

Data and Voice Cabling Specifications

1. HORIZONTAL AND STATION CABLE:

- a) All new voice and data telecommunications outlets (TO) shall be Category 6-compliant eight position RJ-45 non-keyed (EIA/TIA 568A). Four unshielded twisted pair 24 AWG Work Area (WA) cable shall be installed from each jack (in accordance with EIA/TIA standards 568 "T568A" and 606) to the telecommunication room (TR) and shall be of a type designed to support Category 6 data communications (not less than 100 MHz/100 Mbps).
- b) Unless specified differently by the Telecommunications Manager, all new telecommunication__outlets shall be fiveplex connectors within a sixplex flush mounted faceplate. Each cable installed shall be blue in color. The termination scheme shall be: 1st jack - data, 2nd jack - data, 3rd jack - data, 4th jack - voice A (blue pair) 5th jack - voice B (orange pair). Manufacturer should be Siemon - or a product at least equivalent.
- c) At the telecommunication room, the cable for each connector shall be terminated on appropriately sized Category 6-compliant RJ-45, 8-wire, 110 type modular 568A patch panels. Cable Management shall be provided by the contractor for field distribution/patchcord management. Labeling and color-coding shall be in compliance with EIA/TIA 606 and with local numbering convention/schemes i.e. (closet number-U(or V)jack number, (U for universal, V for voice only). Manufacturer should be Siemon or Allan Tel or a product at least equivalent.
- d) Each wall telephone instrument shall be installed on a single wall mounted standard wall telephone jack. At the telecommunication room, all four pair shall be terminated on Category 6-compliant 110 type, 568A patch panel, or USOC standard 66 punch blocks, which are dedicated to voice applications.
- e) Where there are no existing data/telephone outlets installed and the new installation point is on a hollow wall, the contractor shall fish the wall, and install a flush mounted box with the appropriate connector and cable. If not a hollow wall that can be fished, the contractor will provide and install surface mounted plastic raceway and a surface mounted box with the appropriate connector and cable. Plastic raceway is to be screwed in. (If metal conduit is required the VA or its designated contractor shall install the appropriate pipe).

2. DISTRIBUTION FRAMES

- a) All building distribution data and telecommunication rooms identified by the VA Telecommunications Manager shall be reused and shall be cabled in accordance with the latest *BICSI Telecommunications Distribution Methods Manual (TDM)*. Labeling convention for all building and campus distribution locations shall also conform to the EIA/TIA 606 standard.

3. CONTRACTOR RESPONSIBILITIES:

- a) The contractor shall verify all installations are category 6 compliant. Each installed horizontal cable shall be tested "end-to-end" for Category 6 compliance. Test results

for each installed cable shall be provided in both hard and soft copy to the VA if requested.

- b) The Contractor shall assist VA in the approval/verification of as-installed wiring diagrams, and schematic layout diagrams for accuracy of the installed cable distribution plant to the Contracting Officer or other designated department. The diagrams and drawings shall show all interconnections of components within the wiring distribution system and/or the telephone system interface devices. Diagrams should also be provided on DVD/CD in the latest AutoCAD format.
- c) The Contractor shall also provide cable records to the VA. Each cable record shall indicate the cable number, termination locations (including building, room number) and patch panel/jack number.