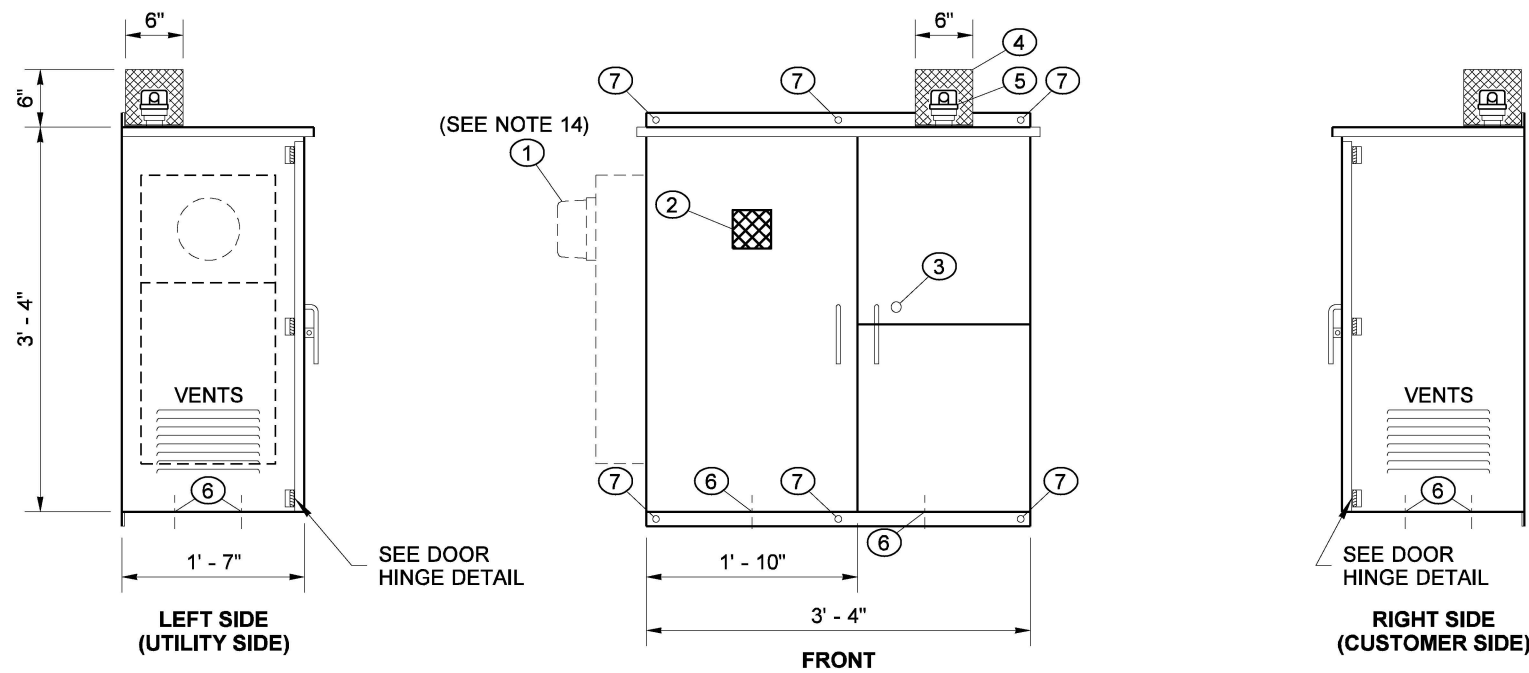


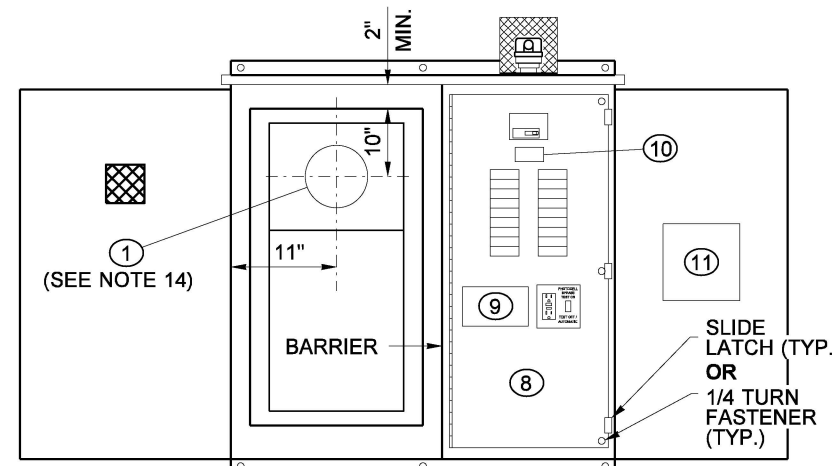
DRAWN BY: FERN LIDDELL



SERVICE CABINET DETAIL

KEY

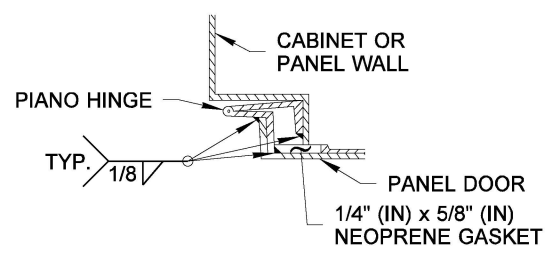
- ① METER SOCKET/BASE PANEL PER UTILITY REQUIREMENTS ~ UTILITY MAY REQUIRE METER TO BE INSTALLED ON THE OUTSIDE OF THE CABINET INSTEAD OF INSIDE THE UTILITY SIDE OF THE CABINET
- ② UTILITY SIDE DOOR ~ HINGED FRONT FACING DOOR WITH 4" (IN) x 4" (IN) MINIMUM POLISHED SAFETY GLASS WINDOW
- ③ CUSTOMER SIDE DOOR WITH BEST CX 6-PIN LOCK CORE
- ④ 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
- ⑤ PHOTOELECTRIC CONTROL ~ SEE STANDARD SPECIFICATION, SECTION 9-29.11(2).
- ⑥ 1/4" (IN) DIAMETER DRAIN HOLE ~ DRILL BEFORE GALVANIZING
- ⑦ MOUNTING HOLE ~ SEE STANDARD PLAN J-10.12 CABINET BRACKET MOUNTING DETAIL
- ⑧ 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)
- ⑨ ARC FLASH AND SHOCK HAZARD LABEL (FIELD INSTALLED) ~ SEE DETAIL (SHEET 2)
- ⑩ CABINET BUSSWORK RATING LABEL
- ⑪ METAL WIRING DIAGRAM HOLDER



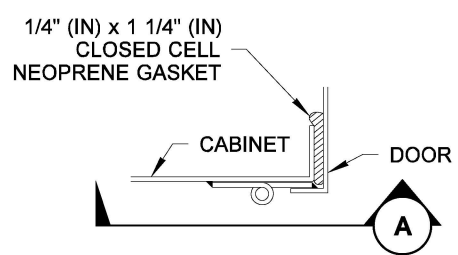
SERVICE CABINET INTERIOR

NOTES

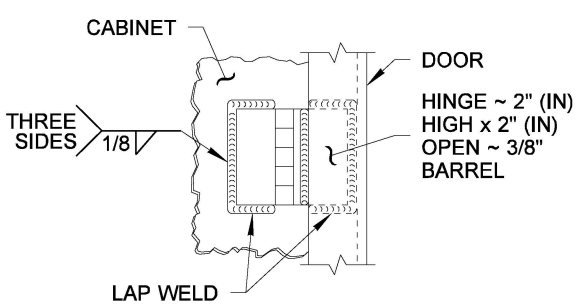
1. See **Standard Specification Section 9-29.24** (Service Cabinets).
2. Cabinet shall be rated NEMA 3R and shall include two rain-tight vents.
3. Dimensions shown are minimum and shall be adjusted to accommodate the various sizes of equipment installed. A 1% tolerance is allowed for all dimensions.
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 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, and 25 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. See Contract for Breaker and Contactor Schedule.
12. Buss bars shall be sized to accommodate up to #4 AWG wires.
13. The meter base portion of this service was designed to meet metering portion of **EUSERC Drawing 309** requirements.
14. 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.
15. 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.



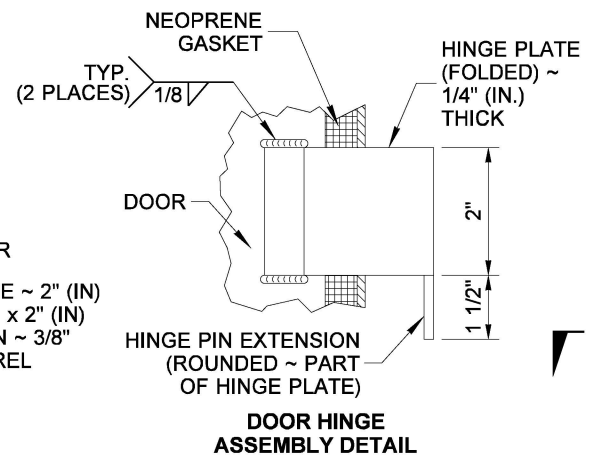
DOOR HINGE DETAIL



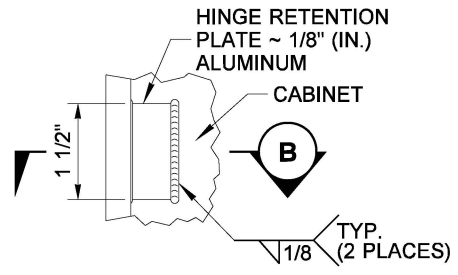
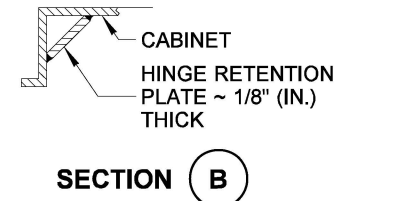
DOOR HINGE DETAIL ALTERNATE TYPE B MODIFIED CABINET (SEE NOTE 5)



SECTION A



DOOR HINGE DETAIL HEAVY-DUTY (LIFT-OFF) TYPE



HINGE RETAINER DETAIL



Aug 18, 2021

SERVICE CABINET TYPE B MODIFIED (0 - 200 AMP TYPE 120/240 VOLT SINGLE PHASE) STANDARD PLAN J-10.20-04

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

[Signature]

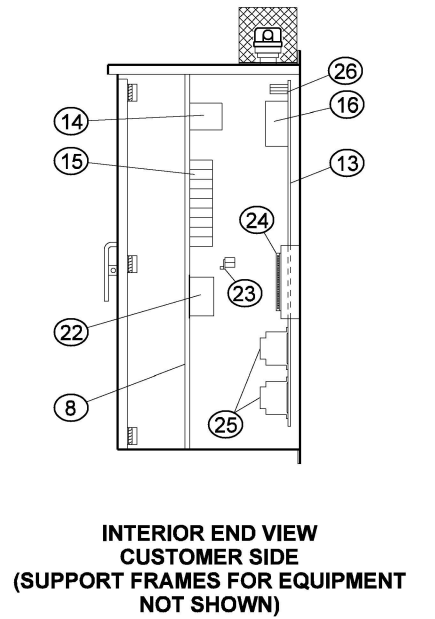
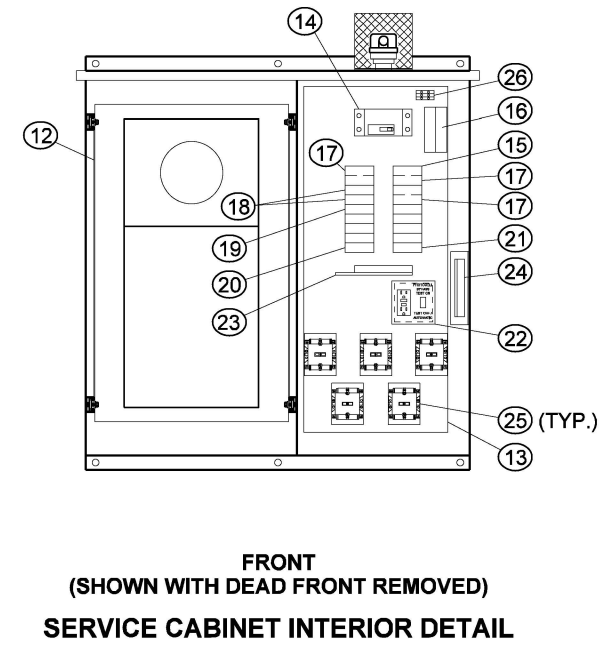
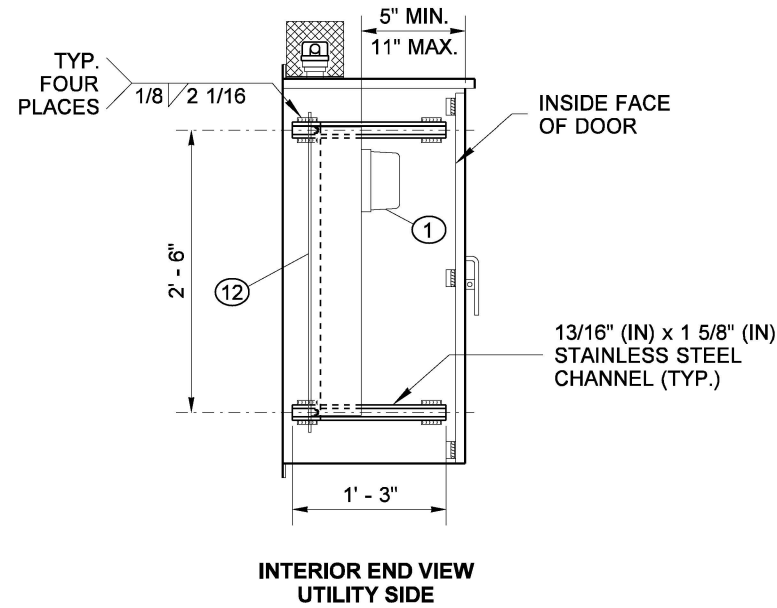
Aug 18, 2021

STATE DESIGN ENGINEER



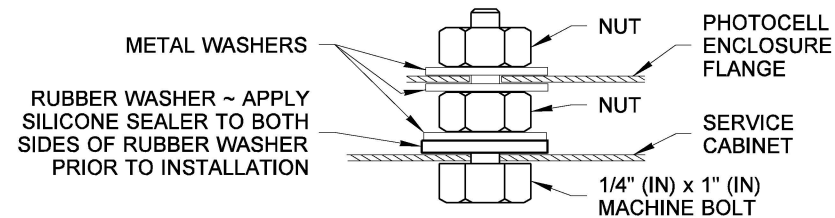
KEY (CONTINUED)

- ⑫ ALUMINUM BACKPLATE FOR METER SOCKET/BASE
- ⑬ 15" (IN) WIDE BY 36" (IN) TALL ALUMINUM BACKPLATE FOR CUSTOMER SIDE EQUIPMENT
- ⑭ MAIN BREAKER ~ DPST ~ SIZE PER BREAKER SCHEDULE
- ⑮ 18-CIRCUIT PANEL BOARD ~ MINIMUM SIZE WITH SEPARATE MAIN BREAKER
- ⑯ 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 SPST BRANCH BREAKER ~ SEE BREAKER SCHEDULE
- ⑳ RECEPTACLE BREAKER ~ SPST 20 AMP
- ㉑ PHOTOCELL BREAKER ~ SPST 15 AMP
- ㉒ 2 GANG BOX WITH:
 - A. RECEPTACLE (GROUNDED) ~ 125 VOLT 20 AMP GFCI
 - B. TEST SWITCH ~ 120/277 VOLT 15 AMP SPDT SNAP ACTION - POSITIVE CLOSE - "T" RATED
 BOX MAY INCLUDE A COVER PLATE, OR MAY BE COVERED BY DEAD FRONT PANEL ~ GANG BOX SHALL BE WIRED TO THE CABINET BONDING JUMBER (KEY NUMBER 24)
- ㉓ ISOLATED NEUTRAL BUSS ~ 14 LUG COPPER (SEE NOTE 12)
- ㉔ CABINET MAIN BONDING JUMPER ASSEMBLY ~ BUSS SHALL BE 14 LUG TINNED COPPER (SEE NOTE 12) ~ SEE CABINET MAIN BONDING JUMPER ASSEMBLY DETAIL
- ㉕ CONTACTOR (BEHIND DEAD FRONT) ~ SEE BREAKER SCHEDULE
- ㉖ THREE POSITION DIN RAIL MOUNTED TERMINAL BLOCK ~ TERMINAL BLOCK SECTIONS SHALL BE BLACK, WHITE, AND RED AS SHOWN IN CABINET WIRING DIAGRAM.
- ㉗ CONNECTION TO GROUND ELECTRODE ~ SEE **STANDARD PLAN J-60.05**

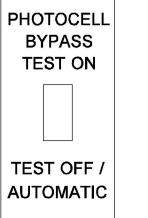


ARC FLASH PROTECTION		SHOCK PROTECTION	
Arc Flash Boundary (in)	00 In	Shock Hazard When Cover Removed	000 VAC
Incident Energy at 18 inches (cal/cm ²)	0.00	Limited Approach	00 In
Assessment Date:	00-00-0000	Restricted Approach	00 In
By:		Glove Class	00
WSDOT Approval Inspector:		Date:	

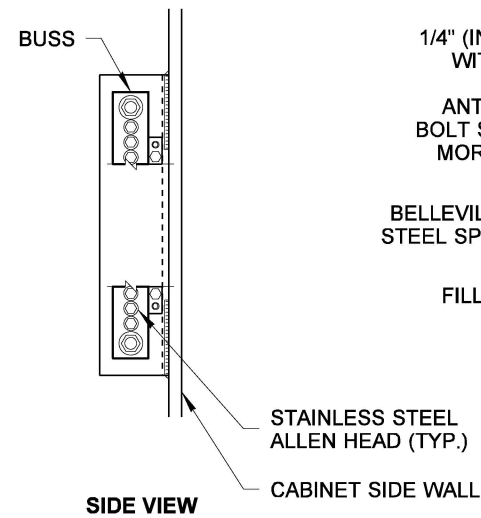
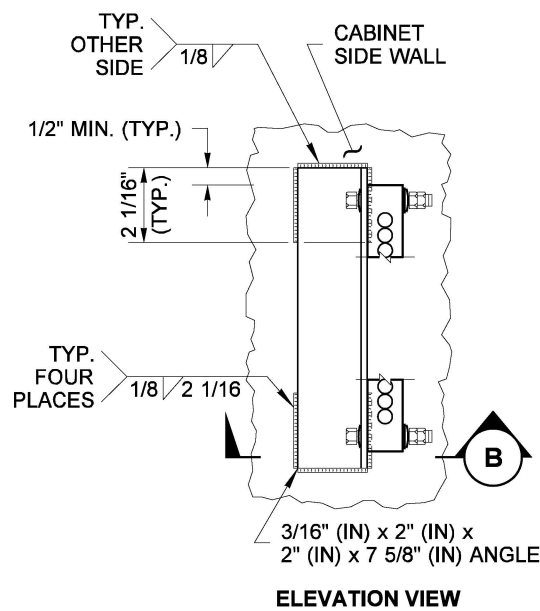
ARC FLASH AND SHOCK HAZARD LABEL DETAIL
⑨



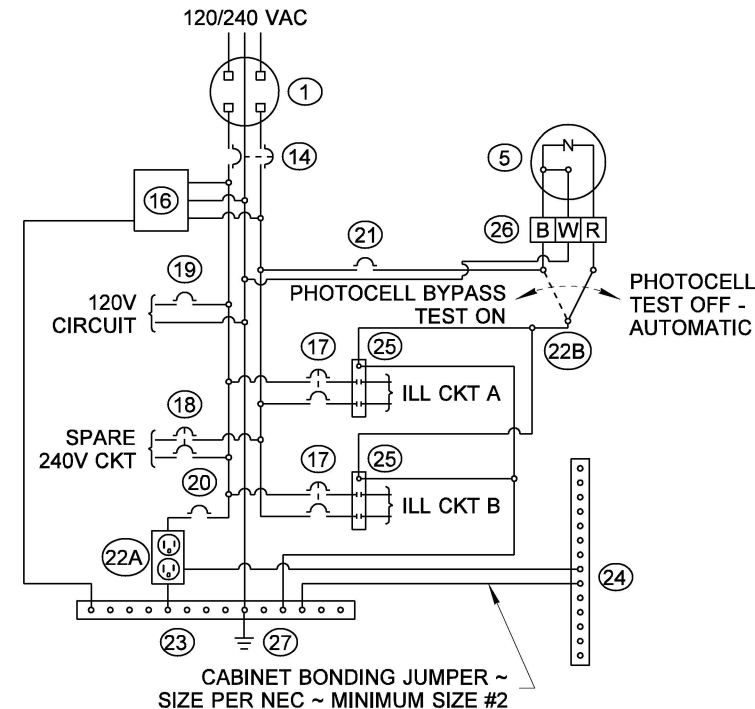
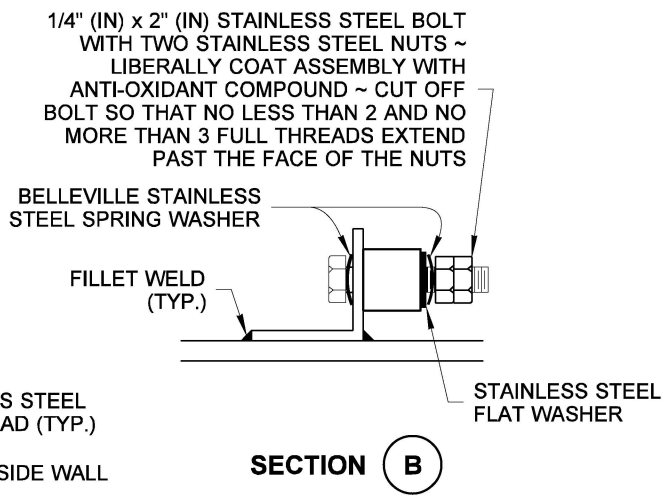
PHOTOCELL ENCLOSURE MOUNTING DETAIL



TEST SWITCH LABEL DETAIL
㉒



CABINET MAIN BONDING JUMPER ASSEMBLY DETAIL



WIRING DIAGRAM



Aug 18, 2021

**SERVICE CABINET TYPE B
MODIFIED (0 - 200 AMP TYPE
120/240 VOLT SINGLE PHASE)
STANDARD PLAN J-10.20-04**

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION

[Signature]

Aug 18, 2021

STATE DESIGN ENGINEER



Washington State Department of Transportation