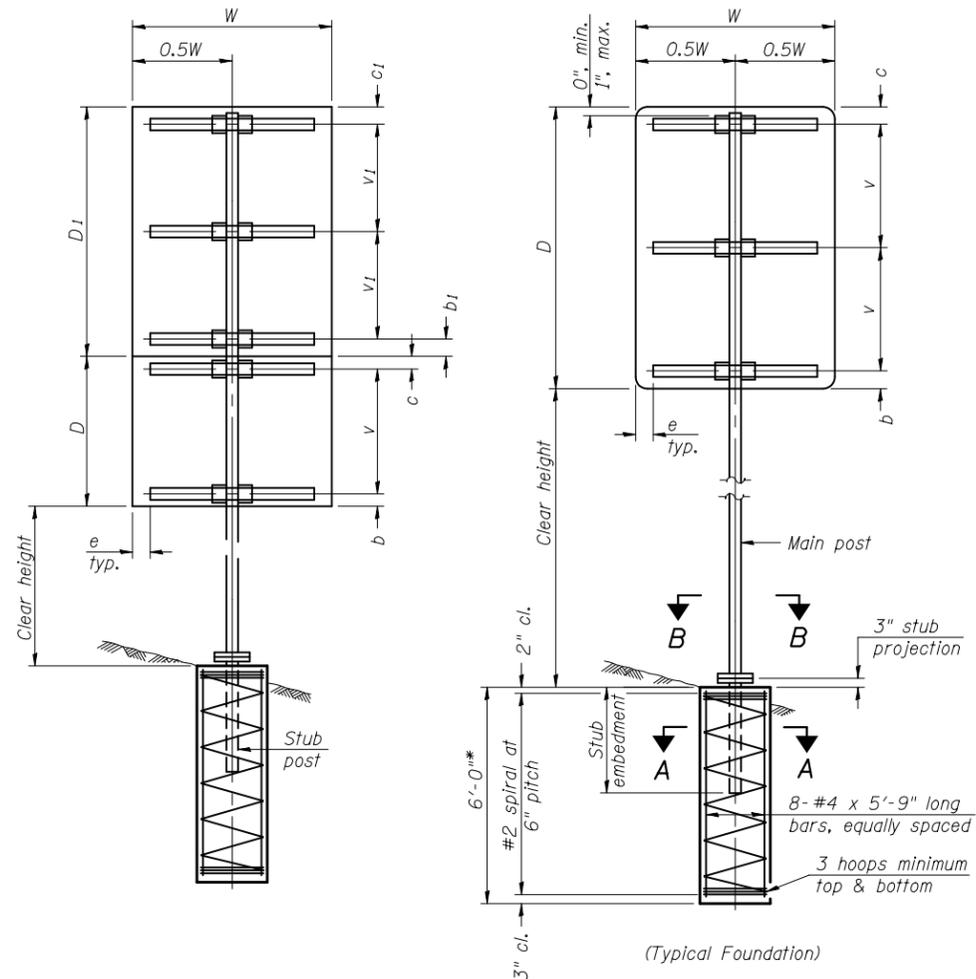


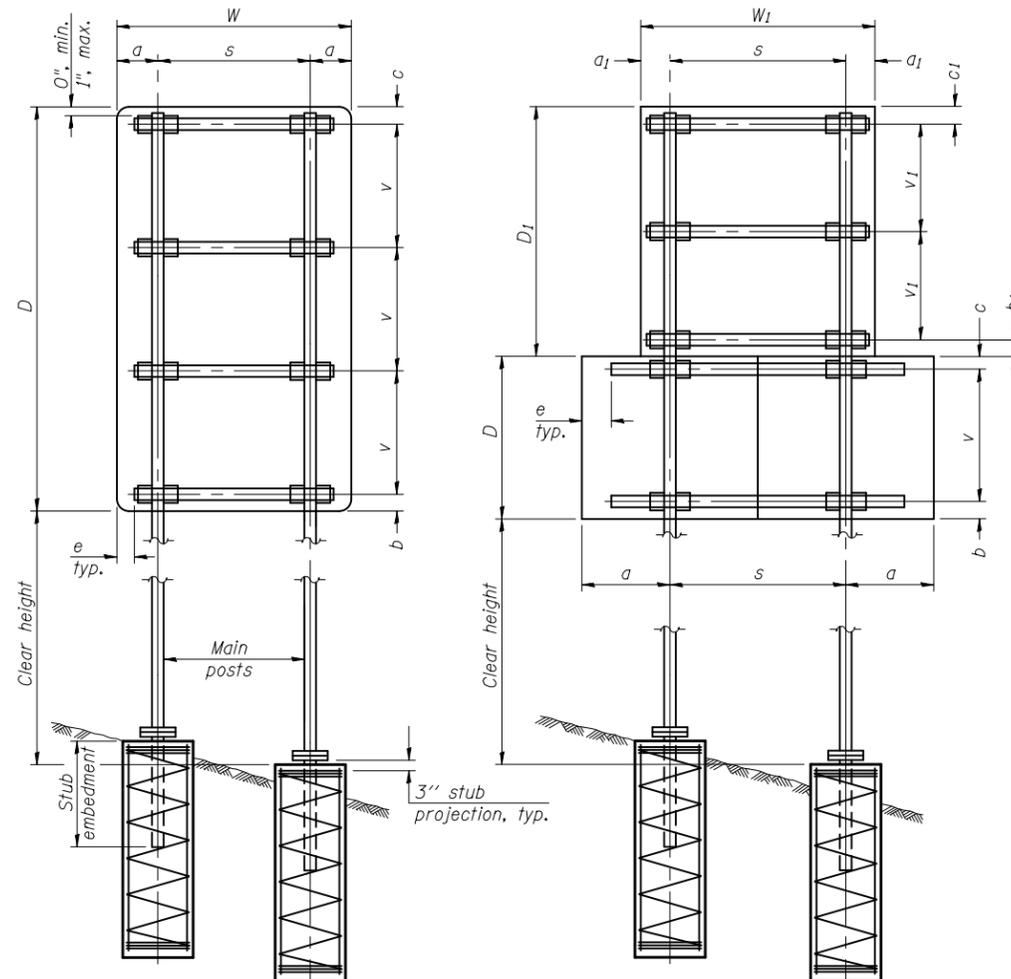
<b>CELL / MODEL NAME</b>	<b>DESCRIPTION</b>	<b>DATE</b>
BAT-A-1	Breakaway tubular steel signposts and foundations	06/01/2012
BAT-A-2	Breakaway tubular steel signposts and details	06/01/2012



**SINGLE POST ASSEMBLY EXAMPLES**

\* Dimensional changes required for varying site conditions shall be approved by the Engineer.

a or a<sub>1</sub> = 6" min. to 2'-0" max. (Approximately 0.2W or 0.2W<sub>1</sub>)  
 b or b<sub>1</sub> = 3" min. to 4" max  
 c or c<sub>1</sub> = 3" min. to 4" max  
 e = 0" min. to 6" max  
 s = 3'-0" min. to 6'-0" max. (Approximately 0.6W or 0.6W<sub>1</sub>)  
 v or v<sub>1</sub> = 2'-0" min. to 2'-11" max.



**DUAL POST ASSEMBLY EXAMPLES**

**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:  
 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.

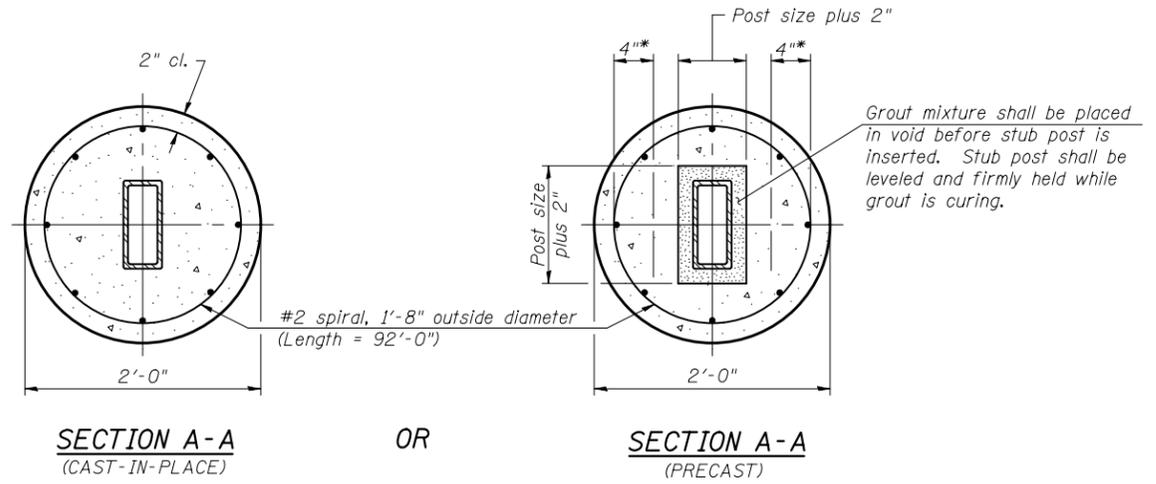
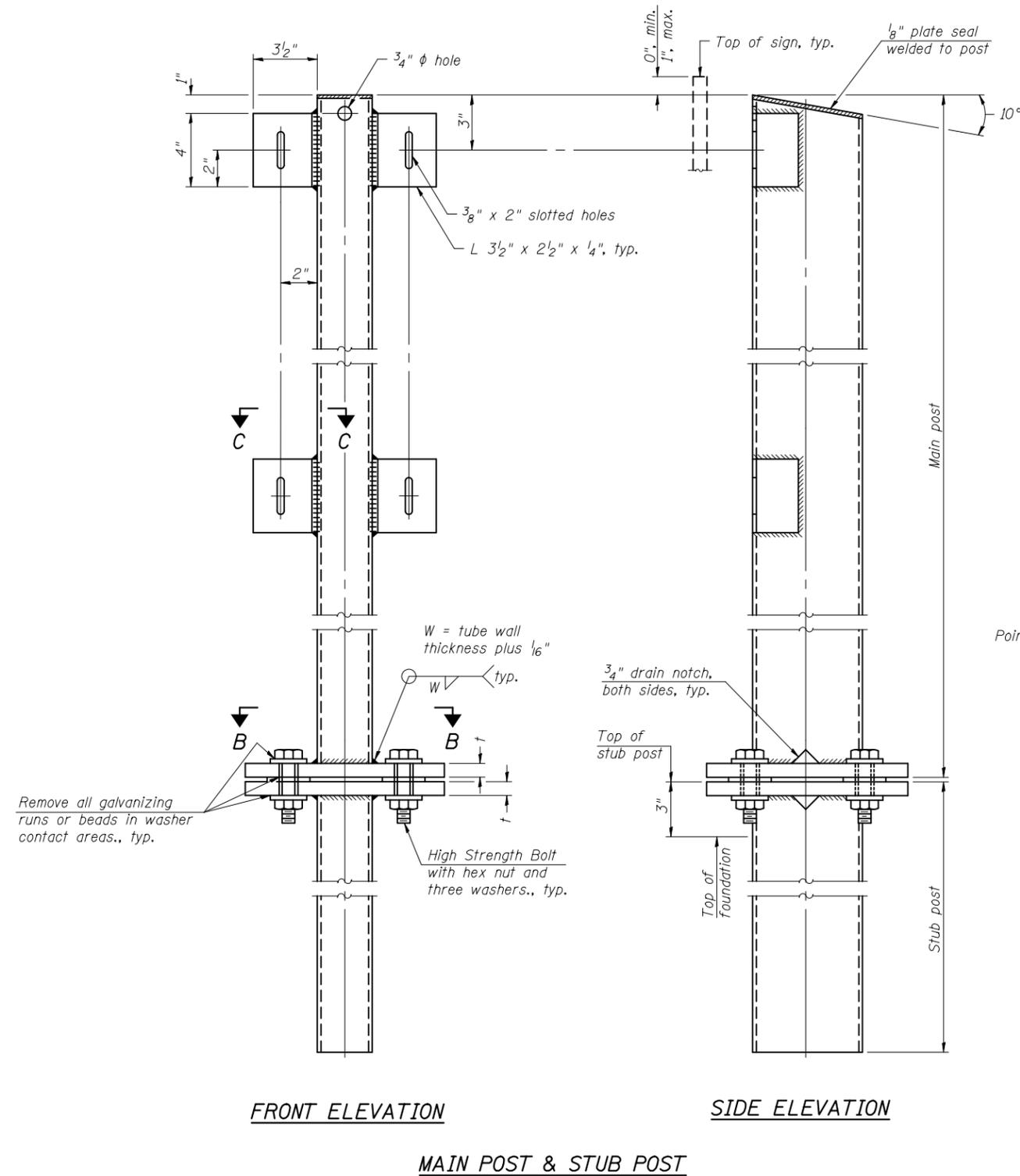
MAIN POST STEEL TUBING	WEIGHT PER FOOT (POUND)	STUB POST TABLE		MAIN POST TABLE				
		Stub Embedment	Stub Post Length	Bolt Size	A	t	R	Bolt Circle
3" x 2" x 1/4"	7.11	2'-0"	2'-3"	1/2" x 2 3/4"	8 1/4"	5/8"	9/32"	6 1/2"
4" x 2" x 1/4"	8.81	2'-0"	2'-3"	1/2" x 2 3/4"	8 1/4"	5/8"	9/32"	6 1/2"
4" x 3" x 1/4"	10.51	2'-3"	2'-6"	5/8" x 3 1/4"	10"	3/4"	11/32"	8"
5" x 3" x 1/4"	12.21	2'-3"	2'-6"	5/8" x 3 1/4"	10"	3/4"	11/32"	8"
6" x 3" x 1/4"	13.91	2'-3"	2'-6"	5/8" x 3 1/4"	11 1/2"	3/4"	11/32"	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 1/2"
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 1/4"	22.42	2'-6"	2'-9"	7/8" x 3 1/2"	1'-2"	3/4"	15/32"	1'-0"

BAT-A-1

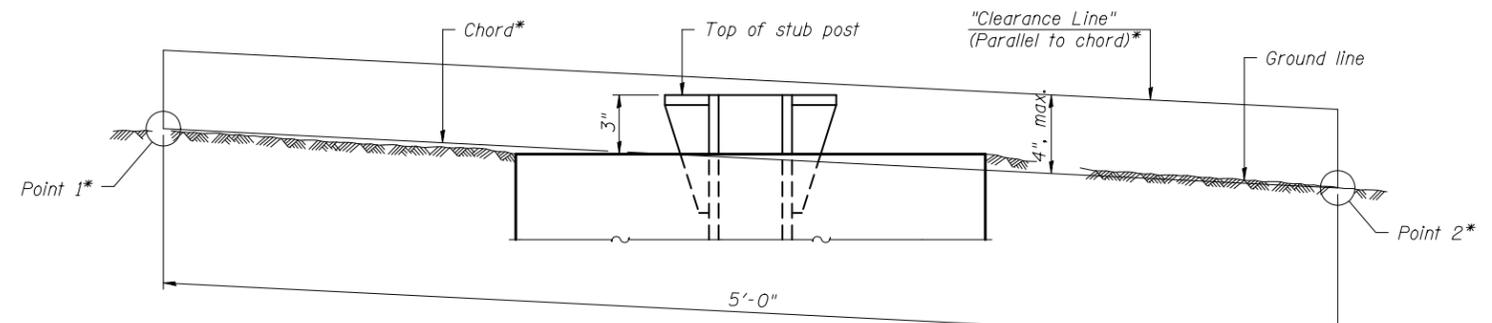
6-1-12

(Sheet 1 of 2)

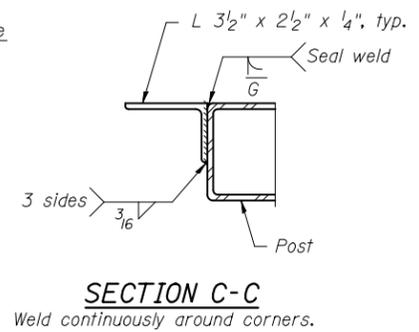
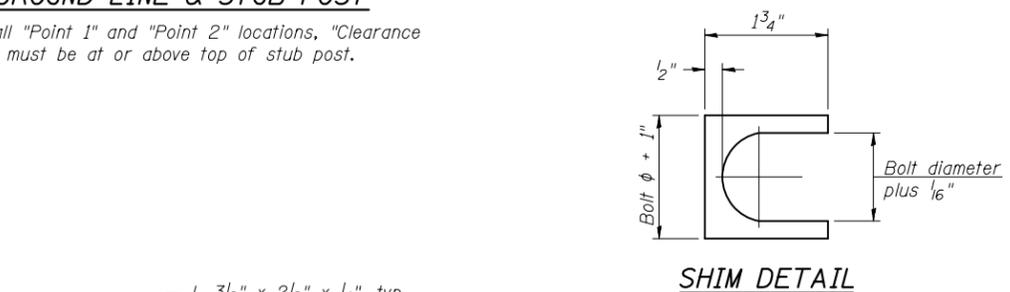
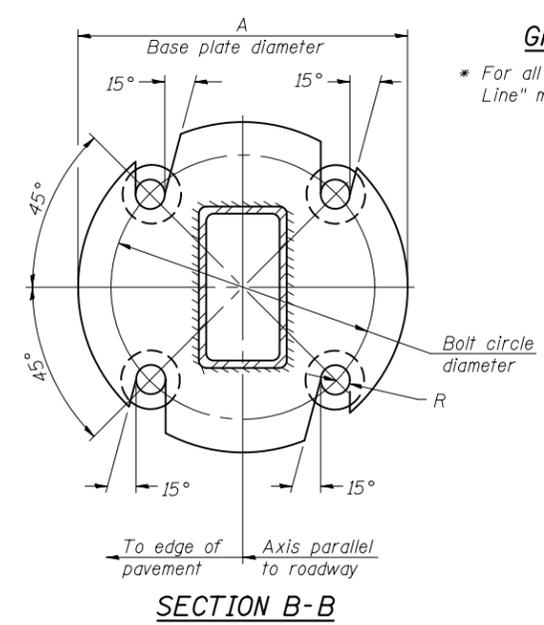
FILE NAME =	USER NAME =	DESIGNED -	REVISOR	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>BREAK-AWAY TUBULAR STEEL SIGN POSTS AND FOUNDATIONS</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED -	REVISOR			CONTRACT NO.					
		DRAWN -	REVISOR			SHEET NO. OF SHEETS					
		CHECKED -	REVISOR			ILLINOIS FED. AID PROJECT					



\* Hot dip galvanized lifting loops or inserts may be placed in precast foundation inside the spiral reinforcement but not within 6" of the long axis of the post. Inserts must be adequate for safely lifting a total of 3,000 pounds and must not interfere with installation of the stub post or proper functioning of the slip base.



\* For all "Point 1" and "Point 2" locations, "Clearance Line" must be at or above top of stub post.



BAT-A-2

6-1-12

(Sheet 2 of 2)

FILE NAME =	USER NAME =	DESIGNED -	REVISIONS	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>BREAK-AWAY TUBULAR STEEL SIGN POSTS AND DETAILS</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED -	REVISIONS			CONTRACT NO.					
		DRAWN -	REVISIONS			ILLINOIS FED. AID PROJECT					
		CHECKED -	REVISIONS			SHEET NO. OF SHEETS					