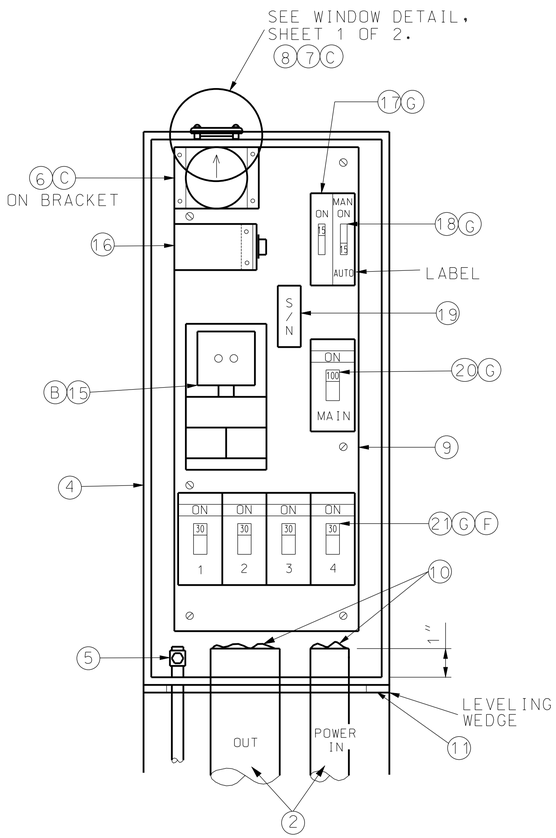
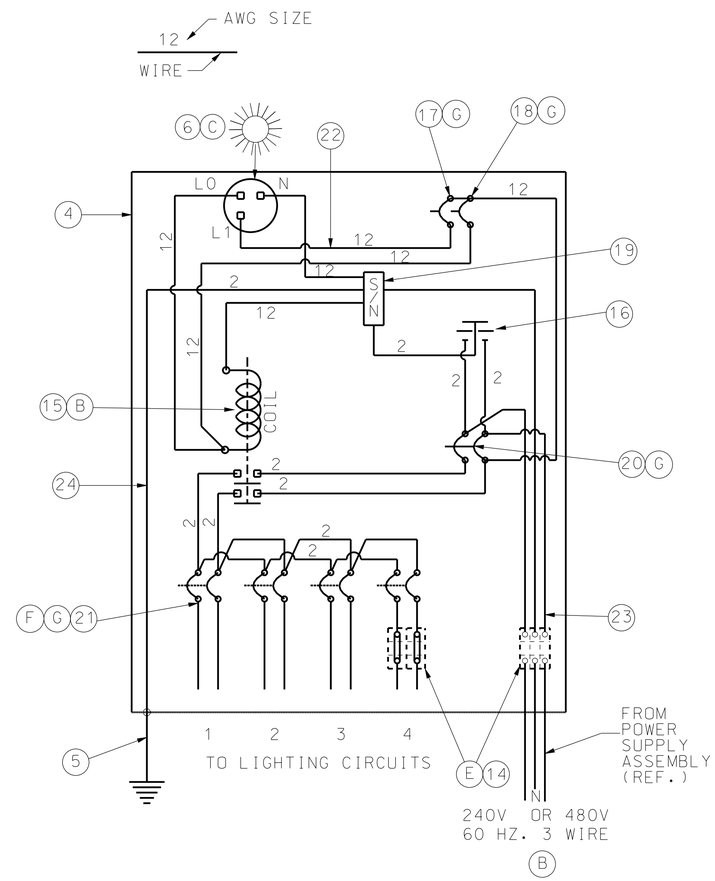


EQUIPMENT LAYOUT



WIRING DIAGRAM

LIST OF MATERIALS

ITEM	DESCRIPTION
2	RIGID CONDUIT ✳
4	NEMA 4, DUST-TIGHT, WATERTIGHT CABINET
5	GROUND ROD, $\frac{3}{4}$" DIA. X 8' MIN.
6	PHOTOELECTRIC SWITCH AND SOCKET, 105/285 V., 1000 WATT
7	TRANSLUCENT, PLEXIGLASS FILTER #W2067, $\frac{1}{8}$" THICK
8	CLEAR, LEXAN #9034 WINDOW, $\frac{1}{4}$" THICK MIN.
9	MOUNTING PAN, $31\frac{1}{2}$" x 12" x $\frac{1}{4}$" ALUMINUM OR STAINLESS STEEL
10	PLIABLE SEALANT
11	LIFETIME SILICONE CAULK
14	INSULATED TERMINAL BLOCK, FOR GREATER THAN 4/0 CABLE
15(240V)	2-POLE, 100 AMP, 120V COIL LIGHTING CONTACTOR
15(480V)	2-POLE, 100 AMP, 240V COIL LIGHTING CONTACTOR
16	2-POLE, 650 VOLT LIGHTING ARRESTER
17	1-POLE, 15 AMP, TYPE B CONTROL BREAKER
18	1-POLE, 15 AMP,TYPE B MANUAL-AUTO SWITCH
19	INSULATED GROUNDABLE NEUTRAL, 100 AMP
20	2-POLE, 100 AMP, TYPE A MAIN BREAKER
21	2-POLE, 15 AMP(MIN), TYPE A LIGHTING BREAKERS
22	#12 AWG MIN., 600 V. CONTROL CABLE
23	#2 AWG MIN., 600 V. ✳ POWER CABLE
24	#2 AWG MIN., 600 V. GROUND CABLE
✳	SEE PLANS

NOTES

(B) LIGHTING SYSTEM VOLTAGE AS SPECIFIED ON PLANS.

(C) PHOTOELECTRIC SWITCH BRACKETS MAY VARY. LOCATE CENTER OF WINDOW OVER CENTER OF PHOTOELECTRIC SWITCH.

(E) IF FOR REASONS OF VOLTAGE DROP A WIRE SIZE IS SPECIFIED LARGER THAN THE BREAKER LUGS CAN ACCOMMODATE, AN INSULATED HEAVY DUTY TERMINAL BLOCK SHALL BE INSTALLED TO TERMINATE THE LARGER WIRES AND A SMALLER JUMPER CONNECTED TO THE BREAKER ITSELF.

(F) LIGHTING BREAKER SIZING:

SIZE (AMPS)	240V TOTAL CIRCUIT LOAD (WATTS)	480V TOTAL CIRCUIT LOAD (WATTS)
15	0-2800	0 - 5500
20	2850-3700	5550 - 7400
25	3750-4600	7450 - 9200
30	4650-5500	9250 - 11,000
35	5550-6500	--
40	6550-7400	--

CIRCUIT LOAD INCLUDES LOAD DUE TO LINE LOSS, LAMP, AND BALLAST LOAD.

(G) ALL CIRCUIT BREAKERS SHALL CONFORM TO SECTION 901.4 OF THE STANDARD SPECIFICATIONS.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI
EILEEN H. RACKERS
NUMBER PE-28336
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

HIGHWAY LIGHTING

BASE MOUNTED
CONTROL STATION
240 V OR 480 V - 4 CIRCUIT

DATE EFFECTIVE: 04/01/2005
DATE PREPARED: 8/26/2009

901.30F

SHEET NO. 2 OF 2