

## **1 GENERAL**

### **1.1 RELATED WORK**

- .1 This Section of the Specification forms part of the Contract Documents and is to be read, interpreted and coordinated with all other parts.
- .2 This Section of the Specification is provided for reference and coordination only. Electrical contractor is to provide rough-in requirements only. Refer to Appendix C as specified in Subsection 1.5.1.1 of this Section of the Specification for delineation of responsibilities.
- .3 The Structured Cabling for Communication Systems Contractor (SCCSC) shall be identified and under contract by the Departmental Representative. The SCCSC shall coordinate and course all construction activities with the Electrical Contractor (EC) as if the former is a direct sub-contractor of the EC.

### **1.2 PRODUCT DATA**

- .1 Submit product data in accordance with Section 26 05 00.

### **1.3 RELATED SECTIONS**

- .1 Section 26 05 32 Outlet Boxes, Conduit Boxes and Fittings.

### **1.4 SCOPE**

- .1 Supply and install a complete telecommunications infrastructure system supporting voice and data communications as indicated on the drawings and specified herein.
- .2 Entire system to be approved to Category 6 standard.
- .3 Cables are to be terminated into new Category 6 patch panels into racks within the LAN room on the same floor level.
- .4 The data contractor at the request of the Departmental Representative shall provide a price breakdown of all work. Provide price breakdown for labor and material component for the following:
  - .1 Cabling.
  - .2 Terminations.
  - .3 Certification.

### **1.5 STANDARDS**

- .1 Refer to the latest editions of the following standards in Appendices C and D, which form part of these specifications, for technical guidelines regarding implementation of the work:
  - .1 Specification Appendix C -- IT Infrastructure Design Standards and Guidelines, excerpted from the Interior Design Standards for Service Canada Centres, Appendix 7.
  - .2 Specification Appendix D -- Telecommunications Infrastructure, excerpted from the Government of Canada Workplace 2.0 Fit-up Standards, Section A4.1.

### **1.6 SUBMITTALS**

- .1 Submittals as outlined herein and contain all items within one complete submission. Refer to section 26 05 00 Common Work Results - Electrical for submission details and the following:
  - .1 Cabling System Labeling:

- .1 Departmental Representative will negotiate an appropriate labeling scheme with the successful contractor. At a minimum, the labeling system shall clearly identify all components of the system: racks, cables, panels and outlets.
- .2 The labeling system shall designate the cables origin and destination and a unique identifier for the cable within the system. Racks and patch panels shall be labeled to identify the location within the cabling system infrastructure. All labeling information shall be recorded on the as-built drawings and all test documents shall reflect the appropriate labeling scheme.
- .2 As-Built Drawings:
  - .1 The installation Contractor will be provided with 2 sets of 1000mm x 707mm (B1) size drawings at the start of the project. One set will be designated as the central set to document all as-built information as it occurs throughout the project.
  - .2 The central set will be maintained by the Contractor's Foreman on a daily basis, and will be available to the Departmental Representative upon request during the course of the project. Anticipated variations from the build-to drawings may be for such things as cable routing and actual outlet placement.
  - .3 No variations will be allowed to the planned termination positions of horizontal and backbone cables, and grounding conductors unless approved in writing by the Departmental Representative.
  - .4 The Contractor shall provide the central drawing set to the owner at the conclusion of the project. The marked up drawing set will accurately depict the as-built status of the system including termination locations, cable routing, and all administration labeling for the cabling system. In addition, a narrative will be provided that describes any areas of difficulty encountered during the installation that could potentially cause problems to the telecommunications system.

## 1.7 APPROVALS

- .1 AMP was chosen as the design standard for the purposes of this tender. However, tenders by other manufactures will be accepted. All products tendered must be of the same manufacturer and capable of being certified as a complete system under full warranty by the manufacturer. Formal approvals are required by the Departmental Representative prior to bid.

## 1.8 ACCEPTANCE

- .1 A Departmental Representative will make periodic inspection of the project in progress. One inspection will be performed at the conclusion of cable pulling, prior to closing of the false ceiling, to inspect the method of cable routing and support, and the fire-stopping of penetrations. A second inspection will be performed at completion of cable termination to validate that cables were dressed and terminated in accordance with TIA/EIA specifications for jacket removal and pair untwist, compliance with manufacturer's minimum bend radius, and that cable ends are dressed neatly and orderly.
- .2 Upon completion of the project, the Departmental Representative will perform a final inspection of the installed cabling system with the Contractor's Project Foreman. The final inspection will be performed to validate that all horizontal and backbone cables were installed as defined in the drawing package, and that the installation meets the aesthetic expectations of the Departmental Representative.
- .3 Upon receipt of the test documentation, the Departmental Representative reserves the right to perform spot testing of a representative sample of the cabling system to validate test results provided in the test document. Departmental Representative testing will use the same method

employed by the contractor, and minor variations will be allowed to account for differences in test equipment. If significant discrepancies are found, the Contractor will be notified for resolution.

- .4 Completion of the installation; in-progress and final inspections; receipt of the test and as-built documentation; and successful performance of the system for a two week period will constitute acceptance of the system and/or written approval by the Departmental Representative.

END OF SECTION