

PART 1 - GENERAL

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| <u>1.1 RELATED
SECTIONS</u> | .1 | Section 01 10 10 - General Instructions. |
| | .2 | Section 26 05 01 - Common Work Results - Electrical. |
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| <u>1.2 REFERENCES</u> | .1 | American National Standards Institute
(ANSI)/Institute of Electrical and Electronics
Engineers (IEEE). |
| | .2 | Canadian Standards Association, (CSA International). |
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| <u>1.3 WASTE
MANAGEMENT AND
DISPOSAL</u> | .1 | Separate and recycle waste materials in accordance
with Section 01 10 10 - General Instructions. |
| | .2 | Remove from site and dispose of all packaging
materials at appropriate recycling facilities. |
| | .3 | Collect and separate for disposal paper, plastic,
polystyrene, corrugated cardboard packaging material
in appropriate on-site bins for recycling in
accordance with Waste Management Plan. |
| | .4 | Divert unused metal materials from landfill to metal
recycling facility as approved by Departmental
Representative. |
| | .5 | Fold up metal banding, flatten and place in
designated area for recycling. |

PART 2 - PRODUCTS

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| <u>2.1 EQUIPMENT</u> | .1 | System and circuit, equipment, grounding conductors,
bare stranded copper, soft annealed, size as
indicated. |
| | .2 | Insulated grounding conductors: green, type TW. |
| | .3 | Non-corroding accessories necessary for grounding
system, type, size, material as indicated, including
but not necessarily limited to:
.1 Grounding and bonding bushings.
.2 Protective type clamps.
.3 Bolted type conductor connectors. |

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| <u>2.1 EQUIPMENT</u>
(Cont'd) | .3 (Cont'd)
.4 Thermit welded type conductor connectors.
.5 Bonding jumpers, straps.
.6 Pressure wire connectors. |
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PART 3 - EXECUTION

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| <u>3.1 INSTALLATION</u>
<u>GENERAL</u> | .1 Install complete permanent, continuous grounding system including, conductors, connectors, accessories as indicated to conform to the requirements of the local authority having jurisdiction. Where EMT is used, run ground wire in conduit.

.2 Install connectors in accordance with manufacturer's instructions.

.3 Protect exposed grounding conductors from mechanical injury.

.4 Use mechanical connectors for grounding connections to equipment provided with lugs.

.5 Soldered joints not permitted.

.6 Install bonding wire for flexible conduit, connected at both ends to grounding bushing, solderless lug, clamp or cup washer and screw. Neatly cleat bonding wire to exterior of flexible conduit.

.7 Install flexible ground straps for bus duct enclosure joints, where such bonding is not inherently provided with equipment.

.8 Bond single conductor, metallic armoured cables to cabinet at supply end and load end. |
| <u>3.2 SYSTEM AND</u>
<u>CIRCUIT GROUNDING</u> | .1 Install system and circuit grounding connections to neutral of primary 600V system, secondary 208V system. |
| <u>3.3 COMMUNICATION</u>
<u>SYSTEMS</u> | .1 Install grounding connections for telephone, sound, fire alarm and intercommunication systems as required by the equipment manufacturer.

.2 All metal conduits and other metal parts pertaining to communications systems shall be grounded. |

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| <u>3.4 EQUIPMENT
GROUNDING</u> | .1 | Install grounding connections to typical equipment included in, but not necessarily limited to following list: distribution panels, control panels, motors. |
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| <u>3.5 FIELD QUALITY
CONTROL</u> | .1 | Perform tests in accordance with Section 26 05 01 - Common Work Results - Electrical. |
| | .2 | Perform ground continuity and resistance tests using method appropriate to site conditions and to approval of Departmental Representative and local authority having jurisdiction over installation. |
| | .3 | Perform tests before energizing electrical system. |
| | .4 | Disconnect ground fault indicator during tests. |