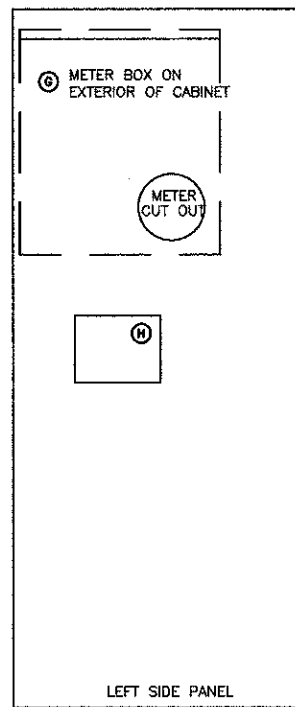


**ONE LINE DIAGRAM
CONTROLLER "K1"**

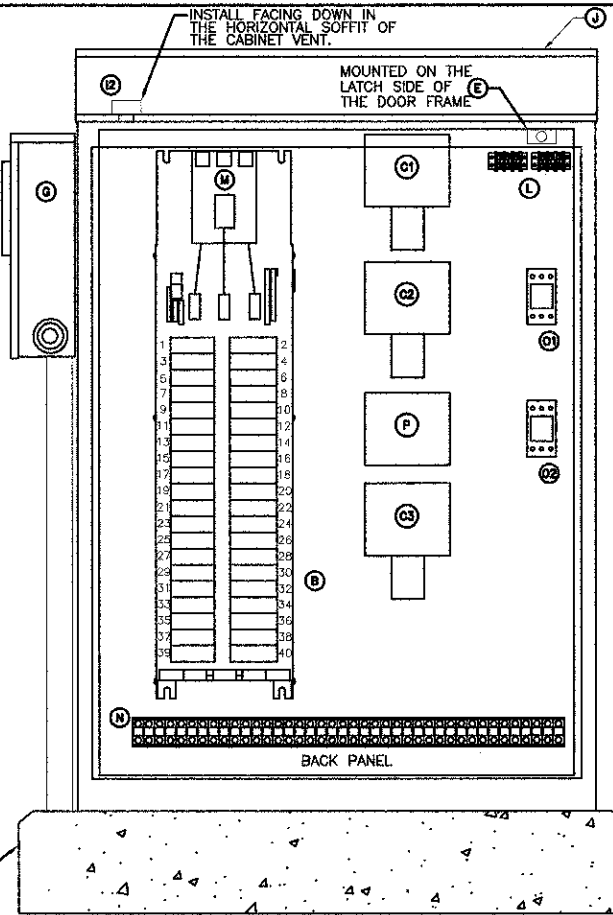
1 NO SCALE

ONE-LINE DIAGRAM NOTES

- AIC RATINGS LISTED FOR EQUIPMENT ARE MINIMUM REQUIREMENTS FOR BUS BRACING AND DEVICE RATING. ALL EQUIPMENT SHALL BE FULLY RATED UNLESS SPECIFICALLY NOTED AS SERIES RATED.
- ALL FUSES FROM 0 AMPERE TO 200 AMPERE SHALL BE DUAL ELEMENT, CLASS RK-5 UNLESS NOTED OTHERWISE.

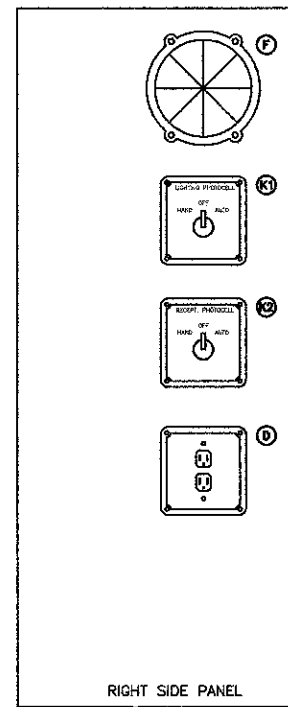


LEFT SIDE PANEL

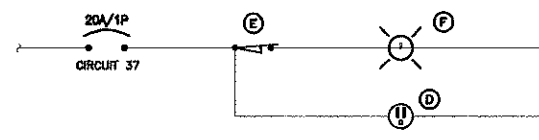


2 LIGHTING CONTROL CABINET

NO SCALE
U.L. LISTED
NOT APPROVED

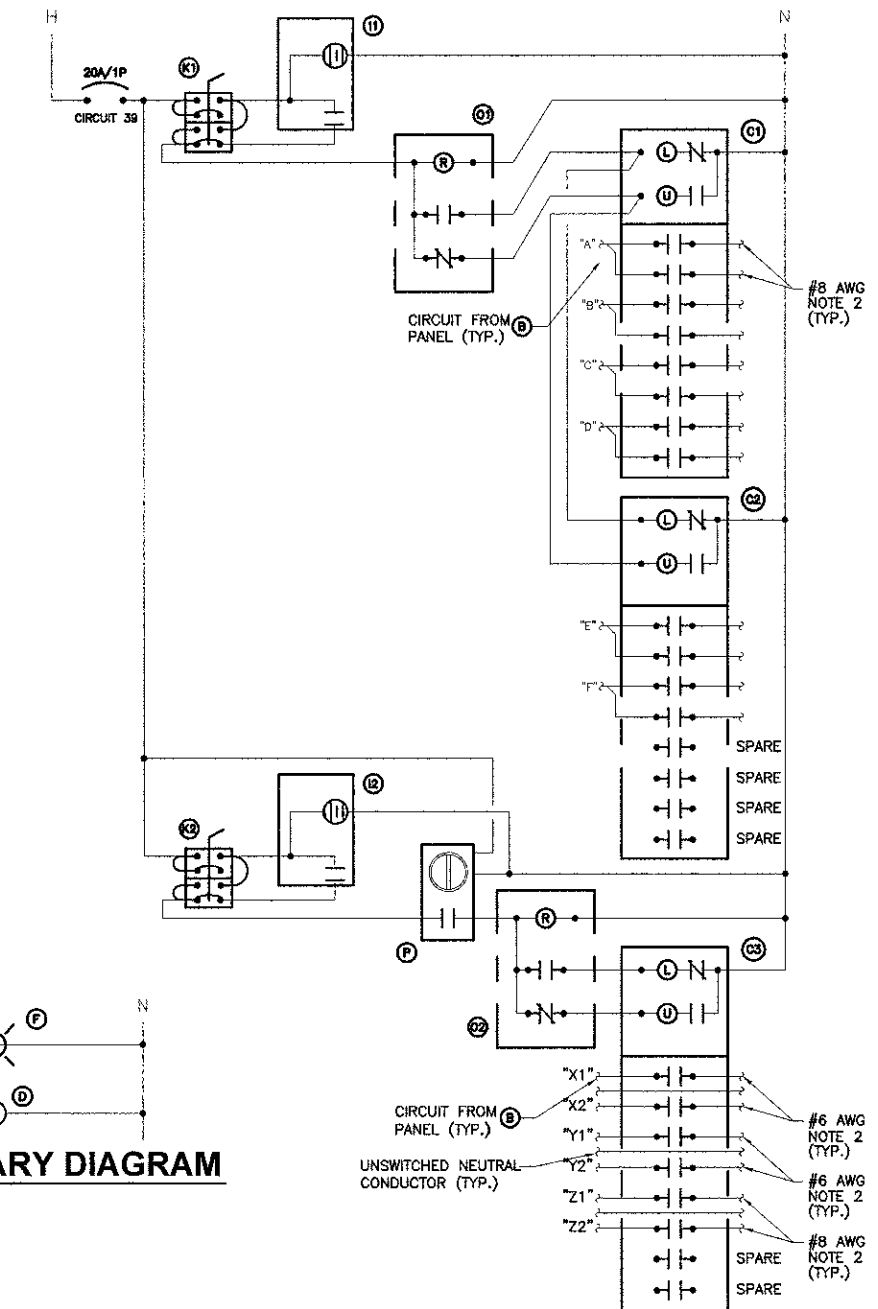


RIGHT SIDE PANEL



3 CABINET ELEMENTARY DIAGRAM

NO SCALE



4 LIGHTING CONTROL ELEMENTARY DIAGRAM

NO SCALE

- NOTES:
1. ALL CABINET INTERIOR WIRING SHALL BE STRANDED COPPER #12 AWG THWN UNLESS NOTED OTHERWISE.
2. ROUTE TO STREET LIGHTING LUMINAIRES VIA TERMINAL BLOCK (N)

TYPE: BOLT-ON		MOUNTING: SURFACE - INTERIOR ONLY		FED FROM: UTILITY		AIC RATING: 65,000		PANEL NAME: CONTROLLER "K1"		CONNECTED 9.4 KVA	
		SOLID NEUTRAL		GROUND BUS		MAIN: 200A MCB		VOLTS: 240/120		PHASE: 1	
								WIRE: 3			
CKT NO.	LOAD DESCRIPTION	WIRE SIZE	LOAD KVA	BREAKER AMP	BREAKER P	LOAD KVA	BREAKER AMP	BREAKER P	LOAD DESCRIPTION	CKT NO.	
1	*A* POLE LIGHTING	*S 1.3	20	2	20	1	0.7	*S	*X1* 4 RECEPT.	2	
3	*B* POLE LIGHTING	*S 1.3	20	2	20	1	0.7	*S	*X2* 4 RECEPT.	4	
7	*C* POLE LIGHTING	*S 1.3	20	2	20	1	0.5	*S	*Y1* 4 RECEPT.	8	
9	*D* POLE LIGHTING	*S 1.3	30	2	20	1	0.7	*S	*Y2* 3 RECEPT.	10	
11	*E* POLE LIGHTING	*S 0.9	30	2	20	1	0.5	*S	*Z1* 4 RECEPT.	12	
13	*F* POLE LIGHTING	*S 0.9	30	2	20	1	0.5	*S	*Z2* 3 RECEPT.	14	
15	SPARE								SPARE	16	
17	SPARE								SPARE	18	
19	SPARE								SPARE	20	
21	SPARE								SPARE	22	
23	SPARE								SPARE	24	
25	SPARE								SPARE	26	
27	SPARE								SPARE	28	
29	SPARE								SPARE	30	
31	SPARE								SPARE	32	
33	SURGE ARRESTOR	*0	0.1	30	2				SPARE	34	
35	LGT. RECEPT. IN CABINET	12	0.3	20	1				SPARE	36	
37	LGT. CONTROL	12	0.1	20	1				SPARE	38	
39									SPARE	40	

NOTES: *S = REFER TO WIRING DIAGRAM FOR WIRE SIZE. *0 = REFER TO ONE LINE DIAGRAM ON THIS SHEET FOR WIRE SIZE.

BILL OF MATERIALS FOR LIGHTING CONTROLLER "K1"		
ITEM #	QUANTITY	DESCRIPTION
B	1	BRANCH CIRCUIT PANEL INTERIOR WITH DEAD FRONT TRIM, 200A COPPER BUS, 240/120 VOLT, MOLDED CASE THERMAL MAGNETIC CIRCUIT BREAKERS, BOLT ON TYPE, AIC RATING OF 65,000 AMPS AT 240 VOLTS.
C1 C2 C3	3	MECHANICAL CONTACTOR, 8 POLE, 30 AMP, 120V COIL WITH NEMA-1 ENCLOSURE. PROVIDE WITH TWO-WIRE CONTROL FOR PHOTOCELL INTERFACE.
D	1	GFI RECEPTACLE 120V, 20A, SPECIFICATION GRADE, NEMA 5-20R IN WEATHER-PROOF BOX WITH WEATHERPROOF COVER.
E	1	20A SPDT MICRO SWITCH (MOUNT WITH ACTUATOR TO SWITCH WHEN DOOR OPENED), 120 VOLT.
F	1	60 WATT LIGHT FIXTURE, VAPOR TIGHT WITH GLOBE, GUARD, AND MOUNTING BOX. LAMP PROVIDED WITH FIXTURE.
G	1	WEATHERPROOF METER FITTING, 1 PHASE, 3 WIRE, 200 AMP.
H	1	SURGE ARRESTOR, 100KA RATED, 120/240V, 1#, 3W SERVICE.
I1 I2	2	PHOTOCELL, 120V, 1500 VA RATED, SINGLE POLE, SINGLE POLE CONTACT, WEATHERPROOF AND CORROSION PROOF ENCLOSURE, U.L. LISTED. RECEPT. PHOTOCELL MOUNTED ON CABINET (TORK 3000), LIGHTING PHOTOCELL LIGHT POLE MOUNTED (REFER TO WIRING DIAGRAM FOR LOCATION)(TORK 2007A).
J	1	CABINET ENCLOSURE PAD MOUNTED, ALUMINUM, N.E.M.A. 3R CONSTRUCTION, FACTORY PAINTED BLACK, WITH KEY LOCKING DOOR. KEY CYLINDER SHALL MATCH EXISTING VILLAGE LIGHTING CONTROLLER LOCKS (CORBIN), 30"W. 48"H. 18"D.
K1 K2	2	HAND-OFF-AUTO SELECTOR SWITCH, 600V RATED, IN GRADE MOUNTED CAST ALUMINUM ENCLOSURE.
L	2	COPPER LOAD TERMINAL BLOCK TO PHOTOCELLS.
M	1	MAIN CIRCUIT BREAKER, MOLDED CASE THERMAL MAGNETIC, SERVICE ENTRANCE DUTY RATED 240 VOLT, 200 AMP, 2 POLE, AIC RATING OF 65,000 AMPS AT 240 VOLTS. INTEGRAL TO BRANCH PANEL.
N	1	COPPER LOAD TERMINAL BLOCK FOR AWG#6 AND AWG#12
O1 O2	2	FORM TYPE C RELAY, ELECTRICALLY HELD, ONE NORMALLY OPEN (N.O.) AND ONE NORMALLY CLOSED (N.C.) CONTACTS, 600V CONTINUOUS DUTY COIL, 30 AMP CONTACT RATING.
P	1	TIME CLOCK CONTROL. 4 POSITION, 7 DAY TIME SWITCH, WITH RESERVE POWER, 40 AMP, 120V. (TORK W400AL)

CONTROLLER NOTES:

- THE CONTROL CABINET SHALL BE U.L. LISTED UNDER U.L. 508A.
- ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL.
- THE METER FITTING AND EXPOSED SERVICE CONDUIT SHALL BE PAINTED BLACK TO MATCH THE CONTROLLER CABINET.
- THE ENCLOSURE SHALL BE VENTED. ONE INCH SCREENED VENT HOLES WILL BE PROVIDED IN THE OVER HANG.
- THE CABINET SHALL BE PROVIDED WITH A 5' X 8' STAINLESS STEEL NAMEPLATE, ENGRAVED WITH 1" LETTERING TO READ "VILLAGE OF MOUNT PROSPECT STREET LIGHTING."
- THE FESTOON RECEPTACLES SHALL OPERATE BY PHOTOCELL/TIME CLOCK CONTROLLED CONTACTORS. THE PHOTOCELL AND TIME CLOCK OPERATE IN SERIES. TIME CLOCK SHALL BE SET TO TURN ON DAILY FROM 5AM TO 1AM; THE CIRCUITS WILL TURN ON FROM SUNSET TO 1AM AND ALSO FROM 5AM TO SUNRISE.
- THE DOORS SHALL BE GASKETED PER SPECIFICATIONS. THE DOOR HANDLE SHALL BE 3/4" STAINLESS STEEL WITH KEY LOCK (CORBIN), AND HAVE A PROVISION FOR PADLOCKING
- THE MOUNTING PANEL SHALL BE 1/2 INCH ARBORON MATERIAL. EXPOSED BUS BARS SHALL BE INSULATED.
- CONNECTOR SCREWS SHALL BE PAINTED WHITE FOR THE NEUTRAL BUS AND GREEN FOR THE GROUNDING BUS.
- ALL WIRES TO BE WITHOUT SPLICES.
- ALL MULTIPLE CONNECTIONS TO A SINGLE SOURCE WILL BE ACCOMPLISHED BY USE OF SPLICE BLOCKS OR MULTI CONNECTION LUGS.
- ALL LUGS SHALL BE OF COPPER SCREWS AND CONNECTORS, SPRING HELD.
- ALL WIRING TERMINATIONS SHALL BE RATED NOT LESS THAN 75 DEGREE CENTIGRADE.
- ALL DEVICES SHALL BE FRONT REMOVABLE.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED USING THE FOLLOWING ABBREVIATIONS:
R - RED Y - YELLOW
B - BLACK W - WHITE
BL - BLUE G - GREEN
- ALL CONTROL CABINET ITEMS SHALL HAVE SUITABLE IDENTIFICATION. OPEN CIRCUIT BREAKERS, CONTACTORS AND OTHER OPEN DEVICES SHALL HAVE PERMANENT SELF STICKING TAGS. DEVICES IN ENCLOSURES SHALL HAVE ENGRAVED 2-COLOR LAMINATED PLASTIC NAMEPLATES ATTACHED TO ENCLOSURES WITH SCREWS. NAMEPLATES SHALL BE ENGRAVED TO CORRESPOND TO DESIGNATIONS ON THE DRAWINGS, AS INDICATED OR AS DIRECTED BY THE ENGINEER, BY MEANS OF BRADY MARKERS. ALL CONTROL WIRING SHALL BE STRANDED AND LABELED AT EACH END (NUMBER TO MATCH PROVIDED CONTROLLER SCHEMATIC DIAGRAM).
- A COPY OF THE CONTROLLER SCHEMATIC DIAGRAM SHALL BE PROVIDED INSIDE OF THE CONTROLLER, IDENTIFYING ALL DEVICES AND CONTROL WIRING.
- A LAMINATED COPY OF THE CIRCUIT SCHEMATIC DIAGRAM SHALL BE ATTACHED TO THE INSIDE OF THE CONTROLLER.
- SEALING GROMMETS SHALL BE PROVIDED FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL.
- ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

GEWALT HAMILTON ASSOCIATES, INC.
850 Forest Edge Drive - Vernon Hills, IL 60061

FILE NAME = 4185.800-EL1.dwg

USER NAME = PAUL SWATEK

DESIGNED - JZ
DRAWN - JZ

REVISED -
REVISED -

PLOT SCALE = 1"=50'
PLOT DATE = 10/17/2012

CHECKED - AJP
DATE - 10/17/12

REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING CONTROLLER
KENSINGTON ROAD IMPROVEMENTS

SCALE NTS

SHEET NO. L4 OF L8 SHEETS

STA. TO STA.

FAU. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1295	09-00154-00-PV	COOK	119	83
CONTRACT #:			B3746	
ILLINOIS FED. AID PROJECT				