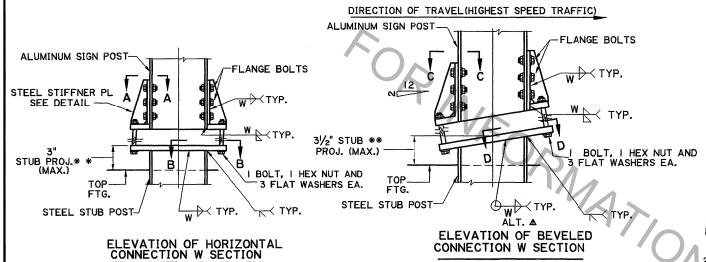
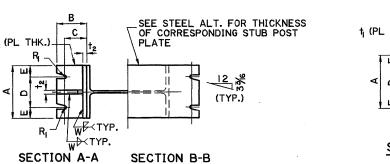
DIMENSION (INCH) SECTION	BASE CONNECTION DATA														SLIP PLATE & HINGE PLATE DATA									FOOTING DATA					
	BOLT SIZE 8* TORQUE LIMITS	Α	В	С	D	E	F	G	Ή	t	t ₂	R	W	FLANGE BOLT DIA.	J	K	L	М	N	0	†3	R ₂	H.S. BOLT DIA.	STUB LTH.	LTH. OF FTG.	BARS V SIZE	STEEL STUB POST	CU. YD. CONC.	ΔW (ALT.)
W6x4.16	½"ø T=95	4	3	23/8	21/4	7∕8	2	11/8	6 ¹ /4	3/4	3∕8	9/32	1/4	1/2	4	21/4	7 ⁄8	4	1	3%	3∕8	9/32	1/2	24	48	#4	W6 x 12	0.46	5/16
W8x5.90		51/4	3	23/8	3	11/8	2	11/8	6 ¹ / ₄	3/4	3%	9/32	1/4	5/8	51/4	23/4	11/4	41/2	11/8	41/8	1/2	11/32	5 ⁄8	24	48	#5	W8 x 18	0.46	5/16
W8x8.32	- 5⁄6"ø T=226	6 ¹ /2	31/2	2¾	4	11/4	21/2	11/4	71/2	3/4	1/2	11/32	5/16	5 %	61/2	31/2	11/2	41/2	11/B	41/8	1/2	11/32	5/8	30	60	#6	W8 x 24	0.58	7/16
WIOxII.4		8	31/2	23/4	5	11/2	3	11/2	9	3/4	1/2	11/32	5/16	3/4	8	51/2	11/4	5	11/4	45/8	5/8	13/32	3/4	30	84	#7	W10 x 33	0.81	7/16
W12x13.84	- ¾"ø T=369	8	4	31/8	5	11/2	3	13/4	91/2	1	o 5/8	13/32	5/16	7∕8	8	51/2	11/4	5	11/4	45/8	%	13/32	3/4	36	96	#8	W12 x 40	0.93	
W12x18.34		10	4	31/a	6	2	31/2	2 *	- 11	ı	5%	13/32	5/16	I	10	51/2	21/4	6	11/2	51/2	3/4	15/32	7⁄a	36	08	#9	W12 x 45	1.05	

ABASE PLATE TO STUB POST WELD ALTERNATE (AS AN ALTERNATE TO WELDS SHOWN IN DETAILS, THE POST MEMBERS TABULATED MAY BE WELDED ALL AROUND WITH A FILLET WELD.

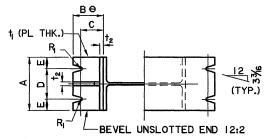
* ALL BOLTS SHALL HAVE A MINIMUM OF 3 THREADS BEYOND THE NUT. BOLT TORQUE LIMITS "-* LB. FOR NON-BREAKAWAY USE TORQUE LIMITS GIVEN IN THE STANDARD SPECIFICATIONS.



TO BE USED ON ALL MULTI-POSTSIGNS WITH DISTANCE BETWEEN POSTS 7'-0" \P TO \P OR LESS

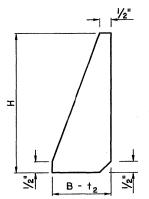


** TO MAINTAIN CORRECT STUB PROJECTION RECESS CONCRETE AS NECESSARY FOR BOLT INSTALLATION RECESS SHAPE TO DRAIN.



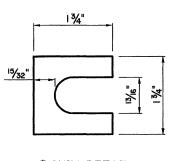
SECTION C-C SECTION D-D

→ ADD ¼" FOR BEVELED CONNECTIONS



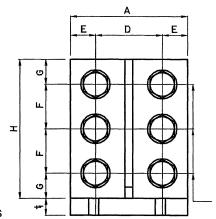
STEEL STIFFENER

PLATE DETAIL



* SHIM DETAIL BOLTS UP TO 34" Ø BOLTS

* FURNISH 2 SHIMS 0.012" ± THICK AND 2 SHIMS 0.032" ± THICK PER POST. SHIMS SHALL BE BRASS CONFORMING TO ASTM. SPEC. B-36 AND BE USED AS DIRECTED BY THE PROJECT



STEEL BASE DETAIL

L H.S. FLANGE BOLTS

SLIP PLATE CONNECTION NOTES:

STEEL HINGE PLATE DETAIL

I. SLIP PLATE SHALL BE INSTALLED WITH H.S. BOLTS AT MINIMUM BOLT TENSION.

PL THICKNESS

- 2. TIGHTING SHALL BE OBTAINED BY
 (a) TURN OF NUT METHOD
 (b) DIRECT TENSION INDICATOR METHOD USING LOAD INDICATOR WASHER. SEE NOTE A.
- 3. TIGHTING SHALL BE TO SUCH A DEGREE AS TO OBTAIN MINIMUM BOLT TENSION AS SPECIFIED IN STANDARD SPECIFICATIONS SUBSECTION 807.05.1.1, CURRENT AT TIME OF FABRICATION.
- 4. TIGHTEN BOLTS IN A SYSTEMATIC ORDER TO THE PRESCRIBED MINIMUM BOLT TENSION.

NOTE A:

WHEN HIGH STRENGTH BOLT IS TIGHTENED BY USE OF A DIRECT TENSION INDICATOR, THE INSTALLATION AND INSPECTION SHALL BE IN ACCORDANCE WITH SPECIFICATIONS FOR STRUCTURAL JOINTS, SECTION 5 AND 6 FOR ASTM A-325 BOLTS. APPROVED BY THE RESEARCH COUNCIL ON RIVETED AND BOLTED STRUCTURAL JOINTS. FOR DETAILED INSTALLATION AND INSPECTION PROCEDURES FOLLOW MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL BE REQUIRED TO SUBMIT BROCHURES TO THE BRIDGE DESIGN FNGINFER FOR APPROVAL ENGINEER FOR APPROVAL.

WHEN HIGH STRENGTH BOLT IS TIGHTENED BY USE OF A DIRECT TENSION INDICATOR METHOD, THE WASHER UNDER THE BOLT HEAD SHALL BE A LOAD INDICATOR WASHER.

PROCEDURE FOR ASSEMBLY OF BASE CONNECTION: ***

SPECIAL CARE SHALL BE TAKEN TO SET THE BASES PLUMB TO AVOID EXCESSIVE SHIMMING AT THE BREAK-AWAY FEATURE AFTER FINAL INSTALLATION. EXCESSIVE SHIMMING COULD IMPAIR THE BREAK-AWAY FEATURE FOR WHICH THIS INSTALLATION WAS DESIGNED. SHIM PACKS SHOWN ON THIS DRAWING SHOULD BE SUFFICIENT TO ALLOW FOR NORMAL MISALIGNMENT.

- I. BASE SHALL BE ALIGNED AND SET PLUMB BEFORE OR IMMEDIATELY AFTER POURING CONCRETE FOOTING.
- 2. H.S. BOLTS IN BASE PLATE SHALL BE TIGHTENED TO THE PRESCRIBED TORQUE. CARE SHALL BE TAKEN TO AVOID OVERTIGHTENING.
- *** SEE STEEL ALTERNATE FOR ORIENTATION AND USE OF SLOTS AND HOLES.

THIS SHEET TO BE USED WITH WIND LOAD MAP AND GENERAL NOTE SHEET. $\ensuremath{\mathsf{NOTE}}$

HINGE DETAIL

HINGE PI

(SEE DETAIL)

⊸© HINGE

STEEL SLIP PLATE DETAIL

BOLT HOLE DIAMETERS TO BE EQUAL SIGN POST—TO BOLT DIA. + 1/6" IN POST FLANGE AND SLIP PLATE.

-t3 PL THICKNESS

- WHEN SIGN IS LOCATED ON SIDE OF ROADWAY WITH TWO WAY TRAFFIC, A SLIP PLATE WILL BE USED ON SIDES OF THE POST IN LIEU OF THE HINGE PLATE SHOWN
- * FOR EXTRUSION SIGN PANEL ALTERNATE, LOCATION OF L HINGE SHALL BE 31/2" FROM BOTTOM OF SIGN PANEL.

SLIP PL

(SEE DETAIL)

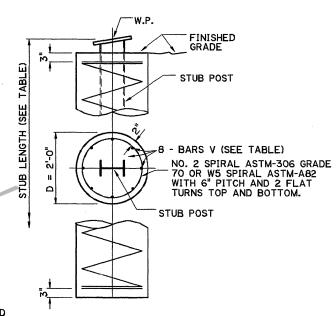
-SIGN PANEL

SEE NOTE B

* LOCATION OF HINGE AT BOTTON OF SIGN PANEL ± 1/2"

CONTACT SURFACE SHALL BE GROUND AND CLEAN FOR UNIFORM BEARING.

_I BOLT (FRICTION TYPE), I HEX NUT AND 2 WASHERS EA.



FOOTING DETAIL





ROADSIDE MOUNTED SUPPORT DETAILS TYPE D SIGNS