



Division 260553

Electrical Identification

DESIGN GUIDE

1 General

1.1 Introduction

- A. This section applies to the following:
 - 1. Nameplates
 - 2. RFID tags
 - 3. Device Labels
 - 4. Wire and Cable Markers
 - 5. Medium Voltage Cable Markers
 - 6. Electrical Trench Warning Tape
 - 7. Pull and Junction Box Identification
- B. CWU has desires to move to RFID tags for equipment in the future. Electrical designer to confirm RFID tag requirements with the ELSM for each project.

2 Materials

2.1 Nameplates

- A. Nameplates shall be laminated phenolic plastic, black front and back with white core, with lettering engraved through the outer covering, except where other colors are a code requirement (e.g., service



entrance main disconnects). Lettering shall be ½ inch high. Nameplates shall be securely fastened to the equipment with No. 4 Phillips, round-head, cadmium-plated, steel self-tapping screws or nickel-plated brass bolts.

- B. Nameplates installed at building interior equipment at dry environments can be installed using only adhesive tape equal to 3M products.
- C. Colors
 - 1. Normal power – Black w/ white letters
 - 2. Emergency power – Red w/ white letters

2.2 RFID tags

- A. Confirm requirements with the ELSM at the start of design.

2.3 Device Labels

- A. Labels shall be Nylon stick-on labels equal to 3M. Label shall be white with black lettering for concealed locations and clear with black lettering for exposed locations.

2.4 Wire and Cable Markers

- A. Markers shall be split sleeve or tubing type.

2.5 Medium Voltage Cable Markers

- A. Markers shall be white reinforced vinyl with locking attachment band.

2.6 Electrical Trench Warning Tape

- A. Provide 5 mil red plastic tape at least 4 inches wide with black letters at least 2 inches high every 5 feet along its length indicating “CAUTION HIGH VOLTAGE” for power cables with a 1 mil minimum metallic foil core or backing to permit easy locating.



3 Execution

3.1 Nameplate Installation

- A. The following items shall be equipped with nameplates:
 - 1. Motor starters, motor control switches, pushbutton stations, control panels and time switches.
 - 2. Disconnect switches, panelboards, switchboards, and enclosed circuit breakers Indicate voltage and phase.
 - 3. Transformers.
 - 4. Generators, Enclosed Transfer Switches.
 - 5. Service entrance main disconnects.
 - 6. Contactors and relays in separate enclosures.
 - 7. Terminal cabinets, equipment cabinets and equipment racks.
 - 8. In-ground handholes.

3.2 RFID tag installation

- A. Confirm requirements with the ELSM at the start of design.

3.3 Device Label Installation

- A. The following items shall be equipped with nylon stick-on labels:
 - 1. Provide labels for:
 - a. Receptacles
 - b. Line Voltage Lighting switches
 - c. Motor toggle switches
 - d. Special receptacles



- B. Locate label on cover plate. Label shall indicate branch circuit panel and circuit number.
- C. Labels shall be Nylon stick-on labels equal to 3M. Label shall be white with black lettering for concealed locations and clear with black lettering for exposed locations.

3.4 Wire Identification

- A. Provide wire markers on each feeder conductor in panelboards, distribution panelboards, gutters, pull boxes and switchboards.
- B. Identify with origin and destination. Wire marker color shall match the and phase color.

3.5 Electrical Trench Warning Tape

- A. For conduits 2" and larger, identify underground conduits using underground warning tape. Place tape 18 inches below finished grade centered above buried conduits.

3.6 Medium Voltage Cable Markers

- A. Label all medium voltage cables at every manhole/vault and termination with feeder number and destination. Cable markers shall be polyester-reinforced vinyl with attachment straps. Install tags to be visible from outside of manholes/vaults.

3.7 Pull and Junction Box Identification

- A. Each pull and junction box shall be neatly identified with permanent black marker or stick on labels on the outside of the box (where the box is concealed) and on the inside of the box (in exposed locations). Identify each pull and junction box with a system description as follows:
 - 1. Lighting – Ltg, Panel, Ckt
 - 2. Receptacles – Rec, Panel, Ckt
 - 3. Equipment – AHU-1 or MZU-1, Panel, Ckt
 - 4. Fire Alarm – FA, Panel, Ckt



4 Appendix

4.1 Reserved for future.

