SQUARE STEEL PERFORATED POSTS MGS-03-04H

1.0 DESCRIPTION. This specification covers square steel perforated posts for signs.

2.0 MATERIALS.

2.1 Steel. The steel shall be in accordance with the standard specification for hot rolled carbon sheet steel, structural quality, ASTM A 1011, Grade 50. The average minimum yield strength after cold-forming shall be a minimum of 50,000 psi.

2.2 Coating. The posts and anchors shall be hot-dipped galvanized steel in accordance with ASTM A 653, G90, structural quality, Grade 50, Class 1. The 7 gauge anchors shall be hot dipped galvanized after fabrication. The corner weld shall be zinc coated after scarfing operation. The steel shall also be coated with a chromate conversion coating and a clear organic polymer topcoat. Both the interior and the exterior of the post shall be galvanized. Modifications made to the post after the initial fabrication, such as additional welding or other alterations shall be galvanized.

2.3 Dimensions.

2.3.1 Dimensional Tolerances. All dimensional tolerances shall be in accordance with ASTM A 513, excepted as noted.

2.3.2 Length. The length of each post shall be in accordance with the bid request.

2.3.3 Weight Per Foot. The weight per foot shall be in accordance with the following or as specified:

Size	U.S.S. Gauge	Weight (lbs/foot)	Tolerance (lbs/foot)
2” x 2”	12	2.42	+/- 0.12
2 ½” x 2 ½”	12	3.14	+/- 0.16

2.3.4 Cross Section. The cross section of the post shall be square tube formed of 12 gauge (.105 U.S.S gauge) steel, carefully rolled to size and shall be welded directly in the corner by high frequency resistance welding and externally scarfed to agree with corner radii.

2.3.5 Hole Punching. All holes shall be 7/16 ±1/64 inches in diameter on one (1) inch centers on all four sides down the entire length of the post. The holes shall be on the centerline of each side in true alignment and opposite each other directly and diagonally.

2.3.6 Telescoping Properties. Finished posts for telescoping post systems shall meet the general dimensional requirements and shall permit consecutive sizes of square tubes to telescope freely without the necessity of matching any particular face to any other face. The finished posts shall be straight and have a smooth, uniform finish. All holes and ends shall be free from burrs and ends shall be cut square.

2.3.7 Anchors. When anchors are specified the size and length shall be in accordance with the following.

a) Anchors – Short piece of perforated square steel post in accordance with the following:

12 Guage Steel – 2 ¼” x 2 ¼” x 36” for 2” posts

b) Heavy Duty Anchors – Short piece of square steel tube meeting dimensions shown in Drawing "A" of this specification and in accordance with the following:.

7 Guage Steel – 2 ½" x 2 ½" x 36" or 48" for 2" posts
7 Guage Steel – 3" x 3" x 36" or 48" for 2 ½" posts

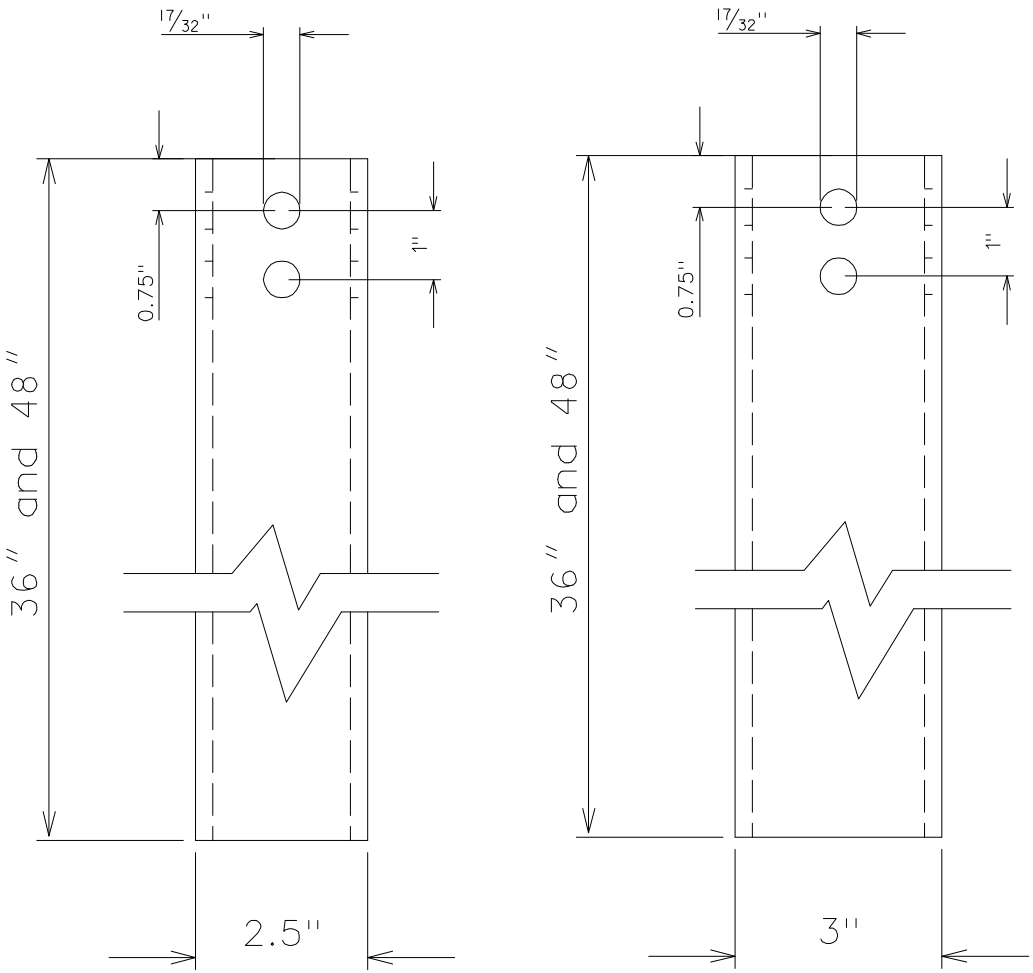
3.0 Connecting Bolts and Nuts. Bolts used to connect posts to anchors and sleeves shall be 5/16-inch, 18NC threads, grade 2 bent truss head bolts in accordance with ASTM A307 grade A. The bolts shall be mechanical zinc galvanized in accordance with ASTM B695, class 25. The nuts shall be 5/16-inch, 18NC threads, grade 2 serrated flange nuts in accordance with ASTM A194 and zinc electroplated in accordance with ASTM B633. Bolts for heavy duty anchors shall be 3/8" x 3 ½", 18NC threads, flanged shoulder bolts in accordance with ASTM A307 Grade A. Flanged nuts for heavy duty anchors shall be 18NC threads In accordance with ASTM A563 Grade A.

4.0 CERTIFICATION. The fabricator shall furnish to the engineer, a certification stating that the posts furnished comply with all requirements of this specification. The certification shall include or have attached specific results of tests of the mechanical and chemical properties of the steel conforming to section 2.1 and 2.2 of this specification. A certification shall be submitted with the bid.

5.0 INSPECTION. The material will be inspected at the source or at the destination as determined by the engineer.

6.0 ACCEPTANCE. Acceptance of posts furnished under this specification will be based upon appropriate certification and upon inspection by the engineer.

7 Gauge, Heavy Duty Anchors



- Bolt Hole diameters – 17/32"
- 2 per side on all 4 sides per figure

Drawing A