

SECTION 16450

SECONDARY GROUNDING

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Power system grounding.
- B. Electrical equipment and raceway grounding and bonding.

1.2 SYSTEM DESCRIPTION

- A. Provide a service ground at the service entrance.
- B. Connect load center feeder ground conductors to service ground at main service entrance.
- C. Connect branch circuit equipment wires to ground bus at load centers.
- D. Provide a dedicated ground for the telephone service.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Service Ground Conductor: Bare copper, stranded conductor.
- B. Load Center Feeder Ground Conductor: Copper conductor.
- C. Branch Circuit Ground Conductors: Insulated (green) copper conductor.
- D. Ground Rods: 5/8-inch diameter, by 8-feet long, copper clad steel rods with bronze ground clamps.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Provide service ground system in accordance with Article 250 of NFPA 70. Connect service-grounding equipment to made electrodes as well as to the cold water service entrance pipe.

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- B. Provide a separate grounding conductor in panelboard and load center feeders, and in all branch circuits provided under this contract. Terminate each end on a grounding lug, bus, or bushing.
- C. Provide grounding for service riser pole in accordance with all applicable *Central Maine Power Company* requirements.
- D. Provide grounding for the telecommunications service termination board consisting of a separate ground conductor connected to the main service ground system.

3.2 FIELD QUALITY CONTROL

- A. Inspect grounding and 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.

END OF SECTION