

STATE OF SOUTH DAKOTA
 DEPARTMENT OF TRANSPORTATION
 PLANS FOR PROPOSED

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(171)	1	12
Plotting Date: 07/22/2024			
Revised 07222024 DLM			

PROJECT PH 0010(171)
CODINGTON & GRANT
COUNTIES

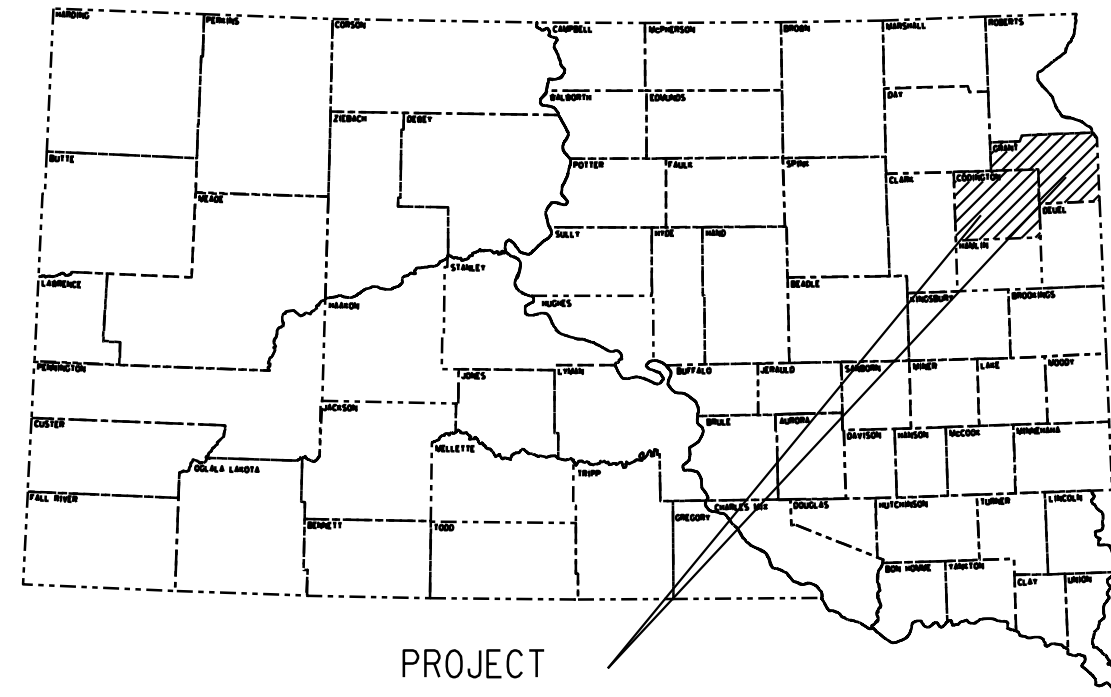
COUNTY PAVEMENT MARKING
 ABERDEEN REGION
 PCN 07X5

INDEX OF SECTIONS

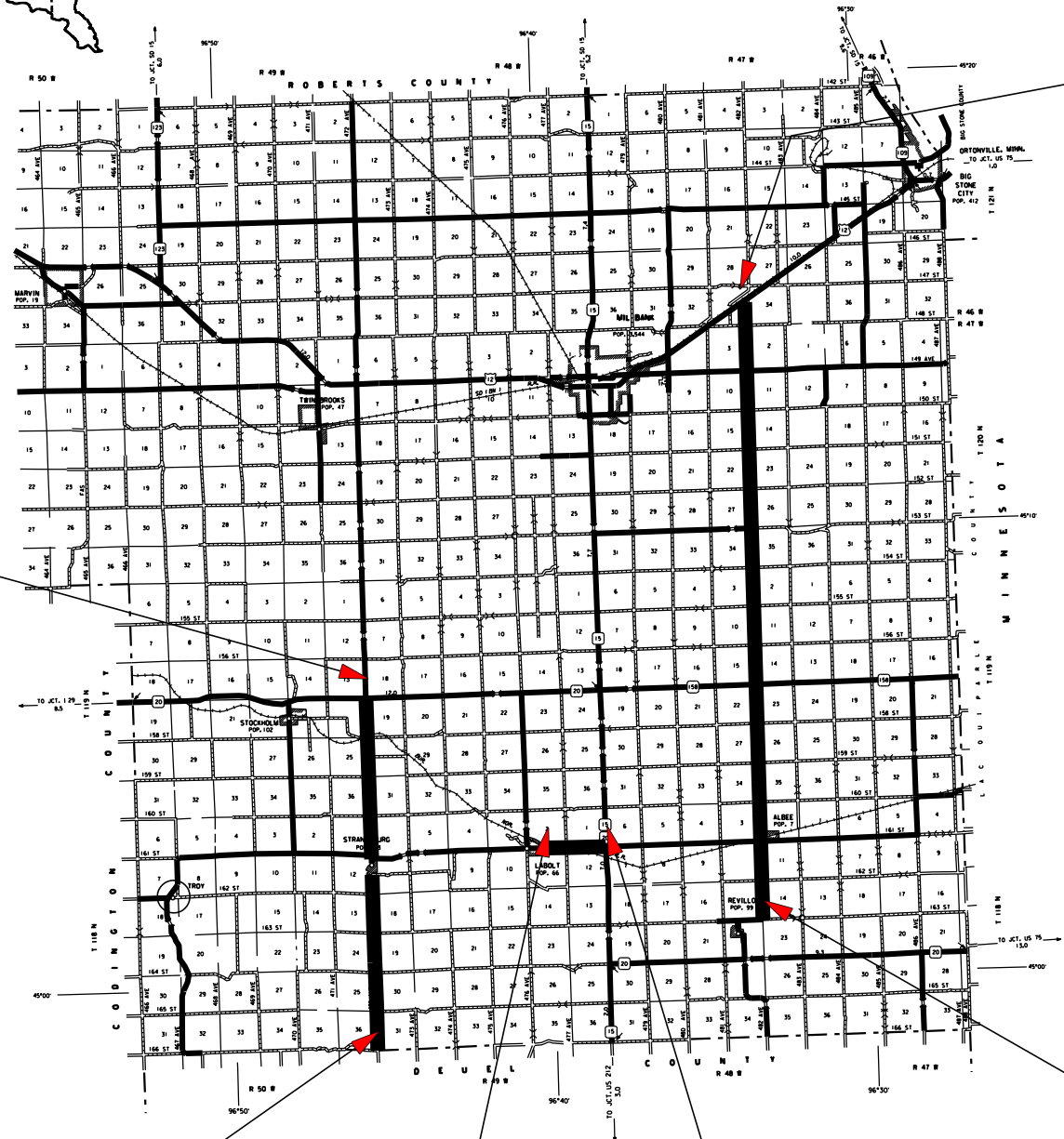
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- Sheets 3-4 Estimate of Quantities and Environmental Commitments
- Sheets 5-7 Plan Notes
- Sheets 8 Table of Quantities
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PLOT SCALE - 1"=40'

PLOT NAME - 1



PROJECT



BEGIN PROJECT

BEGIN PROJECT

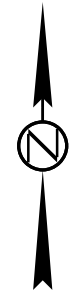
GRANT COUNTY

END PROJECT

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6

September 18, 2024

STORM WATER PERMIT:
 None Required

PLOTTED FROM - TRAB17879

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STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(171)	2	12
Plotting Date: 07/17/2024			

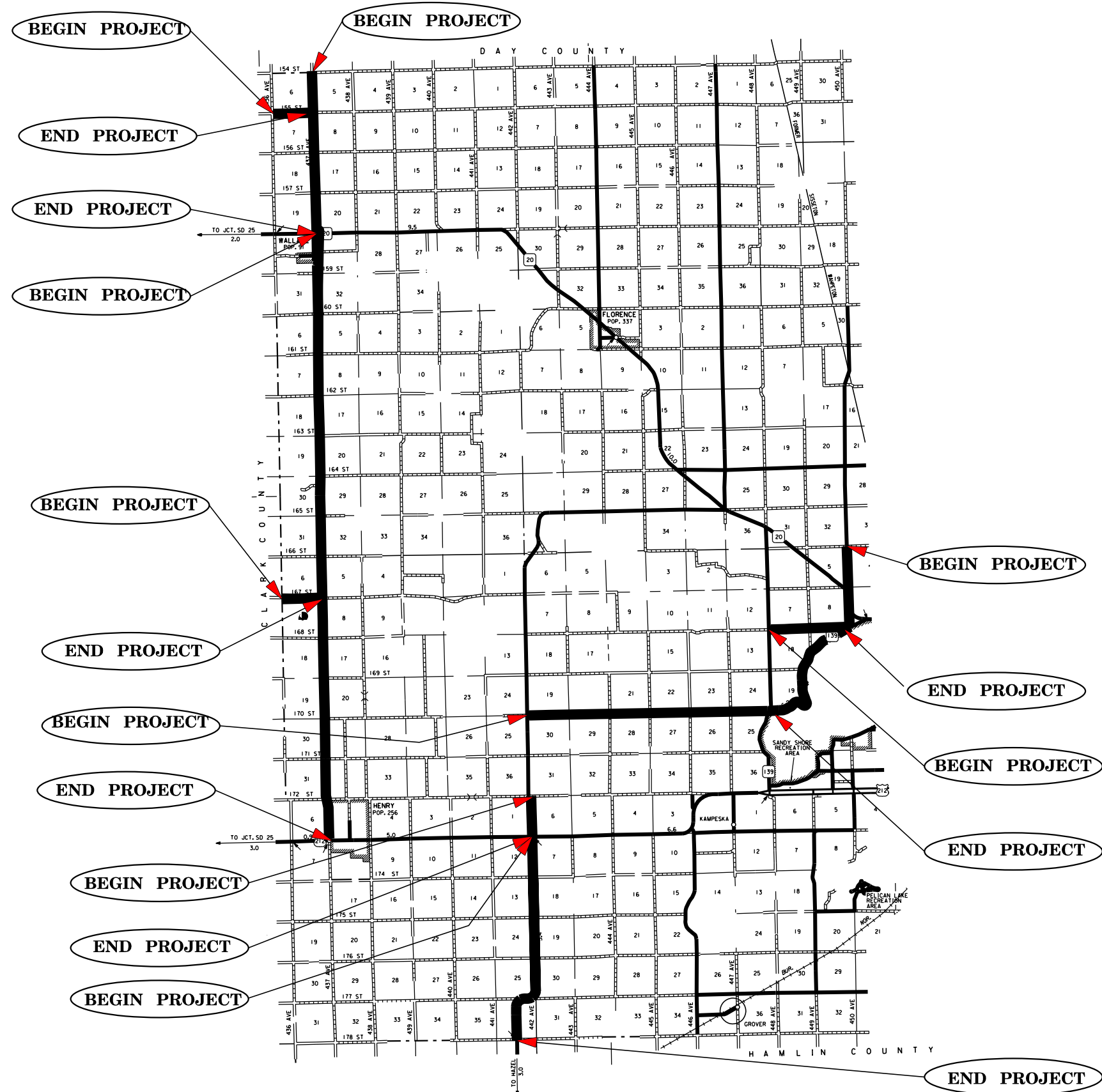
CODINGTON COUNTY

PLOT SCALE - 1:40

PLOT NAME - 2

PLOTTED FROM - TRAB17879

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ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	PH 0010(171)	3	12

ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
633E1200	High Build Waterborne Pavement Marking Paint, White	2,502	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	461	Gal
633E1290	High Build Waterborne Pavement Marking Paint, Railroad Crossing	4	Each
633E5140	Grooving for Durable Pavement Marking, Railroad Crossing	4	Each
634E0010	Flagging	20.0	Hour
634E0110	Traffic Control Signs	105.0	SqFt
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 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.

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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 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/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.

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Revised 07/22/2024 DLM

GENERAL NOTES

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 before the paint is applied. Sweeping will be incidental to painting.

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.

The Contractor will limit 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.

It is expected that some of the roads will not be ready for striping until after September 15, 2024. The Contractor will be required to return after September 15, 2024 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.

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.

NOTE: Railroad Crossing pavement markings will be paid for at the contract unit price per gallon 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)

PAVEMENT MARKING PAINT

The Contractor will advise the Engineer a minimum of 3 weeks prior to the application of the permanent pavement marking to allow the County to check and mark the location of No Passing Zones.

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.

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

All pavement markings not conforming to the requirements provided in these plans will be considered deficient and will be removed and replaced. Additional retroreflectivity readings will be taken by the Department to determine the limits of removal. The removal will be accomplished using suitable sand blasting or grinding equipment unless the Engineer authorizes other means. The removal process will remove at least 90% of the deficient line, with no excessive scarring of the existing pavement. The removal width will be one inch wider all around the nominal width of the pavement marking to be removed. Removal and replacement of the pavement markings will be at the Contractor's expense, with no cost incurred by the State.

PLOT SCALE - 1:40

PLOTTED FROM - TRAB17879

PLOT NAME - 1

FILE : ... \P\17879\PLAN SHEET.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
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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.

RATES OF MATERIALS FOR HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

Solid 4" line = 27.8 Gals/Mile
Dashed 4" line = 7.6 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.

GROOVING FOR HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT RAILROAD CROSSING

The Contractor will establish a positive means for the removal of the grinding and/or grooving residue. Residue from dry grooving will be vacuumed. Solid residue will be removed from the pavement surfaces before being blown by traffic action or wind. The Contractor will conduct this work to control and minimize airborne dust and similar debris that may become a hazard to motor vehicle operation or nuisance to property owners. Residue from wet grooving will not be permitted to flow across lanes being used by public traffic or into gutter or drainage facilities. Residue, whether in solid or slurry form, will be disposed of in a manner that will prevent it from reaching any waterway in a concentrated state. All costs for removal of grinding and/or grooving residue will be included in the contract unit price per each for "Grooving for Durable Pavement Marking" contract item.

Unless otherwise specified in the plans, the Contractor will groove the surface for High Build Waterborne Pavement Marking Paint with Reflective Elements as specified in these plans and as per the manufacturer's instructions.

The grooving will be completed within the following tolerances:

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.
- ² Additional length may be required as specified in the plans.

The equipment 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.

If damage occurs, including, but not limited to, joints, joint sealant material, and backer rod, the grooving operation will be stopped and modifications will be made to the grooving operation to prevent further damage. The Contractor will be required to use specially prepared circular diamond blade cutting heads to prevent damage at the joints. Damage caused will be repaired or replaced by the Contractor, as directed by the Engineer. No additional payment will be made for the repair work or any reapplication of the pavement marking in the area of the repair.

SEQUENCE OF OPERATIONS

The Contractor will submit a sequence of operations for approval two weeks prior to the preconstruction meeting.

TRAFFIC CONTROL

All signs, shadow vehicles, arrow boards, of changeable message signs shown in the details for "Mobile Operations On 2-Lane Road" and "Mobile Operations On Multi-lane Divided" will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

Painting will be allowed only during daylight hours.

All construction operation 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

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.

GENERAL TRAFFIC CONTROL

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

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.

All fixed location signs, sign posts, and breakaway bases will be removed within 7 calendar days following pavement marking.

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
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Plotting Date: 08/02/2023

CONTACT INFORMATION

Jeff Brink, Watertown Area Engineering Supervisor, South Dakota
 Department of Transportation, 5000 9th Ave SE, Watertown, SD 57201
 phone number (605) 882-5166

COUNTY	SUPERINTENDENT	PHONE	CELL PHONE
Codington	Rick Hartley	882-6271	881-3542
Grant	Daren Peterson	432-5861	N/A

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

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
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT					105.0

Pavement Marking Quantities

Codington County

Road Name	Marking Locations (Start)	Marking Location (End)	Marking Type (Centerline ONLY, Edgelines ONLY, Centerline & Edgelines)	Striping to be over New Chip Seal (Y or N)	Length (Miles)	High Build Waterbourne pavement marking white (Gal)	High Build Waterbourne pavement marking Yellow (Gal)
155th St	437th Ave	436th Ave	Centerline & Edgelines	Y	1.0	55.6	7.6
167th St	437th Ave	436th Ave	Centerline & Edgelines	Y	1.0	55.6	7.6
168th St	448th Ave	450th Ave	Centerline & Edgelines	Y	2.0	111.2	15.2
170th St	442th Ave	448th Ave	Centerline & Edgelines	Y	6.0	333.6	45.6
450th Ave	166th St	170th St	Centerline & Edgelines	Y	4.0	222.4	30.4
442nd Ave	172nd St	US Hwy 212	Centerline & Edgelines	Y	1.0	55.6	7.6
442nd Ave	US Hwy 212	178th St	Centerline & Edgelines	Y	5.5	305.8	41.8
437th Ave	154th St	SD20	Centerline & Edgelines	Y	4.0	222.4	30.4
437th Ave	SD20	US Hwy 212	Centerline & Edgelines	Y	15.0	834	114
Total					39.5	2196.2	300.2

Grant County

Road Name	Marking Locations (Start)	Marking Location (End)	Marking Type (Centerline ONLY, Edgelines ONLY, Centerline & Edgelines)	Striping to be over New Chip Seal (Y or N)	Length (Miles)	High Build Waterbourne pavement marking white (Gal)	High Build Waterbourne pavement marking Yellow (Gal)	High Build Waterbourne pavement marking Rail Road Crossing (Each)
161st St	State Hwy 15	Labolt City Limits	Centerline & Edgeline	N	1.5	83.4	11.4	
472nd Ave	State Hwy 20	166st St	Centerline & Edgeline	N	4.0	222.4	30.4	2
482nd Ave	State Hwy 12	163rd St	Centerline Only	N	15.6		118.6	2
Total					21.1	305.8	160.4	4

* 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.

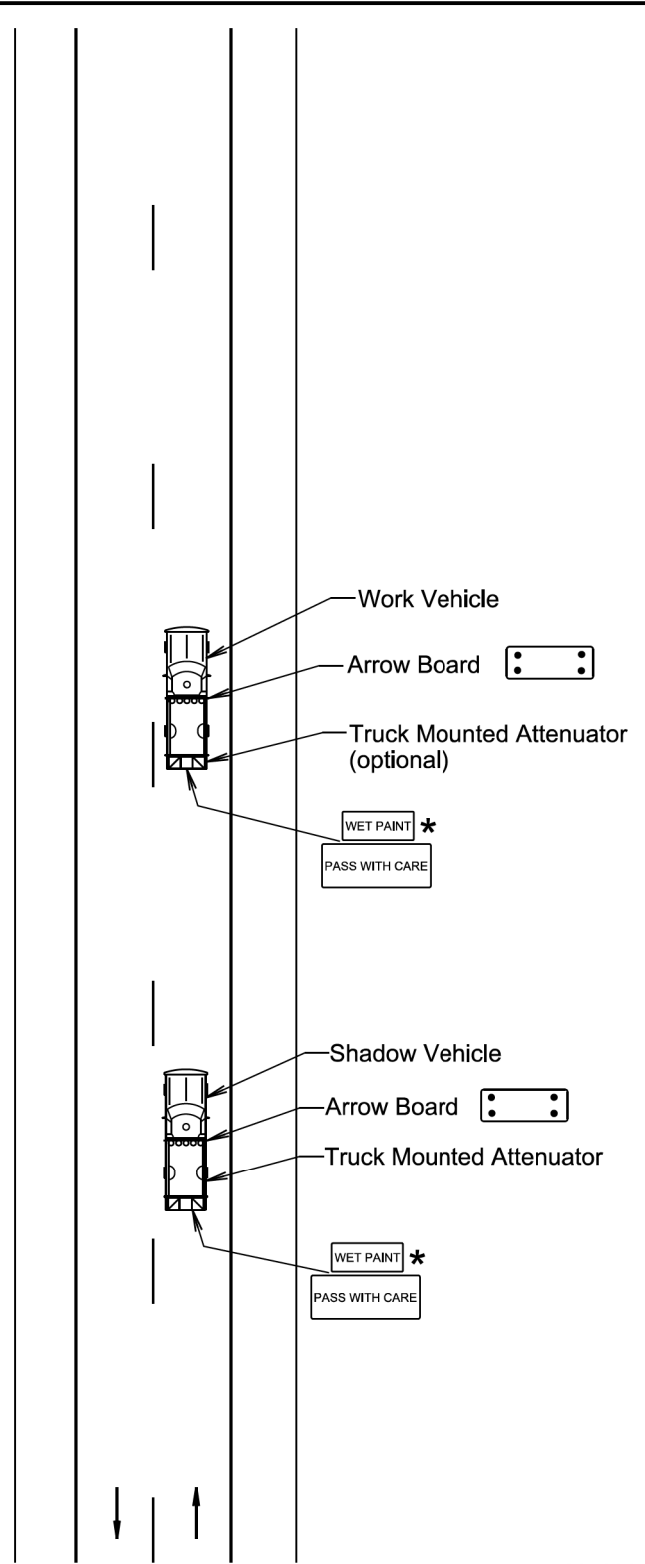
Shadow and Work vehicles will display high-intensity rotating, flashing, oscillating, or strobe lights, flags, signs, or arrow boards.

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

S D D O T	MOBILE OPERATIONS ON 2-LANE ROAD	PLATE NUMBER 634.06
		Sheet 1 of 1
Published Date: 2025		

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.

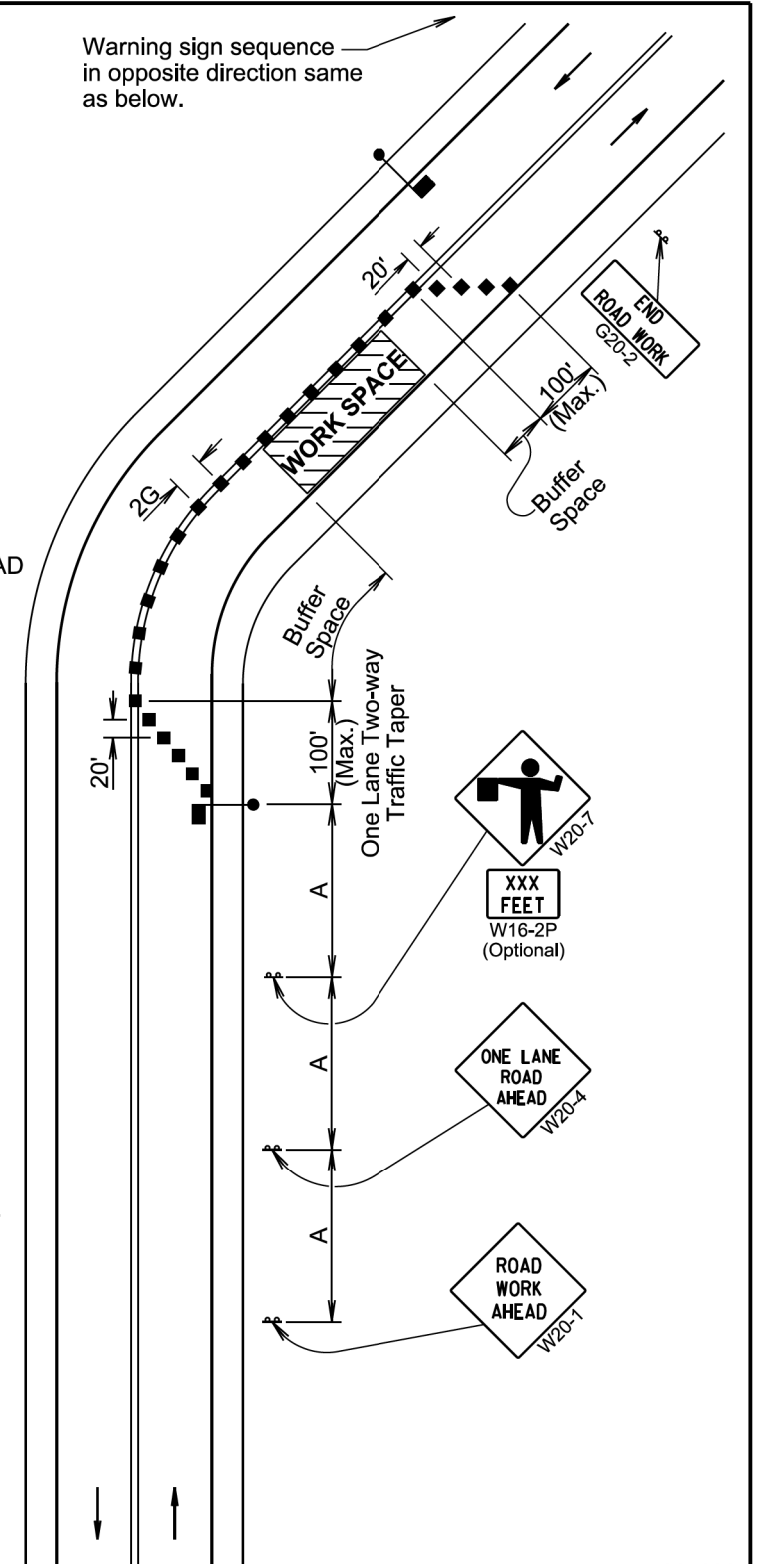
Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.

Channelizing devices and flaggers will be used at intersecting roads to control intersecting road traffic as required.

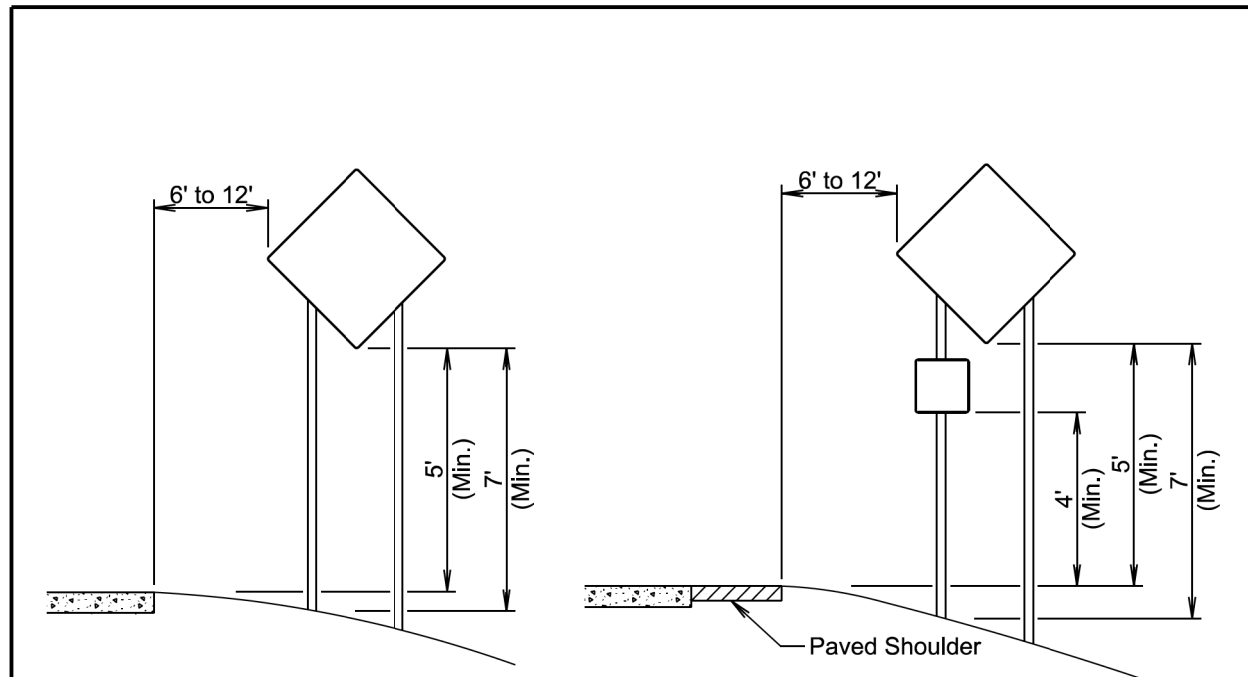
The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

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

S D D O T	LANE CLOSURE WITH FLAGGER PROVIDED	PLATE NUMBER 634.23
		Sheet 1 of 1
Published Date: 2025		

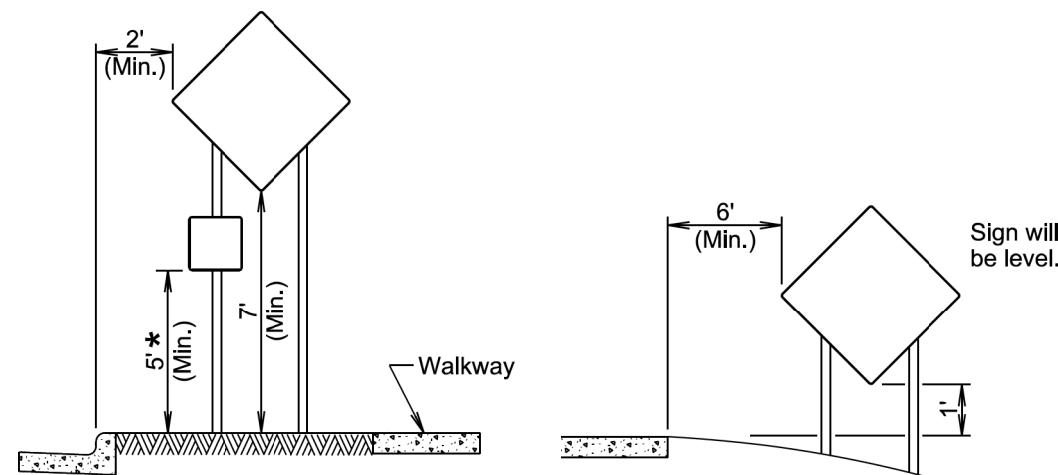


January 22, 2021



RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE



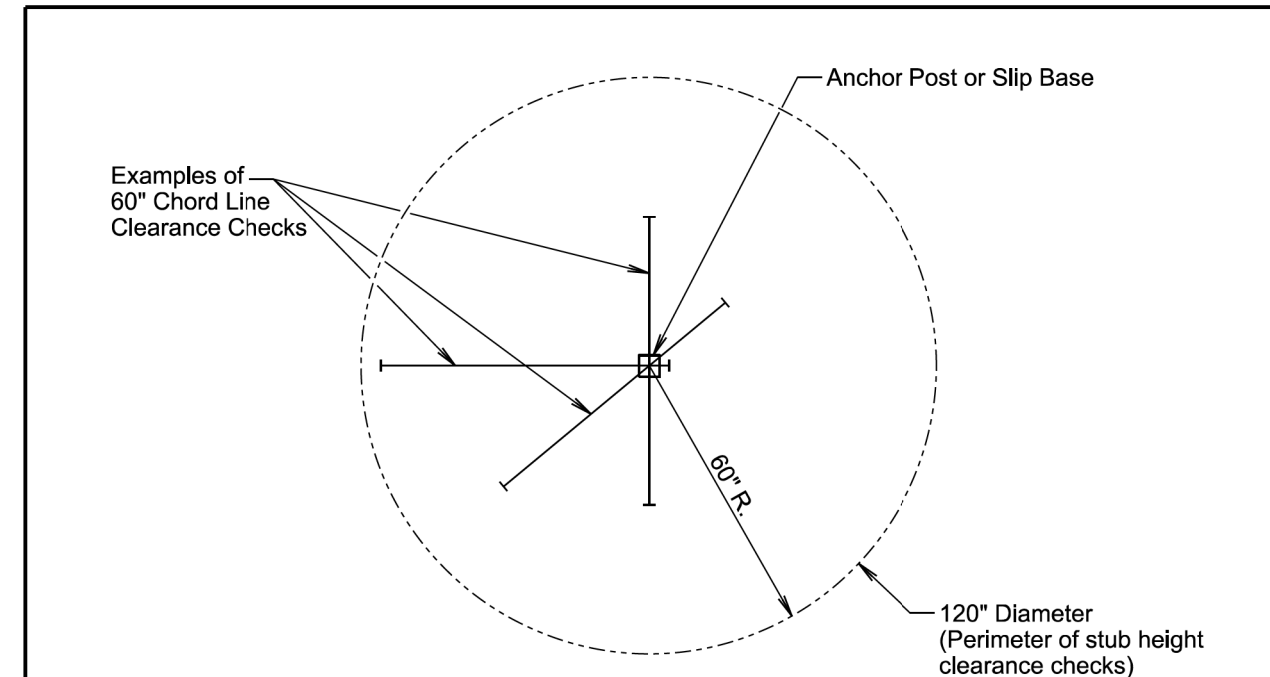
URBAN DISTRICT

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

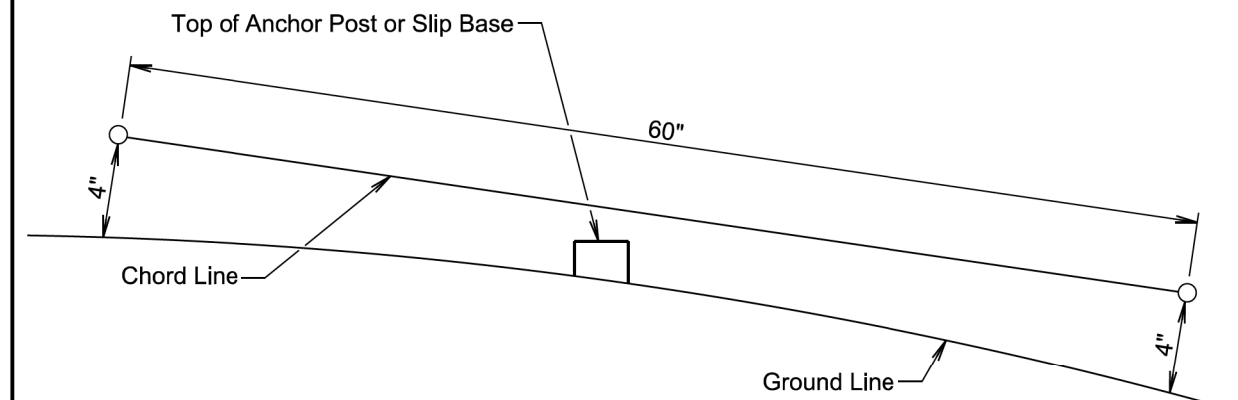
* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

January 22, 2021

Published Date: 2025	S D D O T	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.

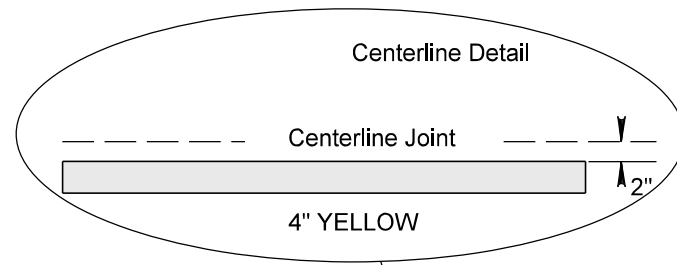
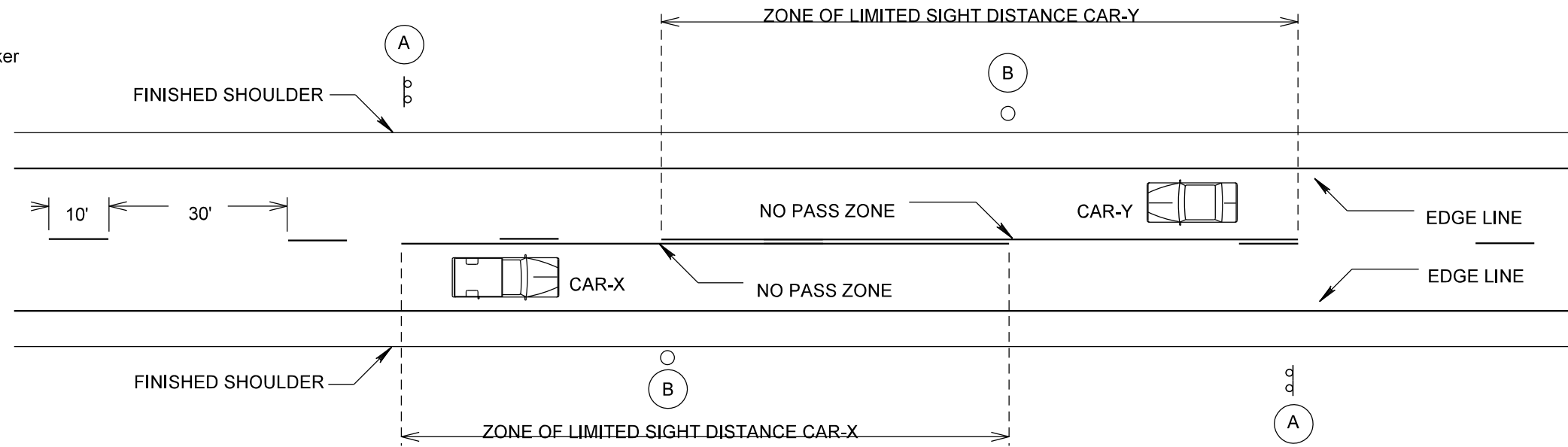
The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

January 22, 2021

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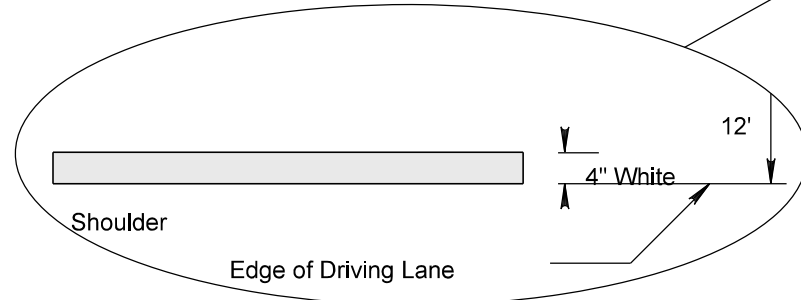
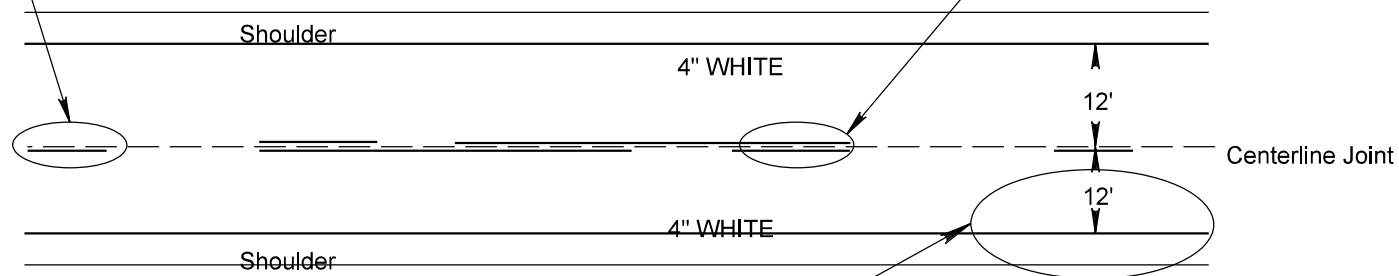
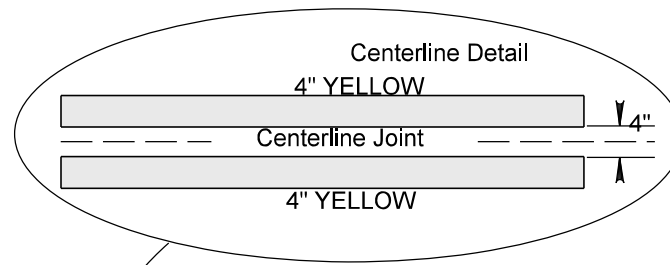


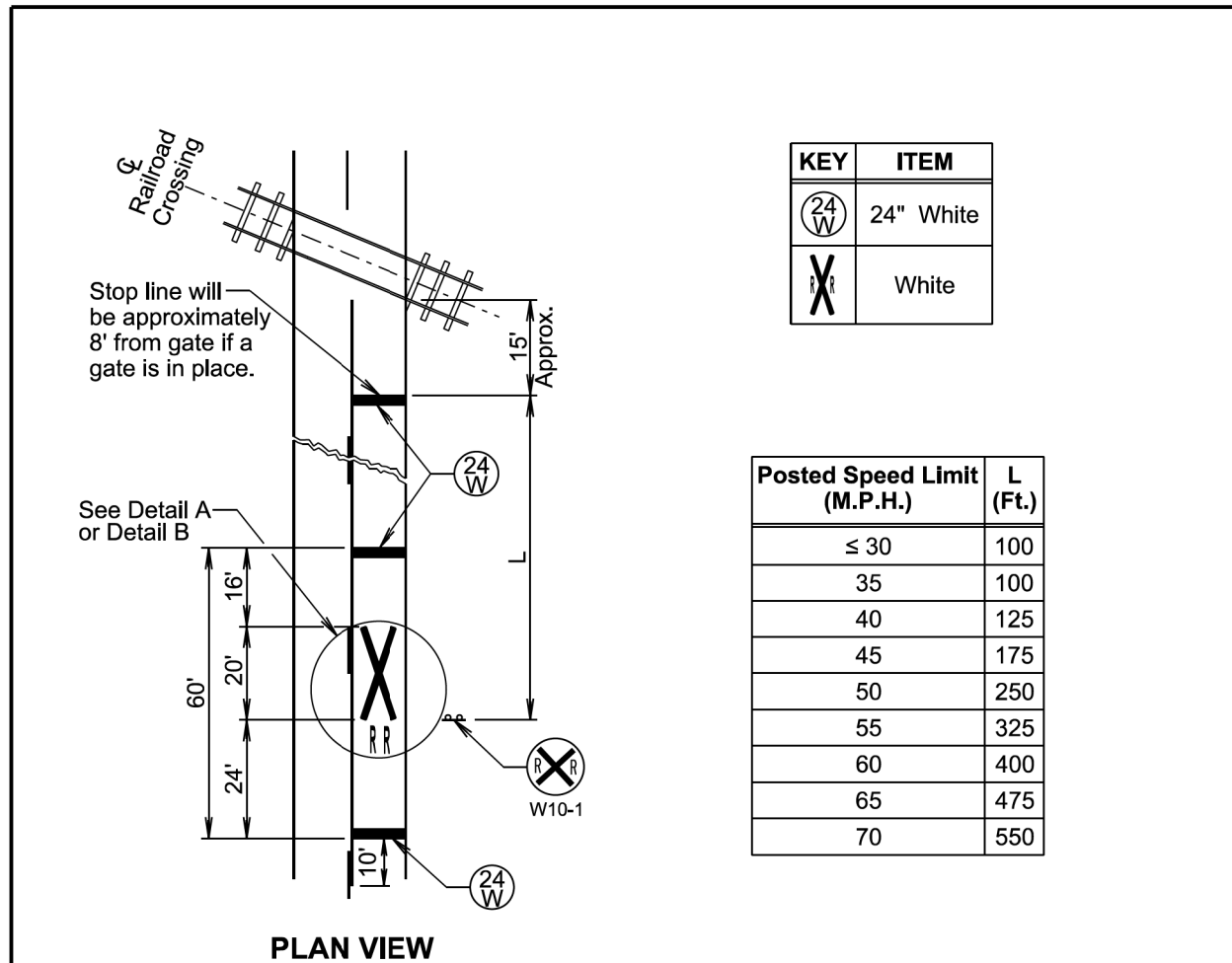
(A) NO PASSING ZONE
(B) End of Zone Marker



NOTE: A TWO "GUN" SYSTEM WILL BE USED TO OBTAIN THIS PATTERN.

WHEN A SINGLE SKIP LINE EXISTS, THE SKIP WILL BE PLACED TO THE SOUTH OR EAST OF THE CENTERLINE JOINT.





PLAN VIEW

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.

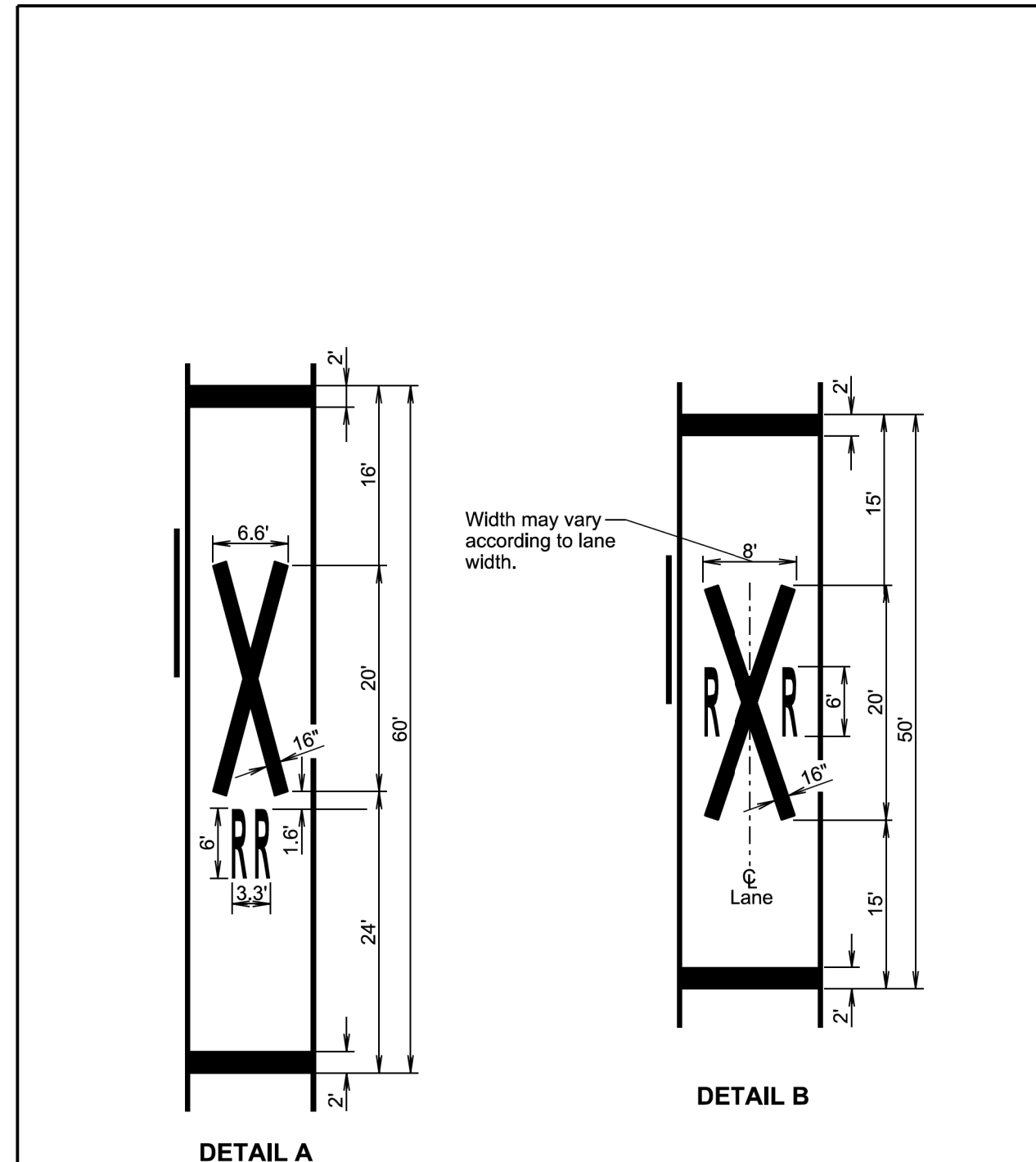
On multi-lane roads the transverse bands will extend across all approach lanes and individual RXR symbols will be placed in each approach lane.

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

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DETAIL A

DETAIL B

November 19, 2020

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