

## SECTION 26 05 26 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 DESIGN REQUIREMENTS

- A. Ground the electrical service system neutral at service entrance equipment to grounding electrode system: cold water service pipe, building steel, concrete encased electrode and supplementary grounding electrodes in compliance with NEC.
- B. Ground each separately derived system neutral to nearest metallic cold water pipe, 2" diameter or larger, building steel or the referenced ground bar as shown on drawings.
- C. Provide grounding for telecommunications systems in accordance with the requirements in Section 27 05 26 Ground and Bonding for Communications Systems. Minimum conductor size between ground bar 3/0.
- D. Interconnect all ground bars in the building.

### PART 2 - PRODUCTS (NOT APPLICABLE)

### PART 3 - EXECUTION

#### 3.1 INSTALLATION, GENERAL

- A. Provide a separate insulated equipment-grounding conductor in all feeders. Terminate each ground conductor to the bushing and ground lug.
- B. All grounding materials shall be copper with the exception of ground rod, which may be copper clad steel.
- C. Grounding and Bonding for Communications Systems. Provide code-sized ground cable bonding jumpers, installed with ground clamps, across all conduit expansion couplings and fittings.
- D. Provide a corrosion-resistant finish to field connections, buried metallic bonding products, and where factory applied protective coatings have been destroyed, where subject to corrosive action.
- E. All continuous runs of cable tray and all isolated sections of cable tray shall be grounded at intervals not to exceed 20 feet.
- F. Provide an equipment-grounding conductor in all nonmetallic and flexible conduits.
- G. Provide equipment-grounding conductor in all branch circuits. Route to switches, receptacles, equipment enclosures, equipment, and panels etc. and ground as required.
- H. Use mechanical grounding connectors for all grounding connections. Exothermic welded connections may be used underground or to building steel.
- I. Minimum ground resistance:

Table	
Equipment	Earth Ground Resistance to Equipment (Ohms)
Pad Mount Transformer	5

Secondary neutrals and other ground	10
Lightning protection grounds	5

- J. Provide a separate insulated equipment-grounding conductor in feeder and branch circuits. Terminate each end on a grounding lug, buss or bushing.
- K. Provide grounding bushings and bonding jumpers for all conduits terminating in reducing washers, concentric, eccentric or oversized knockouts at panel boards, cabinets, and gutters.
- L. Provide bonding wire in all flexible conduits.

**END OF SECTION 26 05 26**