PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND SECTIONS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

B. Related Sections: Division 26 and Section 27 10 00

1.02 SECTION INCLUDES

1. Jacks/Terminations
2. Cabling
3. System Testing

1.03 SCOPE OF WORK

A. Provide the equipment specified in this section for each location identified on the drawings. It is the intent that this Contractor would be responsible for a complete and working system.

B. Contractor shall be responsible for providing a complete, functional system, whether ancillary devices/components are included in this specification or not.

C. It is the intent of this specification to have the conduit installed by the Division 26 Contractor. This Contractor shall provide cabling, devices, installation, and testing.

D. Contractor shall provide equipment, cable, labor, and any incidental material required for installation. Upon completion of installation, Contractor shall test the system and record the test results, as specified herein.

E. The work performed under this specification shall be of good quality and performed in a professional manner. In this context, "good quality" means the work shall meet industry technical standards and quality of appearance. The Owner/Engineer reserves the right to reject all or a portion of the work performed, either on technical or aesthetic grounds.

F. Coordinate all requirements with other trades prior to submitting shop drawings.

1.04 APPLICABLE STANDARDS

1. NEC - National Electrical Code
2. ANSI/EIA - Electronic Industry Association
3. NEMA - National Electrical Manufacturers Association
4. UL - Underwriters' Laboratories

1.05 CONTRACTOR QUALIFICATIONS

A. The installing contractor shall be able to submit proof that they meet the following qualifications upon request from the Engineer.

1) PERFORMANCE HISTORY: Contractor must have successfully performed at least five, local projects of similar scope and size within five years of the date of this bid in the local area. If requested by Engineer, proof of performance shall be in the form of reference sheets which shall include a brief description of the project, the beginning and ending contract price, the project foreman or superintendent's name, and the name, address, and telephone number of a project contact. The Superintendent proposed for the project shall have been responsible for at least two of these projects under the employment of this Contractor.

2) TIME IN BUSIN ESS: Contractor must have been in business, under the current name, and in the business of installing telecommunications systems, continuously, for a period of at least five years, prior to the date of this bid.

3) REQUIRED LICENSE: The Contractor shall possess at least a State of Florida Low Voltage License.

4) OFFICE LOCATION: The Contractor shall maintain a permanent office within 50 mi les of the project site.

5) This Contractor shall be manufacturer certified and provide evidence of such in submittal package.

1.06 PRE-BID SUBSTITUTIONS AND RECORD DOCUMENTS

A. Under provisions of Division 01 and General and Supplementary Conditions Specification Sect ions to include detailed product information.

B. Submit any requests for substitutions or deviations prior to bid opening. Only those requests that are complete and approved by the Engineer in written addendum form shall be accepted.

1.07 SHOP DRAWING SUBMITTALS

A. Product and technical data for each piece of equipment proposed. Technical information shall include schematics, wiring diagrams, installation instructions, and operating instructions.

B. Wiring diagram for the system (to scale and in plans view). Include conduit sizing in accordance with specifications.

C. Copy of license and certifications.

PART 2 – PRODUCTS

2.01 GENERAL

Label jacks and cables with Brady type printed labels at both ends.

2.02 INTERACTIVE CLASSROOM PROJECTOR (WALL-MOUNTED) MIDDLE & HIGH SCHOOLS

A. Owner Furnished and Installed.

B. Interface Wall Plates for Connectors and Cabling- quantities and locations as shown on drawings.

2.0 INTERACTIVE BOARDS (WALL-MOUNTED) ELEMENTARY SCHOOLS

Leave a clean wall space of 7’6” for installation of owner furnished and installed Interactive Board.

2.04 VIDEO INTERFACE WALL PLATE

A. Provide flush mount, double gang, deep box at 16" AFF (intent is to be adjacent to regular communications outlet) with one 1-1 /4" conduit as shown on drawings and stainless steel faceplate with HDMI and USB. USB cable length shall be under ten feet (10’0”) from faceplate to faceplate and a maximum of sixteen feet (16’0”), including patch cables, from teacher wall plate to projector connection point. USB extender is required from teacher wall –plate to PC. This Contractor to provide jacks, cabling, and terminations (at teacher's wall plate and at wall projector). Per the following Owner's requirements, provide the following connectivity with required cabling between the teacher's wall plate and the wall mounted projector.

1) HDMI and USB Type A female on top next to wall mounted projector.

2) HDMI and USB Type B female on bottom at teacher’s wall plate.

B. The video interface box is intended to be located at the teacher's area near a communications outlet and adjacent to the audio interface box so that the communications outlet shall provide data to feed from the central source (i.e., MDF or IDF). The other video interface box is intended to be located near the projector. Reference drawings.

PART 3 - EXECUTION

3.01 GENERAL

A. Contractor shall follow established guidelines for installation and termination of all cabling and equipment as established in this Specification and by the manufacturers.

B. Work shall be of professional quality and shall not detract from the aesthetic qualities of the facility.

C. All cabling shall be installed with at least three feet of slack, neatly "s" coiled above ceiling.

3.02 PAINTING OF DAMAGED AREAS

Raceways, conduit supports, hangers, and surface raceway, where exposed, shall be painted to match mounting surface or surrounding surfaces. Panels and equipment with damaged painted surfaces shall be refinished to previous conditions.

3.03 PROJECT COMPLETION

Upon completion of the work of this Section, thoroughly clean all exposed portions of the installation, removing all traces of soil, labels, grease, oil, or other foreign material, and using only the type cleaner recommended by the manufacturer of the item being cleaned. Cover all exposed cabling and termination devices.

3.04 TESTING/ACCEPTANCE (TO BE COMPLETED AT SUBSTANTIAL COMPLETION)

A. TESTING: Contractor shall provide operational testing of the systems. The Owner/Engineer reserves the right to have a representative present during all or a portion of the testing. A testing schedule shall be planned and agreed upon beforehand (at least 48 hours’ notice).

B. Acceptance of the system, by the Owner, shall be based on:

1) Proof of an operational system with sign-off by the Owner's designated representative.

2) This Contractor shall provide three, black line sets of AutoCAD as-built drawings with a copy of each AutoCAD file (2014 or higher) and .pdf on CD­ ROM before final payment shall be issued.

3.05 OWNER TRAINING

Provide one hours of on-site training for up to eight maintenance staff. Submit manufacturers' operation and maintenance information.

3.06 WARRANTY

The Installing Contractor shall supply a written guarantee covering all defects in materials and workmanship for a period of one year from the date of Owner's acceptance. Defects appearing within this period shall be repaired or replaced by the Contractor without cost to Owner (to include parts and labor).

**END OF SECTION**