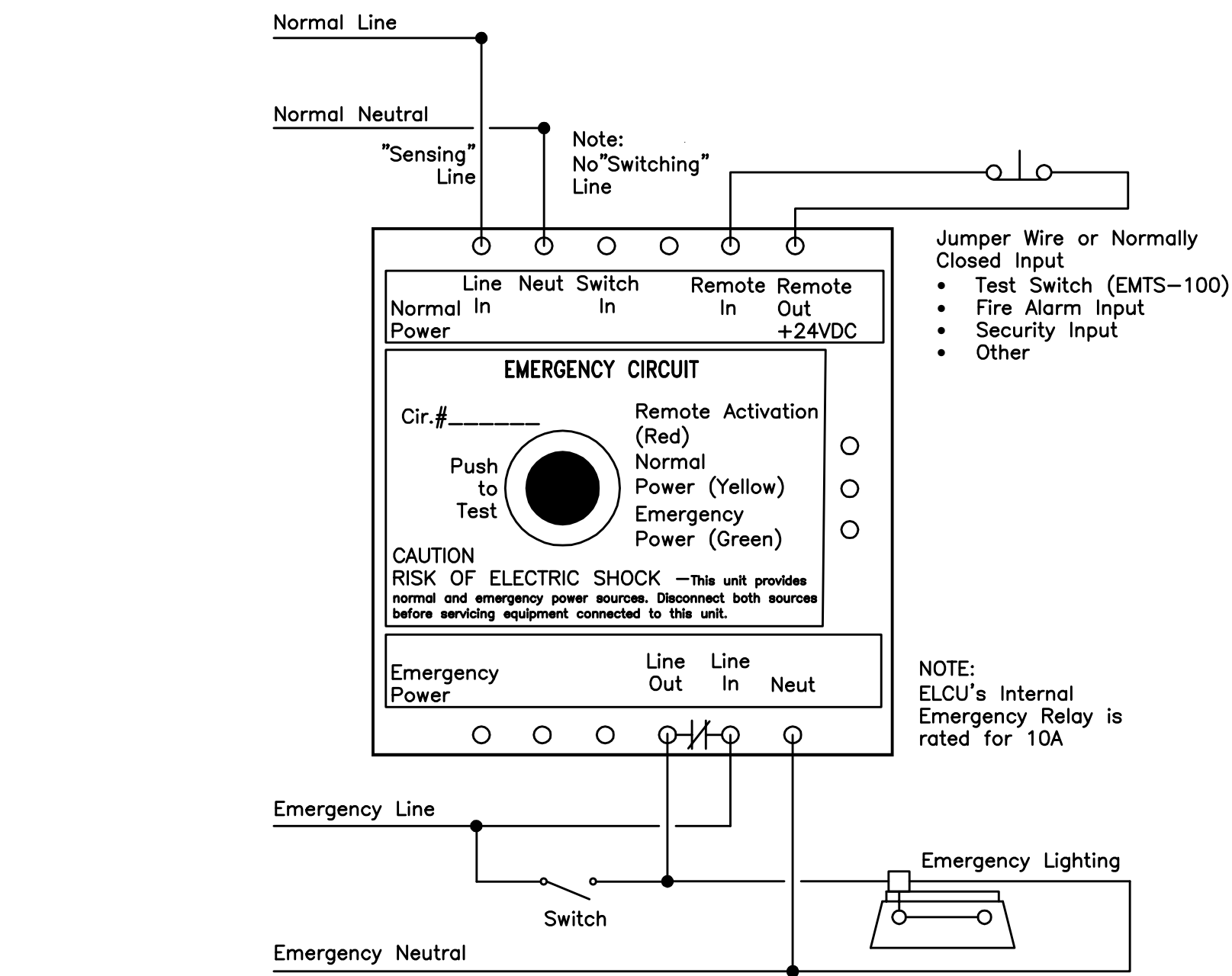
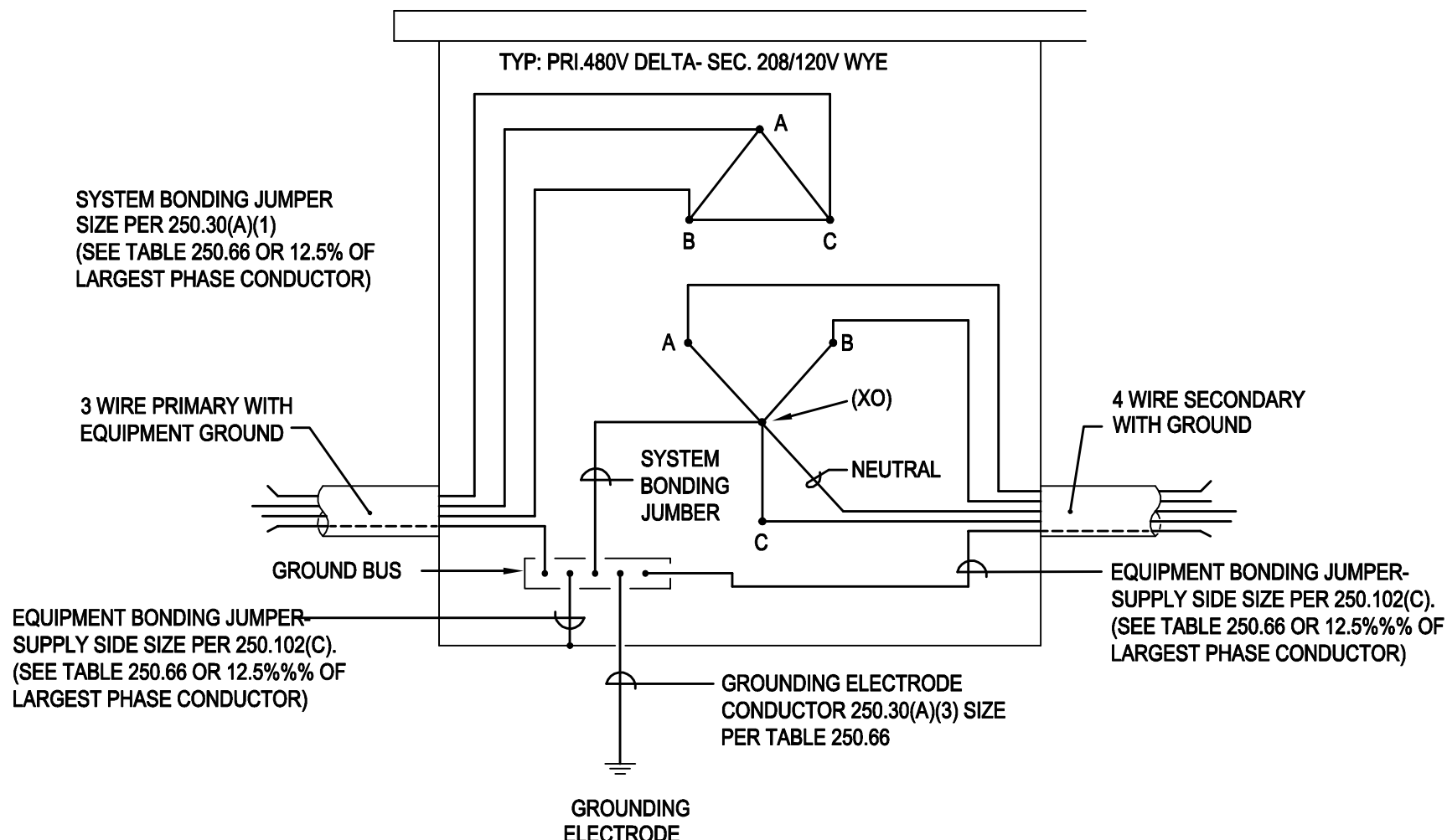


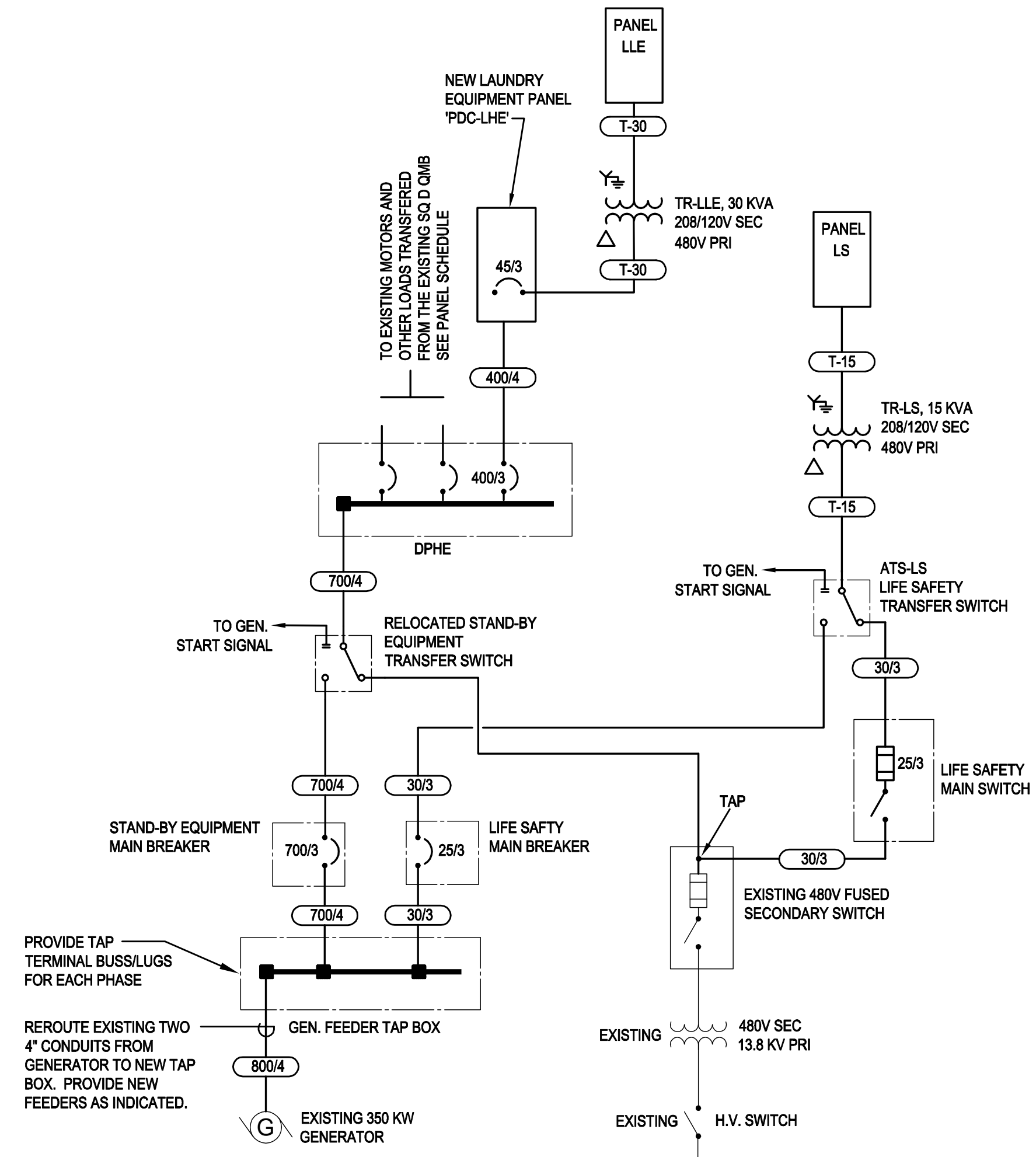
three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot



3 EMERGENCY LIGHTING CONTROL UNIT W/ SWITCH BYPASS
E300 NO SCALE



2 SEPARATELY DERIVED SYSTEM
E300 NO SCALE



1 BLDG. 2 EMERGENCY POWER ONE-LINE DIAGRAM
E300 SCALE: NONE

- DETAIL 1/E300 GENERAL NOTES
- NOTE: ALL ITEMS SHOWN ARE NEW UNLESS NOTED OTHERWISE.
 - ALL CONDUIT IS ALLOWED TO BE SURFACE MOUNTED.

LINE WEIGHT KEY	
—	ALL ITEMS INDICATED BY A DARK SOLID LINE ARE NEW
---	ALL ITEMS INDICATED BY A LIGHT SOLID LINE ARE EXISTING TO REMAIN
----	ALL ITEMS INDICATED BY A DARK DASHED LINE ARE EXISTING TO BE REMOVED
-.-.-	ALL ITEMS INDICATED BY A LIGHT DASH-DOT-DASH LINE ARE EQUIPMENT DIVISION LINES

SYMBOL SCHEDULE	
SYMBOL	DESCRIPTION
[Symbol]	SURFACE/SUSPENDED MOUNTED FLUORESCENT STRIP OR LINEAR
[Symbol]	SINGLE POLE SWITCH
[Symbol]	DISTRIBUTION PANEL WITH DESIGNATION
[Symbol]	BRANCH PANEL WITH DESIGNATION
[Symbol]	DISCONNECT SWITCH
[Symbol]	MOTOR WITH DESIGNATION
[Symbol]	TRANSFORMER
[Symbol]	GENERATOR SYSTEM WITH DESIGNATION- ONE LINE DIAGRAM
[Symbol]	CIRCUIT BREAKER- ONE LINE DIAGRAM
[Symbol]	SWITCH- ONE LINE DIAGRAM
[Symbol]	SWITCH/FUSE ASSEMBLY- ONE LINE DIAGRAM
[Symbol]	TRANSFORMER- ONE LINE DIAGRAM
[Symbol]	AUTOMATIC TRANSFER SWITCH- ONE LINE DIAGRAM
[Symbol]	TRANSFORMER, DELTA PRIMARY- ONE LINE DIAGRAM
[Symbol]	TRANSFORMER, GROUNDED WYE SECONDARY- ONE LINE DIAGRAM
[Symbol]	DUPLEX RECEPTACLE
[Symbol]	EMERGENCY LIGHTING - BATTERY PACK
[Symbol]	SURFACE/WALL MOUNT LIGHT FIXTURE
[Symbol]	MOTOR STARTER/CONTROLLER
[Symbol]	TELEPHONE/DATA OUTLET
[Symbol]	EQUIPMENT CONNECTOR

MOTOR SCHEDULE																				
NO.	EQUIPMENT	HP	VOLTS	Ø	FEED FROM				STARTER			DISC. SW.			CONDUCTORS				NOTE	
					PANEL	CKT NO	BRKR SIZE	SW SIZE	FUSE SIZE	TYPE	SIZE	BY	NEMA TYPE	AMP RATING	FUSE SIZE	QTY.	SIZE	GRD		CONDUIT
1	AC-105	30	480	3	MSP	1,3,5	90/3	-	-	VFD	-	HC	-	-	-	3	8	8	3/4	A
2	EF-1	25	480	3	BUSWAY	-	-	100	80	VFD	-	HC	3R	100	-	3	8	8	3/4	C
3	AC-133	25	208	3	MDP	1	125/3	-	-	VFD	-	HC	-	-	-	3	3	6	1-1/4	B
4	UH-105	120	120	1	LP	1	20/1	-	-	MAN	-	EC	1	30	-	2	12	12	3/4	
5	UH-133	120	120	1	LLE	1	20/1	-	-	MAN	-	EC	1	30	-	2	12	12	3/4	

- MOTOR SCHEDULE NOTES
- PROVIDE SINGLE POINT CONNECTION. DISCONNECT SWITCH AND VFD FURNISHED WITH UNIT BY HVAC CONTRACTOR. REPLACE EXISTING 40A/3P CIRCUIT BREAKER WITH NEW CIRCUIT BREAKER AS INDICATED.
 - PROVIDE SINGLE POINT CONNECTION. DISCONNECT SWITCH AND VFD FURNISHED WITH UNIT BY HVAC CONTRACTOR. REPLACE EXISTING 100A/3P CIRCUIT BREAKER WITH NEW CIRCUIT BREAKER AS INDICATED.
 - PROVIDE SINGLE POINT CONNECTION. VFD FURNISHED WITH UNIT BY HVAC CONTRACTOR. PROVIDE NEW FUSED DISCONNECT IN BUSWAY TO FEED MOTOR AND NEMA 3R NON FUSED DISCONNECT AT MOTOR ON ROOF.
- MAN- MANUAL MOTOR STARTER
RVNR- REDUCED VOLTAGE NON-REVERSING
FVNR- FULL VOLTAGE NON-REVERSING WITH HAND/OFF/AUTO SWITCH
VFD- VARIABLE FREQUENCY DRIVE
HC- HEATING CONTRACTOR
EC- ELECTRICAL CONTRACTOR

PANEL SCHEDULE														
PANEL NO.	VOLTS	PH	WIRE	MAIN BUS RATING	MIN. AIC RATING	BREAKERS						CABINET TYPE	ROOM	REMARKS
						1 POLE AMP	2 POLE QTY	3 POLE AMP	3 POLE QTY	4 POLE AMP	4 POLE QTY			
DPHE	480	3	4	800	22K	-	-	60	3	400	1	MEZZANINE	-	SQ D L-LINE, PROVIDE (2) 225A SPACES AND (5) 100A SPACES SEE NOTE A BELOW
PDC-LHE	480	3	4	400	22K	-	-	60	3	400	1	SURFACE	204	SQ D L-LINE, PROVIDE (8) 100A SPACES
PDC-LLE	208/120	3	4	-	10K	20	12	-	-	-	-	SURFACE	204	SQ D 30 1-POLE SPACE PANELBOARD
LS	208/120	3	4	50	10K	20	6	-	-	-	-	SURFACE	203	SQ D 18 1-POLE SPACE PANELBOARD

- PANEL SCHEDULE NOTES
- THE 400A CIRCUIT BREAKER IS REQUIRED FOR THE NEW WORK TO FEED PANEL 'PDC-LHE'. THE OTHER LISTED BREAKERS IN THE SCHEDULE ARE BASED ON OWNER FURNISHED INFORMATION. THE CONTRACTOR SHALL BASE HIS BID ON THE PROVIDED INFORMATION BUT SHALL FIELD VERIFY ACTUAL NEW CIRCUIT BREAKERS REQUIRED TO MAINTAIN OPERATIONAL EQUIPMENT BEING TRANSFERRED FROM THE SQ D 'OMB' TO THE NEW L-LINE PANEL. 400A CIRCUIT BREAKER TO BE 100% RATED.

TRANSFORMER FEEDER SCHEDULE										
480V 3 PH 3W PRIMARY						208/120V SECONDARY				
KVA	MARK	CIRCUIT BREAKER	PHASE CONDUCTORS	GROUND CONDUCTORS	SETS & SIZE CONDUIT	CIRCUIT BREAKER	PHASE CONDUCTORS	NEUTRAL CONDUCTOR	GROUND CONDUCTOR	SETS & SIZE CONDUIT
15	T-15	25/3	3 #10	1 #10	(1) 3/4"	50/3	3 #6	1 #6	1 #6	(1) 1"
30	T-30	45/3	3 #6	1 #10	(1) 1"	100/3	3 #2	1 #2	1 #6	(1) 1 1/2"

FEEDER SCHEDULE - 600 V				
MARK (XXXX)	PHASE CONDUCTORS	NEUTRAL CONDUCTORS	GROUND CONDUCTORS	SETS & SIZE CONDUIT
30/3	3 #10	0	1 #10	(1) 3/4"
40/4	(3) 250 MCM	(1) 250 MCM	1 #3	(2) 2-1/2"
70/4	(3) 400 MCM	(1) 400 MCM	1 #10	(2) 3"
80/4	(3) 500 MCM	(1) 500 MCM	1 #1/0	(2) 3-1/2"

TRANSFER SWITCH SCHEDULE							
NO.	VOLTAGE	PHASES	AMPERAGE	POLES	WITH STAND RATING	CLOSED TRANSITION	MANUAL/AUTOMATIC
ATS-LS	480	3	40	4	10,000	NO	AUTOMATIC

- REMARKS
- PROVIDE BY-PASS ISOLATION

LIGHTING FIXTURE SCHEDULE										
MARK	DESCRIPTION	HOUSING	VOLT	LAMP(S)	LAMP TYPE	TYPE	MOUNTING	FIXTURE BRAND	CATALOG NUMBER	NOTES
BP	EMERGENCY BATTERY UNIT	-	120	2-W 6V	-	SURFACE	WALL	LITHONIA SURE-LITES EMERG-LITE	ELM618 N SD EQUAL	TWO HEADS, ADJUSTABLE, SELF-DIAGNOSTICS
HD	WALLPAK	TEMPERED GLASS	120	2-42W	TRT SP 35K	SURFACE	WALL	LITHONIA COOPER DAYBRITE	WST 242TRT FT 120 PE DDBT EQUAL	WITH INTEGRAL PHOTOCCELL; BALLAST RATED TO -20F
L2	4 FT INDUSTRIAL	NONE	120	2-F32W	T8 SP 35K	SURFACE	CEILING	LITHONIA COOPER DAYBRITE	L 2 32 GEB10IS IC-232-TEB81 EQUAL	SOLID REFLECTOR

PROJECT DIRECTOR:

ARCHITECT/ENGINEERS:

Madison: 1232 Fourier Drive, Suite 101 T 608.833.7000
Madison, Wisconsin 53717-1960 F 608.833.6996
Email: info@henneman.com
Website: http://www.henneman.com
JOB NO. 11-7104

Drawing Title
ELECTRICAL SCHEDULES AND DETAILS

Approved Project Director

Project Title
HVAC UPGRADES

Location
Madison, Wisconsin 53705

Date
AUGUST 08, 2011

Checked
HEI

Drawn
HEI

Project Number
607-11-106

Building Number
2, 3, 13

Drawing Number
E300

Office of Construction and Facilities Management

Department of Veterans Affairs