

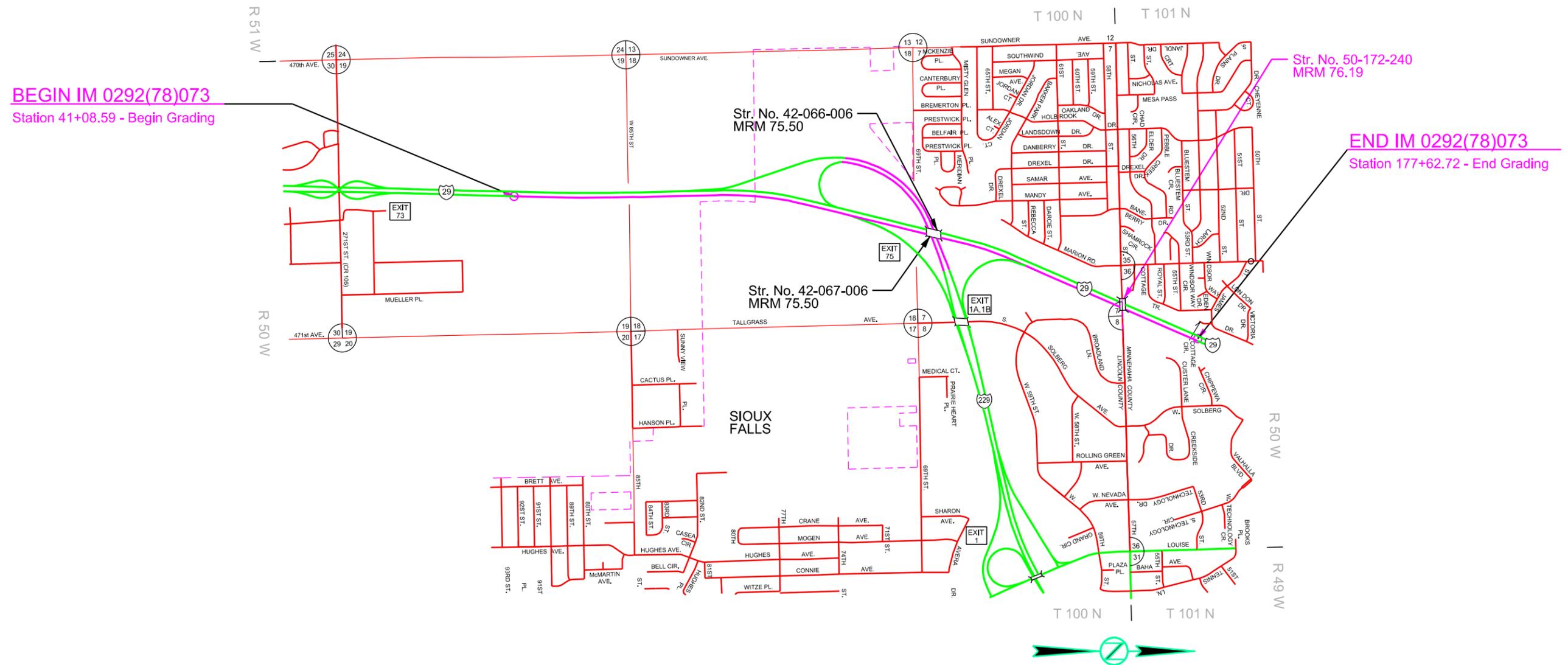
Section S: Permanent Signing Plans

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0292(78)073	S1	S6

Plotting Date: 01/12/2015

INDEX OF SHEETS

S1	General Layout with Index
S2	Estimate of Quantities with General Notes
S3 and S4	Sign Table
S5 and S6	Sign Installation Typical



PLOT SCALE - 1:205.056

PLOTTED FROM - TRJ\INT17

PLOT NAME - 1

FILE ... \PANEL TO WOOD DETAIL.DGN

SECTION S PERMANENT SIGNING ESTIMATE OF QUANTITIES

Bid Item Number	Item	Quantity	Unit
110E0100	Remove Concrete Footing(s)	Lump Sum	LS
110E5000	Salvage Sign Bridge	3	Each
110E5020	Salvage Traffic Sign	10	Each
110E5030	Salvage Extruded Panel Sign	5	Each
632E3520	Remove, Salvage, Relocate, and Reset Traffic Sign	14	Each

REMOVAL AND SALVAGE OF EXISTING SIGNS

The signs shown as extruded aluminum are signs with removable copy legend or a 0.063" aluminum overlay riveted to extruded aluminum panels. The Contractor shall securely support the sign and remove the clips holding the extruded aluminum sign to the supports. The aluminum overlay and extruded aluminum panels shall be removed and handled as one unit. All salvaged signs that are not immediately relocated and reset shall be neatly stockpiled, so they are not damaged.

For single post flat aluminum sign assemblies, the Contractor may remove and salvage the flat aluminum sign(s), post, and footing (if present), as one unit. For multiple post assemblies, the Contractor shall remove the sign(s) first, and remove the posts and footings (if present), separately.

The Contractor shall separate signs from supports prior to stockpiling. Salvaged signs shall be neatly stockpiled. Salvaged galvanized steel posts and sign bridges shall be adequately labeled with the station from which they were removed, and neatly stockpiled. Salvaged mounting hardware shall be placed in five gallon pails and returned to the SDDOT.

Salvaged posts, sign bridges, signs, sign materials, and overlays shall be returned to the SDDOT Maintenance Yard at the junction of I-29 and I-229, or the Sioux Falls SD Dept. of Transportation Maintenance Complex, 5316 W. 60th St. N., Sioux Falls, SD 57107. Stockpiling of salvaged material shall be coordinated with the Project Engineer.

Extruded aluminum sign panels, flat sheet aluminum signs, sign overlays, sign sheeting or posts damaged due to improper handling shall be replaced in-kind at the Contractor's expense.

All nuts, bolts, and miscellaneous mounting hardware salvaged from existing signs shall not be reused.

The cost for removal and salvage of extruded aluminum panel sign assemblies, including posts, overhead mounted signs, miscellaneous hardware, landscaping and reseeding, shall be incidental to the contract unit price per each for Salvage Extruded Panel Sign.

The cost for removal and salvage flat aluminum sign assemblies, including posts and mounting hardware, shall be included in the contract unit price per each for Salvage Traffic Sign.

The cost for removal, salvage, relocate, and reset of existing signs, including new attaching hardware and supports, as indicated in the table, shall be included in the contract unit price per Each for Remove, Salvage, Relocate, and Reset Traffic Sign.

SALVAGE SIGN BRIDGE

Sign bridge hardware shall be kept with the respective sign bridge.

The cost for salvage sign bridge components, including attaching hardware, shall be included in the contract unit price per Each for Salvage Sign Bridge.

REMOVE CONCRETE FOOTING(S)

The existing footings for fixed base sign posts shall be removed entirely or broken down a minimum of one foot below the surface of the final grade at topsoil elevation.

Cost to break down or remove existing extruded panel sign concrete footings and sign bridge concrete footings shall be incidental to the contract lump price for Remove Concrete Footing.

SIGN POSTS

The plan post lengths are for information only and shall be field verified by the Contractor.

Supports shall be of sufficient length to maintain a minimum height of seven feet, measured vertically from the bottom of the sign to the elevation of the near edge of the pavement.

Supports shall be cut to provide the proper sign height where necessary.

All breakaway sign supports shall comply with FHWA NCHRP 350 or Manual for Assessing Safety Hardware (MASH) crash-worthy requirements.

The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

SIGNING TABLE

SIGN DATA								POST DATA						REMOVAL DATA				WORK DESCRIPTION	
STATION	DESCRIPTION	SIGN CODE	SIGN SIZE (FT)	DIR FAC-ING	OFFSET* (R)IGHT/(L)EFT/(O)VERHEAD	POST LENGTHS			FIXED or BREAK-AWAY**	(N)EW or (R)EUSE POST		SIZES & QUANTITIES* (FT)			SALVAGE SIGN BR (EA)	SALVAGE TRAFFIC SIGN (EA)	SALVAGE XTRUDED PNL (EA)		REMOVE & RESET (EA)
						INSIDE	CENTER	OUTSIDE		4" X 6" WOOD	6" X 6" WOOD	6" X 8" WOOD	IN	OUT					
I-29 NBL																			
41+00	R	NORTH	M3-1	3.00 X 1.50	S	12'R										1(4"P)		REMOVE AND SALVAGE EXISTING SIGN AND PIPE SUPPORT. REMOVE FOOTING.	
		I-29 Route Marker	M1-1	3.00 X 3.00															
		MRM 74	D10-2	1.00 X 3.00	S	12'R										1(U)		REMOVE AND SALVAGE EXISTING SIGN AND U-CHANNEL SUPPORT.	
51+00	L	SPEED REDUCTION	W3-5	4.00 X 4.00	S	12'R	14.7					14.7				1(W)		REMOVE AND SALVAGE EXISTING SIGN AND WOOD SUPPORT.	
51+00	R	SPEED REDUCTION	W3-5	4.00 X 4.00	S	12'R	14.7					14.7				1(W)		REMOVE AND SALVAGE EXISTING SIGN AND WOOD SUPPORT.	
52+80		SIGN BRIDGE			S	R & L							1					REMOVE AND SALVAGE EXISTING SIGN BRIDGE VERTICAL SUPPORTS. REMOVE FOOTINGS.	
64+94	L	SPEED LIMIT 65	R2-1	4.00 X 5.00	S	12'R	15.3					15.3				1(2W)		REMOVE AND SALVAGE EXISTING SIGN AND WOOD SUPPORTS.	
64+95	R	SPEED LIMIT 65	R2-1	4.00 X 5.00	S	12'R	15.3					15.3				1(2W)		REMOVE AND SALVAGE EXISTING SIGN AND WOOD SUPPORTS.	
93+04	R	Sioux Falls Home of U S Senator John Thune	SPECIAL	10.00 X 6.00	S	12'R										1(2W)		REMOVE AND SALVAGE EXISTING SIGN AND WOOD SUPPORTS.	
99+56	R	MRM 75	D10-2	1.00 X 3.00	S	12'R										1(U)		REMOVE AND SALVAGE EXISTING SIGN AND U-CHANNEL SUPPORT.	
105+73	R	29		18.00 X 9.00	S	O							1		1			REMOVE AND SALVAGE EXISTING SIGNS AND SIGN BRIDGE. REMOVE FOOTING.	
		EXIT 75	E1-5P	9.00 X 2.00	S	O	19.0		19.0	N	N	38.0				1		SHOULDER MOUNT EXISTING SIGN ON WOOD SUPPORTS.	
		229 ARROW		8.00 X 8.00												1			
109+52	R	EXIT 75 (GORE)	E5-1a	6.00 X 5.00	S	12'R	14.0		14.0	N	N	28.0					1(2I)	REMOVE AND SALVAGE EXISTING SIGN, STEEL SUPPORTS, AND FOOTING. RESET ON WOOD.	
111+79	R	WATCH FOR ICE	SPECIAL	4.00 X 4.00	S	12'R										1(W)		REMOVE AND SALVAGE EXISTING SIGN AND WOOD SUPPORT.	
115+46	R	NORTH	M3-1	3.00 X 1.50	S	12'R										1(4"P)		REMOVE AND SALVAGE EXISTING SIGNS AND PIPE SUPPORT. REMOVE FOOTING.	
		I-29 Route Marker	M1-1	3.00 X 3.00															
135+00	R	YIELD	R2-1	1.50 X 0.50			15.0			N		15.0						1(4"P)	REMOVE AND SALVAGE EXISTING SIGN AND PIPE SUPPORT. REMOVE FOOTING. RESET ON WOOD.
140+30	R	Sioux Falls NEXT 7 EXITS		13.00 X 5.00												1(2I)		REMOVE AND SALVAGE EXISTING SIGNS AND STEEL SUPPORTS. REMOVE FOOTINGS.	
		HOSPITAL USE EXIT 79		13.00 X 5.00	S	12'R	14.0		15.5	N	N	29.5					1(2I)	RESET EXISTING SIGN ON WOOD SUPPORTS.	
144+27	R	NORTH	M3-1	3.00 X 1.50	S	12'R	13.5			N		13.5				1(4"P)		REMOVE AND SALVAGE EXISTING SIGNS AND PIPE SUPPORT. REMOVE FOOTING. RESET EXISTING SIGNS ON WOOD.	
		I-29 Route Marker	M1-1	3.00 X 3.00															
SHEET SUBTOTALS																			
												116.5	67.5	0.0	2	10	3	5	

* - Distance from Edge of Pavement to Edge of Sign. * -Post quantities are for information only.
 ** - (F)ixed Base, or Breakaway (S)lip Base, (A)nchor Stub Post, (D)irect drive, or (W)ood Post.

SIGNING TABLE

SIGN DATA										POST DATA						REMOVAL DATA				WORK DESCRIPTION
STATION	DESCRIPTION	SIGN CODE	SIGN SIZE (FT)	DIR FAC-ING	OFFSET* (R)IGHT/(L)EFT/(O)VERHEAD	POST LENGTHS			FIXED or BREAK-AWAY**	(N)EW or (R)EUSE POST	SIZES & QUANTITIES* (FT)			SALVAGE SIGN BR (EA)	SALVAGE TRAFFIC SIGN (EA)	SALVAGE XTRUDED PNL (EA)	REMOVE & RESET (EA)			
						INSIDE	CENTER	OUTSIDE			4" X 6" WOOD	6" X 6" WOOD	6" X 8" WOOD							
I-29 NBL																				
148+27	R	EXIT 77 41st Street 1 MILE INFO	E1-5P D9-10	9.50 X 2.50 10.00 X 9.00 2.50 X 2.50	S S S	20'R	20.5		23.5		N		44.0				1(2I)	REMOVE AND SALVAGE EXISTING SIGNS AND STEEL SUPPORTS. REMOVE FOOTINGS. RESET ON WOOD.		
152+25	R	SPEED LIMIT 65	R2-1	4.00 X 5.00	S	12'R	14.0					14.0					1(PTS)	REMOVE AND SALVAGE EXISTING SIGN, TUBE SUPPORT, AND SLIP BASE. REMOVE FOOTING. RESET ON WOOD.		
156+08	R	MOTORIST SVCS LODGING		19.00 X 10.00	S	20'R	26.0	26.0	26.0		N	N					1(2I)	REMOVE AND SALVAGE EXISTING SIGNS, STEEL SUPPORT, AND FOOTING. RESET ON WOOD.		
156+78	R	Minnehaha County		7.00 X 3.00	S											1(2I)	REMOVE AND SALVAGE EXISTING SIGN AND I-BEAM SUPPORTS. REMOVE FOOTINGS.			
162+50	R	MOTORIST SVCS FOOD		19.00 X 10.00	S	20'R	26.0	26.0	26.0		N	N					1(2I)	REMOVE AND SALVAGE EXISTING SIGNS, STEEL SUPPORT, AND FOOTING. RESET ON WOOD.		
162+50	R	EXIT 77 Augustana U of Soo Foo	E1-5P	9.50 X 2.50 21.00 X 8.00	S S	20'R	19.5	21.0	22.5		N		63.0				1(2I)	REMOVE AND SALVAGE EXISTING SIGNS, STEEL SUPPORTS, AND FOOTINGS. RESET ON WOOD.		
I-229 SBL																				
	R	EXIT 1B (GORE)	E5-1a	6.00 X 5.00	S	12'R	14.0		14.0		N	N	28.0				1(2I)	REMOVE AND SALVAGE EXISTING SIGN, STEEL SUPPORTS, AND FOOTING. RESET ON WOOD.		
I-29 SBL																				
101+36	L	29 V V		18.00 X 9.00	N	O								1		1		REMOVE AND SALVAGE EXISTING SIGNS AND SIGN BRIDGE. REMOVE FOOTING.		
		EXIT 75	E1-5P	9.00 X 2.00	N	12'R	19.0		19.0		N	N	38.0				1	SHOULDER MOUNT EXISTING SIGN ON WOOD SUPPORTS.		
		229 ARROW		8.00 X 8.00													1			
RAMP G																				
21+75	R	RAMP SPEED 30	W13-3	4.00 X 5.00	N	16'R	14.0					14.0					1	SHOULDER MOUNT EXISTING SIGN FROM SIGN BRIDGE SUPPORT ON WOOD SUPPORT.		
SHEET SUBTOTALS																				
TOTALS																				
											56.0	145.0	156.0	1	0	2	9			
											172.5	212.5	156.0	3	10	5	14			

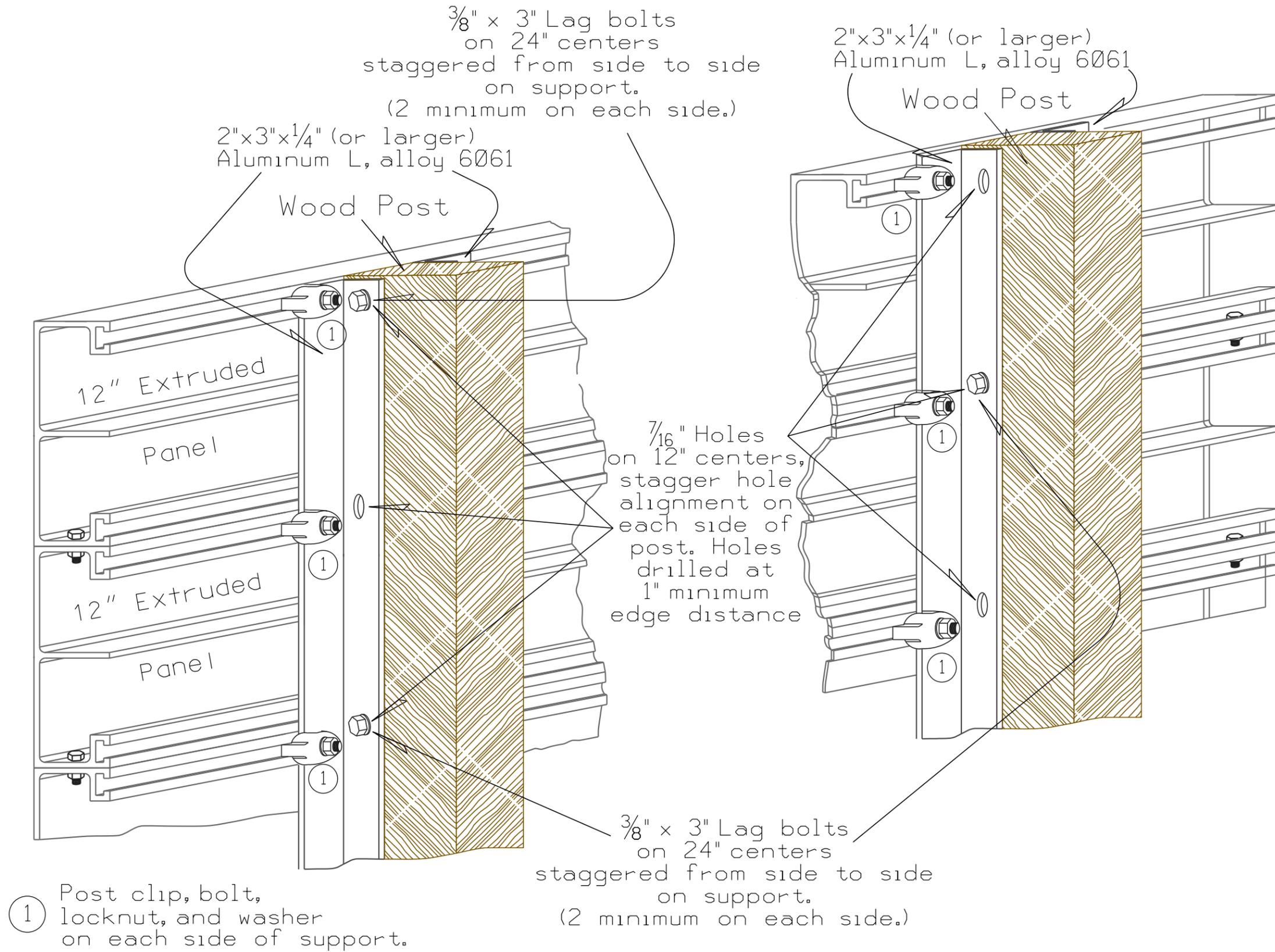
* - Distance from Edge of Pavement to Edge of Sign. * -Post quantities are for information only.
 ** - (F)ixed Base, or Breakaway (S)lip Base, (A)nchor Stub Post, (D)irect drive, or (W)ood Post.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0292(78)073	S5	S6

Plotting Date: 12/08/2014

SIGN MOUNTING DETAIL

EXTRUDED PANELS ON WOOD POSTS



PLOT SCALE - 1/8" = 1'-0"

PLOTTED FROM - IRWIN17

PLOT NAME - 2

FILE - ... \PANEL TO WOOD DETAIL.DGN

BREAKAWAY SIGN SUPPORTS
(Wood Post Details)

Sheet 1 of 1

GENERAL NOTES-

1. Design Specification: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 1994 Edition.
2. Wood posts shall be as recommended in Section 982.2 (E) of the South Dakota Standard Specification for Roads and Bridges. Western Red Cedar posts also shall be included with the exception that a preservative treatment is not required.
3. The posts shall be of such straightness that a straight line drawn from the surface of the top and bottom will not exceed 2" from the surface and there shall be no reverse crooks.

See HOLE SIZE REQUIREMENTS

* Single post installation shown.

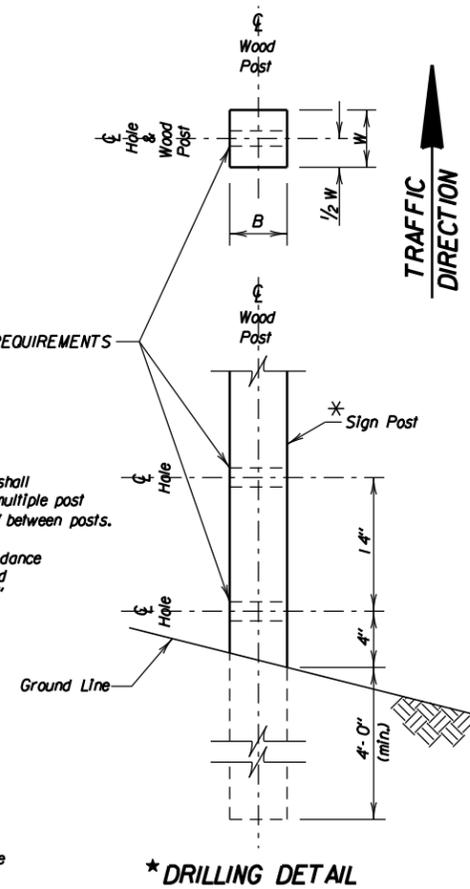
WESTERN RED CEDAR - No more than two 4" X 4" or 4" X 6" posts shall be allowed in a 7' width. All posts 6" X 6" and larger used in multiple post installations shall be spaced with a minimum clear distance of 7' between posts.

OTHER POSTS - All posts 4" X 6" and larger shall be drilled in accordance with the details shown. As an added requirement, all 4" X 6" and larger posts used in multiple post installations shall be spaced 7' or more apart.

HOLE SIZE REQUIREMENTS

B X W	HOLE DIA.
4" X 6"	1 1/2" ϕ
6" X 6"	2" ϕ
6" X 8"	3" ϕ

* NOTE: All posts 4" X 6" and larger shall be field drilled in accordance with the above requirements, except 4" X 6" Western Red Cedar posts are not required to be drilled.



Breakaway Provisions: Reference FHWA acceptance letters dated 6/4/91 (Code SS-25) and 9/3/93 (Code SS-36), 6/17/94 and 9/21/95.