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## Section 16100

### Grounding Equipment

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#### Part One: General

##### 1.1 General Requirements

###### 1.1.1 Provisions

The provisions of Section 16000, General Requirements for Electrical Work apply to the work of this section.

###### 1.1.2 Installation Compliance

The Contractor shall provide a complete grounding system including grounding electrodes, electrode conductors, bonding jumpers, equipment grounding conductors, connections and other materials as may be required for a complete installation. The completed system provided shall meet the requirements of the National Electrical Code and the interpretation of the Local Authority Having Jurisdiction.

##### 1.2 Applicable Codes and Standards

###### 1.2.1 Products

Products shall comply with the following codes and standards and shall be UL-listed and labeled:

NFPA 70	National Electrical Code
UL 467	Grounding and Bonding Equipment

##### 1.3 Submittals Required

###### 1.3.1 Equipment Data Sheets

Data sheets for any associated wiring.

##### 1.4 Manufacturers

Products shall be of firms regularly engaged in manufacture of grounding equipment.

#### Part Two: Products

##### 2.1 General

###### 2.1.1 Requirements

Provide all equipment, components and parts required to for a complete and operable system.

##### 2.2 Conductors

###### 2.2.1 Bare Grounding Conductors

Bare grounding conductors shall be soft drawn stranded copper, sized in accordance with NEC Article 250 unless otherwise noted on the Drawings.

###### 2.2.2 Insulated Grounding Conductors

Insulated grounding conductors shall be stranded copper with Type TW, THW or THHN/THWN insulation. Grounding conductor shall be provided with green insulation for identification purposes.

## **Part Three: Execution**

### **3.1 Grounding Electrode System**

#### **3.1.1 Requirements**

The intent is to reuse the existing grounding electrode system. All new, existing or relocated equipment shall be bonded to this grounding electrode system as required by the National Electrical Code.

### **3.2 Equipment Grounding Systems**

#### **3.2.1 Requirements**

A separate, insulated copper conductor, with green colored insulation, shall be provided in all raceways and with every feeder, branch and control circuit, in addition to the grounded metallic conduit system. The equipment grounding conductor shall be grounded at both ends.

### **3.3 Additional Bonding requirements**

#### **3.3.1 Grounding of Raceway Systems**

All metallic raceways shall be electrically continuous and bonded to the grounding system.

#### **3.3.2 Bonding of Other Systems**

Interior metal water, gas and sprinkler piping shall be bonded as required by Article 250 of the NEC. The points of attachment of these bonding conductors shall be located in readily accessible locations.

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## **End of Section 16100**

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