STEEL STRAIN POLE NOTES


2. Perform all welding in accordance with the American Welding Society Structural Welding Code (Aluminum) AWS D1.2. All welds are permitted on any part of the pole.

3. See Standard Index No. 17727 for grounding and span wire details.

4. Foundation Materials:
   a. Reinforcing Steel: ASTM A615 Grade 60.
   b. Concrete: Class IV, (Dried Shrink) 4,000 psi minimum Compressive Strength at 28-days for all environmental classifications.
   c. Anchor Bolts: ASTM F354, Grade 55 with ASTM A453 Grade A heavy-nuts and ASTM F436 Type 1 washers (galvanized in accordance with ASTM F3339-05).
   d. Grout: 5,000 psi compressive strength at 28-days and meeting the requirements of Section 934.

5. Strain Pole Specifications:
   a. Poles: ASTM A1011 Grade 50, 55, 60 or 65 (less than 1/2") or ASTM A572 Grade 50, 60, or 65 (1/2" and over) or ASTM A570 Grade (1 5/8" or 2"").
   b. Steel Plates: ASTM A36.
   c. Weld Metal: E70XX.
   d. Bolts: A325, Type 1, Hole Diameter Bolt diameter plus 1/8".
   e. Base Plate: Hole Diameter anchor bolt diameter plus 1/2".
   f. Handhole Frame: ASTM A490 Grade 36 or ASTM A453, Cover: ASTM A1011 Grade 50, 60, or 65.
   g. Aluminum Caps and Covers: ASTM B-26 (1040-
   h. Stainless Steel Screws: A2XX Type 316.
   i. Galvanization: All nuts, bolts and washers: ASTM F2029-05, All other steel ASTM A423.

6. Pole Notes:
   a. See the Signaling Plans for clamp spacing, cable sizes and forces, signal and sign mounting locations and details.
   b. Tapered with the diameter changing at a rate of 0.14 inch per foot.
   c. Transverse welds are allowed only at the base.
   d. Poles constructed out of two or more sections with overlapping splice is not permitted.
   e. Locate the handhole 180 degrees from 3-inch wide entrance pole.
   f. Furnish each pole with a 2.5"-long aluminum identification tag. Submit details for approval.
   g. Secure to pole with 0.125" stainless steel rivets or screws. Locate Identification Tag on the inside of pole and visible from handhole. Include the following information: Financial/Project ID, Pole Type, Pole Height, Manufacturer's Name & Certification number, Pay Item number.

7. If a grout pad is not installed, place wire cloth screen vertically between the base plate and top of foundation wrap horizontally around the base plate with a 3" min. lap. Use standard grade, plain weave. 2x2 mesh, galvanized steel wire cloth with 0.063" dia wire. Attach the screen to the base plate with 3/16 stainless steel tapping #6 screws and washers spaced at 9" centers.

8. Manufacturers seeking approval of a steel strain pole assembly for inclusion on the Qualified Products List must submit a QPL Product Evaluation Application along with drawings showing the product meets all specified requirements of this Standard.
DRILLED SHAFT ELEVATION

SECTION A-A
(Number of bars shown is for illustration purposes only)

TABLE OF STRAIN POLE VARIABLES

<table>
<thead>
<tr>
<th>POLE TYPE</th>
<th>MAXIMUM ALLOWABLE MOMENT (kips-in)</th>
<th>J (in)</th>
<th>k (in)</th>
<th>No. of Bars</th>
<th>Bc (in)</th>
<th>Bd (in)</th>
<th>Rc (in)</th>
<th>Rd (in)</th>
<th>Re (in)</th>
<th>Rp (in)</th>
<th>CA (lbs)</th>
<th>CO (lbs)</th>
<th>No. of #5 Bars</th>
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FOUNDATION NOTES:
The foundations for Steel Strain Poles are designed based upon the following conservative soil criteria which covers the great majority of soils found in Florida:

- Classification: Cohesionless (Fine Sandy)
- Friction Angle: 0 Degrees (30°)
- Unit Weight: 90 lbs/ft³ (assumed saturated)

Only in cases where the designer considers the site specific location to be of lesser strength properties should an analysis be required. Auger borings, SPT borings or CPT soundings may be utilized as needed to verify the assumed soil properties, and at relatively uniform sites, a single boring or sounding may cover several foundations. Furthermore, borings in the area that were performed for other purposes may be used to confirm the assumed soil properties.

BASE AND FOUNDATION DETAILS AND TABLE OF VARIABLES
NOTE: A properly sized Service Head (Weather Head) shall be installed and fastened securely on to the standard pipe for each pole location. At locations other than service entrance, the service head face is to be left closed to outside atmosphere. Service entrance installation per Index No. 17727.

WIRE ENTRANCE DETAILS

POLE TOP CUT-AWAY
(Option 'a')

POLE TOP CUT-AWAY
(Option 'b')

POLE TOP NOTE:
Any combination of the above two options may be used, provided both lifting and wiring is accommodated.

CATENARY AND MESSENGER WIRE CLAMPS

NOTE: Clamps have been sized for Design Cable Loads shown in the Table, and a Maximum Pole Diameter at the Clamp location of 2-4".

ATTACHMENT DETAILS

STEEL STRAIN POLE