**LIGHTNING PROTECTION SYSTEM**

- **Support Cables (3)**
- **Transition Plate**
- **Circuit Breaker and Enclosure**
  - NEMA Std. Male Locking Plug with Boot
  - NEMA Std. Female Outlet with Boot
- **Host Cable**
  - 1/2" max.
- **Support for Portable Power Unit to Drive Hoist**
- **Hoist Assembly**
- **Incoming Power to Terminal Block and Enclosure (NEMA 3X)**
- **Sufficient Length to Reach Portable Power Unit & Test Jacket on Support Ring**
- **Use Only Flat Washers Under Anchor Bolts, No Lockwashers.**

**PORTABLE POWER UNIT DETAILS**

- **Circuit Breaker and Enclosure (NEMA 3X)**
  - **Connecting Cable**
  - **Stamp or Permanent Label**
  - **Circuit Breaker and Enclosure (NEMA 3X)**
  - **Terminal Block and Enclosure (NEMA 3X)**
- **Reduced Handhole Opening min. 10" x 20"**
- **Worm Guard** (See Note 7)

**POLE BASE DETAILS**

- **Foundation**
- **Drive Support Tube 1 ½" sq.**
- **1 ⅝" Hex Input Shaft**
- **⅝" Hex Coupling**
- **⅝" Adapter**
- **3 ¾" Square Motor Support Tube**

**NOTES:**

1. Motor support tube may be 1 ½" square or 1 ⅝" square to mate on the inside or outside of drive support tube.
2. Drive assembly shall have sufficient output torque to handle the payload. Minimum driving torque shall be 40 ft-lbs. The drive system shall include a torque limiter of a size and rating as recommended by the manufacturer to prevent overloading.
3. Electrician connector on flexible power cords, support ring and portable power unit shall conform to NEMA standard pin configurations for locking type connectors and be rated for 20 amperes for 480 volt circuits and 30 amperes for 250 volt circuits.
4. When grading or maintenance platform is required, pole handhole shall be on the downslope side of pole. All other handholes shall be located on the side of the pole opposite the roadway from which the tower is stationed.
5. Unless otherwise specified in the plans, all luminaires with asymmetric distributions shall be installed so the "arrow" or "street side" designation on the optical assembly is positioned perpendicular to the centerline or baseline of the pavement from which the tower is stationed. Any optical rotation called for will be expressed as a clockwise (ccw) or counter-clockwise (cw) angular measurement from the normal to prevent rodent intrusion.
6. Terminal block and circuit breaker are shown in separate NEMA 3X enclosures. If housed in a single enclosure, it shall meet NEMA 3X requirements. All cable penetrations of enclosures shall be sealed with UL-listed cord grips to prevent insect introduction.
7. Attach armount guard with stainless steel band and minimum 2" overlap. The overlapping guard with stainless steel wire ties. Guard shall be solid sheet, welded wire mesh or expanded metal sheet, stainless steel or galvanized, with openings no larger than 1/32", or approved equal.
8. Towers shall conform to AASHTO LRFD-B (2013), with Fatigue Importance Category I, Yearly Mean Wind Velocity of 9-11 mph, 50-year Design Life, 80 mph Basic Wind Speed, and Load of 3.0 psf. The handhole width criterion of 11.8 ft is not required by ODOT.