

## SECTION 261430 - WIRING DEVICES

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. General provisions and other electrical systems are specified in other Sections of Division 26.
- B. This Section covers switches, receptacles, device faceplates, weatherproof covers, emergency power off switches, and poke-through fittings.
- C. This Section includes responsibilities and obligations in support of the performance verification specified in Section 260090, Electrical Performance Verification.

#### 1.2 QUALITY ASSURANCE

- A. Conform to the following:
  - 1. North Carolina State Electrical Code-2018.

### PART 2 - PRODUCTS

#### 2.1 GENERAL

- A. Like products shall be by the same manufacturer.
- B. Switches shall comply with UL 20-2018 and Federal Specification W-S-896G-2014.
- C. Receptacles shall comply with UL 498-2017 and Federal Specification W-C-596H-2014.

#### 2.2 TOGGLE SWITCHES

- A. Except as otherwise indicated on the Drawings or specified herein, switches shall be flush type, 120/277 V, 20 A, totally enclosed with toggles colored ivory for use on normal power circuits and red for use on emergency power circuits.
- B. Single-Pole Wall Switches:
  - 1. Manufacturer: Hubbell HBL1221, Leviton 1221-2, or P&S PS20AC1.
- C. Three-Way, Single-Pole, Double-Throw Wall Switches:
  - 1. Manufacturer: Hubbell HBL1223, Leviton 1223-2, or P&S PS20AC3.
- D. Four-Way, Double-Pole, Double-Throw Wall Switches:
  - 1. Manufacturer: Hubbell HBL1224, Leviton 1224-2, or P&S PS20AC4.
- E. Wall switches with pilot lights shall have an LED pilot lamp and red toggle.
  - 1. Manufacturer: Hubbell HBL1221PL, Leviton 1221-PL, or P&S PS20AC1RPL.
- F. Wall switches for projection screen control shall be 3-position, double-pole, double-throw, maintained contact, with positive center off. Switches shall be rated for 20 A at 120 V.

1. Manufacturer: Hubbell HBL1386, Leviton 1286, or P&S 1222.

## 2.3 RECEPTACLES

- A. Except as otherwise indicated on the Drawings or specified herein, receptacles shall be duplex type, 125 V, with one-piece solid brass mounting strap with rivetless integral ground contacts, colored ivory for use on normal power circuits and red for use on emergency power circuits. Duplex receptacles fed from the central UPS system shall be colored blue.
- B. Duplex Receptacles:
  1. Manufacturer, 20 A: Hubbell HBL5362, Leviton 5362, or P&S 5362A.
- C. Ground fault circuit interrupter (GFCI) receptacles shall be UL 943-2016 (R2018) compliant, 20 A, self-testing, tamper resistant, weather resistant, feed-through type.
  1. Manufacturer: Hubbell GFR5362SG, Leviton GFWT2, or P&S 2097TRWR.
- D. USB charger receptacles shall be tamper resistant and shall have 2 Type A, 2.0 USB ports rated 3 A minimum, 5 V DC, compatible with USB 1.1/2.0/3.0 devices, and shall comply with UL 1310-2018.
  1. Manufacturer, 20 A: Hubbell USB20X2, Leviton T5832, or P&S TR5362USB.
- E. Tamper Resistant Receptacles:
  1. Manufacturer, 20 A: Hubbell HBL5362, Leviton 5362-SG, or P&S TR63.
- F. Weather Resistant Receptacles:
  1. Manufacturer, 20 A: Hubbell 5362WR, Leviton TWR20, or P&S WR5362.
- G. Simplex receptacles shall be 20 A.
  1. Manufacturer: Hubbell HBL5361, Leviton 5361, or P&S 5361.

## 2.4 DEVICE FACEPLATES

- A. Faceplates for flush wall outlets (switch, receptacle, telephone, and signal) shall be type 302 satin finish stainless steel.
- B. Plastic faceplates shall have a smooth surface and be the same color as the device it covers.
- C. Provide a clear extra-strength adhesive-backed tape label with 0.25" high uppercase letters on each receptacle which indicates, as a minimum, the panelboard and circuit number supplying that receptacle. Additional information for specific receptacles shall be provided if indicated on the Drawings.
- D. Manufacturer: Hubbell, Leviton, or P&S.

## 2.5 WEATHERPROOF COVERS

- A. Weatherproof covers shall be die cast aluminum, designed for wet location protection whether the attachment plug is inserted or removed. Covers shall be NEMA 3R rated when used with the appropriate weatherproof outlet box. Covers shall meet OSHA lockout/tagout requirements.

2.6 EMERGENCY POWER OFF (EPO) SWITCHES

- A. Fully guarded, push button type with 2 normally open momentary contacts.

2.7 POKE-THROUGH FITTINGS

- A. Complete assembly consisting of finished service fitting flush with the floor, fire rated insert containing intumescent organic material, and junction box for connection of power systems below the floor. Where poke-through fittings are used for communication and data cables in conduit located below the floor, those service openings shall be provided with conduit adapters below the floor.
- B. Assemblies shall be UL listed with the utilized quantity and type of power and data conductors.
- C. Flush Fittings:
  - 1. Flush with the floor, with a maximum thickness of 0.625", and with devices as indicated on the Drawings. Fittings shall be 2 hour rated.
  - 2. Carpet flanges shall be die cast aluminum alloy with textured two stage 3 mil thick epoxy paint, or stamped aluminum with anodized finish, color as selected by the Architect.
  - 3. Fire-rated inserts shall have a retainer for securing the device in the slab. Power and communications isolation shall be continued through the device with the power raceway terminating in an accessible junction box below the floor.
  - 4. Where used to provide hard wired connections to furniture or equipment, provide conduit adaptor for connecting each raceway to the furniture or equipment.
  - 5. Manufacturer: Hubbell, Steel City Thomas & Betts, or Wiremold
- D. Additional Fittings:
  - 1. Provide, for future use, extra poke-through fittings in quantity equal to 10% of the quantity of units furnished.
  - 2. Abandonment plugs shall be furnished, for future use, in boxes to the Owner in quantity equal to 10% of the quantity of units furnished. Abandonment plugs shall have the same fire rating as the fittings.

PART 3 - EXECUTION

3.1 GENERAL

- A. Devices shall be installed flush in the wall on which they are located when served by concealed conduit. Where necessary to conceal the conduit or flush mount the device box, masonry or plaster shall be channeled and patched.
- B. Devices shall be surface mounted where their connecting raceways are indicated on the Drawings exposed.
- C. Duplex receptacles shall be 20 A rated.
- D. Receptacle coverplates shall be labeled to indicate panelboard and circuit number supplying them.
- E. Weather resistant receptacles shall be installed in damp or wet locations.
- F. Tamper resistant receptacles shall be installed in business offices, corridors, and waiting rooms in clinics, medical and dental offices, and outpatient facilities.

- G. Where 2 or more switches, wall box dimmers, indicating devices, control and communications outlets, or receptacles are indicated on the Drawings at the same location, they shall be ganged and covered with 1 faceplate.
- H. Bond receptacle ground straps to outlet boxes with 6" long green insulated #12 AWG copper jumpers.
- I. Provide an insulated ground from the grounding screw of isolated ground duplex receptacles to the branch circuit panelboard isolated ground bus or the grounding conductor terminal of the applicable derived system.
- J. Install device faceplates and adjust outlets to achieve a flush fit with no gaps.
- K. Vertically mounted receptacles shall be installed with the ground pin up. Horizontally mounted receptacles shall be installed with the ground pin to the left.

### 3.2 POKE-THROUGH FITTINGS

- A. Install in accordance with the manufacturer's instructions.
- B. Install devices and make connections in the service fittings.
- C. Provide wiring as indicated on the Drawings below the slab and make connections. Extend wiring serving furniture and equipment through the fittings and connect to the furniture or equipment with liquidtight flexible conduit and fittings recommended by the furniture or equipment manufacturer's installation instructions.

END OF SECTION 261430