

Part 1 General

1.1 REFERENCES

- .1 Telecommunications Industries Association (TIA)/Electronic Industries Alliance (EIA)
 - .1 TIA/EIA-606B, Administration Standard for the Commercial Telecommunications Infrastructure.
 - .2 TIA-607-B - Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications.
- .2 U.S. Department of Labor/Occupational Safety and Health Administration (OSHA)
 - .1 Nationally Recognized Testing Laboratory (NRTL).

1.2 SYSTEM DESCRIPTION

- .1 Telecommunications grounding and bonding system consist of grounding busbars, bonding backbones, and other bonding conductors.
- .2 Provides ground reference for telecommunications systems within building and bonding to it of telecommunications rooms.
- .3 Metallic pathways, cable shields, conductors, and hardware within telecommunications spaces are bonded to telecommunications grounding and bonding system.

1.3 QUALITY ASSURANCE

- .1 Health and Safety Requirements: do construction occupational health and safety in accordance with Section 01 35 30 - Health and Safety Requirements.

Part 2 Products

2.1 TELECOMMUNICATIONS MAIN GROUNDING BUSBAR (TMGB)

- .1 Predrilled copper busbar, approved by NRTL, electrotin plated with holes 8 mm diameter for use with standard-sized lugs to: TIA-607-B.
- .2 Dimensions 6 mm thick, 100 mm wide, 500 mm long to: TIA-607-B.

2.2 BONDING CONDUCTOR FOR TELECOMMUNICATIONS

- .1 3/0 AWG copper conductor, green marked to: TIA-607-B.

2.3 TELECOMMUNICATIONS BONDING BACKBONE (TBB)

- .1 3/0 AWG copper conductor, green marked to: TIA-607-B.

2.4 WARNING LABELS

- .1 Non-metallic warning labels in English and French to: TIA-607-B.
- .2 Identify labels with wording "If this connector is loose or must be removed, please call the building telecommunications manager".

Part 3 Execution

3.1 TELECOMMUNICATIONS MAIN GROUNDING BUSBAR (TMGB)

- .1 Install TMGB in room 104 IT Closet on insulated supports 50 mm high at location close to electrical power panel if one is installed in same room as indicated.
- .2 Install #3/0 AWG copper bonding conductor from TMGB to alternating current equipment ground (ACEG) of serving electrical power panel (panelboard).

3.2 BONDING CONDUCTORS GENERAL

- .1 When placed in ferrous metallic conduit or EMT longer than 1 m, bond to each end of conduit or EMT using #6 AWG copper conductor.

3.3 BONDING CONDUCTOR FOR TELECOMMUNICATIONS

- .1 Install bonding conductor for telecommunications from TMGB to service equipment (power) ground.
- .2 Use exothermic welding, approved 2 hole compression lugs for connection to TMGB.

3.4 TELECOMMUNICATIONS BONDING BACKBONE (TBB)

- .1 Install TBB from TMGB to each TGB as indicated.
- .2 Use exothermic welding, approved 2 hole compression lugs for connection to TMGB and TGBs.

3.5 BONDING TO TMGB

- .1 Bond metallic raceways in room 104 IT Closet to TMGB using #6 AWG green insulated copper conductor.
- .2 For cables within Room 104 IT Closet having shield or metallic member, bond shield or metallic member to TMGB using #6 AWG green insulated copper conductor.
- .3 Bond equipment rack located in Room 104 IT Closet to TMGB using #6 AWG green insulated copper conductor.

3.6 LABELLING

- .1 Apply warning labels to telecommunications bonding and grounding conductors.
- .2 Apply additional administrative labels to: TIA/EIA-606B.

END OF SECTION