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>
<thead>
<tr>
<th>Equipment</th>
<th>Earth Ground Resistance to Equipment (Ohms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pad Mount Transformer</td>
<td>5</td>
</tr>
</tbody>
</table>
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