SECTION 27 05 13 - COMMUNICATION SERVICES

PART 1 - GENERAL

1.1 SUMMARY

A. Types of data/communication cable systems specified in this section include the following:
   1. Fiber-optic cable systems.
   2. Voice communication cable system.
   3. Data communication cable system.
   4. CATV communication cable system.
   5. Associated conduit raceway distribution and equipment rack/cabinet system.

B. The Contractor shall furnish, install and test cable and conduit support system, fiber-optic, voice, data and CATV cables, associated connectors, patch panels, equipment racks, grounding system, patch cords, etc., as indicated on the drawings and in these specifications.

C. The Contractor shall include all work shown on the drawings and in the specifications. The drawings and specifications are intended to agree with each other. Any discrepancies shall be brought to the attention of the Engineer for correction. No omission from any drawing shall release the Contractor from furnishing equipment, materials or services required by these documents.

D. The Contractor, the cable manufacturer, the connectivity manufacturer and the distributor shall collaborate and work in partnership with one another so as to provide the Owner with UL or ETL independently verified cabling installation that is guaranteed to perform at levels above and beyond the EIA/TIA 568B.1 Standards, as per the minimum acceptable full channel performance specification contained herein. The partnership shall make available optional UL or ETL independent testing and verification of the completed installation. The partnership shall provide full written certification of the installation to the Owner upon completion.

E. Any deviation, alteration or substitution from the drawings and specifications shall be fully documented by the Contractor and submitted as a voluntary alternate to the base bid. Approval of requests for substitution of products, processes or procedures other than those specified shall be contingent upon submission of fully acceptable documentation to the Engineer.

F. The Contractor shall also be responsible for protecting any and all equipment and materials from damage during his installation process. Any equipment, material and/or facilities damaged by the Contractor during, due to, or in the performance of his contract, shall be replaced or repaired at the expense of the Contractor, as directed by the Engineer.

1.2 QUALITY CONTROL

A. Manufacturer Qualifications: Firms regularly engaged in manufacture of communication cabling system equipment whose products have been in satisfactory use in similar service for not less than five years.

B. Installer Qualifications:
1. Installers shall be fully capable and experienced in communication cabling system specified. This Contractor and all subcontractors engaged in this communication cabling installation shall have experience in this business for not less than five years and shall have successfully completed a minimum of five projects of similar size.

2. The Contractor shall specify, in his bid, all subcontractors who shall be utilized in this project. Subcontractors’ company name, contact and responsibilities shall be listed.

3. The Contractor shall employ a Registered Communication Distribution Designer (RCDD) who shall be responsible to the Engineer, Architect and Owner for all work performed by the Contractor and his subcontractors. The RCDD shall have the authority of the Contractor to make immediate decisions regarding implementation of changes to the project as directed by the Engineer or Architect.

4. If, in the opinion of the Engineer, Architect or Owner, the RCDD does not possess or demonstrate adequate qualifications to support the project, the Owner reserves the right to require the Contractor to assign an RCDD who, in the Owner’s opinion, possesses the skill necessary to complete the project.

1.3 ON-SITE SUPERVISOR

A. The Supervisor shall provide reports to the RCDD, Engineer, Architect and Owner for quality of installation and compliance with these documents.

B. The Supervisor shall be a manufacturer certified and a BICSI registered cabling installation technician, NJATC installer technician, BICSI RCDD or Engineer-approved equal and have a minimum of two years experience.

C. The Supervisor shall maintain all documentation in accordance with these specifications.

D. Journeymen and Apprentices performing work under this specification shall be enrolled in or have completed the BICSI, registered cabling installation technician, NJATC installer technician, or Engineer-approved equal course.

1.4 ALTERNATE MATERIALS AND EQUIPMENT

A. Refer to Division 1 for description of alternate material and equipment.

B. Refer to Division 1 for substitution request requirements.

1.5 SHOP DRAWINGS

A. Submit all shop drawings and data in accordance with Division 1. The complete communication shop drawings shall all be bound in one hardcover, 3-ring binder indexed to this Division.

B. Manufacturers' data and dimension sheets shall be submitted, giving all pertinent physical and engineering data including weights, cross-sections and maintenance instructions. Standard items of equipment such as receptacles, switches, plates, etc., which are cataloged items, shall be listed by manufacturer.

C. Index all submittals and reference to these specifications.
1.6 EQUIPMENT PURCHASES

A. All materials and equipment shall be ordered in ample quantities for delivery at the proper time. If items are not on the project in time to expedite completion, the Owner may purchase said equipment and materials and deduct the cost from the Contract Sum.

B. Provide all materials of similar class or service by one manufacturer.

1.7 WORK AND MATERIALS

A. All electrical materials and equipment shall be new and of the type and quality specified, and shall be listed by UL and bear their label where standards have been established, in compliance with the applicable standards of NEC (NFPA 70), NFPA, ANSI, IEEE, IPCEA and NEMA. Replace or repair any nonconforming, damaged, or defective items at no extra cost to the Owner.

B. Perform all labor in a thorough and workman like manner, to the satisfaction of the Architect. The Contractor shall staff the project with sufficient skilled workmen, including a fully qualified superintendent Project Manager, to complete the work in the time allotted. The Project Manager shall be qualified to supervise all of the work of this Division.

C. Materials provided under the contract for which the UL label is not normally available shall be mounted in separate enclosures and wired to the labeled units in an acceptable manner.

1.8 COOPERATIVE WORK

A. Cooperative work includes:

1. General supervision and responsibility for proper location and size of work related to this Division, but provided under other sections of these specifications.
2. Installation of sleeves, inserts, and anchor bolts for work under each section in this Division.

B. Correct without charge any work requiring alteration due to lack of proper supervision or failure to make proper provision in time. Correct without charge any damage to adjacent work caused by the alteration.

END OF SECTION 270513