

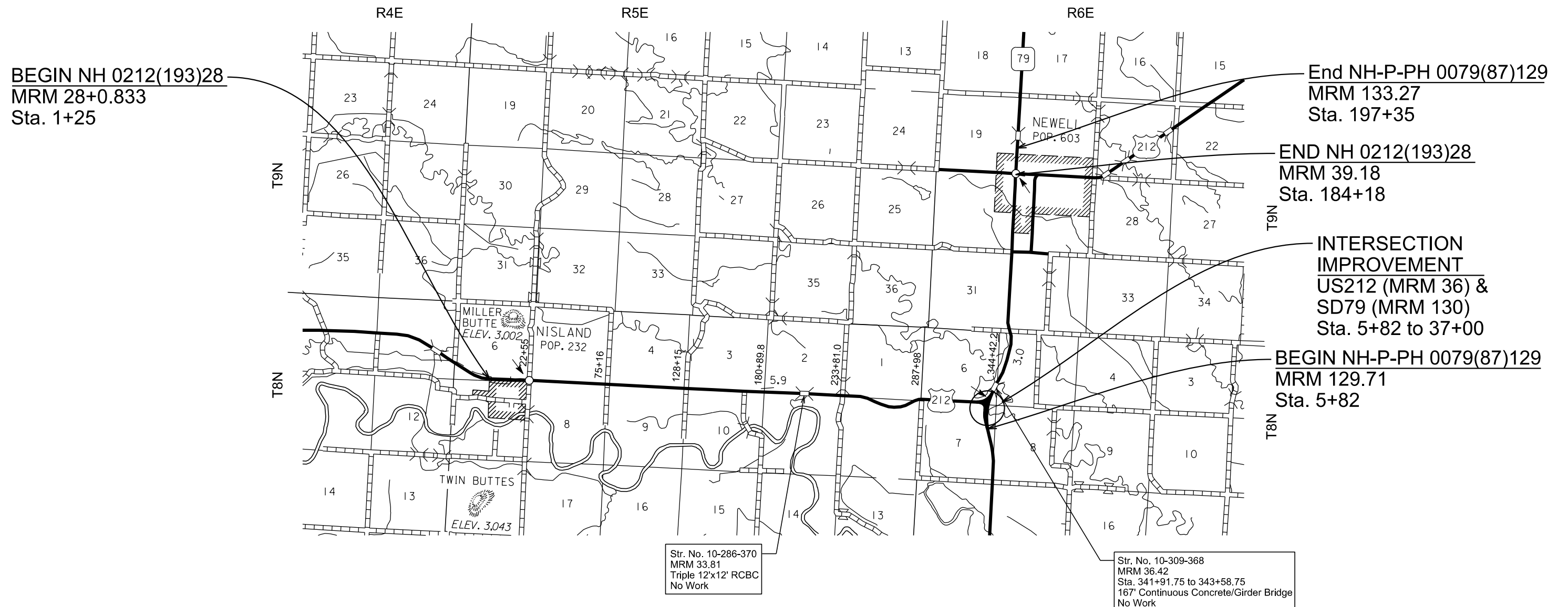
SECTION S: SIGNING PLANS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P-PH 0079(87)129 NH 0212(193)28	S1	S19

Plotting Date: 04/15/2024

INDEX OF SHEETS

S1	General Layout with Index
S2-S3	Estimate with General Notes & Tables
S4-S6	Signing Tables
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S10	Sign Details
S11-S12	Standard Details
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Revised: 4-15-2024 KV

SECTION S – ESTIMATE OF QUANTITIES

PCN: 06CP

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
632E2510	Type 2 Object Marker Back to Back	15	Each

PCN: 04L0

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E0130	Remove Traffic Sign	32	Each
110E0135	Remove Delineator	70	Each
110E7150	Remove Sign for Reset	2	Each
632E1320	2.0"x2.0" Perforated Tube Post	22.5	Ft
632E1340	2.5"x2.5" Perforated Tube Post	160.5	Ft
632E2022	4"x4" White Delineator Back to Back with 1.12 Lb/Ft Post	27	Each
632E2510	Type 2 Object Marker Back to Back	7	Each
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	121.0	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	52.3	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".

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 salvaged and reattached to the new sign in the same location. Payment for this work will be incidental to the various signing contract items.

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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 overlamine 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:

- 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.
- 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.

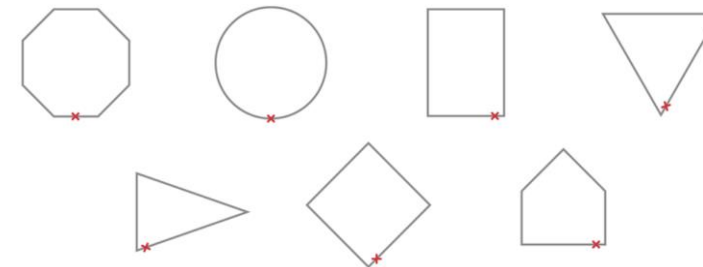


TABLE OF DELINEATORS

Hwy	Station to	Station	Length Ft	# Delins. Outside of Curve	# Delins. Inside of Curve	Total Delins.
US 212	324+00	332+65	865	2	2	4
SD 79/US 212	5+82	37+00	3118	17	6	23
Totals:						27

TABLE OF DELINEATORS

MRM	Station	Offset	Type 2 Object Marker Back-to-Back Each
US212 - PCN 06CP			
30+0.638	38+37	L	1
31+0.349	74+80	R	1
31+0.803	99+40	L	1
31+0.578	87+38	L	1
34+0.943	263+00	R	1
34+1.036	268+00	R	1
35+0.337	287+40	L/R	2
35+0.457	293+55	L	1
35+0.788	311+00	L	1
35+0.863	314+98	L/R	2
36+0.025	321+89	L/R	2
36.42+0.109	348+87	L	1
PCN 06CP TOTAL:			15
SD79 - PCN 04L0			
129.71+0.06	12+10		2
129.71+0.163	17+45		2
130+0.022	23+04	L	1
SD79 & US212			
36.19+0.022	27+45		2
PCN 04L0 TOTAL:			7

SIGN TABLE

PCN 04L0 - SD HWY 79 - PERMANENT SIGNING																												
HWY	EXISTING LOCATION MRM	NEW LOCATION STA	SIGN										POST						SIGN DESCRIPTION	WORK TO BE DONE	LF of 2.0"	LF of 2.5"	FLAT ALUMINUM SIGN		REMOVE SIGN	REMOVE SIGN FOR RESET & RESET SIGN		
			Side of Road	Width (in)	Height (in)	Direction Facing	Location	New Sign	Sign Type	Remove Existing	Square Footage	Sheeting Type	New Post	Length Post #1 (ft)	Offset to center of Post #1 (ft)	Length Post #2 (ft)	Offset to center of Post #2 (ft)	Size (in)					# of Posts	Shear Slip Base			SQFT IV	SQFT XI
79	129.71 + 0.025	10+23 36.0' Rt	Right	60	24	South	ROW	NO	FLAT ALUM	YES	10.0	I	NO								ADO-1: ADOPT-A-HIGHWAY CLUB SIGN	REMOVE SIGN ASSEMBLY AND POSTS FOR RESET, AND RESET SIGNS ON EXISTING POST						1
			Right	36	30	South	ROW	NO	FLAT ALUM	YES	7.5	I											ADO-2: ADOPT-A-HIGHWAY LITTER CONTROL COURTESY OF					
			Right	30	30	South	ROW	NO	FLAT ALUM	YES	6.3	IV												AD-7: LITTER CREW AHEAD - HINGED				
79	129.71 + 0.027	-	Median	24	30	South	ROW	NO	FLAT ALUM	YES	5.0	IV	-								R4-7: KEEP RIGHT (SYM)	REMOVE SIGN ASSEMBLY AND POSTS						1
79	129.71 + 0.029	-		0	0	South	ROW	NO	FLAT ALUM	YES	0.0	XI	-								R5-1: DO NOT ENTER	REMOVE SIGN ASSEMBLY AND POSTS						1
79	129.71 + 0.104	14+35 36.0' Rt	Right	72	36	South	ROW	NO	FLAT ALUM	YES	18.0	IV	-								RG-VAR: GENERAL INFORMATION-REC/CULTURAL ROCKY POINT RECREATION AREA <- 15 MILES	REMOVE SIGN ASSEMBLY AND POSTS FOR RESET, AND RESET SIGN ON EXISTING POSTS						1
79	129.71 + 0.158	17+00 40.5' Lt	Left	84	48	North	ROW	YES	FLAT ALUM	YES	28.0	IV	YES	13.0	40.5	14.1	44.7	2.5	2	YES	D2-3: DISTANCE BOARD - 3 LINES VALE 5, STURGIS 22, RAPID CITY 49	REMOVE SIGN ASSEMBLY AND POSTS, INSTALL NEW SIGNS ON NEW POSTS		27.1	28.0			1
79	129.71 + 0.17	18+80 42.0' Rt	Right	21	15	South	ROW	YES	FLAT ALUM	YES	2.2	IV	YES	14.1	42.0	15.2	46.2	2.5	2	YES	M6-3: DIR ARROW - VERT SINGLE HEAD - US	REMOVE SIGN ASSEMBLY AND POSTS, INSTALL NEW SIGNS ON NEW POSTS			2.2		1	
			Right	21	15	South	ROW	YES	FLAT ALUM	YES	2.2	IV									M5-1LA: ADVANCE TURN 90 DEGREE - LEFT - US		2.2					
			Right	21	15	South	ROW	YES	FLAT ALUM	YES	2.2	IV									M6-3: DIR ARROW - VERT SINGLE HEAD - SD		2.2					
			Right	24	24	South	ROW	YES	FLAT ALUM	YES	4.0	IV									M1-4: ROUTE MARKER (US HIGHWAYS) US 212		4.0					
			Right	24	24	South	ROW	YES	FLAT ALUM	YES	4.0	IV									M1-4: ROUTE MARKER (US HIGHWAYS) US 212		4.0					
			Right	24	24	South	ROW	YES	FLAT ALUM	YES	4.0	IV									M1-5: ROUTE MARKER (STATE HIGHWAYS) SD 79		4.0					
			Right	24	12	South	ROW	YES	FLAT ALUM	YES	2.0	IV									M3-4: DIRECTIONAL MARKER - WEST - US		2.0					
			Right	24	12	South	ROW	YES	FLAT ALUM	YES	2.0	IV									M3-1: DIRECTION MARKER - NORTH - SD		2.0					
			Right	24	12	South	ROW	YES	FLAT ALUM	YES	2.0	IV									M3-2: DIRECTIONAL MARKER - EAST - US		2.0					
79	129.71 + 0.227	-	Left	24	24	North	ROW	NO	FLAT ALUM	YES	4.0	XI	-								M1-5: ROUTE MARKER (STATE/COUNTY ROADS)	REMOVE SIGN ASSEMBLY AND POSTS						1
			Left	24	12	North	ROW	NO	FLAT ALUM	YES	2.0	XI		M3-3A: DIRECTIONAL MARKER - SOUTH - US														
79	130 + 0.005	23+10 38.0' Rt	Right	102	36	South	ROW	YES	FLAT ALUM	YES	25.5	IV	YES	11.9	38.0	13.3	43.1	2.5	2	YES	D1-2: DESTINATION BOARD - 2 LINES W/ ARROW NEWELL ^, BELLE FOURCHE <-	REMOVE SIGN ASSEMBLY AND POSTS, INSTALL NEW SIGNS ON NEW POSTS		25.2	25.5			1
79	130 + 0.011	-	Left	30	30	South	ROW	NO	FLAT ALUM	YES	6.3	IV	-								R3-7L: LEFT LANE MUST TURN LEFT - WORDS	REMOVE SIGN ASSEMBLY AND POSTS						1
79	130.02 + 0.028	-	Right	30	30	West	ROW	NO	FLAT ALUM	YES	6.3	XI	-								R5-1: DO NOT ENTER	REMOVE SIGN ASSEMBLY AND POSTS						1
79	130.02 + 0.039	-	Right	24	24	West	ROW	NO	FLAT ALUM	YES	4.0	IV	-									M1-5: ROUTE MARKER (STATE/COUNTY ROADS)	REMOVE SIGN ASSEMBLY AND POSTS, INSTALL NEW SIGNS ON NEW POSTS					1
			Right	30	24	West	ROW	NO	FLAT ALUM	YES	5.0	IV		M1-4: ROUTE MARKER (US HIGHWAYS)														
			Right	21	15	West	ROW	NO	FLAT ALUM	YES	2.2	IV		M6-1A: DR ARROW - HORIZ SINGLE HEAD - US														
			Right	21	15	West	ROW	NO	FLAT ALUM	YES	2.2	IV		M6-1A: DR ARROW - HORIZ SINGLE HEAD - US														
79	130.03 + 0	-	Left	30	30	South	ROW	NO	FLAT ALUM	YES	6.3	XI	-								R5-1: DO NOT ENTER	REMOVE SIGN ASSEMBLY AND POSTS						1

SIGN TABLE

PCN 04L0 - US HWY 212 - PERMANENT SIGNING																																								
HWY	EXISTING LOCATION MRM	NEW LOCATION STA	SIGN											POST						SIGN DESCRIPTION	WORK TO BE DONE	LF of 2.0"	LF of 2.5"	FLAT ALUMINUM SIGN			REMOVE SIGN	REMOVE SIGN FOR RESET & RESET SIGN												
			Side of Road	Width (in)	Height (in)	Direction Facing	Location	New Sign	Sign Type	Remove Existing	Square Footage	Sheeting Type	New Post	Length Post #1 (ft)	Offset to center of Post #1 (ft)	Length Post #2 (ft)	Offset to center of Post #2 (ft)	Size (in)	# of Posts					Shear Slip Base	SQFT I	SQFT IV			SQFT XI											
212	35.97 + 0.037	-	Right	24	24	North	ROW	NO	FLAT ALUM	YES	4.0	XI	-										W13-1PK: ADVISORY SPEED PLATE 55 M.P.H.	REMOVE SIGN ASSEMBLY AND POSTS								1								
			Right	48	48	East	ROW	NO	FLAT ALUM	YES	16.0	XI	-												W1-2R: RIGHT CURVE ARROW															
212	36 + 0.073	-	Right	36	48	West	ROW	NO	FLAT ALUM	YES	12.0	XI	-										W13-3: RAMP ____ M.P.H.	REMOVE SIGN ASSEMBLY AND POSTS								1								
212	36.08 + 0.016	26+35	Right	24	24	West	ROW	YES	FLAT ALUM	YES	4.0	IV											M1-5: ROUTE MARKER (STATE/COUNTY ROADS) SD 79	REMOVE SIGN ASSEMBLY AND POSTS, INSTALL NEW SIGNS ON NEW POSTS																
			Right	24	24	West	ROW	YES	FLAT ALUM	YES	4.0	IV													M1-5: ROUTE MARKER (STATE/COUNTY ROADS) SD 79															
			Right	30	24	West	ROW	YES	FLAT ALUM	YES	5.0	IV													M1-4: ROUTE MARKER (US HIGHWAYS) US 212															
			Right	21	15	West	ROW	YES	FLAT ALUM	YES	2.2	IV														M6-1: DIR ARROW - LEFT SINGLE HEAD - US														
			Right	21	15	West	ROW	YES	FLAT ALUM	YES	2.2	IV	YES	16.2	42.0	16.2	42.0	2.5	2	YES						M6-1: DIR ARROW - LEFT SINGLE HEAD - STATE														
			Right	21	15	West	ROW	YES	FLAT ALUM	YES	2.2	IV															M6-1: DIR ARROW - RIGHT SINGLE HEAD - STATE													
			Right	24	12	West	ROW	YES	FLAT ALUM	YES	2.0	IV															M3-2A: DIRECTIONAL MARKER - EAST - US													
			Right	24	12	West	ROW	YES	FLAT ALUM	YES	2.0	IV																M3-1A: DIRECTION MARKER - NORTH - STATE												
			Right	24	12	West	ROW	YES	FLAT ALUM	YES	2.0	IV																	M3-3A: DIRECTIONAL MARKER - SOUTH - STATE											
			Right	48	24	West	ROW	YES	FLAT ALUM	NO	8.0	XI																										8.0		
212	36.08 + 0.025	-	Left	30	30	West	ROW	NO	FLAT ALUM	YES	6.3	XI	-										R5-1: DO NOT ENTER	REMOVE SIGN ASSEMBLY AND POSTS										1						
212	36.1 + 0.039	-	Right	24	24	West	ROW	NO	FLAT ALUM	YES	4.0	XI	-											W13-1PG: ADVISORY SPEED PLATE 35 M.P.H.	REMOVE SIGN ASSEMBLY AND POSTS										1					
			Right	48	48	East	ROW	NO	FLAT ALUM	YES	16.0	XI	-													W1-1R: RIGHT TURN ARROW														
212	36.1 + 0.045	-	Median	24	30	West	ROW	NO	FLAT ALUM	YES	5.0	XI	-										W1-8: CHEVRON ALIGNMENT (SYM)	REMOVE SIGN ASSEMBLY AND POSTS											1					
212	36.1 + 0.059	2+01.6	Median	24	30	West	ROW	YES	FLAT ALUM	YES	5.0	XI	YES	7.5	12				2.0	1	NO			W1-8: CHEVRON ALIGNMENT (SYM)	REMOVE SIGN ASSEMBLY AND POSTS	7.5					5.0			1						
212	36.1 + 0.067	1+10	Left	36	36	East	ROW	YES	FLAT ALUM	YES	9.0	XI	YES	12.0	28.0				2.5	1	YES			R1-2: YIELD	REMOVE SIGN ASSEMBLY AND POSTS		12.0				9.0				1					
212	36.1 + 0.071	2+51.6	Median	24	30	East	ROW	YES	FLAT ALUM	YES	5.0	XI	YES	7.5	12				2.0	1	NO			W1-8: CHEVRON ALIGNMENT (SYM)	REMOVE SIGN ASSEMBLY AND POSTS. INSTALL NEW SIGN ON NEW POST.	7.5					5.0				1					
212	36.1 + 0.074	3+01.6	Median	24	30	East	ROW	YES	FLAT ALUM	YES	5.0	XI	YES	7.5	12				2.0	1	NO			W1-8: CHEVRON ALIGNMENT (SYM)	REMOVE SIGN ASSEMBLY AND POSTS	7.5					5.0				1					
212	36.1 + 0.08	-	Right	30	30	NorthWest	ROW	NO	FLAT ALUM	YES	6.3	XI	-											R1-2: YIELD	REMOVE SIGN ASSEMBLY AND POSTS										1					
212	36.1 + 0.097	332+35	Right	36	36	West	ROW	YES	FLAT ALUM	YES	9.0	XI	YES	11.0	35.0									R1-1: STOP	REMOVE SIGN ASSEMBLY AND POSTS, INSTALL NEW SIGNS ON NEW POSTS (ONLY INSTALLING STOP SIGN)											9.0			1	
			Right	36	12	West	ROW	NO	FLAT ALUM	YES	3.0	IV	-													R6-1R: ONE WAY ON RIGHT ARROW														
			Right	30	24	West	ROW	NO	FLAT ALUM	YES	5.0	IV	-														R6-3A: DIVIDED HIGHWAY T INTERSECTION (SYM)													

SIGN TABLE

PCN 04L0 - US HWY 212 - PERMANENT SIGNING																							LF of 2.0"	LF of 2.5"	FLAT ALUMINUM SIGN		REMOVE SIGN	REMOVE SIGN FOR RESET & RESET SIGN			
HWY	EXISTING LOCATION MRM	NEW LOCATION STA	SIGN							POST							SIGN DESCRIPTION	WORK TO BE DONE	SQFT IV	SQFT XI											
			Side of Road	Width (in)	Height (in)	Direction Facing	Location	New Sign	Sign Type	Remove Existing	Square Footage	Sheeting Type	New Post	Length Post #1 (ft)	Offset to center of Post #1 (ft)	Length Post #2 (ft)	Offset to center of Post #2 (ft)	Size (in)	# of Posts	Shear Slip Base											
212	36.1 + 0.097	-	Median	48	48	West	ROW	NO	FLAT ALUM	YES	16.0	XI	-									R1-1: STOP	REMOVE SIGN ASSEMBLY AND POSTS			1					
			Median	24	30	East	ROW	NO	FLAT ALUM	YES	5.0	IV												R4-7: KEEP RIGHT (SYM)							
212	36.16 + 0.017	-	Right	24	24	South	ROW	NO	FLAT ALUM	YES	4.0	I	-									I10-3: FATALITY MARKER/ THINK / WHY DIE	REMOVE SIGN ASSEMBLY AND POSTS			1					
212	36.17 + 0.006	-	Median	36	12	West	ROW	NO	FLAT ALUM	YES	3.0	IV	-									R6-1L: ONE WAY ON LEFT ARROW	REMOVE SIGN ASSEMBLY AND POSTS			1					
			Median	36	36	West	ROW	NO	FLAT ALUM	YES	9.0	XI												R1-2: YIELD							
212	36.18 + 0	-	Left	30	30	East	ROW	NO	FLAT ALUM	YES	6.3	XI	-									R1-2: YIELD	REMOVE SIGN ASSEMBLY AND POSTS			1					
212	36.19 + 0.003	-	Right	96	48	West	ROW	NO	FLAT ALUM	YES	32.0	IV	-									R6-1L: ONE WAY ON LEFT ARROW	REMOVE SIGN ASSEMBLY AND POSTS			1					
212	36.19 + 0.022	-	Right	24	24	South	ROW	NO	FLAT ALUM	YES	4.0	I	-									I10-3: FATALITY MARKER/ THINK / WHY DIE	REMOVE SIGN ASSEMBLY AND POSTS			1					
212	36.19 + 0.024	-	Right	24	24	South	ROW	NO	FLAT ALUM	YES	4.0	I	-									I10-3: FATALITY MARKER/ THINK / WHY DIE	REMOVE SIGN ASSEMBLY AND POSTS			1					
212		7+50	Left	36	36	North	ROW	YES	FLAT ALUM	NO	9.0	XI	YES	12.5	30			2.5	1	YES		W1-2r: Curve Right	INSTALL NEW SIGNS ON NEW POST	12.5		9.0					
				18	18	North		YES	FLAT ALUM	NO	2.3	XI																W13-1p: Advisory Speed - 35 M.P.H.	2.3		
212		9+27	Left	24	36	North	ROW	YES	FLAT ALUM	NO	6.0	IV	YES	11.0	30						YES		R3-20r: Begin Right Turn Lane	INSTALL NEW SIGN ON NEW POST	11.0						
212	36.19 + 0.096	-	Right	24	12	South	ROW	NO	FLAT ALUM	YES	2.0	IV	-										M3-1A: DIRECTIONAL MARKER - NORTH - SD	REMOVE SIGN ASSEMBLY AND POSTS			1				
			Right	24	12	South	ROW	NO	FLAT ALUM	YES	2.0	IV											M3-2A: DIRECTIONAL MARKER - EAST - US								
			Right	30	30	North	ROW	NO	FLAT ALUM	YES	6.3	XI											R5-1: DO NOT ENTER								
			Right	30	24	South	ROW	NO	FLAT ALUM	YES	5.0	IV											M1-4: ROUTE MARKER (US HIGHWAYS)								
			Right	24	24	South	ROW	NO	FLAT ALUM	YES	4.0	IV											M1-5: ROUTE MARKER (STATE/COUNTY ROADS)								
212	36.31 + 0.013	-	Right	36	48	North	ROW	NO	FLAT ALUM	YES	12.0	XI	-									W13-3: RAMP ____ M.P.H.	REMOVE SIGN ASSEMBLY AND POSTS			1					
212	36.31 + 0.046	36+50	Left	24	24	NorthEast	ROW	YES	FLAT ALUM	YES	4.0	IV	YES	14.1	39.0	15.2	43.9	2.5	2	YES		M1-5: ROUTE MARKER (STATE/COUNTY ROADS) SD 79	REMOVE SIGN ASSEMBLY AND POSTS, INSTALL NEW SIGNS ON NEW POSTS	29.3		4.0		1			
			Left	30	24	NorthEast	ROW	YES	FLAT ALUM	YES	5.0	IV																		M1-4: ROUTE MARKER (US HIGHWAYS) US 212	5.0
			Left	21	15	NorthEast	ROW	YES	FLAT ALUM	YES	2.2	IV																		M6-3: DIR ARROW - VERT SINGLE HEAD - STATE	2.2
			Left	21	15	NorthEast	ROW	YES	FLAT ALUM	YES	2.2	IV																		M6-2: DIR ARROW - RIGHT SINGLE HEAD - US	2.2
			Left	24	12	NorthEast	ROW	YES	FLAT ALUM	YES	2.0	IV																		M3-4A: DIRECTIONAL MARKER - WEST - US	2.0
			Left	24	12	NorthEast	ROW	YES	FLAT ALUM	YES	2.0	IV																		M3-3B: DIRECTIONAL MARKER - SOUTH - STATE	2.0
TOTALS:													22.5	160.5	121.0	52.3	32.0	2.0													

SIGNING LAYOUT

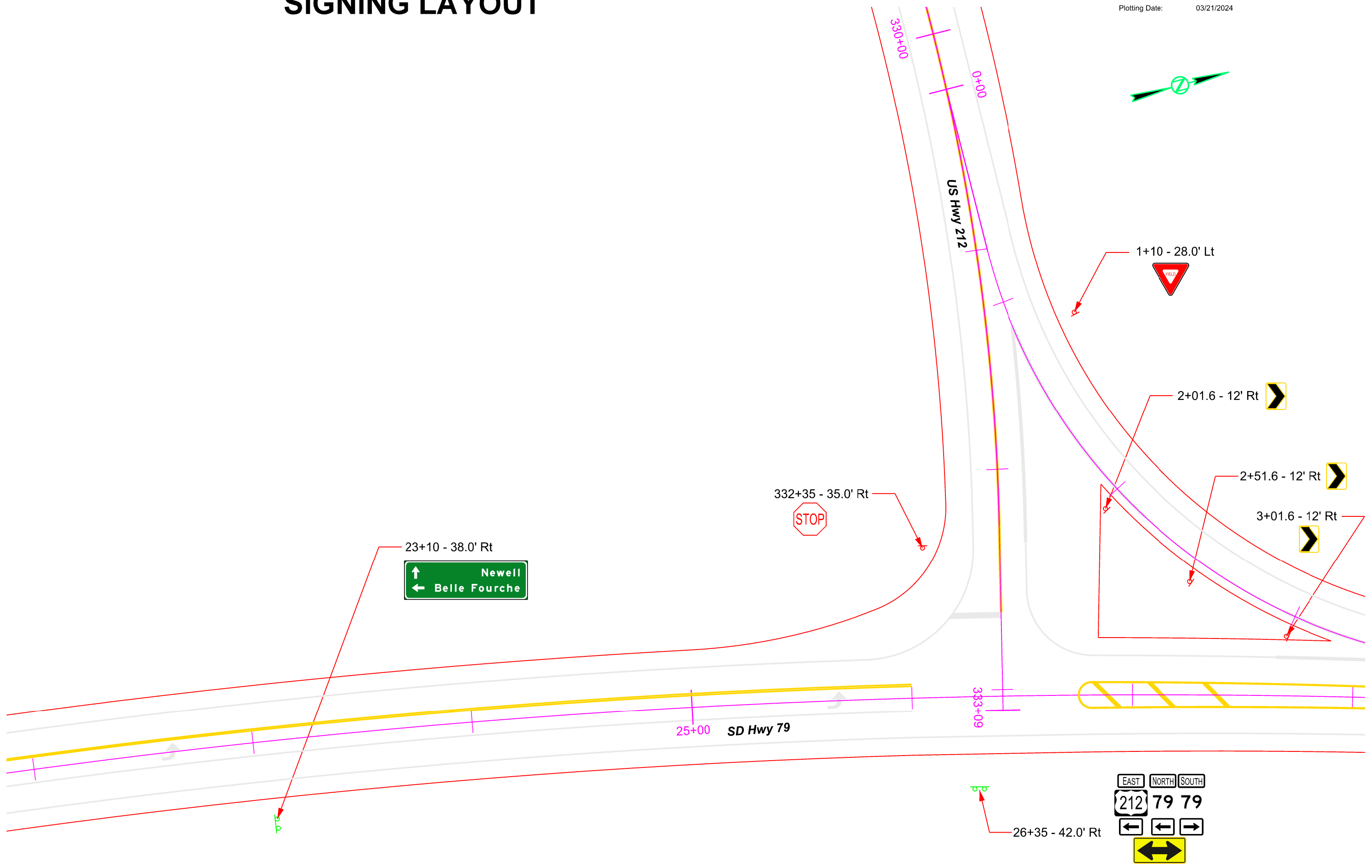
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P-PH 0079(87)129 NH 0212(193)28	S7	S19

Plotting Date: 03/21/2024

Plot Scale - 1:40

Plotted From - TRR012216

File - ...\\pjl\Bure06CP1022\signing.dgn



PAVEMENT MARKING LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P-PH 0079(87)129 NH 0212(193)28	S8	S19

Plotting Date: 03/21/2024



Plot Scale - 1:40

3+01.6 - 12' Rt



7+50 - 30' Rt



5+00

30+00

US Hwy 212 / SD Hwy 79

* - Variable Distance

Plotted From - TRR012216

File - ...\\p1\Bure06\CP1028\signing.dgn

PAVEMENT MARKING LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P-PH 0079(87)129 NH 0212(193)28	S9	S19

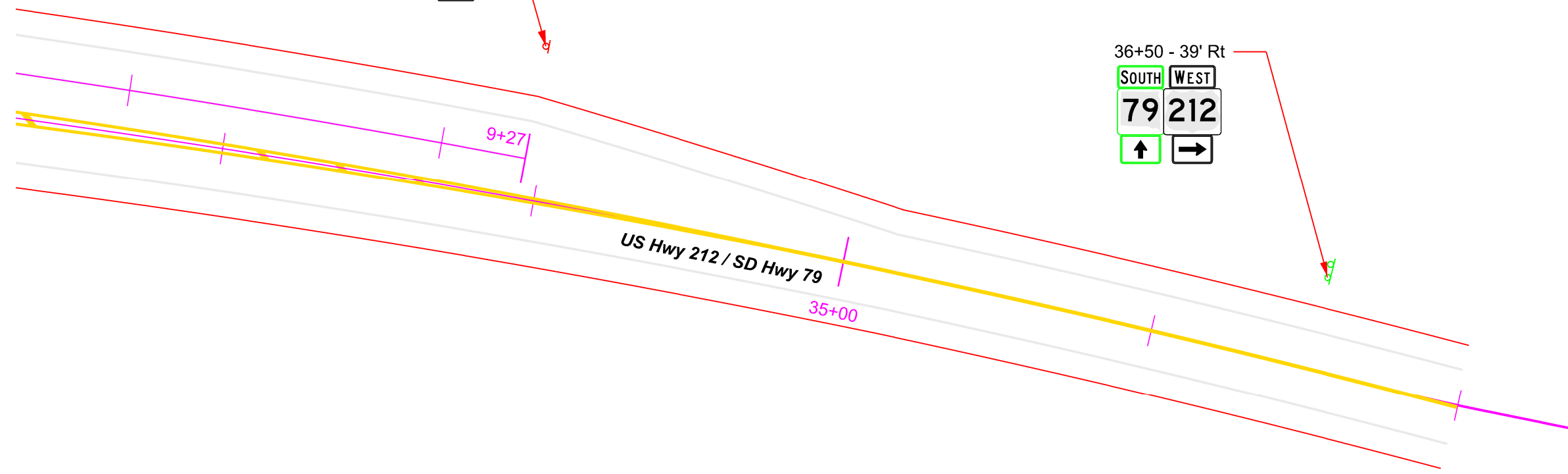
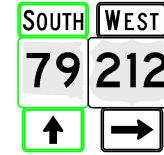
Plotting Date: 03/21/2024



9+27 - 30' Rt



36+50 - 39' Rt

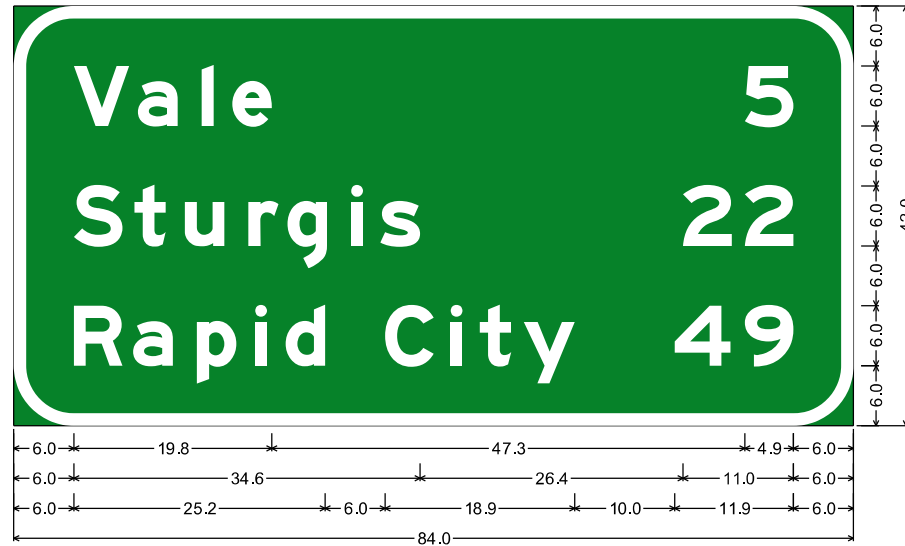


Plot Scale - 1:40

Plotted From - TRR012216

File - ...\\pjl\Bure06\CP1033\signing.dgn

Sign Details

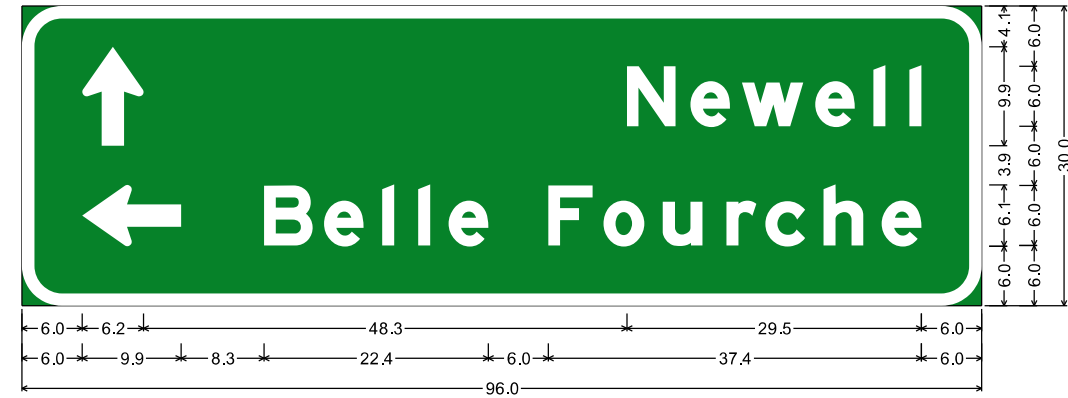


6.0" Radius, 1.3" Border, White on Green;
 "Vale", E Mod 2K; "5", E Mod 2K; "Sturgis", E Mod 2K; "22", E Mod 2K;
 "Rapid City", E Mod 2K; "49", E Mod 2K;

Table of widths and spaces

6.0	V	5.5	0.9	a	4.0	2.4	l	1.2	1.9	e	3.9	47.3	5	4.9	6.0																	
6.0	S	4.9	1.2	t	3.1	1.9	u	4.0	2.4	r	3.0	0.9	g	3.9	2.4	i	1.2	1.8	3.9	26.4	2	4.8	1.3	2	4.9	6.0						
6.0	R	4.9	1.1	a	3.9	2.4	p	4.0	1.8	i	1.2	1.9	d	4.0	6.0	C	4.8	1.7	i	1.2	1.7	3.2	1.2	y	5.1	10.0	4	5.6	1.4	9	4.9	6.0

WIDTH x HEIGHT	7' 0" x 3' 6"	
BORDER WIDTH	1.25" inset 0"	
CORNER RADIUS	6.0"	
BACKGROUND	TYPE:	Type IV High Intensity
	COLOR:	GREEN
LEGEND / BORDER	TYPE:	Type IV High Intensity
	COLOR:	WHITE



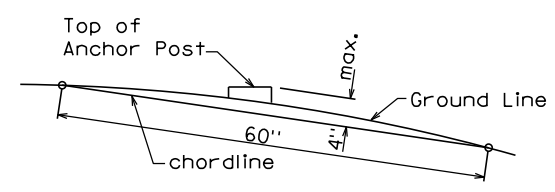
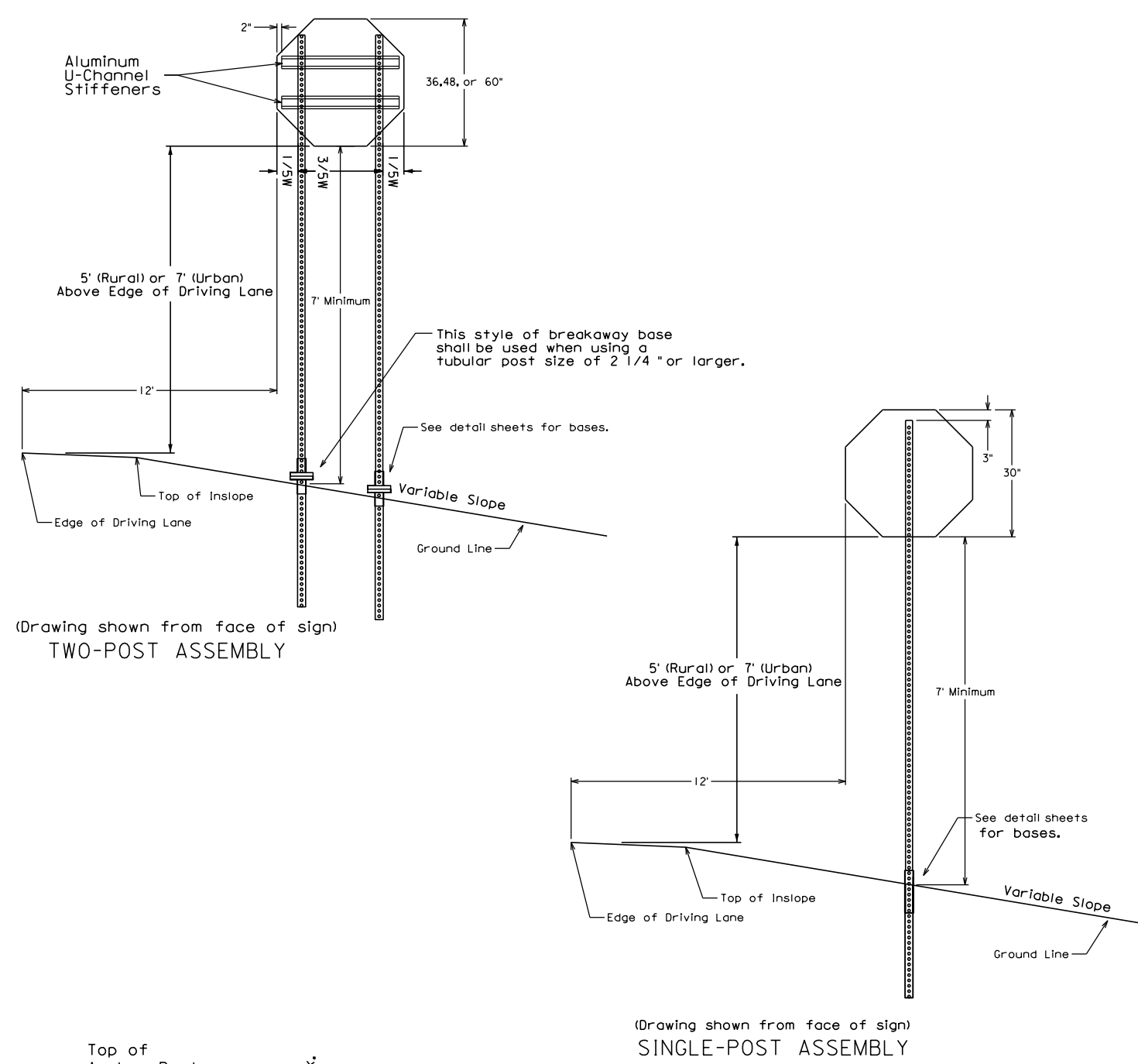
4.0" Radius, 1.3" Border, White on Green;
 Standard Arrow 2.25 9.9" X 6.1" 90°; "Newell", E Mod 2K; Standard Arrow 2.25 9.9" X 6.1" 180°;
 "Belle Fourche", E Mod 2K;

Table of widths and spaces

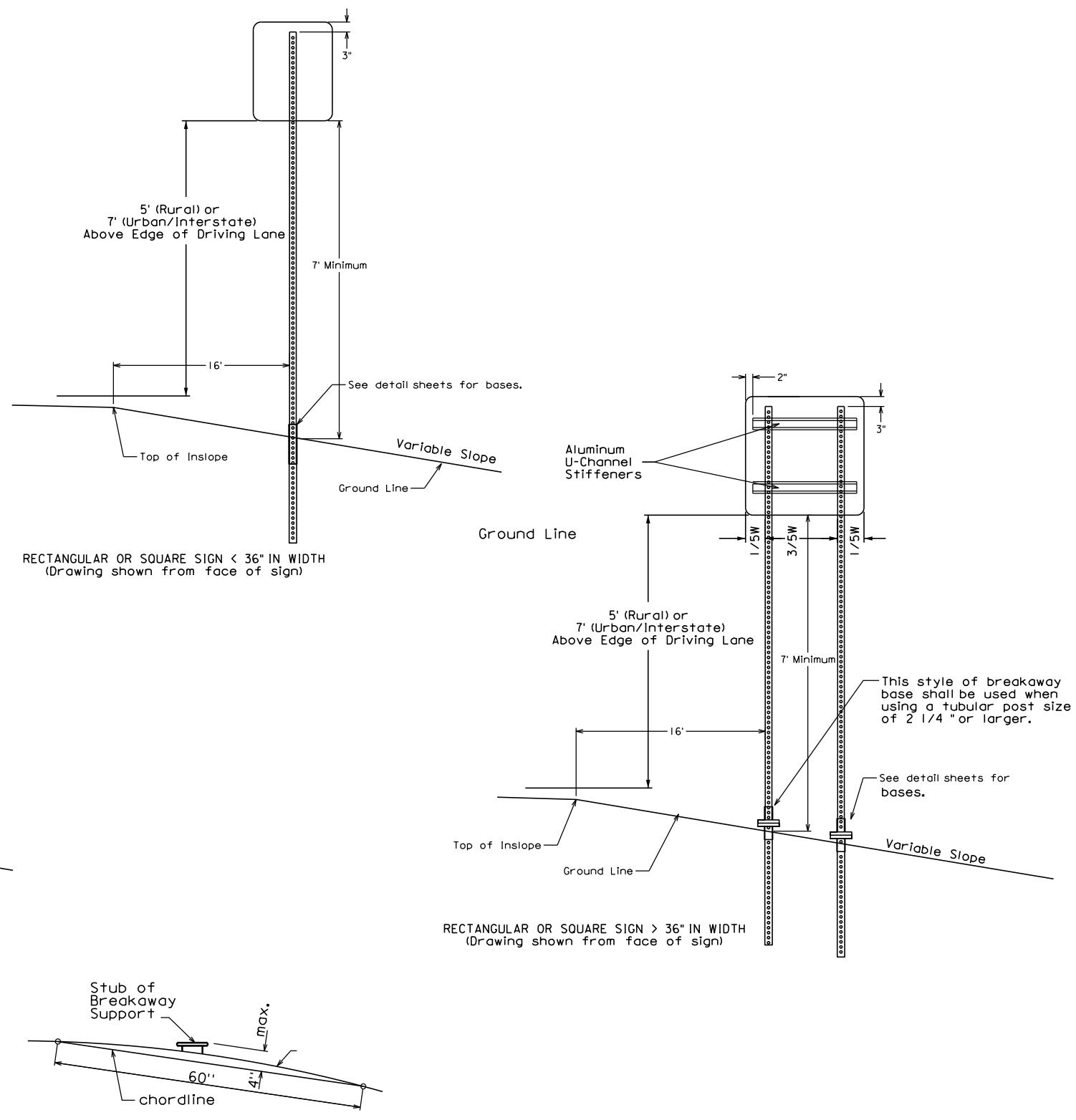
6.0	↑	6.2	48.3	N	4.9	1.5	e	3.9	1.2	w	6.1	1.2	e	4.0	1.9	l	1.2	2.4	l	1.2	6.0																	
6.0	←	9.9	8.3	B	4.9	1.1	e	4.0	1.8	l	1.2	2.4	l	1.2	1.9	e	3.9	6.0	F	4.5	1.1	4.0	1.9	u	4.0	2.4	r	3.0	0.9	c	3.9	1.9	h	3.9	1.9	e	4.0	6.0

WIDTH x HEIGHT	8' 0" x 2' 6"	
BORDER WIDTH	1.25" inset 0"	
CORNER RADIUS	4.0"	
BACKGROUND	TYPE:	Type IV High Intensity
	COLOR:	GREEN
LEGEND / BORDER	TYPE:	Type IV High Intensity
	COLOR:	WHITE

TYPICAL ERECTION DETAILS FOR STOP SIGN



TYPICAL ERECTION DETAILS FOR SQUARE OR RECTANGULAR SIGNS

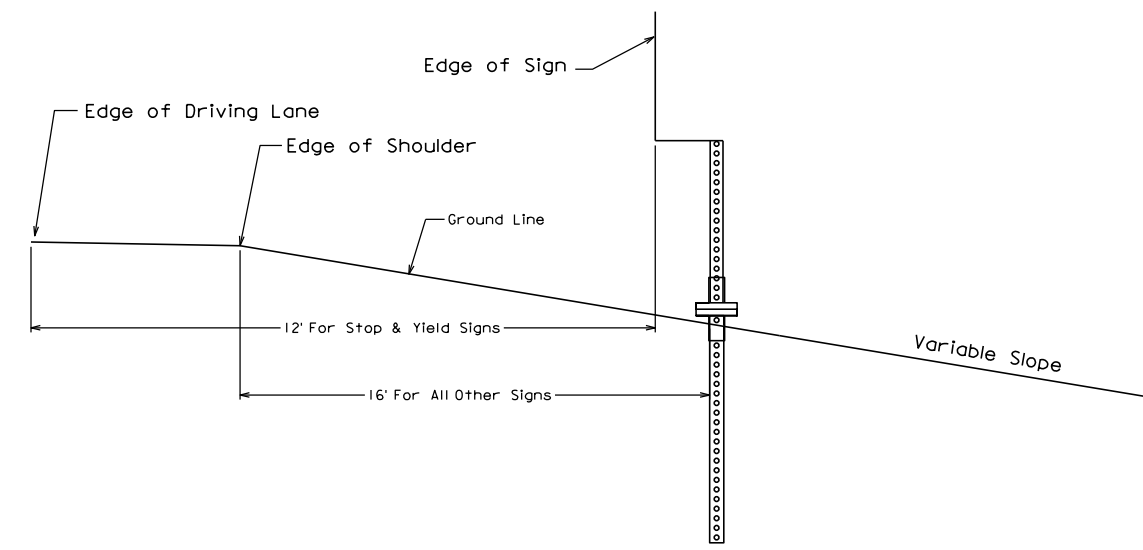


Plot Scale - 1:202.171

Plotted From - TRRC12216

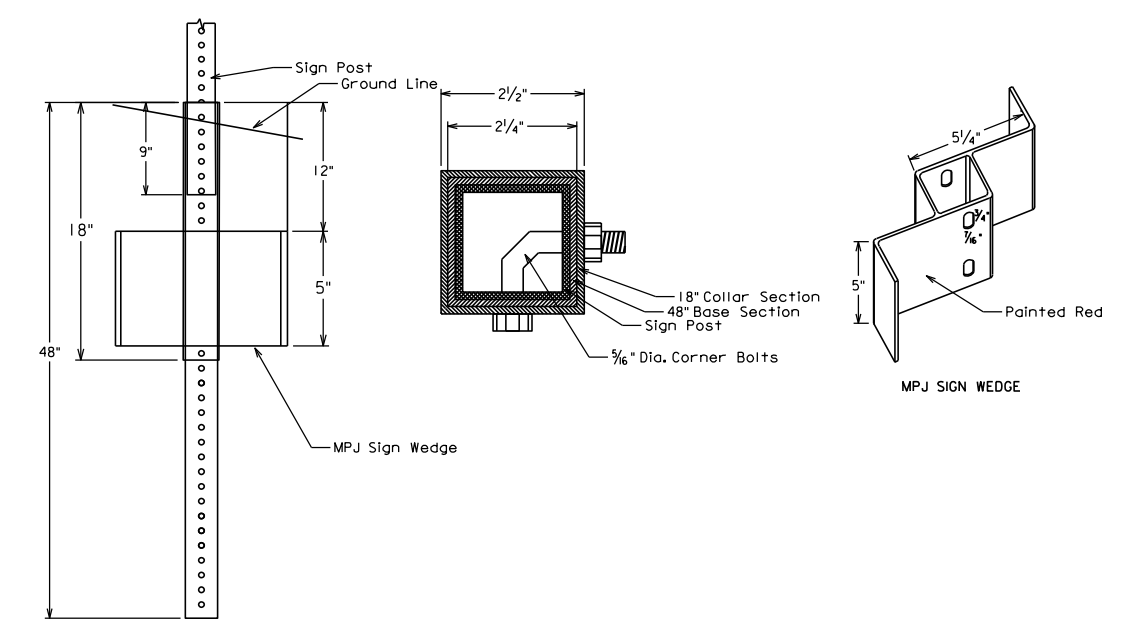
Plotted From -

Plot Scale - 1:202.767

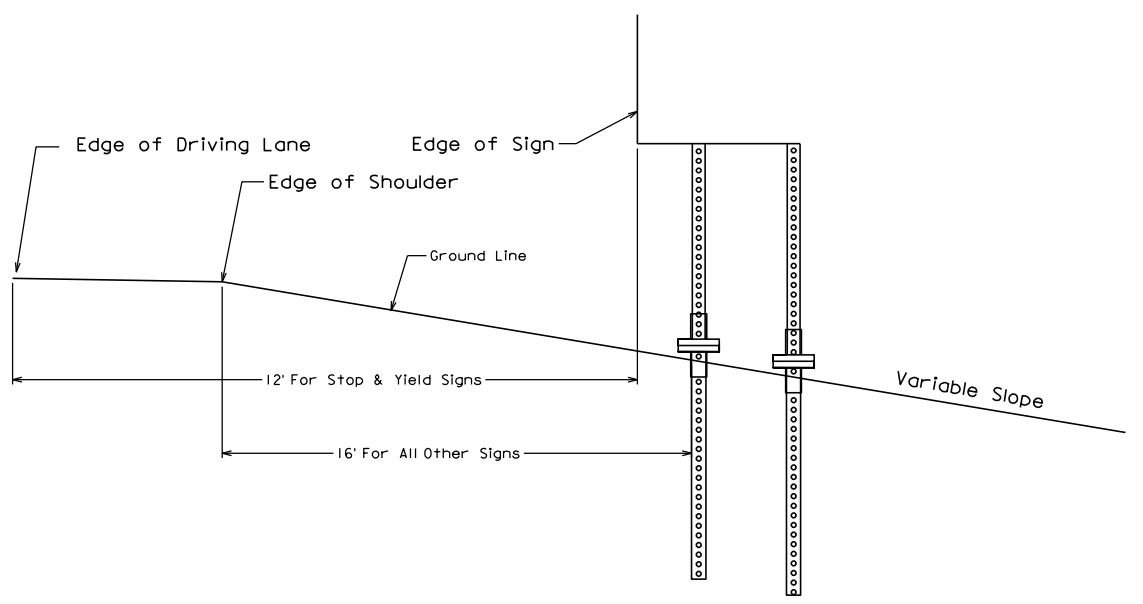
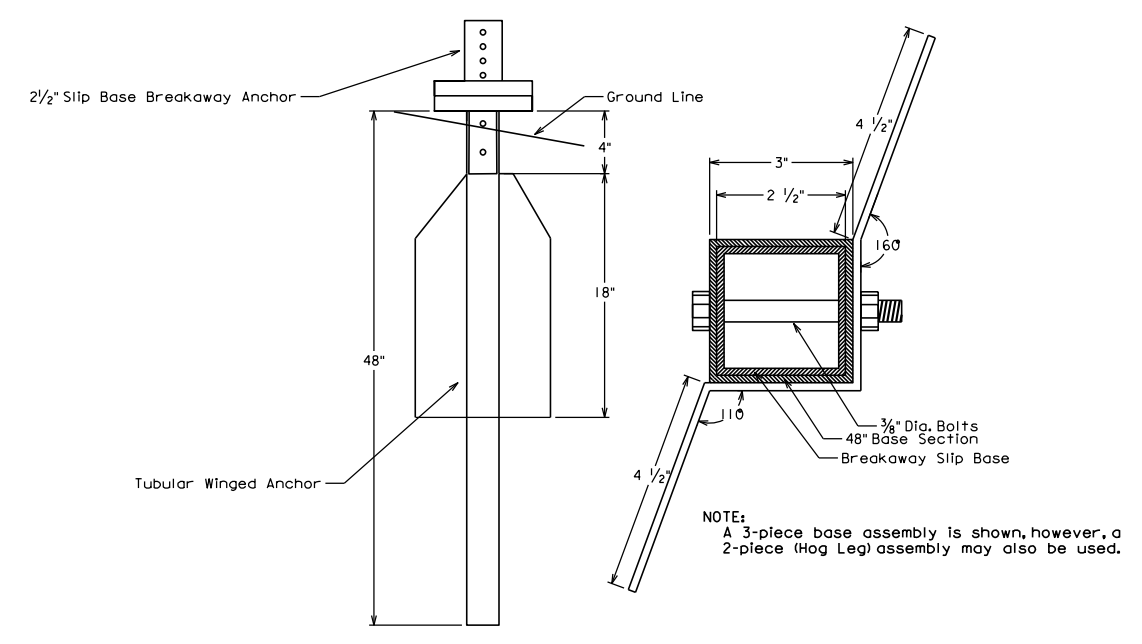


RURAL LOCATION WITH 1 POST
(Drawing shown from face of sign)

SIGN BASE DETAILS FOR A 2" SIGN POST

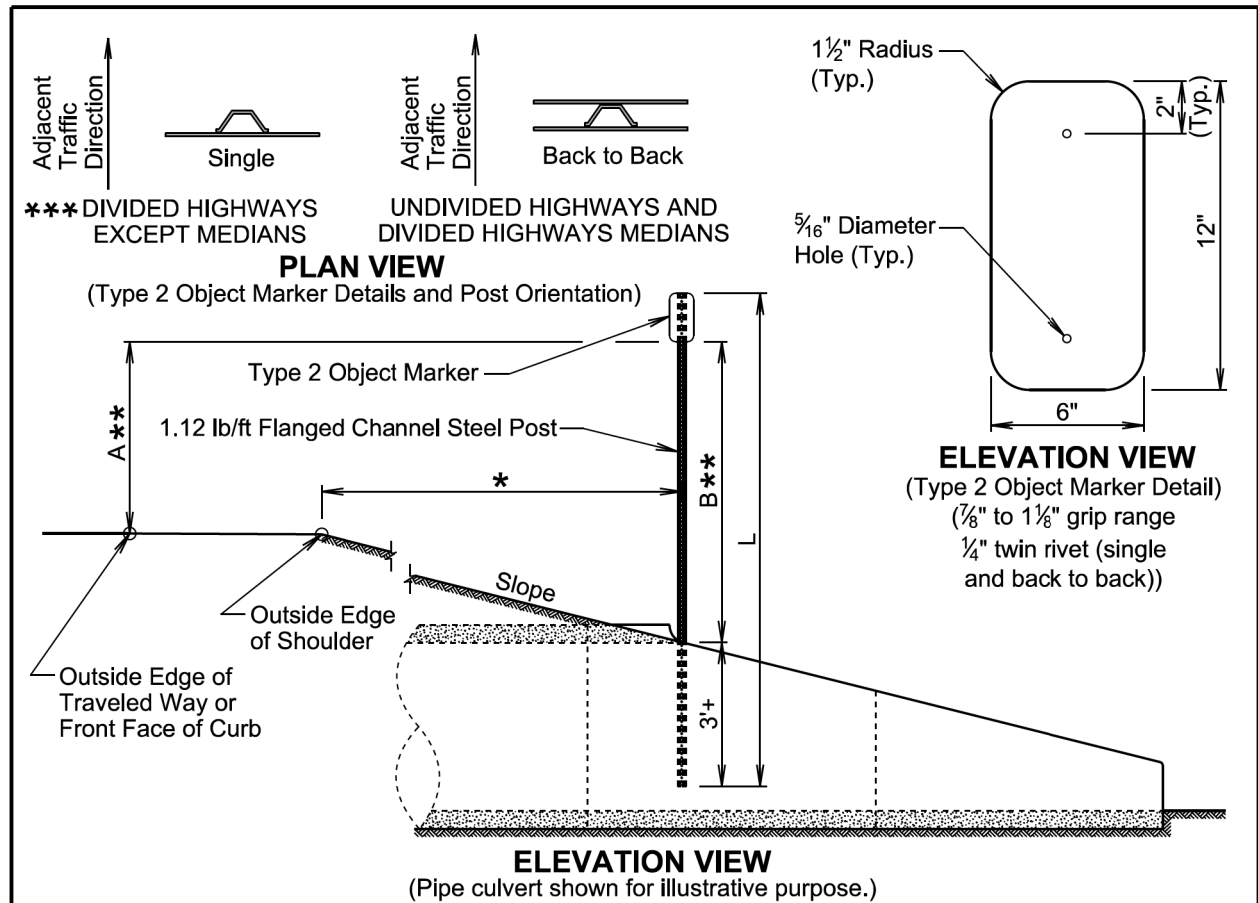


SIGN BASE DETAILS FOR A 2 1/2" SIGN POST



RURAL LOCATION WITH 2 POSTS
(Drawing shown from face of sign)

Plotted From - TRRC12216



ELEVATION VIEW
(Type 2 Object Marker Detail)
($\frac{7}{8}$ " to $1\frac{1}{8}$ " grip range
 $\frac{1}{4}$ " twin rivet (single and back to back))

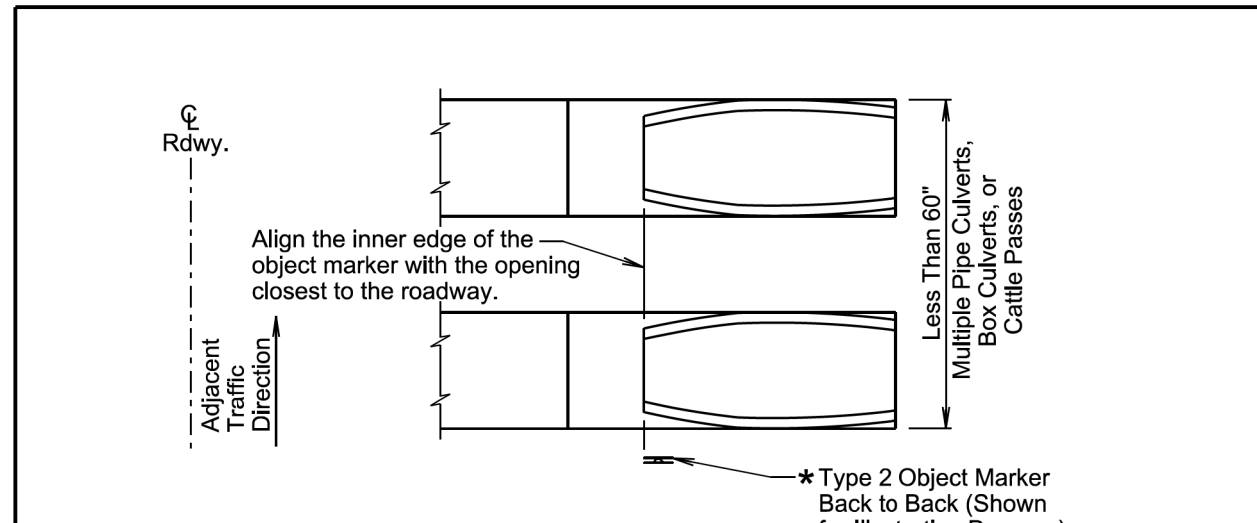
TYPE 2 OBJECT MARKER POST LENGTHS										
OFFSET (*)	1'	2'	3'	4'	5'	6'	7'	8'	Greater Than 8'	
POST LENGTH (L)										
SLOPE	3:1	8'-6"	8'-9"	9'-3"	9'-6"	9'-9"	10'-3"	10'-6"	10'-9"	8'-0"
	4:1	8'-6"	8'-9"	9'-0"	9'-3"	9'-9"	9'-9"	10'-0"	10'-3"	8'-0"
	5:1	8'-3"	8'-6"	8'-9"	9'-0"	9'-3"	9'-3"	9'-6"	9'-9"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

GENERAL NOTES:

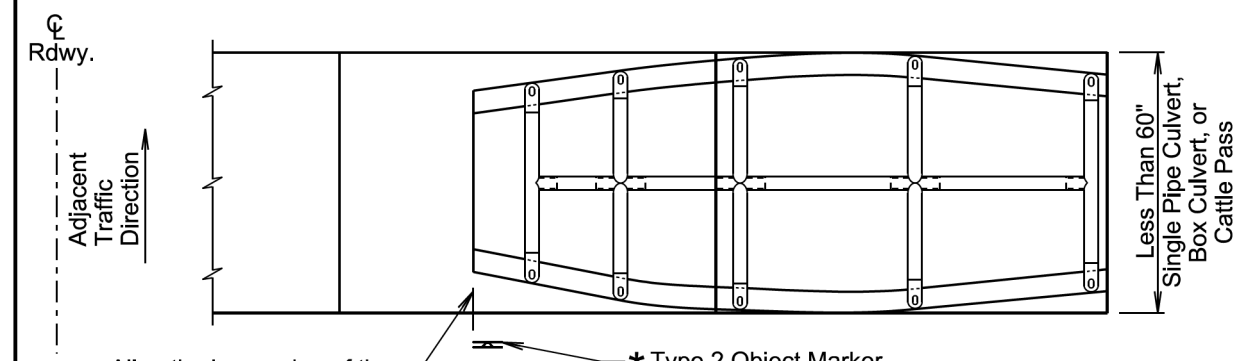
- *** The type 2 object marker may be installed back to back when specified in the plans.
Post Length L was calculated based on a shoulder width of 6 feet at a crosslope of 4 percent and L was rounded up to the nearest 3 inches.
- ** Dimension A is 4 feet when the Offset * is 8 feet and less. Dimension 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

SDDOT	TYPE 2 OBJECT MARKER (DIRECT DRIVE)	PLATE NUMBER 632.01
	<i>Published Date: 2024</i>	Sheet 1 of 1



PLAN VIEW
(For Multiple Pipe Culverts, Box Culverts, and Cattle Passes)
(Pipe culverts shown for illustrative purpose.)
(Embankment is not shown.)



PLAN VIEW
(For Single Pipe Culvert, Box Culvert, and Cattle Pass)
(Pipe culvert shown for illustrative purpose.)
(Embankment is not shown.)

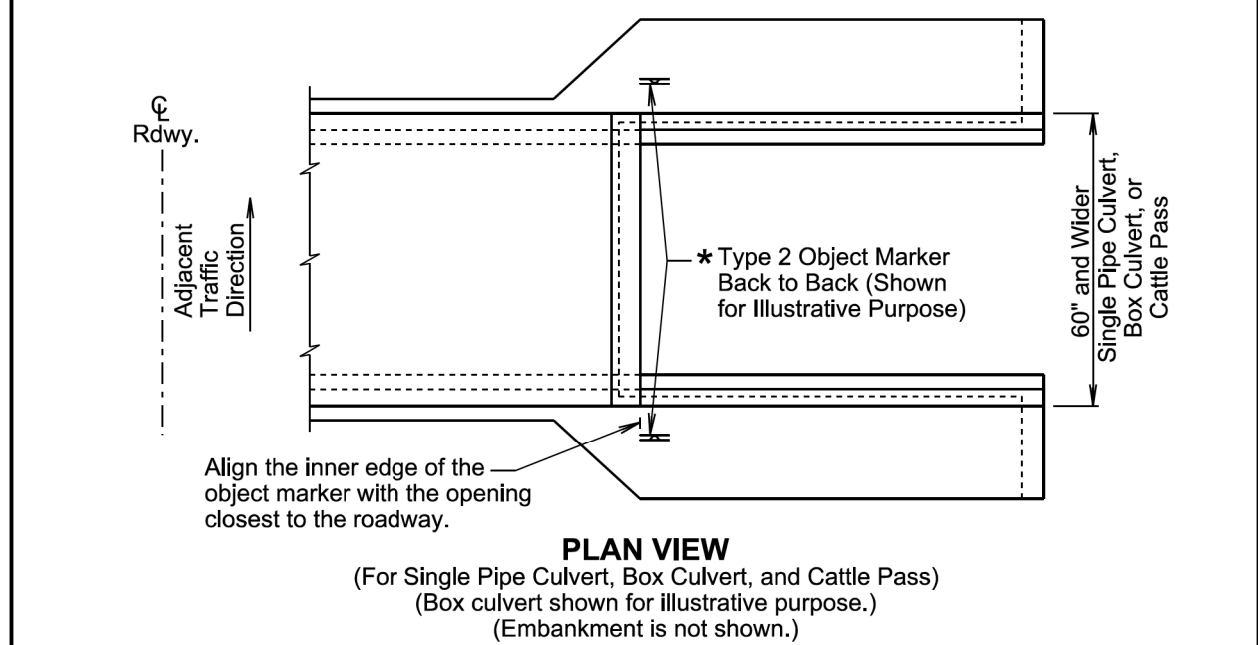
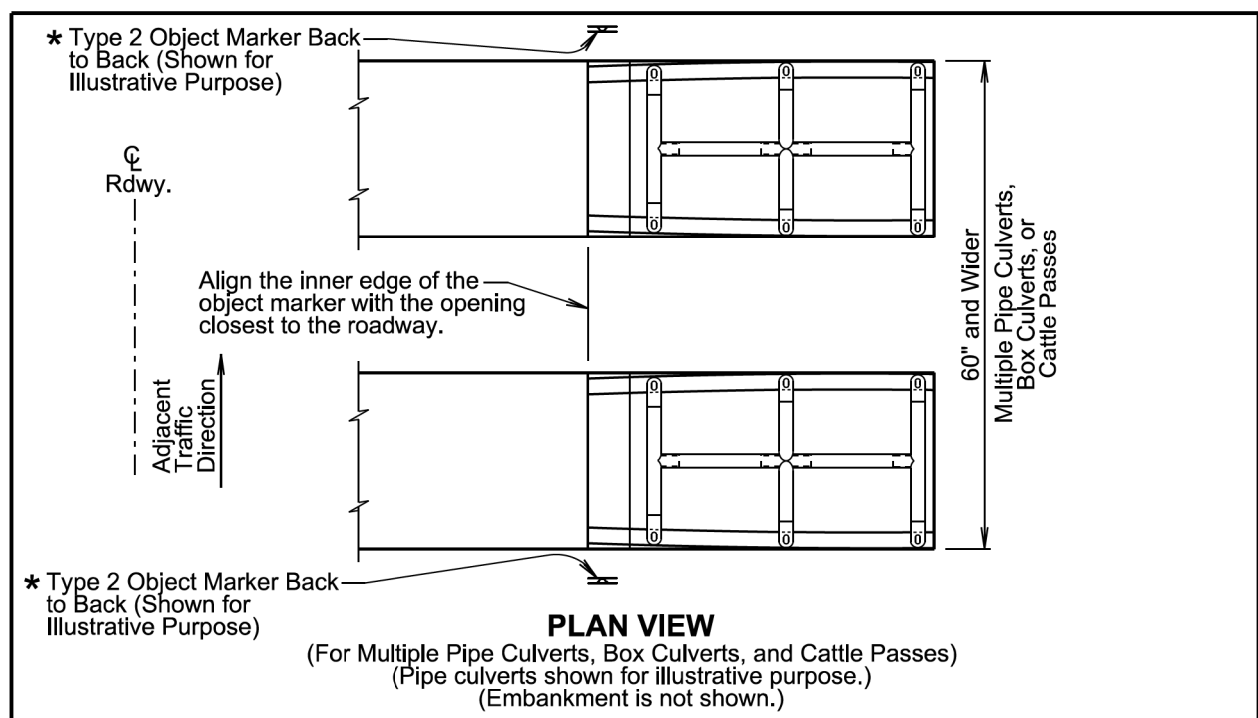
GENERAL NOTES:

- 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

SDDOT	TYPE 2 OBJECT MARKER AT PIPE CULVERTS, BOX CULVERTS, AND CATTLE PASSES (Less than 60" Overall Width)	PLATE NUMBER 632.03
	<i>Published Date: 2024</i>	Sheet 1 of 1

Plot Scale - 1:200



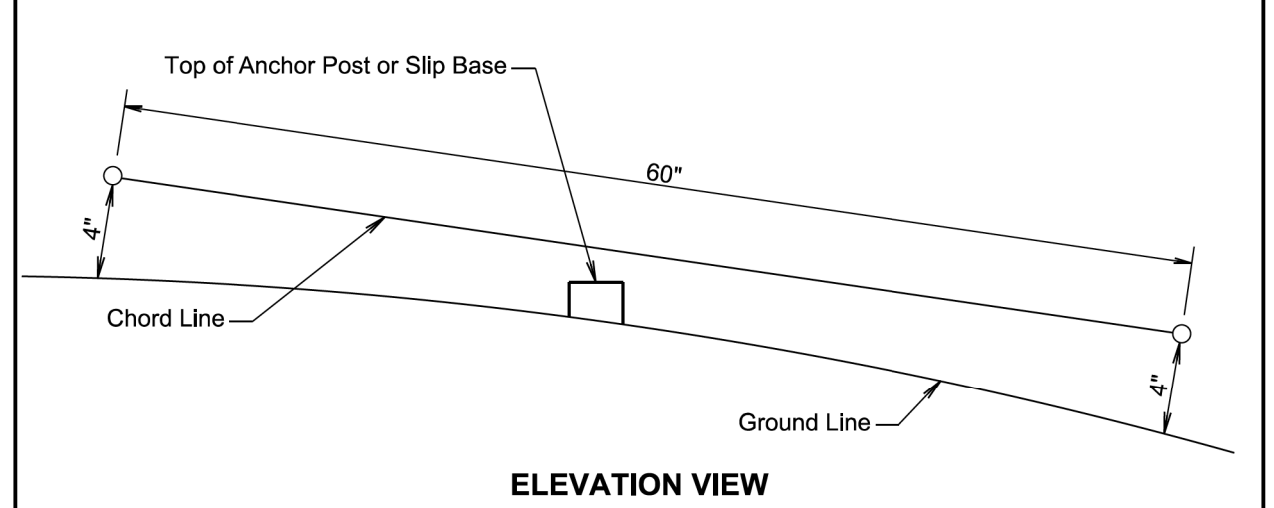
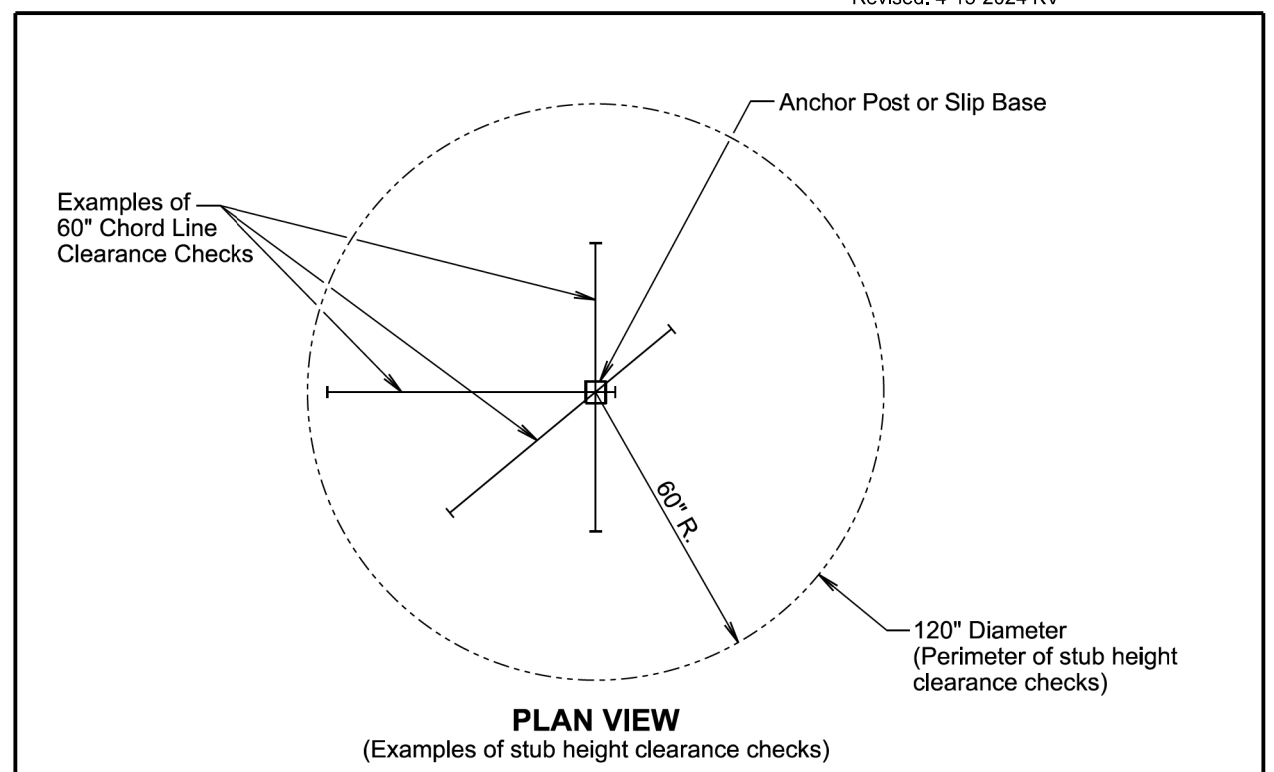
GENERAL NOTES:

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: 2024	S D D O T	TYPE 2 OBJECT MARKER AT PIPE CULVERTS, BOX CULVERTS, AND CATTLE PASSES (60" and Greater Overall Width)	PLATE NUMBER 632.04
			Sheet 1 of 1



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.

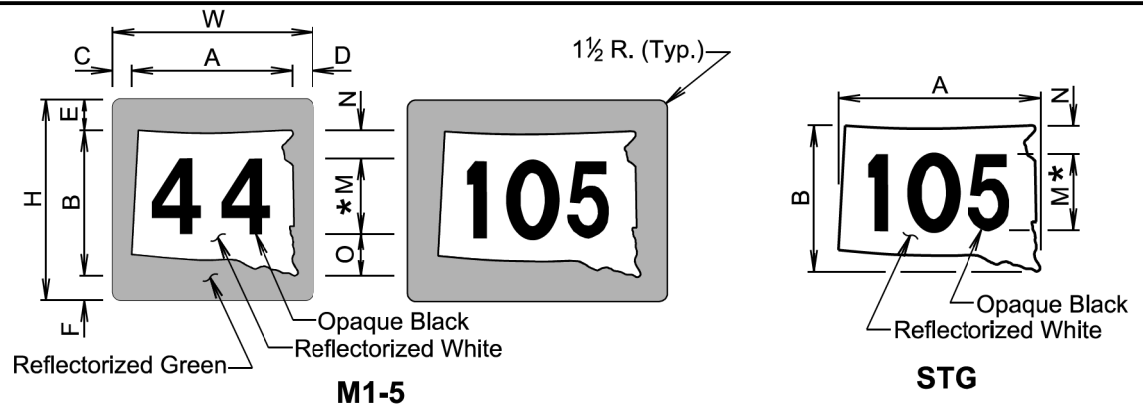
At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height will be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

January 22, 2021

Published Date: 2024	S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 632.18
			Sheet 1 of 1

- Plotted From - TRRC12216

File - ... \SectionS_StandardPlates.dgn



M1-5

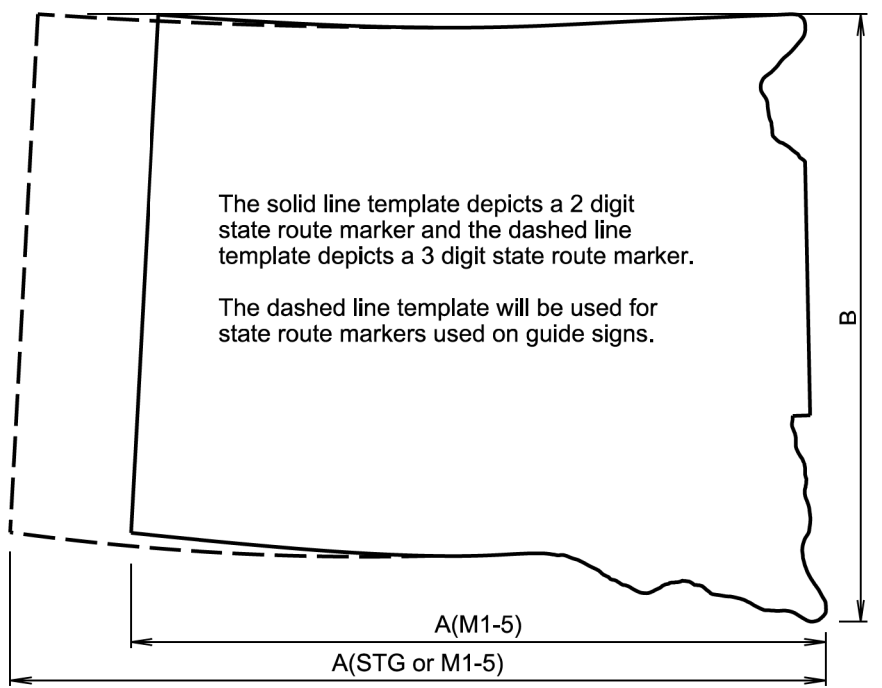
SIGN CODE	WxH	A	B	C	D	E	F	M*	N	O
M1-5	24x24	20½	18	2	1½	3½	2½	12D	2	4
M1-5 **	30x24	24	18	2¼	1¾	3½	2½	12D	2	4
M1-5	30x30	25⅝	22½	2½	1⅞	4⅜	3⅞	15D	2½	5
M1-5	36x36	30¾	27	3	2¼	5¼	3¾	18D	3	6

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

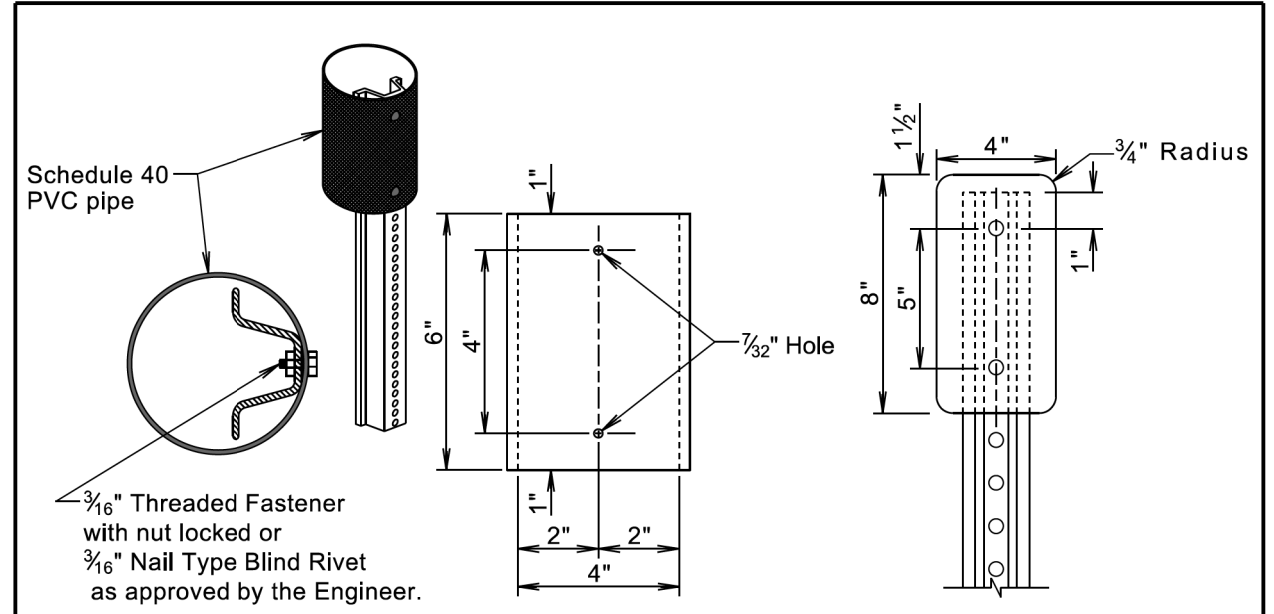
GENERAL NOTES:

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: 2024	S D D O T	STATE ROUTE MARKERS	PLATE NUMBER 632.20
			Sheet 1 of 1

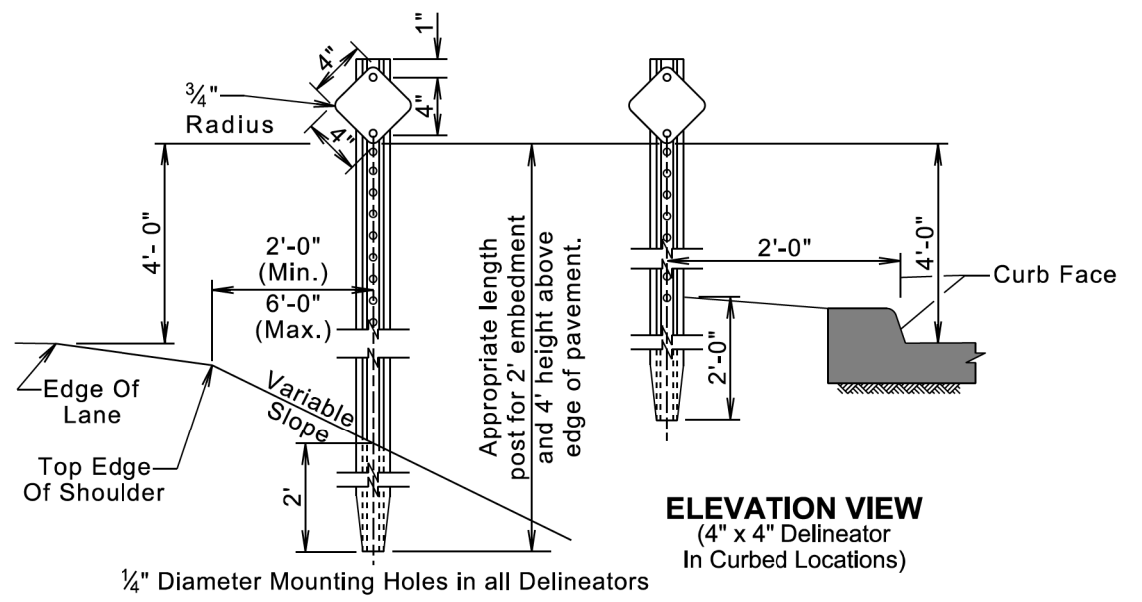


ELEVATION VIEW

(4" Tubular delineator mounted on post)

ELEVATION VIEW

(4" x 8" Delineator)



ELEVATION VIEW

(4" x 4" Delineators)

ELEVATION VIEW

(4" x 4" Delineator In Curbed Locations)

November 19, 2020

Published Date: 2024	S D D O T	DELINEATOR INSTALLATION DETAIL	PLATE NUMBER 632.42
			Sheet 1 of 1

GENERAL NOTES:

Delineators will be located 8 feet outside the outer edge of shoulder. When a roadside barrier or other obstruction intrudes into the space between the pavement edge and the extension of the line of delineators, the delineators should be in line with the barrier or in line with the innermost edge of the obstruction.

When normal spacing is interrupted by driveways, crossroads, or approaches, delineators falling within such areas may be moved in either direction a distance not exceeding one-quarter of the standard spacing. Delineators still falling within such areas should be eliminated.

The spacing for specific radii may be interpolated from the table. The minimum spacing should be 20 feet. The spacing on curves should not exceed 300 feet. In advance of or beyond a curve, and proceeding away from the end of the curve, the spacing of the first delineator is 2S, the second 3S, and the third 6S, but not to exceed 300 feet. S refers to the delineator spacing for specific radii computed from the formula $S = 3\sqrt{R - 50}$. The distances for S shown in the table were rounded to the nearest 5 feet.

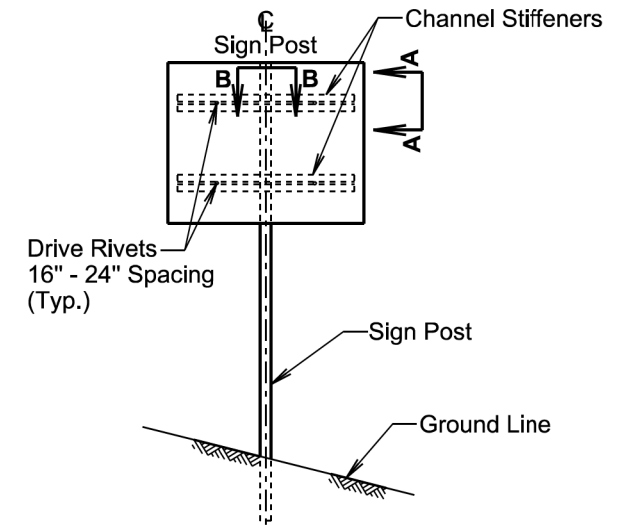
Curve approach delineation is not required if curve delineation spacing exceeds 100 ft.

DELINEATOR SPACING OUTSIDE CURVE				
Radius of Curve (Ft.)	Curve Delineator Spacing (Ft.)	Curve Approach Spacing (Ft.)		
		A	B	C
50	20	40	65	125
115	25	50	75	150
150	30	60	90	180
180	35	70	110	215
250	40	85	125	250
300	45	95	140	285
400	55	110	170	300
500	65	125	190	300
600	70	140	210	300
700	75	150	230	300
800	80	165	245	300
900	85	175	260	300
1000	90	185	275	300

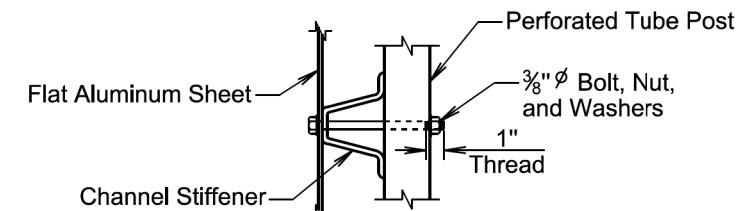
January 22, 2022

SD DOT	DELINEATOR INSTALLATION SPACING	PLATE NUMBER 632.46
		Sheet 2 of 2

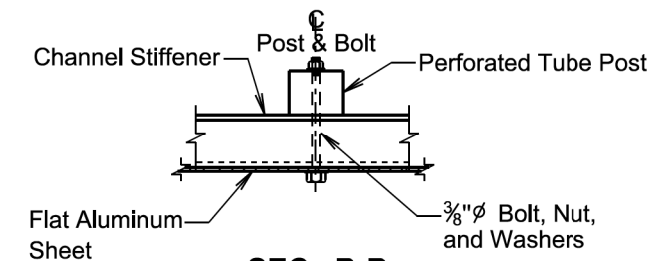
Published Date: 2024



ELEVATION VIEW
(One post breakaway sign supports.)



SEC. A-A



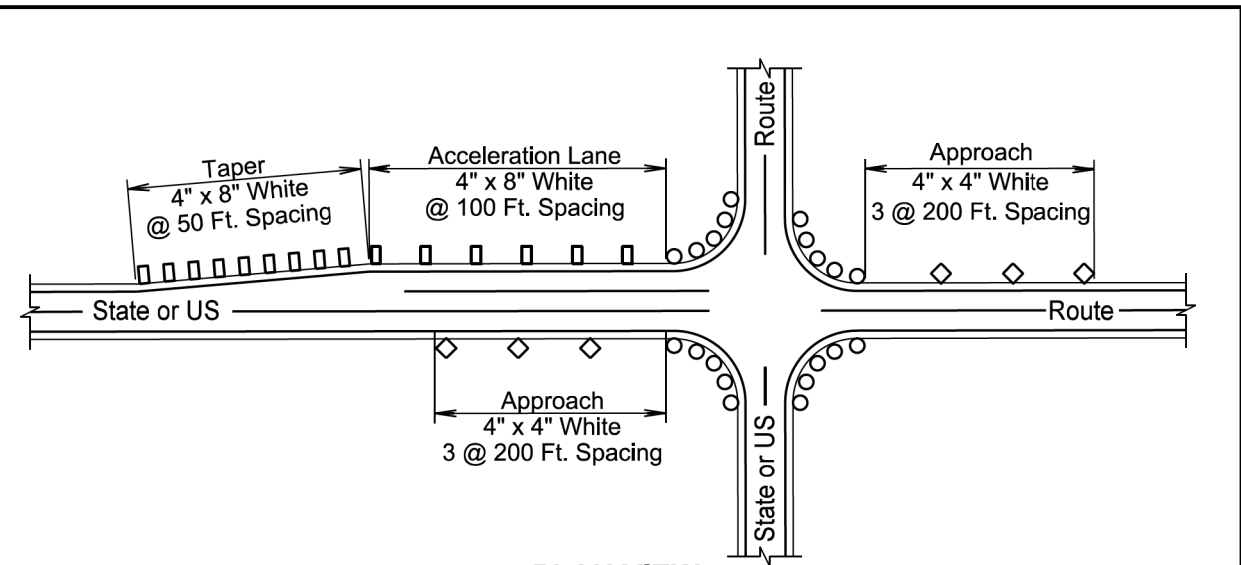
SEC. B-B
(Typical sign and stiffener details.)

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

November 19, 2020

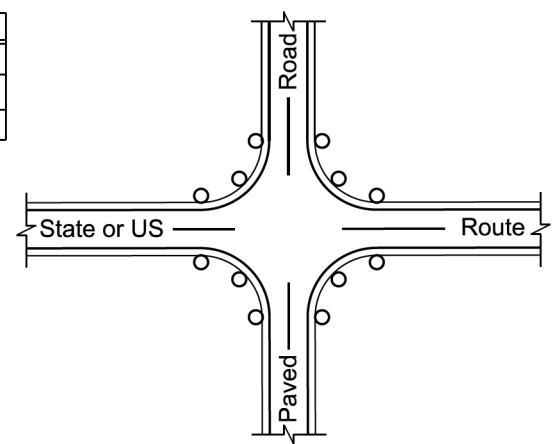
SD DOT	SIGN STIFFENER DETAILS	PLATE NUMBER 632.60
		Sheet 1 of 2

Published Date: 2024



PLAN VIEW
(State or US Highway Intersection)

LEGEND	
◇	4" x 4" White Delineator
▭	4" x 8" White Delineator
○	4" x 6" White Tubular Delineator



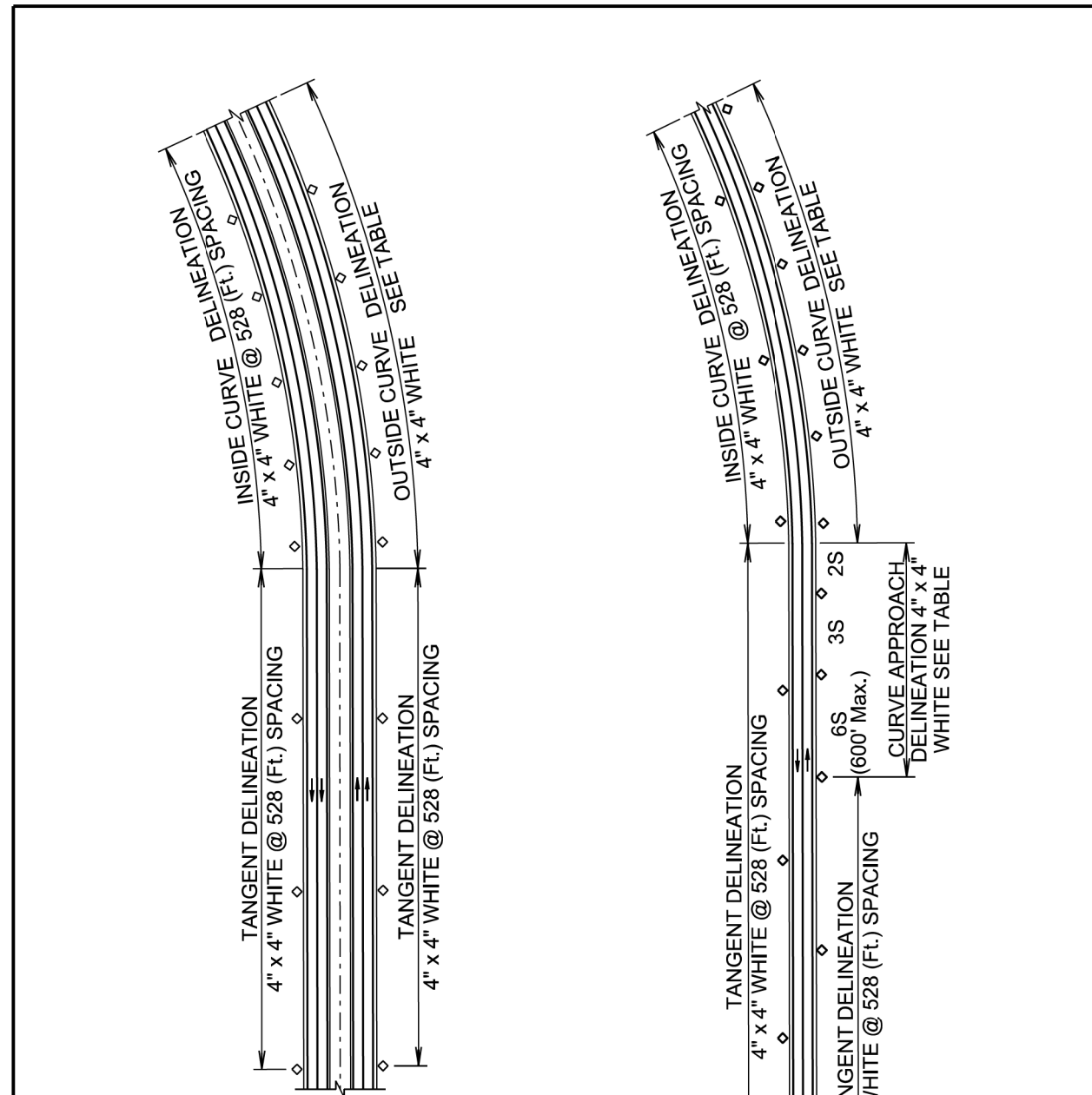
PLAN VIEW
(Paved County Crossroad)

GENERAL NOTES:

- At all intersections with State or US highways and paved county roads:
- For radii greater than 100 feet, place 5 tubular white delineators on equally spaced posts around the turning radius.
- For radii greater than 50 feet up to 100 feet, place 4 tubular white delineators on equally spaced posts around the turning radius.
- For radii of 50 feet or less, place 3 tubular white delineators on equally spaced posts around the turning radius.

November 19, 2020

Published Date: 2024	SDOT	DELINEATOR AT INTERSECTIONS	PLATE NUMBER 632.44
			Sheet 1 of 1

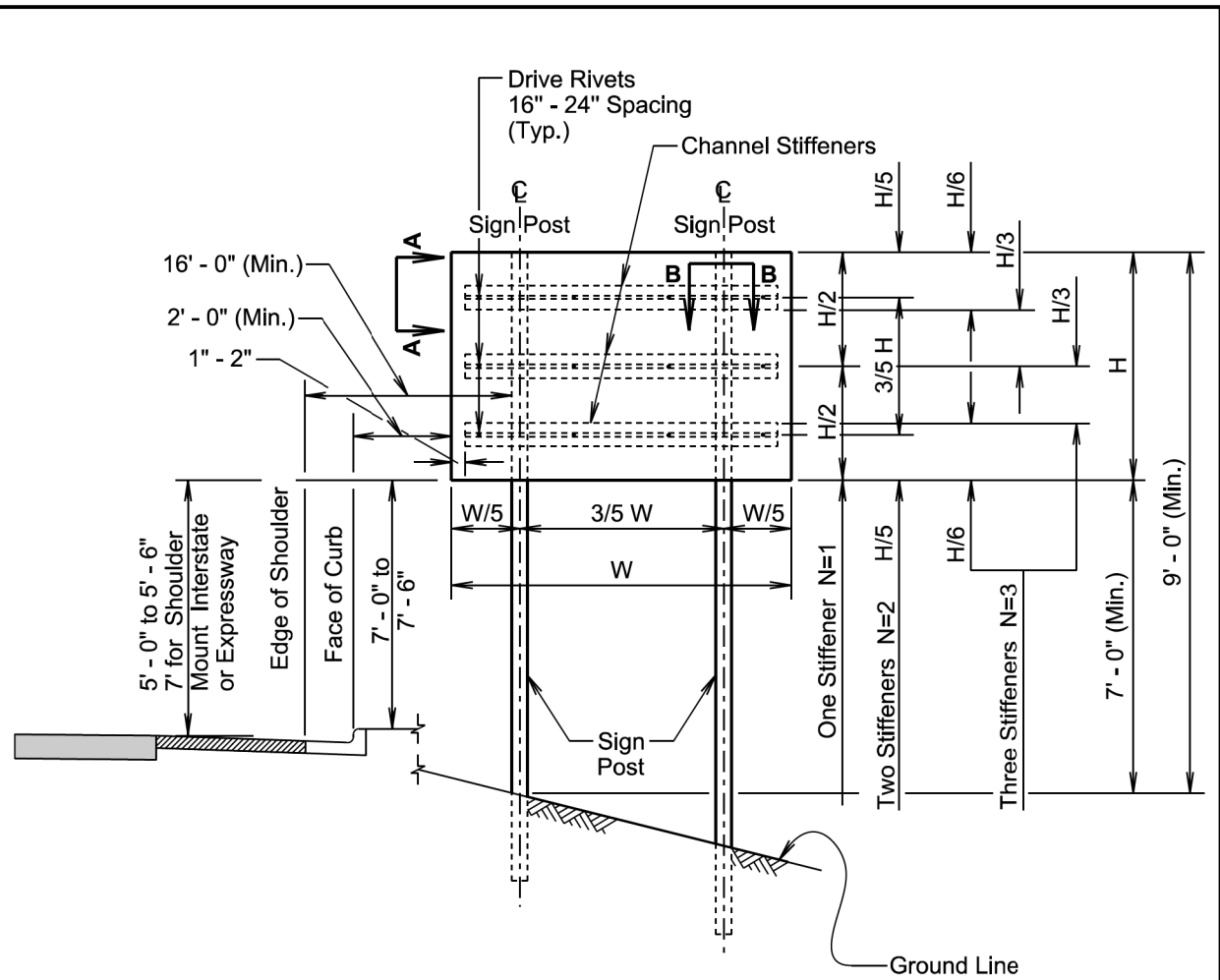


PLAN VIEW
(Divided Roadway)

PLAN VIEW
(Undivided Roadway)

January 22, 2022

Published Date: 2024	SDOT	DELINEATOR INSTALLATION SPACING	PLATE NUMBER 632.46
			Sheet 1 of 2



TWO POST BREAKAWAY SIGN SUPPORTS

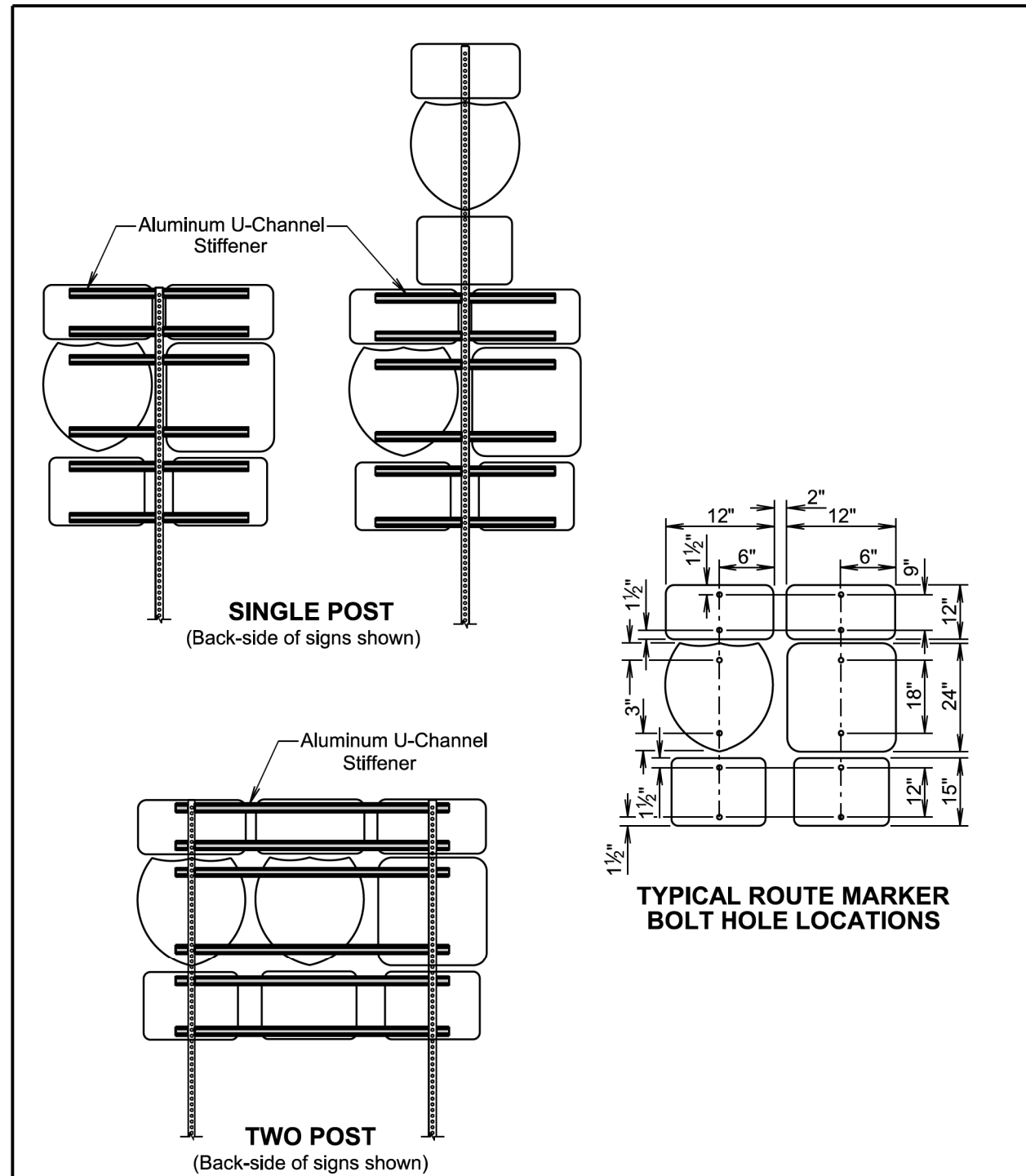
GENERAL NOTES:

The number of stiffeners used (N) will be as follows:
 If $H \leq 2' - 0''$ then $N = 1$
 if $2' - 0'' < H \leq 8' - 0''$ then $N = 2$
 if $8' - 0'' < H \leq 15' - 0''$ 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: 2024	S D D O T	SIGN STIFFENER DETAILS	PLATE NUMBER 632.60
			Sheet 2 of 2



November 19, 2020

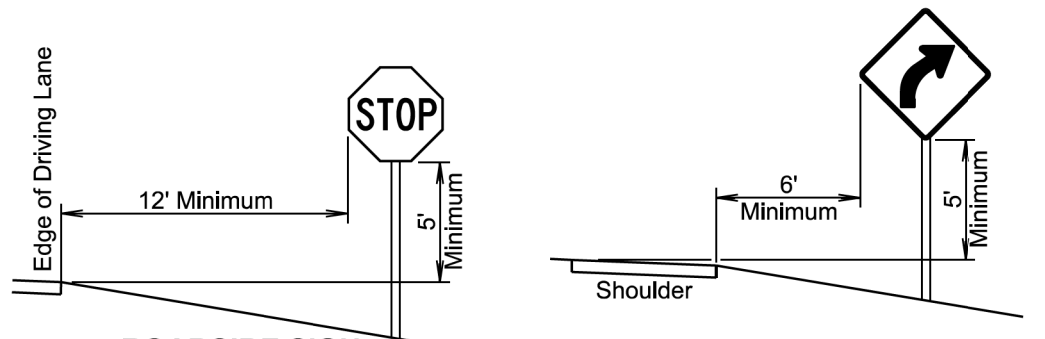
Published Date: 2024	S D D O T	MULTIPLE ROUTE MARKER SIGN STIFFENER INSTALLATION DETAILS	PLATE NUMBER 632.62
			Sheet 1 of 1

Plot Scale - 1:200

Plotted From - TRRC12216

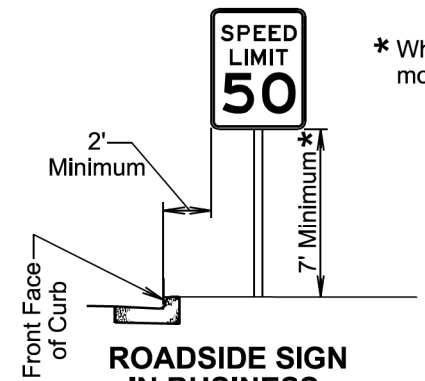
File - ... \SectionS_StandardPlates.dgn

Plotting Date: 04/15/2024
Revised: 4-15-2024 KV



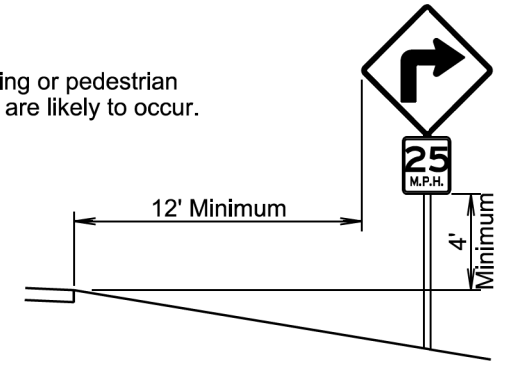
**ROADSIDE SIGN
IN RURAL AREA**

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

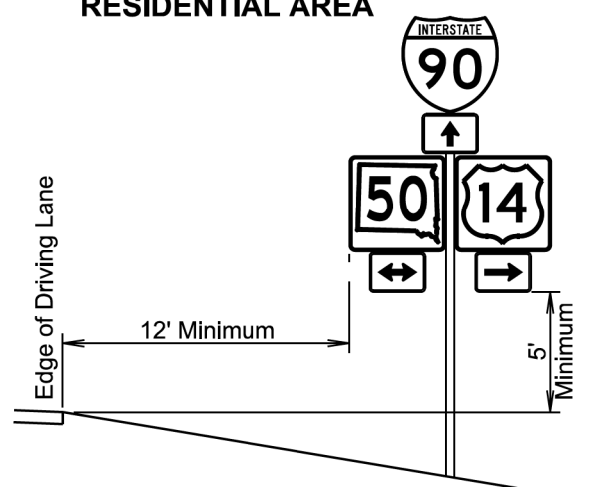


**ROADSIDE SIGN
IN BUSINESS,
COMMERCIAL, OR
RESIDENTIAL AREA**

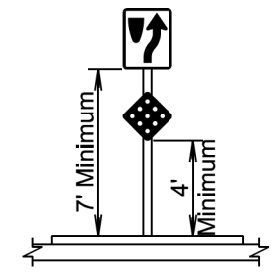
* Where parking or pedestrian movements are likely to occur.



**WARNING SIGN ADVISORY
SPEED PLAQUE IN RURAL AREA**



**ROADSIDE SIGN
IN RURAL AREA**



**SIGN ON NOSE
OF MEDIAN**

November 19, 2020

Published Date: 2024	S D D O T	OFFSETS FOR SIGN INSTALLATION	PLATE NUMBER 632.90
			Sheet 1 of 1

Plot Scale - 1:200

Plotted From - TRRC12216

File - ... \SectionS_StandardPlates.dgn