

4-23-2015

260523 - Building Systems Electrical Power Conductors & Cables

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Recommended Citation

Hickey, Sandra, "260523 - Building Systems Electrical Power Conductors & Cables" (2015). *Division 26 – Electrical*. 3.
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SECTION 26 0523 – BUILDING SYSTEMS ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 - GENERAL

- 1.1 See Chapter 5, Division 01, Section 017700.1.1.B.1.i Closeout Procedures - Project Record Documents for equipment list requirements for all equipment provided in this section.
- 1.2 All wire shall be copper and stranded including all branch circuit wiring. No solid conductors shall be used except for certain controls. Exception: High Voltage Aerial and Secondary Voltage Aerial may be aluminum cable.
- A. The minimum size shall be No. 12, with "THHN." Grounding conductors shall be stranded.
 - B. Branch circuits shall be designed so that the maximum voltage drop will be 2% for distribution and 3% for branch circuit.
 - C. Any 20 ampere branch circuit exceeding 100 feet in length shall be wired with not less than #10 wire from panel to first fixture.
 - D. Direct burial wire is not allowed by the University.
 - E. In general, all electrical devices shall be connected so that the removal of a device (pig tails) shall not interrupt conductor continuity.
 - F. Wire splices and taps, using wire nuts, shall be of the full current rating of the wire without soldering.
 - G. AC and MC type cable shall not be allowed.
 - 1. Exception:
 - a. Galvanized MC may be used in accessible areas for lighting whips, provided the MC is supported per NEC. Minimum trade size shall be #12 AWG. (above suspended ceilings.)
 - H. The loading of 20 amp branch circuits shall not exceed 80 percent.
 - I. Convenience outlets shall be considered as a minimum load of 250 watts per duplex outlet.
 - J. All 120 Volt & 277 Volt single phase electrical circuits wired on campus shall have a full size dedicated neutral. Splitting/sharing of neutrals shall not be allowed. Exceptions for wiring pre-wired furniture or other equipment shall be done on a case by case basis.

- 2.1 The following building cables shall be submitted to the client for approval:
- A. Low voltage Cable 600 volts and below.
 - B. MC Cable Galvanized.

END OF SECTION 26 0523