

SECTION 26 27 23

~~~ PROJECT NOTE ~~~~~

ARCHITECT OF RECORD/ENGINEER OF RECORD IS RESPONSIBLE FOR REVIEWING THIS SPECIFICATION SECTION IN DETAIL FOR COORDINATION WITH THE PROJECT SCOPE OF WORK.

ALL "PROJECT NOTE" TEXT IS TO BE REMOVED FOLLOWING REVIEW OF THE CONTENT OF EACH NOTE BY THE ARCHITECT OF RECORD/ENGINEER OF RECORD.

EDIT THE DOCUMENT FOOTER TO INCLUDE THE PROJECT NAME AND NUMBER.

EDIT THE DOCUMENT HEADER TO INDICATE THE ARCHITECT OF RECORD PROJECT ISSUE" DATE. THE "CPS CONTROL" DATE SHOULD NOT BE EDITED.

ANY MODIFICATIONS TO THE TECHNICAL STANDARDS IN THIS SECTION - INCLUDING THE REMOVAL OR ADDITION OF MANUFACTURERS - MUST BE APPROVED BY CPS.

REQUESTS FOR MODIFICATION ARE TO BE SUBMITTED TO THE DESIGN MANAGER DURING THE DESIGN PHASE FOR REVIEW AND APPROVAL.

~~~ END OF PROJECT NOTE ~~~~~

INDOOR SERVICE POLES

PART 1 GENERAL

~~~ PROJECT NOTE ~~~~~

INDOOR SERVICES POLES AND ACCESSORIES TO BE COORDINATED WITH ARCHITECTURAL PLANNING.

~~~ END OF PROJECT NOTE ~~~~~

1.01 SECTION INCLUDES

- A. Utility columns.

1.02 REFERENCE STANDARDS

- A. NEMA WD 6 - Wiring Devices - Dimensional Specifications; 2016.
- B. NFPA 101 - Life Safety Code; 2017.
- C. NFPA 70 - National Electrical Code; 2017.

1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on materials, finishes, receptacle and connector configuration, and attachment details.
- C. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.
- D. Maintenance Data: Include instructions for cleaning of finishes and adjusting.
- E. Additional Materials:
 - 1. Power and Telecommunication Devices: Provide additional devices as indicated in Section 26 27 26 - Wiring Devices.
 - 2. Utility Poles: One (1) for every ten (10), but not less than one (1).

1.04 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 101.
- B. Comply with the City of Chicago Electrical Code.
- C. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- D. Products: Listed, classified, and labeled as suitable for the purpose intended.
- E. Product Listing Organization Qualifications: An organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.
- F. Source Limitations: Obtain service poles and modular power and communication devices from a single manufacturer and one source.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Hubbell Incorporated: www.hubbell-wiring.com.
- B. Wiremold, a brand of Legrand North America, Inc: www.legrand.us.
- C. Square-D Company; www.schneider-electric.us/en/.

~~~ **PROJECT NOTE** ~~~~~  
*EDIT BELOW TO ADJUST NUMBER AND TYPE OF DEVICES REQUIRED WITHIN POLES OR SPECIAL FINISHES FOR PROJECT SCOPE. ADDITIONAL COMPONENTS MAY BE REQUIRED FOR MULTIPLE FOOTING AND CEILING TYPES.*

~~~ **END OF PROJECT NOTE** ~~~~~

2.02 UTILITY COLUMN COMPONENTS

- A. Main Body: Steel.
- B. Cover Plates: Steel.
- C. Convenience Receptacle Configuration: NEMA WD 6; Type 5-20R. Furnish 2 per column unless noted otherwise on drawings.
- D. Data Communications Connector: Modular, color-coded RJ45 jacks for UTP cable. Coordinate jack type with drawing requirements and Section 27 15 00 - Communications Horizontal Cabling. Furnish 4 per column unless noted otherwise on drawings.
- E. Foot: Suitable for carpet.
- F. Provide concealed top clamp to fasten pole to inverted "T" grid ceiling suspension member.

2.03 ACCESSORIES

- A. Trim plates for closing ceiling opening.
- B. Flexible cable assembly with connector for branch circuit connections.

2.04 FABRICATION

- A. Description: Factory-assembled and factory-wired units to extend power and voice and data communication from distribution wiring concealed in ceiling to devices or outlets in pole new floor.
 - 1. Poles: Nominal 2.5-inch-square cross section, with height adequate to extend from floor to a least 6 inches above ceiling, and with separate channels for power wiring and voice and data communication cabling.
 - 2. Mounting: Ceiling trim flange with concealed bracing arranged for positive connection to ceiling supports; with pole foot and carpet pad attachment.
- B. Wire utility column with 12 AWG copper conductor to outlet box attached to top of pole. Allow 6 inch leads for connection to branch circuit.

- C. Allow for installation of 25 pair telephone cable. Size for one (1) cable with connectors. Furnish knockouts for connectors.
- D. Allow for installation of 25 pair communications data cable. Size for one (1) cable with connectors. Furnish knockouts for connectors.
- E. Provide full-sized opening at top of pole.
- F. Finishes: Column to be manufacturer's standard painted finish and trim combination..
- G. Device Color Finishes:
 - 1. Device Connected to Normal Power Systems: Ivory, unless otherwise indicated or required by Chicago Electrical Code.
 - 2. Wiring Devices Connected to Emergency Power System: Solid Red.

~~~ **PROJECT NOTE** ~~~~~  
*TVSS MODIFIED TO SPD NOMENCLATURE*  
~~~ **END OF PROJECT NOTE** ~~~~~

- 3. Surge Protective Devices: Solid Blue.
- 4. Isolated-Ground Receptacles: Solid Orange.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that installation of ceiling suspension system is complete.
- B. Verify that floor covering installation is complete.
- C. Verify branch circuit wiring installation is completed, tested, in proper location, and ready for connection to indoor utility columns.
- D. Verify telephone raceway installation is completed, in proper location, and ready for connection to indoor utility columns.
- E. Verify data communication raceway installation is completed, in proper location, and ready for connection to indoor utility columns.
- F. Adjust location of floor service outlets and service poles to suit arrangement of partitions and furnishing. Isolated Ground Receptacles: Connect to isolated grounding conductor routed to designated isolated equipment ground terminal of electrical system.

3.02 INSTALLATION

- A. Install utility columns plumb and fasten supports to structure.
- B. Make wiring connections to branch circuit outlets using flexible conduit under provisions of Section 26 05 33.13 - Conduit for Electrical Systems.
- C. Bond equipment grounding conductor and body of pole to branch circuit equipment grounding conductor.
- D. Neatly cut openings in ceiling panels. Install trim plate.

3.03 FIELD QUALITY CONTROL

- A. Refer to Section 26 27 26 - Wiring Devices for testing and adjustments of devices.

3.04 CLEANING

- A. The contractor shall remove all paint spatters and other spots, dirt, and debris from the equipment. Clean equipment and devices internally and externally using methods and materials recommended by the manufacturer. Replace damaged, stained, or improperly painted finishes.

END OF SECTION 26 27 23