260523 - Building Systems Electrical Power Conductors & Cables

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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.
CHAPTER 5 – TECHNICAL CONSTRUCTION AND RENOVATION STANDARDS
LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

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