


Electrical Maintenance Work Standards

Written 5-25-11
updated 3-28-17

 = Orange indicates color of changed text this update

Automatic Doors :

Record or Stanley automatic doors with safety sensors on both side of doors and Sensor touchless operating paddles. (4 wire system)

Note:

Doors fire rating or part of a life safety system must be connection to fire alarm system per the most recent code. Typically the automatic operator is disabled during a fire alarm event.

Exit Signs :

Lithonia LED exit sign 120/277 volt Model # LQM S W 3 R 120/277 M6

Emergency Lights:

We prefer wall units instead of having the batteries in the light fixtures. The room lights and the wall battery emergency lights should be on their own circuit for testing. Lithonia Quantum ELM2 or LED version

New work boxes:

Shall be deep 4"sq. boxes 2 1/8" with plaster rings so they permitted plugtails from receptacles and switches to fit.

Receptacles:

Shall be Pass & Seymour Legrand PlugTail hospital grade 15 amp with receptacle. (use 15 amp to stop overloading 20 amp circuits)
A 20 amp receptacle is acceptable on separate derived circuit.
Emerg. Power Example # PT8200IL-RED with PlugTail # PTR6STR

Note:

1. The receptacle body colors White, Ivory and Gray (only for Shapiro).
2. The emergency power receptacles body must be red.
3. All receptacles should be illuminated to show power.
4. All plate **MUST** be identify with panel and circuit number and be Stainless Steel.

Switches

Shall be Pass & Seymour Legrand grade 20 amp with PlugTail switch rated for 120/277 volts.
Example # PT20AC1I Ivory single pole with PlugTail # PTS6STR3

nLight Switches

NO nLight Switches !

Motion Sensors

Shall be AcuityControls Sensor Switch - Ceiling and wall sensors.

Low voltage Switches

Shall be AcuityControls Sensor Switch - sPODM Switchpod.

Note:

1. The switch body colors White (preferred color), Ivory and **(Gray only in Shapiro)**

Low Voltage Relay Locations

All low voltage relays and there junction boxes should be located in a cabinet (similar to Siemens and Johnson Controls) at floor workable height.

Panel Boards:

1. Shall be sized in accordance with the NEC guide lines.
2. Shall be equipped with a shut OFF breaker in its own enclosure to the side of the main panel for NFPA-70E.
3. Covers shall be hinged type.
4. All spare Panel spaces should be filled with single 20 amp breakers and left in the ON position.

Note:

New electrical equipment installed need to review existing fault currents to new equipment interrupting ratings.

Circuits:

All branch circuits 20, 30 amps must have a green grounding wire.
NO Network wiring allowed.

Labeling

All switch and receptacle SS plates shall be labeled with panel # and Circuit number.

Panel Labeling and Directories :

1. All panels shall be Phenolic labeled (attached by screws or other permit means) with the Identification number designation per the electrical prints. The label should also identify where the panel is fed from.
Example: panel #, Fed from, location, circuit #, and size.

2. All active circuit breakers need to be labeled on the panel directory.
3. All Spare breakers should ID in the panel directory and be left in the ON position.
4. All final Directories need to be sent to - ckimball@bidmc.harvard.edu
wsullivan@bidmc.harvard.edu and jmartini@bidmc.harvard.edu

Updating of One Line Drawings & Arc Flash Ratings for Equipment :

Should go through Everett Engineering, Keith R. Pogarian, PE, LEED AP 978.266.3711 or keith.pogarian@eg-engineers.com

Junction boxes :

shall be sized in accordance with NEC requirements and marked with panel and circuit numbers.

Lighting Fixtures:

Shall be in accordance with BIDMC Lighting Standard.

Preferred Light fixtures;

2 X 2 Grid Ceiling	Remphos	RPT-LEDPANEL-2X2-33L-840-G2
	Lithonia	2BLT2-33L-ADP-EZ1-LP935
2 X 4 Grid Ceiling	Remphos	RPT-LEDPANEL-2X4-47L-840-G2
	Lithonia	2BLT4-40L-ADP-EZ1-LP935

Fire Alarm:

1. All Drawing and anything to deal with Boston Fire should be done through;

Hughes Associates, Inc. - Tim Wensus P.E., Fire Protection Engineer Tel.401.736.8992 X320 twensus@haifire.com

2. All pipping methods, fittings, boxes, and MC cable shall be colored red.

Fiber Optics:

Shall be run in an orange colored plastic sheath

NOTE:

external Fiber Optics shall have a black rubber watertight covering

Control Wiring (50 volts or greater):

All wiring methods shall be installed in a yellow color.

Motors

Any motor smaller than 1/2 hp can be wired single or three phase.
Any motors 1/2 hp or larger MUST be wired three phase.

System Clocks

Pyramid Time System Stock # S9A3AAGBXX Sunc 900 MHz Analog 13" BLK Bezel
All Clocks needs Lithium Battery #42224

Pyramid Time Systems, LLC
Scott Townsend
45 Gracey Ave. Meriden, CT 06451
314.412.5321 Direct/Cell

Notes:

1. All new non-patient electrical equipment must be safety inspected per BIDMC EOC-17 policy.
[Electrical Appliance Safety EOC-17](#)

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