

 W_1 W min. a a1-- 01 <u>...</u> r An - A 0 _ Ð 8 0 đ۵ dt typ. 0 -e typ. а а Main posts 3″ stub projection, typ.

DUAL POST ASSEMBLY EXAMPLES

| MAIN POST | WEIGHT PER FOOT (POUND) | STUB POST TABLE MAIN POST TABLE | | | | | | |
|----------------------------|-------------------------------|---------------------------------|------------------------|---|--------------------|------------------|--------------------|-------------------|
| STEEL TUBING | | Stub Embedment | Stub Post Length | Bolt Size | A | † | R | Bolt Circle |
| 3" x 2" x ¼" | 7.11 | 2'-0" | 2′-3″ | ${}^{l}_{2}" \times 2{}^{3}_{4}"$ | 84" | 5 ₈ " | ⁹ 32 " | 6′2″ |
| 4" x 2" x ¹ 4" | 8.81 | 2'-0" | 2'-3" | ^l 2" x 2 ³ 4" | 8 ¹ 4" | 5 ₈ " | ⁹ 32 " | 6 ¹ 2" |
| 4" x 3" x ¹ 4" | 10.51 | 2'-3" | 2′-6″ | ⁵ 8" x 3 ¹ 4" | <i>10"</i> | 3 ₄ " | "32 " | 8" |
| 5" x 3" x ¹ 4" | 12.21 | 2'-3" | 2′-6″ | ⁵ 8" x 3 ¹ 4" | 10" | 3 ₄ " | "32 " | 8" |
| 6" x 3" x ¹ 4" | 13.91 | 2'-3" | 2'-6" | ⁵ 8" x 3 ¹ 4" | $11_{2}^{\prime}"$ | 34" | "32 " | 9 ¹ 2" |
| 6" x 4" x ¹ 4" | 15.62 | 2'-3" | 2'-6" | ³ ₄ " x 3 ¹ ₂ " | 11 ¹ 2" | 3 ₄ " | ¹³ 32 " | 9′2″ |
| 6" x 4" x ⁵ 16" | 19.08 | 2'-3" | 2'-6" | ³ ₄ " x 3 ¹ ₂ " | 11 ¹ 2″ | ³ 4" | ¹³ 32 " | 9 ¹ 2" |
| 7" x 5" x ¹ 4" | 19.02 | 2'-6" | 2'-9" | ³ ₄ " x 3 ¹ ₂ " | 1'-2" | ³ 4" | ¹³ 32 " | 1'-0" |
| 8" x 4" x ¹ 4" | 19.02 | 2'-6" | 2'-9" | ³ ₄ " x 3 ¹ ₂ " | 1'-2" | 3 ₄ " | ¹³ 32 " | 1'-0" |
| 8" x 6" x 4" | 22.42 | 2'-6" | 2'-9" | ⁷ 8" x 3 ¹ 2" | 1'-2" | ³ 4" | ¹⁵ 32 " | 1'-0" |

| BAT-A-1 | 7-1-10 | | | | (Sheet 1 of 2) | | |
|-------------|--------------|----------------|-----------|------------------------------|-------------------------|--|--|
| FILE NAME = | USER NAME = | DESIGNED - ESW | REVISED - | | BREAK-AWAY TUBULAR | | |
| | | CHECKED - JWS | REVISED - | STATE OF ILLINOIS | | | |
| | PLOT SCALE = | DRAWN ~ PDB | REVISED - | DEPARTMENT OF TRANSPORTATION | SIGN POSTS AND FOUND | | |
| | PLOT DATE = | CHECKED - BRM | REVISED - | | SHEET NO. 48 OF 49 SHEE | | |

a or $a_1 = 6"$ min. to 2'-0" max. (Approximately 0.2W or 0.2W1) b or $b_1 = 3"$ min. to 4" max $c \text{ or } c_1 = 3^{"} \text{ min. to } 4^{"} \text{ max}$

- e = 0" min. to 6" max
- s = 3'-0" min. to 6'-0" max. (Approximately 0.6W or 0.6W1) v or v1 = 2'-0" min. to 2'-11" max.

GENERAL NOTES

Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 727.05 and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

One foundation requires 0.7 cubic yards of concrete and 46 pounds of reinforcement bars and spiral hoops.

LOADING: 80 mph wind with 30% gust factor, normal to sign.

DESIGN STRESSES: Structural steel - 20,000 psi Reinforcing steel - 20,000 psi Concrete - 1,400 psi Footing soil pressure - 2,000 psf

After fabrication, the post, fuse plate, base plate and upper 6", min. of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M232.

For Sections A-A and B-B, see Base Sheet BAT-A-2.

FOUNDATIONS:

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All necessary excavation or drilling (except in rock); backfilling with excavated material; disposal of unsuitable or surplus material; formwork; and furnishing and placing the Class SI Concrete and reinforcement bars, shall be included in the pay item used for foundations.

The measurement of the tubular steel shall be computed on the basis of the weight per foot of the support, multiplied by the combined length of the main posts and stub posts.

| ./ | | | | | |
|-----------|-----------------|---------------|-------------|-----------------|--------------|
| AR STEEL | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| UNDATIONS | 57/70 | (25-3,4)R | EFFINGHAM | 1098 | 290 |
| | CONTRACT NO. 74 | | | | 74299 |
| SHEETS | | ILLINOIS FED. | AID PROJECT | | |