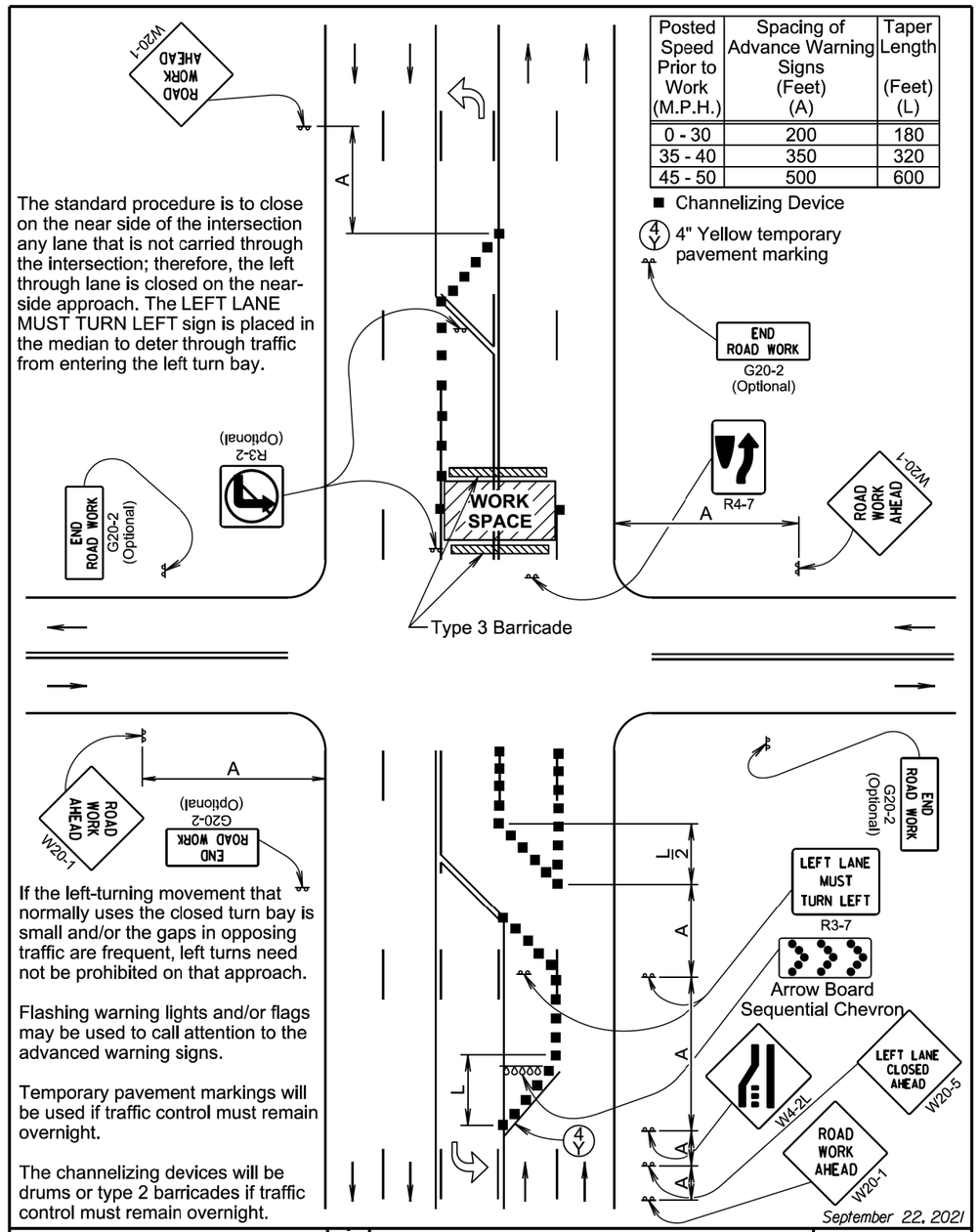
Flashing warning lights and/or flags may be used to call attention to the advanced warning signs.

Care should be taken to warn drivers of vision obstructions for left-turning vehicles caused by equipment, material, and work operations in the work area.

The channelizing devices will be drums or type 2 barricades if traffic control must remain overnight.

September 22, 2021

Published Date: 2025	SDDOT	LEFT LANE CLOSURE FAR SIDE OF INTERSECTION	PLATE NUMBER 634.43
			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

■ Channelizing Device

4 4" Yellow temporary pavement marking

The standard procedure is to close on the near side of the intersection any lane that is not carried through the intersection; therefore, the left through lane is closed on the near-side approach. The LEFT LANE MUST TURN LEFT sign is placed in the median to deter through traffic from entering the left turn bay.

If the left-turning movement that normally uses the closed turn bay is small and/or the gaps in opposing traffic are frequent, left turns need not be prohibited on that approach.

Flashing warning lights and/or flags may be used to call attention to the advanced warning signs.

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

The channelizing devices will be drums or type 2 barricades if traffic control must remain overnight.

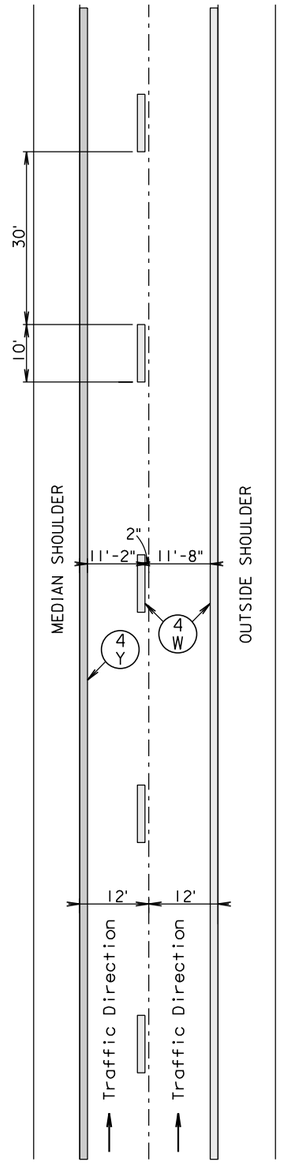
September 22, 2021

Published Date: 2025	SDDOT	MULTIPLE LANE CLOSURES AT INTERSECTION	PLATE NUMBER 634.45
			Sheet 1 of 1

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R3-7R	RIGHT LANE MUST TURN RIGHT	1	30" x 30"	6.3	6.3
R3-7L	LEFT LANE MUST TURN LEFT	2	30" x 30"	6.3	12.6
R4-7	KEEP RIGHT (symbol)	1	24" x 30"	5.0	5.0
W4-2	LEFT or RIGHT LANE ENDS (symbol)	2	48" x 48"	16.0	32.0
W9-2	LANE ENDS MERGE LEFT	1	48" x 48"	16.0	16.0
W9-3	CENTER LANE CLOSED AHEAD	1	48" x 48"	16.0	16.0
W12-1	DOUBLE ARROW	1	30" x 30"	6.3	6.3
W20-1	ROAD WORK AHEAD	6	48" x 48"	16.0	96.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	2	48" x 48"	16.0	32.0
G20-2	END ROAD WORK	4	36" x 18"	4.5	18.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			240.2

FOUR LANE
PAVEMENT MAKING
ONLY ONE DIRECTION SHOWN



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

PLOT SCALE - 1:200

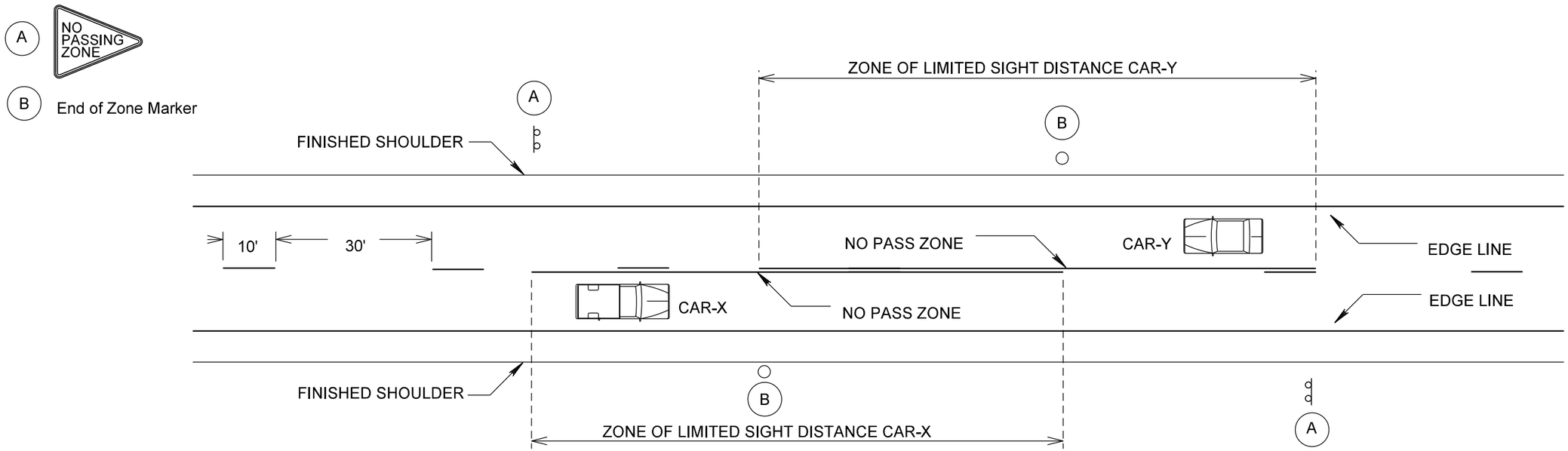
PLOT NAME - 5

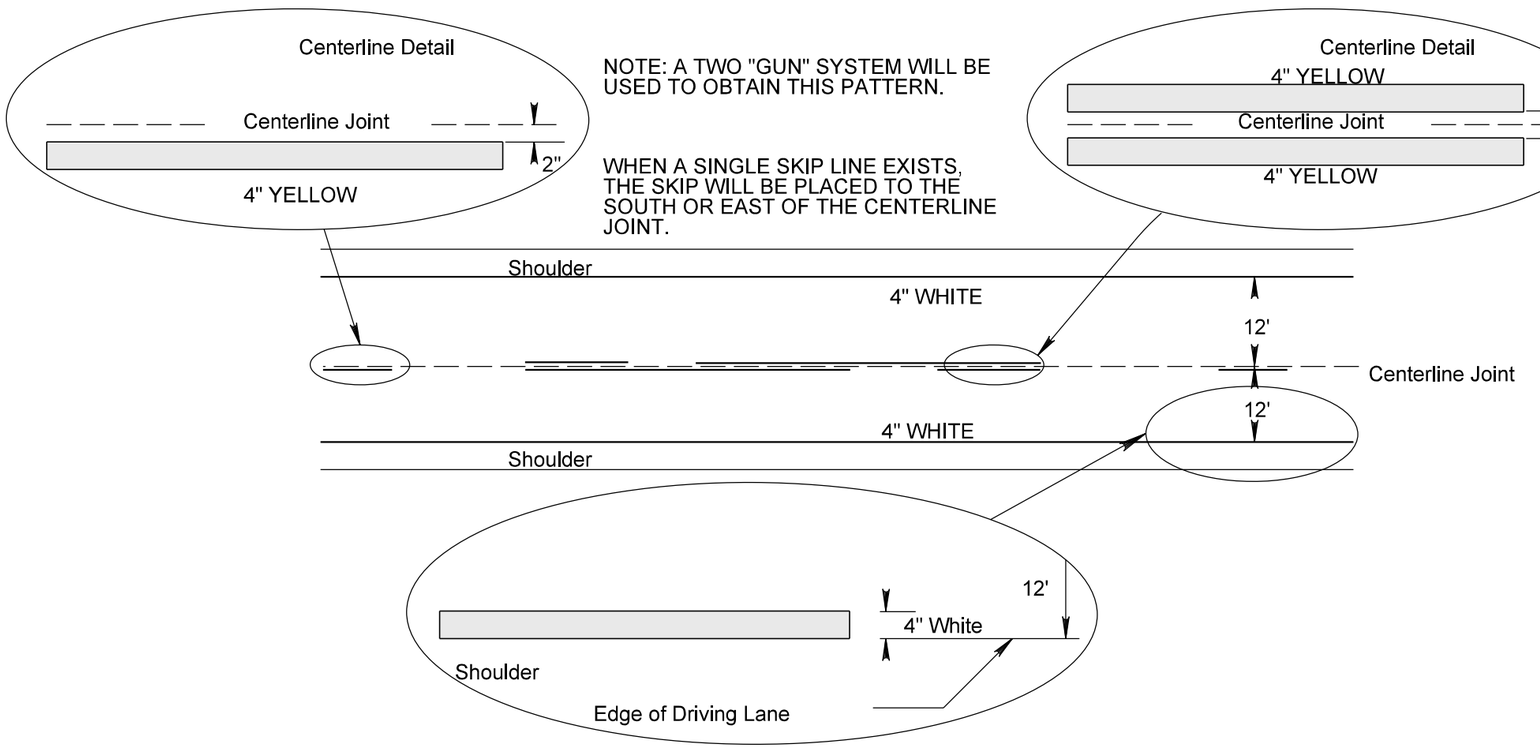
FILE - ...\PRJ\CODN05VL\TRAFPLATE4.DGN

PLOTTED FROM - TRAB178798

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(143)	10	15
Plotting Date: 03-24-23			

TYPICAL PAVEMENT MARKING LAYOUT





Revised: 8/13/24 MD

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(143)	11	15

Plotting Date: 08/13/2024

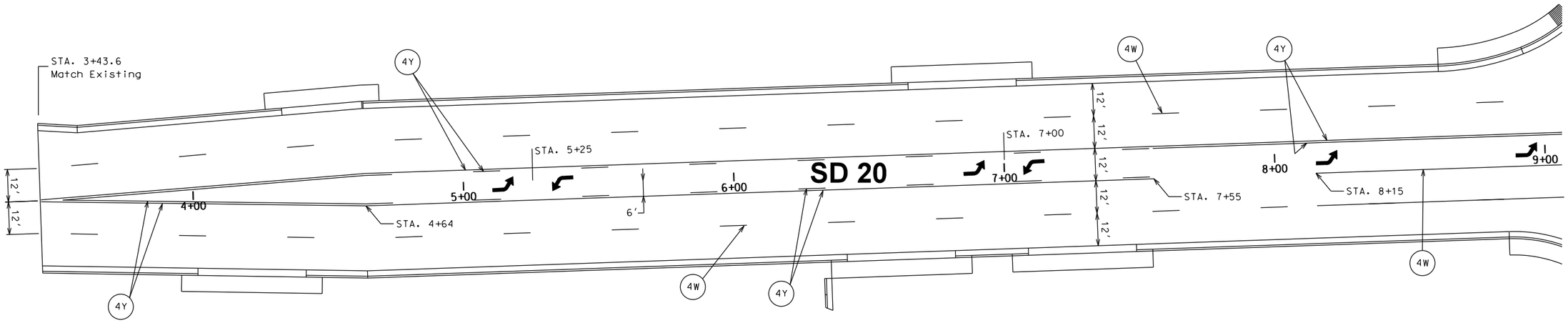
PAVEMENT MARKING LAYOUT

SD HWY 20/TENTH STREET W

(4W)	Durable Pavement Marking, 4" White	2,430	FT
(4Y)	Durable Pavement Marking, 4" Yellow	3,745	FT
(24W)	Durable Pavement Marking, 24" White	666	FT
	Preformed Thermoplastic Pavement Marking, Arrow (Left - 12, Right - 12, Combination - 3)	27	EACH
	Surface Preparation for Pavement Marking, 4"	6,175	FT
	Surface Preparation for Pavement Marking, 24"	666	FT
	Grooving For Preformed Thermoplastic Pavement Marking, Arrow (Left - 12, Right - 12, Combination - 3)	27	EACH

N

SCALE
1" = 40'



PLOT SCALE - 1:40

PLOT NAME - 1

FILE - ...\WATERTOWN\M3 (STA 0031).DGN

PLOTTED FROM - TRAB17879B

Revised: 8/13/24 MD

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(143)	12	15
Plotting Date: 08/13/2024			

PAVEMENT MARKING LAYOUT

SD HWY 20/TENTH STREET W

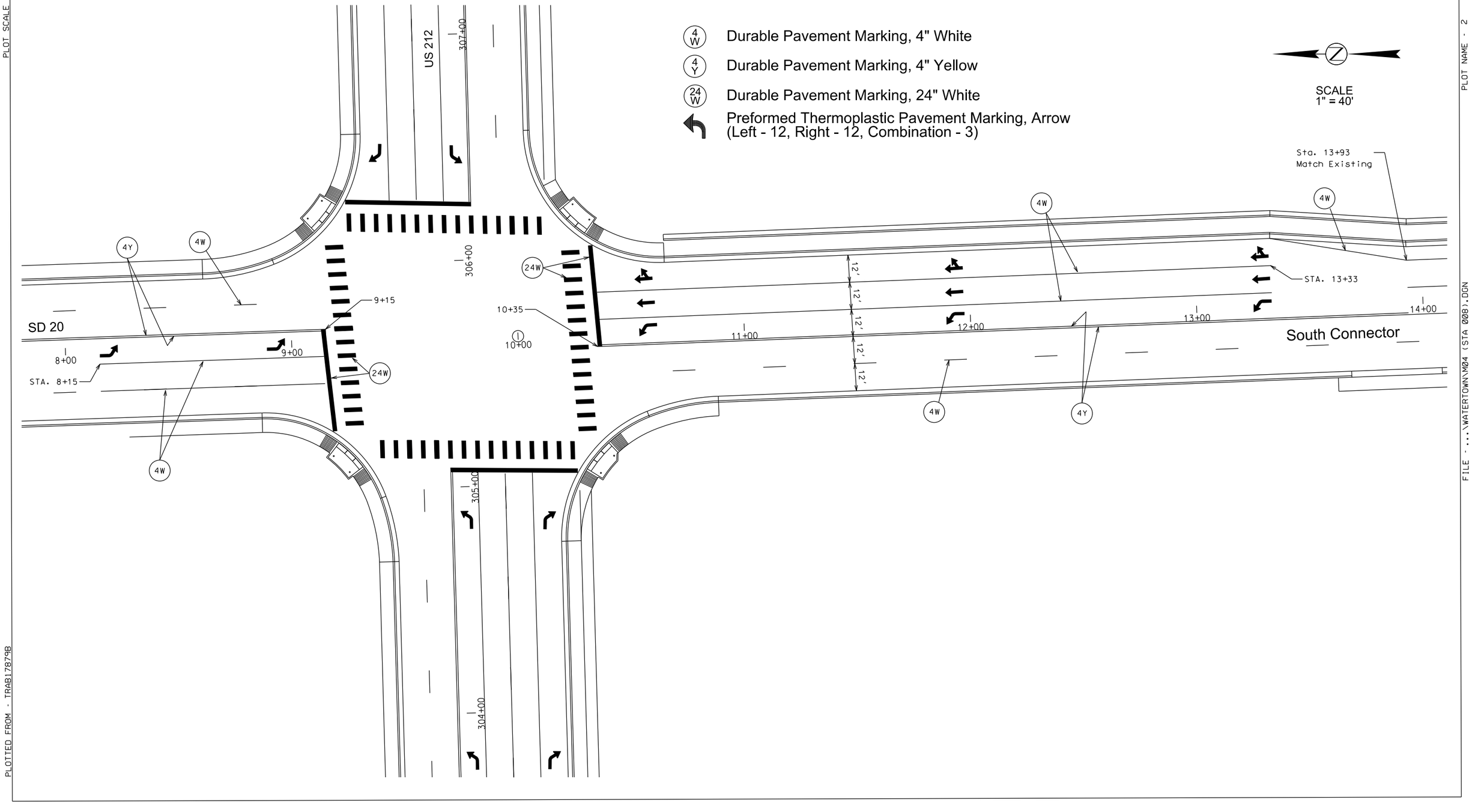
(4W) Durable Pavement Marking, 4" White

(4Y) Durable Pavement Marking, 4" Yellow

(24W) Durable Pavement Marking, 24" White

Preformed Thermoplastic Pavement Marking, Arrow
(Left - 12, Right - 12, Combination - 3)

SCALE
1" = 40'



PLOT SCALE - 1:40.1841

PLOT NAME - 2

FILE - ...\WATERTOWN\M024 (STA 008).DGN

PLOTTED FROM - TRAB17879B

PLOT SCALE - 1:40.0001

Revised: 8/13/24 MD

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(143)	13	15
Plotting Date: 08/13/2024			

PAVEMENT MARKING LAYOUT

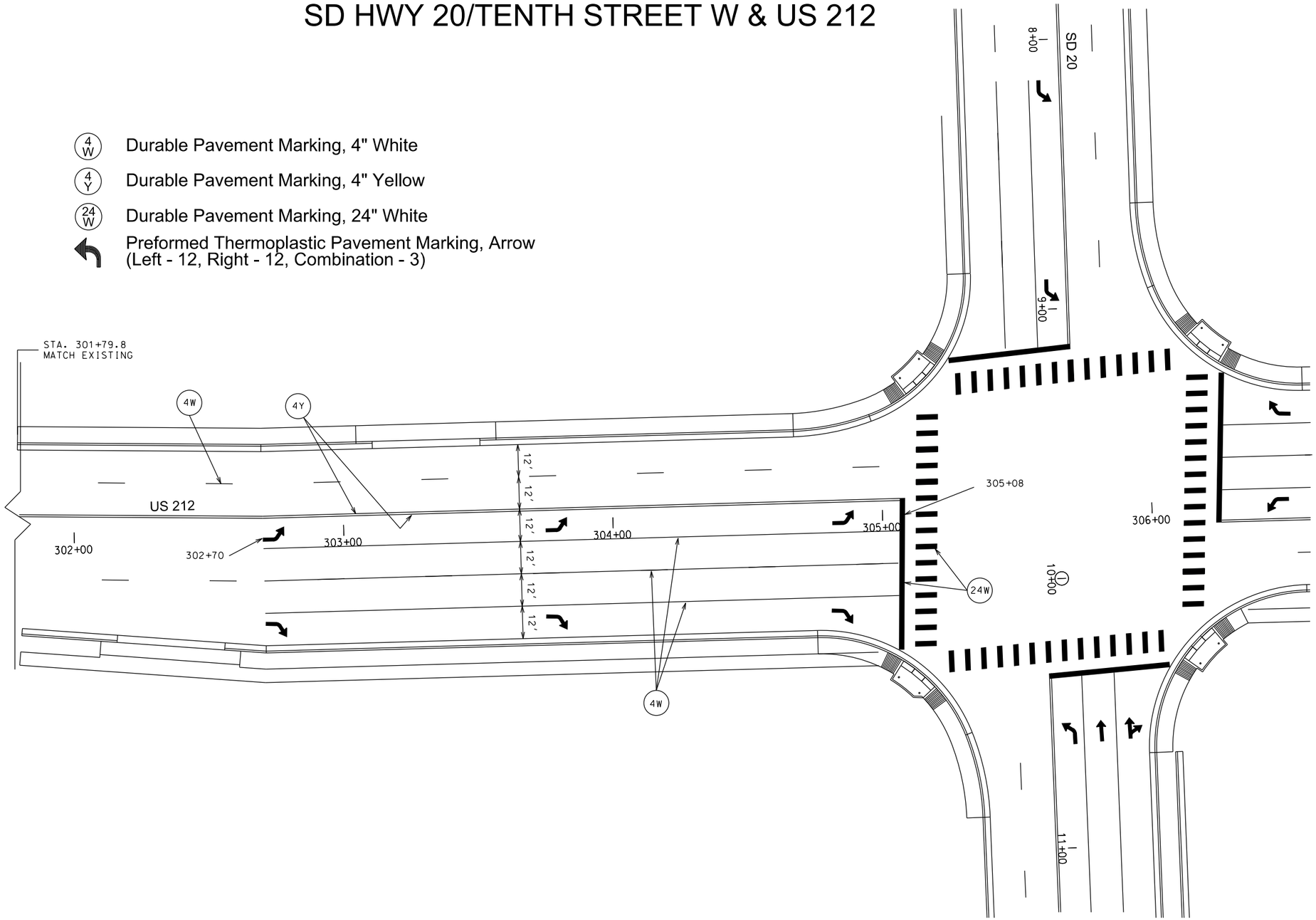
SD HWY 20/TENTH STREET W & US 212

(4W) Durable Pavement Marking, 4" White

(4Y) Durable Pavement Marking, 4" Yellow

(24W) Durable Pavement Marking, 24" White

Preformed Thermoplastic Pavement Marking, Arrow
(Left - 12, Right - 12, Combination - 3)



PLOTTED FROM - TRAB17879B

PLOT NAME - 3

FILE - ...\WATERTOWN\M11 (STA 301).DGN

Revised: 8/13/24 MD

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(143)	14	15
Plotting Date: 08/13/2024			

PAVEMENT MARKING LAYOUT

SD HWY 20/TENTH STREET W & US 212

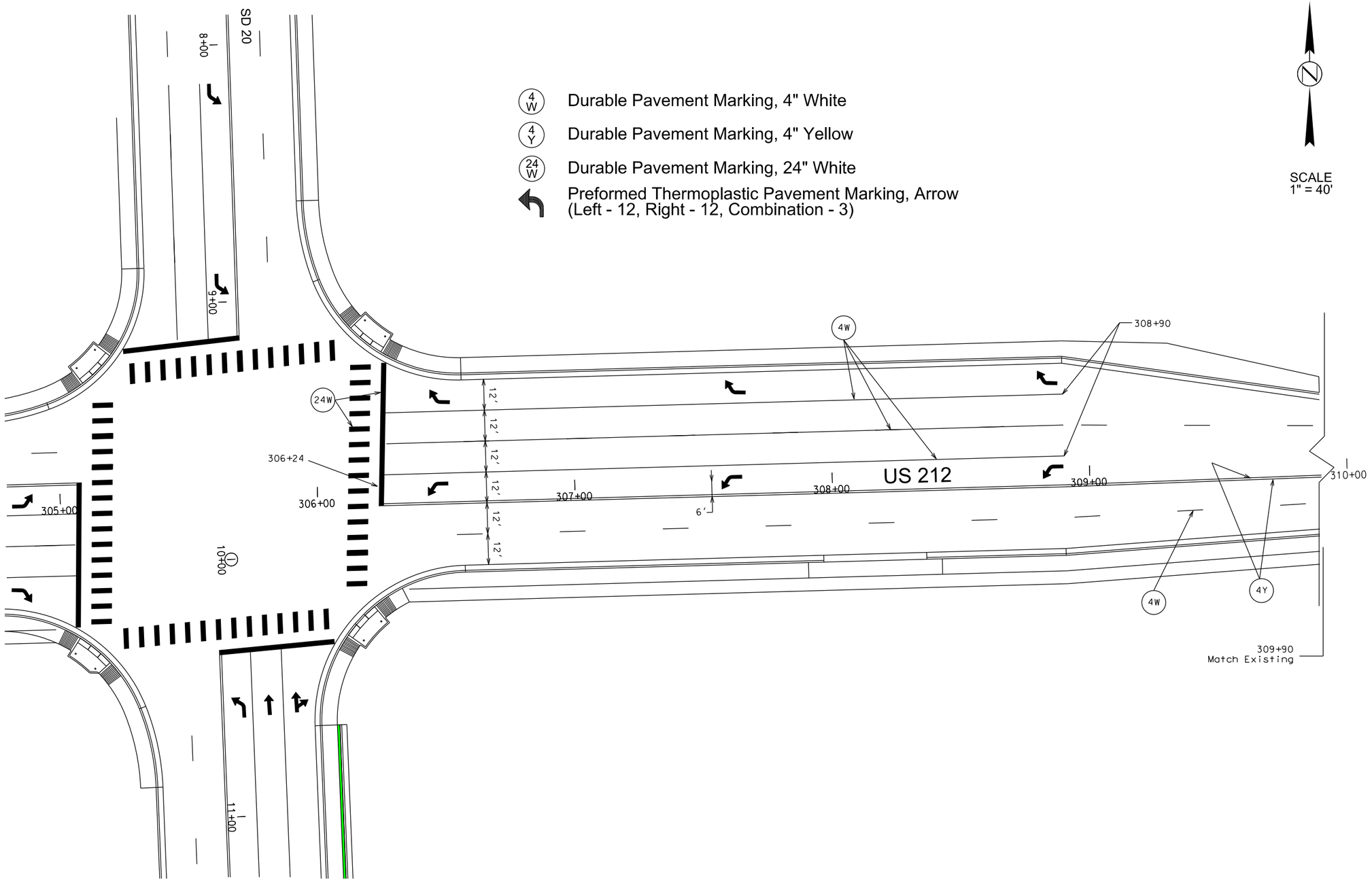
(4W) Durable Pavement Marking, 4" White

(4Y) Durable Pavement Marking, 4" Yellow

(24W) Durable Pavement Marking, 24" White

Preformed Thermoplastic Pavement Marking, Arrow
(Left - 12, Right - 12, Combination - 3)

SCALE
1" = 40'

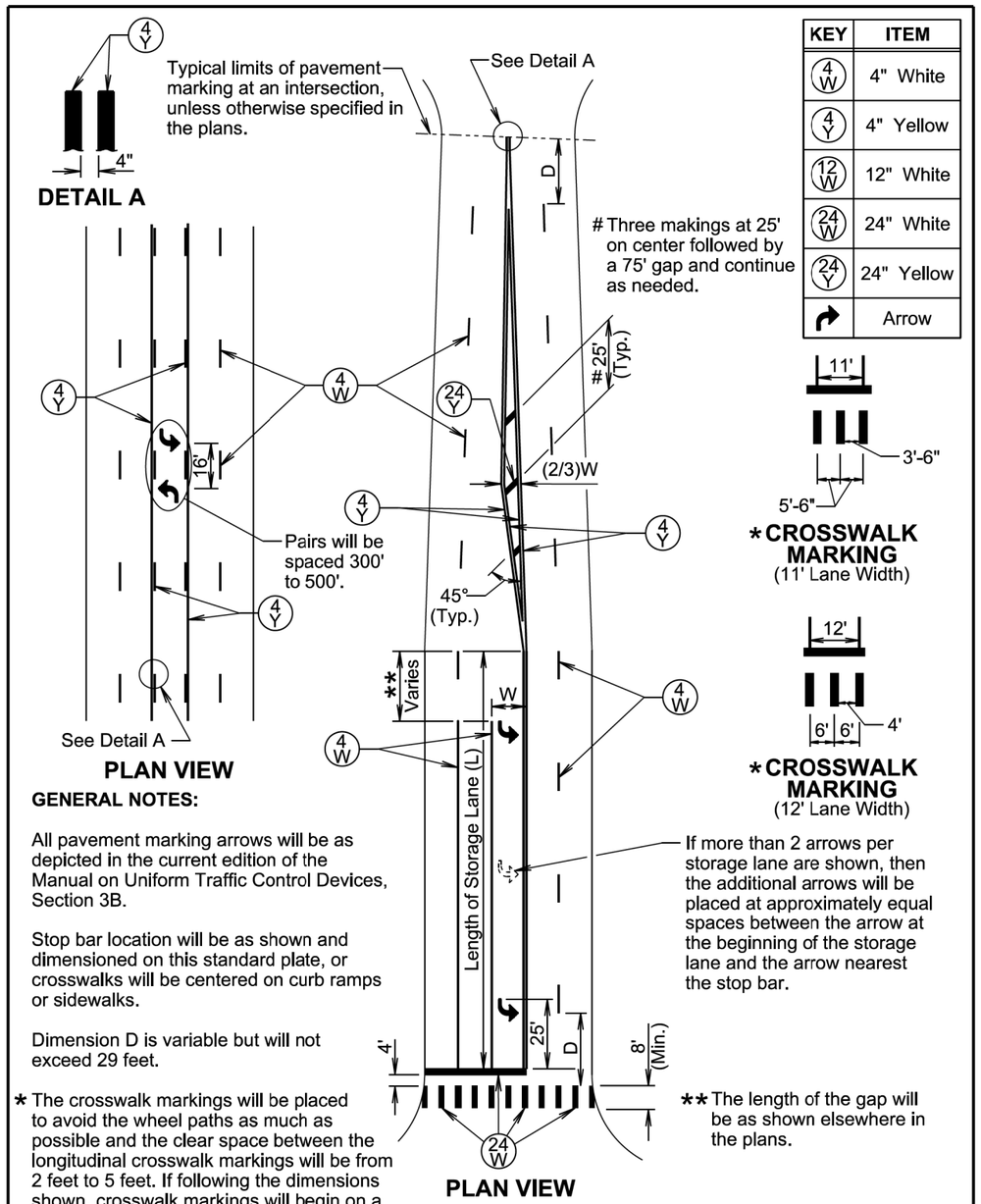


PLOT SCALE - 1:40.0001

PLOT NAME - 4

FILE - ...\WATERTOWN\M12 (STA 306).DGN

PLOTTED FROM - TRAB17879B



GENERAL NOTES:

All pavement marking arrows will be as depicted in the current edition of the Manual on Uniform Traffic Control Devices, Section 3B.

Stop bar location will be as shown and dimensioned on this standard plate, or crosswalks will be centered on curb ramps or sidewalks.

Dimension D is variable but will not exceed 29 feet.

* The crosswalk markings will be placed to avoid the wheel paths as much as possible and the clear space between the longitudinal crosswalk markings will be from 2 feet to 5 feet. If following the dimensions shown, crosswalk markings will begin on a lane line or centerline.

March 31, 2024

Published Date: 2025

SDDOT

PAVEMENT MARKINGS FOR ADJACENT INTERSECTIONS AND CENTER TURN LANE

PLATE NUMBER 633.01

Sheet 1 of 1