

UNIVERSAL CABLING SYSTEM

**STANDARD HORIZONTAL CABLING
SPECIFICATION**

PITTSBURGH INTERNATIONAL AIRPORT

I General Requirements

1.0 References

- A. EIA/TIA-568 – Commercial Building Standard
- B. EIA/TIA-569 – Commercial Building Standard for Telecommunications Pathways and Spaces
- C. NFPA 70 – National Electric Code

2.0 Telecommunications Requirements

- A. Telecommunications installations shall be made in accordance with pre-approved specifications, drawings, and codes as applicable.
- B. The installation shall be performed by an experienced firm engaged in the installation of communications cabling and/or systems.
- C. All installation tools and equipment required to accomplish field installation to be furnished by contractor.
- D. Contractor shall contact Verizon ESG at the Pittsburgh International Airport prior to installation.

3.0 Installation

- A. Contractor to furnish all work and materials to provide end to end horizontal cabling and connectivity from the specified telecommunications closet to the new termination within tenant space.
- B. Contractor to furnish and install AMP communication hardware (or approved equal) within tenant space to facilitate termination of new horizontal cabling.
- C. Contractor to install cabling using new or existing raceways and/or conduit to star out from designated telecommunications closet to tenant space. All new raceways, cable trays, and conduit (minimum ¾”) shall be furnished and installed by contractor. Additionally, cables shall be pulled in accordance with the approved plan, and care shall be taken to prevent abuse or damage during handling and installation.
- D. Cable shall not be installed in such a manner as to randomly scatter from established paths, and shall follow primary cable runs until branching off at termination points.
- E. All cable runs shall be dressed in neat flowing runs. Where cables run exposed in telecommunications closets or routed in cable trays, lash the cable with ties at least every five (5) feet.

- F. As cables are pulled into the telecommunications closet, bundle in groups of six (6) according to their terminating row position. Strap exposed cables for strain relief at the 66 type blocks within the closets.
- G. Homeruns of $\frac{3}{4}$ " minimum conduit required from designated telecommunications closets to tenant jack locations. There shall be no splicing of horizontal cable.

4.0 Labels

- A. A standard Telco color coding shall be used for cable termination.
- B. Each cable terminated shall be labeled with a unique identifier. Labels for AMP termination faceplates and 66 block designation strips shall be preprinted adhesive backed label provided by Verizon ESG.

5.0 Cleanup

- A. Upon completion of the installation, the contractor shall be responsible for cleanup and removal of debris caused by the installation.

II Materials

1.0 Acceptable Manufacturers of Cable

- A. AMP: Futurelan 350 Series
- B. Belden: DataTwist 350 Series
- C. Berk-Tek: LANmark 350 Series
- D. CommScope: Ultra II Series
- E. Lucent: C+ or D+ Lan Series Cables
- F. Mohawk/CDT: MegaLAN 400 Series
- G. NORDX/CDT: IBDN Flex Plus 350 Series

2.0 Acceptable Manufacturers of Telecommunications Room Termination Equipment

- A. The Siemon Company
- B. AMP: Futurelan 350 Series
- C. Lucent

3.0 Acceptable Manufacturers of Telecommunications Work Station Termination Equipment

- A. Cat 6 Connectors/Jacks/Outlets
- B. All outlets, jacks, and connectors shall exceed all requirements of proposed ANSI/TIA/EIA-568-C.2, and IEC 60603-7-4.
- C. All locations shall utilize “RJ-45 style” 8-position, 8-conductor T568B data jacks in quantities as required and detailed on drawings.
- D. Jacks, faceplates and installation kits shall be Leviton Category 6 QuickPort system components.
- E. Flush mount QuickPort angled faceplates in 2 or 4 jack configurations by Leviton shall be provided at all locations unless otherwise noted. Exceptions to the specifications which request surface mounting in lieu of flush must be submitted and obtain approval prior to installation.
- F. Coordination with the modular furniture provider shall be necessary to determine type and design of outlet configurations to be incorporated into the furniture.
- G. AMP: ACO Series (use as an acceptable alternate device)
 - 1. Dual Port installation Kits: Amp# 1479306-1
 - 2. Faceplate: Amp# 406090-1
 - 3. AMP Inserts:
 - a. Voice jacks: Amp# 555672-1
 - b. Data jacks: Cat 6 T568B config, Amp # 1644027-1

4.0 Cat 6 Cable

- A. General: Unshielded Twisted-Pair Cat 6 cable shall exceed all requirements for ANSI/TIA/EIA-568-B.2-1 and support high-speed communication network applications.
- B. Rating: UL-listed Communications Cable Type CMP for plenum applications, Type CMR for riser applications, Type CMG for general-purpose applications.
- C. Manufacturer Testing: Furnish a copy of the factory certified test report verifying that final production reels are tested to at least 155 MHz and conform to all ANSI/TIA/EIA Cat 6 requirements.
- D. Field Testing: All cabling and connectors shall comply with and be tested to ANSI/TIA/EIA-568- B.2-1 (includes TSB-67)and as specified in Part 3.

END STANDARD HORIZONTAL CABLING SPECIFICATION