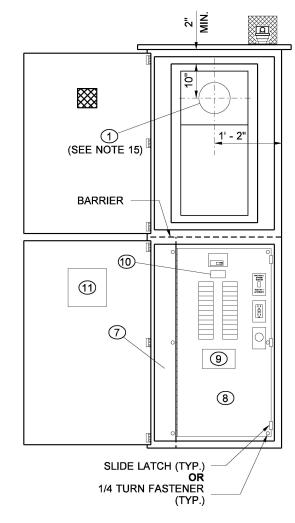


**SERVICE CABINET DETAIL** 

## **KEY**

- 1) METER SOCKET/BASE PANEL PER UTILITY REQUIREMENTS ~ UTILITY MAY REQUIRE METER TO BE INSTALLED ON THE OUTSIDE OF THE CABINET INSTEAD OF INSIDE THE UTILITY SECTION OF THE CABINET
- UTILITY SECTION DOOR ~ HINGED FRONT FACING DOOR WITH 4" (IN) x 4" (IN) MINIMUM POLISHED WIRE GLASS WINDOW
- CUSTOMER SECTION DOOR WITH BEST CX 6-PIN LOCK CORE
- PHOTOCELL ENCLOSURE ~ SEE PHOTOCELL MOUNTING DETAIL ~ ENCLOSURE SHALL BE FABRICATED FROM EITHER:
  - A. 5/8" (IN) EXPANDED STEEL MESH WITH WELDED SEAMS AND MOUNTING FLANGES ~ HOT-DIP GALVANIZED AFTER FABRICATION ~ OR ~
  - B. TYPE 5052 H32 ALUMINUM WITH 5/8" (IN) x 5/8" (IN) OPENINGS EQUIVALENT TO 5/8" (IN) EXPANDED STEEL MESH
- PHOTOELECTRIC CONTROL ~ SEE STANDARD SPECIFICATION. **SECTION 9-29.11(2).**
- SCREENED VENTS ~ TWO REQUIRED, ONE EACH SIDE ~ LOUVERED
- 6" (IN) x 6" (IN) MIN. UTILITY WIREWAY ~ BACK LEFT CORNER OF CUSTOMER SECTION ~ SHALL REQUIRE TOOLS TO OPEN ~ LABEL WITH "UTILITY WIREWAY"
- HINGED DEAD FRONT WITH 1/4 TURN FASTENERS OR SLIDE LATCHES ~ DEAD FRONT PANEL BOLTS SHALL NOT EXTEND INTO VERTICAL LIMITS OF THE BREAKER ARRAY(S)
- ARC FLASH AND SHOCK HAZARD LABEL (FIELD INSTALLED) ~ SEE DETAIL
- CABINET BUSSWORK RATING LABEL
- (11) METAL WIRING DIAGRAM HOLDER

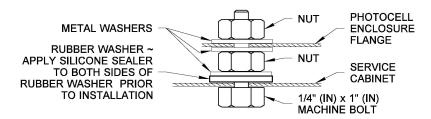


FRONT (SHOWN WITH DOORS OPEN AND DEAD FRONT CLOSED) **SERVICE CABINET INTERIOR** 

#### **NOTES**

- 1. See Standard Specification Section 9-29.24 (Service Cabinets).
- 2. Cabinet shall be rated NEMA 3R and shall include two rain-tight vents
- Dimensions shown are minimum and shall be adjusted to accommodate the various sizes of equipment installed. A 1% tolerance is allowed for all dimensions.
- 4. Doors shall be pad-lockable and gasketed. Customer side door shall include a Best CX 6-pin Construction core lock. Each door shall use either a continuous piano hinge, three two-piece hinges, or two heavy-duty lift-off type hinges.
- 5. Hinges with pins shall have stainless steel or brass pins see Standard Plan J-10.20 door hinge details. When using two piece hinge type on galvanized enclosure, remove hinge pin prior to welding hinge to cabinet and prior to hot-dip galvanizing. After galvanizing, replace pin with brass pin and solder in place.
- 6. Equipment identified by Key Numbers 14, 16, 17, 18, 19, 20, 21, 22, 23, and 28 shall have an appropriately engraved phenolic name plate attached with screws or rivets. The name plate for Key Number 21 (Test Switch only) shall read as follows: "PHOTOCELL BYPASS TEST ON" AND "PHOTOCELL TEST OFF - AUTOMATIC." See service cabinet detail.
- 7. All busswork shall be **ASTM B187** copper and shall have a minimum rating of 250 amps. All breakers shall bolt on to the busswork. Jumpering of breakers shall not be allowed. Busswork shall accommodate all future equipment as shown in the Breaker Schedule.
- 8. All nuts, bolts, and washers used for mounting the photocell enclosure shall be stainless steel.
- 9. The photocell unit shall be centered in the photocell enclosure to permit 360 degree rotation of the photocell without removal of the photocell unit or the photocell enclosure.
- 10. All internal wire runs shall be identified with "TO FROM" coded tags labeled with the code letters and/or numbers shown on the Schedules. Approved PVC or polyolefin wire marking sleeves shall be used.
- 11. Key items 23, 24, and 25 shall be connected to the cabinet main bonding jumper assembly by appropriately sized wire.
- 12. See Contract for Breaker and Contactor Schedule.
- 13. Buss bars shall be sized to accommodate up to #4 AWG wires.
- 14. The meter base portion of this service was designed to meet metering portion of EUSERC Drawing 309 requirements.
- 15. Metering arrangements vary with different serving Utilities. The Utility may require meter base mounting in the enclosure, on the side, or on the back of the enclosure. The Utility may require the dimension between the door and the front of the safety socket box to be less than the 11" (in) shown in the Left Side - Safety Socket Box Mounting Detail. The Contractor shall verify the serving Utility's requirements prior to fabrication and installation of the service equipment.

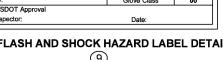
16. Verify the meter setback position with the utility and adjust the meter socket backplate to the required position. For cabinets with separate metering, remove the meter socket or install shunts in the meter socket.



PHOTOCELL ENCLOSURE MOUNTING DETAIL



ARC FLASH AND SHOCK HAZARD LABEL DETAIL





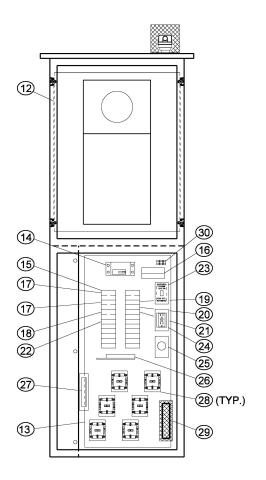
Aug 18, 2021

SHEET 1 OF 2 SHEETS

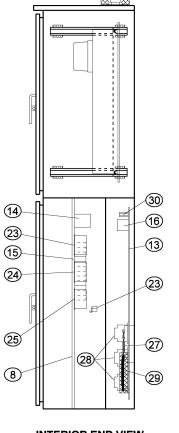


# **KEY (CONTINUED)**

- 12 ALUMINUM BACKPLATE FOR METER SOCKET/BASE
- (13) 18" (IN) WIDE BY 40" (IN) TALL ALUMINUM BACKPLATE FOR CUSTOMER SECTION EQUIPMENT
- (14) MAIN BREAKER ~ DPST ~ SIZE PER BREAKER
- 15) 24-CIRCUIT PANEL BOARD ~ MINIMUM SIZE WITH SEPARATE MAIN BREAKER
- 20 KA TYPE 1 OR TYPE 2 SURGE PROTECTION DEVICE ~ DIN RAIL MOUNT WITH PLUG-IN MODULE(S)
- (17) DPST BRANCH BREAKER ~ SEE BREAKER SCHEDULE
- (18) SPARE BRANCH BREAKER ~ 20 AMP DPST ~ OMIT IF BREAKER ARRAY IS FULL (SEE BREAKER SCHEDULE)
- (19) PHOTOCELL BREAKER ~ SPST 15 AMP
- 20 RECEPTACLE BREAKER ~ SPST 20 AMP
- (21) HEATER BREAKER ~ SPST 15 AMP
- 22) SPST BRANCH BREAKER ~ SEE BREAKER SCHEDULE
- (23) SINGLE GANG BOX WITH TEST SWITCH ~ 120/277
  VOLT 15 AMP SPDT SNAP ACTION POSITIVE CLOSE
   "T" RATED
- SINGLE GANG BOX WITH RECEPTACLE (GROUNDED) ~ 125 VOLT 20 AMP GFCI
- (25) SINGLE GANG BOX WITH THERMOSTAT CONTROL ~ 40° F CLOSURE 3 DIFFERENTIAL
- (SEE NOTE 12) 26 ISOLATED NEUTRAL BUSS ~ 14 LUG COPPER
- 27 CABINET MAIN BONDING JUMPER ASSEMBLY ~ BUSS SHALL BE 14 LUG TINNED COPPER (SEE NOTE 12) ~ SEE CABINET MAIN BONDING JUMPER ASSEMBLY
- (28) CONTACTOR (BEHIND DEAD FRONT) ~ SEE BREAKER
- (29) STRIP HEATER (100 WATT NOMINAL) WITH EXPANDED STEEL MESH ENCLOSURE FOR TOUCH PROTECTION
- 30 THREE POSITION DIN RAIL MOUNTED TERMINAL BLOCK ~ TERMINAL BLOCK SECTIONS SHALL BE BLACK, WHITE, AND RED AS SHOWN IN CABINET WIRING DIAGRAM.

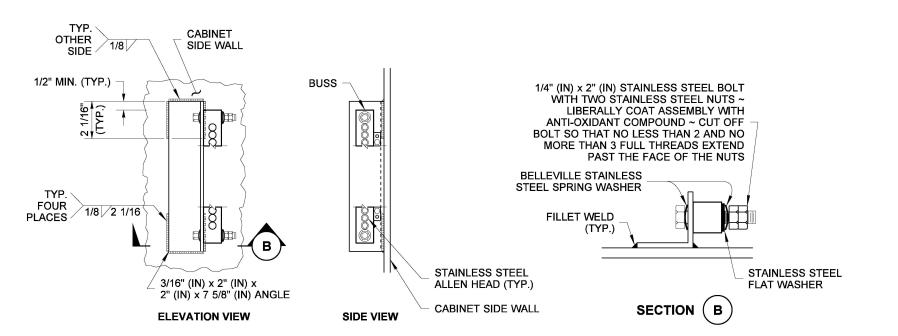


FRONT (SHOWN WITH DEAD FRONT REMOVED)

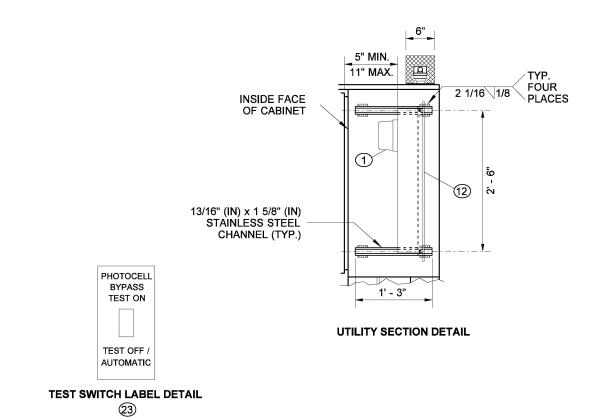


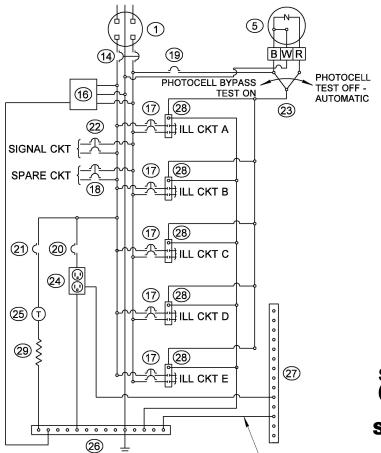
INTERIOR END VIEW (SUPPORT FRAMES FOR EQUIPMENT NOT SHOWN)

### **SERVICE CABINET INTERIOR DETAIL**









WIRING SCHEMATIC

CABINET MAIN BONDING JUMPER

SIZE PER NEC ~ MINIMUM SIZE #2



Aug 18, 2021

# SERVICE CABINET TYPE D (0 - 200 AMP TYPE 120/240 VOLT SINGLE PHASE) STANDARD PLAN J-10.21-02

SHEET 2 OF 2 SHEETS

