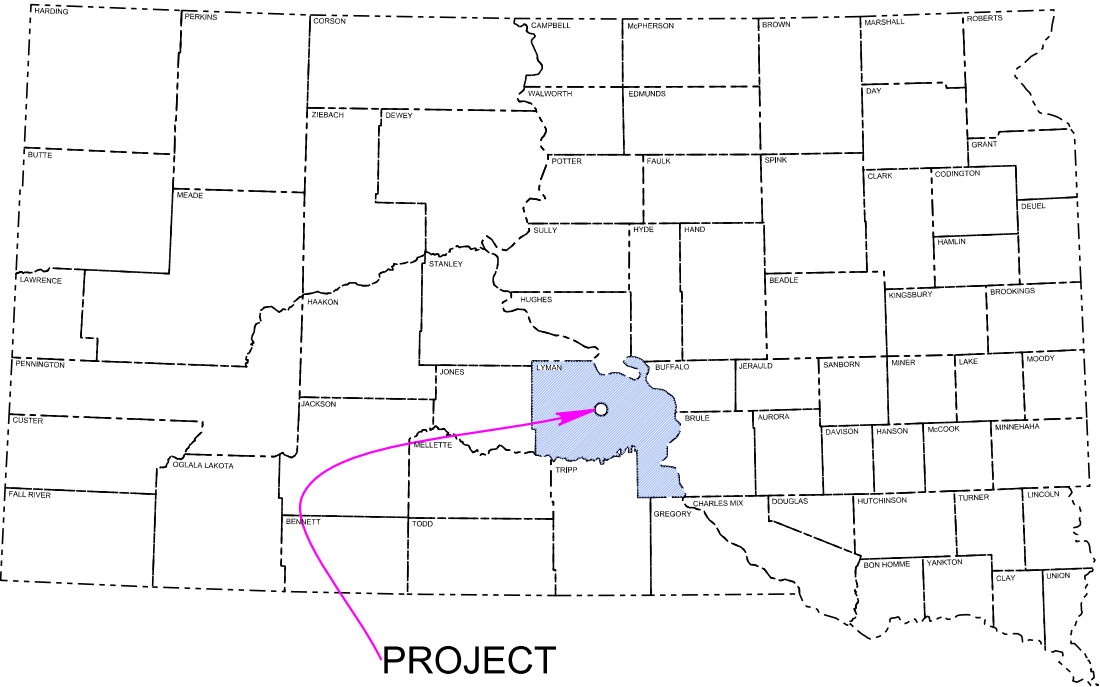


Plot Scale - 1:200

Plotted From - tpr25289



STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
PROJECT P 0248(19)247
SD HIGHWAY 248
LYMAN COUNTY
REPAIR RCBC
PCN 09VU

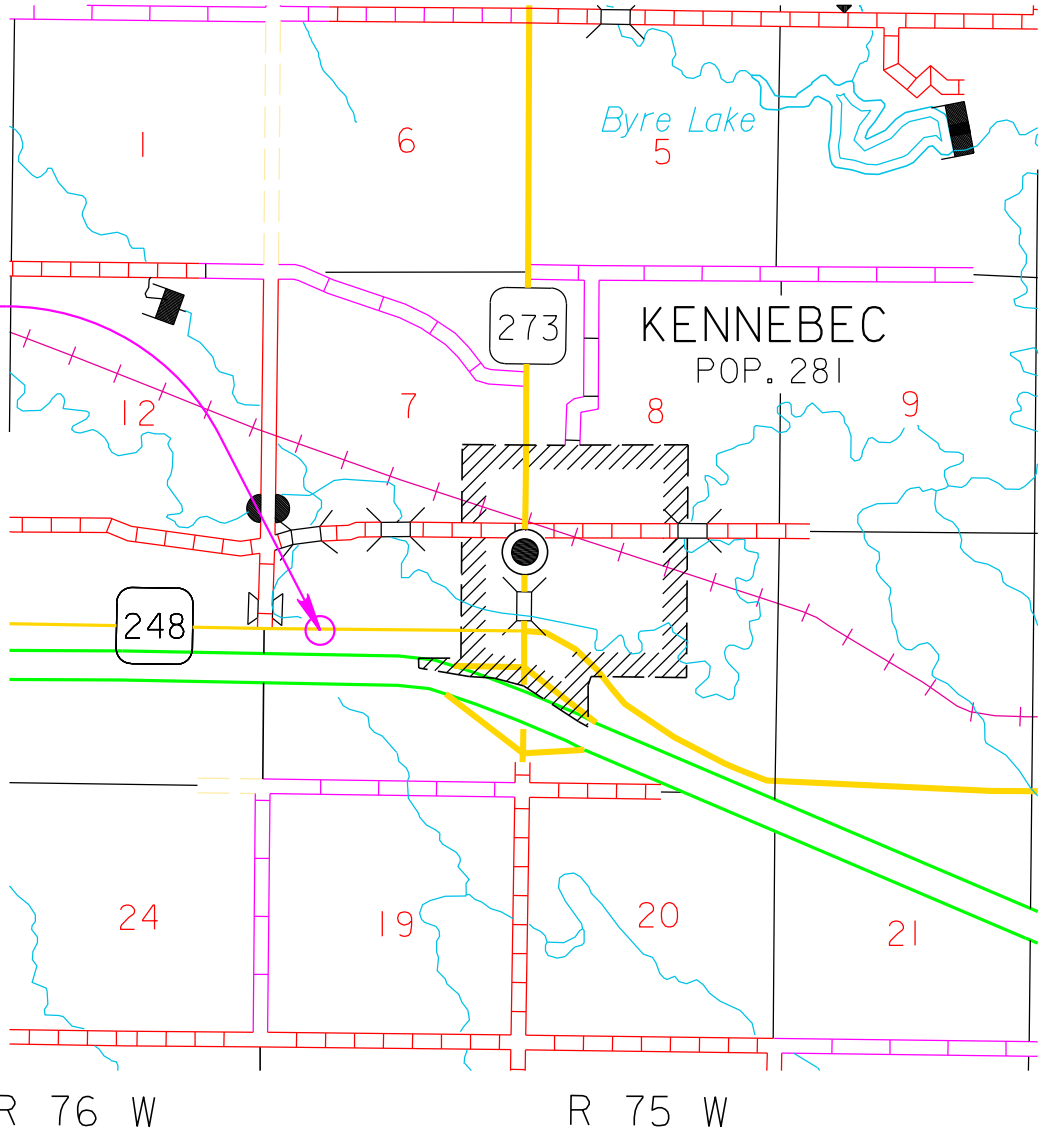
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0248(19)247	1	9

Plotting Date: 06/27/2025

INDEX OF SHEETS

Sheet No. 1	Title Sheet
Sheet Nos. 2-4	Estimate of Quantities, Environmental Commitments, Plan Notes & Tables
Sheet No. 5	Site Layout Map
Sheet No. 6	Fixed Location Sign Layouts
Sheet No. 7	Typical Section
Sheet Nos. 8-9	Standard Plates

P 0248(19)247
Repair RCBC
MRM 247.00+0.650



DESIGN DESIGNATION

AADT (2024)	250
AADT (2044)	353
DHV	56
D	50%
DHV T%	8.5%
AADT T%	18.7%
V	65 mph

STORM WATER PERMIT

None Required

ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E1010	Remove Asphalt Concrete Pavement	300.0	SqYd
110E1690	Remove Sediment	0.6	CuYd
120E0010	Unclassified Excavation	1,103	CuYd
120E0600	Contractor Furnished Borrow Excavation	1,180	CuYd
230E0100	Remove and Replace Topsoil	Lump Sum	LS
250E0010	Incidental Work	Lump Sum	LS
260E1030	Base Course, Salvaged	306.5	Ton
260E1090	Base Course, State Furnished	84.5	Ton
270E0110	Salvage and Stockpile Granular Material	306.5	Ton
320E1200	Asphalt Concrete Composite	88.7	Ton
634E0110	Traffic Control Signs	146.5	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	11	Each
634E1002	Detour and Restriction Signing	157.0	SqFt
734E0010	Erosion Control	Lump Sum	LS
734E0154	12" Diameter Erosion Control Wattle	250	Ft
734E0165	Remove and Reset Erosion Control Wattle	250	Ft

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.

Action Taken/Required:

The DANR General Permit for Stormwater Discharges Associated with Construction Activities is required for construction activity disturbing one or more acres of earth and work in a waterway. The SDDOT is the owner of this permit and will submit the NOI to DANR 15 days prior to project start in order to obtain coverage under the General Permit. Work can begin once the DANR letter of approval is received.

The Contractor must adhere to the "Special Provision Regarding Storm Water Discharges to Waters of the State."

The Contractor will complete the DANR Contractor Certification Form prior to the pre-construction meeting. The form certifies under penalty of law that the Contractor understands and will comply with the terms and conditions of the

permit for this project. Work may not begin on this project until this form is signed and submitted to DANR.

The form can be found at: <https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR_CGPA_ppendixCCA2018Fillable.pdf >

The Contractor is advised that permit coverage may also be required for off-site activities, such as borrow and staging areas, which are the responsibility of the Contractor.

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:

- 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".
 - 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.

COMMITMENT H: WASTE DISPOSAL SITE (Continued)

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.

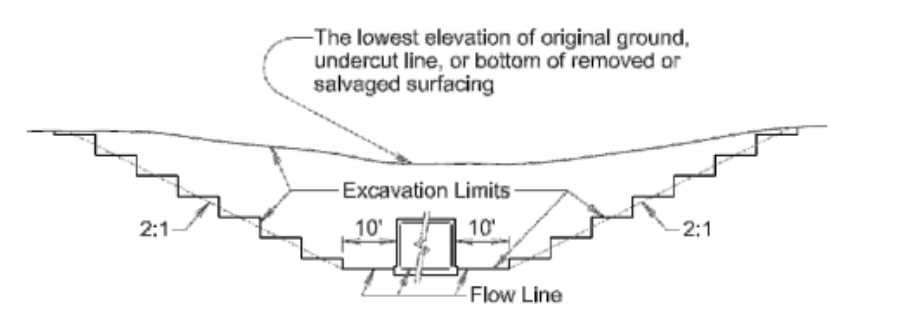
SHPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered species, 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.

TRAFFIC CONTROL FOR BOX CULVERT REPAIR

While work is being done to repair the box culvert, SD 248 will be closed to thru traffic. ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY (R11-3a) signs will be placed on a Type 3 Barricade at the Junctions of SD248 and SD273, SD248 and US183 and again one mile prior to the work space. ROAD CLOSED 1000 FT (R20-3) and ROAD CLOSED 500 FT (R20-3) will be installed 1000 ft and 500 ft respectively prior to the work space from each direction. The immediate workspace will be blocked off with 4 Type 3 Barricades spanning the entire roadway on both sides of the work space with a ROAD CLOSED (R11-2) sign mounted.

EXCAVATION AND WORK REQUIRED FOR REINFORCED CONCRETE BOX CULVERT REPAIR

The subgrade, base, and surfacing material surrounding the 12' x 12' Reinforced Concrete Box Culvert (RCBC) located at Sta. 1104+00 will be removed to expose the joint on the Northside of the roadway centerline it is estimated to have approximately 5 ft of fill over the RCBC.



Included in the quantity of "Unclassified Excavation" are 1,103 cu.yds. of excavation. The above quantities were calculated using trench boxes to reduce the amount of excavation required as shown with the 2:1 slopes in the drawing above. The Contractor may propose other acceptable methods for approval by the Engineer.

All work necessary to excavate a trench below the asphalt surfacing for work required on the RCBC including labor, equipment, and incidentals will be incidental to the contract unit price per cubic yard for "Unclassified Excavation". Removal of the asphalt surfacing will be incidental to the contract unit price per square yard for "Remove Asphalt Concrete Pavement", estimated at 300 sq.yds. Payment for this excavation will be based only on plans quantity and measurement of these excavation quantities during construction will not be performed.

After the RCBC joint has been exposed, the Contractor will be required to anchor salvaged aluminum sheeting around the one exterior RCBC joint that has been experiencing infiltration, estimated length for both sides and top surface is 41 feet. This joint will be identified by the Engineer. The sheet metal signs will be provided by the State at no cost to the Contractor. The signs are to be picked up from the Presho Maintenance Yard. The Contractor will contact Jim Lolley at 605-842-5387 (Summer Hours Monday-Thursday). The Contractor will be required to use bolts approved by the Engineer for anchoring the signs to the exterior walls of the RCBC. The Contractor will completely cover both sides and the top joint of the RCBC with the signs and will ensure the signs are securely fastened to the RCBC and are not displaced during backfilling operations. The cost of the bolts and all work necessary to anchor the sheet metal signs to the exterior of the RCBC will be incidental to the contract lump sum price for "Incidental Work".

The quantity of Contractor Furnished Borrow Excavation (estimated at 1,180 cu.yds.) provided will be used to backfill the trench. The material removed during the Unclassified Excavation work may be reused if suitable as Contractor Furnished Borrow Excavation if approved by the Engineer. Unsuitable material will be wasted by the Contractor and will be incidental to the bid item Contractor Furnished Borrow Excavation. This fill material will be compacted according to the Specified Density Method.

Quantities for 12" of Base Course, Salvaged & State Furnished (estimated at 391.0 tons) and 5" of Asphalt Concrete Composite (estimated at 88.7 tons) have been provided for final surfacing of the roadway after the trench has been backfilled to the correct elevation.

SALVAGE AND STOCKPILE GRANULAR MATERIAL

The in-place asphalt concrete surfacing will be removed and wasted as directed by the Engineer. Care will be taken not to waste the in-place base course. The remaining in-place base course will be salvaged and stockpiled. Salvaged material will be processed to meet the requirements of Section 884.2 D.2 prior to stockpiling. The Contractor will ensure that no vegetation, topsoil, subgrade, or other foreign material is incorporated into the salvaged granular base material.

The salvaged granular material, estimated at approximately 306.5 tons, will be used as Base Course, Salvaged upon completion of the RCBC joint repair in preparation for asphalt paving.

This work will be incidental to the contract unit price per ton for "Salvage and Stockpile Granular Material".

BASE COURSE, STATE FURNISHED

Base Course, State Furnished estimated at 84.5 tons (for informational purposes only) of granular material will be obtained from the stockpile site located Stockpile Site 3953, in the SW1/4 Sec. 35 T105N R73W, near the Junction of I-90 & SD 47 S – Reliance Yard.

No gradation testing will be required for the Base Course, State Furnished material.

The Base Course, State Furnished is royalty free to the Contractor.

All other requirements for Base Course will apply.

ASPHALT CONCRETE COMPOSITE

Asphalt for tack SS-1h or CSS-1h will be applied prior to each lift of Asphalt Concrete Composite. Asphalt for tack will be applied at a rate of 0.06 gallons per square yard on new asphalt concrete pavement. The asphalt for tack will be applied for the full width of the bottom layer of Asphalt Concrete Composite plus one-half foot additional on the outside shoulder.

REMOVE AND REPLACE TOPSOIL

Prior to beginning excavation for joint repair, and resurfacing operations, a 4” depth of topsoil will be removed or bladed down the respective inslope and left in a windrow a maximum of 10’ from the edge of the existing shoulder, if needed. Following completion of construction, topsoil will be spread evenly over the disturbed areas.

Limits of this work and stockpile location will be directed by the Engineer. Following completion of construction, topsoil will be spread evenly over the disturbed areas.

The estimated amount of topsoil to be removed and replaced is 6 CuYd.

All costs associated with removing and replacing the topsoil along areas to be resurfaced will be incidental to the contract lump sum price for “Remove and Replace Topsoil”.

EROSION CONTROL

The estimated area requiring erosion control is 500 square feet. All costs for the erosion control work for removing furnishing, placing, and maintaining erosion control including equipment, labor, and seeding will be incidental to the contract lump sum price for “Erosion Control”.

The limits of erosion control work will be determined by the Engineer during construction.

PERMANENT SEEDING

The areas to be seeded consist of all newly graded areas within the project limits except for the top of roadways and temporary easements under cultivation.

Type F Permanent Seed Mixture will consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Arriba, Flintlock, Rodan, Rosana, Walsh	7
Green Needlegrass	Lodorm, AC Mallard Ecovar	4
Sideoats Grama	Butte, Pierre	3
Blue Grama	Bad River	2
Oats or Spring Wheat: April through May; Winter Wheat: August through November		10
Total:		26

EROSION CONTROL WATTLE

Erosion control wattles for restraining the flow of runoff and sediment will be installed at locations noted in the table and at locations determined by the Engineer during construction. Refer to Standard Plate 734.06 for details.

The Contractor will provide certification that the erosion control wattles do not contain noxious weed seeds.

Erosion control wattles will remain on the project until vegetation has been established and then they will be removed in accordance with the Engineer.

250 feet of 12” Diameter Erosion Control Wattles has been added to the Estimate of Quantities for temporary erosion and sediment control to be placed as needed.

The erosion control wattle provided will be from the approved product list. The approved product list for erosion control wattle may be viewed at the following internet site:

<https://apps.sd.gov/HC60ApprovedProducts/main.aspx>

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R11-2	ROAD CLOSED	2	48" x 30"	10.0	20.0
R11-3a	ROAD CLOSED _____ MILES AHEAD LOCAL TRAFFIC ONLY	5	60" x 30"	12.5	62.5
W20-3	ROAD CLOSED AHEAD	4	48" x 48"	16.0	64.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			
		146.5			

ITEMIZED LIST FOR DETOUR AND RESTRICTION SIGNING

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-2	DETOUR AHEAD	2	48" x 48"	16.0	32.0
M1-5	SD ROUTE MARKER (248)	11	30" x 24"	5.0	55.0
M3-2	DIRECTION MARKER - EAST	1	24" x 12"	2.0	2.0
M3-4	DIRECTION MARKER - WEST	1	24" x 12"	2.0	2.0
M4-6	END	2	24" x 12"	2.0	4.0
M4-8	DETOUR	14	24" x 12"	2.0	28.0
M4-10	DETOUR ARROW (L or R)	2	48" x 18"	6.0	12.0
M5-1	ADVANCE TURN ARROW 90° (L or R)	4	21" x 15"	2.2	8.8
M6-1	DIRECTION ARROW - Horizontal Single Head (L or R)	6	21" x 15"	2.2	13.2
		CONVENTIONAL ROAD DETOUR AND RESTRICTION SIGNING SQFT			
		157.0			

SITE LAYOUT MAP

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0248(19)247	5	9

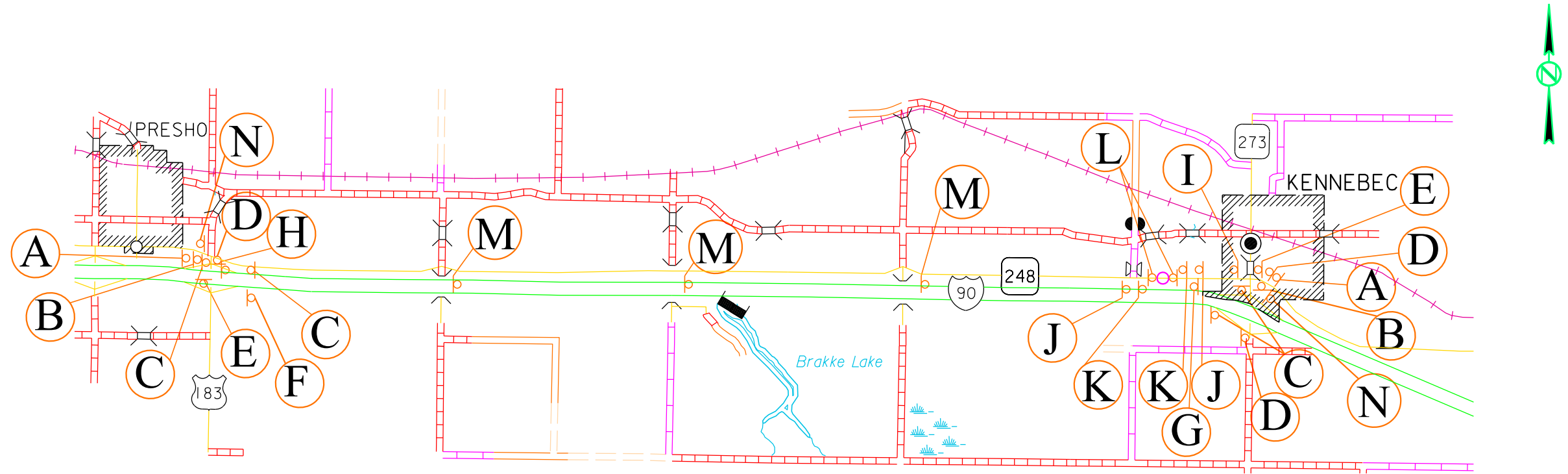
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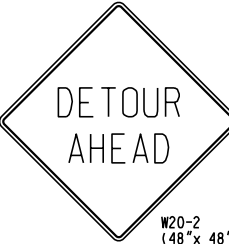
FIXED DETOUR SIGN LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0248(19)247	6	9

Plotting Date:

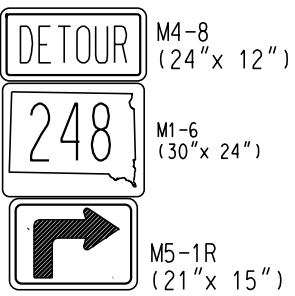


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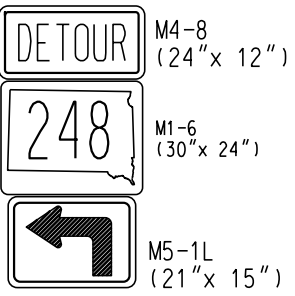
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B



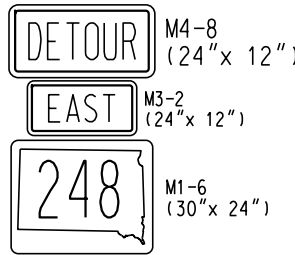
M4-8
(24" x 12")
M1-6
(30" x 24")
M5-1R
(21" x 15")

D



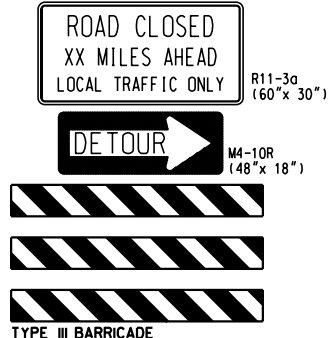
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M1-6
(30" x 24")
M5-1L
(21" x 15")

F



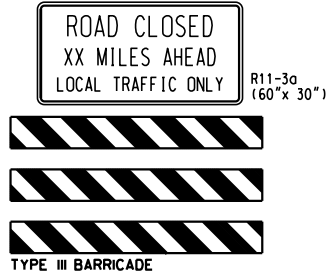
M4-8
(24" x 12")
M3-2
(24" x 12")
M1-6
(30" x 24")

H




R11-3a
(60" x 30")
M4-10R
(48" x 18")
TYPE III BARRICADE

M




R11-3a
(60" x 30")
TYPE III BARRICADE

J



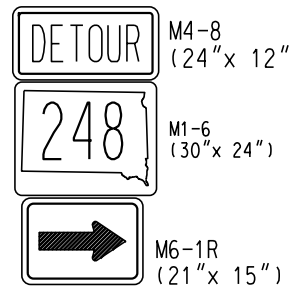
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K



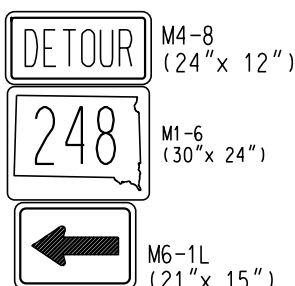
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C



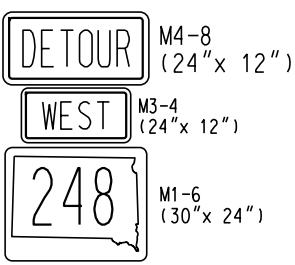
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M1-6
(30" x 24")
M6-1R
(21" x 15")

E



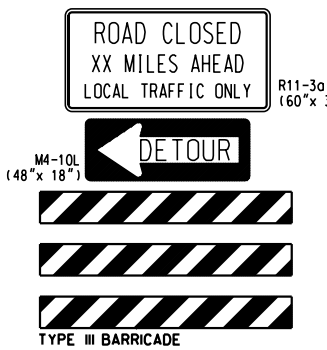
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(24" x 12")
M1-6
(30" x 24")
M6-1L
(21" x 15")

G




M4-8
(24" x 12")
M3-4
(24" x 12")
M1-6
(30" x 24")

I



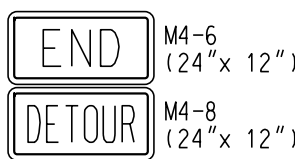
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M4-10L
(48" x 18")
TYPE III BARRICADE

L



R11-2
(48" x 30")
TYPE III BARRICADE

N



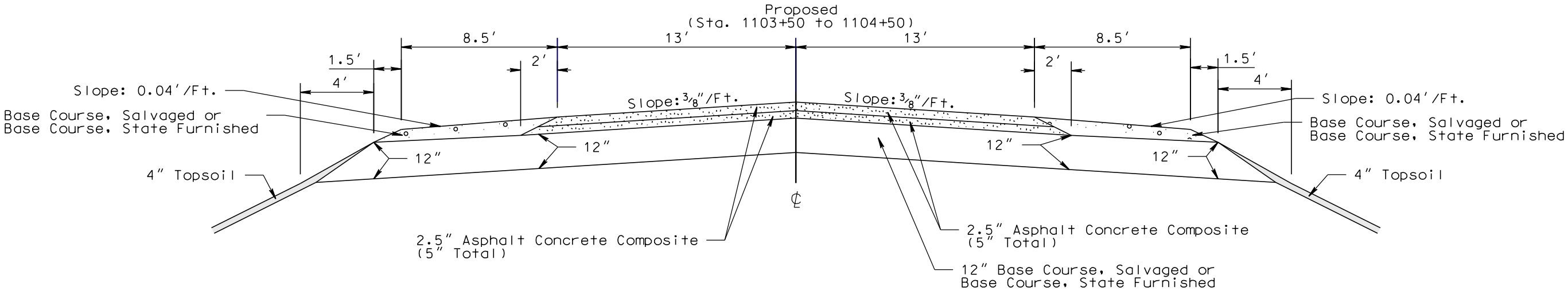
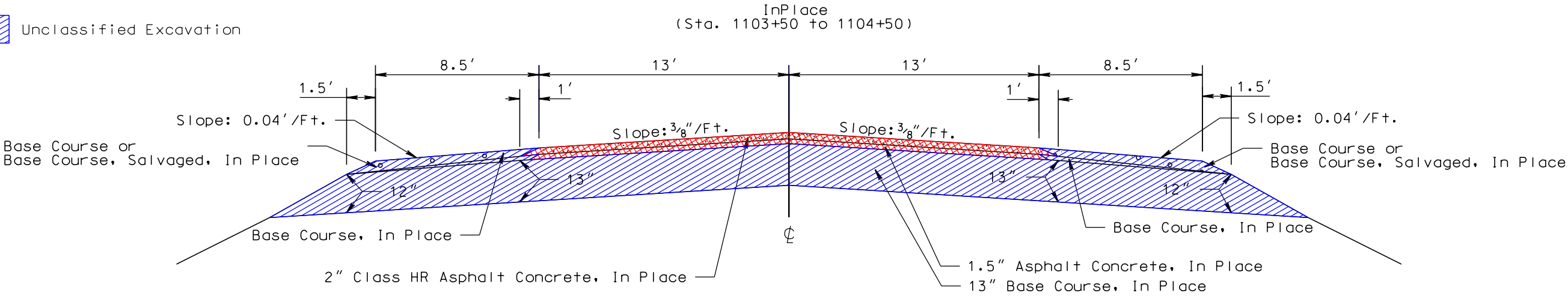
M4-6
(24" x 12")
M4-8
(24" x 12")

TYPICAL SURFACING SECTION

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0248(19)247	7	9

Plotting Date: 06/27/2025

- Remove Asphalt Concrete Pavement
- Unclassified Excavation

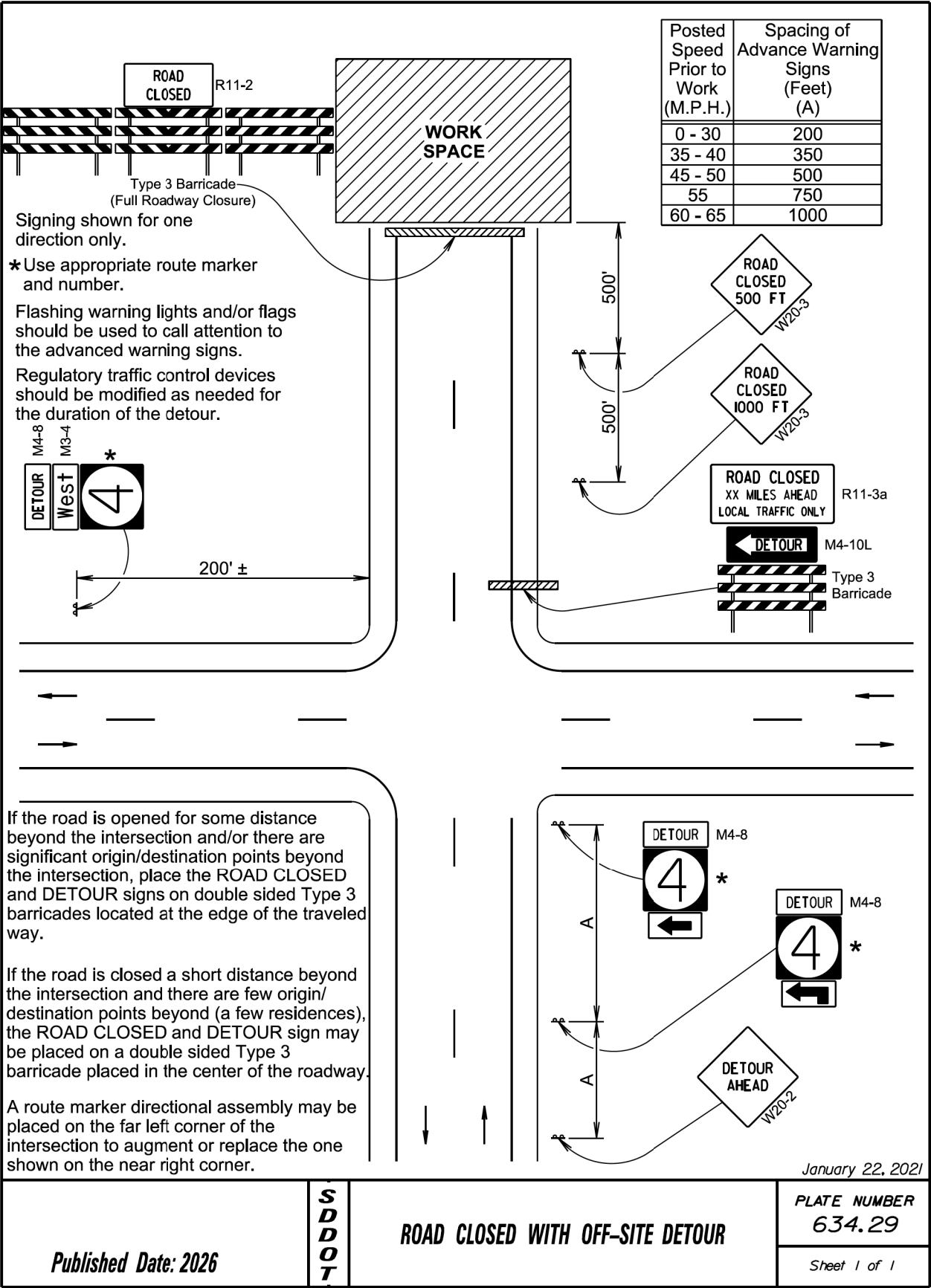


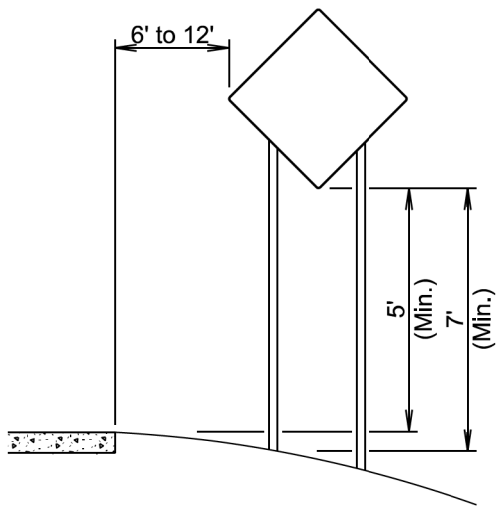
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PLOTTED FROM - TRPR25289

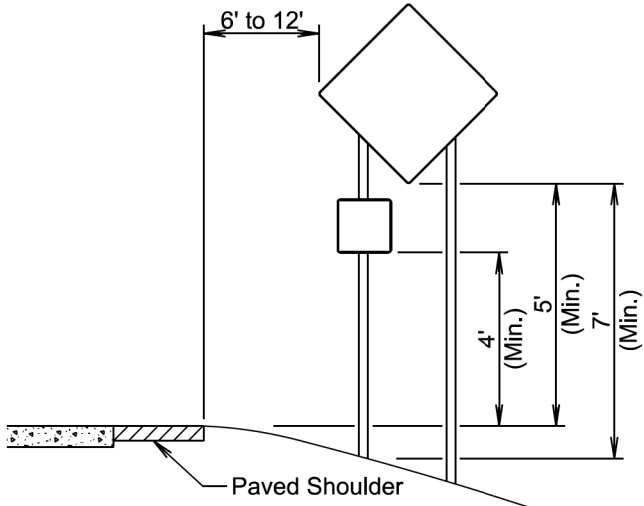
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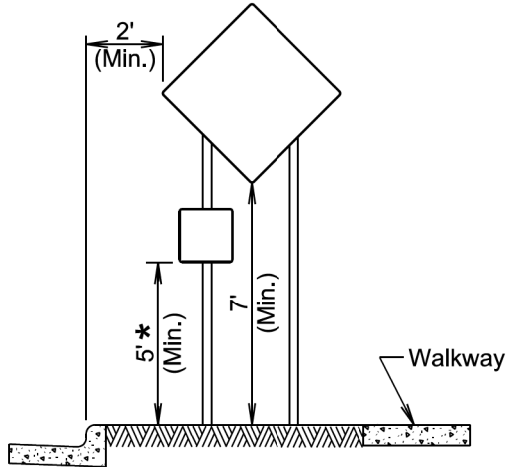




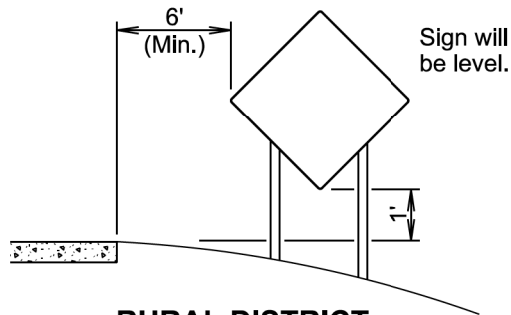
RURAL DISTRICT



RURAL DISTRICT WITH
SUPPLEMENTAL PLATE



URBAN DISTRICT

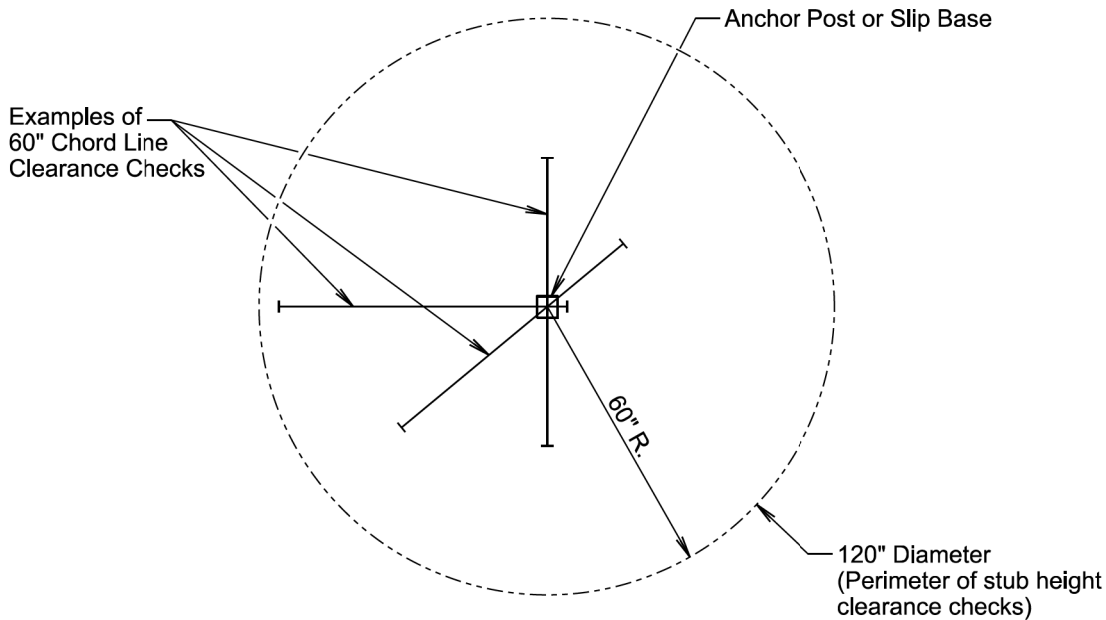


RURAL DISTRICT
3 DAY MAXIMUM
(Not applicable to regulatory signs)

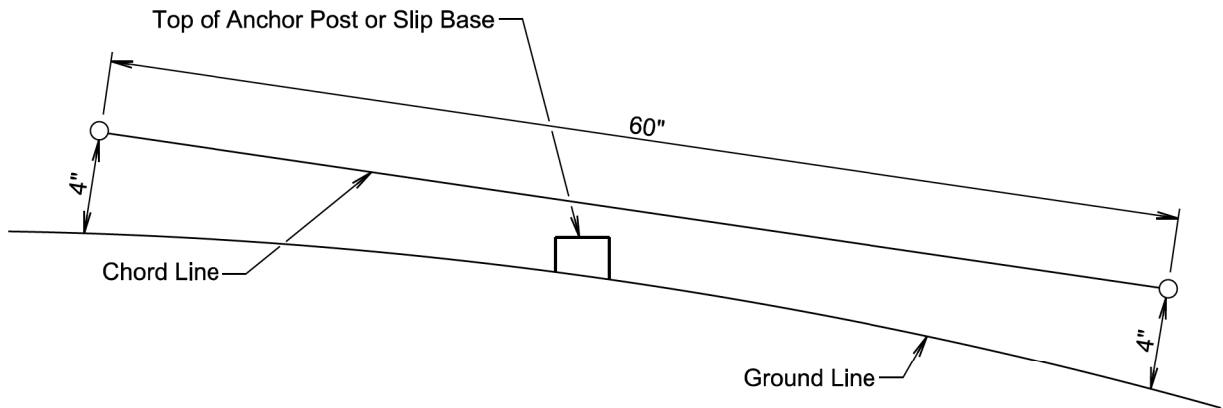
* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

January 22, 2021

Published Date: 2026	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.

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