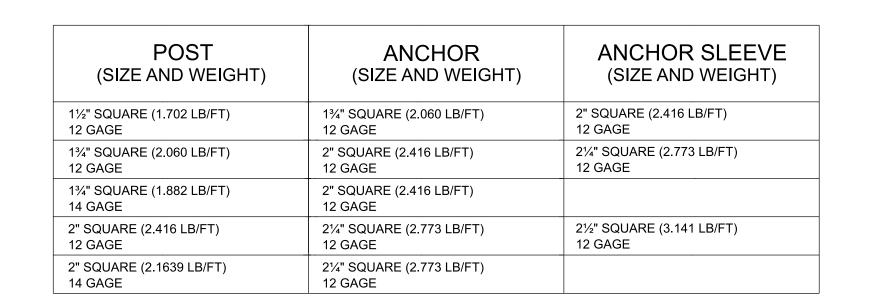
2½" PERFORATED/

1" TYPICAL



9

4

(m)

SHOULDER INSTALLATION FOR

ONE PERFORATED/KNOCKOUT

SQUARE TUBE SUPPORT

9

(1)

(2)

(1)

NOTE: ALL POSTS SHOWN IN ABOVE TABLE SHALL BE FABRICATED FROM 12 GAGE (OR WHERE DESIGNATED USS 14 GAGE) MATERIAL (60,000 POUNDS PER SQUARE INCH MINIMUM YIELD STRENGTH). ANCHORS AND ANCHOR SLEEVES (IF REQUIRED) SHALL BE FABRICATED FROM 12 GAGE MATERIAL OR GREATER. THE WEIGHT PER FOOT SHOWN IN THE TABLE ABOVE SHALL BE THE MINIMUM ACCEPTABLE.

# PERMISSABLE FIELD SPLICE

NOTE: A MAXIMUM OF ONE SPLICE IS ALLOWED PER POST. CONNECTION SHALL BE MADE WITH TWO 3/8" DRIVE RIVETS WITH FLAT WASHERS. DRIVE RIVETS TO BE LOCATED ON ADJACENT SIDES OF POST AS INDICATED BY (X) IN ORDER TO PROVIDE A TIGHT CONNECTION.

FOOTNOTES

- (1) FOR STANDARDIZATION OF LOCATION AND LATERAL CLEARANCE SEE SUBSECTIONS 2A.13 AND 2A.16 AND FIGURE 2A-2 OF THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- (2) FOR HEIGHT SEE SUBSECTION 2A.15 AND FIGURE 2A-2 OF THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- WHEN TYPE 4 FOOTING IS REQUIRED AS SHOWN ON SIGN SCHEDULE, THE MINIMUM DEPTH OF SUPPORT POST WILL BE 2'-0". SEE T-S-12 FOR DETAILS.
- (4) IF ROCK IS ENCOUNTERED DURING THE INSTALLATION OF SUPPORT POSTS, THE HOLES FOR THE SUPPORTS SHALL BE DRILLED TO PROVIDE THE MINIMUM 3'-0" DEPTH IN GROUND.
- (5) THE SUPPORT POST SHALL BE EITHER FLUSH OR HALF-INCH DOWN FROM THE TOP OF THE SIGN FACE.
- SEE SIGN SCHEDULE SHEET IN THE PLANS FOR DIMENSIONS L, H, H1, H2, AND W.
- (7) A 3" SQUARE TUBE COMBINATION ANCHOR/ANCHOR SLEEVE SHALL BE REQUIRED WHEN A 2 1/2" SUPPORT POST IS USED.
- (8) THE SUPPORT POST MUST BE PLACED 12" IN LIEU OF 6" INSIDE THE COMBINATION ANCHOR/ANCHOR SLEEVE WHEN 2 1/2" SUPPORT POST IS USED.
- THE POST IS TO BE FASTENED TO THE ANCHOR/ANCHOR SLEEVE WITH ONE CORNER BOLT LOCATED IN THE CORNER AWAY FROM THE DIRECTION OF
- THE ANCHOR SLEEVE IS NOT REQUIRED WHEN USING A 14 GAGE POST. THE ANCHOR WILL SERVE AS A COMBINATION ANCHOR/ANCHOR SLEEVE.

## LEGEND

3/8" DRIVE

RIVET OR

%" HEX OR

**BOLT (SEE** 

CONNECTION

"U" POST BOLT

INSTALLATION

NYLON

WASHER-

- ALUMINUM

SIGN FACE

PERFORATED/

**TUBE SUPPORT** 

KNOCKOUT SQUARE

CONNECTION DETAIL FOR

PERFORATED/KNOCKOUT

SQUARE TUBE POST

**DETAIL FOR** 

**DETAILS ON** 

STANDARD

DRAWING

T-S-16).

(9)

(m)

1 1

SHOULDER INSTALLATION FOR TWO

PERFORATED/KNOCKOUT SQUARE TUBE SUPPORTS

**SQUARE HEAD** 

W-HEIGHT OF SIGN FACE L-LENGTH OF SIGN FACE H-HEIGHT OF SIGN SUPPORT

### **GENERAL NOTES**

- (A) PERFORATED/KNOCKOUT POSTS SHALL BE SQUARE TUBE FORMED FROM USS GAGE (12 GAGE) ASTM A-446 COLD ROLLED CARBON STEEL OR A-1011 HOT ROLLED CARBON SHEET STEEL. THE MINIMUM YIELD (Fy) IS TO BE 60,000 POUNDS PER SQUARE INCH, OR USS 14 GAGE HAVING A MINIMUM YIELD STRENGTH OF 60,000 POUNDS PER INCH. THE SQUARE TUBES SHALL BE WELDED DIRECTLY IN THE CORNERS BY HIGH FREQUENCY RESISTANCE WELDING OR EQUAL. THE SUPPORT POSTS ARE TO BE EXTERNALLY SCARFED TO AGREE WITH STANDARD CORNER RADII OF 5/6" ± 1/4".
- (B) PERFORATED/KNOCKOUT POSTS SHALL BE GALVANIZED TO CONFORM TO ASTM-525, DESIGNATION C-90 OR ITS CORROSION-RESISTANCE EQUIVALENT, WHEN TESTED IN ACCORDANCE WITH ASTM B-117 STANDARDS.
- (C) BOLTS SHALL CONFORM TO ASTM A307. NUTS SHALL CONFORM TO ASTM A563. WASHERS SHALL CONFORM TO ASTM F436.
- (D) ALL HARDWARE SHALL BE GALVANIZED TO CONFORM TO THE REQUIREMENTS OF FEDERAL SPECIFICATION QQ-Z-325, TYPE I, CLASS 3 OR CADMIUM PLATED TO CONFORM TO THE REQUIREMENTS OF FEDERAL SPECIFICATION QQ-P-416, TYPE III, CLASS 3.
- (E) THE WEIGHT IN POUNDS OF THE POST, ANCHOR, ANCHOR SLEEVE AND COMBINATION ANCHOR/SLEEVE SHALL BE COMPUTED FOR PAYMENT UNDER ITEM NO. 713-11.02, PERFORATED/KNOCKOUT SQUARE TUBE POSTS. NO MEASUREMENT FOR PAYMENT WILL BE MADE FOR HARDWARE USED IN SIGN CONSTRUCTION. COST OF NECESSARY HARDWARE WILL BE INCLUDED IN THE PRICE BID FOR ITEM NO. 713-11.02.
- (F) THE SIGN FACE IS TO BE CONNECTED TO THE SUPPORT WITH %" DRIVE RIVETS AND NYLON WASHER (SEE CONNECTION DETAIL FOR PERFORATED/KNOCKOUT SQUARE TUBE POST ON THIS SHEET). ALTERNATE CONNECTION WILL BE WITH 5/6" HEX OR SQUARE HEAD BOLT WITH NYLON WASHER, FLAT WASHER AND HEX OR SQUARE TAMPER-PROOF NUT (SEE CONNECTION DETAIL FOR "U" POST ON STANDARD DRAWING T-S-16).
- (G) THE ANCHOR SHALL BE DRIVEN BEFORE THE ANCHOR SLEEVE OR THE ANCHOR/ANCHOR SLEEVE SHALL BE DRIVEN TOGETHER.

REV. 6-12-74: CHANGED TYPE OF STEEL FOR PERFORATED POSTS FROM ASTM A-366 TO ASTM A-446.

REV. 7-9-74: POST INSTALLATION DETAIL AND CONNECTION DETAIL ADDED. CORNER BOLT SIZE CHANGED.

REV. 8-19-74; NOTE ADDED REGARDING POST INSTALLATION. FOOTING DETAILS

REV. 1-1-76: CHANGED DRAWING NO. FROM RD-S-17 TO T-S-17.

REV. 7-29-76: HARDWARE FINISH, FIELD SPLICE AND MISCELLANEOUS.

REV. 7-17-81: CHANGED ITEM NO. TO AGREE WITH NEW SPECIFICATION BOOK.

REV. 3-1-88; KNOCKOUT ALTERNATE ADDED.

REV. 11-22-90: REDREW AND REORGANIZED SHEET. ELIMINATED SHOULDER INSTALLATION USING THREE SUPPORTS.

REV. 12-7-90: CHANGED CONNECTION DETAIL FOR PERFORATED/KNOCKOUT SQUARE TUBE POST AND GENERAL NOTE (F).

REV. 7-29-91: CHANGED POST, ANCHOR AND ANCHOR SLEEVE TABLE. ADDED FOOTNOTE (10). CHANGED GENERAL NOTE(A).

ANCHOR SLEEVE TABLE. MODIFIED VARIOUS NOTES ON DRAWING INCLUDING GENERAL NOTE

REV. 1-19-92: CHANGED POST, ANCHOR AND

- REV. 10-26-93: CHANGED WORDING OF GENERAL NOTE (E)
- REV. 2-14-96: CHANGED WORDING OF GENERAL
- REV. 10-26-96: CHANGED PAY ITEM NO. IN GENERAL NOTE (H)

12 GAUGE POST FY FOR 12GAUGE CHANGED TO 60 kSI. REMOVED TYPE 4 FOOTING.

REV. 7-19-13: REMOVED 2<sup>59</sup>/<sub>64</sub>", 10 AND

- REV. 7-2-15: REVISED FOOTNOTES (3). ADDED GENERAL NOTES (L).
- REV. 7-11-17: ADDED (3.141 LB/FT) AND (6.86 LB/FT) TO POST SLEVE INSTALLATION
- REV. 8-11-17: REMOVED GENERAL NOTE (L).

REV. 7-30-2025: UPDATED TO CONFORM TO MUTCD 11TH EDITION.

> MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STANDARD DRAWING **DEPARTMENT OF TRANSPORTATION** 

STATE OF TENNESSEE

STANDARD GROUND

MOUNTED SIGN USING PERFORATED/ KNOCKOUT SQUARE TUBE

5-14-74

T-S-17

PERFORATED/KNOCKOUT

SQUARE TUBE POST