

SECTION C ESTIMATE OF QUANTITIES

PCN 08H9 – Strs. Nos. 62-233-315, 62-215-291, 62-149-270, 62-115-270, 62-183-274

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E4100	Construction Schedule, Category I	Lump Sum	LS
634E0010	Flagging	800.0	Hour
634E0110	Traffic Control Signs	877.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0275	Type 3 Barricade	4	Each
634E0310	Temporary Flexible Vertical Markers (Tabs)	18,748	Ft
634E0400	Type A Advance Warning Arrow Board	2	Each
634E0525	Linear Delineation System Panel, Barrier Mounted	140	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	100	Ft
634E0600	4" Temporary Pavement Marking Tape Type I	864	Ft
634E0640	Temporary Pavement Marking	627	Ft
634E0700	Traffic Control Movable Concrete Barrier	140	Each
634E0705	Remove and Reset Traffic Control Movable Concrete Barrier	82	Each
634E0750	Temporary Concrete Barrier End Protection	6	Each
634E0755	Remove and Reset Temporary Concrete Barrier End Protection	14	Each
634E0760	Temporary Concrete Barrier End Protection Module Set or Repair Kit	1	Each
634E0900	Portable Temporary Traffic Control Signal	2	Unit
634E1002	Detour and Restriction Signing	500.0	SqFt

PCN 08HC – Str. No. 62-283-124

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E4100	Construction Schedule, Category I	Lump Sum	LS
634E0010	Flagging	100.0	Hour
634E0110	Traffic Control Signs	163.4	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0310	Temporary Flexible Vertical Markers (Tabs)	3,350	Ft
634E0525	Linear Delineation System Panel, Barrier Mounted	46	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	100	Ft
634E0600	4" Temporary Pavement Marking Tape Type I	144	Ft
634E0640	Temporary Pavement Marking	168	Ft
634E0700	Traffic Control Movable Concrete Barrier	46	Each
634E0750	Temporary Concrete Barrier End Protection	2	Each
634E0755	Remove and Reset Temporary Concrete Barrier End Protection	2	Each
634E0760	Temporary Concrete Barrier End Protection Module Set or Repair Kit	1	Each
634E1002	Detour and Restriction Signing	701.0	SqFt

SEQUENCE OF OPERATIONS

Only three decks will be allowed to be worked on simultaneously unless approved by the Engineer. Bridges will be grouped as follows for work:

Group 1

Strs. No. 62-115-270, 62-149-270, 62-183-274

Group 2

Strs. No. 62-215-291, 62-233-315, 62-283-124

The following sequences of operations will be followed:

1. Install traffic control as shown in Standard Plate 634.24 for signal-controlled sites, Standard Plate 634.25 for stop sign-controlled sites, and Traffic Control Barrier Layout Sheet to close one half of the structure for bridge structure work (see Section E). Install first pass of temporary pavement markings.
2. Perform all required structural work on the closed lane(s) of the bridge deck. (See Section E notes, Scope of Bridge Work & Sequence of Operations).
3. Switch traffic control to close the opposite half of the structure. Install second pass of temporary pavement markings.
4. Perform all required structural work on the closed lane(s) of the bridge deck. (See Section E notes).
5. Place permanent pavement markings.
6. Remove temporary traffic control, including signs.

Contractor requests to deviate from the sequence of operations will be submitted in writing to the Engineer for review. Approval of an alternate 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. An alternate sequence will be submitted for review a minimum of one week prior to potential implementation.

The contractor will maintain 18.0 feet wide lanes for traffic at the following structures, unless approved by the Engineer:

Strs. No. 62-115-270, 62-149-270, 62-138-274, 62-215-291, 62-233-315

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.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0018(239)244 P 0049(10)42	C2	C15

Revised 2/24/2025 JPJ

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.

All haul trucks will be equipped with an additional flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights will be incidental to the various related contract items.

At no time will a vertical drop-off of greater than 3 inches be left overnight adjacent to the traveled way. The Contractor will utilize embankment material to ensure a 3-inch vertical drop-off is not exceeded. The slope of the embankment material will not be steeper than a 4:1 within 30 feet of the traveled way.

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

The Contractor will notify businesses/homeowners a minimum of two weeks prior to construction to inform them of upcoming construction and again a minimum of 48 hours prior to any blocked access to make appropriate arrangements.

If inappropriate or conflicting pavement markings exist, the markings will be removed and replaced with applicable temporary pavement markings when the work duration is more than 3 days. When the work duration is less than 3 days, the channelizing devices in the area where the pavement markings conflict will be placed at one-half of the normal channelizing device spacing. Pavement marking removals will be incidental to the contract unit price per foot for "Remove Pavement Marking, 4" or equivalent". Temporary pavement marking will be paid for at the contract unit price per foot for "Temporary Pavement Marking". The additional channelizing devices will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

TRAFFIC CONTROL SIGNS

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

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS PCN 08H9

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	10	30"	5.2	52.0
R4-7	KEEP RIGHT (symbol)	1	24" x 30"	5.0	5.0
R9-9	SIDEWALK CLOSED	2	24" x 12"	2.0	4.0
R10-6	STOP HERE ON RED	2	24" x 36"	6.0	12.0
R11-2	ROAD CLOSED	1	48" x 30"	10.0	10.0
W1-4	REVERSE CURVE (R)	5	48" x 48"	16.0	80.0
W3-1	STOP AHEAD (symbol)	8	48" x 48"	16.0	128.0
W3-3	SIGNAL AHEAD (symbol)	2	48" x 48"	16.0	32.0
W4-2	LEFT LANE ENDS (symbol)	2	48" x 48"	16.0	32.0
W4-2	RIGHT LANE ENDS (symbol)	2	48" x 48"	16.0	32.0
W20-1	ROAD WORK AHEAD	10	48" x 48"	16.0	160.0
W20-4	ONE LANE ROAD AHEAD	10	48" x 48"	16.0	160.0
W20-5	LEFT LANE CLOSED AHEAD	2	48" x 48"	16.0	32.0
W20-5	RIGHT LANE CLOSED 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	12	36" x 18"	4.5	54.0
M4-9L	DETOUR (ARROW L)	1	30" x 24"	5.0	5.0
M4-9R	DETOUR (ARROW R)	1	30" x 24"	5.0	5.0
SPECIAL	WAIT FOR SIGNAL	2	24" x 30"	5.0	10.0
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS PCN 08H9 SQFT 877.0					

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS PCN 08HC

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	2	30"	5.2	10.4
W1-4	REVERSE CURVE (R)	1	48" x 48"	16.0	16.0
W3-1	STOP AHEAD (symbol)	2	48" x 48"	16.0	32.0
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 PCN 08HC SQFT 163.4					

OVERWIDTH RESTRICTION SIGNING

The Contractor will furnish and install the overwidth restriction signs as shown in these plans. Prior to installing the signs, the Contractor will mark the sign locations and review them with the Engineer. Overwidth restriction signs will be installed on fixed location, ground mounted, breakaway supports. It will be the responsibility of the Contractor to maintain and reinstall these signs during the project as required by the construction progress. Upon completion of the project, the Contractor will remove the overwidth restriction signs.

All costs for furnishing the signs, posts, and mounting hardware, and for installing, maintaining, covering, and removing the overwidth restriction signs will be incidental to the contract unit price per square foot for "Detour and Restriction Signing".

FLAGGING

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

Additional flagger hours have been included in the Estimate of Quantities for use on intersecting roads. These flaggers will be used as directed by the Engineer and will be used primarily during daytime hours

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

INCIDENTS

An incident is an emergency road user occurrence, a natural disaster, or other unplanned event that affects or impedes the normal flow of traffic such as a crash, hazardous materials spill, or other event.

The Contractor will set up a meeting prior to start of work to plan and coordinate responses to an incident. The Contractor will invite the Department of Transportation, the South Dakota Highway Patrol, the Tripp County Sheriff's Department, and local emergency response entities to the meeting.

The Contractor will assist to maintain traffic as required by these plan notes and as agreed to at that meeting.

Emergency vehicle access through the project will be considered and discussed at the meeting.

The Contractor may be required to modify messages on portable changeable message signs or relocate portable changeable message signs, and to provide flaggers to direct or detour traffic. The Contractor should be prepared to relocate advance warning signs if determined to be necessary for a major traffic incident lasting more than two hours. Fixed location ground mounted signs may be covered and additional portable signs provided.

No additional payment will be made for the modification of portable changeable message sign messages or the relocation of portable changeable message signs. Cost for the relocation of an advance warning sign due to an incident will be 50% of the designated sign rate. Flaggers will be paid for at the contract unit price per hour for "Flagging".

TEMPORARY PAVEMENT MARKING

Upon completion of structure site work, temporary pavement markings will be used to mark centerline of all new surfaces as per Specifications.

Temporary flexible vertical markers (tabs) will be used as detailed in the specifications.

Temporary pavement marking paint will not be allowed.

The Contractor will remove and properly dispose of the tabs after permanent pavement marking is applied. Method of removal will be nondestructive to the road surface and will be accomplished within one week of completion of the permanent pavement marking.

Full reflectivity of all temporary flexible vertical markers (tabs) is required at all times. The Contractor will be required to replace any missing or non-reflective tabs after each installation as detailed below at no additional cost to the State.

Quantities of Temporary Pavement Markings consist of:

One pass upon completion of structure site work to mark centerline of all new surfaces

TABLE OF TEMPORARY MARKING			PAVEMENT
PCN	Structure No.	MRM	New Surface CL Length (ft)
08H9	62-233-315	257.65	106
08H9	62-215-291	254.73	112
08H9	62-149-270	247.43	74
08H9	62-115-270	244.06	67
08H9	62-183-274	250.86	268
08HC	62-283-124	42.23	168
PCN 08H9 Totals			627
PCN 08HC Totals			168

In the absence of a signed lane closure or pilot car operation, FLAGGER (W20-7) symbol signs and flaggers, or a shadow vehicle with rotating yellow lights or strobe lights will be positioned on the shoulder in advance of workers for both directions of traffic during the installation and removal of the temporary flexible vertical markers (tabs). The traffic control device used will be moved intermittently to provide proper warning of the work operation. A ROAD WORK AHEAD (W20-1) sign, a WORKER (W21-1) symbol sign or a BE PREPARED TO STOP (W3-4) sign will be mounted on the rear of the shadow vehicle. The method of traffic control used by the Contractor for this work must be approved by the Engineer.

Prior to nightfall, tabs will be required to mark centerline on segments of roadway where existing centerline markings have been removed and new markings have not been installed.

TEMPORARY PAVEMENT MARKING TAPE, TYPE I

Temporary pavement marking for stop lines will consist of 4" Temporary Pavement Marking Tape Type I. Placement of each 24" white stop line will be accomplished by placing six pieces of 4" x 12' tape adjacent to one another. Each workspace requires two stop lines which is an equivalent of approximately 144' of 4" tape (PCN 08H9 contains 5 workspaces, plus one pair of stop bar resets, for a total of 6 at 144' = 864', and PCN 08HC contains 1 workspace at 144'). Temporary pavement marking on centerline will consist of temporary flexible vertical markers (tabs) or temporary raised pavement markers and will be used as depicted on standard plate 634.25 when the stop condition must remain in place during nighttime hours, 9:00 pm to 6:00 am (Estimate 5 workspaces remaining during nighttime hours x 2,200' per workspace = 11,000' plus one 2,200' reset at Structure 62-183-274 site (see Traffic Control Details sheet for that site), totaling 13,200' for PCN 08H9 and 1 workspace x 2,200' = 2,200' for PCN 08HC). Temporary tape will be removed upon completion of the project.

TABLE OF TEMPORARY FLEXIBLE VERTICAL MARKERS - TABS (all figures in feet)						
PCN	Structure No.	MRM	Temporary Centerline Markings	Barriers Pass 1	Barriers Pass 2	TOTAL
08H9	62-233-315	257.65	2,200	512	512	3,224
08H9	62-215-291	254.73	2,200	512	512	3,224
08H9	62-149-270	247.43	2,200	475	475	3,150
08H9	62-115-270	244.06	2,200	463	463	3,126
08H9	62-183-274	250.86	4,400	812	812	6,024
08HC	62-283-124	42.23	2,200	575	575	3,350
PCN 08H9 Totals			13,200	2,774	2,774	18,748
PCN 08HC Totals			2,200	575	575	3,350

PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL

The Contractor will furnish, install, operate, and maintain a portable temporary traffic control signal during construction phases as determined by the Engineer. There will be one controller and one slave unit per location.

The portable temporary traffic control signal will be set up to dwell in red. Detection will be video, microwave, or radar. The green time may be adjusted as needed. The initial timings for the construction sites are given below:

Structure 62-183-274 US 18 over Dog Ear Creek

Red = 26 sec. Yellow = 4 sec. Green = 18 sec.

The timings above are based on 1,070 feet between opposing stop lines.

All vehicle signal heads will have backplates with retroreflective border. The vehicle signal head backplates will have a factory applied 3-inch wide yellow retroreflective border. Sheeting for the border will be Type IX or Type XI in conformance with ASTM D4956.

Signal backplates will be polycarbonate, aluminum, or aluminum-composite. Minimum material thicknesses are:

- Polycarbonate, 0.10-inch
- Aluminum, 0.06-inch
- Aluminum-Composite, 0.08-inch

Signal backplates will extend not less than 5 inches from the edge of the signal head at the top, bottom, and sides.

All traffic signal equipment and materials will meet the requirements of Sections 635 and 985 of the Specifications except the controller requirements.

All costs involved with constructing the portable temporary traffic control signal as specified above and on the plans, will be included in the contract unit price per unit for "Portable Temporary Traffic Control Signal".

TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS

Concrete barriers will be provided by the State and are available for pickup from the SDDOT Murdo Maintenance Yard located at 24305 US Hwy 83 in Murdo. The barriers will be hauled back to the SDDOT Murdo Maintenance Yard when they are no longer needed on the project.

Barriers to be adjusted or moved will be disconnected from adjacent barriers to minimize damage to connecting pins. Pins damaged by the Contractor will be replaced at no cost to the Department.

Concrete barrier sections will be placed as depicted in the plans to comply with clear zone requirements and as required by the Engineer. The barriers will be pinned and bolted together as directed by the Engineer.

All costs associated with picking the barriers up from the SDDOT Maintenance Yard, transporting, setting, connecting, and hauling them back to the SDDOT Maintenance Yard will be incidental to the contract unit price per each for Traffic Control Movable Concrete Barrier.

After the initial placement, the concrete barriers may need to be adjusted. Adjustment of the barriers, where they do not need to be loaded on a truck for transport, will be incidental to the contract unit price per each for Traffic Control Movable Concrete Barrier. All costs associated with removing, loading, unloading, and resetting of the barriers at a new site, will be incidental to the contract unit price per each for Remove and Reset Traffic Control Movable Concrete Barrier. No additional payment will be made for barriers that are not immediately reset at a new location on the project and stored on-site until they are either reset on the project or returned to the SDDOT as indicated in these plans.

TABLE OF TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS

Structure No.	Location	Crossing	PCN	Bridge Length (ft) ¹	Barrier Count ₂
62-233-315	US 18 MRM 257.65	Thunder Creek	08H9	106	41
62-215-291	US 18 MRM 254.73	W. Br. Thunder Creek	08H9	112.5	41
62-149-270	US 18 MRM 247.43	Big Hollow Creek	08H9	73.5	38
62-115-270	US 18 MRM 244.06	Cottonwood Creek	08H9	67	37
62-183-274	US 18 MRM 250.86	Dog Ear Creek	08H9	140 (+127.5)	65
62-283-124	SD 44 MRM 42.23	Moccasin Creek	08HC	168	46
Total Barrier Units (PCN 08H9):					222
Total Barrier Units (PCN 08HC):					46

NOTE (1): Dog Ear Creek site barrier need length includes both approach slabs, and the new roadway surfacing zone
NOTE (2): Barriers are 12.5 feet long. Count is computed by adding protected length, plus 200 feet, plus 6:1 tapers at each end, plus 2 barrier units at each end.

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TEMPORARY CONCRETE BARRIER END PROTECTION

Crash attenuators meeting the requirements of NCHRP 350 or MASH TL-3 will be furnished and installed by the Contractor. Attachment of the attenuators to the concrete barriers will be by approved methods.

All costs associated with furnishing, transporting, initial setup, connecting, maintaining, and removing the crash attenuators will be incidental to the contract unit price per each for Temporary Concrete Barrier End Protection.

All costs associated with moving and resetting crash attenuators to accommodate traffic flows after initial set-up will be paid for at the contract unit price per each for Remove & Reset Temporary Concrete Barrier End Protection. All costs associated with removing from initial placement and resetting at a new location will be incidental to the contract unit price per each. No additional payment will be made for crash attenuators that are not immediately reset at a new location on the project and stored on-site until they are either reset or removed from the project as determined by the Engineer. No additional payment will be made for minor adjustments.

The Contractor will have replacement hardware available so that in the event the crash attenuator is hit and made unusable, the crash attenuator can be made functional within 24 hours. The cost of replacement will be incidental to the contract unit price per each for Temporary Concrete Barrier Module Set or Repair Kit. No payment will be made for the Temporary Concrete Barrier Module Set or Repair Kit if no repairs are necessary. Upon completion of the project, crash attenuators will remain the property of the Contractor.

BARRIER MOUNTED LINEAR DELINEATION SYSTEM PANELS

A linear delineation system (LDS) panel will be attached to each barrier section. The color will be the same as the nearest pavement marking, white along outside edgelines or yellow for the left side on one way traffic sections. The LDS will be 34 inches long and 6 inches in height and be constructed of aluminum formed into a shape to provide retroreflective properties across a wide range of angles. It will be sheeted with sheeting meeting the requirements of ASTM D4956 Type XI. The panels will be evenly spaced, with the top of the panel 4 inches below the top of the barrier. Installation will be as per the manufacturer's recommendations. This will allow for easy removal for replacement of damaged panels or to replace with an alternate color. The Contractor will furnish and install one panel along each side of the barrier if any panels are missing from the barriers. Replacement of damaged linear delineation system panels will be furnished and replaced by the Contractor. All costs associated with furnishing, installing, and replacing, if needed, will be incidental to the contract unit price per each for Linear Delineation System Panel, Barrier Mounted.

All LDS panels will remain attached to the barrier sections and will become the property of the State of South Dakota upon completion of the project.

The Contractor will verify the number of LDS panels that will need to be installed or replaced on the Traffic Control Movable Concrete Barriers. The contract amount of LDS panels is an estimate and the full contract amount may not be needed.

Maintaining the linear delineation system, including moving LDS panels from one side of the barrier to the other side of the barrier to match the applicable color of the nearest pavement marking will be incidental to the contract lump sum price for Traffic Control, Miscellaneous.

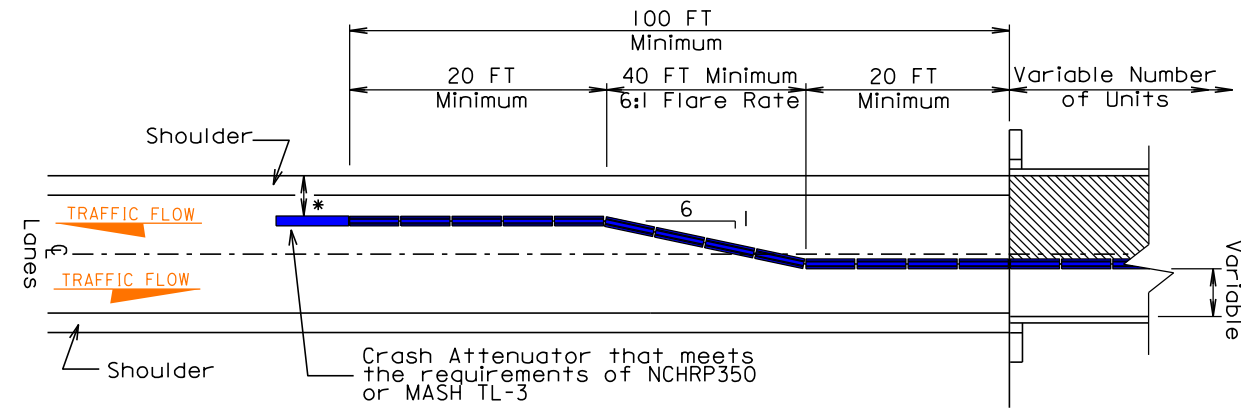
LAYOUT FOR TEMPORARY MOVABLE CONCRETE BARRIER PLACEMENT AT BRIDGE ENDS ON TWO-LANE HIGHWAYS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0018(239)244 P 0049(10)42	C6	C15

Plotting Date: 01/30/2025

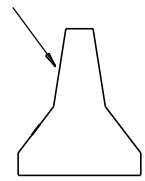
PCN 08 H9 & 08 HC

STOP CONDITION

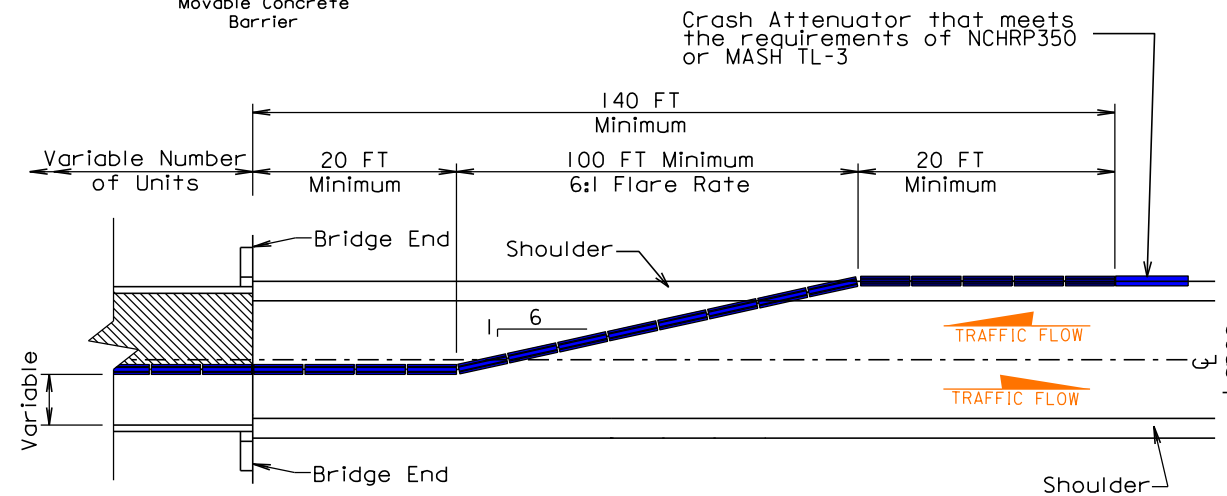


PLAN VIEW

Barrier Mounted Linear Delineation System Panels



Movable Concrete Barrier



PLAN VIEW

GENERAL NOTES:

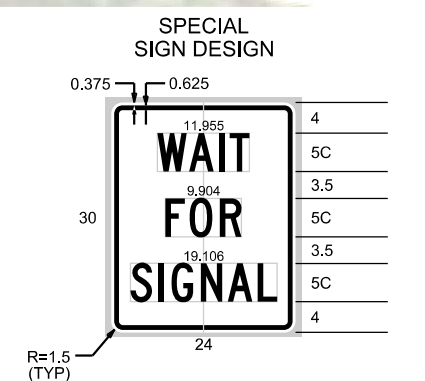
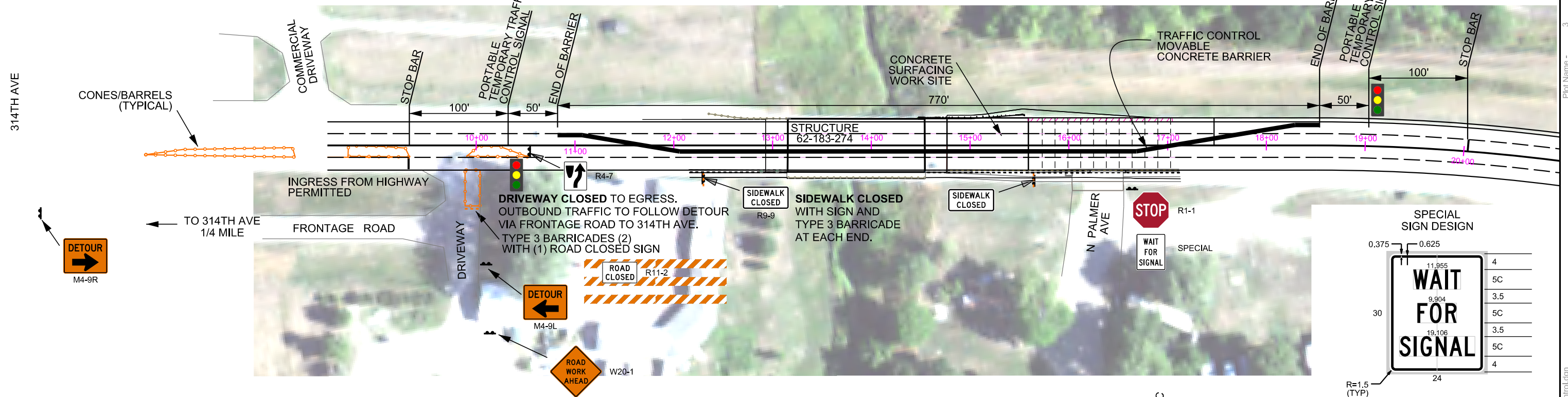
- * 10 FOOT MAXIMUM DISTANCE FROM EDGE OF SHOULDER TO SLOPED END. IF CONSTRUCTION ACCESS IS NOT NEEDED, SLOPED END WILL BE PLACED AT EDGE OF SHOULDER.

TRAFFIC CONTROL DETAILS

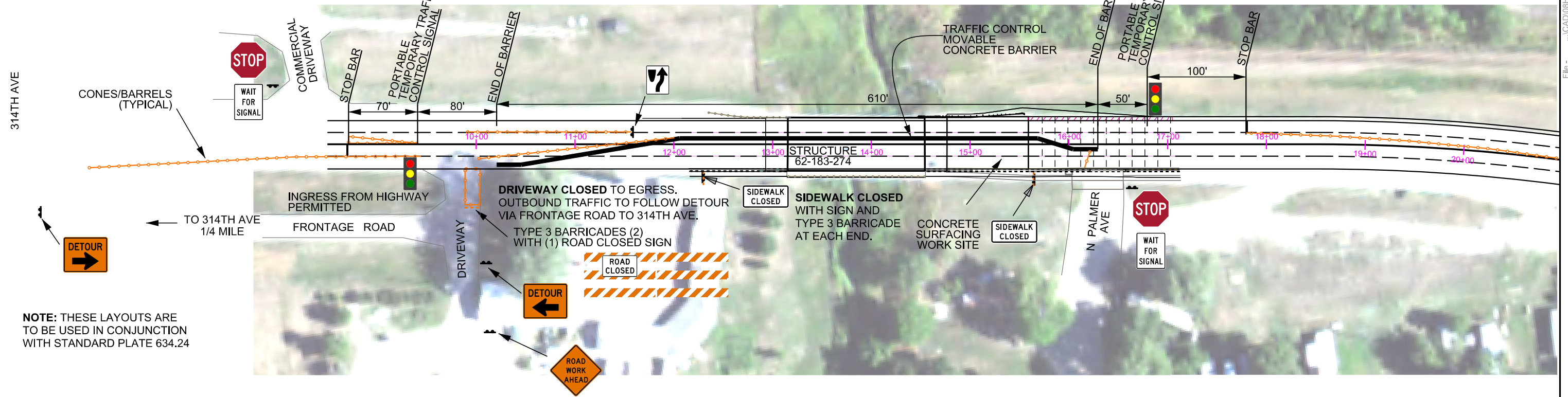
STRUCTURE 62-183-274 OVER DOG EAR CREEK
US 18 MRM 250.86
TRIPP COUNTY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0018(239)244 P 0049(10)42	C7	C15
Plotting Date: 01/30/2025			

EASTBOUND LANES OPEN:



WESTBOUND LANES OPEN:



NOTE: THESE LAYOUTS ARE TO BE USED IN CONJUNCTION WITH STANDARD PLATE 634.24

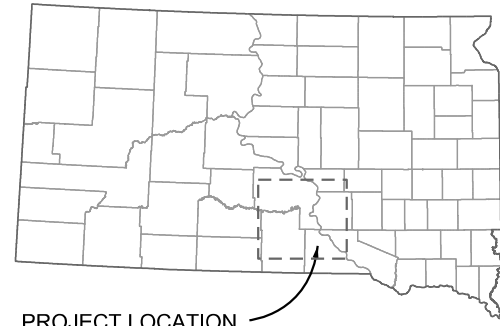
Plot Scale - 1:100
Plotted From - TRPR22410

Plot Name - 3
File - ...ICAD\08h9_Traffic Control.dgn

WIDTH RESTRICTION SIGN LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0018(239)244 P 0049(10)42	C8	C15

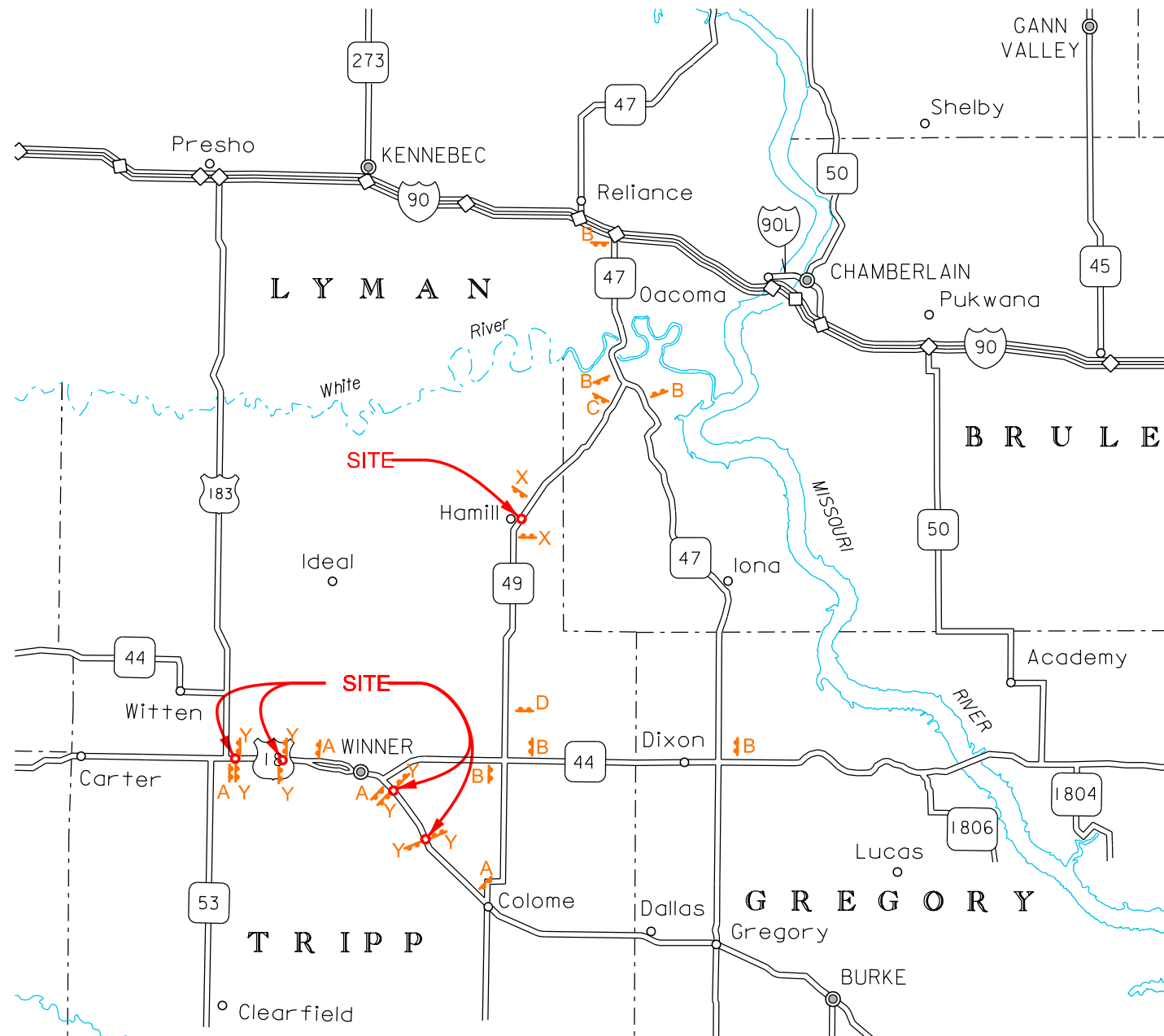
Plotting Date: 01/30/2025



PROJECT LOCATION

WIDTH RESTRICTION SIGNS - PCN 08H9						
INDEX	SIGN TEXT	HEIGHT	WIDTH	COUNT	AREA (EACH)	AREA (TOTAL)
A	18 FT MAX, US 18 NEXT 8 MILES, USE ALT ROUTE	96 in	120 in	4 ea	80.0 SF	320 SF
Y	NO VEHICLES, OVER 18 FT WIDE	30 in	108 in	8 ea	22.5 SF	180 SF
TOTAL SIGN AREA (PCN 08H9)						500 SF

WIDTH RESTRICTION SIGNS - PCN 08HC						
INDEX	SIGN TEXT	HEIGHT	WIDTH	COUNT	AREA (EACH)	AREA (TOTAL)
B	11 FT MAX, SD 49 AT HAMILL, USE ALT ROUTE	96 in	120 in	6 ea	80.0 SF	480 SF
C	11 FT MAX, SD 49 11 MILES AHEAD, USE ALT ROUTE	96 in	132 in	1 ea	88.0 SF	88 SF
D	11 FT MAX, SD 49 15 MILES AHEAD, USE ALT ROUTE	96 in	132 in	1 ea	88.0 SF	88 SF
X	NO VEHICLES, OVER 11 FT WIDE	30 in	108 in	2 ea	22.5 SF	45 SF
TOTAL SIGN AREA (PCN 08HC)						701 SF



NOTES:
THE ENGINEER WILL DETERMINE THE EXACT LOCATIONS OF THE SIGNS IN THE FIELD.

A

WIDTH RESTRICTION

18 FT MAX

NEXT 8 MILES

USE ALT ROUTE

B

WIDTH RESTRICTION

11 FT MAX

AT HAMILL

USE ALT ROUTE

C

WIDTH RESTRICTION

11 FT MAX

11 MILES AHEAD

USE ALT ROUTE

D

WIDTH RESTRICTION

11 FT MAX

15 MILES AHEAD

USE ALT ROUTE

X

NO VEHICLES
OVER 11 FT WIDE

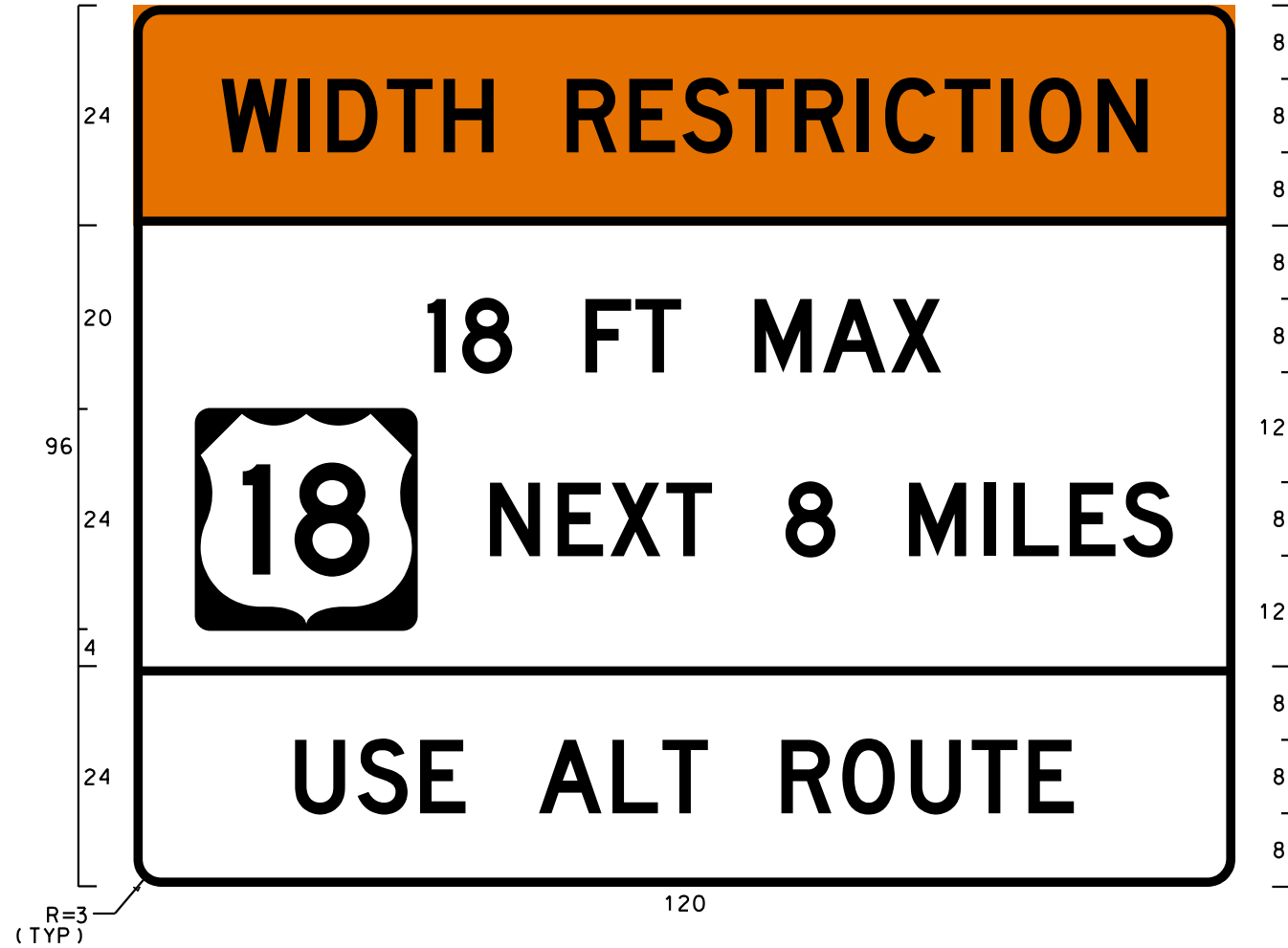
Y

NO VEHICLES
OVER 18 FT WIDE

WIDTH RESTRICTION SIGN DETAILS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0018(239)244 P 0049(10)42		
Plotting Date:		01/30/2025	

SIGN A

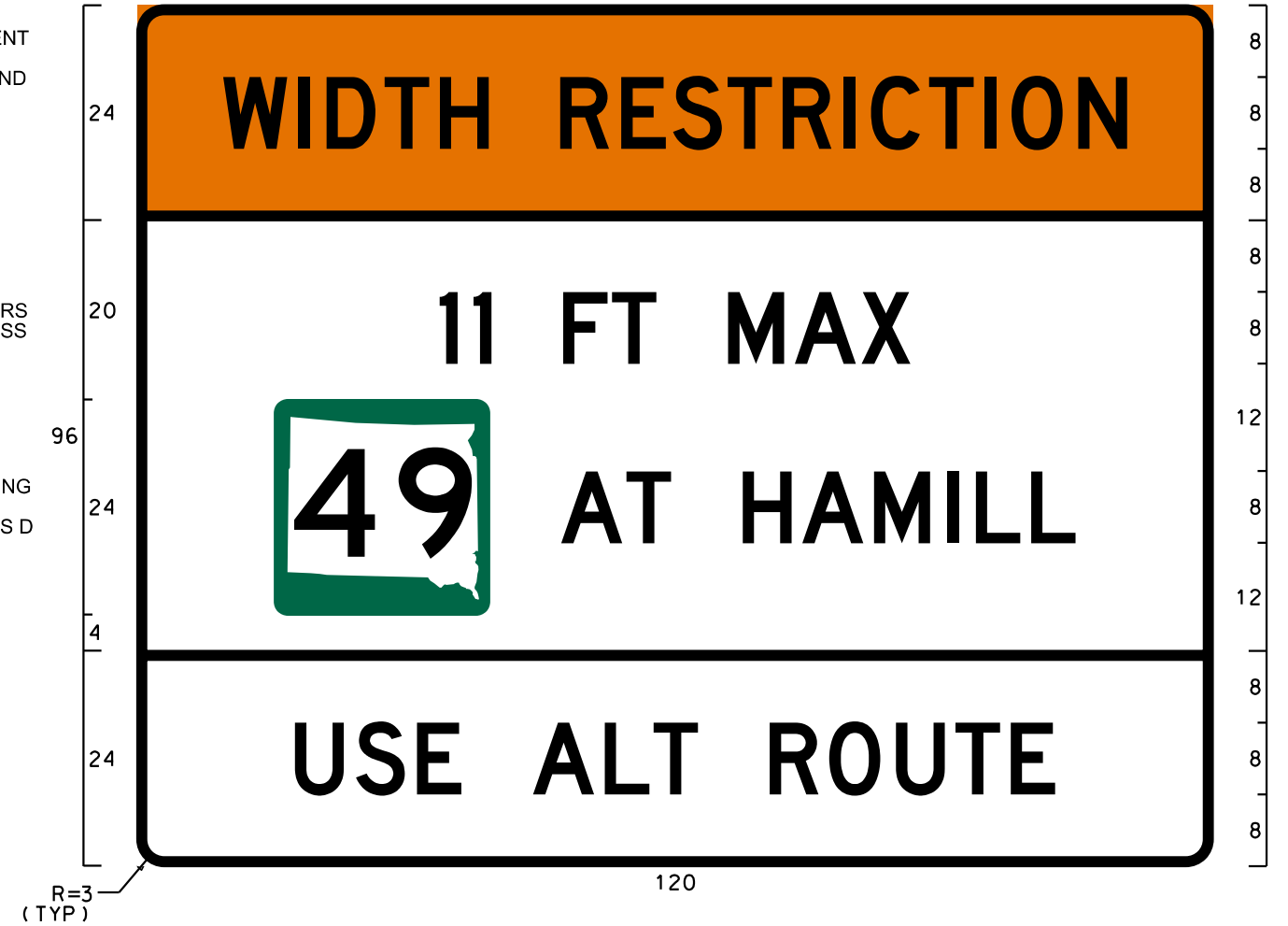


FLUORESCENT
ORANGE
BACKGROUND

ALL BORDERS
1" THICKNESS

ALL LETTERING
TO BE
FHWA SERIES D
BLACK

SIGN B



R=3
(TYP)

WIDTH RESTRICTION
9.571 29.618 8.00 63.24 9.571

18 FT MAX
32.028 9.206 8.00 10.404 8.00 20.334 32.028

18 NEXT 8 MILES
6.822 24.00 8.00 24.176 8.00 5.446 8.00 28.734 6.822

USE ALT ROUTE
17.579 18.574 8.00 18.408 8.00 31.86 17.579

WIDTH RESTRICTION
9.571 29.618 8.00 63.24 9.571

11 FT MAX
33.751 5.76 8.00 10.404 8.00 20.334 33.751

49 AT HAMILL
15.308 24.00 8.00 12.246 8.00 37.138 15.308

USE ALT ROUTE
17.579 18.574 8.00 18.408 8.00 31.86 17.579

WIDTH RESTRICTION SIGN DETAILS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0018(239)244 P 0049(10)42		
Plotting Date:		01/30/2025	

Plot Scale - 1:100

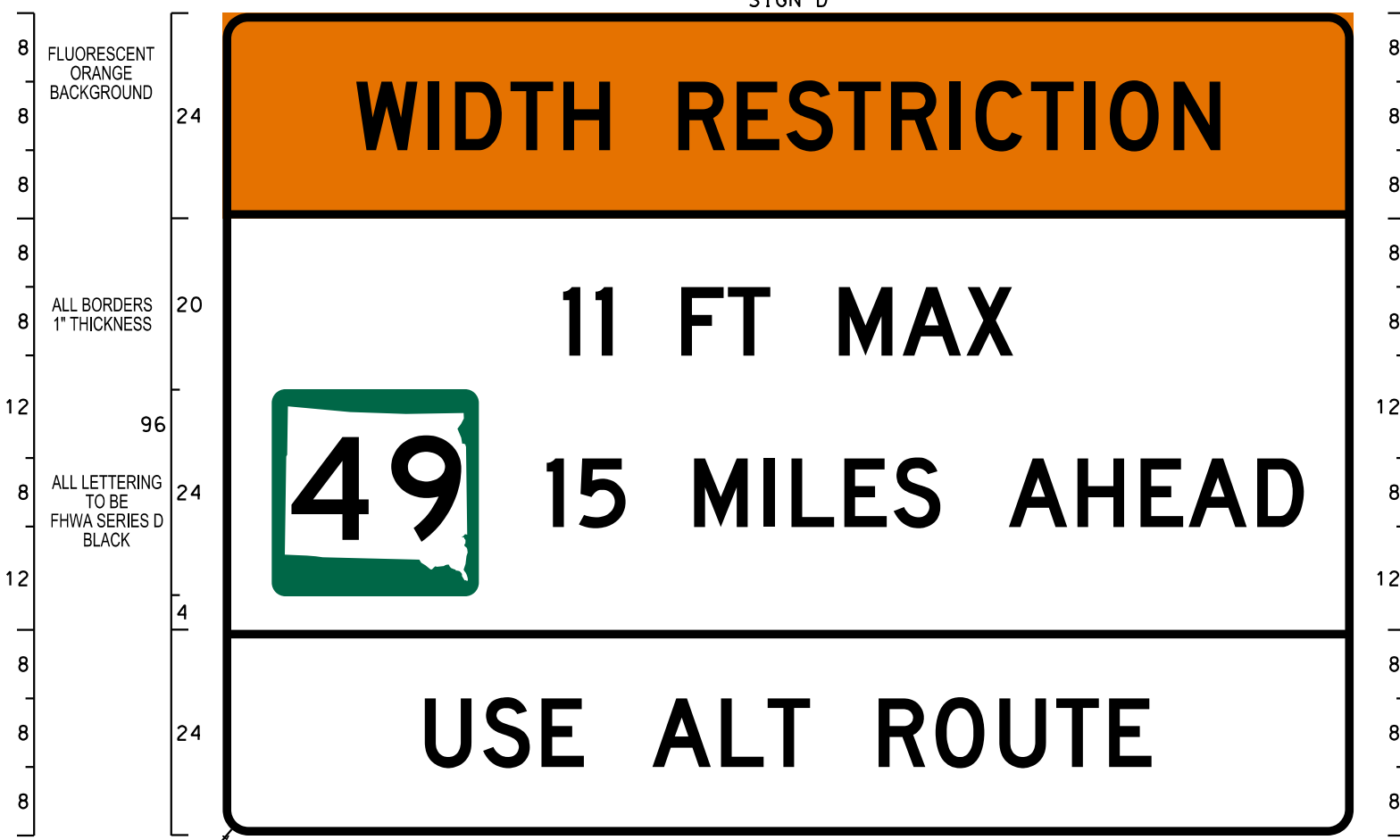
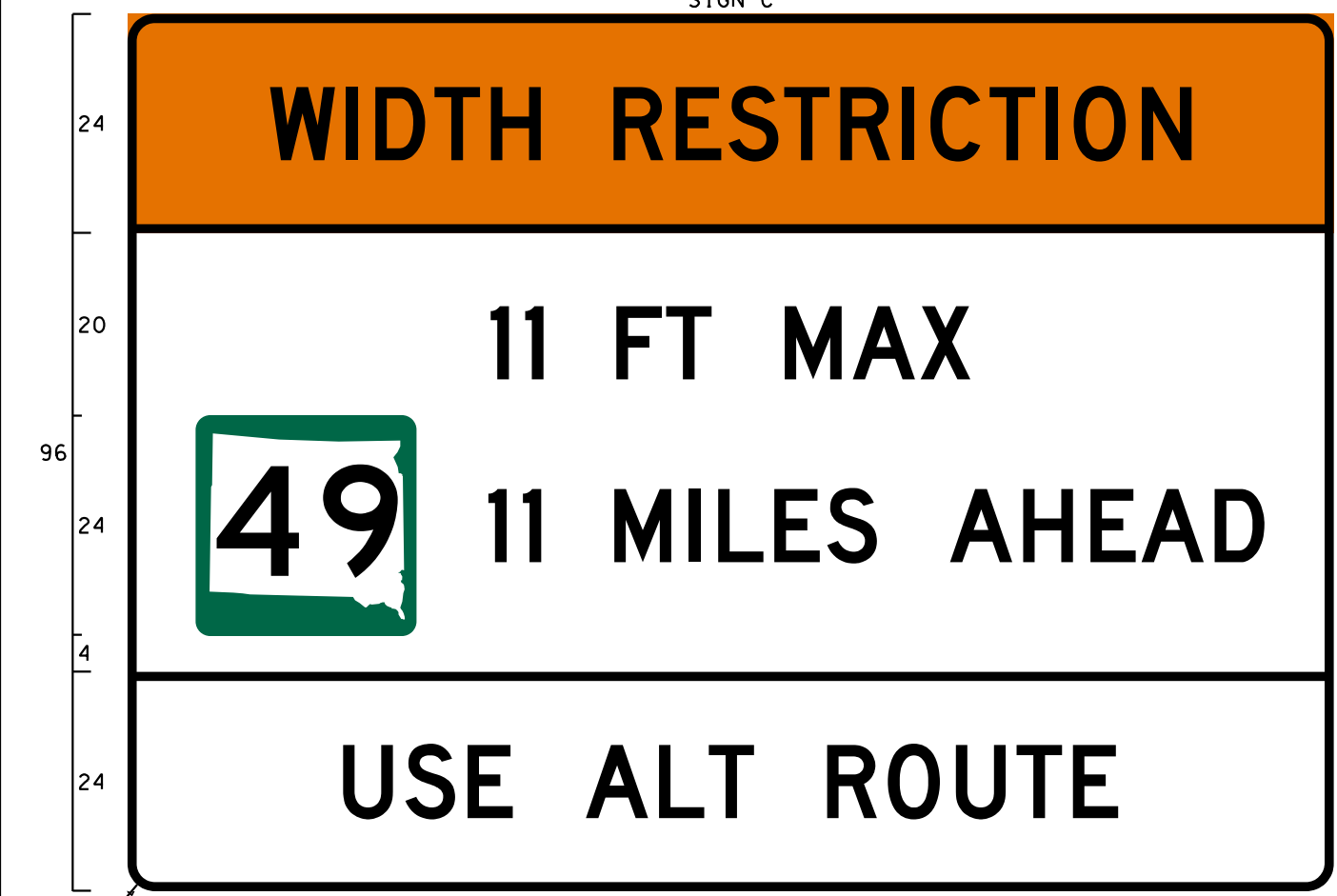
Plot Name -

Plotted From - TRP22410

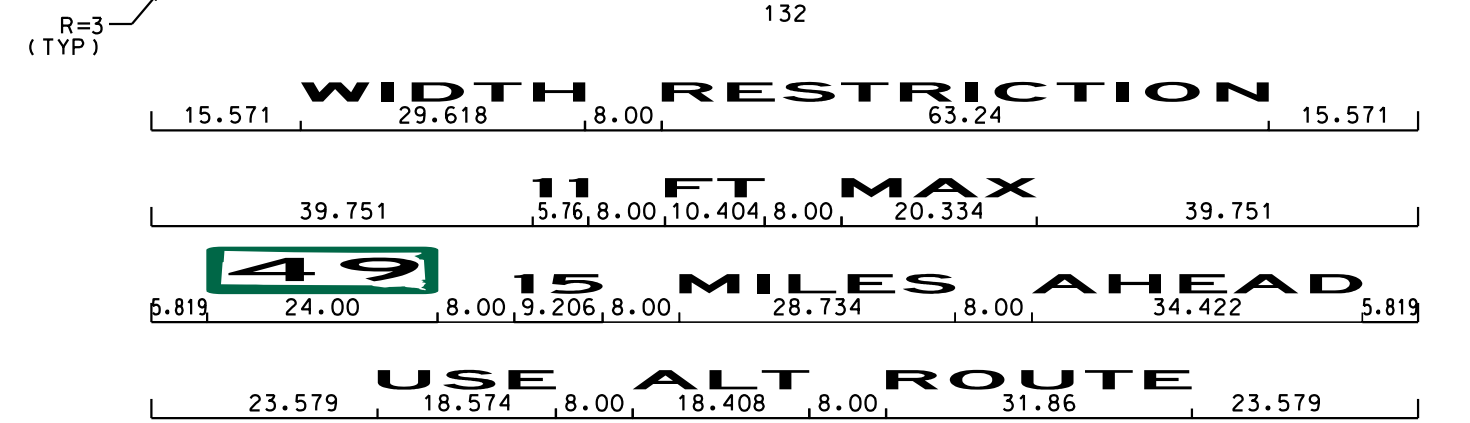
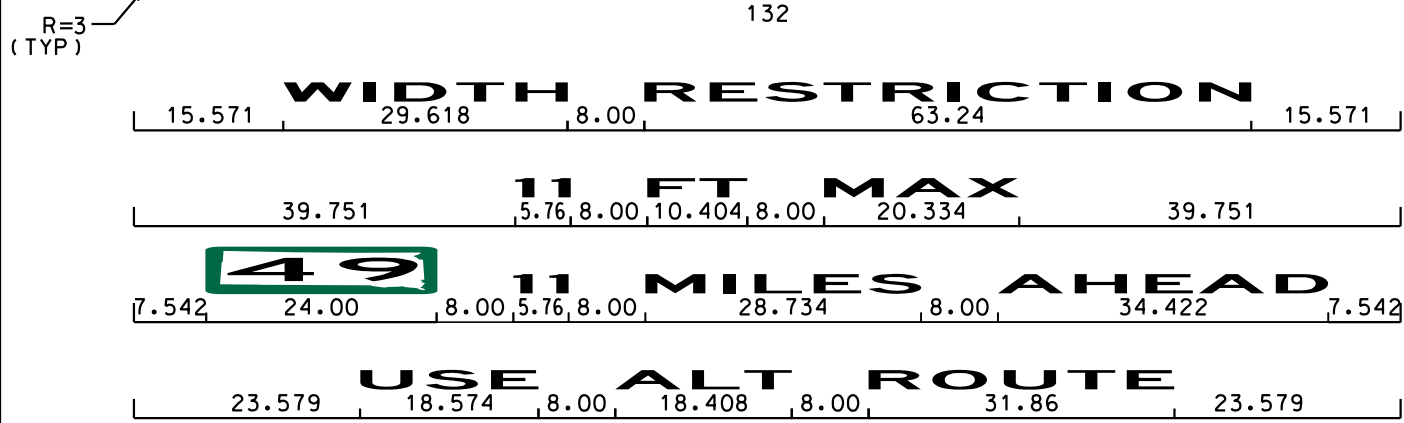
File - ...ICAD\08h9_Traffic Control.dgn

SIGN C

SIGN D



8 FLUORESCENT ORANGE BACKGROUND
8
8
8
8
8 ALL BORDERS 1" THICKNESS
12
96
8 ALL LETTERING TO BE FHWA SERIES D BLACK
12
8
8
8



WIDTH RESTRICTION SIGN DETAILS

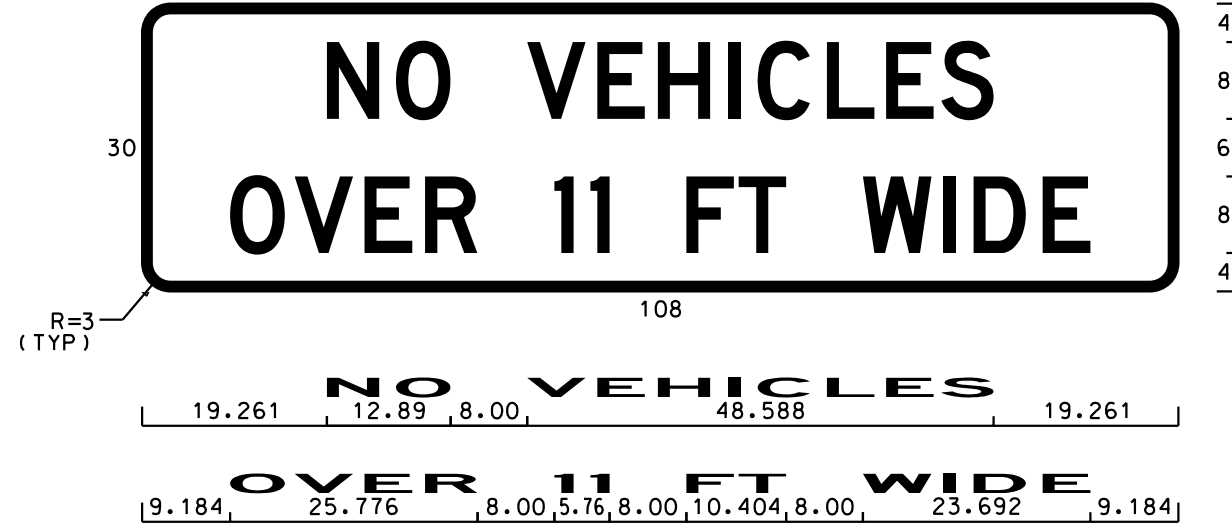
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0018(239)244 P 0049(10)42	C11	C15

Plotting Date: 01/30/2025

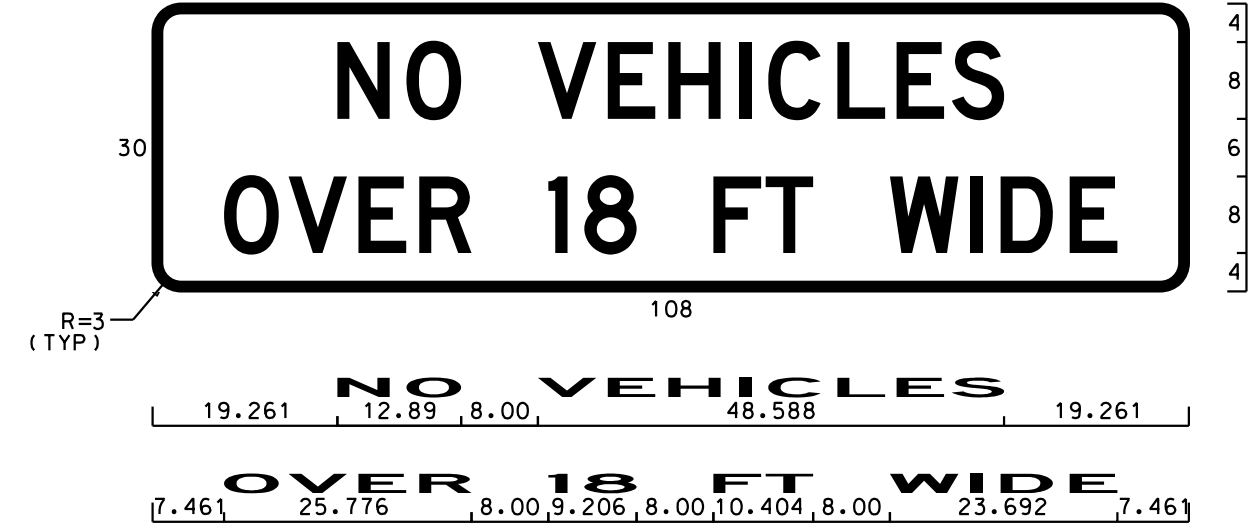
Plot Scale - 1:100

Plot Name -

SIGN X

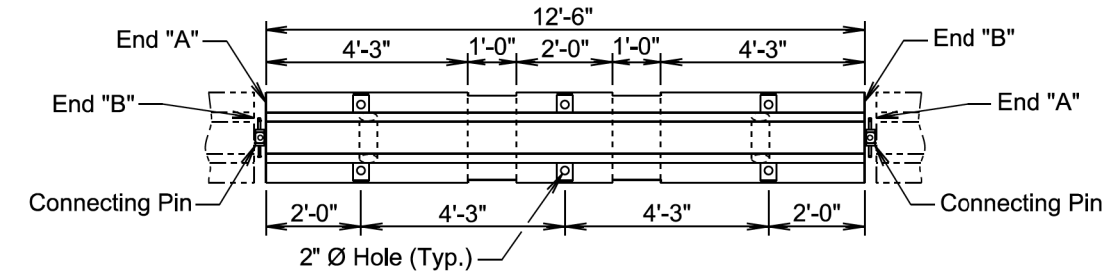


SIGN Y

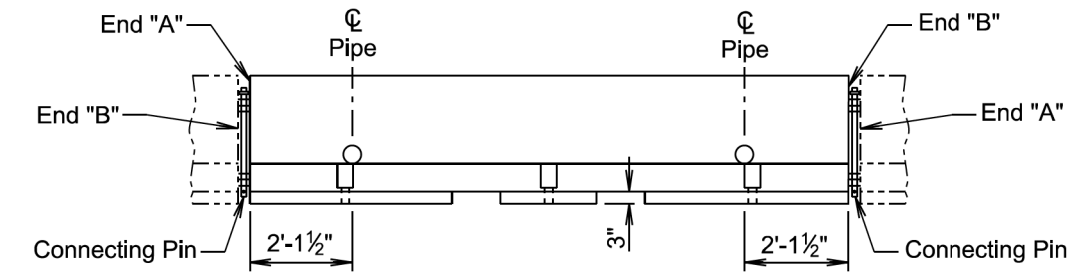


Plotted From - TRPR22410

File - ...ACAD\08H9_Traffic Control.dgn



PLAN VIEW



ELEVATION VIEW

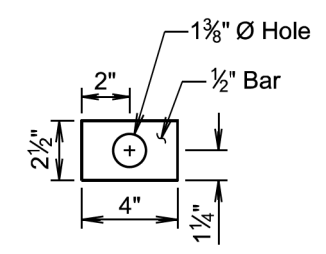
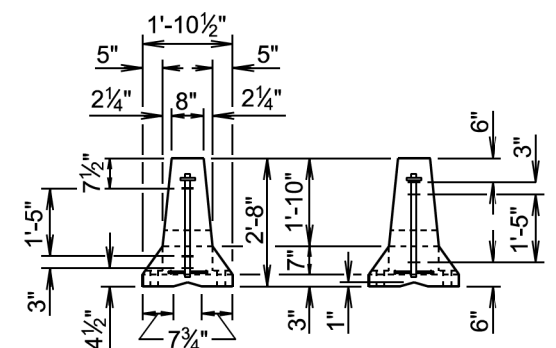
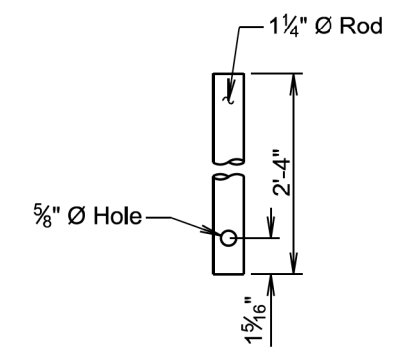


PLATE A

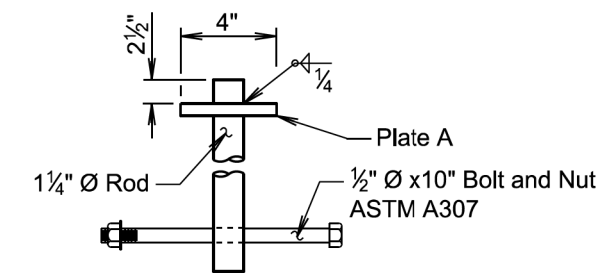


**VIEW
END A**

**VIEW
END B**



CONNECTING PIN DETAIL



ASSEMBLED CONNECTING PIN

September 14, 2018

Published Date: 2025	SDDOT	TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS (F SHAPE INTERIOR SECTION)	PLATE NUMBER 628.01
			Sheet 1 of 2

GENERAL NOTES:

The detailed drawings are for illustrative purpose and depicts the current version of the F shape concrete barrier. If new movable concrete barriers are requested on a project, they will be constructed according to the F shape movable concrete barrier details on standard plate 628.10.

Each movable concrete barrier section weighs 5030 ± pounds.

Each movable concrete barrier section is detailed to provide end "A" to end "B" connection by insertion of a pin through steel loops.

The Jersey shape or any version of the F shape traffic control movable concrete barriers may be used on a project, however, only the same type or version will be used for each run of barriers.

Movable concrete barrier sections will be placed to provide uniform bearing of the sections with the paved surface as approved by the Engineer.

Movable concrete barrier sections will never be moved or lifted using the end loops.

Movable concrete barrier sections that have been damaged will not be used. Barrier sections are considered damaged if the loops are end welded onto existing damaged loops, loops are fractured, or there is exposed rebar from fractured concrete.

All cost for transporting the barriers from the specified location to the project site, installing, and returning the barriers to the specified location will be incidental to the contract unit price per each for "Traffic Control Movable Concrete Barrier".

If the concrete barriers need to be moved and reset on the project, requiring the barriers to be transported by truck, all cost for removing, transporting, and resetting the barriers will be incidental to the contract unit price per each for "Remove and Reset Traffic Control Movable Concrete Barrier". All cost for small shifts in alignment of the barriers, not requiring the barriers to be transported by truck, will be incidental to various contract items.

September 14, 2018

Published Date: 2025	SDDOT	TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS (F SHAPE INTERIOR SECTION)	PLATE NUMBER 628.01
			Sheet 2 of 2

Plot Scale - 1:200

Plotted From - TRPR22410

File - ...ICAD\0819_Sld Plates.dgn

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.

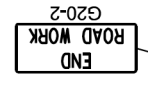
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

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.

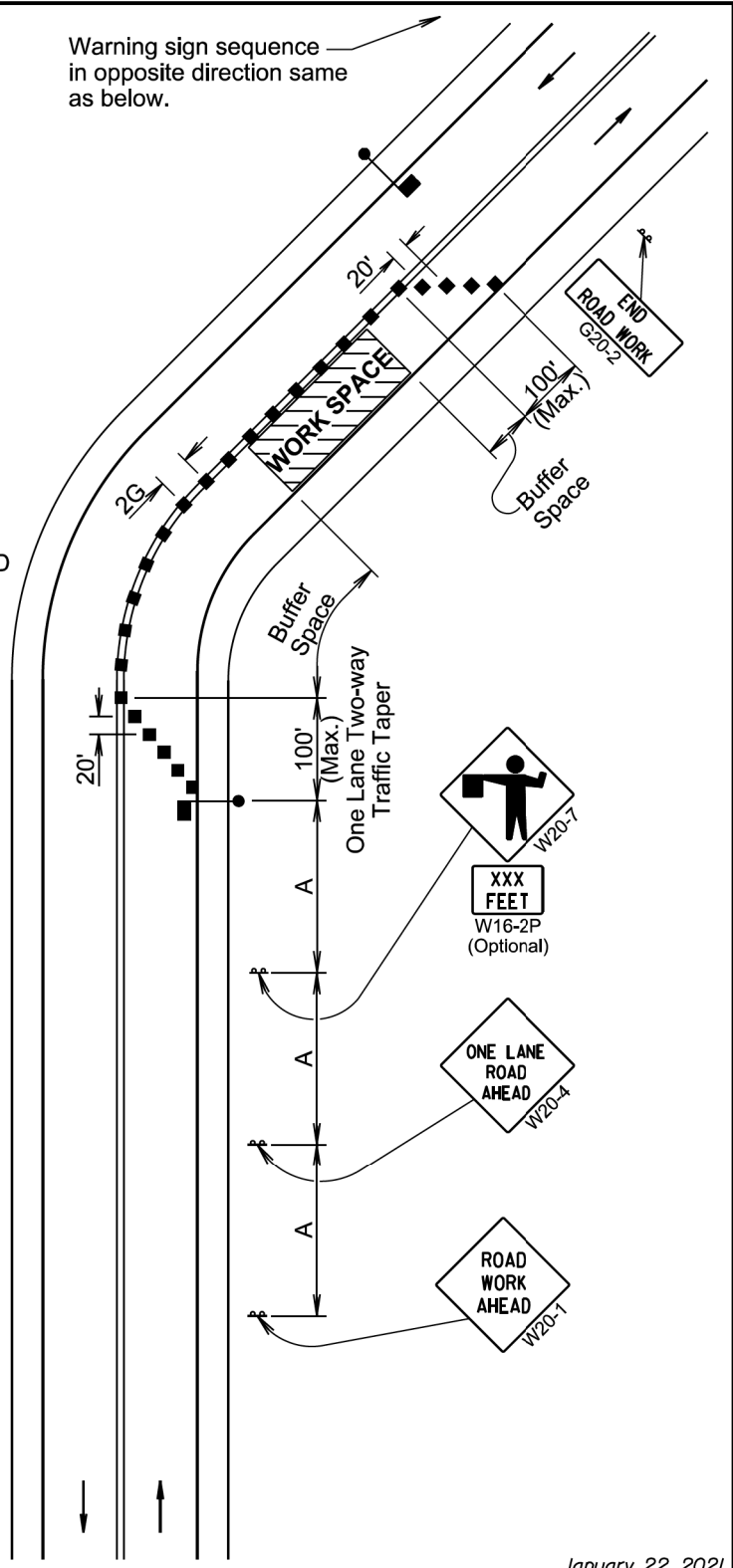


Channelizing devices and flaggers will be used at intersecting roads to control intersecting road traffic as required.

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.

Warning sign sequence in opposite direction same as below.

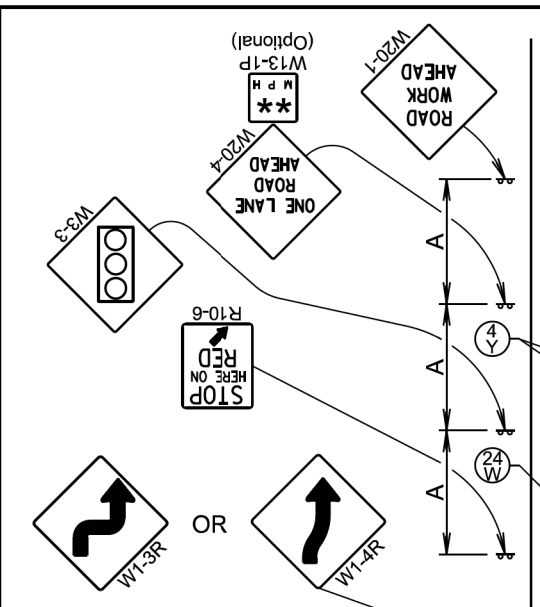


January 22, 2021

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

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

- END ROAD WORK G20-2
- 24" White Temporary Pavement Marking
- 4" White Temporary Pavement Marking
- 4" Yellow Temporary Pavement Marking
- Channelizing Device
- Traffic Signal
- ★ Lighting (Optional)
- ** Need and safe speed to be determined at the site by the Engineer.

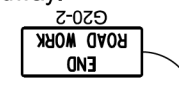


Signals will be installed and operated in accordance with the requirements of Part 4 of the MUTCD. Temporary traffic control signals will meet the physical display and operational requirements of conventional traffic signals.

Temporary traffic control signal timing will be established by the Region Traffic Engineer.

When the temporary traffic control signal is changed to a flashing mode, either manually or automatically, red signal indications will be flashed to both approaches.

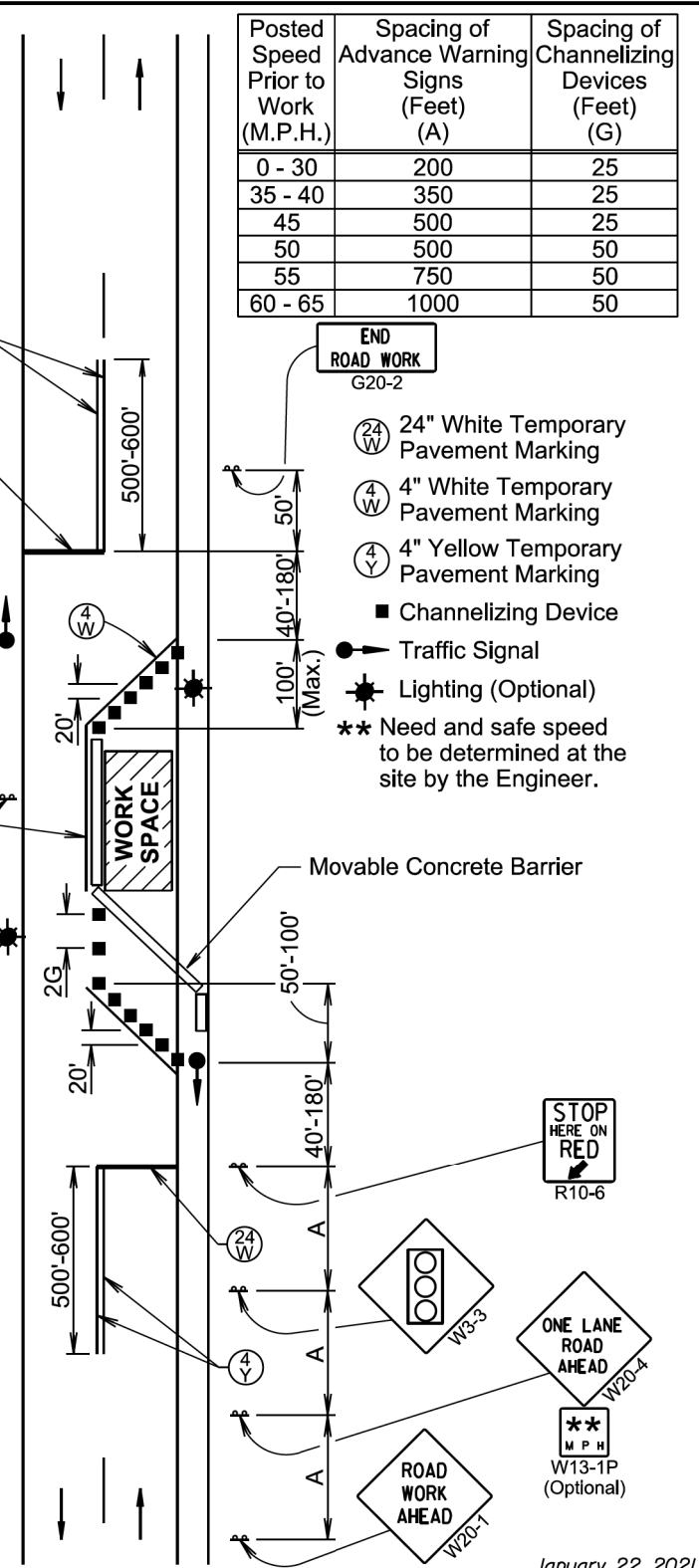
Adjustments in the height of the signal heads will be made as necessary to conform to the vertical alignment of the roadway.



The movable concrete barrier layout is shown elsewhere in the plans.

The channelizing devices will be drums or 42" cones.

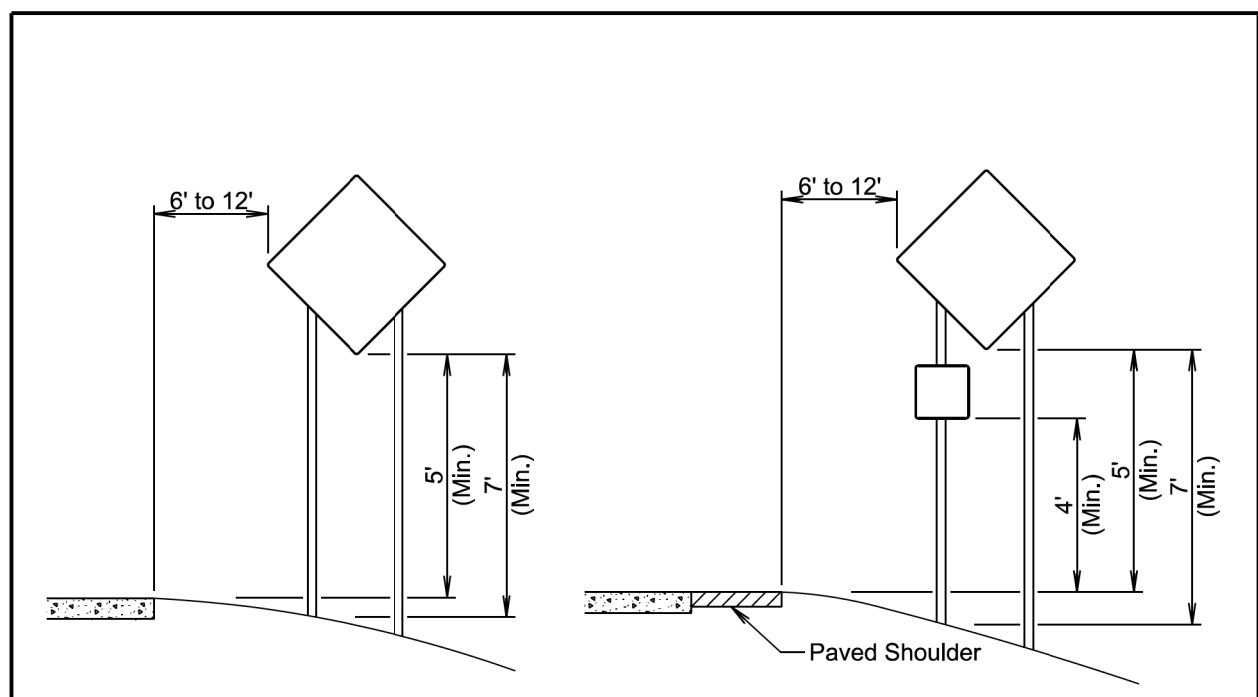
The length of A may be adjusted to fit field conditions.



January 22, 2021

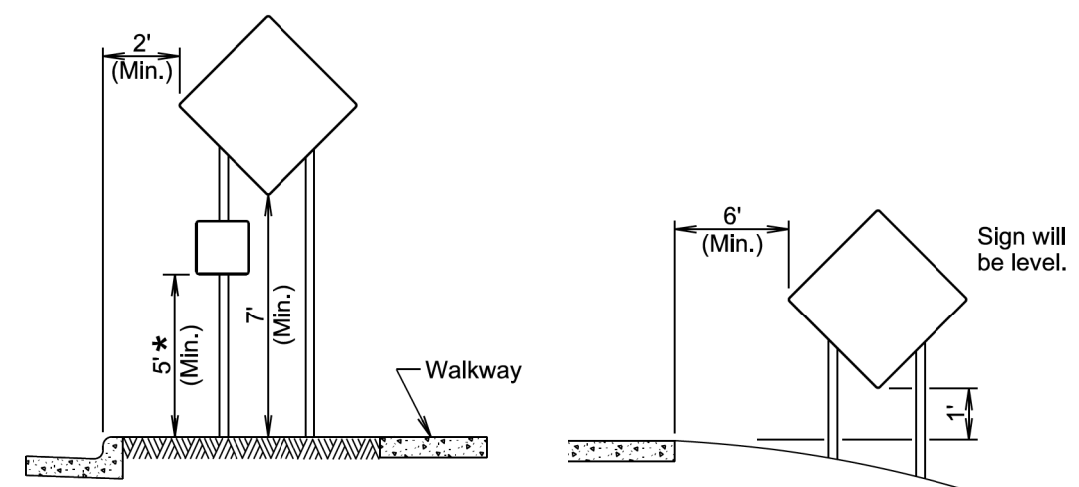
S D D O T	LANE CLOSURE USING TRAFFIC SIGNALS AND BARRIER	PLATE NUMBER 634.24
	<i>Published Date: 2025</i>	Sheet 1 of 1

Plot Scale - 1:200



RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE



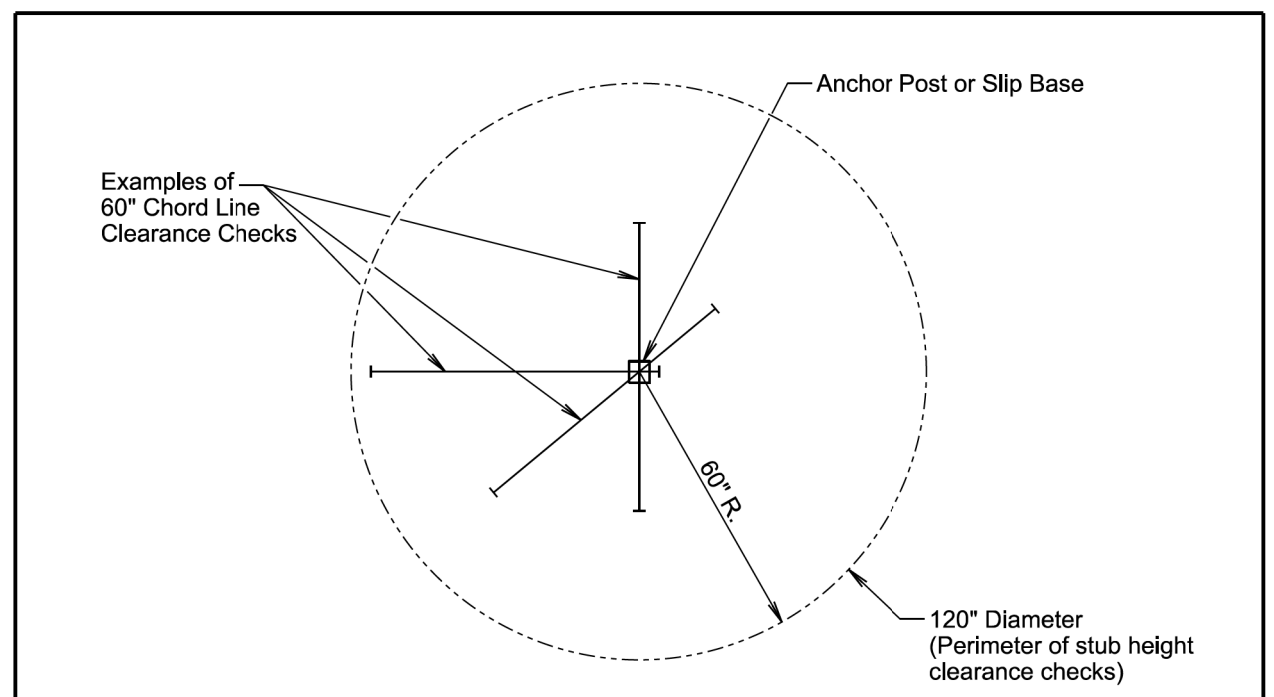
URBAN DISTRICT

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

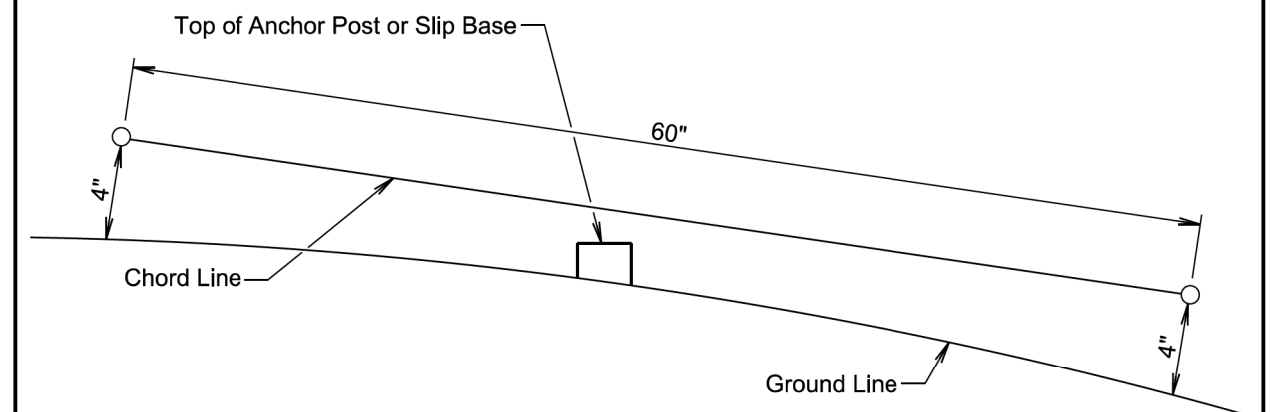
* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

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

Published Date: 2025	S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1

Plotted From - TRPR22410

File - ...ACAD\0819_Sld Plates.dgn