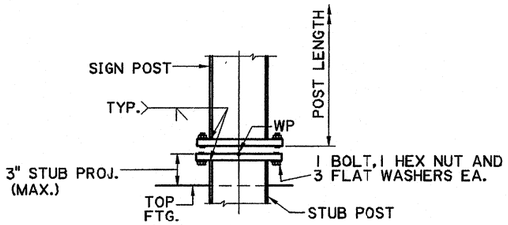
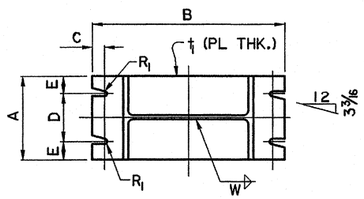
CHECK PRINTS
01-NOV-2011 11:10
IP_PWP:dms55699\Roadside Traffic Signs 10.dgn



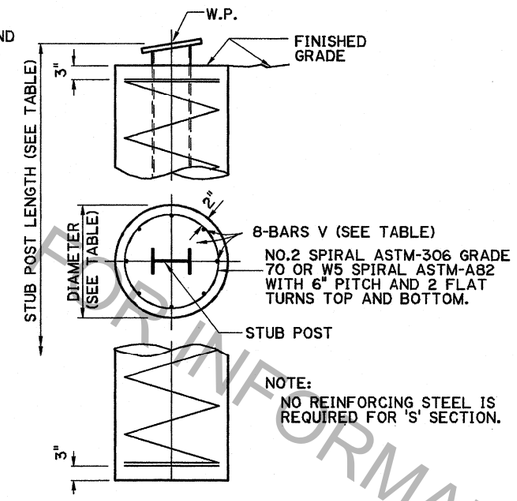
ELEVATION OF HORIZONTAL CONNECTION W SECTION



PLAN
BASE PLATE AND POST

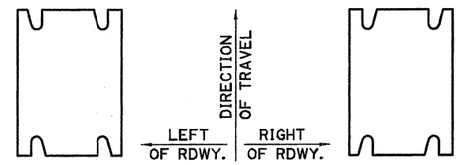
ADD 1/2" FOR BEVELED BASE PLATES

DIRECTION OF HIGHEST SPEED TRAFFIC



NOTE:
NO REINFORCING STEEL IS REQUIRED FOR 'S' SECTION.

CONCRETE FOOTING DETAIL
W SECTION



LEFT HAND SLOTS

RIGHT HAND SLOTS

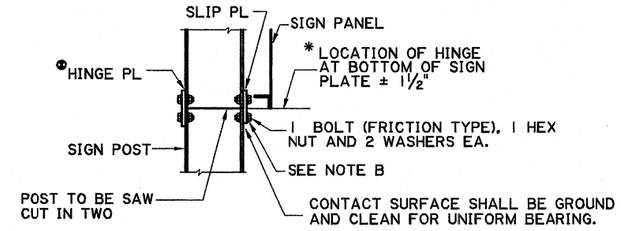
FOR ONE-WAY TRAFFIC LANES. FOR TWO-WAY TRAFFIC LANES, USE RIGHT HAND SLOTS ONLY.

TWO-WAY SLOTS

FOR GORE INSTALLATIONS

HOLES

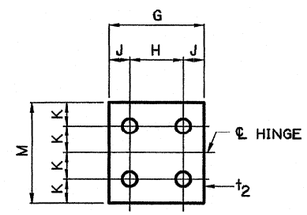
FOR BRIDGE MOUNTED SIGNS & SIGNS BEHIND GUARDRAIL



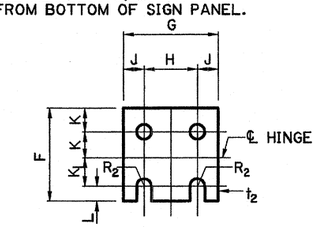
SLIP PLATE CONNECTION DETAIL

⊕ 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 ℄ HINGE SHALL BE 3 1/2" FROM BOTTOM OF SIGN PANEL.



HINGE PLATE DETAIL



SLIP PLATE DETAIL

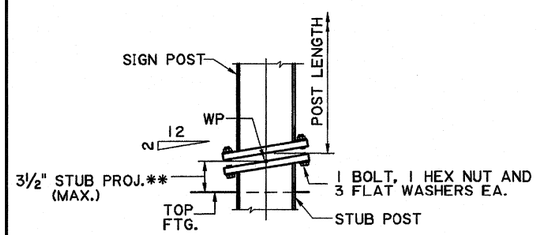
BOLT HOLE DIAMETERS TO BE EQUAL TO BOLT DIA. +1/16" IN POST FLANGE AND SLIP PLATE.

SLIP PLATE CONNECTION NOTES:

1. POST SHALL BE SAW CUT OR TORCH CUT PRIOR TO GALVANIZING.
2. SLIP PLATE SHALL BE INSTALLED WITH H.S. BOLTS AT MINIMUM BOLT TENSION.
3. TIGHTING SHALL BE OBTAINED BY
   (a) TURN OF NUT METHOD; OR
   (b) DIRECT TENSION INDICATOR METHOD USING LOAD INDICATOR WASHER. SEE NOTE A.
4. 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.
5. 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 SPECIFICATION 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 FOLLOWED MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL BE REQUIRED TO SUBMIT BROCHURES TO THE BRIDGE DESIGN ENGINEER FOR APPROVAL.

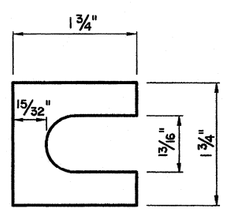
NOTE B:
WHEN HIGH STRENGTH BOLT IS TIGHNENED BY USE OF A DIRECT TENSION INDICATOR METHOD, THE WASHER UNDER THE BOLT HEAD SHALL BE A LOAD INDICATOR WASHER.



ELEVATION OF BEVELED CONNECTION W SECTION

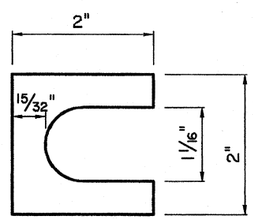
TO BE USED ON ALL MULTI-POST SIGNS WITH DISTANCE BETWEEN POSTS 7'-0" ℄ TO ℄ OR LESS.

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



* SHIM DETAIL

BOLTS UP TO 3/4" ø BOLTS



* SHIM DETAIL

BOLTS UP TO 1" ø BOLTS

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

ORIENTATION AND USE OF SLOTS AND HOLES

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.

1. 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 OVERTIGHTING.

SECTION \ DIMENSION (INCH)	BASE CONNECTION DATA										SLIP PLATE & HINGE PLATE DATA											FOOTING DATA				
	BOLT SIZE & * TORQUE LIMITS	A	B	C	D	E	t_1	R	W	W (ALT.) SEE NOTE	F	G	H	J	K	K_1	L	M	t_2	R_2	H.S. BOLT DIA.	STUB LTH.	FTG. DIA.	LTH. OF FTG.	BARS V SIZE	CU. YD. CONC.
S3x5.7	1/2"ø T= 95-142	4	7	3/4	2	1	1	9/32	3/8	5/16	3 5/8	2 3/8	1 1/2	7/16	1	1 1/4	5/8	4 1/4	3/8	9/32	1/2	36	18	36		0.20
W6x12	5/8"ø T= 226-345	4	10	3/4	2	1	1 1/2	11/32	5/16	5/16	3 5/8	4	2 1/4	7/8	1	1 1/4	5/8	4 1/4	3/8	9/32	1/2	24	24	48	#5	0.46
W8x18		5 1/4	12	3/4	3	1 1/8	1 1/2	11/32	5/16	5/16	4 1/8	5 1/4	2 3/4	1 1/4	1 1/8	1 3/8	3/4	4 3/4	1/2	11/32	5/8	24	24	60	#6	0.58
W8x24	3/4"ø T= 369-554	6 1/2	12 1/2	7/8	3 1/4	1 5/8	1 3/4	13/32	3/8	7/16	4 1/8	6 1/2	3 1/2	1 1/2	1 1/8	1 3/8	3/4	4 3/4	1/2	11/32	5/8	30	24	72	#7	0.70
W10x33	1"ø T= 460-735	8	15 1/2	1 1/4	4 1/2	1 3/4	2	17/32	3/8	7/16	4 5/8	8	5 1/2	1 1/4	1 1/4	1 1/2	7/8	5 1/4	5/8	13/32	3/4	30	24	96	#9	0.93
W12x40		8	17 1/2	1 1/4	4 1/2	1 3/4	2	17/32	3/8	7/16	4 5/8	8	5 1/2	1 1/4	1 1/4	1 1/2	7/8	5 1/4	5/8	13/32	3/4	36	24	120	#10	1.16
W12x45		10	17 1/2	1 1/4	6	2	2	17/32	3/8	7/16	5 1/2	10	5 1/2	2 1/4	1 1/2	1 3/4	1	6 1/4	3/4	15/32	7/8	36	36	96	#9	2.09

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

* ALL BOLTS SHALL HAVE A MINIMUM OF 3 THREADS BEYOND THE NUT. BOLT TORQUE LIMITS ARE IN INCH POUNDS. (THE HIGH STRENGTH BOLTS AT THE BASE CONNECTION SHOULD BE TORQUED WITHIN THE LIMITS SPECIFIED, HOWEVER, THE LOWER LIMIT IS DESIRABLE). FOR NON-BREAKAWAY USE TORQUE LIMITS GIVEN IN THE STANDARD SPECIFICATIONS.

STATE OF LOUISIANA
PAUL B. FOSSIER, JR.
REG. No. 21028
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/31/00

FOR INFORMATIONAL PURPOSES ONLY

SHEET NUMBER

PARISH | FEDERAL PROJECT | STATE PROJECT

DESIGNED A. BRIDGES
CHECKED S. SHAH
DETAILED E. DEARMOND
CHECKED
DATE JULY, 2000
SHEET 10 OF 11

NO. | DATE | REVISION DESCRIPTION | BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

ROADSIDE MOUNTED SUPPORT DETAILS
TYPE D SIGNS

BD.2.7.2.0.10 - ROADSIDE TRAFFIC SIGNS

BRIDGE AND STRUCTURAL DESIGN