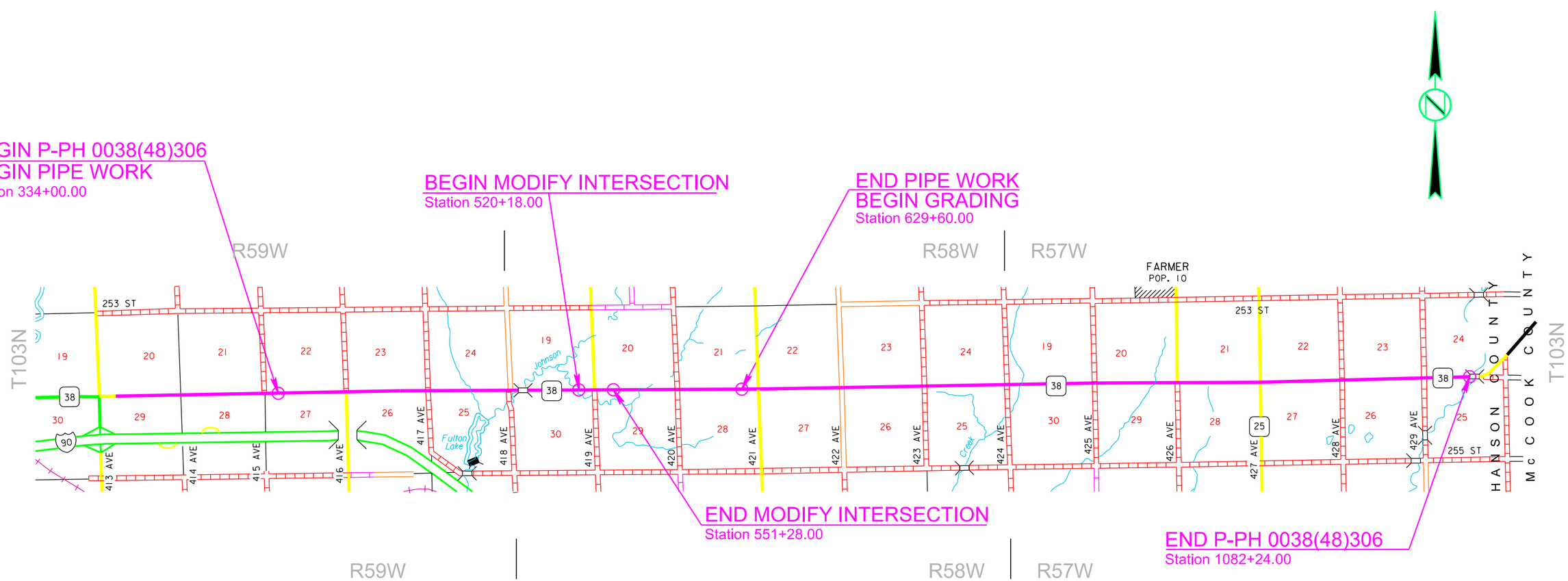
SECTION S: PERMANENT SIGNING PLANS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH0038(48)304	S1	S12

Plotting Date: 8/28/2025

INDEX OF SHEETS



SECTION S – ESTIMATE OF QUANTITIES – P-PH 0038(48)304, PCN 05FA

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E0130	Remove Traffic Sign	51	Each
110E7150	Remove Sign for Reset	2	Each
632E1320	2.0"x2.0" Perforated Tube Post	536.0	Ft
632E1340	2.5"x2.5" Perforated Tube Post	46.0	Ft
632E2510	Type 2 Object Marker Back to Back	74	Each
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	164.6	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	212.0	SqFt
632E3500	Reset Sign	2	Each

GENERAL PERMANENT SIGNING

New sign installations will be staked in the field by the Contractor and checked by the Engineer. The Contractor will give the Engineer a minimum of one week to check staked locations prior to signpost installation. Lateral offset of signs will be as shown in the plans or as directed by the Engineer.

The Contractor will be responsible for contacting South Dakota One Call to locate the utilities at the staked sign installation locations.

When signs are mounted in an assembly, they will be 1-2 inches apart vertically and horizontally.

The height of the post must not exceed the minimum height needed by more than 0.5 feet. Any portion that extends above the sign will be cut off. No separate payment will be made for cutting the post or for that length cut off.

Aluminum U-Channel stiffeners will be used on all signs 36 inches or greater in width and will conform to ASTM B221 Alloy 6063-T6 or 6061-T6. The U-Channel will be 2 inches in width and free of holes. The U-Channel stiffeners will also be used to connect various signs together so that an entire sign assembly can be erected on a single installation. Stiffeners may be fastened to signs by use of 1/4-inch diameter drive rivets.

The Contractor will use 3/8-inch diameter rust proof machine sign bolts, flat metal washers, neoprene washers (against the sign sheeting), lock washers, and nuts to fasten the sign to the channel aluminum and posts. A minimum of two bolts will extend through each post.

Prior to ordering signs, the Contractor will verify dimensions, background, border, and legend of the signs.

Prior to use, the Contractor will provide documentation for the sign support devices showing they meet the applicable NCHRP 350 or MASH requirements.

REMOVE TRAFFIC SIGN

Existing signs that are shown as being removed in the Permanent Signing Table will become the property of the Contractor. Existing signposts and bases will be removed in their entirety. All existing signs, posts, and/or hardware removed will not be reused. Holes remaining from the removal of wood posts will be backfilled and compacted with material placed in layers not to exceed 6 inches in depth.

All costs associated with the removal of existing signs, posts, hardware, and backfilled holes will be incidental to the contract unit price per each for “Remove Traffic Sign”. Quantities will be per assembly at the contract unit price per each.

REMOVE SIGN FOR RESET AND RESET SIGN

Signs that are scheduled for reset will be dismantled and reassembled to the extent needed by the Contractor to properly reset the sign. Signs will be handled with care so that the existing signs, posts, and bases are not damaged during the relocation process. The Contractor will replace and pay for any reset signs damaged in their care. The Contractor will remove and dispose of any existing posts for all reset signs that require use of new posts as shown in the Table of Permanent Signing.

All costs for removing, dismantling, and disposing of any existing posts will be incidental to the contract unit price per each for “Remove Sign for Reset”. All costs for resetting the existing signs will be incidental to the contract unit price per each for “Reset Sign”. All quantities for Remove Sign for Reset and Reset Sign will be per assembly at the contract unit price per each.

NEW PERMANENT SIGNING

All signs will be manufactured in accordance with the sheeting manufacturer’s recommendations utilizing a matched component system, including inks, electronic cuttable films, and protective overlay films.

All Flat Aluminum Signs, Nonremovable Copy High Intensity will have sheeting in conformance with the requirements of ASTM D4956 Type IV. All Flat Aluminum Signs, Nonremovable Copy Super/Very High Intensity will have sheeting in conformance with the requirements of ASTM D4956 Type XI.

All costs associated with furnishing and installing the new permanent signs, and with furnishing and installing stiffeners and hardware will be incidental to the contract unit price per square foot for “Flat Aluminum Sign, Nonremovable Copy High Intensity” or “Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity”.

DIGITALLY PRINTED SIGNS

Digitally printed signs will be allowed on this project. If the Contractor elects to provide digitally printed signs, such signs will adhere to the following specifications.

PROTECTIVE OVERLAY FILM

Permanent traffic signs printed with digital ink systems will be fabricated with a full sign protective overlay film designed to provide a smooth surface needed for retroreflectivity, and to protect the sign from fading and UV degradation. The overlaminate will comply with the retroreflective sheeting manufacturer’s recommendations to ensure proper adhesion and transparency and will also meet the reflective film durability as identified in Table 1.

Table 1: Retroreflective Film Minimum Durability Requirements

ASTM D4956 Type	Full Sign Replacement Term (years)	Sheeting Replacement Term (years)
I	0	7
III	7	10
IV	7	10
VIII	7	10
IX	7	12
XI	7	12

FABRICATION

Retroreflective sheeting will be applied to a properly cleaned and prepared aluminum sign blank in accordance with the retroreflective sheeting manufacturer’s recommendations. Sign legend will be applied using digital print technologies and systems in accordance with the retroreflective sheeting manufacturer’s recommendations and the requirements of these plans.

Finished signs will be free of ragged edges and must be supplied clean and free of scratches, grease, oil, lubricants or other contaminants. Minor blemishes (dirt speck, dust, etc.) may settle on the fresh ink surface or become entrapped between the sheeting surface and transparent overlay film due to static charge within the sign shop environment. Any blemish must be minor and not interfere with the communication of the sign message to the

motorist. The blemish must not be visible to the naked eye when viewed from 30 feet or greater.

After application of the retroreflective sheeting, sign blanks will be stacked and packaged face to face, back to back, and protected in accordance with the sheeting manufacturer’s recommendations. Finished signs will be securely packaged to prevent damage during transit or storage according to the sheeting manufacturer’s recommendations.

TRAFFIC SIGN PERFORMANCE WARRANTY PROVISIONS

Based on the ASTM Type of sheeting specified, traffic control signs will be warranted for the duration shown in Table 1. Full product terms and conditions are as established by each sheeting manufacturer and may contain certain limitations based on sheeting and ink colors, and geographic exposure of the sign. A copy of the warranty document with complete details of terms and conditions will be supplied if requested by the Engineer.

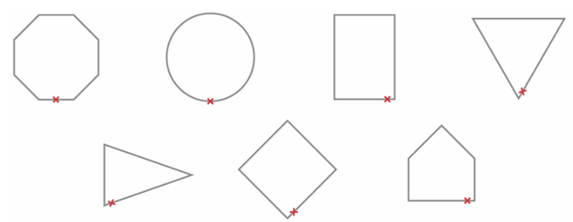
CERTIFIED DIGITAL SIGN FABRICATOR

Sign fabricators using digital imaging methods to produce regulated traffic signs must be certified by the reflective sheeting manufacturer whose materials are used to produce the delivered signs.

DATE TAGGING SIGNS WITH PERTINENT INFORMATION

All digitally printed signs are required to be date-tagged with the following 2 components:

1. Date tags on the back of signs
   Tags will have the following information and be fabricated with material and printing system that are as durable as the warranted sign.
   - Name of Sign Fabricator
   - Date the sign was fabricated (month and year)
   - Process that was used for sign fabrication (digitally printed)
   - Supplier of sheeting that was used for fabricating the sign.
2. Border date
   The month and year (mm/yyyy) of sign fabrication will be printed in the border of the sign in 3/8” sans serif font. Border date will be printed with the same warranted printed system as the sign face. The date should be printed in the locations indicated below.



SQUARE TUBE ANCHOR SLEEVE

The Contractor will furnish and install new 2.5” x 2.5” x 18”, 12 Gauge square tube anchor sleeve or equivalent components as approved by the Engineer for 2.0” x 2.0” perforated tube posts. A 2.25” x 2.25” x 4’, 12 Gauge perforated tube post will be used as the anchor post for installation with the square tube anchor sleeve.

SQUARE TUBE POST SLEEVE

All 2.5” x 2.5”, 10 Gauge perforated tube post will be sleeved with a 2-3/16” x 2-3/16” x 4’, 10 Gauge perforated tube post.

WINGED SLIP BASE ANCHOR

The Contractor will furnish and install new winged slip base anchors for 2.5” x 2.5” perforated tube posts as required in the Permanent Signing Table. Winged slip base anchors will be installed using the direct drive method. Winged slip base anchors will consist of a slip base (upper), a 48-inch long winged anchor (lower), and a hardware kit.

MILEAGE REFERENCE MARKERS

Mileage Reference Markers (MRMs) are not to be disturbed. If an MRM is attached to a sign listed for replacement it will be removed and reattached to the new sign in the same location. Payment for this work will be incidental to the various signing contract items.

P-PH 0038(48)304, PCN 05FA, Sign Installation SD38

Station	Side of Road	Description	Sign Code	Width (Inches)	Height (Inches)	Flat Aluminum sign, Nonremovable Copy High Intensity (SQFT)	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity (SQFT)	2.0"x2.0" Perforated Tube Post 12 ga. (FT)	2.5"x2.5" Perforated Tube Post 10 Ga. (FT)	(N.A.B.I.) Square Tube Anchor Sleeve (Each)	(N.A.B.I.) 48" Winged Slip Base Anchor (Each)	Remove Traffic Sign (Each)	Remove Sign for Reset	Reset Sign	Direction Sign Faces	Current Type of Post	Remarks
376+22	L	Stop	R1-1	30	30		5.2	9.0		1		1			North	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
376+68	R	Stop	R1-1	36	36		7.5	10.0		1		1			South	Perforated Tube	Remove and Replace Existing Signs with New Signs on New Post
428+89	L	Stop	R1-1	30	30		5.2	9.0		1		1			North	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
429+37	R	Stop	R1-1	30	30		5.2	9.0		1		1			South	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
480+70	R	Stop	R1-1	30	30		5.2	9.0		1		1			South	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
481+56	L	Stop	R1-1	30	30										North	Perforated Tube	Do Not Disturb
487+50	L	No Passing Zone	W14-3	48	36										West	Perforated Tube	Do Not Disturb
487+70	R	No Passing Zone	W14-3	48	36		5.6	9.0		1		1			East	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
504+67	R	No Passing Zone	W14-3	48	36		5.6	9.0		1		1			East	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
509+66	L	No Passing Zone	w14-3	48	36		5.6	9.0		1		1			West	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post at Current Location; Continue No Passing Zone until the Start of the New Turn Lane
527+34	R	No Passing Zone	W14-3	48	36							1			East	Perforated Tube	Remove and Do Not Replace
532+57	R	(Left Arrow) Fulton 1	Special	66	18	8.3		20.0		2		1			West	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Posts
535+49	L	Stop	R1-1	36	36		7.5	10.0		1		1			North	Perforated Tube	Remove and Replace Existing Signs with New Signs on New Post
535+97	R	Stop	R1-1	30	30		5.2	9.0		1		1			South	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
540+84	L	Fulton 1 (Right Arrow)	Special	66	18	8.3		19.0		2		1			East	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
558+78	R	No Passing Zone	W14-3	48	36		5.6	9.0		1					East	Perforated Tube	New Sign on New Post; 750' from the Beginning of the New Turn Lane
588+24	L	Stop	R1-1	30	30		5.2	9.0		1		1			North	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
588+72	R	Stop	R1-1	30	30		5.2	9.0		1		1			South	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
596+25	L	Deer Crossing	W11-3	36	36							1			East	Perforated Tube	Remove and Do Not Replace
		Next 10 Miles	W7-3	30	24												
622+10	L	No Passing Zone	W14-3	48	36		5.6	9.0		1					West	Perforated Tube	New Sign on New Post;750' from the Beginning of the New Turn Lane
634+71	R	Alexandria 3 (Right Arrow)	Special	90	18	11.3		19.0		2		1			West	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
636+35	L	Speed Limit 65	R2-1	24	30	5.9		10.5		1		1			East	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
639+37	L	West	M3-4P	24	12	2.0		11.0		1		1			East	Perforated Tube	Remove and Replace Existing Signs with New Signs on New Post
		SD38	M1-5	24	24	4.0											
640+63	L	Stop	R1-1	36	36		7.5	9.5		1		1			North	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
641+11	R	Stop	R1-1	36	36								1	1	South	Perforated Tube	Remove and Reset Existing Sign on Existing Post
643+68	R	East	M3-2P	24	12	2.0		11.0		1		1			West	Perforated Tube	Remove and Replace Existing Signs with New Signs on New Post
		SD38	M1-5	24	24	4.0											
646+70	L	(Left Arrow) Alexandria 3	Special	90	18	11.3		19.0		2		1			East	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
659+80	R	No Passing Zone	W14-3	48	36		5.6	9.0		1					East	Perforated Tube	New Sign on New Post; 750' from the Beginning of the New Turn Lane
693+53	L	Stop	R1-1	30	30		5.2	9.0		1		1			North	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
694+01	R	Stop	R1-1	30	30		5.2	9.0		1		1			South	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
746+30	L	Stop	R1-1	30	30		5.2	9.0		1		1			North	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
746+78	R	Stop	R1-1	30	30		5.2	9.0		1		1			South	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
780+68	L	No Passing Zone	W14-3	48	36		5.6	9.0		1		1			West	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post

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P-PH 0038(48)304, PCN 05FA, Sign Installation SD38

Station	Side of Road	Description	Sign Code	Width (Inches)	Height (Inches)	Flat Aluminum sign, Nonremovable Copy High Intensity (SQFT)	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity (SQFT)	2.0"x2.0" Perforated Tube Post 12 ga. (FT)	2.5"x2.5" Perforated Tube Post 10 Ga. (FT)	(N.A.B.I.) Square Tube Anchor Sleeve (Each)	(N.A.B.I.) 48" Winged Slip Base Anchor (Each)	Remove Traffic Sign (Each)	Remove Sign for Reset	Reset Sign	Direction Sign Faces	Current Type of Post	Remarks
797+31	R	No Passing Zone	W14-3	48	36		5.6	9.0		1		1			East	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
799+06	L	Stop	R1-1	30	30		5.2	9.0		1		1			North	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
799+54	R	Stop	R1-1	30	30		5.2	9.0		1		1			South	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
807+98	L	No Passing Zone	W14-3	48	36		5.6	9.0		1		1			West	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
825+18	R	No Passing Zone	W14-3	48	36		5.6	9.0		1		1			East	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
855+50	L	Stop	R1-1	30	30		5.2	9.0		1		1			North	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
855+98	R	Stop	R1-1	30	30		5.2	9.0		1		1			South	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
905+07	R	(Left Arrow) Farmer 1	Special	72	18	9.0		19.0		2		1			West	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
908+48	L	Stop	R1-1	30	30		5.2	9.0		1		1			North	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
908+96	R	Stop	R1-1	30	30		5.2	9.0		1		1			South	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
912+40	L	Farmer 1 (Right Arrow)	Special	72	18	9.0		19.0		2		1			East	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Posts
934+55	L	No Passing Zone	W14-3	48	36		5.6	9.0		1		1			West	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post; Continue No Passing Zone until the Start of the New Turn Lane
949+63	R	No Passing Zone	W14-3	48	36		5.6	9.0		1		1			East	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
956+47	R	(Up Arrow) Spencer 4/ (Left Arrow) Epiphany 10/ TO I-90 2 (Right Arrow)	Special	90	42	26.3			23.0		2	1			West	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Posts
958+17	L	West	M3-4P	24	12	2.0		11.0		1		1			East	Perforated Tube	Remove and Replace Existing Signs with New Signs on New Post
		SD38	M1-5	24	24	4.0											
958+47	R	SD25	M1-5	24	24	4.0		11.0		1		1			West	Perforated Tube	Remove and Replace Existing Signs with New Signs on New Post
		Horizontal Double Arrow	M6-4P	21	15	2.2											
		SD38	M1-5	24	24	4.0											
		Vertical Single Arrow	M6-3P	21	15	2.2											
961+23	L	Stop	R1-1	36	36								1	1	North	Perforated Tube	Remove and Reset Existing Sign on Existing Post
961+71	R	Stop	R1-1	36	36		7.5	9.0		1		1			South	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
964+71	L	SD25	M1-5	24	24	4.0		11.0		1		1			East	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
		Horizontal Double Arrow	M6-4P	21	15	2.2											
		SD38	M1-5	24	24	4.0											
		Vertical Single Arrow	M6-3P	21	15	2.2											
966+71	L	(Up Arrow) Mitchell 18 / (Left Arrow) TO I-90 2 / Epiphany 10 (Right Arrow)	Special	90	42	26.3			23.0		2	1			East	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
968+71	L	JCT	M2-1P	21	15	2.2		11.0		1		1			East	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
		SD25	M1-5	24	24	4.0											
980+83	R	No Passing Zone	W14-3	48	36		5.6	9.0		1					East	Perforated Tube	New Sign on New Post;750' from the Beginning of the New Turn Lane
1013+57	L	Stop	R1-1	30	30		5.2	9.0		1		1			North	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
1014+05	R	Stop	R1-1	30	30		5.2	9.0		1		1			South	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
1066+38	L	Stop	R1-1	30	30		5.2	9.0		1		1			North	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
1066+86	R	Stop	R1-1	30	30		5.2	9.0		1		1			South	Perforated Tube	Remove and Replace Existing Sign with New Sign on New Post
					TOTAL	164.6	212.0	536.0	46.0	57.0	4.0	51	2	2			

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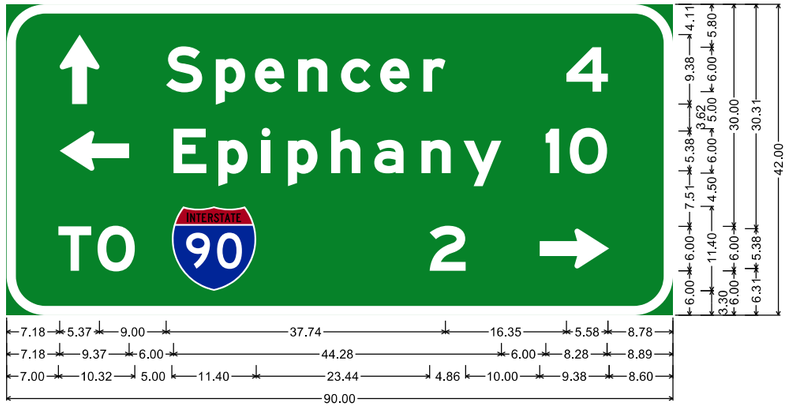
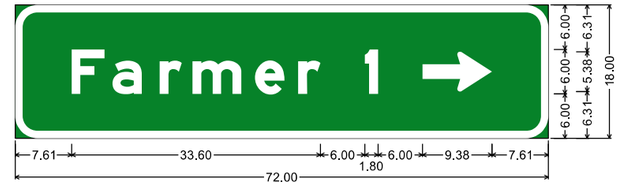
P-PH 0038(48)304, PCN 05FA, Sign Summary SD38

Sign Code	Description	Width (Inches)	Height (Inches)	Sq. Ft.	No.	Flat Aluminum Sign, Nonremovable Copy High Intensity (SQFT)	Flat Aluminum Sign, Nonremovable Copy Super or Very High Intensity (SQFT)	Text / Background
M1-5	SD25	24	24	4.0	3	12.0		Black / Green on White
M1-5	SD38	24	24	4.0	5	20.0		Black / Green on White
M2-1P	JCT	21	15	2.2	1	2.2		Black / Green on White
M3-2P	East	24	12	2.0	1	2.0		Black / Green on White
M3-4P	West	24	12	2.0	2	4.0		Black / Green on White
M6-3P	Vertical Single Arrow	21	15	2.2	2	4.4		Black / Green on White
M6-4P	Horizontal Double Arrow	21	15	2.2	2	4.4		Black / Green on White
R1-1	Stop	30	30	5.2	21		109.2	White on Red
R1-1	Stop	36	36	7.5	4		30.0	White on Red
R2-1	Speed Limit 65	24	30	5.0	1	5.9		Black on White
W14-3	No Passing Zone	48	36	5.6	13		72.8	Black on Fluorescent Yellow
	(Left Arrow) Fulton 1	66	18	8.3	1	8.3		White on Green
	Fulton 1 (Right Arrow)	66	18	8.3	1	8.3		White on Green
	Alexandria 3 (Right Arrow)	90	18	11.3	1	11.3		White on Green
	(Left Arrow) Alexandria 3	90	18	11.3	1	11.3		White on Green
	(Left Arrow) Farmer 1	72	18	9.0	1	9.0		White on Green
	Farmer 1 (Right Arrow)	72	18	9.0	1	9.0		White on Green
	(Up Arrow) Spencer 4/ (Left Arrow) Epiphany 10/ TO I-90 2 (Right Arrow)	90	42	26.3	1	26.3		White on Green
	(Up Arrow) Mitchell 18 / (Left Arrow) TO I-90 2 / Epiphany 10 (Right Arrow)	90	42	26.3	1	26.3		White on Green
						164.6	**212.0**	

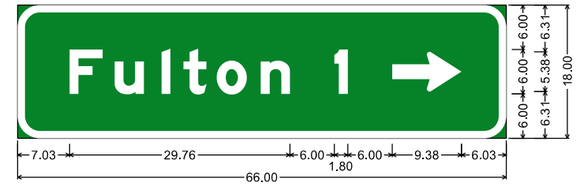
SPECIAL SIGN DETAILS
FLAT ALUMINUM SIGNS WITH NONREMOVABLE COPY-HIGH INTENSITY



5.25" Radius, 1.25" Border, White on Green;
Standard Arrow 2 9.38" X 5.38" 90°; "Spencer", E Mod 2K; "4", E Mod 2K;
Standard Arrow 2 9.38" X 5.38" 180°; "Epiphany", E Mod 2K; "10", E Mod 2K; "TO", E Mod 2K;
"2", E Mod 2K; Standard Arrow 2 9.38" X 5.38" 0°;

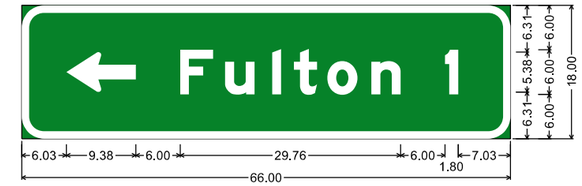


3.00" Radius, 1.00" Border, White on Green;
"Farmer 1", E Mod 2K; Standard Arrow 2 9.38" X 5.38" 0°;

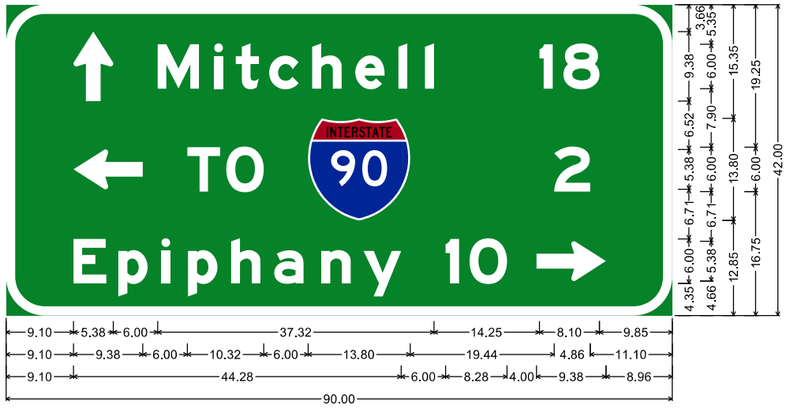


3.00" Radius, 1.00" Border, White on Green;
"Fulton 1", E Mod 2K; Standard Arrow 2 9.38" X 5.38" 0°;

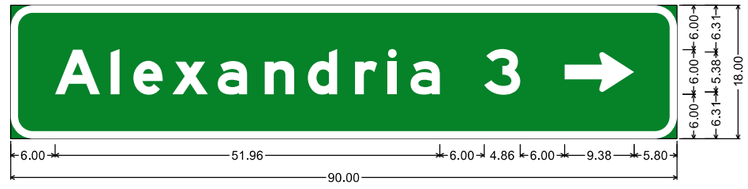
3.00" Radius, 1.00" Border, White on Green;
Standard Arrow 2 9.38" X 5.38" 180°; "Farmer 1", E Mod 2K;



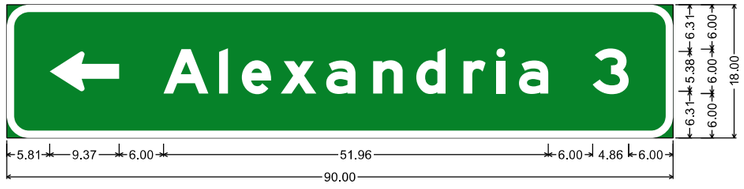
3.00" Radius, 1.00" Border, White on Green;
Standard Arrow 2 9.38" X 5.38" 180°; "Fulton 1", E Mod 2K;



5.25" Radius, 1.25" Border, White on Green;
Standard Arrow 2 9.38" X 5.38" 90°; "Mitchell", E Mod 2K; "18", E Mod 2K;
Standard Arrow 2 9.38" X 5.38" 180°; "TO", E Mod 2K; Interstate 90 4.75" D 2K; "2", E Mod 2K;
"Epiphany", E Mod 2K; "10", E Mod 2K; Standard Arrow 2 9.38" X 5.38" 0°;

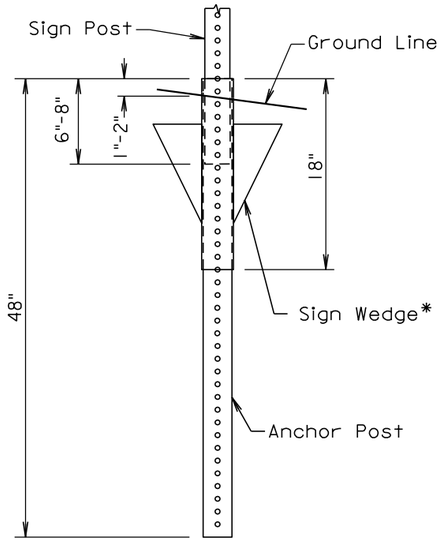


3.00" Radius, 1.00" Border, Whlte on Green;
"Alexandria 3", E Mod 2K; Standard Arrow 2 9.38" X 5.38" 0°;



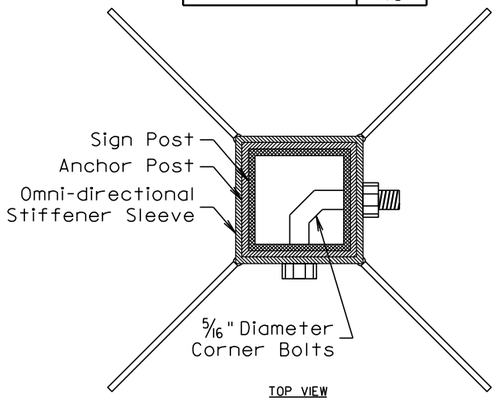
3.00" Radius, 1.00" Border, White on Green;
Standard Arrow 2 9.38" X 5.38" 180°; "Alexandria 3", E Mod 2K;

2" SQUARE STEEL PERFORATED TUBE POST WINGED SLEEVE ANCHOR BASE DETAILS (Typical)



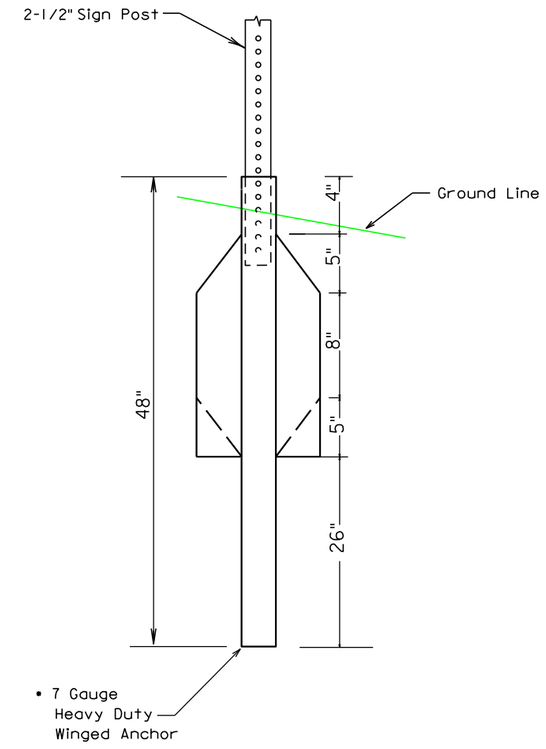
✳ - 18" Multi-directional Sleeve w/4 Blades, or Equivalent.
Manufacturer Recommended Dimensions and Installation.

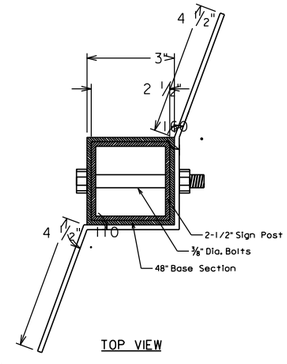
POST SIZE	
Sign Post	2"
Anchor Post	2¼"
Stiffener Sleeve	2½"



TOP VIEW

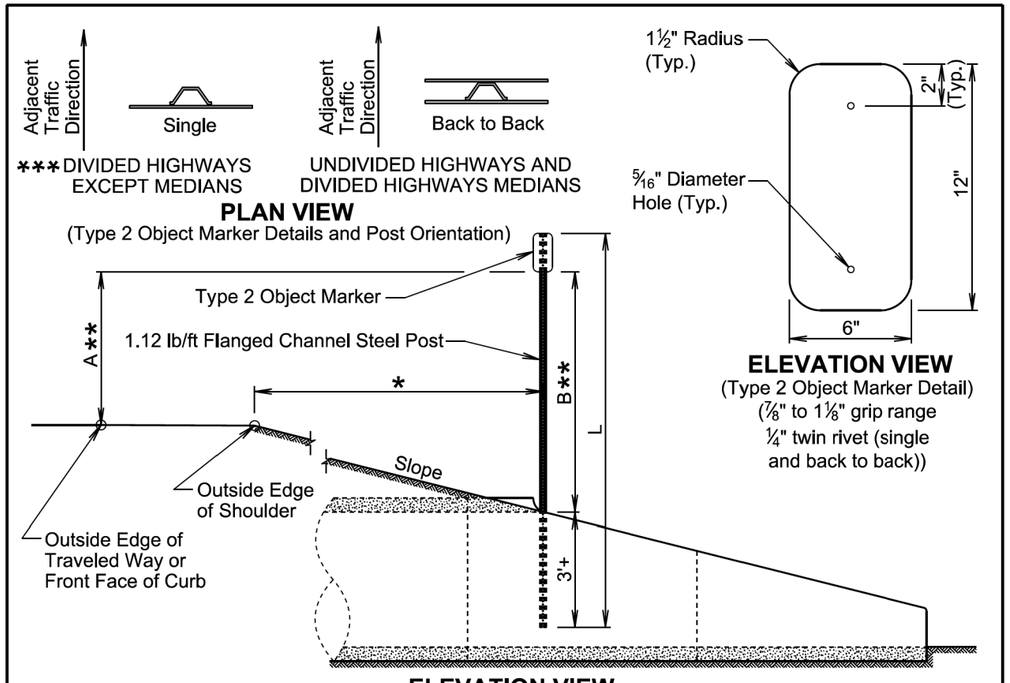
2 1/2" SQUARE STEEL PERFORATED TUBE POST WINGED BREAKAWAY NON-SLIP BASE ANCHOR DETAILS FOR SOIL INSTALLATIONS (Typical)





TOP VIEW

Dimensions shown may vary by Manufacturer.
The Contractor shall use Manufacturer recommended assembly parts and procedures.
Sign installations must meet MASH or NCHRP 350 breakaway requirements.



TYPE 2 OBJECT MARKER POST LENGTHS									
OFFSET (*)		1'	2'	3'	4'	5'	6'	7'	8'	Greater Than 8'
		POST LENGTH (L)								
SLOPE	3:1	8'-6"	8'-9"	9'-3"	9'-6"	9'-9"	10'-3"	10'-6"	10'-9"	8'-0"
	4:1	8'-6"	8'-9"	9'-0"	9'-3"	9'-9"	9'-9"	10'-0"	10'-3"	8'-0"
	5:1	8'-3"	8'-6"	8'-9"	9'-0"	9'-3"	9'-3"	9'-6"	9'-9"	8'-0"
	6:1	8'-3"	8'-6"	8'-9"	8'-9"	9'-0"	9'-3"	9'-3"	9'-6"	8'-0"

GENERAL NOTES:

*** The type 2 object marker may be installed back to back when specified in the plans.

Post Length L was calculated based on a shoulder width of 6 feet at a crosslope of 4 percent and L was rounded up to the nearest 3 inches.

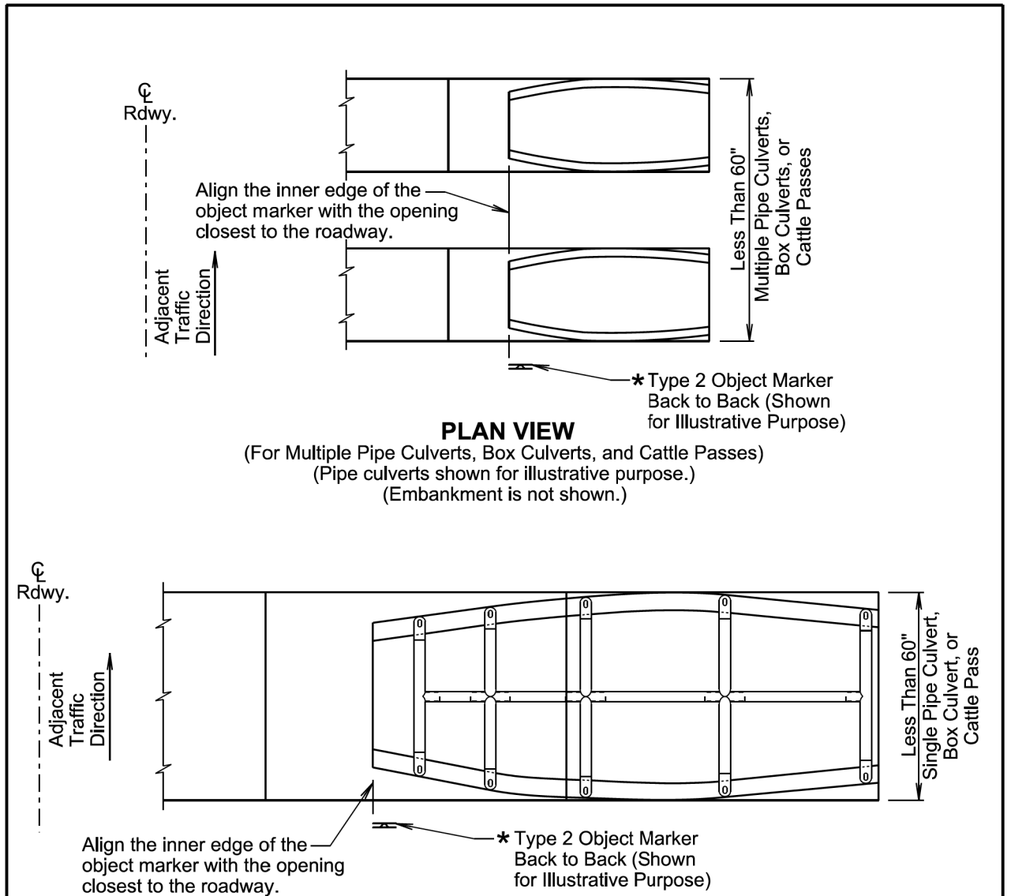
** Dimension A is 4 feet when the Offset * is 8 feet and less. Dimension B is 4 feet when Offset * is greater than 8 feet.

The type 2 object marker and the 1.12 lb/ft flanged channel steel post will be in conformance with Specifications Section 982.2 J.

Payment for the type 2 object marker will be in conformance with Specification Section 632.5 B.

December 23, 2019

Published Date: 2026	SDDOT	TYPE 2 OBJECT MARKER (DIRECT DRIVE)	PLATE NUMBER 632.01 Sheet 1 of 1



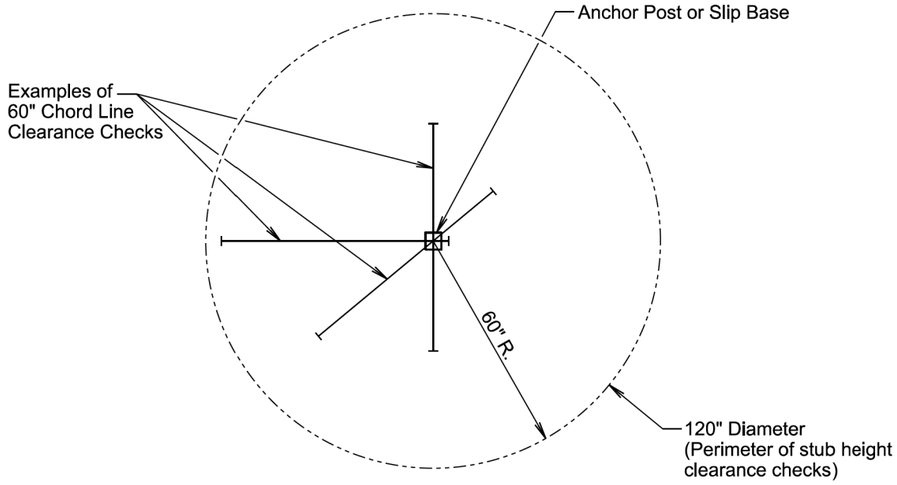
GENERAL NOTES:

This standard plate will be used in conjunction with standard plate 632.01.

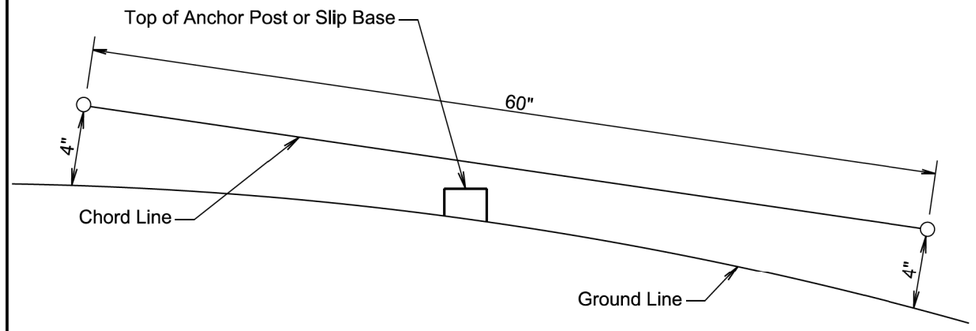
* The type 2 object markers will be installed at the locations shown above. The type 2 object markers, single faced or back to back, will be as specified in the plans.

December 23, 2019

Published Date: 2026	SDDOT	TYPE 2 OBJECT MARKER AT PIPE CULVERTS, BOX CULVERTS, AND CATTLE PASSES (Less than 60" Overall Width)	PLATE NUMBER 632.03 Sheet 1 of 1



PLAN VIEW
(Examples of stub height clearance checks)



ELEVATION VIEW

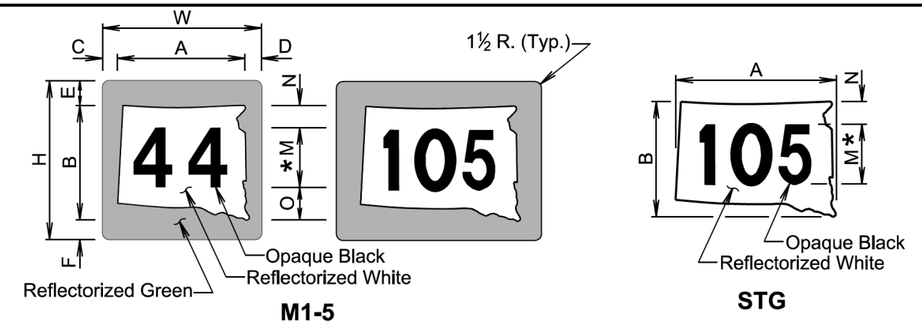
GENERAL NOTES:

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.

January 22, 2021

Published Date: 2026	SDDOT	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 632.18 Sheet 1 of 1



M1-5

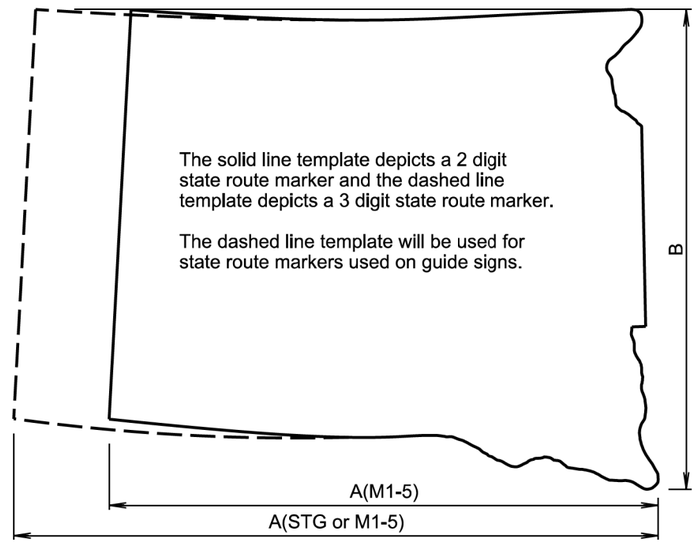
SIGN CODE	WxH	A	B	C	D	E	F	M*	N	O
M1-5	24x24	20½	18	2	1½	3½	2½	12D	2	4
M1-5 **	30x24	24	18	2¼	1¾	3½	2½	12D	2	4
M1-5	30x30	25⅝	22½	2½	1⅞	4⅜	3⅛	15D	2½	5
M1-5	36x36	30¾	27	3	2¼	5¼	3¾	18D	3	6

STG

SIGN CODE	AxB	M*	N
STG-24	24x18	10D	4
STG-32	32x24	12D	4¾
STG-48	48x36	18D	7
STG-64	64x48	24D	9½

* In the few cases where there is not enough space for the numerals, the standard D series font may be replaced with C series font if approved by the Engineer.

** 3 Digits



TEMPLATE FOR STATE ROUTE MARKER

GENERAL NOTES:

The unit for all dimensions shown is inches.

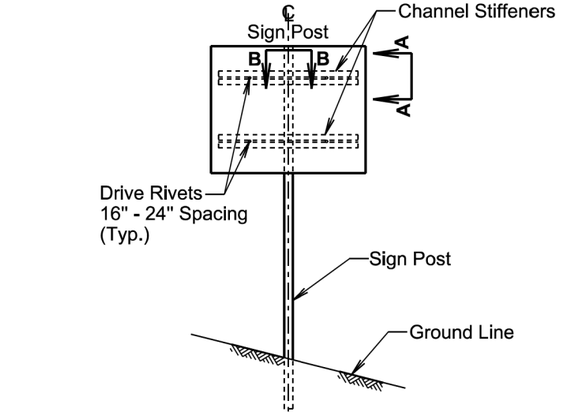
Numerals will be D series font for all state route markers except as noted above.

December 23, 2019

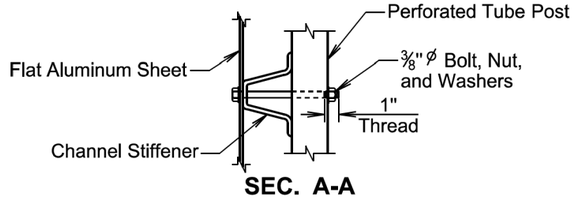
Published Date: 2026	SDDOT	STATE ROUTE MARKERS	PLATE NUMBER 632.20 Sheet 1 of 1

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH0038(48)304	S11	S12

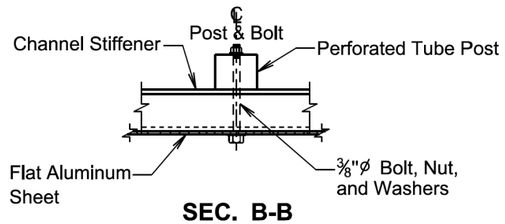
Plotting Date: 8/28/2025



ELEVATION VIEW
(One post breakaway sign supports.)



SEC. A-A

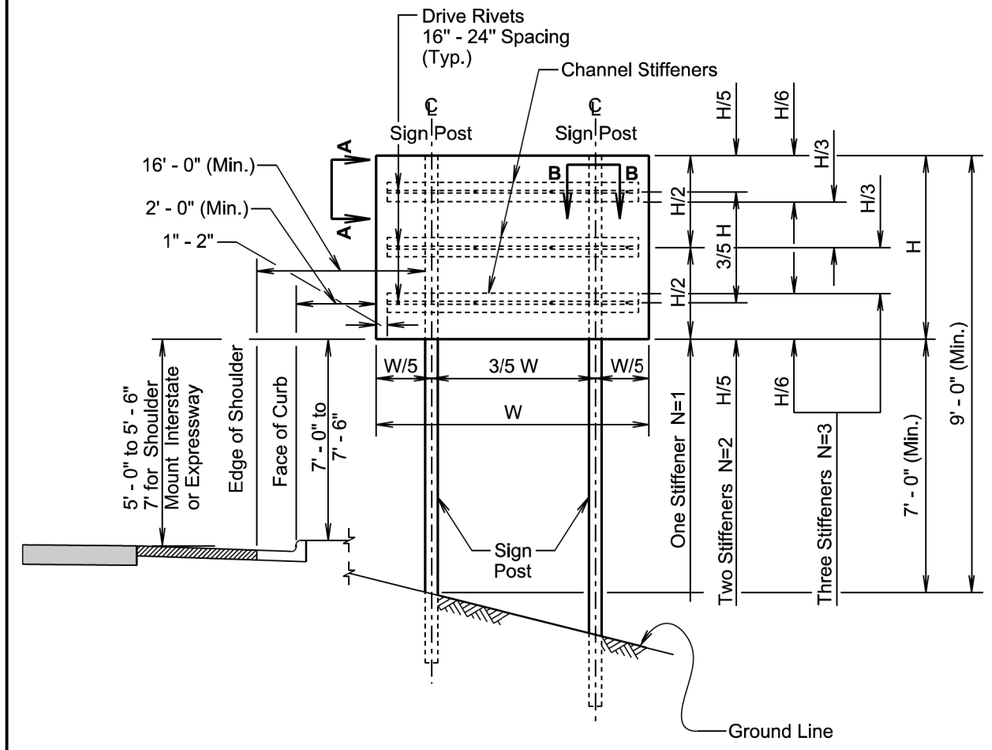


SEC. B-B
(Typical sign and stiffener details.)

ø A plastic washer, as recommended by the sheeting manufacturer, will be installed between the sign face and the metal washer shown.

November 19, 2020

Published Date: 2026	SDDOT	SIGN STIFFENER DETAILS	PLATE NUMBER 632.60
			Sheet 1 of 2



TWO POST BREAKAWAY SIGN SUPPORTS

GENERAL NOTES:

The number of stiffeners used (N) will be as follows:
If H < = 2' - 0" then N = 1
if 2' - 0" < H < = 8' - 0" then N = 2
if 8' - 0" < H < = 15' - 0" then N = 3
where H is the vertical dimension of the sign.

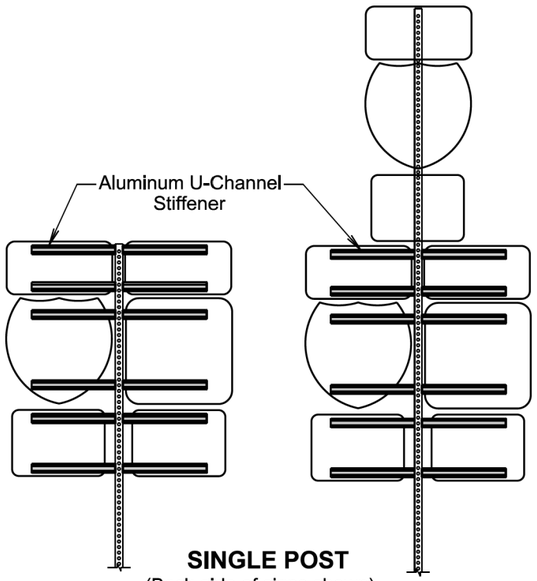
A minimum of two bolts will be required to fasten the sign to each post.

November 19, 2020

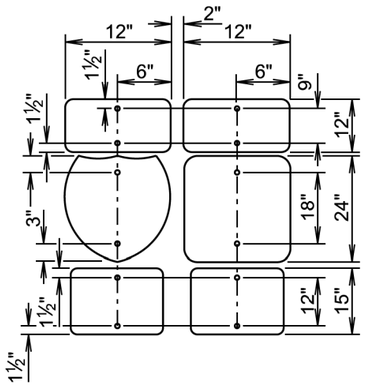
Published Date: 2026	SDDOT	SIGN STIFFENER DETAILS	PLATE NUMBER 632.60
			Sheet 2 of 2

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH0038(48)304	S12	S12

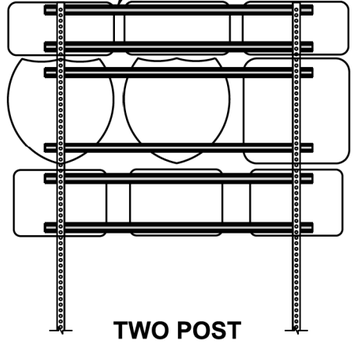
Plotting Date: 8/28/2025



SINGLE POST
(Back-side of signs shown)



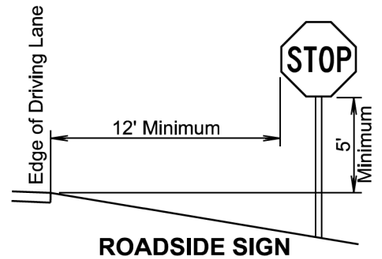
TYPICAL ROUTE MARKER BOLT HOLE LOCATIONS



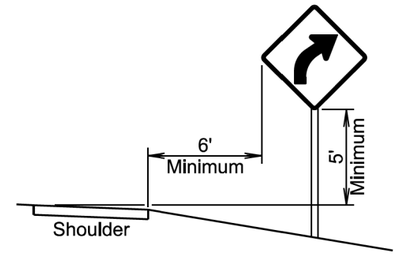
TWO POST
(Back-side of signs shown)

November 19, 2020

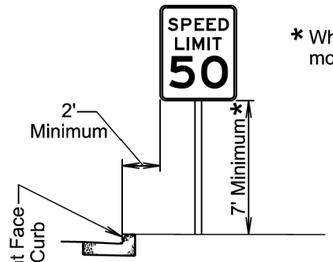
Published Date: 2026	SDDOT	MULTIPLE ROUTE MARKER SIGN STIFFENER INSTALLATION DETAILS	PLATE NUMBER 632.62
			Sheet 1 of 1



ROADSIDE SIGN IN RURAL AREA

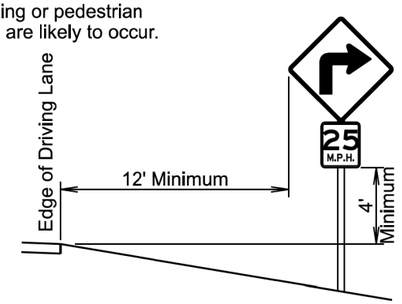


ROADSIDE SIGN IN RURAL AREA
(If shoulder width is greater than 6 foot)

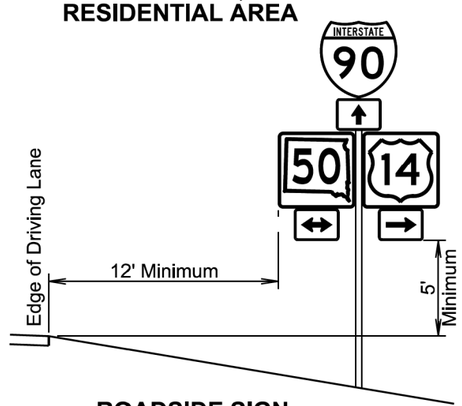


ROADSIDE SIGN IN BUSINESS, COMMERCIAL, OR RESIDENTIAL AREA

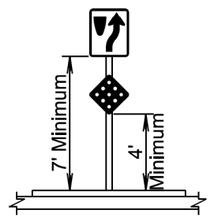
* Where parking or pedestrian movements are likely to occur.



WARNING SIGN ADVISORY SPEED PLAQUE IN RURAL AREA



ROADSIDE SIGN IN RURAL AREA



SIGN ON NOSE OF MEDIAN

April 8, 2025

Published Date: 2026	SDDOT	OFFSETS FOR SIGN INSTALLATION	PLATE NUMBER 632.90
			Sheet 1 of 1