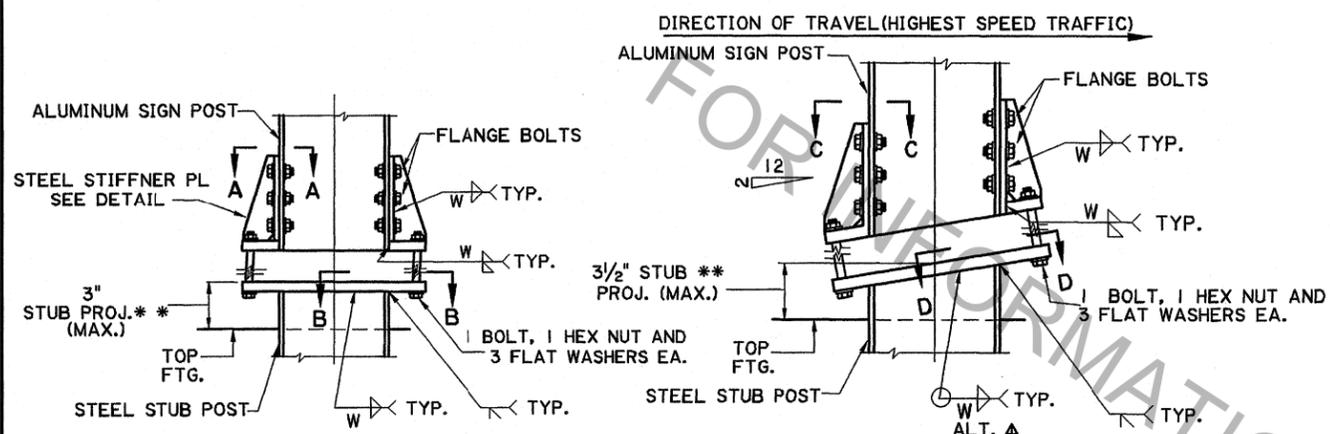


SECTION	DIMENSION (INCH)	BASE CONNECTION DATA													SLIP PLATE & HINGE PLATE DATA								FOOTING DATA							
		BOLT SIZE & TORQUE LIMITS	A	B	C	D	E	F	G	H	t ₁	t ₂	R	W	FLANGE BOLT DIA.	J	K	L	M	N	O	t ₃	R ₂	H.S. BOLT DIA.	STUB LTH.	LTH. OF FTG.	BARS V SIZE	STEEL STUB POST	CJ. YD. CONC.	Δ W (ALT.)
W6x4.16		1/2" φ T=95	4	3	2 3/8	2 1/4	7/8	2	1 1/8	6 1/4	3/4	3/8	9/32	1/4	1/2	4	2 1/4	7/8	4	1	3 5/8	3/8	9/32	1/2	24	48	#4	W6 x 12	0.46	5/16
W8x5.90		1/2" φ T=95	5 1/4	3	2 3/8	3	1 1/8	2	1 1/8	6 1/4	3/4	3/8	9/32	1/4	5/8	5 1/4	2 3/4	1 1/4	4 1/2	1 1/8	4 1/8	1/2	1 1/32	5/8	24	48	#5	W8 x 18	0.46	5/16
W8x8.32		5/8" φ T=226	6 1/2	3 1/2	2 3/4	4	1 1/4	2 1/2	1 1/4	7 1/2	3/4	1/2	1 1/32	5/16	5/8	6 1/2	3 1/2	1 1/2	4 1/2	1 1/8	4 1/8	1/2	1 1/32	5/8	30	60	#6	W8 x 24	0.58	7/16
W10x11.41		5/8" φ T=226	8	3 1/2	2 3/4	5	1 1/2	3	1 1/2	9	3/4	1/2	1 1/32	5/16	3/4	8	5 1/2	1 1/4	5	1 1/4	4 5/8	5/8	1 3/32	3/4	30	84	#7	W10 x 33	0.81	7/16
W12x13.84		3/4" φ T=369	8	4	3 1/8	5	1 1/2	3	1 3/4	9 1/2	1	5/8	1 3/32	5/16	7/8	8	5 1/2	1 1/4	5	1 1/4	4 5/8	5/8	1 3/32	3/4	36	96	#8	W12 x 40	0.93	
W12x18.34		3/4" φ T=369	10	4	3 1/8	6	2	3 1/2	2	11	1	5/8	1 3/32	5/16	1	10	5 1/2	2 1/4	6	1 1/2	5 1/2	3/4	1 5/32	7/8	36	108	#9	W12 x 45	1.05	

ΔBASE 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 STANDARAD SPECIFICATIONS.

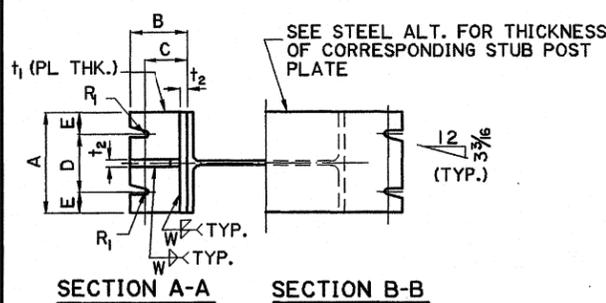


ELEVATION OF HORIZONTAL CONNECTION W SECTION

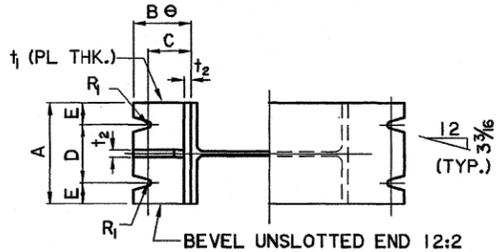
ELEVATION OF BEVELED CONNECTION W SECTION

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

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

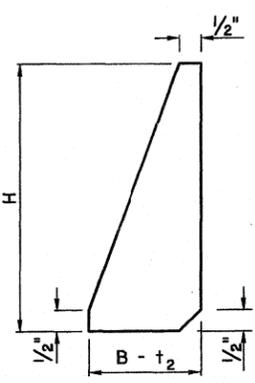


SECTION A-A **SECTION B-B**

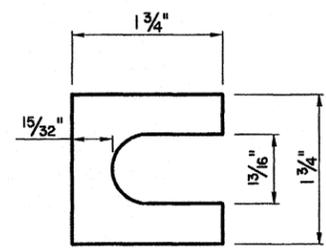


SECTION C-C **SECTION D-D**

⊕ ADD 1/4" FOR BEVELED CONNECTIONS



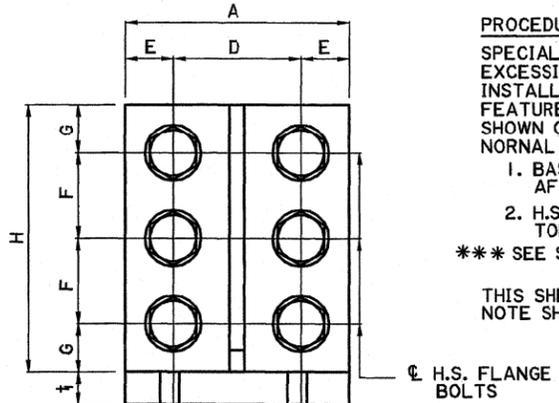
STEEL STIFFENER PLATE DETAIL



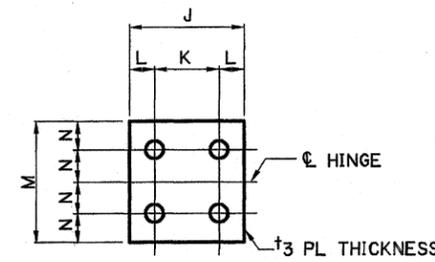
*** SHIM DETAIL**

BOLTS UP TO 3/4" φ BOLTS

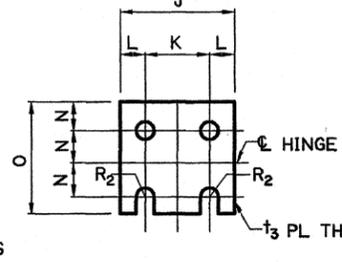
* FURNISH 2 SHIMS 0.012" ± THICK AND 2 SHIMS 0.032" ± THICK PER POST. SHIMS SHALL BE BRASS CONFORMING TO ASTM SPEC. B-36 AND BE USED AS DIRECTED BY THE PROJECT ENGINEER.



STEEL BASE DETAIL

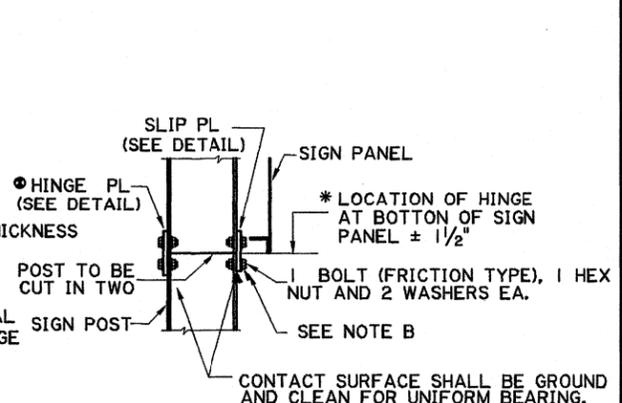


STEEL HINGE PLATE DETAIL



STEEL SLIP PLATE DETAIL

BOLT HOLE DIAMETERS TO BE EQUAL TO BOLT DIA. + 1/16" IN POST FLANGE AND SLIP PLATE.



HINGE DETAIL

SLIP PLATE CONNECTION NOTES:

- SLIP PLATE SHALL BE INSTALLED WITH H.S. BOLTS AT MINIMUM BOLT TENSION.
- TIGHTING SHALL BE OBTAINED BY
 - TURN OF NUT METHOD
 - DIRECT TENSION INDICATOR METHOD USING LOAD INDICATOR WASHER. SEE NOTE A.
- TIGHTING SHALL BE TO SUCH A DEGREE AS TO OBTAIN MINIMUM BOLT TENSION AS SPECIFIED IN STANDARD SPECIFICATIONS SUBSECTION 807.21, CURRENT AT TIME OF FABRICATION.
- 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 ENGINEER FOR APPROVAL.

NOTE B:

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.

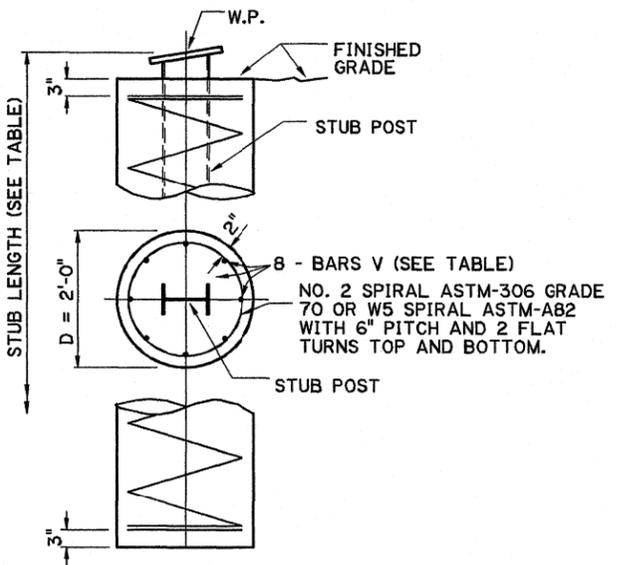
PROCEDURE FOR ASSEMBLY OF BASE CONNECTION: ***

SPECIAL CARE SHALL BE TAKEN TO SET THE BASE 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.

- BASE SHALL BE ALIGNED AND SET PLUMB BEFORE OR IMMEDIATELY AFTER POURING CONCRETE FOOTING.
- 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.



FOOTING DETAIL



DESIGNED BY: J.C. PORTER
 CHECKED BY: D. HUVEL
 PARISH:
 DETAILED BY: E. DEARMOND
 CHECKED BY: A. BRIDGES
 FEDERAL PROJECT:
 STATE PROJECT:
 DATE: JULY 2000
 SHEET: 11 OF 11
 REVISION DESCRIPTION:
 NO. DATE BY

ROADSIDE MOUNTED SUPPORT DETAILS
 TYPE D SIGNS

BD-2.7.2.0.11 - ROADSIDE TRAFFIC SIGNS

BRIDGE AND STRUCTURAL DESIGN

CHECK PRINTS