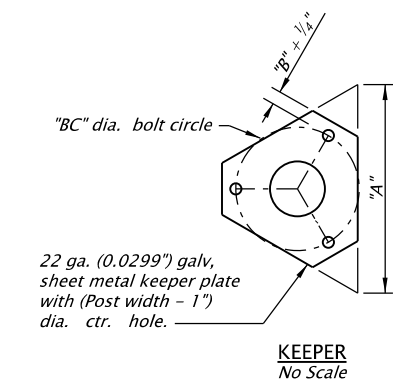
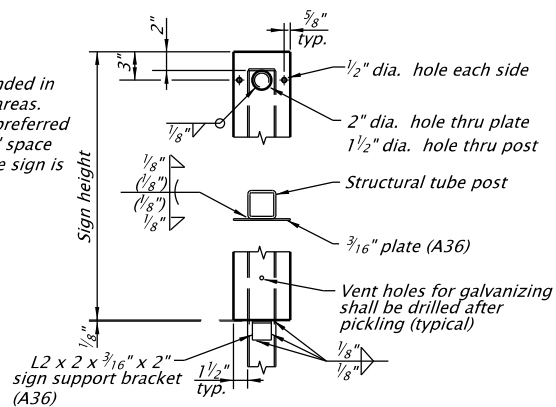
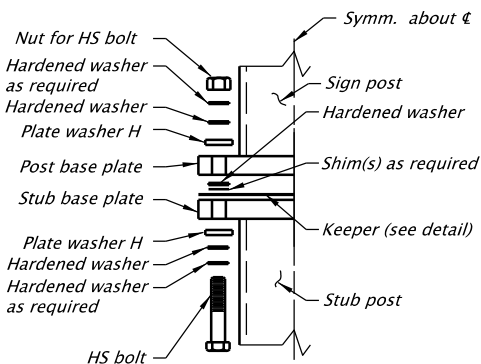




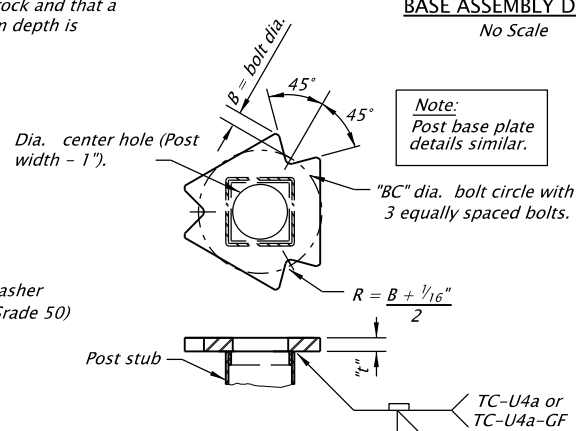
TS 6 x 6 x 3/16" structural tubing and larger posts are not recommended in vulnerable locations such as gore areas. See dwg. TM201 and TM635 for preferred design for these areas. Provide 2" space between signs when more than one sign is mounted on a single post.



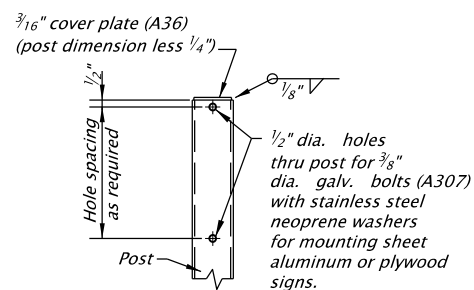
EXTRUDED SIGN MOUNTING DETAILS
No Scale
For signs 9'-0" or less in width



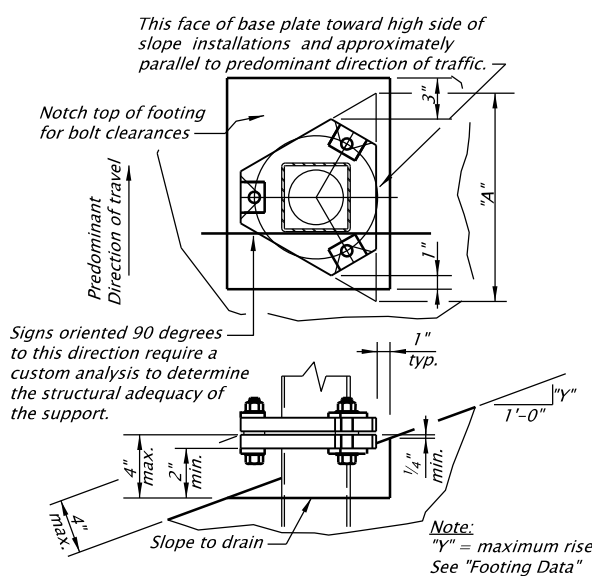
BASE ASSEMBLY DETAIL
No Scale



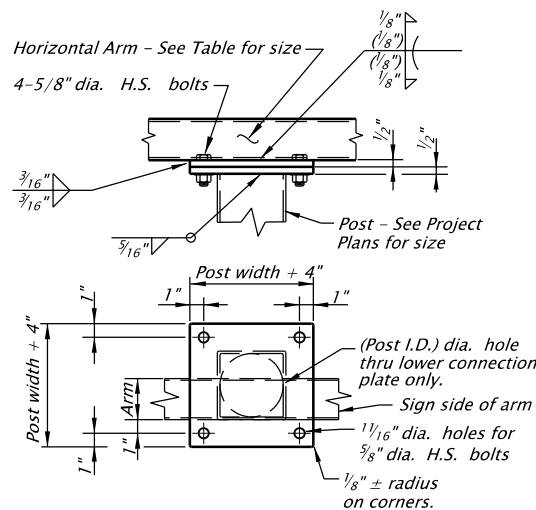
POST STUB DETAILS
No Scale



SIGN MOUNTING DETAILS
FOR PLYWOOD & SHEET ALUMINUM SIGNS
No Scale



BASE PLATE ORIENTATION
No Scale



HORIZONTAL ARM TO POST
CONNECTION DETAIL
No Scale

1. *Sign supports are designed in accordance with the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals 1994. Use a wind velocity with a 10-year mean recurrence interval.*
2. *All concrete shall be Commercial Grade Concrete ($f'_c = 3000$ psi)*
3. *All reinforcing steel shall conform to AASHTO Specification M31, Grade 60, or ASTM A706.*
4. *The following splice lengths shall be used unless otherwise shown:*

Bar Size	#4	#5
Splice Length (mm)	1'-1"	1'-5"

5. *Structural steel shall conform to AASHTO M223 (ASTM A572) Grade 50, unless shown otherwise.*
6. *Structural tubing shall conform to ASTM Specification A500, Grade B, or A501.*
7. *Shims shall be fabricated from brass shim stock conforming to ASTM B36.*
8. *All bolts shall be high strength bolts conforming to to ASTM Specification A325 (AASHTO M164). Nuts for high strength bolts shall be well lubricated heavy hexagon nuts conforming to ASTM Specification A563, (AASHTO M291), Grade DH. Hardened steel washers shall conform to ASTM Specification F436 (AASHTO M293).*
9. *Steel sheet for keepers shall conform to ASTM Specification A653.*
10. *Base plate holes shall be sub-drilled and reamed to size. Base plate slot shall be saw cut or machine guided flame cut.*
11. *Keeper sheet metal shall be galvanized in accordance with ASTM A653, Coating G165. All other steel including fasteners shall be hot-dip galvanized after fabrication. Remove galvanizing runs and beads on all slip surfaces. Nuts for high strength bolts may be retapped after galvanizing.*
12. *The use of post larger than required by design will not be permitted.*
13. *See Dwg. TM675 for sign and sign mounting details.*

1. Assemble post to stub as shown in Base Assembly Detail.
2. Shim as required to plumb post. ($\pm \frac{1}{16}$ "/vert. 12") (2 shims maximum per bolt)
3. Tighten bolts in a systematic order to the "T1" ft.-lbs torque.
4. Loosen and retighten bolts to the "T2" ft.-lbs torque. Use the same order as the initial tightening and **DO NOT OVER TIGHTEN!**
5. Burr threads at junction with nut using a center punch.

		Slip Base Data								Footing Data				
Structural Tubing Post and Post Stub Size	Structural Tubing Horiz. Arm (if req'd)	Base Plate		Bolt						Post Stub Length	Vert. Reinf. Bars "V"	Footing Depth		Max. Slope Rise per ft. "Y"
		"t"	"A"	Dia. "B"	Length	Circle "BC"	"T1" ft-lbs torque	"T2" ft-lbs torque	Num. of additional washers			2'-0" Dia.	4'-0" Dia.	
TS 3 x 3 x 3/16	TS 3 x 3 x 3/16	3/4"	10"	1/2"	5"	6"	50	30	2	1'-6"	8-#4	3'-0"	—	6.3"
TS 3 1/2 x 3 1/2 x 3/16	TS 3 x 3 x 3/16	3/4"	11 3/8"	5/8"	5"	6 3/4"	150	50	—	1'-9"	8-#4	3'-6"	—	5.5"
TS 4 x 4 x 3/16	TS 3 x 3 x 3/16	1"	1'-0 3/8"	5/8"	5 1/2"	7 1/2"	150	50	—	2'-0"	8-#4	4'-0"	—	5.2"
TS 5 x 5 x 3/16	TS 3 x 3 x 3/16	1"	1'-2 5/8"	3/4"	5 1/2"	9"	280	70	—	2'-3"	8-#4	4'-6"	4'-0"	4.4"
TS 6 x 6 x 3/16	TS 3 x 3 x 3/16	1 1/4"	1'-4 7/8"	7/8"	6 1/2"	10 1/2"	450	75	1	2'-6"	8-#5	5'-0"	4'-0"	3.8"
TS 7 x 7 x 3/16	TS 4 x 4 x 3/16	1 1/4"	1'-6 1/4"	7/8"	6 1/2"	12"	450	75	1	3'-0"	8-#5	6'-0"	4'-6"	3.5"
TS 8 x 8 x 3/16	TS 5 x 5 x 3/16	1 3/8"	1'-8 1/2"	1"	7"	1'-1 1/2"	680	75	1	3'-6"	12-#5	7'-0"	5'-0"	3.1"

Accompanied by dwgs. TM200, TM201, TM635, TM675

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

TRIANGULAR BASE BREAKAWAY MULTI-DIRECTIONAL SLIP BASE DESIGN

2024

DATE	REVISION	DESCRIPTION

CALC. BOOK NO.	- - - 1493 - - -	SDR DATE	09-JAN-2015	TM602
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