

1 ONE LINE DIAGRAM MINER STREET
NO SCALE

PANEL NAME: MINER STREET CONNECTED 22.3 KVA

TYPE: BOLT-ON
MOUNTING: SURFACE - INTERIOR ONLY
FED FROM: UTILITY
AIC RATING: 14,000

SOLID NEUTRAL GROUND BUS

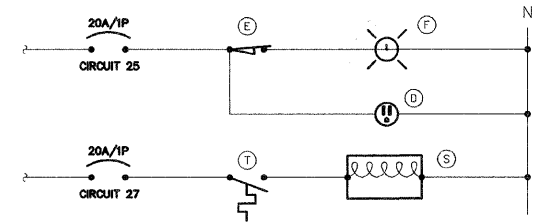
MAIN: 200A MCB
VOLTS: 240/120
PHASE: 1
WIRE: 3

CKT NO.	LOAD DESCRIPTION	WIRE SIZE	LOAD KVA	BREAKER AMP	BREAKER P	LOAD KVA	WIRE SIZE	LOAD DESCRIPTION	CKT NO.	
1	A 3F1, 15F3	*S	4.1	30	2	20	1	0.6 *S X1 3 RECEPT.	2	
3						20	1	0.6 *S X2 3 RECEPT.	4	
5	B 10F1, 7F3	*S	4.6	30	2	20	1	0.6 *S Y1 3 RECEPT.	6	
7						20	1	0.4 *S Y2 2 RECEPT.	8	
9	C 6F1	*S	1.9	30	2	20	1	0.8 *S Z1 4 RECEPT.	10	
11						20	1	0.8 *S Z2 4 RECEPT.	12	
13	D 5F1	*S	1.6	30	2	20	1	0.8 *S V1 4 RECEPT.	14	
15						20	1	0.6 *S V2 3 RECEPT.	16	
17	SURGE ARRESTOR	*O	0.1	30	2	20	1	0.8 *S W1 4 RECEPT.	18	
19						20	1	0.6 *S W2 3 RECEPT.	20	
21	SPARE					20	1	0.8 *S U1 4 RECEPT.	22	
23	SPARE					20	1	0.6 *S U2 3 RECEPT.	24	
25	LGT. RECEPT. IN CABINET		12	0.3	20	1	20	1	0.6 *S T1 3 RECEPT.	26
27	CABINET HEATER		12	0.4	20	1	20	1	0.6 *S T2 3 RECEPT.	28
29	LGT CONTROL		12	0.1	20	1	20	1	SPARE	30

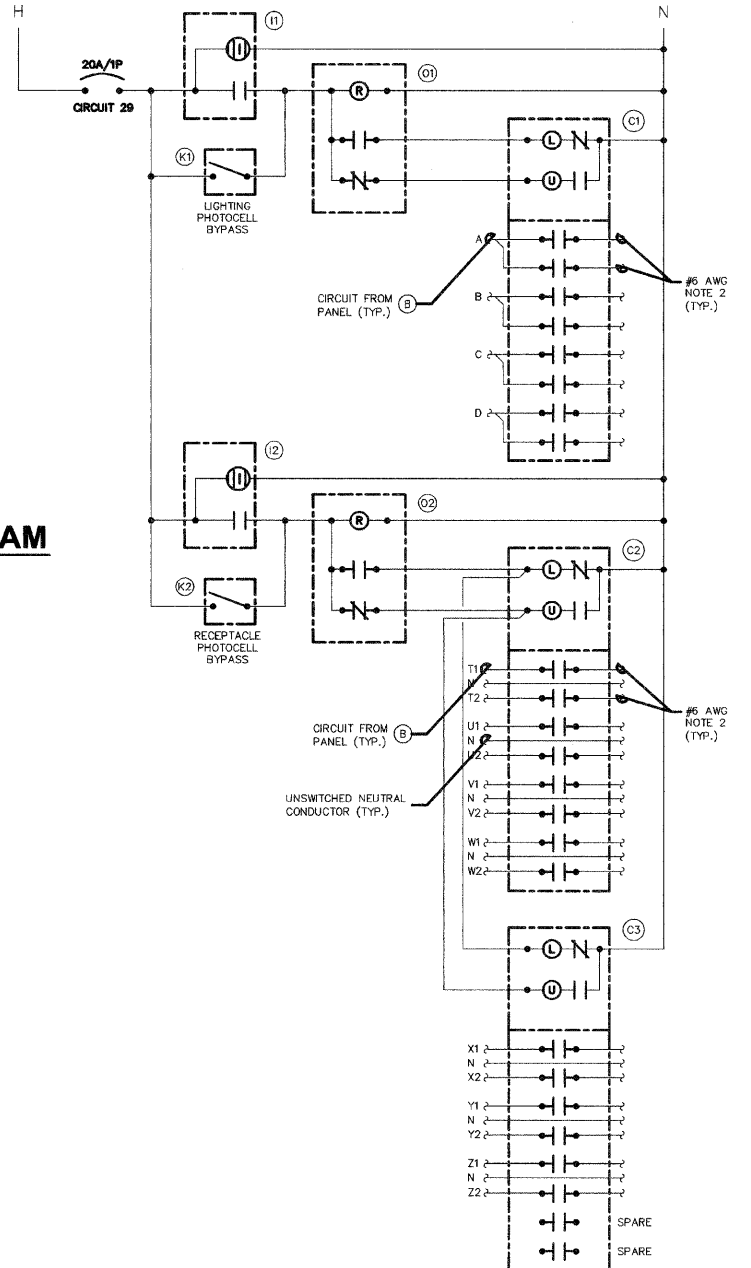
NOTES: *S = REFER TO SHEET E3 FOR WIRE SIZE. *O = REFER TO ONE LINE DIAGRAM ON SHEET E6 FOR WIRE SIZE.

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.
- INDICATES DIRECT CONNECTION OF GROUND CONDUCTOR TO GROUND BUS.



3 CABINET ELEMENTARY DIAGRAM
NO SCALE

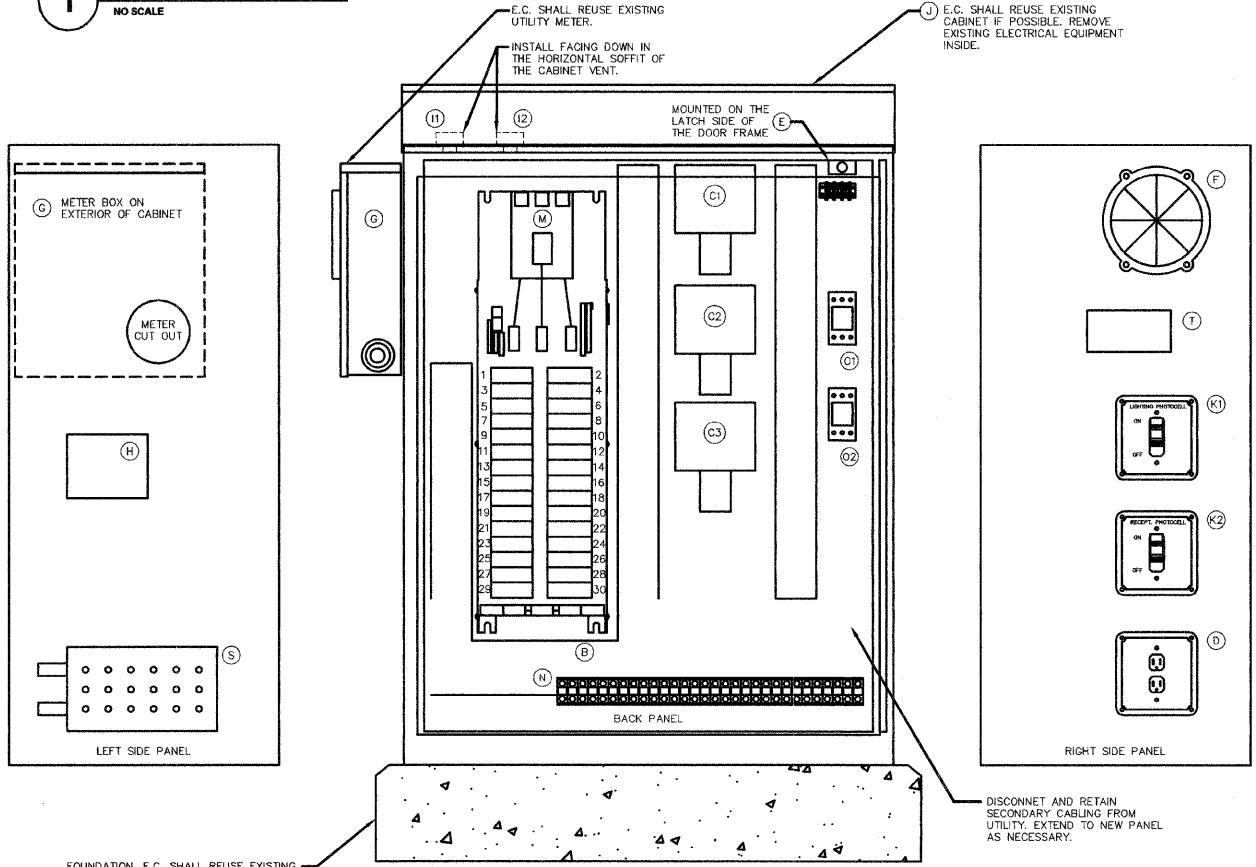


4 LIGHTING CONTROL ELEMENTARY DIAGRAM
NO SCALE

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)

BILL OF MATERIALS FOR LIGHTING CONTROLLER "M"

ITEM #	QUANTITY	DESCRIPTION
B	1	BRANCH CIRCUIT PANEL INTERIOR, 200A COPPER BUS, 240/120 VOLT, MOLDED CASE THERMAL MAGNETIC CIRCUIT BREAKERS, BOLT ON TYPE, AIC RATING OF 14,000 AMPS AT 240 VOLTS, SQUARE D 1650-4000, G.E. ADO, SIEMENS P1, OR OUTLER HAMMER P1R1.
C1, C2, C3	3	MEDICAL CONTACTOR, 8 POLE, 30 AMP, 120V COIL, SQUARE D 8903-1640V02, G.E. OR 365FM2, OUTLER HAMMER C300G. PROVIDE WITH TWO-WIRE CONTROL FOR PHOTOCELL INTERFACE.
D	1	GFI RECEPTACLE 120V, 20A, SPECIFICATION, GRADE, NEMA 5-20R IN WEATHER-PROOF BOX WITH FLAP-TYPE COVER, HUBBELL EF5362A WITH NP26 COVER, LEXTON, PASS & SEYMOUR, OR COPPER.
E	1	20A SPDT MICRO SWITCH (MOUNT WITH ACTUATOR TO SWITCH WHEN DOOR OPENED), 120 VOLT, 15 AMP CONTACTS, SQUARE D XCKL110, G.E., OUTLER HAMMER, OR SIEMENS.
F	1	60 WATT LIGHT FIXTURE, VAPOR TIGHT WITH GLOBE AND GUARD AND MOUNTING BOX. LAMP PROVIDED WITH FIXTURE.
G	1	METER FITTING, 1 PHASE, 3 WIRE, 100 AMP
H	1	SURGE ARRESTOR, BRACKET MOUNTED, 120/240 VOLT SERVICE, SQUARE D SQS1175, G.E., OUTLER HAMMER.
I1, I2	2	PHOTOCELL, 120V, 1500 VA RATED, SINGLE POLE, SINGLE THROW CONTACT, WEATHERPROOF AND CORROSION PROOF ENCLOSURE. ILL. LISTED, TORK 3000, PARAGON, OR INTERMATIC.
J	1	E.C. SHALL REUSE EXISTING CABINET IF POSSIBLE. ENCLOSURE PAD MOUNTED, STAINLESS STEEL, N.E.M.A. 4 CONSTRUCTION WITH KEY LOCKING DOOR. KEY CYLINDER SHALL MATCH EXISTING VILLAGE LIGHTING CONTROLLER LOCKS. HOFFMAN, OR APPROVED EQUAL, 30"W, 48"H, 18"D
K1, K2	2	TOGGLE SWITCH, SPDT, 20 AMP, 240 VOLT, SPECIFICATION GRADE MOUNTED IN SURFACE BOX. HUBBELL HBL1221, LEVITON 1221-2, PASS & SEYMOUR PS20AC1, OR COOPER 2221.
M	1	MAIN CIRCUIT BREAKER, MOLDED CASE THERMAL MAGNETIC, SERVICE ENTRANCE DUTY RATED 240 VOLT, 200 AMP, 2 POLE, AIC RATING OF 14,000 AMPS AT 240 VOLTS. INTEGRAL TO BRANCH PANEL.
N	1	COPPER LOAD TERMINAL BLOCK FOR AWG#8 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, SQUARE D CLASS 8501, G.E., OR OUTLER HAMMER.
T	1	THERMOSTAT, 40-80 DEGREE RANGE, CHROMALOX WR60, TRANE, MODNE, OR REZTOR.
S	1	HEATER, 120 VOLT, 375 WATT, 40-80 DEGREE THERMOSTAT, CHROMALOX 276-10, TRANE, MODNE, OR REZTOR.



2 LIGHTING CONTROL CABINET
NO SCALE
ILL LISTED
IDOT APPROVED

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REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
E6: ONE LINE DIAGRAM & SCHEDULES

DES PLAINES LIGHTING IMPROVEMENTS AND STREETSCAPE
DES PLAINES, ILLINOIS

SCALE: NTS
DATE: 8-14-2009

DRAWN BY: JOP
DESIGNED BY: MCK
CHECKED BY: MCK