

SECTION II

2.0 SITE PREPARATION

Your antenna site should be selected to be free from physical obstructions such as trees and buildings below the 5° minimum elevation pointing angle. For northern hemisphere locations, it is recommended that you plan your foundation site on a flat plane at the southern exposure to your equipment building. Attempts should be made to minimize the distance from the antenna to the receiver/transmitter.

2.1 FACILITIES DESIGN CRITERIA

A single 110- VAC, 15-amp circuit is adequate to provide total operational power to the controller. Low voltage transformers are located in the control unit to permit automated operation of the 24 VDC polarization motor and the 36 VDC antenna drive motors.

A single, 220 VAC 20-amp single-phase service is required for those locations requiring heated de-icing circuitry.

2.2 FOUNDATION

The foundation design configurations for the 3.8 meter antennas are illustrated in the drawings in the appendix. The customer has the option of a columnar 90 MPH foundation (Drawing 828003) and a columnar 120 MPH foundation (Drawing 828007) or slab (Drawing 827999) foundation configuration.

It is important to note that the orientation of the foundation for your site may vary based on your site latitude.

The mast support structure for the antenna consists of a 5.0" IPS, Sch. 40 pipe extension provided and installed by others.

NOTE: The outside diameter of the pipe is 5.6 inches.

2.2.1 Excavation

Soil bearing capacities should be investigated by local professional engineers. Begin excavation by auguring or removing soil to the appropriate depth for your foundation and finish by compacting the soil at the base to 2500 PSF minimum bearing capacity. In general, loose silty sand is inadequate as a subsurface bearing material.

2.2.2 **Foundation Installation (Ref. Drawing 828007)**

The outside diameter of the foundation piers should be 20.0 inches minimum. Place the 5.0" Sch. 40 pipe in the center of the excavation with temporary restraints so that the pipe remains vertical and concentric to the hole during the pour.

The mast support pipe should be filled with concrete as part of the foundation installation.

2.2.3 **Anchor Bolts**

The 1.0" diameter anchor bolts are deliverable upon request in advance of the antenna shipment by contacting the factory. Anchor bolts are provided with flat washers to resist pull-out and the bolts should be clamped in a vertical position and restrained from movement during the pour.

2.2.4 **Compaction**

Backfill at the foundation should also be compacted to 2500 PSF after the concrete has cured beyond it's 7-day minimum compressive strength.