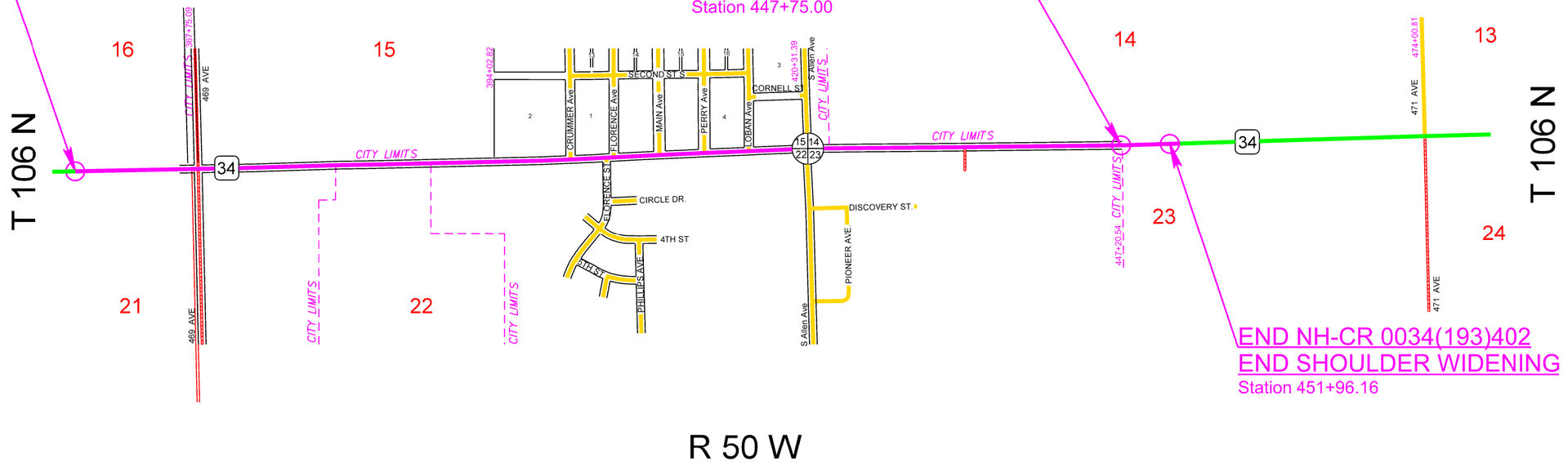
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0034(193)402	S1	S14

Plotting Date: 08/02/2024

SECTION S: PERMANENT SIGNING PLANS

INDEX OF SHEETS



SECTION S – ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E0130	Remove Traffic Sign	51	Each
110E7150	Remove Sign for Reset	3	Each
632E1320	2.0"x2.0" Perforated Tube Post	406.8	Ft
632E1340	2.5"x2.5" Perforated Tube Post	185.5	Ft
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	277.8	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	268.3	SqFt
632E3500	Reset Sign	3	Each
632E3700	Radar Speed 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”.

RADAR SPEED SIGN

The radar speed signs must operate continually 24 hours a day, 7 days a week, all year round.

The static portion of the radar speed sign (YOUR SPEED) faceplate will have black legend on white ASTM D4956 Type IV sheeting with a minimum of 6” (height) lettering. The changeable message portion will have a black background with white or yellow LEDs.

The LED numeral height on the display must be a minimum of 12” for signs on roadways with speeds less than 45 mile per hour and a minimum of 18” for signs on roadways with speeds equal to or greater than 45 miles per hour.

The 12” speed display radar speed feedback sign will be a SAFEPACE EVOLUTION 12FM or equivalent.

The 18” speed display radar speed feedback sign will be a SAFEPACE 475 or equivalent.

RADAR SPEED SIGN (CONTINUED)

The system will be self-contained with all components mounted within the housing and must be MUTCD compliant.

The LEDs will have a polycarbonate protective cover.

The radar speed signs must contain a backup battery system of adequate design and capacity to provide operation during power outage. The batteries must be field replaceable and have a minimum of 5 years’ service life. The batteries must be stored inside a weatherproof enclosure.

The radar speed signs will be equipped with adjustable angle brackets to attach the radar speed sign to the 2.5” square tube post(s).

The radar speed signs must detect all incoming vehicles.
The radar speed sign assembly will be installed in conjunction with the appropriate R2-1 speed limit sign.

The radar speed signs will be programmed so that the feedback display does not flash at drivers at any time. The radar speed signs will also be programmed such that a strobe light is never displayed. The solar powered radar speed signs will provide a solid display of the speed of the driver followed by a solid display of “SLOW DOWN” as drivers exceed the speed limit in that area.

Any software required to setup or program the radar speed signs will be provided to the Mitchell Region Traffic Design Engineers at the South Dakota Department of Transportation in Mitchell, SD, 605-995-8129.

The Contractor will provide all labor and equipment necessary to install the radar speed signs. Payment for furnishing and installing the radar speed signs including the faceplate will be paid for at the contract unit price per each for “Radar Speed Sign”.

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

DIGITALLY PRINTED SIGNS (CONTINUED)

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.

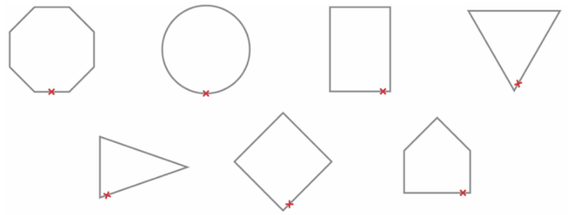
DATE TAGGING SIGNS WITH PERTINENT INFORMATION

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.

DIGITALLY PRINTED SIGNS (CONTINUED)



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.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0034(193)402	S4	S14

SIGN TABLE

SIGN DATA													POST DATA						
STATION & OFFSET* {Ft}			REMOVE TRAFFIC SIGN ^	REMOVE SIGN FOR RESET & RESET SIGN^	DESCRIPTION	SIGN CODE	SIGN SIZE (in.)	NEW SIGN (SqFt)			SIGN FACES	COMMENTS	POST LENGTHS ⧖		BASE #	SIZE/QUANT. {Ft}			
				110E7150 &				Type IV	Type XI				INSIDE	OUTSIDE		2.0"x2.0" TUBE	2.5"x2.5" TUBE		
SD34			110E0130	632E3500			W X H	632E3203	632E3205							632E1320	632E1340		
362+36	-16.0'	R		1{PT}	REDUCED SPEED AHEAD(45MPH)	W3-5	36 X 36				WEST	Reuse sign on a new post	12.0'		A	12.0			
366+40	-16.0'	R			MRM 403	D10-3	5 X 18				E/W	DO NOT DISTRURB							
367+48	-24.0'	L	1{PT}		STOP SIGN	R1-1	30 X 30		5.2		NORTH		9.5'		A	9.5			
368+00	-24.0'	R	1{PT}		STOP SIGN	R1-1	30 X 30		5.2		SOUTH		9.5'		A	9.5			
368+38	-16.0'	R	1{PT}		SPEED LIMT 45MPH	R2-1	30 X 36	7.5			WEST		12.0'		A	12.0			
368+38	-16.0'	L	1{W}		SPEED LIMT 65MPH	R2-1	30 X 36	7.5			EAST		12.0'		A	12.0			
371+52	-16.0'	R	1{PT}			D1-1	60 X 24	10.0			WEST		11.0'		S		11.0		
378+16	-2.0'	L	1{W}			M3-4 M1-5	24 X 12 24 X 24	2.0 4.0			EAST EAST		10.0'		A	11.0			
380+00	-2.0'	L	1{PT}		NO PASSING ZONE	W14-3	48X 48				WEST	Remove No Passing Zone Sign							
382+16	-2.0'	L	1{W}		SPEED LIMIT 45MPH	R2-1	24 X 30	5.0			EAST		9.5'		A	9.5			
382+16	-2.0'	R	1{W}		SPEED LIMIT 35MPH	R2-1	24 X 30	5.0			WEST		9.5'		A	9.5			
385+20	-2.0'	R				R2-1 SPECIAL	30 X 36 36 X 44	7.5			WEST	Install radar speed feedback sign in conjunction with speed limit sign on 2.5" steel post	16.7'	17.5'	A	34.2			
387+81	-2.0'	L	1{LP}		SPEED LIMIT 35MPH	R2-1	24 X 30	5.0			EAST		9.5'		A	9.5			
397+42	-2.0'	L	1{W}		SPEED LIMIT 35MPH	R2-1	24 X 30	5.0			EAST		9.5'		A	9.5			
397+42	-2.0'	R	1{W}		SPEED LIMIT 35MPH	R2-1	24 X 30	5.0			WEST		9.5'		A	9.5			
399+05	-2.0'	R	1{PT}			W11-2 W16-9P D10-3	36.0 X 36 30 X 18 5 X 21		9.0 3.8 1.5		WEST WEST E/W		10.3'		S		10.5		
399+65	-12.0'	L	2{W}			D3-1 D3-1 R1-1	60 X 12 30 X 12 30 X 30	10.0 2.5 	 5.2		E/W NORTH NORTH	Removed STOP signs & Street Name signs will be delivered to the city of Colman Install STOP & Street signs on 2.5" square tube post	9.5'		S		9.5		
401+78	-4.0'	R				Special						DO NOT DISTURB							
402+48	-2.0'	R				R1-5	36 X 36		9.0		WEST	Install New Sign	10.0'		A	10.0			
402+75	-2.0'	L	1{PT}		SPEED LIMIT 35MPH	R2-1	24 X 30	5.0			EAST		9.5'		A	9.5			
403+27	-2.0'	R	1{LP}			W11-2 W16-7P	36 X 36 24 X 18		9.0 3.0		WEST WEST		9.5'		S		9.5		
403+12	-12.0'	R	2{W}			D3-1 D3-1 R1-1	60 X 12 30 X 12 30 X 30	10.0 2.5 	 5.2		E/W SOUTH SOUTH	Removed STOP signs & Street Name signs will be delivered to the city of Colman Install STOP & Street signs on 2.5" square tube post	9.5'		S		9.5		
			17	1	**TOTALS THIS SHEET**			95.0	54.6							167.2	50.0		

*** - Offset measured from edge of the shoulder/face of curve to post of Sign.**

- (S)lip Base, (A)nchor Stub Post

^ -Number and type- [{U}-Channel {W}ood {PT} Perforated Tube {LP} Light Pole]- of support(s)

⧖ -Plan post lengths are estimates. The post lengths will be field verified by the Contractor.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0034(193)402	S5	S14

SIGN TABLE

SIGN DATA										POST DATA					
STATION & OFFSET* {Ft}	REMOVE TRAFFIC SIGN ^	REMOVE SIGN FOR RESET & RESET SIGN^	DESCRIPTION	SIGN CODE	SIGN SIZE (in.)	NEW SIGN (SqFt)			SIGN FACES	COMMENTS	POST LENGTHS X		BASE #	SIZE/QUANT. {Ft}	
						Type IV	Type XI				INSIDE	OUTSIDE		2.0"x2.0" TUBE	2.5"x2.5" TUBE
SD34	110E0130	110E7150 & 632E3500			W X H	632E3203	632E3205							632E1320	632E1340
403+35 -2.0' L	1{PT}			W11-2	36 X 36		9.0		EAST		9.5'		S		9.5
				W16-7P	24 X 18		3.0		EAST						
403+45 -12.0' L	2{W}			D3-1	60 X 12	10.0			E/W	Removed STOP signs & Street Name signs	9.5'		S		9.5
				D3-1	30 X 12	2.5			NORTH	will be delivered to the city of Colman					
										Install STOP & Street signs on					
				R1-1	30 X 30		5.2		NORTH	2.5" square tube post					
404+10 -2.0' L				R1-5	36 X 36		9.0		EAST	Install New Sign	10.0'		A	10.0	
404+80 -2.0' R	1{LP}			D4-4CL	36 X 30	7.5			WEST	Install new sign on Light Pole (LP)					
407+39 -12.0' L	1{W}			D3-1	42 X 12	7.0			E/W	Removed STOP signs & Street Name signs	9.5'		S		9.5
				D3-1	30 X 12	2.5			NORTH	will be delivered to the city of Colman					
										Install STOP & Street signs on					
	1{PT}			R1-1	30 X 30		5.2		NORTH	a 2.5" square tube post					
408+58 -2.0' L	1{W}			W11-2	36.0 X 36		9.0		EAST		9.5'		A	9.5	
				W16-9P	30 X 18		3.8								
409+00 -2.0' R	1{LP}			M3-4	24 X 12	2.0			WEST	Install new sign on Light Pole (LP)					
				M1-5	24 X 24	4.0			WEST						
410+00 -2.0' R	1{W}			W11-2	36.0 X 36		9.0		WEST		9.5'		A	9.5	
				W16-9P	30 X 18		3.8								
410+02 -2.0' L	1{W}			D4-4CL	36 X 30	7.5			EAST		9.5'		A	9.5	
410+97 -2.0' R	1{LP}		SPEED LIMIT 35MPH	R2-1	24 X 30	5.0			WEST	Install new sign on Light Pole (LP)					
411+20 -12.0' L	1{W}			D3-1	42 X 12	7.0			E/W	Removed STOP signs & Street Name signs	9.5'		S		9.5
				D3-1	30 X 12	2.5			NORTH	will be delivered to the city of Colman					
										Install STOP & Street signs on					
	1{PT}			R1-1	30 X 30		5.2		NORTH	a 2.5" square tube post					
414+70 -2.0' R				R1-5	36 X 36		9.0		WEST	Install New Sign	10.0'		A	10.0	
414+94 -2.0' R	1{PT}			W11-2	36 X 36		9.0		WEST	sign assembly with Yeild Here for Ped sign	10.3'		S		10.5
				W16-7P	24 X 18		3.0		WEST	Attach the MRM sign to the post					
				D10-3	5 X 21	1.5			E/W						
415+04 -2.0' L	1{W}			W11-2	36 X 36		9.0		EAST		9.5'		S		9.5
				W16-7P	24 X 18		3.0		EAST						
415+10 -12.0' L	1{W}			D3-1	48 X 12	8.0			E/W	Removed STOP signs & Street Name signs	9.5'		S		9.5
				D3-1	30 X 12	5.0			N/S	will be delivered to the city of Colman					
										Install STOP & Street signs on					
	1{W}			R1-1	30 X 30		5.2		NORTH	a 2.5" square tube post					
	16		**TOTALS THIS SHEET**			72.0	100.3							48.5	67.5

*** - Offset measured from edge of the shoulder/face of curve to post of Sign.**

- (S)lip Base, (A)nchor Stub Post

^ -Number and type- [{U}-Channel {W}ood {PT} Perforated Tube {LP} Light Pole]- of support(s)

X -Plan post lengths are estimates. The post lengths will be field verified by the Contractor.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0034(193)402	S6	S14

SIGN TABLE

SIGN DATA										POST DATA						
STATION & OFFSET* {Ft}	REMOVE TRAFFIC SIGN ^	REMOVE SIGN FOR RESET & RESET SIGN^	DESCRIPTION	SIGN CODE	SIGN SIZE (in.)	NEW SIGN (SqFt)			SIGN FACES	COMMENTS	POST LENGTHS X		BASE #	SIZE/QUANT. {Ft}			
		110E7150 &				Type IV	Type XI				INSIDE	OUTSIDE		2.0"x2.0" TUBE	2.5"x2.5" TUBE		
SD34	110E0130	632E3500			W X H	632E3203	632E3205							632E1320	632E1340		
415+76 -2.0' L				R1-5	36 X 36		9.0		EAST	Install New Sign	10.0'		A	10.0			
415+80 -2.0' R		1{PT}		SS1-1	36 X 30				WEST	Reuse sign on a new post	9.5'		A	9.5'			
416+85 -2.0' R	1{W}			W11-2 W16-9P	36.0 X 36 30 X 18		9.0 3.8		WEST		9.5'		A	9.5			
417+17 -4.0' L				Special					EAST	DO NOT DISTURB							
417+40 -4.0' R	1{LP}		SPEED LIMIT 35MPH	R2-1	24 X 30	5.0			WEST	Install new sign on Light Pole (LP)							
417+50 -12.0' R			MRM 404	D10-3	5 X 18	1.4			E/W	DO NOT DISTRURB							
419+60 -4.0' L	1{W}		SPEED LIMIT 35MPH	R2-1	24 X 30	5.0			EAST		9.5'		A	9.5			
419+70 -2.0' R				R1-5	36 X 36		9.0		WEST	Install New Sign	10.0'		A	10.0			
419+92 -2.0' R				W11-2 W16-9P	36.0 X 36 30 X 18		9.0 3.8		WEST	Install new sign	9.5'		S		9.5		
420+00 -2.0' L				W11-2 W16-9P	36.0 X 36 30 X 18		9.0 3.8		EAST	Install new sign	9.5'		S		9.5		
420+03 -20.0' L	1{W}			D3-1 D3-1	48 X 12 30 X 12	8.0 5.0			E/W N/S	Removed STOP signs & Street Name signs will be delivered to the city of Colman	9.5'		S		9.5		
	1{W}			R1-1	30 X 30		5.2		NORTH	Install STOP & Street signs on a 2.5" square tube post							
420+70 -20.0' R	1{PT}			D3-1 D3-1	48 X 12 30 X 12	8.0 5.0			E/W N/S	Removed STOP signs & Street Name signs will be delivered to the city of Colman	9.5'		S		9.5		
	1{PT}			R1-1	30 X 30		5.2		SOUTH	Install STOP & Street signs on a 2.5" square tube post							
420+82 -2.0' L				R1-5	36 X 36		9.0		EAST	Install New Sign	10.0'		A	10.0			
421+85 -2.0' L	1{W}			W11-2 W16-9P	36.0 X 36 30 X 18		9.0 3.8		EAST		9.5'		A	9.5			
422+30 -2.0' L				R2-1 SPECIAL	30 X 36 36 X 44	7.5			EAST	Install radar speed feedback sign in conjunction with speed limit sign on 2.5" steel post	16.7'	17.5'	A	34.2			
	8	1	**TOTALS THIS SHEET**			44.9	88.4							102.2	38.0		

*** - Offset measured from edge of the shoulder/face of curve to post of Sign.**

^ -Number and type- [{U}-Channel {W}ood {PT} Perforated Tube {LP} Light Pole]- of support(s)

- (S)lip Base, (A)nchor Stub Post

X -Plan post lengths are estimates. The post lengths will be field verified by the Contractor.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0034(193)402	S7	S14

SIGN TABLE

SIGN DATA											POST DATA						
STATION & OFFSET* {Ft}	REMOVE TRAFFIC SIGN ^	REMOVE SIGN FOR RESET & RESET SIGN^	DESCRIPTION	SIGN CODE	SIGN SIZE (in.)	NEW SIGN (SqFt)			SIGN FACES	COMMENTS	POST LENGTHS X		BASE #	SIZE/QUANT. {Ft}			
		110E7150 &				Type IV	Type XI				INSIDE	OUTSIDE		2.0"x2.0" TUBE	2.5"x2.5" TUBE		
SD34	1.10E+132	632E3500			W X H	632E3203	632E3205							632E1320	632E1340		
423+90 -12.0' L		1{PT}		SS1-1	36 X 30				EAST	Reuse sign on a new post	9.5'		A	9.5'			
424+95 -2.0' R	1{PT}		SPEED LIMIT 45MPH	R2-1	24 X 30	5.0			WEST		9.5'		A	9.5			
424+95 -12.0' L	1{PT}		SPEED LIMIT 35MPH	R2-1	24 X 30	5.0			EAST		10.5'		A	10.5			
432+45 -12.0' L	1{PT}		SPEED LIMIT 45MPH	R2-1	24 X 30	5.0			EAST		10.5'		A	10.5			
434+20 -24.0' R	1{PT}			D3-1 D3-1 R1-1	48 X 12 30 X 12 30 X 30	8.0 5.0 	 5.2		E/W N/S SOUTH	Removed STOP signs & Street Name signs will be delivered to the city of Colman Install STOP & Street signs on a 2.5" square tube post	9.5'		S		9.5		
434+90 -16.0' L	1{PT}			D1-1	60 X 24	10.0			EAST		11.0'		S		11.0		
442+35 -30.0' R	1{PT}			D3-1 D3-1 R1-1	48 X 12 30 X 12 30 X 30	8.0 5.0 	 5.2		E/W N/S SOUTH	Removed STOP signs & Street Name signs will be delivered to the city of Colman Install STOP & Street signs on a 2.5" square tube post	9.5'		S		9.5		
443+85 -16.0' L	1{PT}		SPEED LIMT 45MPH	R2-1	30 X 36	7.5			EAST		12.0'		A	12.0			
443+85 -16.0' R	1{W}		SPEED LIMT 65MPH	R2-1	30 X 36	7.5			WEST		12.0'		A	12.0			
447+80 -16.0' L	1{PT}		NO PASSING ZONE	W14-3	48X 48		5.6		WEST		13.0'		A	13.0			
452+85 -16.0' L	1{PT}		REDUCED SPEED AHEAD(45MPH)	W3-5	36 X 36		9.0		EAST		12.0'		A	12.0			
	10	1.0	**TOTALS THIS SHEET**			66.0	25.0							89.0	30.0		
	51	**3**	**0609 TOTALS**			**277.8**	**268.3**							**406.8**	**185.5**		

*** - Offset measured from edge of the shoulder/face of curve to post of Sign.**

^ -Number and type- [{U}-Channel {W}ood {PT} Perforated Tube {LP} Light Pole]- of support(s)

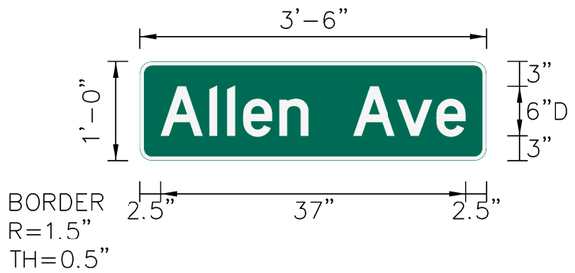
- (S)lip Base, (A)nchor Stub Post

X -Plan post lengths are estimates. The post lengths will be field verified by the Contractor.

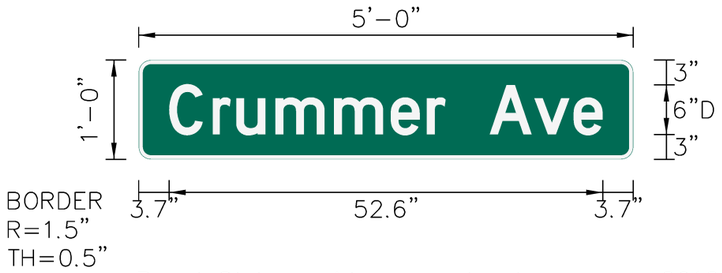
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0034(193)402	S8	S14

Plotting Date: 08/01/2024

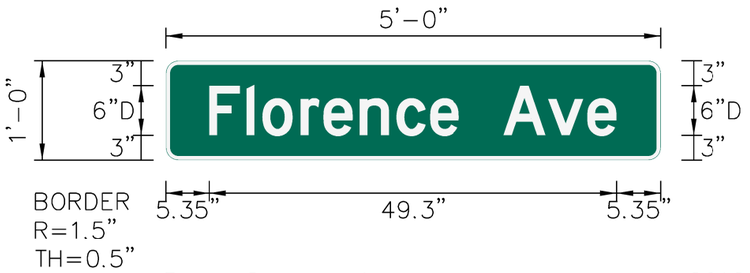
Flat Aluminum Sign Detail -High Intensity Sheeting Type (IV)



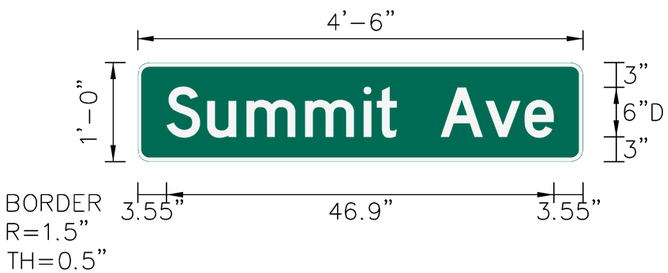
Panel Style: guide_con_street name_a_2012.ssi
M.U.T.C.D.: 2009 Edition



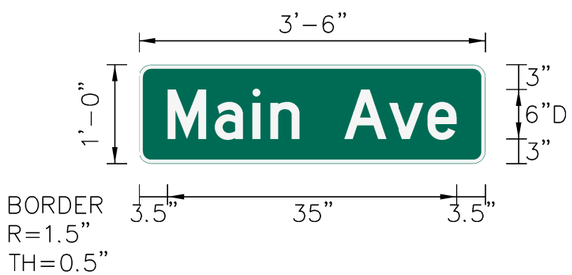
Panel Style: guide_con_street name_a_2012.ssi
M.U.T.C.D.: 2009 Edition



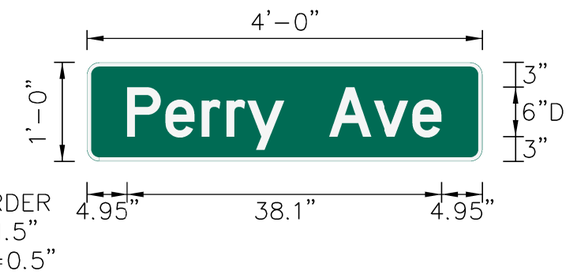
Panel Style: guide_con_street name_a_2012.ssi
M.U.T.C.D.: 2009 Edition



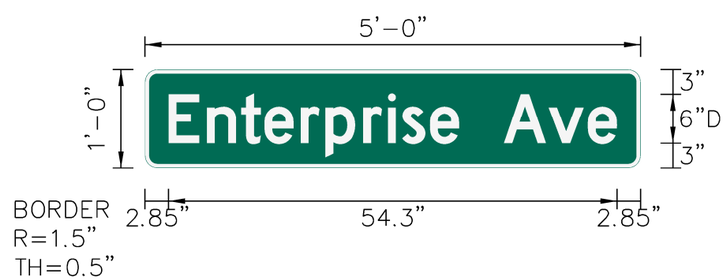
Panel Style: guide_con_street name_a_2012.ssi
M.U.T.C.D.: 2009 Edition



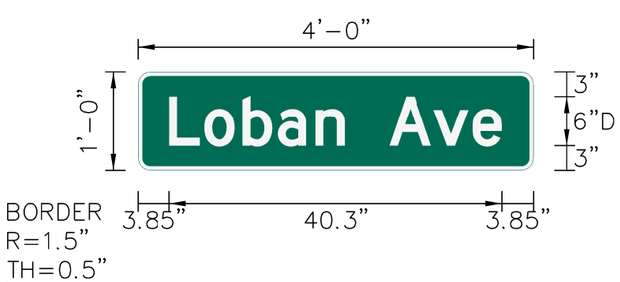
Panel Style: guide_con_street name_a_2012.ssi
M.U.T.C.D.: 2009 Edition



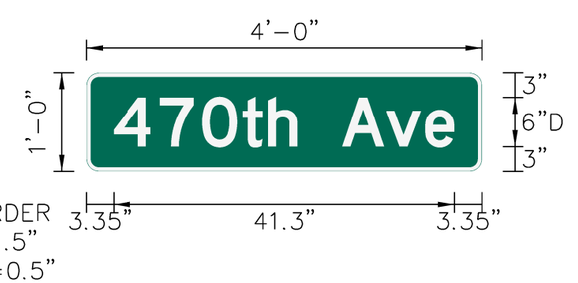
Panel Style: guide_con_street name_a_2012.ssi
M.U.T.C.D.: 2009 Edition



Panel Style: guide_con_street name_a_2012.ssi
M.U.T.C.D.: 2009 Edition



Panel Style: guide_con_street name_a_2012.ssi
M.U.T.C.D.: 2009 Edition

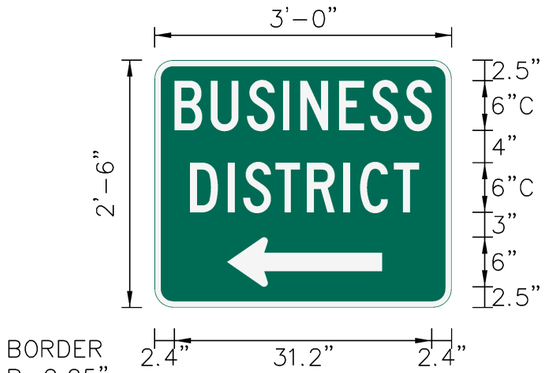


Panel Style: guide_con_street name_a_2012.ssi
M.U.T.C.D.: 2009 Edition

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0034(193)402	S9	S14

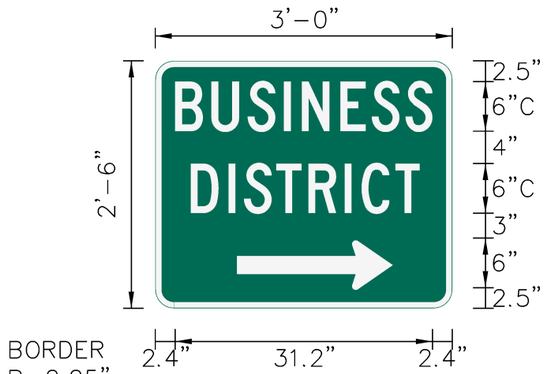
Plotting Date: 08/01/2024

Flat Aluminum Sign Detail -High Intensity Sheeting Type (IV)



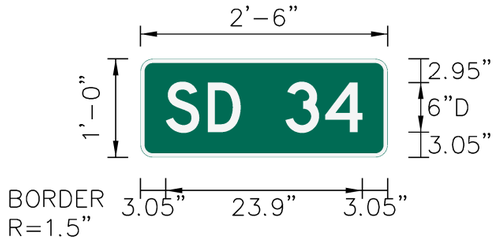
BORDER
R=2.25"
TH=0.75"

Panel Style: guide_con_destination.ssi
M.U.T.C.D.: 2009 Edition



BORDER
R=2.25"
TH=0.75"

Panel Style: guide_con_destination.ssi
M.U.T.C.D.: 2009 Edition



BORDER
R=1.5"
TH=0.5"

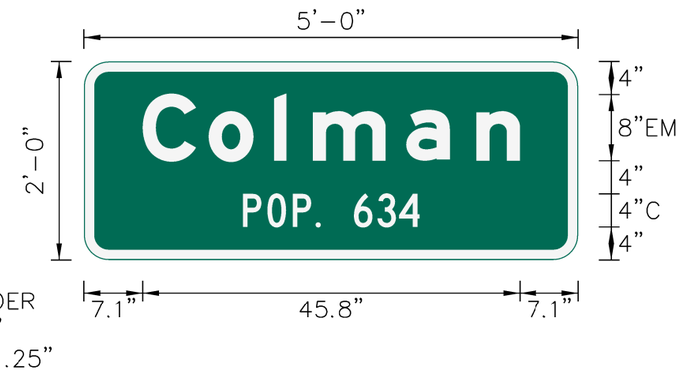
Panel Style: guide_con_street name_a_2012.ssi
M.U.T.C.D.: 2009 Edition

BORDER
R=2.25"
TH=0.75"

Panel Style: Cultural interest.ssi
M.U.T.C.D.: 2009 Edition

BORDER
R=2.25"
TH=0.75"

Panel Style: Cultural interest.ssi
M.U.T.C.D.: 2009 Edition



BORDER
R=3"
TH=1.25"

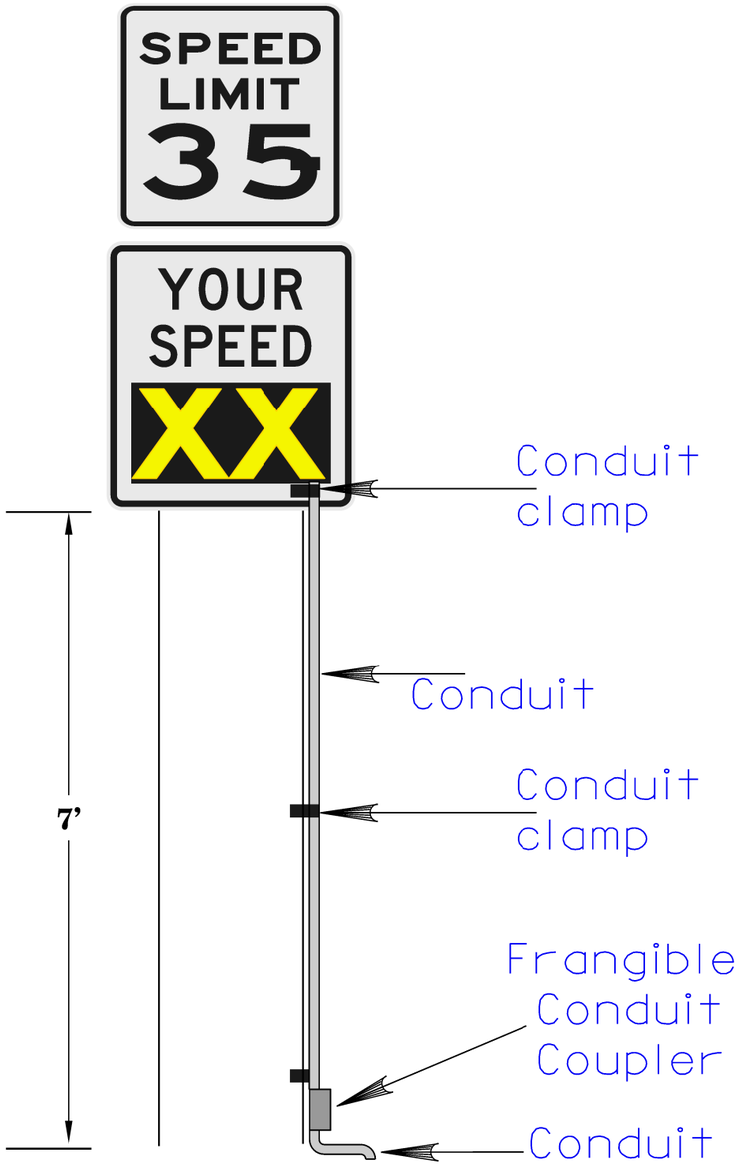
Panel Style: guide_con_circular_2012.ssi
M.U.T.C.D.: 2009 Edition

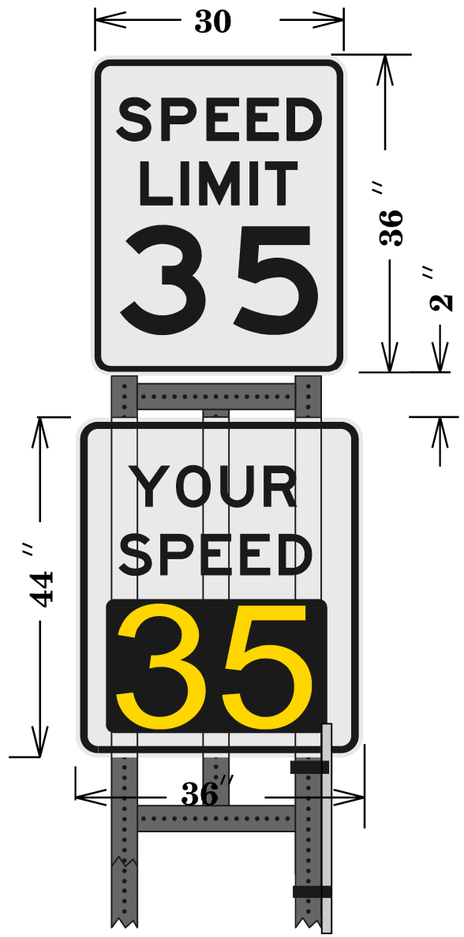
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0034(193)402	S10	S14

Plotting Date: 08/01/2024

RADAR SPEED FEEDBACK SIGN DETAILS

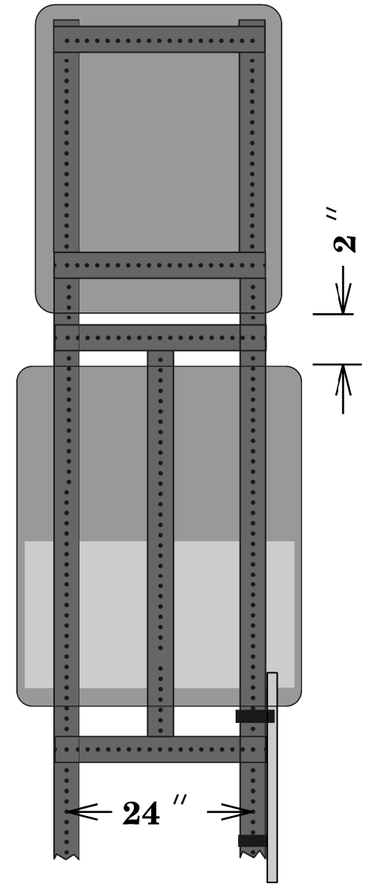
{TYPICAL}





FRONT VIEW - RSFS

SIGN SIZES AND POST LENGTHS WILL BE DEPENDANT ON HEIGHT OF NUMERAL WITHIN FACE OF RADAR SPEED FEEDBACK SIGN.

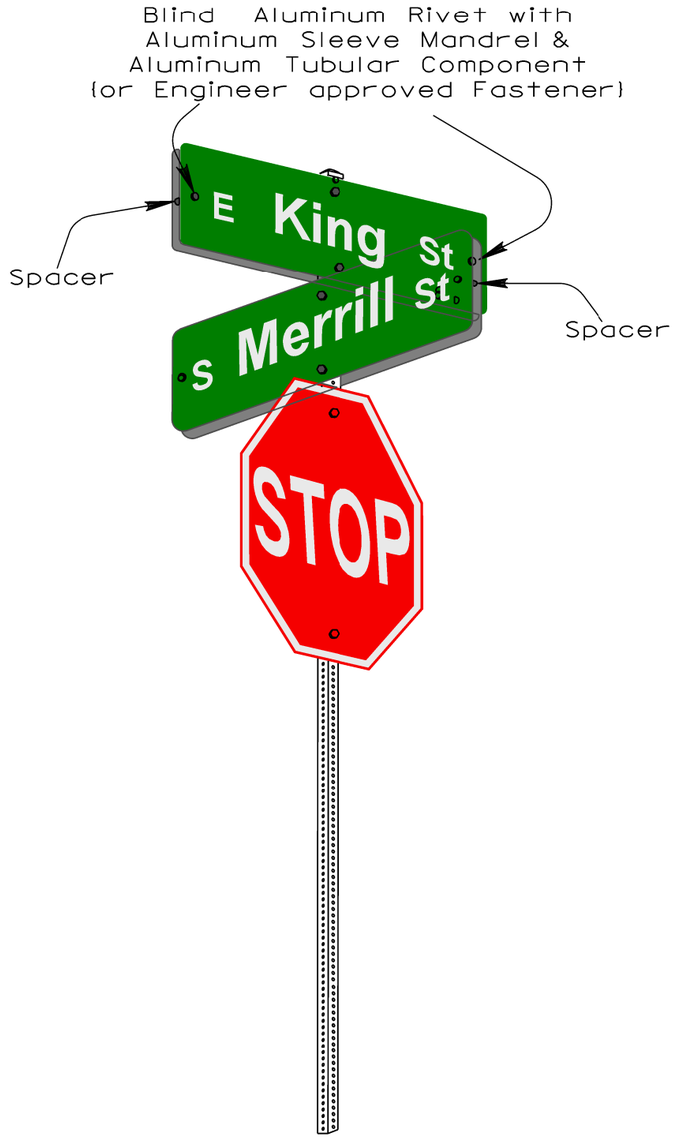


REAR VIEW - RSFS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0034(193)402	S11	S14

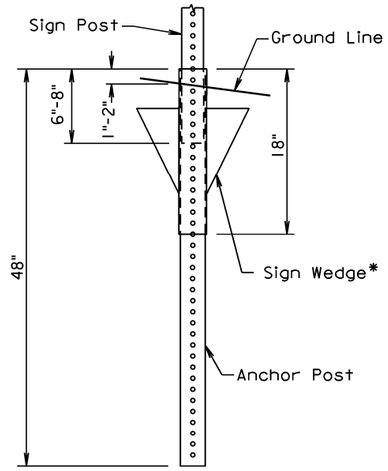
Plotting Date: 08/01/2024

SIGN INSTALLATIONS



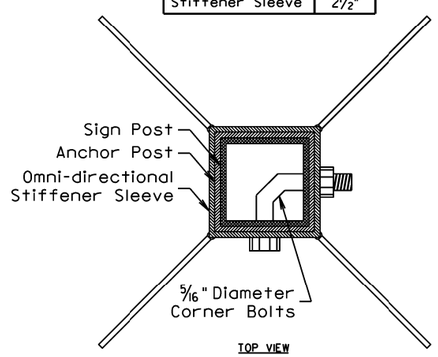
STOP SIGN WITH STREET SIGNS
(TYPICAL ASSEMBLY)

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



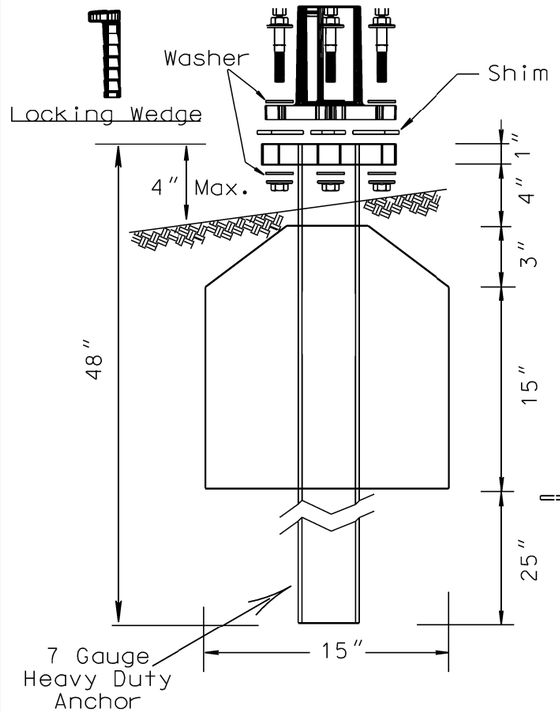
* - 18" Multi-directional Sleeve w/4 Blades, or Equivalent. Manufacturer Recommended Dimensions and Installation.

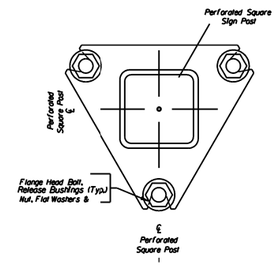
POST SIZE	
Sign Post	2"
Anchor Post	2¼"
Stiffener Sleeve	2½"

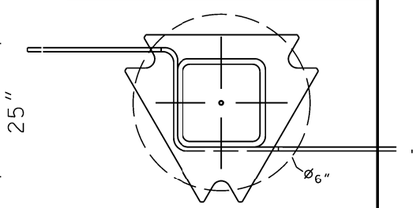


TOP VIEW

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







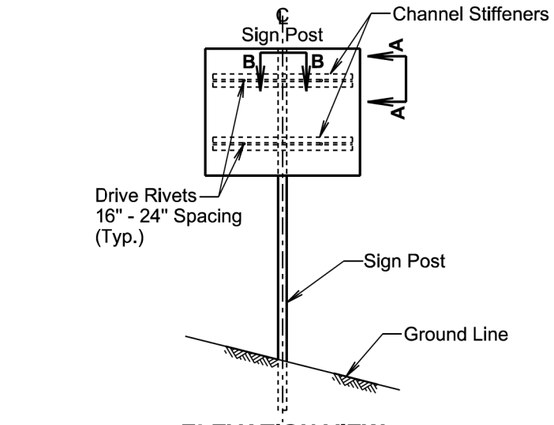
TRAFFIC FLOW

GENERAL NOTES:

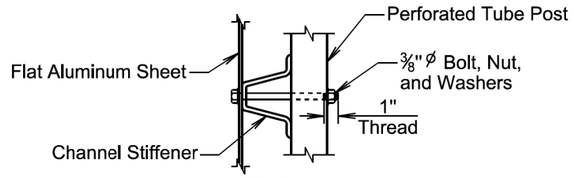
1. Dimensions shown may vary by Manufacturer.
2. The Contractor will use Manufacturer recommended assembly parts and procedures.
3. Sign installations must meet NCHRP350 or MASH crashworthy criteria.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-CR 0034(193)402	S13	S14

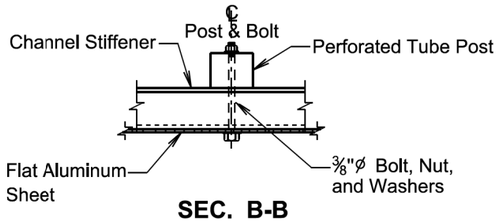
Plotting Date: 08/01/2024



ELEVATION VIEW
(One post breakaway sign supports.)



SEC. A-A

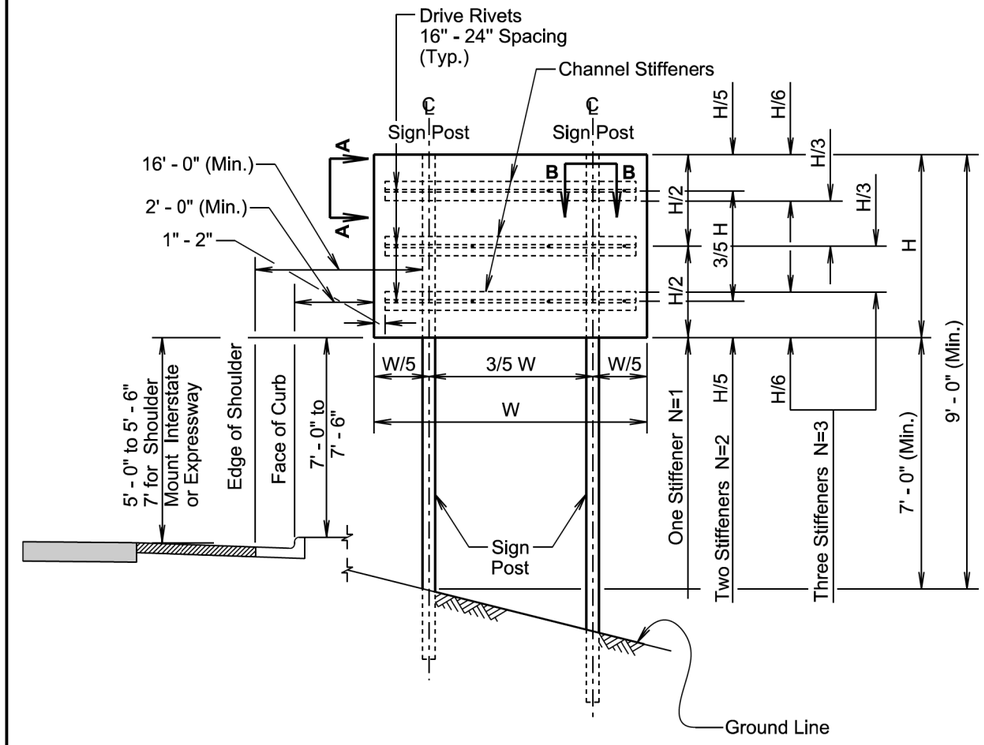


SEC. B-B
(Typical sign and stiffener details.)

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: 2025	SDDOT	***SIGN STIFFENER DETAILS***	***PLATE NUMBER*** 632.60
			Sheet 1 of 2



TWO POST BREAKAWAY SIGN SUPPORTS

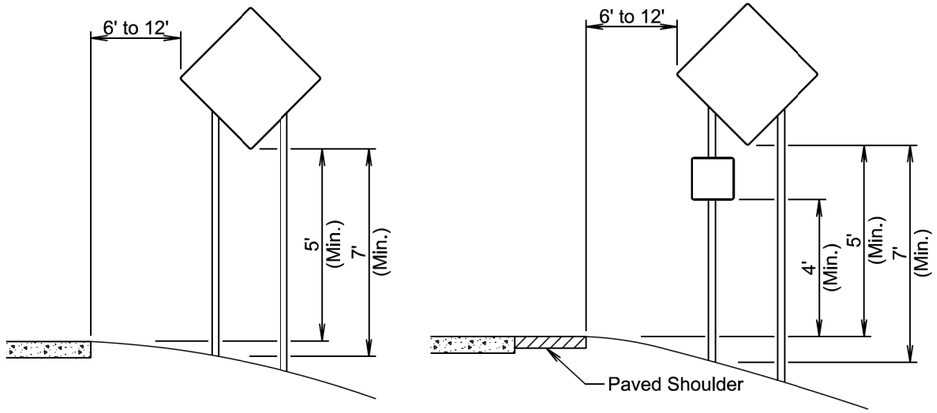
GENERAL NOTES:

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.

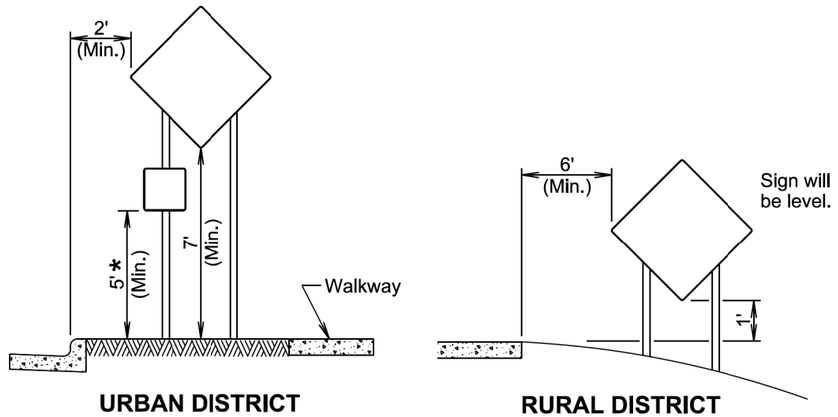
November 19, 2020

Published Date: 2025	SDDOT	***SIGN STIFFENER DETAILS***	***PLATE NUMBER*** 632.60
			Sheet 2 of 2



RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE



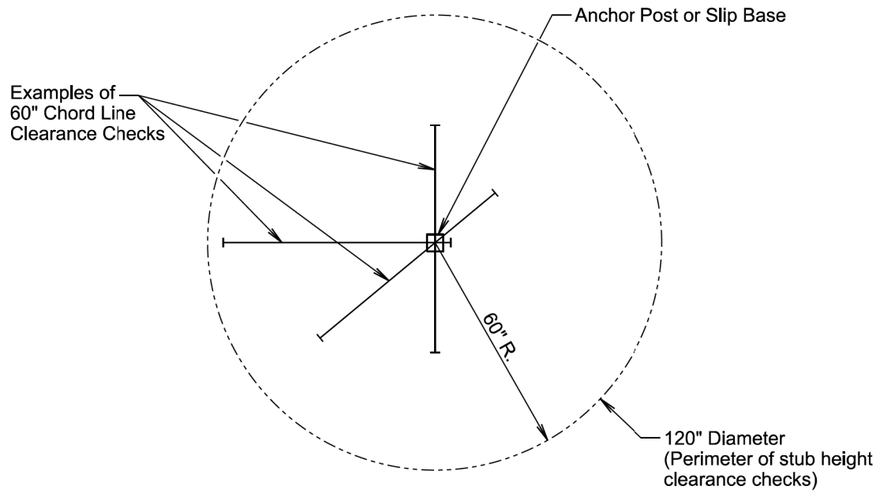
URBAN DISTRICT

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

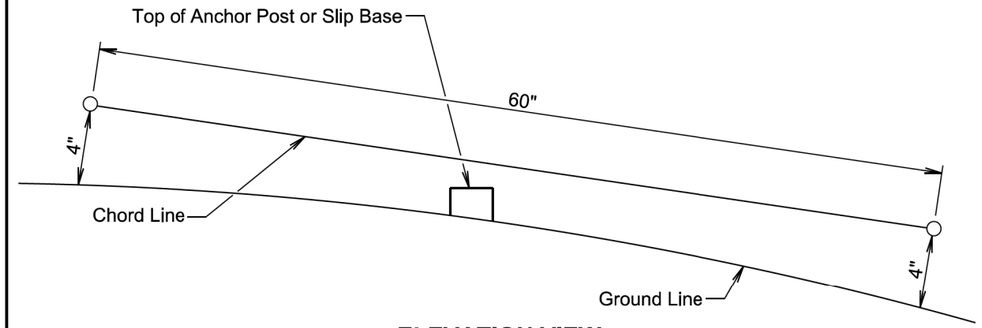
* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

January 22, 2021

Published Date: 2025	SDDOT	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	SDDOT	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1