Section 260526 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

1. GENERAL
   * + 1. DESCRIPTION
          1. This Section describes a grounding system including a conduit system, equipment grounding conductor, transformer housings, a switchboard frame and neutral bus, motors, and miscellaneous grounds. Work also includes a 600V insulated main bonding jumper for service connection between the ground bus in the switchgear lineup and a ground termination point or service ground in the transformer.
       2. REFERENCES
          1. NEC: National Electrical Code.

NEC Article 250: Grounding and Bonding.

1. PRODUCTS
   * + 1. GROUND CONDUCTORS
          1. Bare or green insulated copper for interior systems.
          2. Bare copper for underground or exterior systems.
       2. CONNECTORS
          1. Cast, set screw, or bolted allowed in dry locations only.
          2. Form poured, exothermic welds.
          3. Compression-tool applied. Burndy “Hyground Compression System,” or equal.
          4. Grounding lugs where furnished as standard manufacturer’s items on equipment.
2. EXECUTION
   * + 1. INSTALLATION
          1. Size grounding conductors in accordance with National Electrical Code (NEC) Article 250, Tables 250‑66 and 250‑122.
          2. Underground connections shall be exothermic applied.
          3. Grounding conductor connectors shall be made up tight and located for future servicing and to ensure low impedance.
          4. Ground the electrical system, the cold-water service, structural steel, and transformers to the building ground grid.
          5. All plug‑in receptacles shall be bonded to the boxes, raceways and grounding conductor.
          6. Provide equipment grounding conductor in all conduit runs.
          7. Provide ground bond for all conduits terminated at or near cable trays, including communication and data conduits provided for cabling to the cable tray.
       2. EQUIPMENT
          1. Provide separate green insulated equipment ground conductor for all circuits. Effectively ground all fixtures, panels, controls, motors, disconnect switches, exterior lighting standards, and non-current-carrying metallic enclosures. Use bonding jumpers, grounding bushings, lugs, buses, and the like, for this purpose.
          2. Provide grounding bushings on all feeder conduit entrances to panels and equipment enclosures and bond bushings to enclosures with minimum No. 10-AWG conductor. Connect the equipment ground to the building system ground. Use the same size equipment ground conductors as phase conductors, up through No. 10-AWG.

END OF SECTION 260526