



**SPECIFICATIONS –
TECHNICAL
INFORMATION**



1. MATERIAL OF CONSTRUCTION

- a. The shaft shall be constructed of reinforced high performance lightweight concrete.
- b. The surface shall a concrete finished surface impervious to UV radiation.
- c. All materials shall be environmentally neutral free from any harmful components.

2. CONSTRUCTION STANDARDS

- a. The shaft shall be wound to insure a dense void-free wall surface.
- b. The pole shall be designed for direct burial. Reference NESC 02-2007, ANSI-C136.20-1990 and ASCE 7-02 for suggested burial depths.
- c. An anti-rotational device (if ordered) shall be located 12" from the pole butt. The device will inhibit torsional rotation of the pole once installed.
- d. Direct burial poles shall have 2- 2 3/8" diameter wire entry holes located 18in. below ground line 180 degrees apart. Either of these holes shall be 90 degrees from the mounted fixture and arm.
- e. The pole shall have a uniform taper.
- f. A 2 _ in X 4 in hand hole with a painted cover can be supplied with non metallic head fasteners. All covers and fasteners shall be non-metallic.
- g. Tenon tops shall be either 2 3/8 in. or 3 in. steel permanently attached to the pole top.
- h. Mast Arm poles shall be drilled at factory to accept applicable arm.
- i. Single member mast arms shall be made of 6061-T6-T4 aluminum with a 2 in. NPS slip-fitter. The arms shall be secured to the pole by two

(2) 5/8 in. X 7 in. bolts complete with two each curved washers and nuts.

- j. Shafts shall be constructed to lengths of 35 feet.
- k. Non-conductive pole cap shall be supplied with mast arm and side mount poles.

3. PERFORMANCE

- a. The pole shall be able to withstand AASHTO standards of 25 year mean recurrence interval wind velocities for the area where the pole will be installed.
- b. Static deflection shall meet the following criteria:
 - i. Not to exceed one percent (1%) of the above ground pole length.
 - ii. The difference in deflection within any one (1) foot shall not exceed .35 in.
- c. Under maximum wind conditions, the pole tip deflection should not exceed 10% of above ground pole length.
- d. The pole shall be resistant to long term flexural fatigue failure. There shall be no significant change in visual appearance of mechanical properties after one million cycles of altering force applications, which force produces a deflection amplitude equal to or greater than the deflection produced by peak wind speed of 46 mph.

4. SHIPPING

- a. The pole shall be wrapped with suitable wrapping for shipping via commercial carriers. Poles shipped via flatbed, are bundled and do not require wrapping.

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