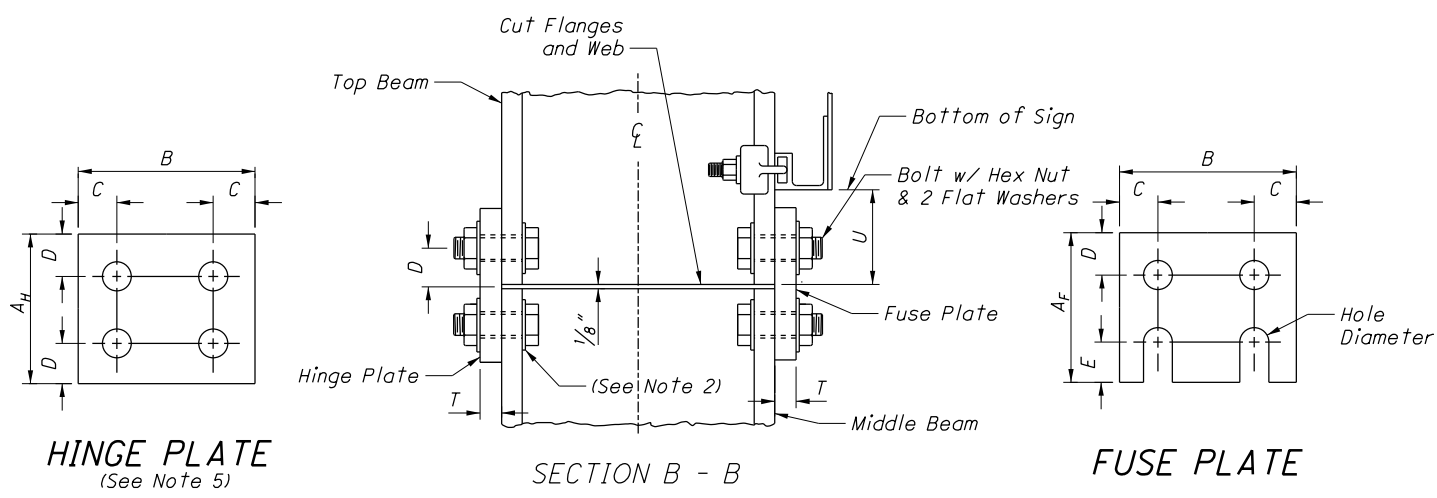


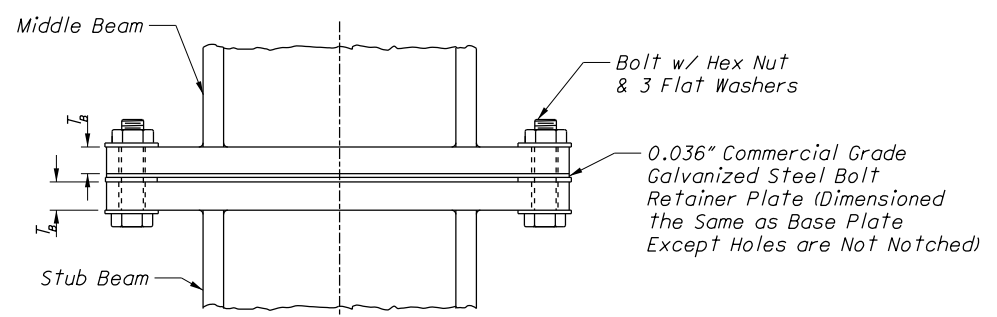
SLIP BASE DESIGN



HINGE PLATE
(See Note 5)

SECTION B - B

FUSE PLATE



SECTION A - A

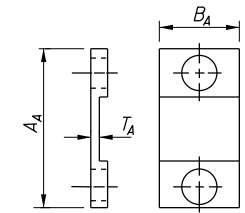
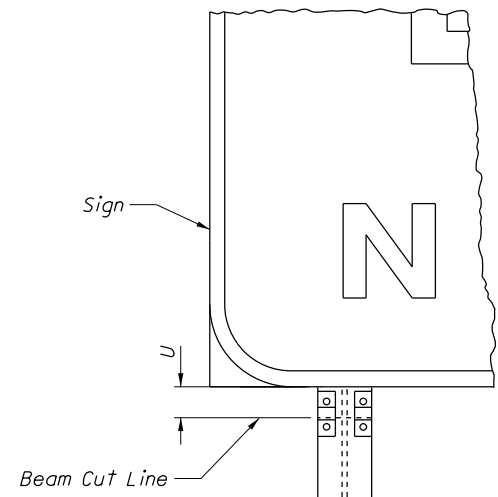
NOTES:

1. Base plate weld size shall be equal to the beam flange and web thickness respectively, but no less than 1/4" in either instance.
2. With the S4 x 7.7 beam, use malleable iron beveled washers conforming to ASTM A47 grade 35018.
3. Tighten fuse and hinge plate connections in the shop following a method approved by the Engineer to produce the minimum bolt preload specified.
4. Use the following procedure in assembling the breakaway base plate:

After all bolts, washers, standard nuts and bolt retainer plates are in place, tighten all standard nuts snugly with a 12" wrench. Loosen each bolt in turn and retighten in a systematic manner to the specified maximum torque. Calibrate wrenches at least once each working day for each bolt diameter being torqued. Burr threads at junction with nut using a center punch.
5. For beams subject to impact from opposite directions, such as in freeway medians, provide fuse plates on both sides.
6. Notches are shown for the installation to the right of traffic. For installations to the left of traffic, fabricate with skewed edge of notches reversed from that shown.
7. Dimensions shown for alternate designs are approximate. Specified dimensions for alternate designs require prequalification. An approved list of suppliers can be provided by ODOT. Payment for alternate designs will be based on the plan quantities for embedded beams.

ALL DIMENSIONS IN INCHES, UNLESS OTHERWISE NOTED

| BEAM TYPE | BEAM SIZE | HINGE AND FUSE PLATE DIMENSIONS | | | | | | | | | | FOUNDATIONS | | | BASE PLATE DIMENSIONS | | | | | | | | | |
|-----------|----------------|---------------------------------|----------------|-------|-------|-------|----------------|------|-------|-----------|-----------|-------------------|-----------|------------|-----------------------|------------|--------|--------|-------|-------|-----------|-----------|----------------------|------|
| | | A _H | A _F | B | C | D | E | T | U | HOLE DIA. | BOLT SIZE | MIN. PRELOAD (LB) | DIA. (FT) | DEPTH (FT) | CONCRETE (CU YD/EA) | DIMENSIONS | | | | | HOLE DIA. | BOLT SIZE | MAX. TORQUE (IN/LBS) | |
| | | G | H | J | K | L | T _B | | | | | | | | | | | | | | | | | |
| S4 X 7.7 | 4 x 2-5/8 | 4-1/8 | 3-5/8 | 2-5/8 | 9/16 | 1 | 1/2 | 3/16 | 2-1/2 | 9/16 | 1/2 | 10,000 | 1.5 | 4 | 0.27 | 4 | 8 | 2 | 1/2 | 1 | 3/4 | 9/16 | 1/2 | 200 |
| W6 X 9 | 5-7/8 x 4 | 4-1/8 | 3-5/8 | 4 | 7/8 | 1 | 1/2 | 3/16 | 2-1/2 | 9/16 | 1/2 | 10,000 | 1.5 | 5 | 0.33 | 5-1/2 | 10 | 2-1/16 | 1/2 | 1 | 3/4 | 9/16 | 1/2 | 200 |
| W10 X 12 | 9-7/8 x 4 | 6-1/8 | 5-3/8 | 4 | 7/8 | 1-1/2 | 3/4 | 3/16 | 3-1/2 | 13/16 | 3/4 | 25,000 | 2.5 | 6 | 1.10 | 8 | 14-1/2 | 2-5/16 | 3/4 | 1-1/2 | 3/4 | 13/16 | 3/4 | 750 |
| W8 X 18 | 8-1/8 x 5-1/4 | 7-1/8 | 6-1/4 | 5-1/4 | 1-1/4 | 1-3/4 | 7/8 | 1/4 | 4 | 15/16 | 7/8 | 35,000 | 2.5 | 6 | 1.10 | 8 | 14-1/2 | 3-1/4 | 3/4 | 1-1/2 | 1 | 13/16 | 3/4 | 750 |
| W10 X 22 | 10-1/8 x 5-3/4 | 8-1/8 | 7-1/8 | 5-3/4 | 1-1/2 | 2 | 1 | 5/16 | 4-1/2 | 1-1/16 | 1 | 46,000 | 2.5 | 6.75 | 1.23 | 8 | 14-1/2 | 2-5/16 | 15/16 | 2 | 1 | 1-1/16 | 1 | 1325 |
| W12 X 30 | 12-3/8 x 6-1/2 | 8-1/8 | 7-1/8 | 6-1/2 | 1-1/2 | 2 | 1 | 5/16 | 4-1/2 | 1-1/16 | 1 | 46,000 | 2.5 | 8.25 | 1.50 | 10 | 17 | 2-7/16 | 15/16 | 2 | 1-1/4 | 1-1/16 | 1 | 1325 |

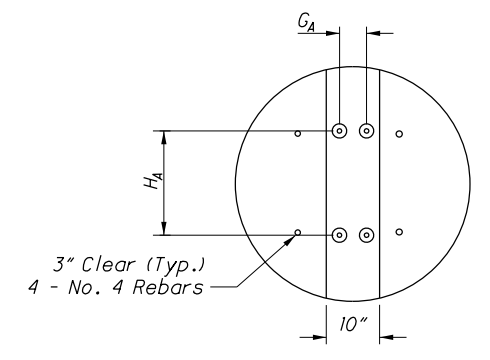
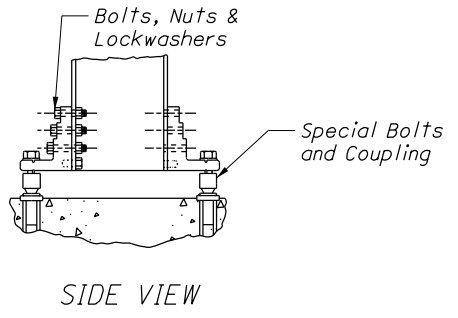
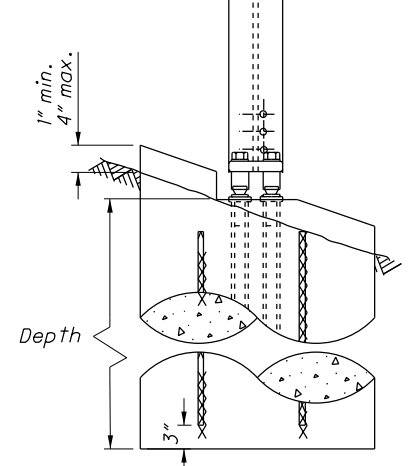


ALTERNATE HINGE AND FUSE PLATES (4 PER BEAM)

ALTERNATE DESIGN
(See Note 7)

ALL DIMENSIONS IN INCHES, UNLESS OTHERWISE NOTED

| BEAM | | HINGE AND FUSE PLATE | | | | FOUNDATIONS | | | BASE PLATE DIMENSIONS | | |
|----------|----------------|----------------------|----------------|-----------|----------------|-------------|------------|---------------------|-----------------------|----------------|-----------|
| TYPE | SIZE | A _A | B _A | BOLT SIZE | T _A | DIA. (FT) | DEPTH (FT) | CONCRETE (CU YD/EA) | G _A | H _A | BOLT SIZE |
| S4 X 7.7 | 4 x 2-5/8 | 3-3/4 | 1 | 1/2 | 0.071 | 1.5 | 4 | 0.27 | 4-1/4 | 7-11/16 | 1/2 |
| W6 X 9 | 5-7/8 x 4 | 3-3/4 | 1 | 1/2 | 0.071 | 1.5 | 5 | 0.33 | 4-1/4 | 9-9/16 | 1/2 |
| W10 X 12 | 9-7/8 x 4 | 3-3/4 | 1 | 1/2 | 0.071 | 2.5 | 6 | 1.10 | 4-1/4 | 13-5/8 | 1/2 |
| W8 X 18 | 8-1/8 x 5-1/4 | 4-3/4 | 1-1/2 | 3/4 | 0.113 | 2.5 | 6 | 1.10 | 3 | 16-1/4 | 1/2 |
| W10 X 22 | 10-1/8 x 5-3/4 | 4-3/4 | 1-1/2 | 3/4 | 0.113 | 2.5 | 6.75 | 1.23 | 4 | 18-5/16 | 5/8 |
| W12 X 30 | 12-3/8 x 6-1/2 | 4-3/4 | 1-1/2 | 3/4 | 0.113 | 2.5 | 8.25 | 1.50 | 4 | 20-7/16 | 5/8 |



ALTERNATE DESIGN

THIS DRAWING REPLACES TC-41.10 DATED 10-19-2007.
STANDARD ROADWAY CONSTRUCTION DRAWING

SD NUMBER
TC-41.10

STRUCTURAL BEAM SIGN SUPPORTS

OFFICE OF ROADWAY ENGINEERING

STDS. ENGINEER
H. Suter

STATE OF OHIO DEPARTMENT OF TRANSPORTATION ADMINISTRATOR
Michael Blaine

REVISION DATE
07-19-2013