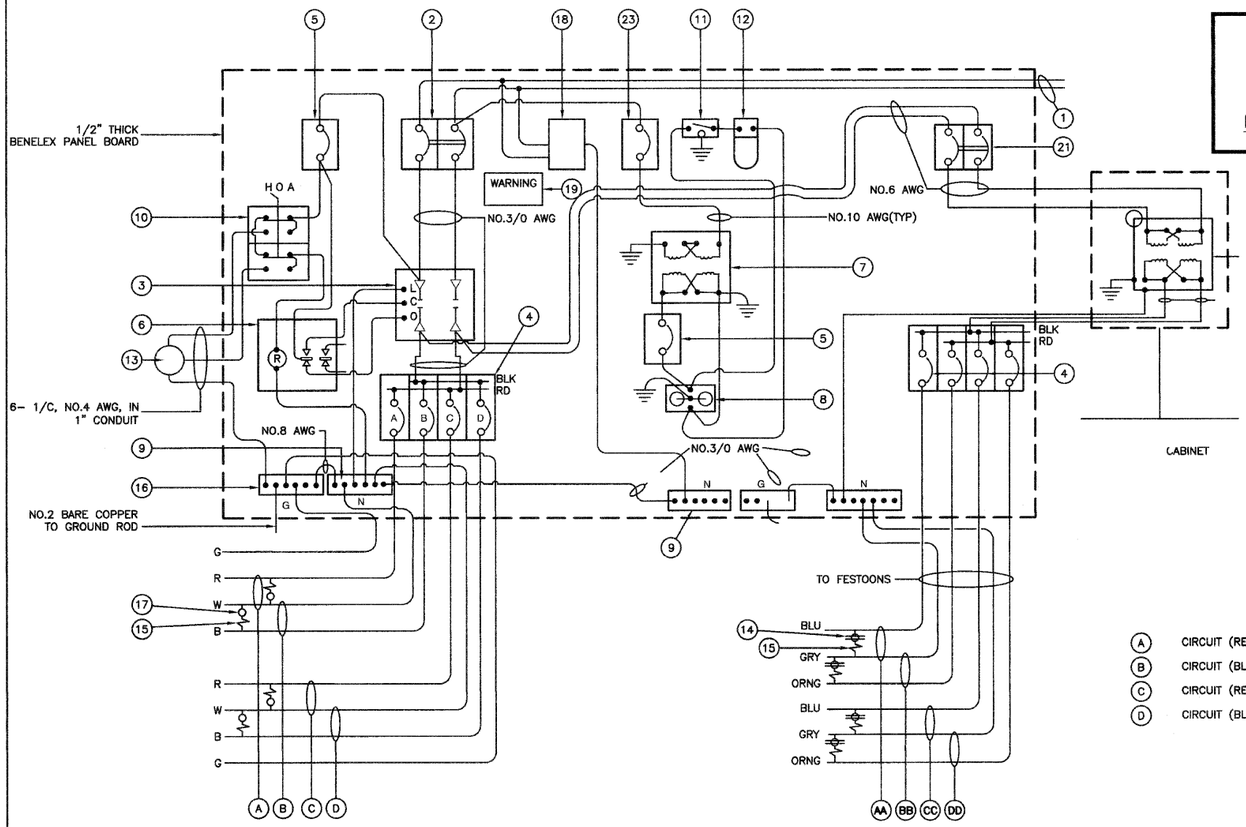
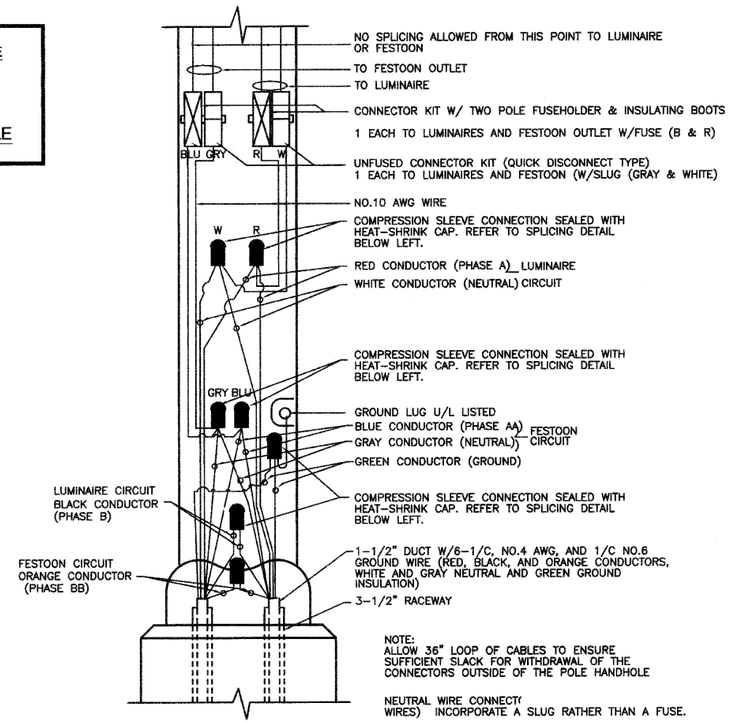


CONTROLLER WIRING DIAGRAM
CONTROLLER NO. 5

NOMINAL WATTAGE	FUSE SIZE
70	1.0 AMP
150	2.0 AMP
400	5.0 AMP
FESTOON OUTLET	6.0 AMP

LUMINAIRE FUSE SIZE TABLE

(A)	CIRCUIT (RED)	(AA)	CIRCUIT (BLUE)
(B)	CIRCUIT (BLACK)	(BB)	CIRCUIT (ORANGE)
(C)	CIRCUIT (RED)	(CC)	CIRCUIT (BLUE)
(D)	CIRCUIT (BLACK)	(DD)	CIRCUIT (ORANGE)



POLE HANDHOLE WIRING DIAGRAM
(TYPICAL FOR LUMINAIRE INSTALLATION)
(WITH FESTOON)

GENERAL NOTES FOR CONTROL CABINET

1. ENTIRE CONTROL CABINET SHALL BE GROUNDED.
2. ALL WIRING SHALL BE TAGGED WITH SELF-STICKING WIRE MARKERS.
3. GROUND BUS TO BE COLOR CODED GREEN, NEUTRAL BUS WHITE, AND BONDED TO CABINET ENCLOSURE, BY LISTED PRESSURE CONNECTORS OR LISTED CLAMPS.
4. ALL INTERNAL CONTROLLER WIRING TO BE NO.12 AWG UNLESS OTHERWISE SPECIFIED.
5. CABINET WIRING INSULATION TO BE TYPE XHHW OR APPROVED EQUAL.
6. THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR WIRE MARKERS AND SHALL TAG ALL WIRE ACCORDINGLY.
7. EQUIPMENT GROUND CONDUCTORS SHALL BE SPLICED AND BONDED AT EACH LIGHT POLE OR OTHER PIECE OF EQUIPMENT.
8. THE CONTROLLER SHALL BE UL LISTED, NEMA 3R, AND BE SUITABLE FOR USE AS SERVICE ENTRANCE RATED.
9. (2) GROUND BUS BARS TO BE CONNECTED TO EACH OTHER.
10. (2) NEUTRAL BUS BARS TO BE CONNECTED TO EACH OTHER.

CONTROLLER WIRING DIAGRAM LEGEND

1. 3-1/C, NO. 3/0 600V SERVICE WIRE IN 1 ½" DIA GALVANIZED STEEL CONDUIT FOR 240/480 VOLT, 1ø, 3 WIRE, 60HZ. SERVICE.
2. (1) 150 AMP MAIN CIRCUIT BREAKER, 2 POLE, 600 VOLT, 250 AMP FRAME, NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA - 14000 AMP AT 480 V.
3. (1) 150 AMP CONTACTOR SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, 600 VOLT
4. (3) 30 AMP CIRCUIT BREAKER, 1 POLE, 240 VOLT, 100 AMP FRAME, NON-INTER-CHANGEABLE TRIP RATING NEMA - 14000 AMP AT 240 VOLTS.
5. (3) 20 AMP CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 240 VOLT, 100 AMP FRAME, NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA 14000 AMP AT 240 V.
6. (1) 25 AMP, 1 POLE DOUBLE THROW, 240 VOLT RELAY
7. (1) 1.5 KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240 X 480/120 X 240 VOLT, 60HZ.
8. (1) 20 AMP, 120 VOLT DUPLEX GFCI RECEPTACLE MOUNTED IN BOX.
9. (2) NEUTRAL BUS BAR, 1/4"x1"x12" MINIMUM LENGTH MOUNTED ON PANEL WITH LUGS.
10. 3 POSITION SELECTOR SWITCH, 240V, 30 AMP.
11. SWITCH FOR LIGHTING FIXTURE MOUNTED IN BOX, 20 AMP.
12. WEATHER-PROOF INCANDESCENT LIGHTING FIXTURE WITH 60 WATT, 120 V LAMP.
13. PHOTOCELL MOUNTED TO CABINET, 240 V, 1000 VA.
14. 20 AMP, 120 VOLT DUPLEX GFCI RECEPTACLE MOUNTED TO POLE.
15. IN-LINE FUSEHOLDER WITH FUSE AS NOTED IN FUSE TABLE
16. (1) GROUND BUS BAR 1/4"x1"x12" MINIMUM LENGTH MOUNTED ON PANEL WITH LUGS.
17. LUMINAIRE
18. (1) SURGE SUPPRESSOR, UL LISTED, NEC 280 COMPLIANT, USE SUITABALE.
19. WARNING PLATE TO READ: WARNING, MAINTENANCE CIRCUIT IS LIVE WHEN MAIN BREAKER IS SWITCHED OFF.
20. 10.0 KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240x480/120x240 V, 60HZ
21. 30 AMP CIRCUIT BREAKER, 1 POLE, 600 VOLT, 100 AMP FRAME, NONE-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA - 14000 AMP AT 277 VOLTS.
23. 15 AMP CIRCUIT BREAKER, 1 POLE, 240 VOLT, 100 AMP FRAME, NON-INTER-CHANGEABLE TRIP RATING NEMA - 14000 AMP AT 240 VOLTS.

Robinson ENGINEERING

PLAN — DATE | BY | REVISED PLOTTED ALIGNMENT CHECKED GRADES CHECKED B.M. NOTED CADD FILE NAME | NOTE BOOK | NO.

PROFILE — DATE | BY | REVISED PLOTTED GRADES CHECKED B.M. NOTED | NOTE BOOK

FILE NAME = 09301-LGHT-02 - P04	USER NAME =	DESIGNED — PAP	REVISED — #1 06-11-10
		CHECKED — PKB	REVISED — #2 06-29-10
	PLOT SCALE = N/A	DRAWN — MJD	REVISED —
	PLOT DATE = 04-28-10	CHECKED — DWS	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HARLEM AVENUE
71ST STREET TO NORTH OF 70TH STREET
STREET LIGHTING DETAILS

SCALE: N/A | SHEET NO. 11 OF 15 SHEETS | STA. N/A | TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	10-00062-00-LT	COOK	15	11
		CONTRACT NO. 63486		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT ARA-M-9003(670)		