

SECTION 26 27 21

VOICE/DATA SYSTEM PROVISIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

- A. The Conditions of the Contract and applicable requirements of Divisions 0 and 1 and Section 26 00 01, "Electrical General Provisions", govern this Section.

1.2 DESCRIPTION OF WORK:

- A. Work Included: Provide voice/data provisions and raceway system work as shown, scheduled, indicated, and as specified.
- B. Type: Provide a complete **[cable tray,]** sleeve and raceway system for installation of the voice/data cabling system under a separate contract.
- C. System Installation: Voice/data system wiring, connections, outlets, instruments, devices and accessories will be provided under a separate contract.

PART 2 - PRODUCTS

[EDIT TO SUIT PROJECT]

2.1 MATERIALS AND COMPONENTS:

- A. Plywood: Provide 3/4" exterior grade plywood terminal boards sized as shown and scheduled as needed. Boards shall be painted with a fire retardant **[white]** paint **[in colors as directed by the Owner]**.
- B. Raceways: Provide **[cable tray,]** sleeve and raceway system as specified in Section 26 2\05 01, "Electrical Basic Materials and Methods", Section 26 05 33, "Electrical Raceways", **[and]** Section 26 05 34, "Electrical Boxes"**[, and Section 26 05 36, "Electrical Cable Tray"]**.
- C. Wall Type Voice/Data Outlets (Accessible Ceiling Areas): Provide a Caddy MPS1 (new partitions) or Caddy MP1 (existing partitions) or equal single gang drywall mounting plate with a Caddy MSG or equal grommeted hole in the wall top plate above the outlet and a pullcord from the outlet to the ceiling space for voice/data outlets located in accessible ceiling areas.
- D. Wall Type Voice/Data Outlets (Nonaccessible Ceiling Areas): Provide a single gang wall outlet box with a 3/4" conduit with pull string to an accessible ceiling area for voice/data outlets located in inaccessible ceiling areas.
- E. Flush Floor Type Voice/Data Outlets (Slab on Grade): Provide cast iron floor box with appropriate coverplate, as scheduled or shown on the Drawings, with a one inch (1") conduit with pullcord to an accessible location. Coordinate coverplate type with the cable installation contractor.
- F. Poke-thru Type Floor Voice/Data Outlets (Suspended Slabs): Provide fire-rated poke-thru type floor boxes with appropriate coverplates, as scheduled or shown on the Drawings. Where poke-thrus are located above inaccessible areas, provide a one inch (1") conduit with pullcord from each outlet to an accessible location. Coordinate coverplate type with the cable installation contractor.
- G. Ground Buses: Provide copper ground buses, as detailed on the drawings for the main voice and data rooms. Provide Square D No. PKI5GTA-L or approved equal panelboard ground bus with matching No. PKGTAB standoff isolators for remote voice/data room ground buses. Buses shall have screw type lugs for (1) #4/0 copper ground conductor and (15) #14 to #4 copper ground conductors.

PART 3 - EXECUTION

3.1 INSTALLATION OF RACEWAY SYSTEM:

- A. General: Refer to Section 26 2\05 01, "Electrical Basic Materials and Methods", Section 26 05 33, "Electrical Raceways", **[and]** Section 26 05 34, "Electrical Boxes"**[, and Section 26 05 36, "Electrical Cable Tray"]** for installation requirements of the voice/data **[cable tray,]** sleeve and raceway systems.
- B. Sleeves: In voice/data terminal areas provide sleeves through floors for installation of cables, as shown on the Drawings or specified in Section 26 05 01, "Electrical Basic Materials and Methods".. Pack sleeves with sufficient UL-listed fire safing insulation or foam to equal the rating of the floor after completion of cable installation, as specified in Section 26 05 01, "Electrical Basic Materials and Methods".
- C. Grounding: Extend a #6 green insulated copper ground riser from each voice/data terminal location to an accessible ground connection to a building water pipe. Leave a 24" pigtail at each terminal location. Install ground conductors in an approved raceway **[where subject to physical damage or where concealed in inaccessible locations]**.
- D. Receptacles: Provide duplex or fourplex receptacles mounted **[at 8' above finished floor]** at terminal boards**[, as shown]** and label with circuit I.D.
- E. Misuse: Do not use voice/data sleeves for temporary construction power wiring.
- F. Pullcords: Provide a polypropylene pullcord in all voice/data conduits and to all voice/data outlets.
- G. Air Plenums: All cable in return air plenums shall be installed in an approved raceway or shall be of a cable construction UL-approved for installation in air plenums.

3.2 COORDINATION:

- A. General: Prior to installation of voice/data system provisions, coordinate required provisions with the voice/data system vendor/installer selected for the project. Where power, conduit and terminal board provisions are significantly different from those shown on the Drawings, notify the Architect/Engineer in writing of the requirements. Where minor modifications to provisions are required, they shall be made at no cost as a matter of job coordination.
- B. Building Service: Provisions for voice/data cable entry to the building shall be coordinated with the utilities providing service, prior to installation.

3.3 TESTING:

- A. Grounding Testing: After ground bus and ground conductor have been installed check the resistance to ground. Resistance to ground should not exceed 4 ohms. Certified copies of the tester printouts for each ground bus shall be included in the project O&M Manuals.

END OF SECTION 26 27 21