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Facilities Planning & Construction
Design and Construction Standards
2020 Update

The following changes have been made to the Penn State Health Milton S. Hershey Medical Center (PSHMC) and Penn State College of Medicine (PSCOM) “Design and Construction Standards” that are maintained by the Facilities Planning & Construction Department. A complete updated version of the Design & Construction Standards can be found on the PSU Office of the Physical Plant (OPP) website (<https://wikispaces.psu.edu/display/OPPDCS/Design+and+Construction+Standards#>). All professionals shall notify the Project Manager of any substantial change in design schedule or fee, construction cost, or construction schedule of any current project due to incorporation of this revision to the Standard. Otherwise, the Professional is expected to incorporate the updated standard into their current design and notify Contractors of the revision as applicable.

Section 15400 – PLUMBING FIXTURES

Page 1, paragraph A.1, the last sentence shall be replaced to read:

“Water closets shall be: Kohler, Anglesey Model K-4352; American Standard, Huron 3312-001; or approved equal.”

Page 1, paragraph A.2 shall be replaced in its entirety to read:

“2. Urinals: Wall hung vitreous china, without strainers. Urinals shall be: Kohler, Bardon Model K-4991-ET; American Standard, Everclean 6590001EC.020.”

Section 15430 – MEDICAL GAS AND VACUUM SYSTEMS

Page 1, paragraph F shall be replaced in its entirety to read:

“F. Medical gas/vacuum piping services valves, patient outlets, zone valve box assemblies, line pressure monitoring gages shall be manufactured by Allied Healthcare, no substitutions. Medical gas outlets shall be Series B Latch Key NCG/Chemetron style. Medical gas area alarm panels shall be Amico Alert 3 LCD.”

Section 15450 – FIRE PROTECTION

Page 2, paragraph L, the following sentence shall be added:

“Adjustable drop nipples shall be Merit Eliminator, manufactured by Anvil International.”

Section 15500 – HVAC SYSTEM DESIGN CRITERIA

Page 1, paragraph A, the following sentence shall be removed:

“Heating and cooling load calculations shall be submitted to the Owner for review.”

Section 15800 – AIR HANDLING EQUIPMENT

Page 1, paragraph A.3 shall be removed in its entirety.

Page 2, paragraph K shall be revised to read:

“K. All air handling unit casing sections shall be designed for less than 1% leakage at +/- 8.0 in WG internal casing pressure as tested per AHRI standards.”

Section 15840 – AIR FILTRATION

Page 1, paragraph A shall be replaced in its entirety to read:

“A. 355 efficient (MERV-A 8) pre-filter and 95% efficient (MERV-A 14) final filters for installation in air handling units shall be manufactured by Tri-Dim. Final filters shall be cartridge type.”

Section 15850 – AIR DISTRIBUTION

Page 1, paragraph L shall be revised to read:

“L. Duct access doors shall be installed in ductwork within working distance of all motor-operated dampers, fire dampers and smoke dampers to permit inspections and adjustments. Access doors shall be minimum 24 inches by 24 inches or full width of duct less 2 inches. Closure method shall be double cam latch to allow complete removal.”

Page 2, the following paragraph shall be added:

“U. All branch volume dampers shall be provided with quadrant locks that are fixed in place upon final balancing and marked with orange paint to permanently indicate final position.”

Section 15900 – BUILDING AUTOMATION SYSTEM

Page 1, the following paragraph shall be added:

“D. Room pressure monitors shall permanently installed at all operating rooms, procedure rooms, airborne infection isolation rooms, protective environment rooms, and as directed by Owner. Room pressure monitors shall be PresSura, manufactured by TSI Incorporated, or approved equal manufactured by Johnson Controls Incorporated.”

Section 16010 – ELECTRICAL GENERAL PROVISIONS

Page 2, paragraph C.2 shall be replaced in its entirety to read:

“2. Raceways shall be factory colored. Junction boxes shall be galvanized and the cover shall be painted to match the raceway. Color coding shall be as follows:

- (a) Life Safety – Red
- (b) Fire Alarm – Orange
- (c) ATS – Purple

- (d) Critical Branch – Yellow
- (e) Equipment Branch – Green
- (f) Normal Branch – No color
- (g) Conduit Connectors – No color”

Section 16050 – BASIC MATERIALS AND METHODS

Page 1, paragraph D shall be revised to read:

“D. Where backboards are required the Contractor shall furnish and install ¾ inch fire-treated plywood backboards per the Penn State Health IT standards for all Facilities Construction at each location shown on drawings. Backboards shall be painted white with a fire-retardant paint. The fire label shall not be obscured.”

Page 1, paragraph F shall be revised to read:

“F. Complete and submit HMC Equipment Data Acquisition form for all installed transformers, panelboards, substations, and similar equipment.

Submit a complete itemized listing of nameplate equipment designations for approval”

Section – 16140 – WIRING DEVICES

Page 1, paragraph A.6 shall be revised to read:

“6. Ground fault interrupter (GFI) duplex receptacles shall be installed in all operating rooms, except where serviced by GFI circuit breakers, and at locations required by the National Electric Code.”

Section 16200 – POWER GENERATION

Page 1, paragraph F shall be revised to read:

“F. The emergency generator engine shall be manufactured by Caterpillar, Kohler, or Volvo.”

Section 16250 – AUTOMATIC TRANSFER SWITCHES

Page 1, the following Paragraph shall be added:

“E. All automatic transfer switches shall be configured for open transition unless otherwise approved.”

Section 16715 – TELECOMMUNICATION (TELEPHONE AND DATA) SYSTEM

Page 1, the second sentence in paragraph F shall be revised to read:

“Walls within telecommunications closets and rooms shall be furnished with fire-treated plywood backboards per the Penn State Health IT Standards for Facilities Construction.”