

WVU DESIGN GUIDELINES & CONSTRUCTION STANDARDS

DIVISION 26 – ELECTRICAL

SECTION 260500 – COMMON WORK RESULTS FOR ELECTRICAL

PART 1 - GENERAL

- 1.1 Any deviance from the following instructions must be approved during design by WVU Facilities Management.
- 1.2 All work must meet NEC and be UL listed.

PART 2 - PRODUCTS

- 2.1 The acceptable manufacturers for electrical equipment, including: switchboards, panel boards, motor centers, motor starters, service disconnects, and unit sub-stations, will be UL listed
- 2.2 Preferred Vendors:
 1. Square D
 2. General Electric
 3. Eaton-Cutler-Hammer.
 4. Allen Bradley
 5. Siemens
 6. S&C Electrical Company

PART 3 - EXECUTION

- 3.1 All conductors of any voltage will be copper and installed in an approved raceway or cable management system as listed below:
 1. Electrical circuits shall be in conduit for facilities that may require future changes to electrical systems such as laboratories, shops, and mechanical equipment rooms. For these situations, all electrical branch circuits shall be in conduit. Electrical Metallic Tubing (EMT) shall be used for interior branch circuits and exterior circuits shall be in rigid galvanized conduit.
 2. For office, classrooms and residence hall space, where electrical requirements are less likely to change, metal clad (MC) cable is acceptable for portion of the branch circuit. The home-run portion of the circuit should be in EMT from the electrical panel (or sub-panel) to a junction box in a corridor where the circuit begins to branch off into the office, classroom or residence room.
 3. Metal-clad cable is also allowable for connections to lights above drop ceilings and shall be less than 6ft in length.
 4. All low voltage wiring, including fire cabling and controls wiring, shall be in cable tray or conduit in main corridors. Wiring inside of wall cavities shall be in conduit. Bridal rings or J hooks are acceptable outside of main corridors. Fire and control wiring shall be separated in some manner and uniquely identifiable.
 5. See Section 260510 for requirements of Underground Work.
- 3.2 Electrical equipment rooms will have no other equipment in them other than that designed to deliver electrical service to the building. Rooms will be dry and have clean

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- ventilation sized to keep room temperature at 75 degrees F year around.
- 3.3 Panels of "x" amperage will be:
1. Fed with cables rated at that amperage or greater,
 2. Backed up with panels/breakers of at least that amperage
 3. Be out fitted with a main breaker in the panel of that same amperage.
- 3.4 Initial layout of the panel will leave **20** percent of the available breaker space empty at the time of completion of construction. The conductor in the panel will occupy no more than **20** percent of the panel gutter space at the time of completion of construction.
- 3.5 Minimum conduit size will be ¾" on all home runs to panels.
- 3.6 Prints created by a designer will have the panel directories completed on the print. This is the job of the designer and not the contractor. It will be up to the contractor to assure that all labels are in place and correct.
- 3.7 All junction boxes shall be labeled with circuit numbers.
- 3.8 Conduit shall be labeled every 20' with the circuit number.
- 3.9 Wires and cabling of different voltages shall not be mixed in raceways or conduits.

END OF SECTION 260500