SECTION 16450

SECONDARY GROUNDING

1. PART 1 GENERAL

    1.1 SECTION INCLUDES

        A. Power System Grounding.

        B. Electrical Equipment and Raceway Grounding and Bonding.

    1.2 SYSTEM DESCRIPTION

        A. Ground the electrical service system neutral at service entrance equipment to grounding electrodes.

        B. Ground each separately-derived system neutral to separate grounding electrode.

        C. Bond together system neutrals, service equipment enclosures, exposed non-current carrying metal parts of electrical equipment, metal raceway systems, grounding conductor in raceways and cables, receptacle ground connectors, and plumbing systems.

    1.3 SUBMITTALS

        A. Submit shop drawings under provisions of Section 01300 - Submittals.

        B. Indicate location of system grounding electrode connections, and routing of grounding electrode conductor.

2. PART 2 PRODUCTS

    2.1 MATERIALS

        A. Ground Rods: Copper-encased steel, 3/4 inch diameter, minimum length 10 feet.

3. PART 3 EXECUTION

    3.1 INSTALLATION

        A. Provide a separate, insulated equipment grounding conductor in feeder and branch circuits. Terminate each end on a grounding lug, bus, or bushing.

        B. Grounding Electrode: Use driven ground rod in main service equipment area. Install ground rod in suitable recessed well; fill with gravel after connection is made.

        C. Provide grounding and bonding at Utility Company's metering equipment in accordance with Section 16420 – Service Entrance.

3.2 FIELD QUALITY CONTROL

A. Inspect grounding, bonding system conductors and connections for tightness and proper installation.

B. Measure ground resistance from system neutral connection at service entrance to convenient ground reference point using suitable ground testing equipment. Resistance shall not exceed 10 ohms. Provide the Engineer a written report explaining methods used and results including actual resistance. Engineer shall be present for testing. Notify Engineer of one week prior to testing.

END OF SECTION