SECTION 26 05 00
COMMON WORK RESULTS FOR ELECTRICAL

PART 1- GENERAL

1.01 RELATED DOCUMENTS

A. Division 01 General Requirements apply to this Section.

1.02 SUMMARY

A. Work Included: Electrical Subcontractor shall provide electrical work shown on the drawings and described in the specifications. Include all labor, materials, tools, equipment, transportation, supervision and incidental items essential for proper installation and operation.

B. Provide conduit and power wiring connections to Architectural, HVAC and Plumbing/Fire Protection equipment that is furnished under other Sections of the specifications and require electrical power.

C. Related Work Specified in Other Sections:

1. Firestopping of electrical penetrations: Division 7.

2. Automatic temperature control and instrumentation systems, their components and interlock wiring associated with HVAC and Plumbing: Division 23.

3. Installation of duct type smoke detectors: Division 23.

D. Give necessary notices, obtain permits, pay governmental taxes, fees and other costs as required for the electrical work, and to file for necessary approvals with the jurisdiction under which the work is to be performed.

1.03 COORDINATION

A. Coordinate arrangement, mounting, and support of electrical equipment.

B. Coordinate installation of required supporting devices and set sleeves in cast-in-place concrete, masonry walls, and other structural components as they are constructed.

C. Coordinate location of access panels and doors for electrical items that are behind finished surfaces or otherwise concealed.

1.04 REFERENCED CODES AND INDUSTRY STANDARDS

A. Materials and workmanship shall comply with all applicable Codes, Specifications, Local and State Ordinances, Industry Standards, and Utility Company Regulations, latest editions.

B. NFPA-70 - National Electrical Code.

C. NFPA-101- Life Safety Code.

1.05 SUBMITTALS

A. Product Data and Shop Drawings for review and approval: For each type of material and system. Submit manufacturer's illustrated product literature and the manufacturer's technical specifications.

B. Record Drawings: Comply with requirements for record drawings specified in Division 1.

C. Operation and Maintenance Manual: Submit three (3) sets of the required instructions for the installation, operation, care and maintenance of all equipment and systems.

1.07 DELIVERY, STORAGE AND HANDLING

A. Follow manufacturer's directions regarding the delivery, storage and protection of electrical equipment.

1.08 PROJECT/SITE CONDITIONS

A. Field Measurements: Make necessary field measurements to ascertain space requirements for electrical equipment and connections.

PART 2 – PRODUCTS

2.01 MATERIALS, GENERAL

A. Material and equipment shall meet requirements of the latest Standards of NEMA, UL, ICEA, ANSI and IEEE.

B. Colors: When shop-finished equipment is exposed to view in public areas (areas other than electrical or mechanical rooms), Architect will select color from equipment manufacturer's standard color options.

2.02 MISCELLANEOUS MATERIALS

A. Access Panels: Furnish panels specified in Division 8.

B. Conduit Sleeves:
1. Sleeves through unrated walls and floors: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, galvanized steel.
2. Sleeves through fire-rated partitions and floors: 10 gauge galvanized steel.

C. Steel Channels (for equipment supports): Mild steel channels as manufactured by Unistrut, Kindorf or Husky Products Company; equal to Unistrut "P1000."

D. Nonmetallic, Shrinkage-Resistant Grout: ASTM C 1107, factory-packaged, nonmetallic aggregate grout, non-corrosive, non-staining, mixed with water to consistency suitable for application and a 30-minute working time.

PART 3 - EXECUTION

3.01 GENERAL INSTALLATION REQUIREMENTS

A. Coordination: Coordinate electrical work with general conditions work and with other Contractors working at the site.

B. The Contract Drawings are intended to show general runs and locations of conduit, equipment, terminals and specialties and not necessarily showing all required offsets, details and accessories and equipment to be connected. The work shall, therefore, be installed to fulfill the intent expressed on the Electrical Drawings.

C. Prior to installation, coordinate the exact mounting arrangement and location of equipment indicated on the drawings to allow proper space requirements as indicated in the Electrical Code.

D. Comply with NECA 1.

3.02 CORING AND SLEEVES

A. Electrical Contractor shall be responsible for all core drilling required for his work, but in no case shall the Contractor cut into any structural elements without the written approval of the Architect.

B. Where conduits pass through masonry or concrete walls, foundations, or floors, set such sleeves as are necessary for passage of the conduits.

C. Make watertight the conduit which passes through exterior walls and floors below grade. Provide sealant and pipe sleeves. Coordinate material requirements with General Contractor.

D. Conduit sleeves:

1. Use sleeve to provide 1/4 in. clear space between a sleeve and a conduit passing through it.

2. Set sleeves securely in place before concrete is poured.

3. Set sleeves 2 inch above finished floor level and flush on each side of the walls.

3.03 DEMONSTRATION

A. Instruct the Owner’s representative in the proper operation of the all systems and equipment provided, prior to the final acceptance of his work.

3.04 TESTING AND INSPECTION

A. Test and inspect all parts of the work provided under this Contract, and as required by codes, standards or authorities having jurisdiction. Conduct all tests and inspections to the complete

satisfaction of the Architect and the authorities. Do not cover work prior to testing or inspection.

B. All systems shall test free from short circuits and grounds, shall be free from mechanical and electrical defects, and shall show an insulation resistance between phase conductors and ground of not less than the values recommended by the manufacturers.

C. Promptly correct failures and defects in workmanship or materials revealed by tests or inspection, and retest. Replace defective material at no additional expense to the Owner.

D. Verify and correct as necessary the following: Voltages, tap settings, trip settings, and phasing on all equipment from the secondary distribution system to points of utilization. Test secondary voltages at the bus in the main switchboard, at the panelboards, and at such other locations on the distribution systems as necessary. Test secondary voltages under no-load and full-load conditions.

3.05 CERTIFICATES OF APPROVAL

A. Upon completion of the work, furnish to the Architect the following signed certificates and include the copies of these certificates in the Operation and Maintenance manuals:

1. Certificate from the Electrical Contractor stating that all electrical systems have been installed, tested and inspected in compliance with the Contract Documents, applicable codes and referenced standards.

2. Certification of inspection from the appropriate inspectional authorities stating that all portions of the work have been inspected and are installed in conformance with the applicable codes and standards. Provide written evidence of all exceptions or variances given by any Inspector.

END OF SECTION 26 05 00