

PANEL ID: PNL-U73E		AMPS: 100A	VOLTS: 120/240V	PHASE: 1Ø	WIRE: 3W	SURF. MOUNT <input type="checkbox"/>	TOP FED <input checked="" type="checkbox"/>						
DESCRIPTION: 120/240V DISTRIBUTION PANELBOARD		LOCATION: MOTOR ROOM											
MFG / MODEL: SQUARE D NQ		INTERRUPTING RATING: 14 kA											
MAIN BREAKER: 100A 2-POLE QD		INST. SETTINGS: N/A											
CCT.	DESCRIPTION	NOTE	WIRE (AWG)	BRKR AMPS	LOAD (VA)	L1	L2	LOAD (VA)	BRKR AMPS	WIRE (AWG)	NOTE	DESCRIPTION	CCT.
1	MOTOR ROOM LIGHTING, LIGHTING CONTROL BOX		12	15	232			300	20	10		MOTOR ROOM NORTH RECEPTACLES	2
3	MOTOR ROOM WEST RECEPTACLES		12	15	240			258	15	12	2	WET WELL LIGHTING, LIGHTING CONTROL JUNCTION BOX	4
5	CONTROL PANEL CP-U81		12	15	600			225	15	12	3	LIGHTING CONTROL JUNCTION BOX, OUTDOOR LIGHTING	6
7	GENERATOR ROOM LIGHTING, LIGHTING CONTROL BOX		12	15	232			731	15	12		WET WELL SUPPLY FAN SF-U66	8
9	VENTILATION PANEL JBA-U86		12	15	100			360	15	12		GENERATOR ROOM NORTH RECEPTACLES	10
11	OUTDOOR RECEPTACLES	GFCI	10	20	240			240	15	12		GENERATOR ROOM SOUTH RECEPTACLES	12
13	GENERATOR ROOM CARBON MONOXIDE DETECTOR		12	15	100			100	15	12	3	LIGHTING CONTROL JUNCTION BOX, EMERGENCY LIGHTING ELB-U74	14
15	SPARE											SPARE	16
17	SPARE											SPARE	18
19	SPACE											SPARE	20
21	SPACE											SPARE	22
23	SPACE											SPARE	24
25	SPACE											SPARE	26
27	SPACE											SPARE	28
29	SPACE											SPARE	30
31	SPACE											SPARE	32
33	SPACE											SPARE	34
35	SPACE											SPARE	36
37	SPACE											SPARE	38
39	SPACE											SPARE	40
41	SPACE											SPARE	42

TOTAL CONNECTED LOAD: 9.65 KVA

LINE 1: 4.79 kVA 39.9 A  
LINE 2: 4.86 kVA 40.5 A

NOTE LEGEND:  
AFCI ARC FAULT CIRCUIT INTERRUPTOR  
GFCI GROUND FAULT CIRCUIT INTERRUPTOR  
LOCK LOCKED BREAKER

NOTES:  
1. ALL BREAKERS ARE SINGLE-POLE QOB-VH BREAKERS UNLESS OTHERWISE IDENTIFIED.  
2. PROVIDE SECOND CABLE FEEDING LIGHTING CONTROL JUNCTION BOX.  
3. PROVIDE ONE (1) CABLE TO LIGHTING CONTROL JUNCTION BOX. OUTDOOR LIGHTS, PHOTOCELL AND EMERGENCY LIGHTING ARE TO BE FED FROM LIGHTING CONTROL JUNCTION BOX.

### LUMINAIRE SCHEDULE

TYPE	MANUFACTURER	MODEL	LAMPS		VOLTS	LOAD VA	RATING	MOUNTING	NOTES
			QTY	TYPE					
A	EATON	4VT2-LD5-8-DR-UNV-L840-CD1-U	N/A	LED	120	60	-	AN	2
	DELVIRO	VT4S-60C-4K-U-FR-GRY-V-BFCX-N-N							
B	LUXLOGIC LIGHTING	W-CR-WM-45W-40-70-UNV-D-DB	N/A	LED	120	58	-	AN	2
C	EATON	EVLEDCX2C701	N/A	LED	120	30	-	CS	-
D	EATON	EVLEDBX2C701	N/A	LED	120	30	-	W	-
EA	EMERGI-LITE	EF39PDM-LG	2	LED	12	8	-	W	1

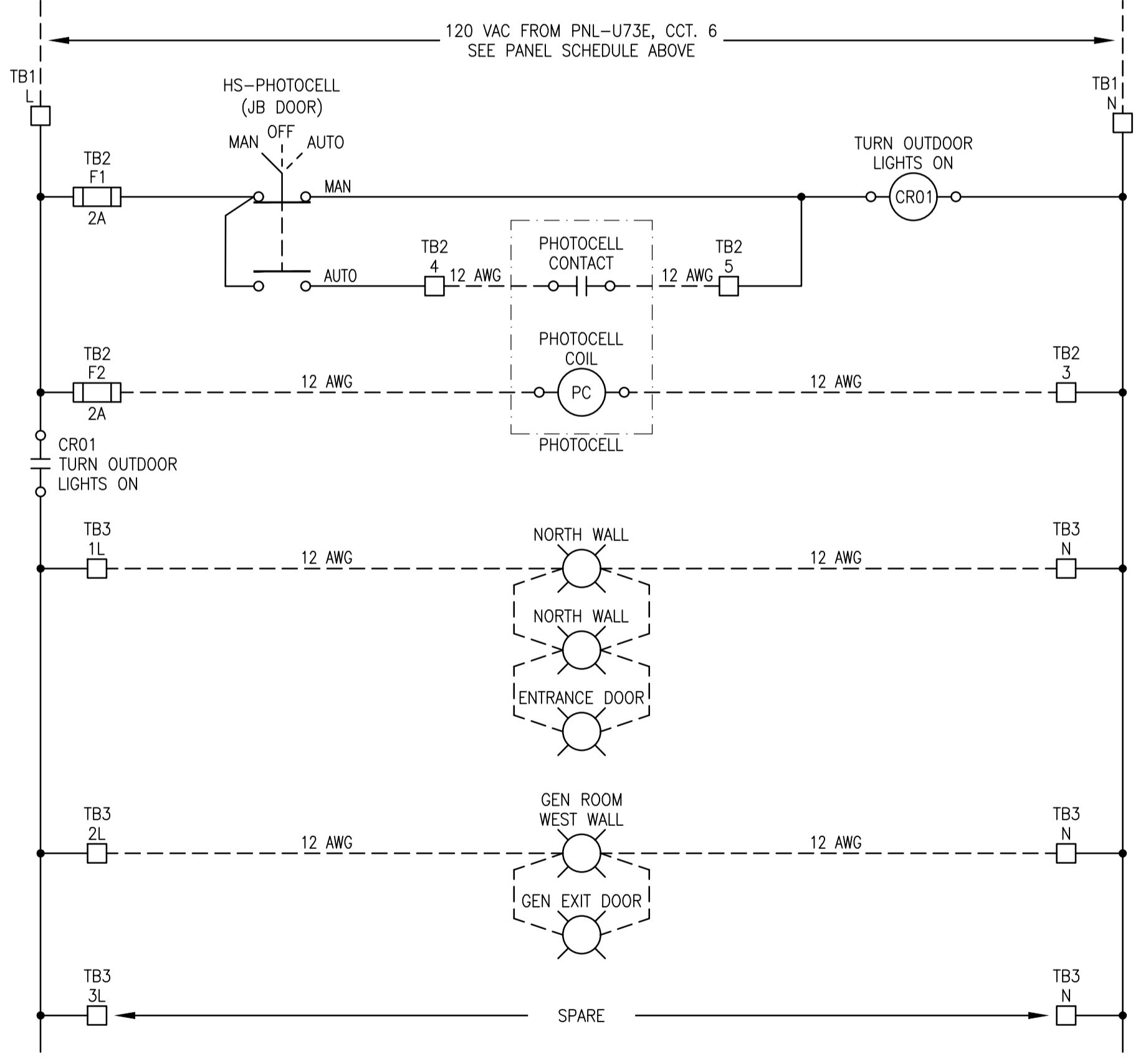
MOUNTING LEGEND:  
CH CHAIN HUNG  
CS CEILING SURFACE  
P PENDANT  
R RECESSED WALL  
W WALL  
TRC THREADED ROD AND CHANNEL  
AN AS NOTED ON DRAWINGS

NOTES:  
1. USE 10 AWG RW90 IN 16mm CONDUIT.  
2. LIGHT FIXTURE SHALL INCLUDE 0-10V DIMMABLE OPTION.

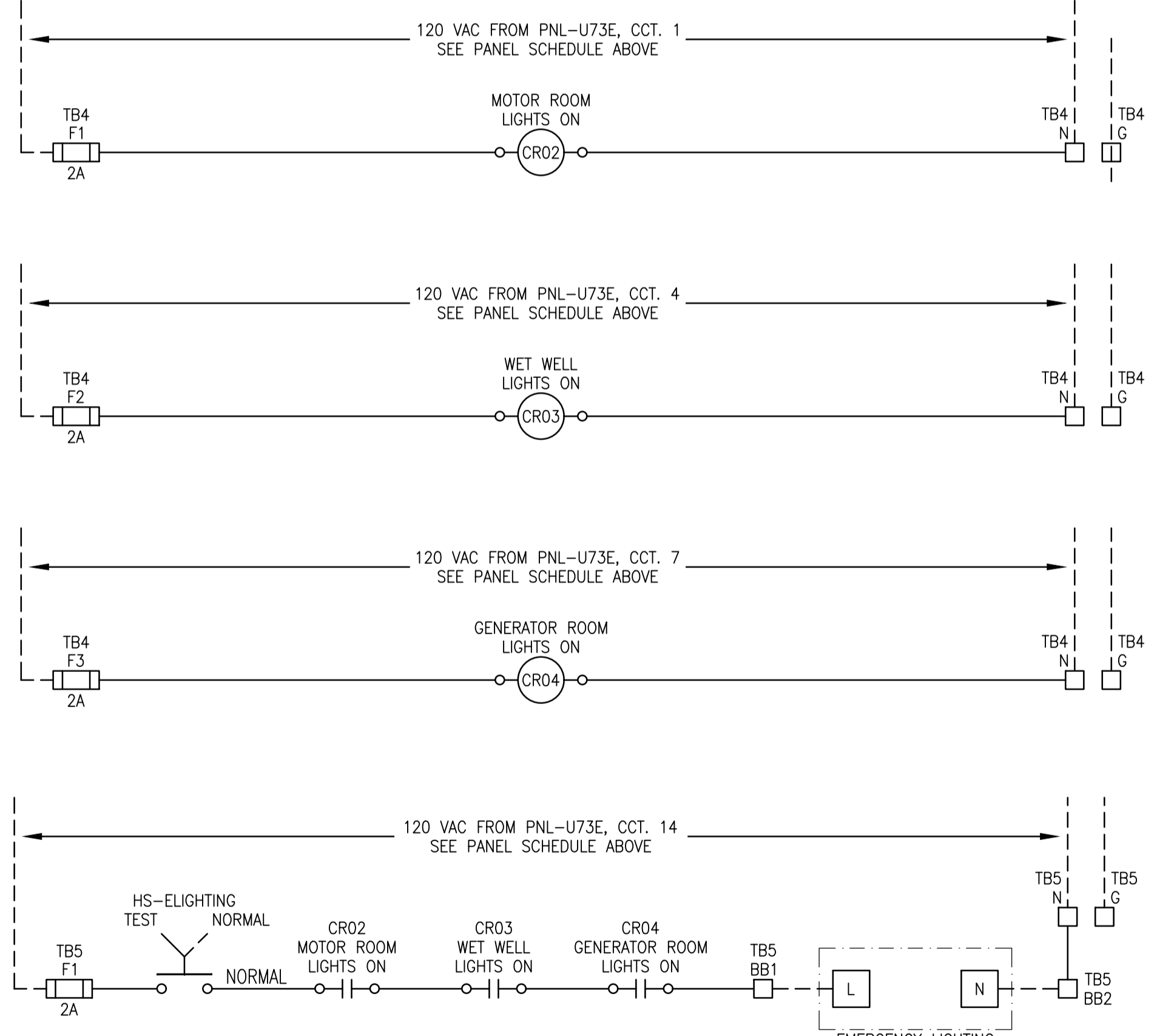
### EMERGENCY LIGHTING BATTERY SCHEDULE

ID	MANUFACTURER	MODEL	INPUT		OUTPUT VOLTS	INTERNAL LAMPS		REMOTE FIXTURES		TOTAL LOAD (W)	DESIGN TIME	NOTES
			VOLTS	VA		QTY	TYPE	QTY	TOTAL REMOTE LOAD (W)			
ELB-U74	EMERGI-LITE	12NXMW108/2LG	120	30	12	2	LED, 4W	2	16	46	2.0 HRS	1, 2

NOTES:  
1. BATTERY RATED FOR 30 MIN. @ 108W.  
2. ENCLOSURE SHALL BE RATED FOR NEMA 4X.



LIGHTING CONTROL JUNCTION BOX PHOTOCELL LIGHTING SCHEMATIC



LIGHTING CONTROL JUNCTION BOX EMERGENCY LIGHTING SCHEMATIC

### LIGHTING CONTROL JUNCTION BOX MATERIAL LIST

ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	OUTDOOR PHOTOCELL	PRECISION	ST-15 SERIES
1	1	SINGLE-DOOR TYPE 12 & 13 WALL-MOUNTED ENCLOSURE, 16" HEIGHT X 12" WIDTH X 6" DEPTH, COMPLETE WITH LAMACOID (ITEM 27)	HOFFMAN	A1612CH
2	1	BACKPAN, 16" HEIGHT X 12" WIDTH	HOFFMAN	A16P12
6	AS REQ'D	35mm DIN RAIL	PHOENIX CONTACT	0801733
7	AS REQ'D	FEED-THROUGH TERMINAL	PHOENIX CONTACT	3046184
8	AS REQ'D	FUSED TERMINAL	PHOENIX CONTACT	3046142
9	AS REQ'D	FUSE CONNECTOR	PHOENIX CONTACT	3036806
10	AS REQ'D	POTENTIAL EARTH TERMINAL	PHOENIX CONTACT	3046207
11	AS REQ'D	TERMINAL END PLATE	PHOENIX CONTACT	3047141
12	AS REQ'D	TERMINAL END CLAMP	PHOENIX CONTACT	1201442
13	AS REQ'D	PLUG-IN BRIDGE	PHOENIX CONTACT	3030365
14	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
15	4	RELAY, 120 VAC, SPDT, LED	OMRON	G2R-1-SN-AC120(S)
16	4	RELAY BASE, SPDT	OMRON	P2RF-05
17	1	3-POSITION SWITCH COMPLETE WITH LAMACOIDS (ITEM 19) 'MAN', 'OFF', 'AUTO'	SCHNEIDER ELECTRIC	HARMONY 9001K
18	1	2-POSITION SWITCH COMPLETE WITH LAMACOIDS (ITEM 19) 'TEST' AND 'NORMAL'	SCHNEIDER ELECTRIC	HARMONY 9001K
19	AS REQ'D	LAMACOID, WHITE PLATE WITH BLACK TEXT	-	-

**GENERAL NOTES:**  
1. ALL EQUIPMENT AND CABLING IS TO BE NEW AND IS TO BE PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE INDICATED AS EXISTING.  
2. CONTRACTOR SHALL PROVIDE A TYPE WRITTEN PANEL DIRECTORY.

**SPECIFIC NOTES:**  
1. PROVIDE AND INSTALL NEW LIGHTING CONTROL JUNCTION BOX COMPLETE WITH RELAYS, 3-POSITION SWITCH, 2-POSITION SWITCH AND TERMINAL BLOCKS AS SHOWN. SWITCHES SHALL BE MOUNTED ON JUNCTION BOX COVER COMPLETE WITH LAMACOIDS AS INDICATED. ALL INTERNAL AND EXTERNAL WIRING TO BE #12 AWG AND BE INSTALLED AS PER SCHEMATIC DIAGRAM SHOWN.  
2. PROVIDE AND INSTALL NEW OUTDOOR PHOTOCELL. PROVIDE 4C #12 AWG RW90 IN CONDUIT TO CONNECT PHOTOCELL TO PHOTOCELL JUNCTION BOX.



DESIGNED BY: K. SAPIAK	CHECKED BY: B. CLEVEN
DRAWN BY: C. DUBON	APPROVED BY: B. CLEVEN
SCALE: N.T.S.	ISSUED FOR CONSTRUCTION BY: K. ZUREK
DATE: 2019/06/04	DATE: 2021/03/24
CONSULTANT NO.:	

**SNC-LAVALIN INC.**  
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204-786-8080

ENGINEER'S SEAL

**PRELIMINARY**  
NOT TO BE USED FOR CONSTRUCTION

**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT

KEEWATIN UNDERPASS PUMPING STATION  
2021 UPGRADES  
ELECTRICAL SCHEDULES  
AND PHOTOCELL DETAILS

CITY DRAWING NUMBER: 1-0304U-E0009  
SHEET: 001  
REV: 0A  
SIZE: A1