1.0 GENERAL

1.1 Related UBC Guidelines

.1 Section 26 05 06 Standard Drawings

1.2 Coordination Requirements

.1 UBC *Facilities Electrical* (Vancouver)
.2 UBC Energy and Water Services (Vancouver)
.3 UBC Facility Management (Okanagan)

2.0 MATERIAL AND DESIGN REQUIREMENTS

2.1 Labeling Requirements

.1 Feeder labels to be installed around feeders at cable heads, stress cones, manholes, pull pits, etc. Refer to Standard Drawing E4-1.

.2 Feeders revised from existing circuit arrangements shall be relabeled at all 'downstream' locations such as manholes, pull pits and building switchgear.

.3 Engraved lamacoid nameplates with the name of the load shall be installed on breakers or switches at the switchgear cubicles and elsewhere where called for on the drawings.

.4 Nameplates shall be securely fastened and screwed or riveted.

.5 Exterior cubicle nameplate dimensions shall be engraved brass 4" x 1 ½" black lettering.

2.2 Labeling General

.1 Labelling is required for any electrical equipment rated at 20kW and above.

.2 Junction Boxes
  .1 Junction boxes in visible areas shall be labeled with machine printed material. The label(s) shall consist of Panel #, Cct #(s), FA zone #, etc.

.3 Disconnects
  .1 Disconnects (Non Fused/Fused/Breaker) shall have a firmly affixed lamacoid label indicating the following (as applicable):
    1. Downstream device tag #
    2. Disconnect maximum rating
    3. Fuse/Breaker rating

  .2 If a VFD is upstream of the disconnect an additional label must be placed stating the following: Disconnect shall not be operated until motor has been verified to be disengaged at the VFD.

.4 Labels Outside
  .1 Labels located outside shall be of the engraved lamacoids type and be affixed with UV or corrosion resistant ties.

.5 Equipment and Devices
.1 All equipment and devices shall be labeled with their tag # first and if this is not available the circuit #, IP address or Zone shall be labeled with machine printed material. Examples of the equipment and devices that shall be labeled:
1. Receptacles
2. Light switches
3. Motors / Pumps
4. AHU's
5. Heaters
6. Equipment specific to the area
7. Fire Alarm System field devices
8. Unit Equipment

2.3 Distribution Equipment and Panel Board Identification

.1 *Panel Boards, Load Centers and Transformers shall be labeled and identified in accordance with Standard Drawing E 10-2 in all new buildings, UBC Renew projects and in any major additions to existing buildings.*

.2 *Secondary distribution equipment, such as Panel Boards, Load Centers and MCCs shall have conspicuously attached a permanent 2" X 4" Hazard Warning Label to meet OHSA and NFPA standards that clearly identifies:*
.1 Incident Energy
.2 Arc Flash protection boundary
.3 Hazard Category
.1 Secondary distribution equipment that is identified as Hazard Category two or higher, the above label shall be 3.5" X 5"

.3 The following outline the color requirements for lamicoids at distribution equipment:
.1 Utility Power:
1. Black with White Letters

.2 Generator Power:
1. Single generator with 1 transfer switch (Life Safety and Standby / Life Safety only loads):
1. ATS (Red with White) → Main EM distribution (Red with White) → Downstream distributions (Red with White)
2. Single generator with 1 transfer switch (Standby only loads):
1. ATS (Yellow with Black) → Main EM distribution (Yellow with Black) → Downstream distributions (Yellow with Black)
3. Generator(s) with 2 or more transfer switches:
1. Generator Main Distribution (Red with White)
2. ATS and downstream distributions for Life Safety (Red with White)
3. ATS and downstream distributions for Standby (Yellow with Black)
4. ATS and downstream distributions for Data Center/IT Equipment/UPS/IT Exclusive loads (Blue with white)

.3 UPS/Inverter power:
1. UPS and Downstream Distributions (Blue with white).

2.4 Secondary Distribution Raceways and Cables Identification

.1 Raceways and cables for interior LOW VOLTAGE systems shall be identified in accordance with Drawing E10-1.

2.5 Concealed Equipment Identification

.1 BLUE colored dots shall be utilized for identification of concealed electrical equipment where removable panels/tiles exist. This includes but is not limited to:
- .1 Suspended T-Bar ceiling
- .2 Wall or Ceiling.

.2 Equipment Type:
- .1 Lighting Controllers
- .2 Electrical boxes

.3 Dot requirements:
- .1 Provide self-adhesive color coded dots 13 mm in diameter.

*****END OF SECTION*****