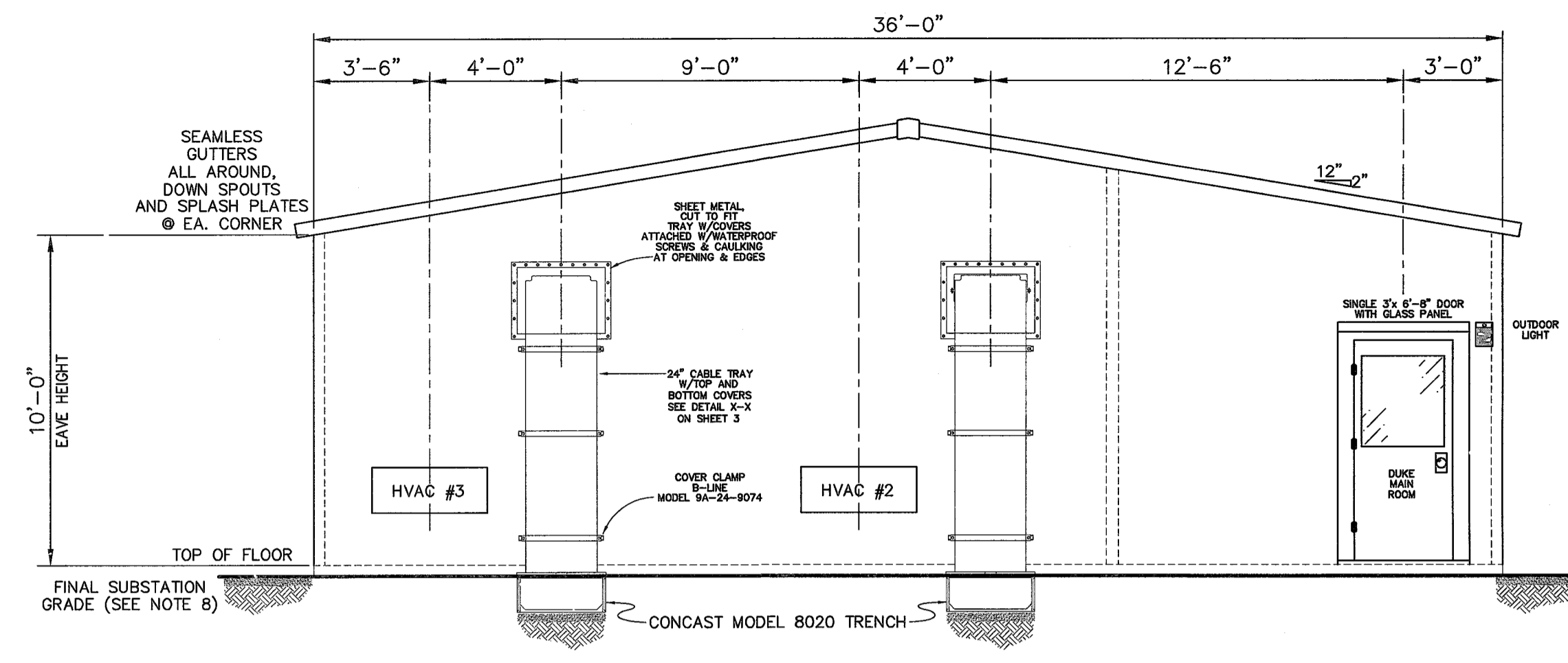
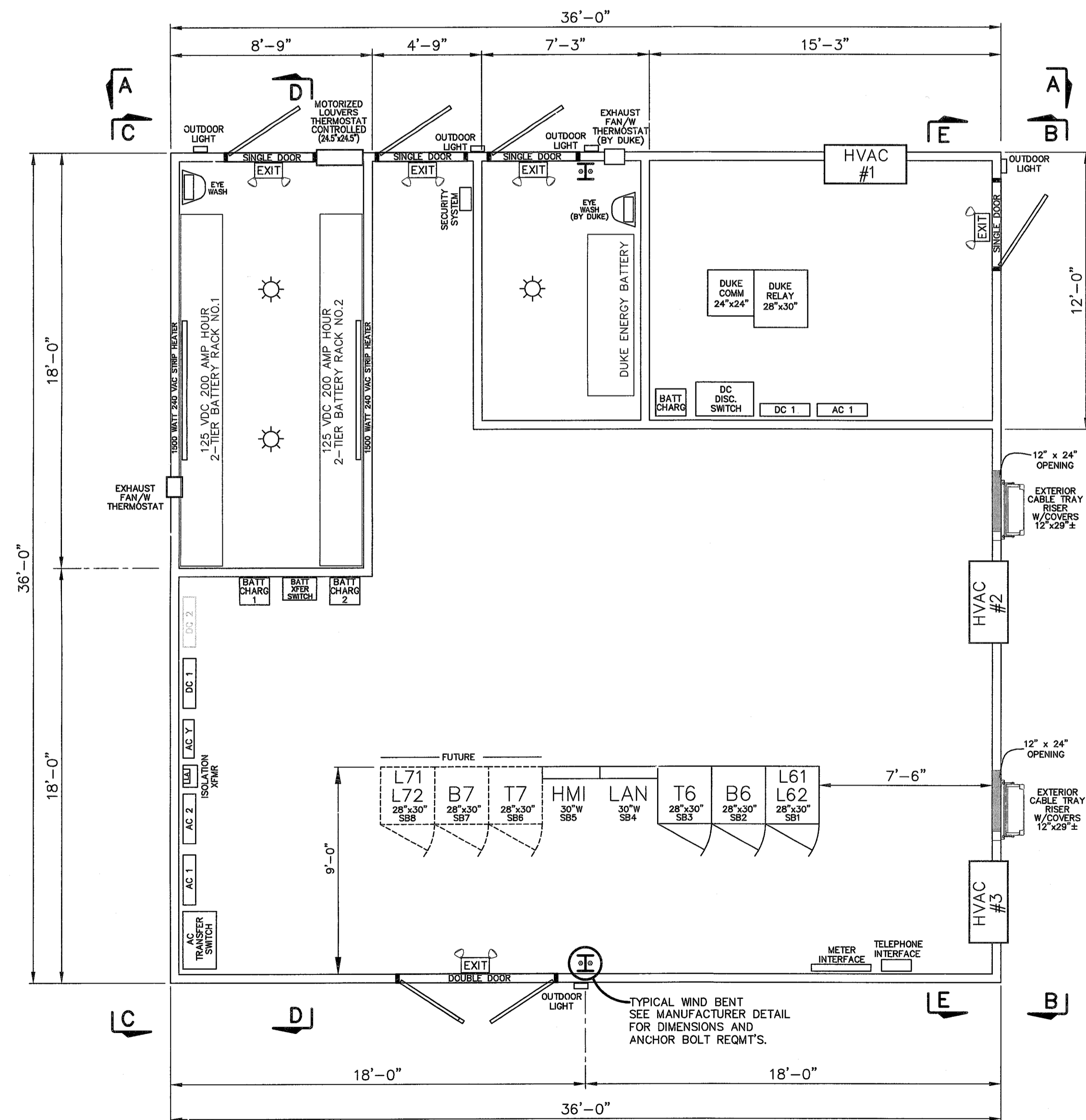


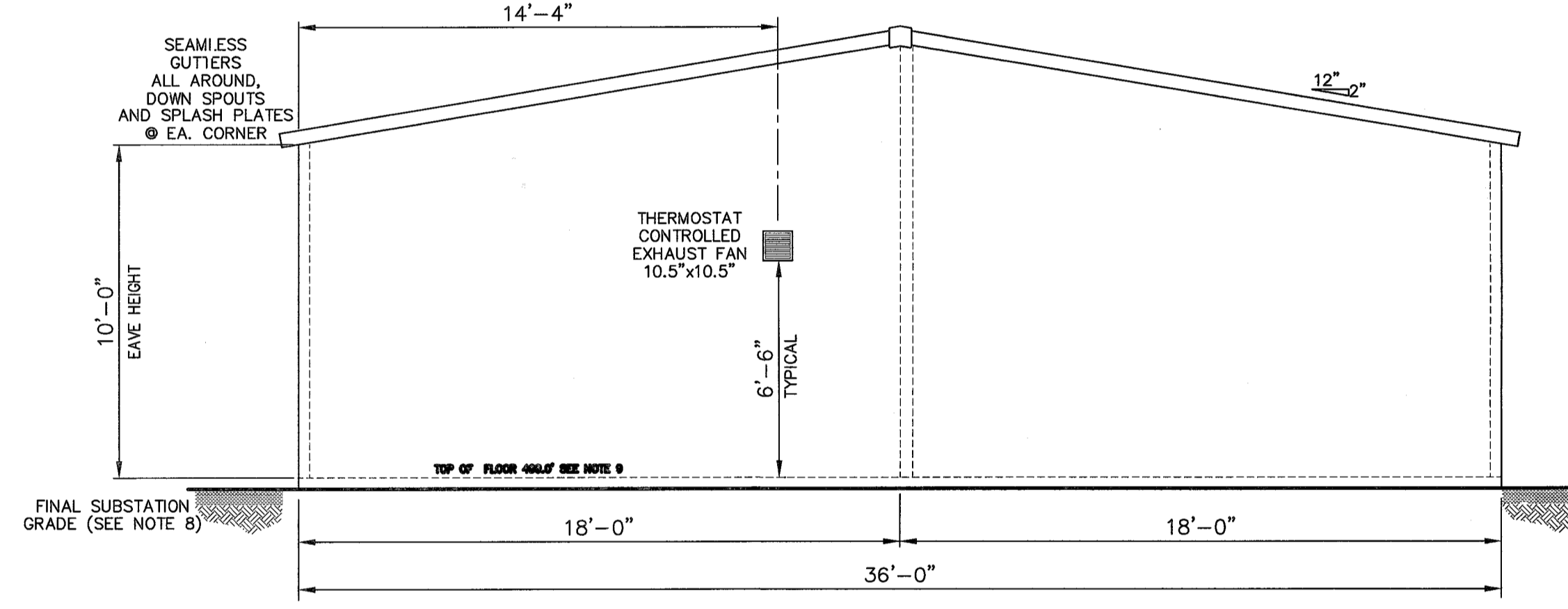
SECTION A-A
SCALE: 1/4"=1'-0"



SECTION B-B
SCALE: 1/4"=1'-0"



PLAN VIEW
SCALE: 1/4"=1'-0"



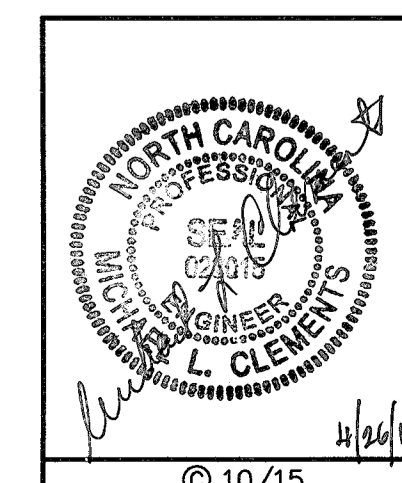
SECTION C-C
SCALE: 1/4"=1'-0"

LEGEND

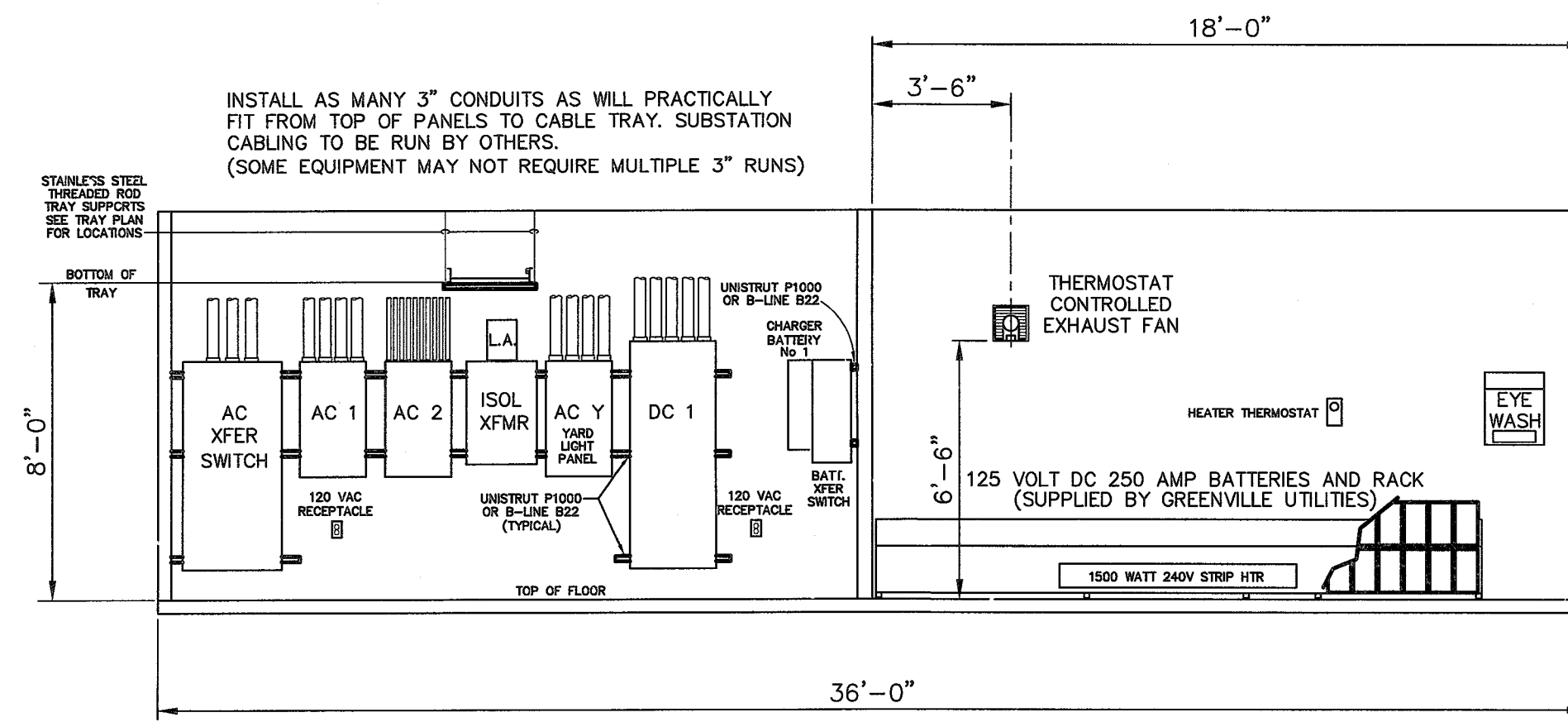
- EMERGENCY & EXIT LIGHTING UNIT WITH SELF-CONTAINED BATTERY AND CHARGING CKT.
- 120 V.A.C. 150 WATT INCANDESCENT LIGHT FIXTURE W/VAPOR PROOF GLOBE.

NOTES

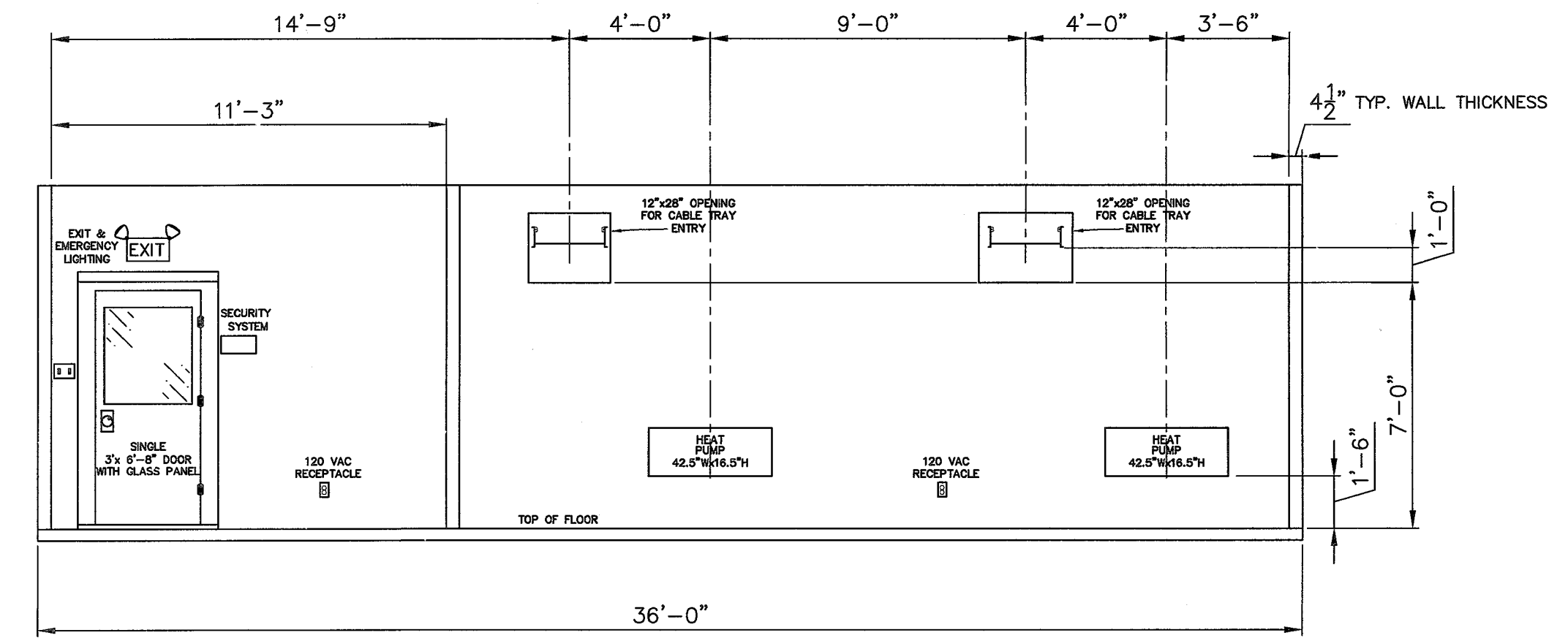
1. PANELS TO BE GROUNDED (VIA CABLE TRAY) TO SUBSTATION GRID AT TWO SEPARATE LOCATIONS ON DIAGONALLY OPPOSITE CORNERS. BONDING CONDUCTOR SHALL BE 2/0 AWG STRANDED COPPER.
2. ALL ENTRANCES TO BUILDING SHALL BEAR "NO SMOKING OR OPEN FLAME" WARNING SIGNS ON EXTERIOR.
3. BUILDING CONTRACTOR SHALL FURNISH AND INSTALL CONTROL HOUSE.
4. HORIZONTAL CABLE TRAY STRAIGHT SECTIONS AND FITTINGS TO BE NEMA TYPE BC, ALUMINUM LADDER TYPE 24" WIDE, 3" DEEP W/4" WALLS & 9" RUNG SPACING, B-LINE "SERIES M24" OR APPROVED EQUAL. TRAY RISER TO BE 24" WIDE, 6" DEEP W/7" WALLS & 9" RUNG SPACING, B-LINE "SERIES 37" WITH TOP AND BOTTOM COVERS, ALL TO BE B-LINE OR APPROVED EQUAL.
5. HOUSE TO BE ATTACHED TO STATION GROUND GRID AT EACH CORNER BY USE OF 1/4" x 3" COPPER BUS BAR, INSTALLED THROUGH WALL 12" ABOVE FLOOR LEVEL, 4-HOLE NEMA SPACING, INSIDE & OUT.
6. ALL LIGHTS, FLUORESCENT OR INCANDESCENT TO INCLUDE THREE SPARES FOR EACH FIXTURE PROVIDED. THIS INCLUDES EXIT LIGHTS AND EMERGENCY LIGHTING.
7. SEE HOUSE FABRICATORS DRAWINGS FOR EXACT LOCATION, QUANTITY AND SIZE OF WIND BENTS IF REQUIRED.
8. WHERE THE FINAL SUBSTATION GRADE IS DISTURBED DURING CONSTRUCTION, A TOTAL OF AT LEAST SIX INCHES (6") OF CRUSHER RUN IS TO BE ADDED BACK TO ACHIEVE FINAL SUBSTATION GRADE.
9. GREENVILLE UTILITIES SHALL FURNISH AND INSTALL CABLE TRAY SUPPORT RODS, AND COMPLETE ELECTRICAL WIRING FOR OUTLETS, SWITCHES, RECEPTACLES, AND LIGHT FIXTURES.
10. AFTER TWO (2) WEEKS CURING, THE CONTROL HOUSE FLOOR SHALL BE COATED WITH WATER SEALANT UTILIZING DUPONT "MIRON" SEALANT OF AT LEAST TWO (2) COATS APPLIED PER MANUFACTURER'S DIRECTIONS.



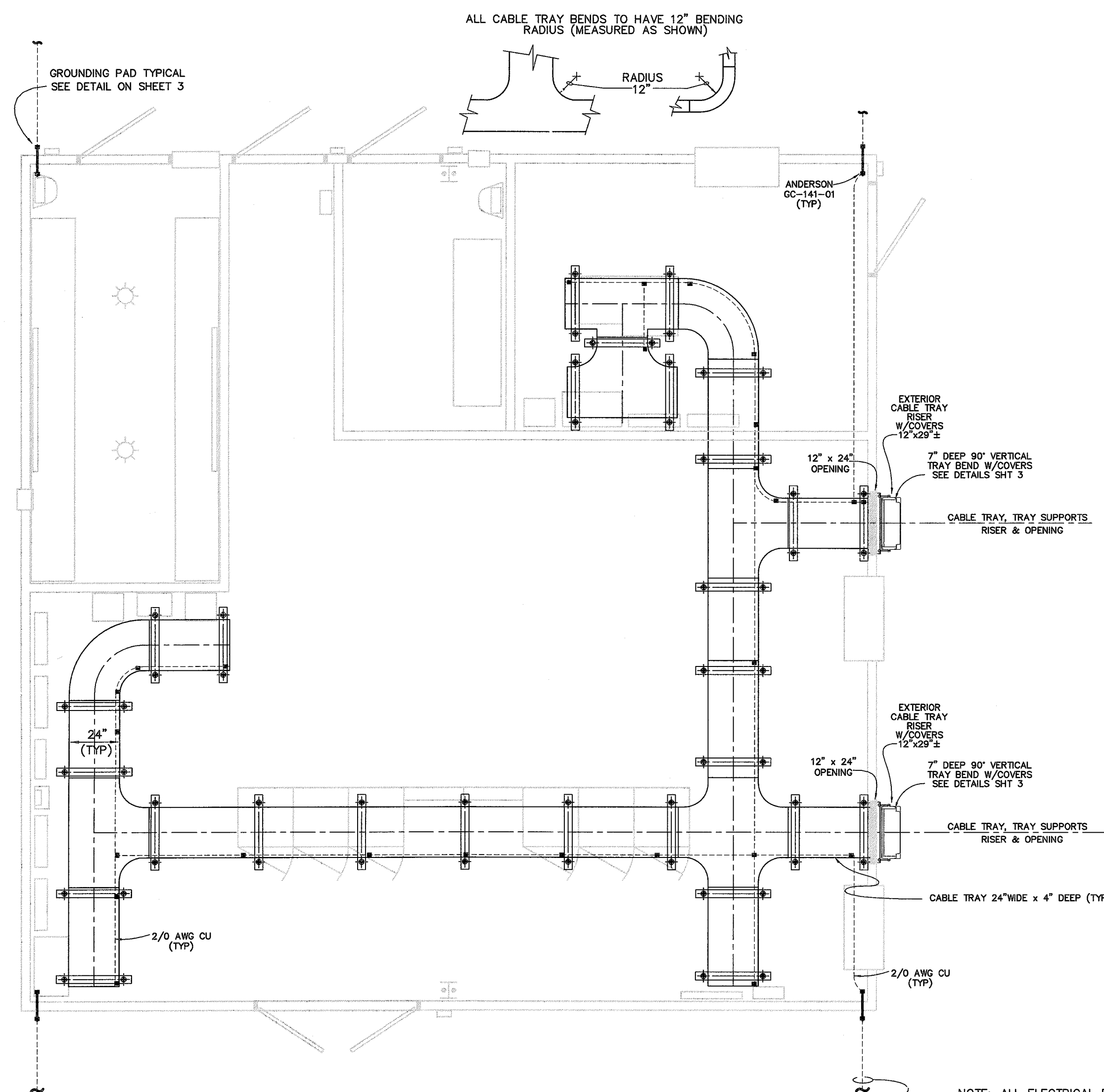
GREENVILLE UTILITIES GREENVILLE, NORTH CAROLINA			
GREENVILLE POD #3 230KV TO 115KV SUBSTATION CONTROL HOUSE SECTIONS AND DETAILS			
Booth & Associates LLC <small>8811 Glenwood Avenue Raleigh, NC 27612 COMMERCIAL ENGINEERS INC 7-00291</small>			
0	RELEASED FOR BIDS	04/26/16	CKD. MLC
1	NO. REVISIONS	DATE	SCALE: 1/4"=1'-0"
			APPD. MLC
			DATE
			PLLOT: 1:1
			DWG. NO. CH1
			14022CH1



SECTION D-D
SCALE: 1/4"=1'-0"



SECTION E-E
SCALE: 1/4"=1'-0"

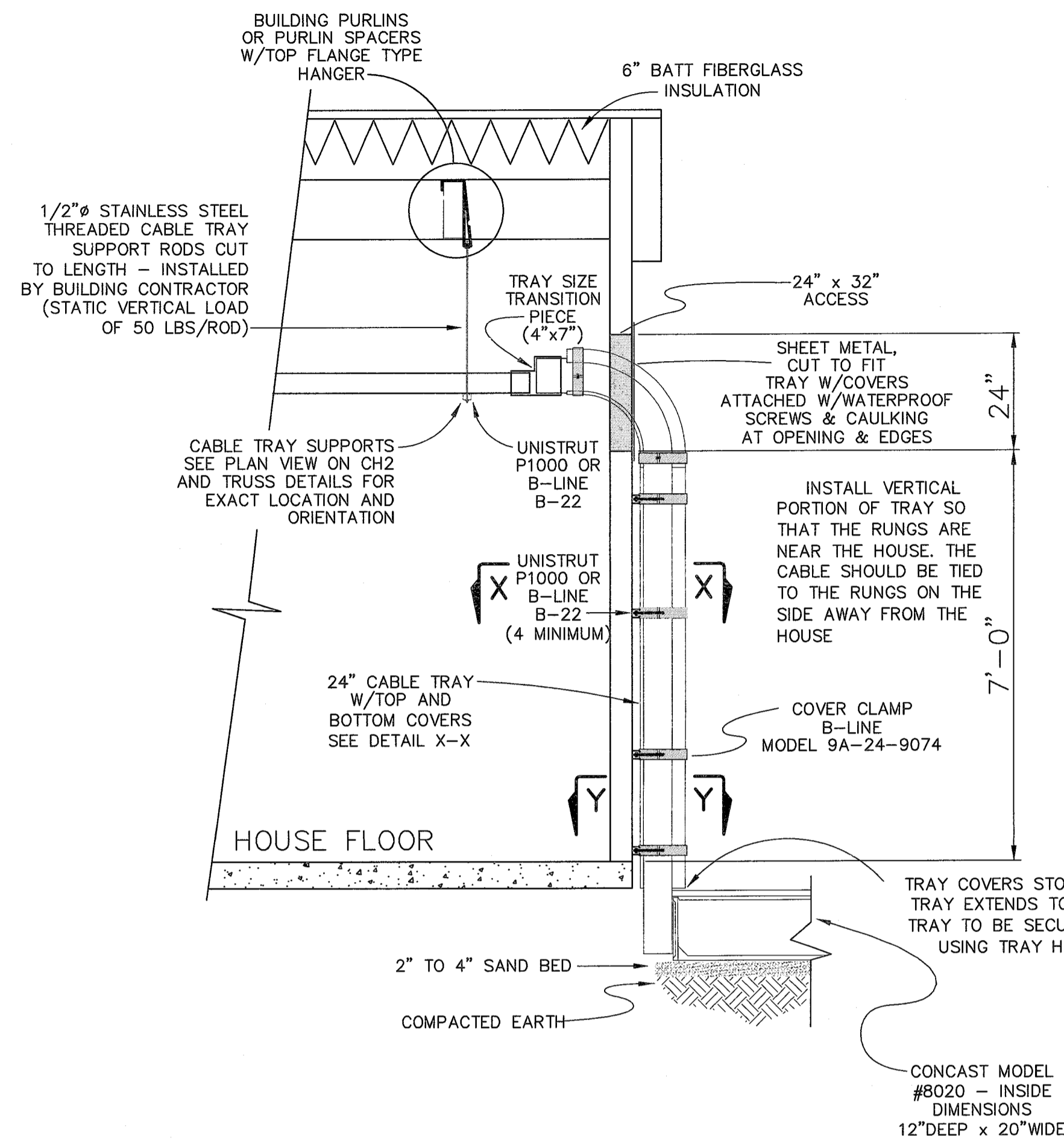


CABLE TRAY AND GROUNDING PLAN
SCALE: 1/4"=1'-0"

NOTES

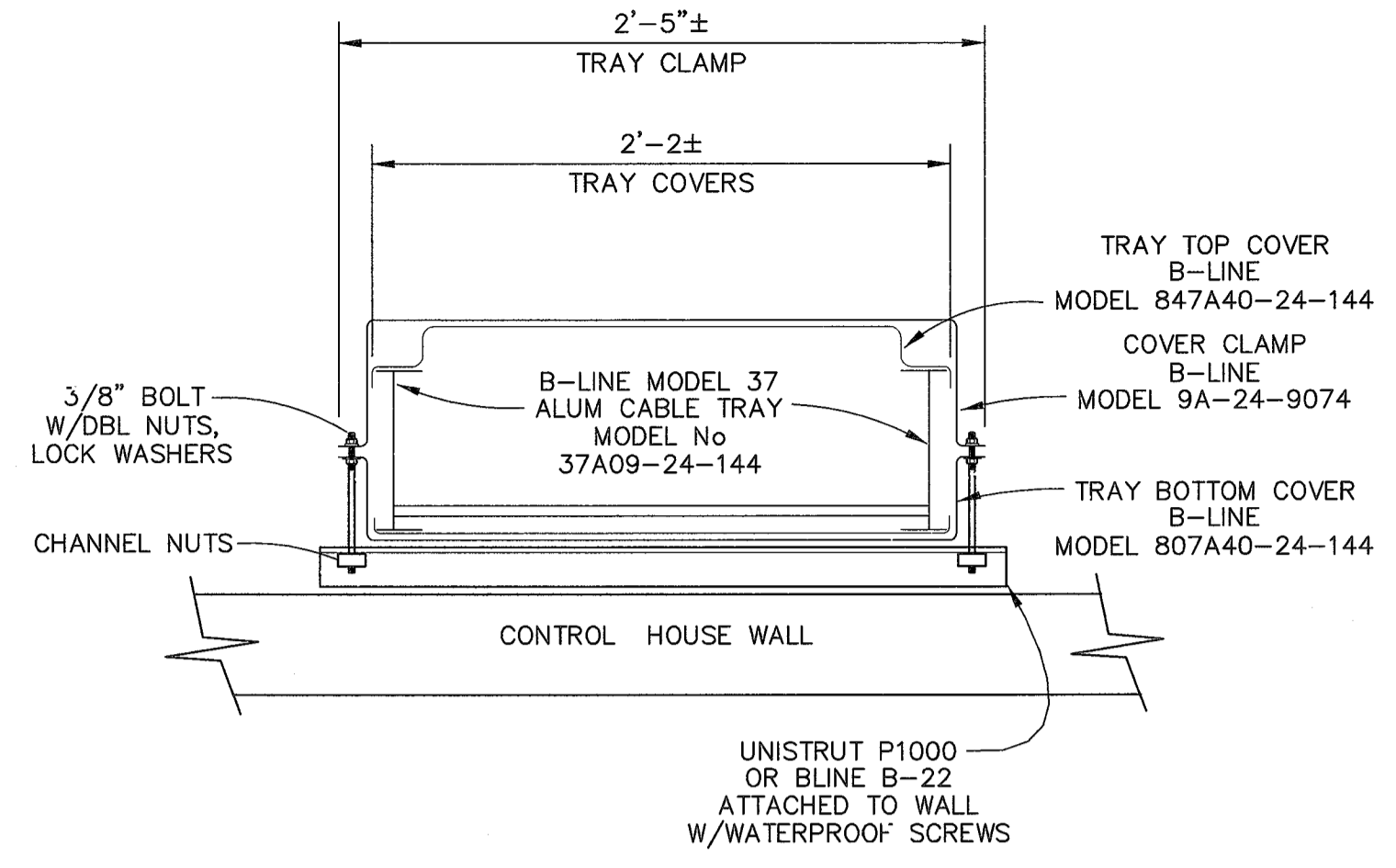
1. PANELS TO BE GROUND (VIA CABLE TRAY) TO SUBSTATION GRID AT TWO SEPARATE LOCATIONS ON DIAGONALLY OPPOSITE CORNERS. BONDING CONDUCTOR SHALL BE 2/0 AWG STRANDED COPPER.
2. ALL ENTRANCES TO BUILDING SHALL BEAR "NO SMOKING OR OPEN FLAME" WARNING SIGNS ON EXTERIOR.
3. BUILDING CONTRACTOR SHALL FURNISH AND INSTALL CONTROL HOUSE.
4. HORIZONTAL CABLE TRAY STRAIGHT SECTIONS AND FITTINGS TO BE NEMA TYPE 8C, ALUMINUM LADDER TYPE 24" WIDE, 3" DEEP W/4" WALLS & 9" RUNG SPACING, B-LINE "SERIES M24" OR APPROVED EQUAL. TRAY RISER TO BE 24" WIDE, 6" DEEP W/7" WALLS & 3" RUNG SPACING, B-LINE "SERIES 37" WITH TOP AND BOTTOM COVERS, ALL TO BE B-LINE OR APPROVED EQUAL.
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6. ALL LIGHTS, FLUORESCENT OR INCANDESCENT TO INCLUDE THREE SPARES FOR EACH FIXTURE PROVIDED. THIS INCLUDES EXIT LIGHTS AND EMERGENCY LIGHTING.
7. SEE HOUSE FABRICATORS DRAWINGS FOR EXACT LOCATION, QUANTITY AND SIZE OF WIND BENTS IF REQUIRED.
8. WHERE THE FINAL SUBSTATION GRADE IS DISTURBED DURING CONSTRUCTION, A TOTAL OF AT LEAST SIX INCHES (6") OF CRUSHER RUN IS TO BE ADDED BACK TO ACHIEVE FINAL SUBSTATION GRADE.
9. GREENVILLE UTILITIES SHALL FURNISH AND INSTALL CABLE TRAY SUPPORT RODS, AND COMPLETE ELECTRICAL WIRING FOR OUTLETS, SWITCHES, RECEPTACLES, AND LIGHT FIXTURES.
10. AFTER TWO (2) WEEKS CURING, THE CONTROL HOUSE FLOOR SHALL BE COATED WITH WATER SEALANT UTILIZING DUPONT "IMRON" SEALANT OF AT LEAST TWO (2) COATS APPLIED PER MANUFACTURER'S DIRECTIONS.

		GREENVILLE UTILITIES GREENVILLE, NORTH CAROLINA	
		GREENVILLE POD #3 230KV TO 115KV SUBSTATION CONTROL HOUSE SECTIONS AND DETAILS	
		Booth & Associates, LLC <small>9811 Glenwood Avenue, Raleigh, NC 27617</small>	
DATE: 03/01/16	APPD. MLC	DATE: 04/26/16	APPD. MLC
DWG. NO. CH2	SCALE: 1/4"=1'-0"	PLT: 1:1	DWG. NO. CH2
NO. REVISIONS	DATE	SCALE: 1/4"=1'-0"	PLT: 1:1

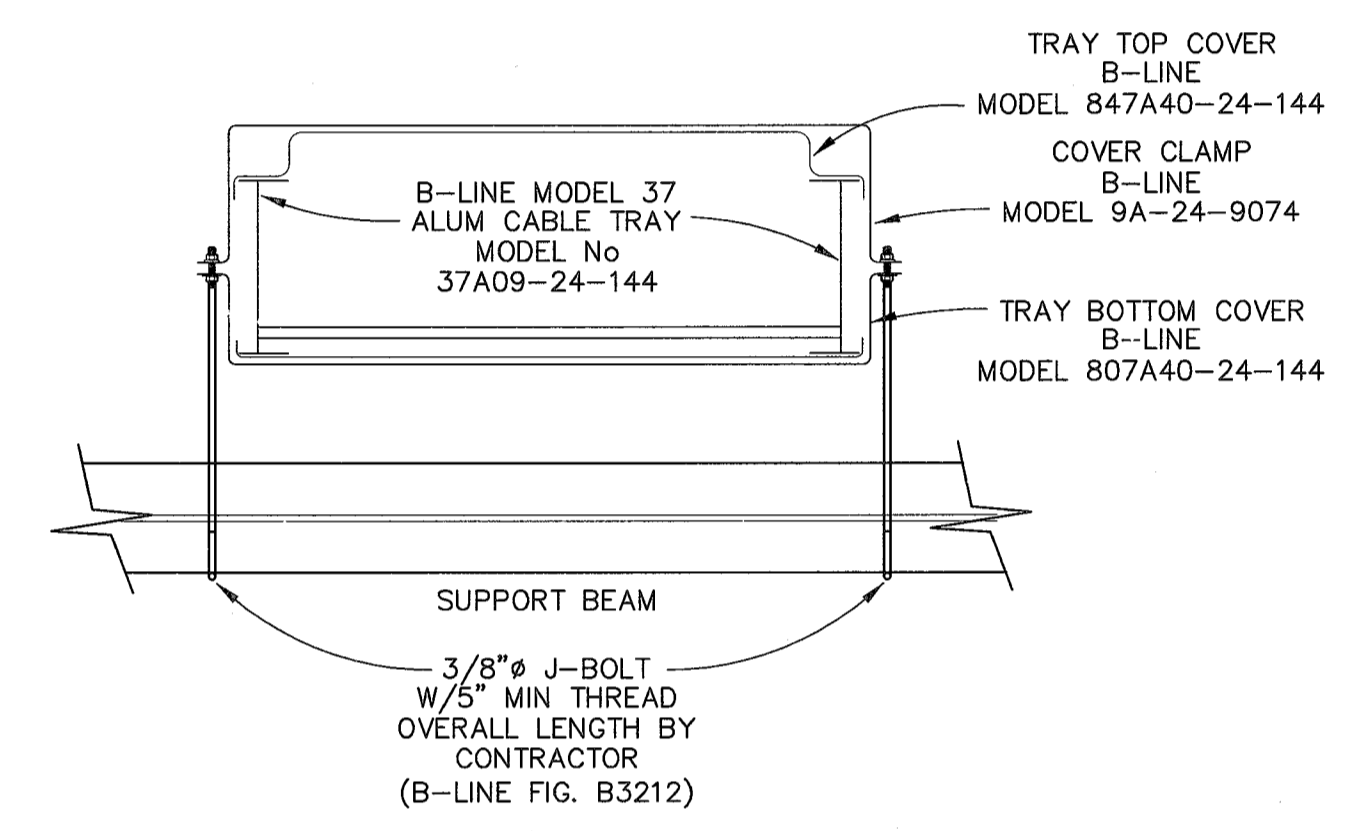


DETAIL - TRAY RISER

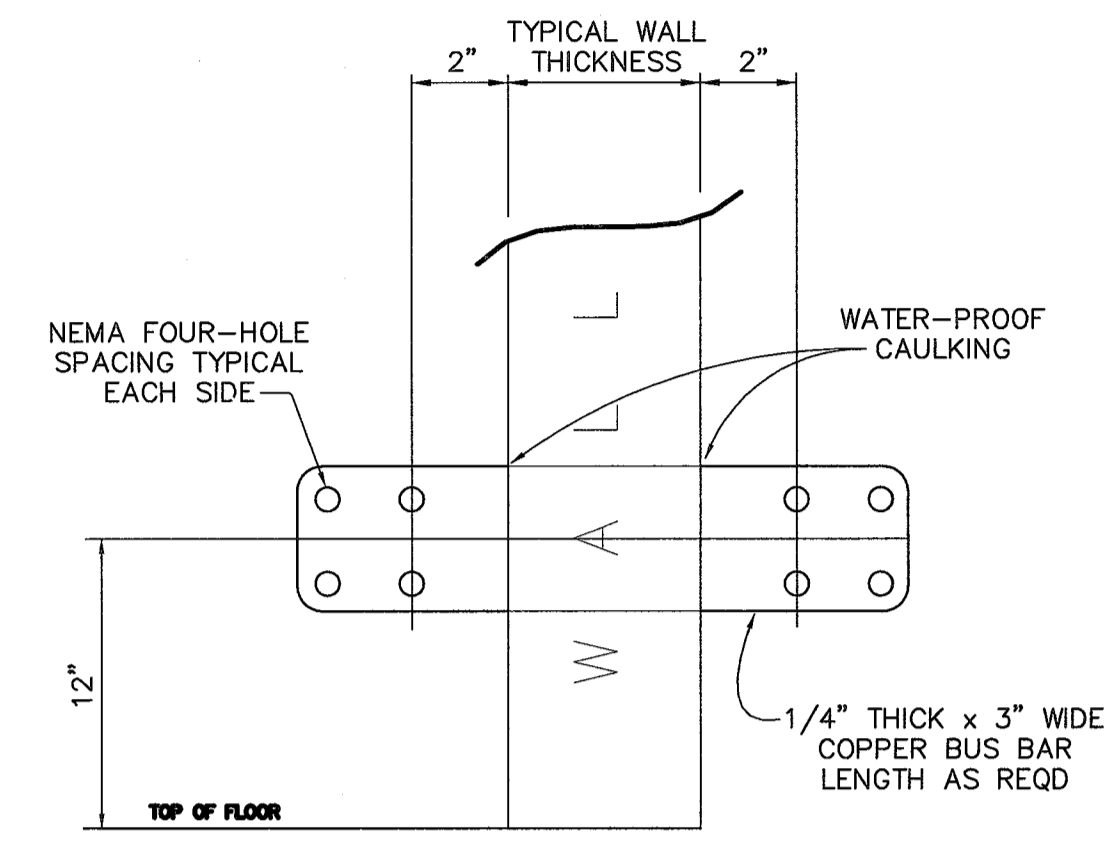
SCALE: N.T.S.



SECTION DETAIL X-X



SECTION DETAIL Y-Y



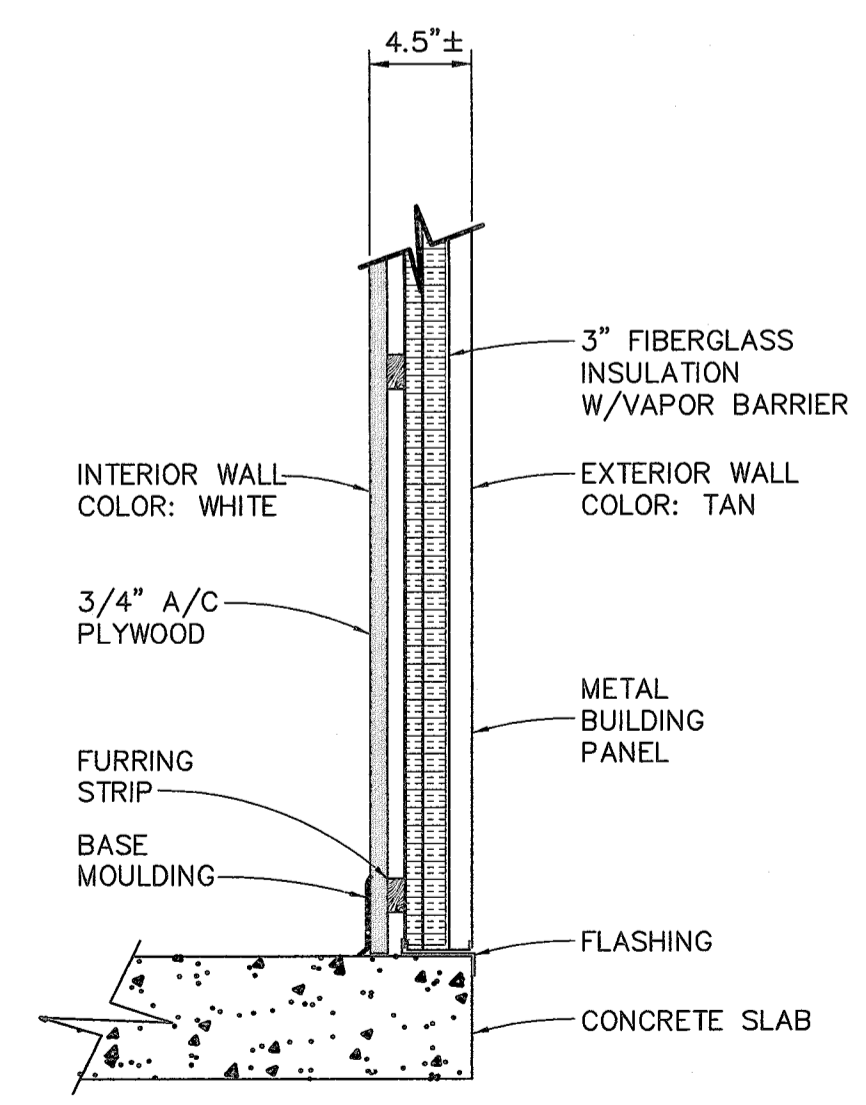
SEE CABLE TRAY AND GROUNDING PLAN AND CONTROL HOUSE NOTES

GROUNDING PAD DETAIL (TYPICAL AT ALL FOUR CORNERS)

N.T.S.

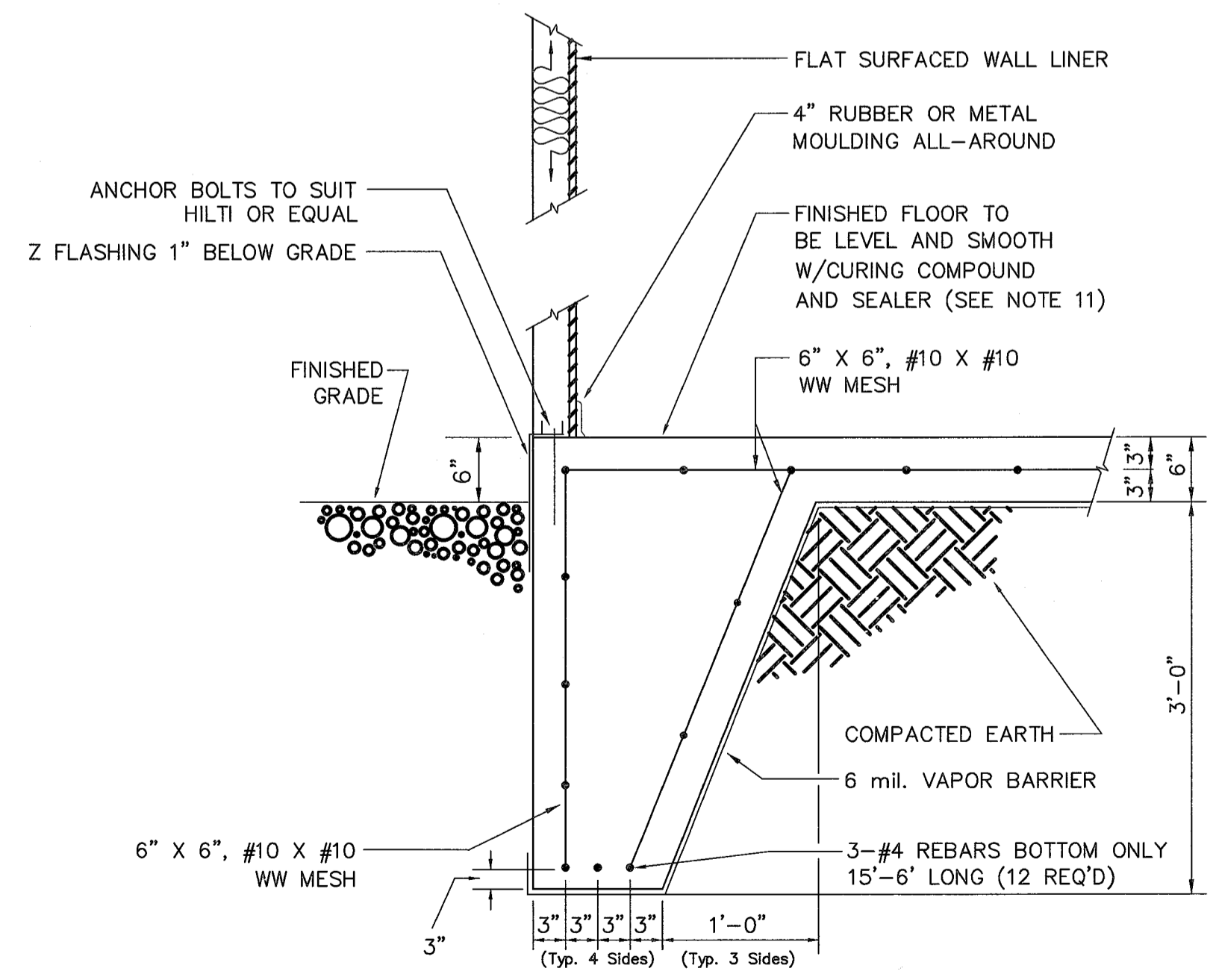
NOTES

- PANELS TO BE GROUNDED (VIA CABLE TRAY) TO SUBSTATION GRID AT TWO SEPARATE LOCATIONS ON DIAGONALLY OPPOSITE CORNERS. BONDING CONDUCTOR SHALL BE 2/0 AWG STRANDED COPPER.
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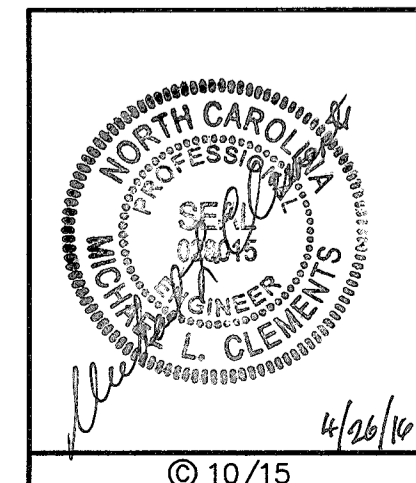
WALL DETAIL AT SLAB

SCALE: N.T.S.

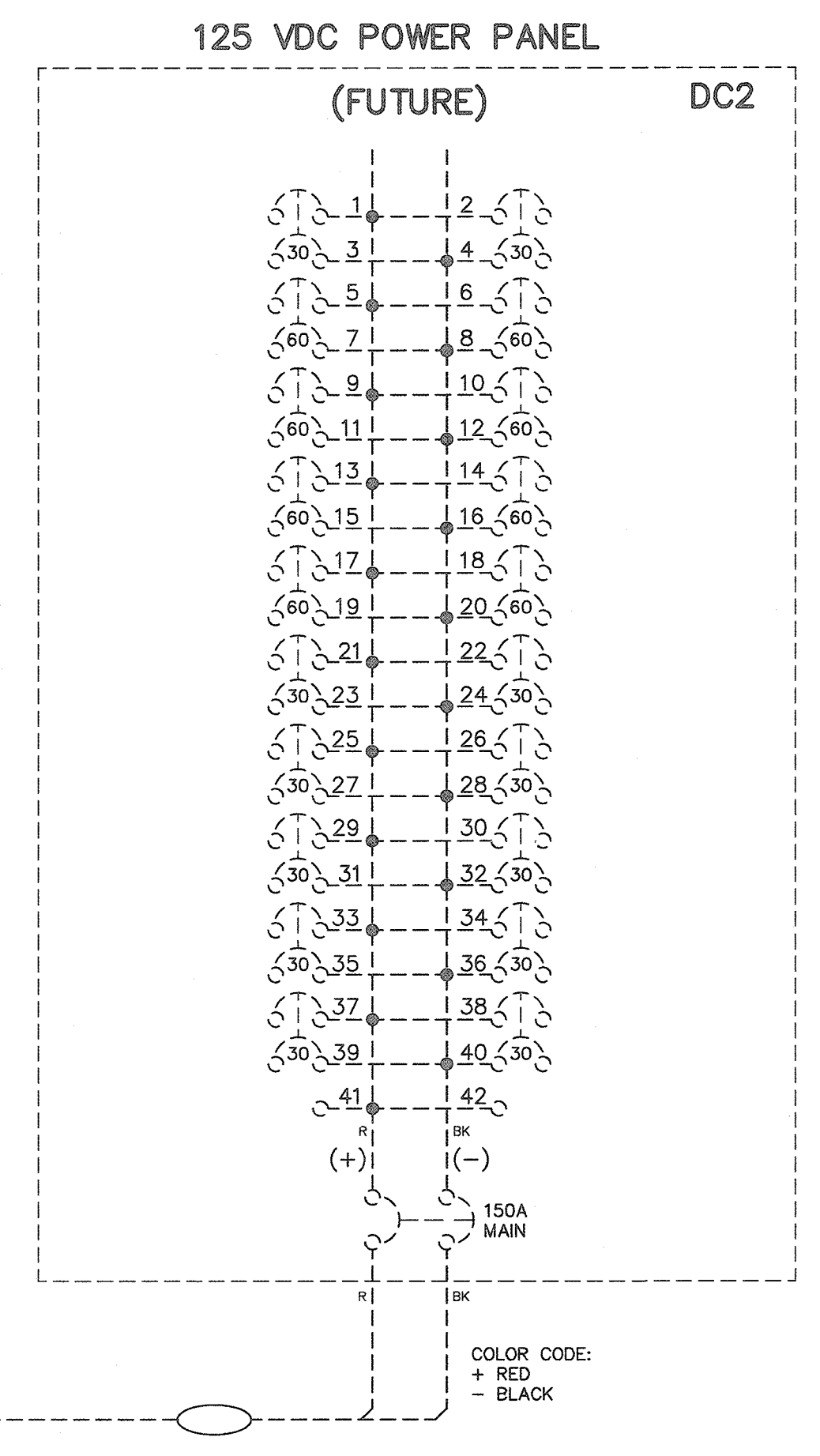
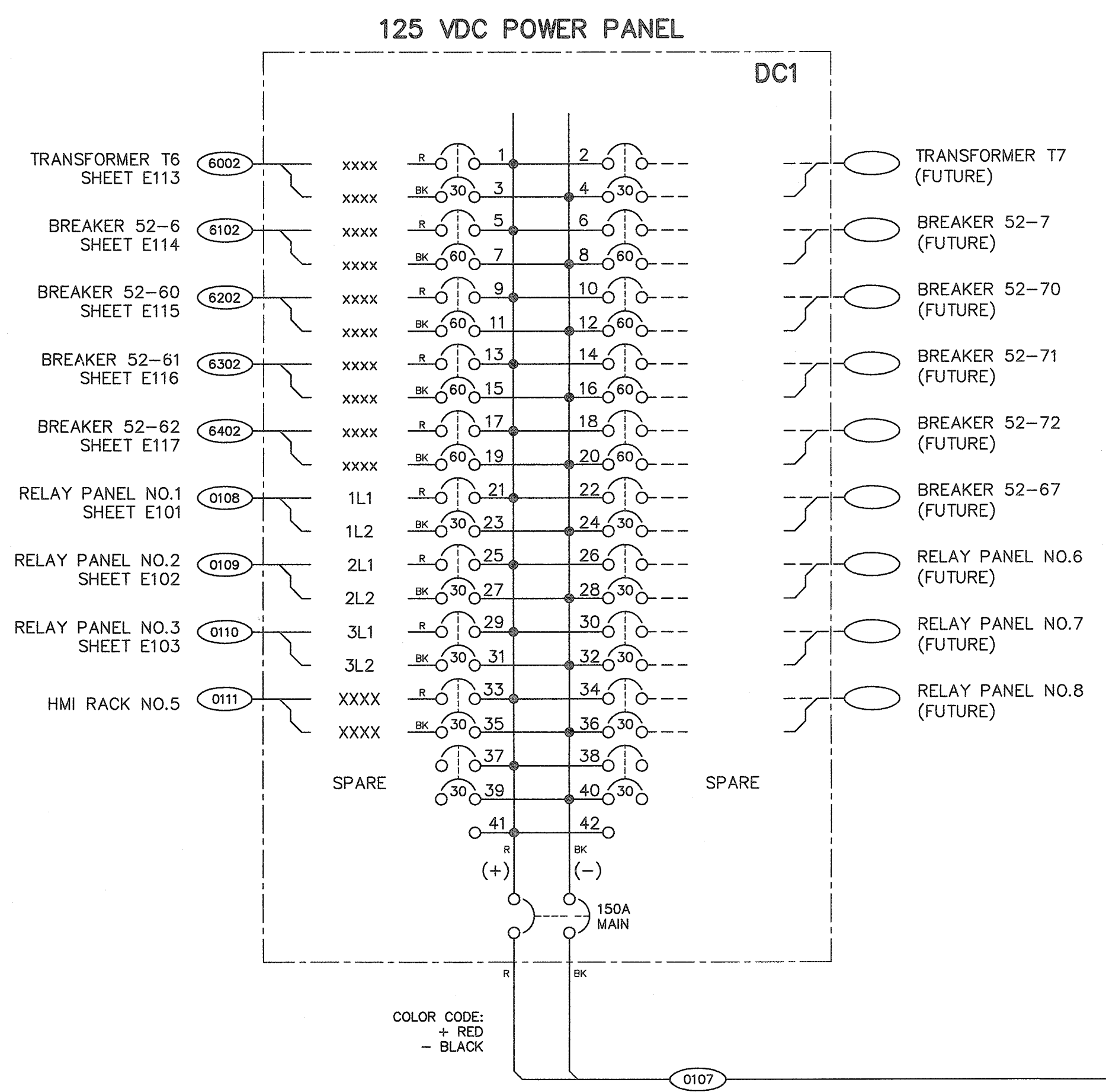
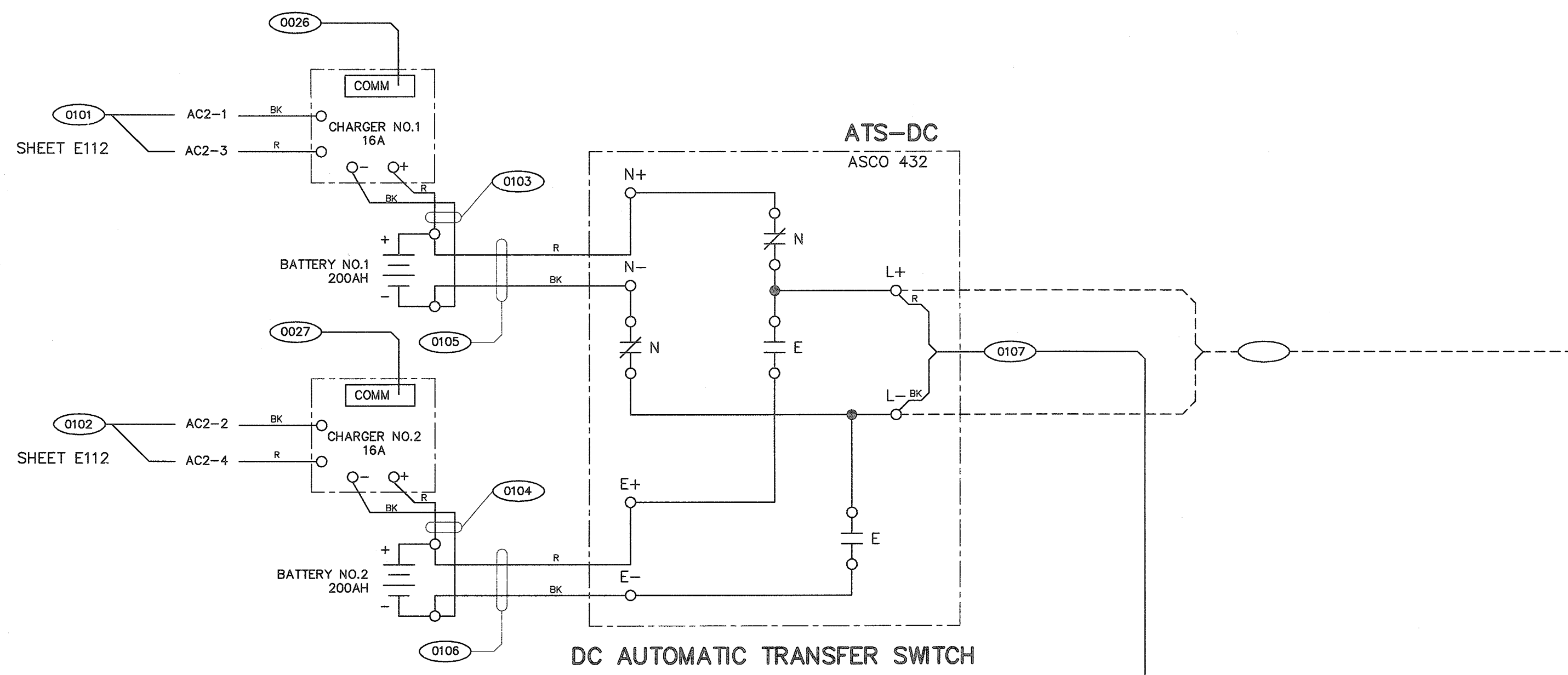


TYPICAL FOUNDATION PLAN

N.T.S.

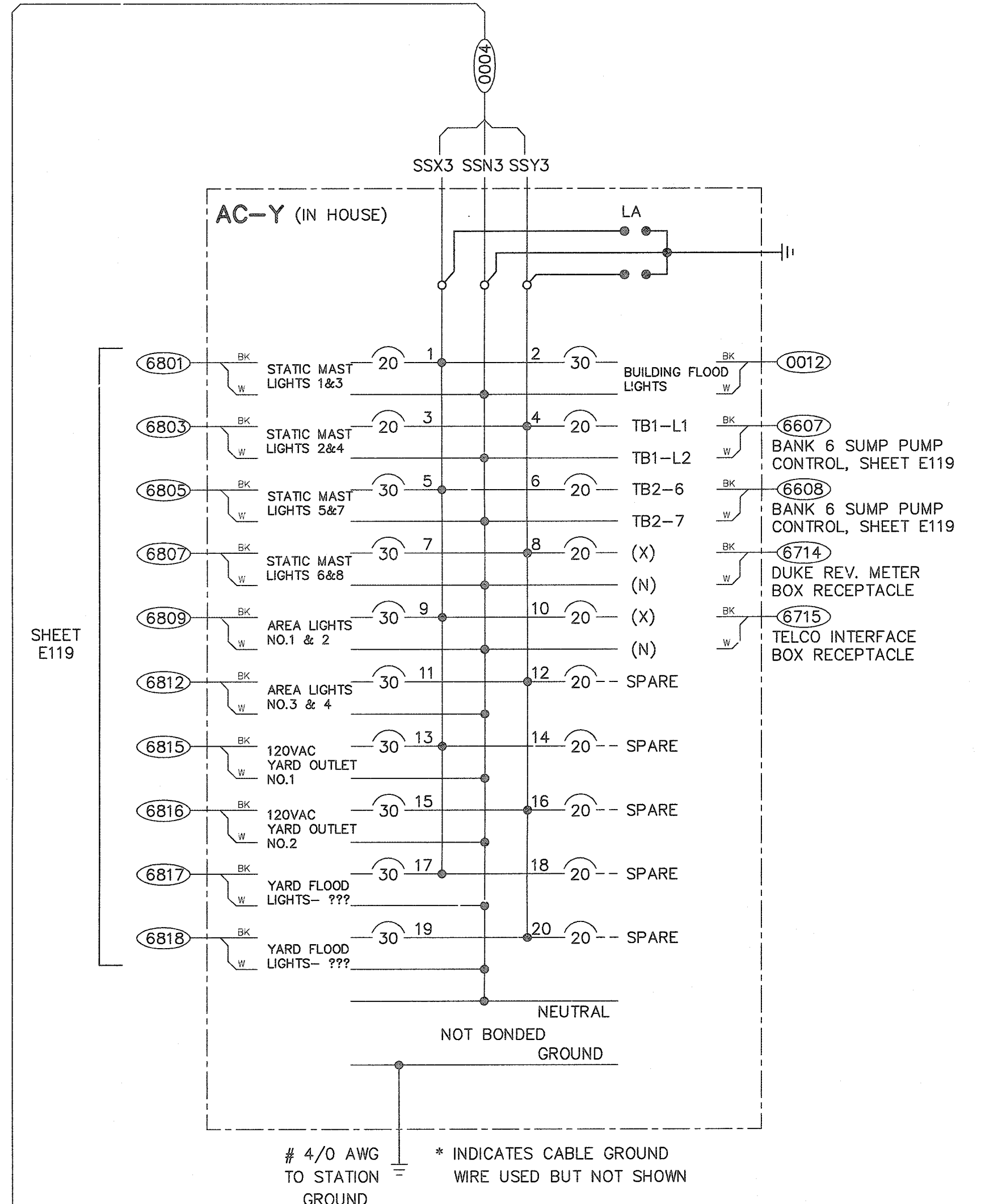
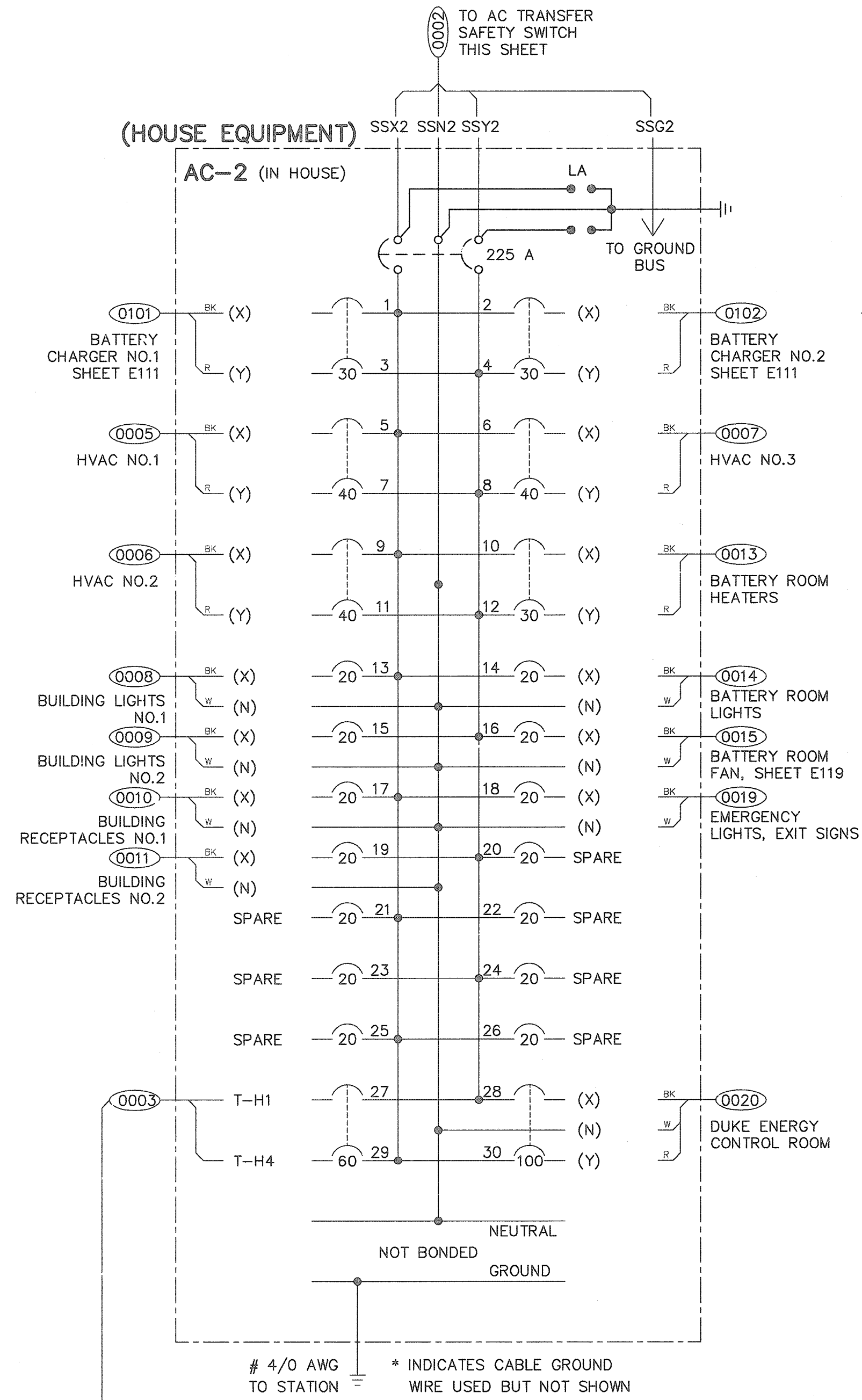
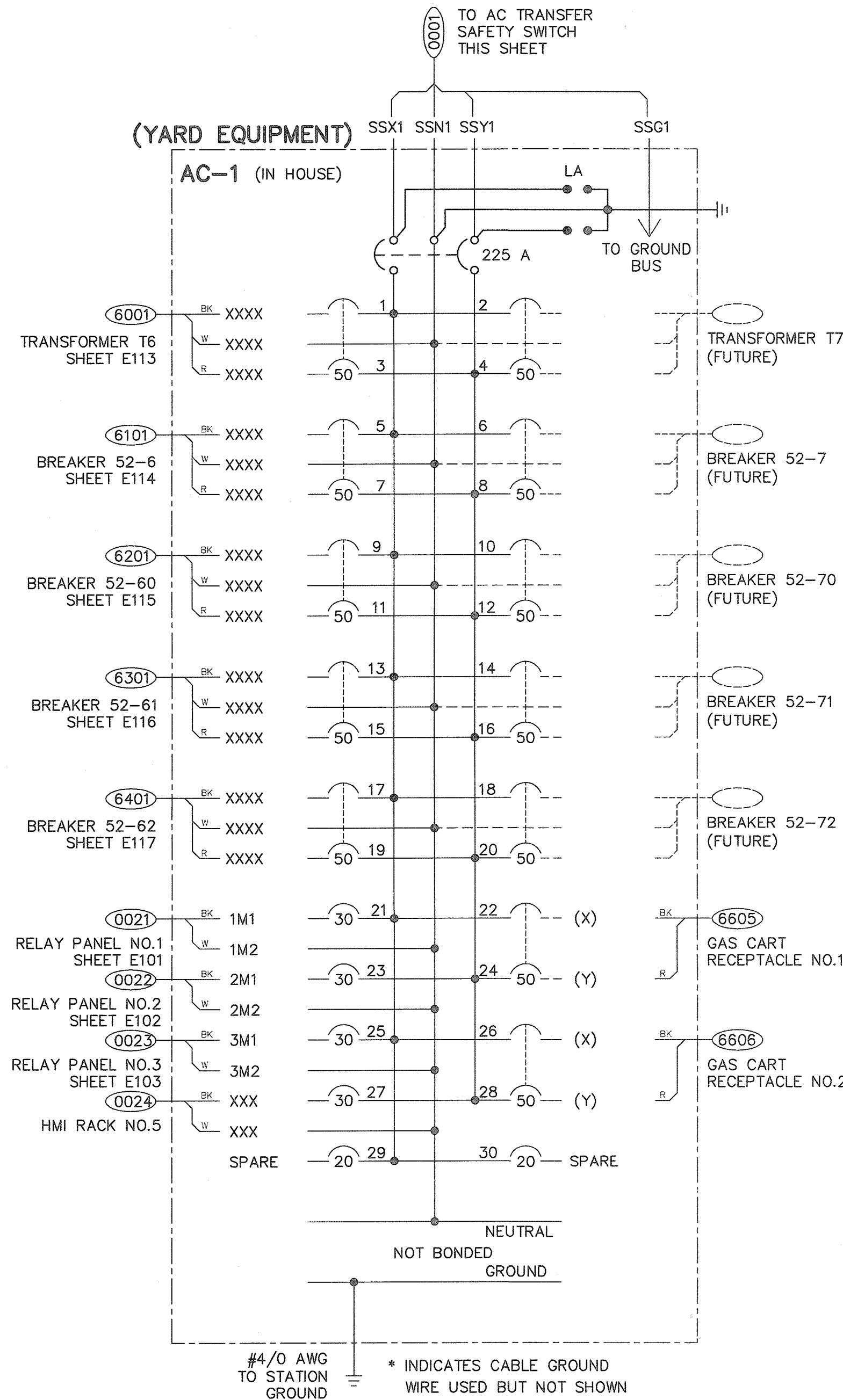
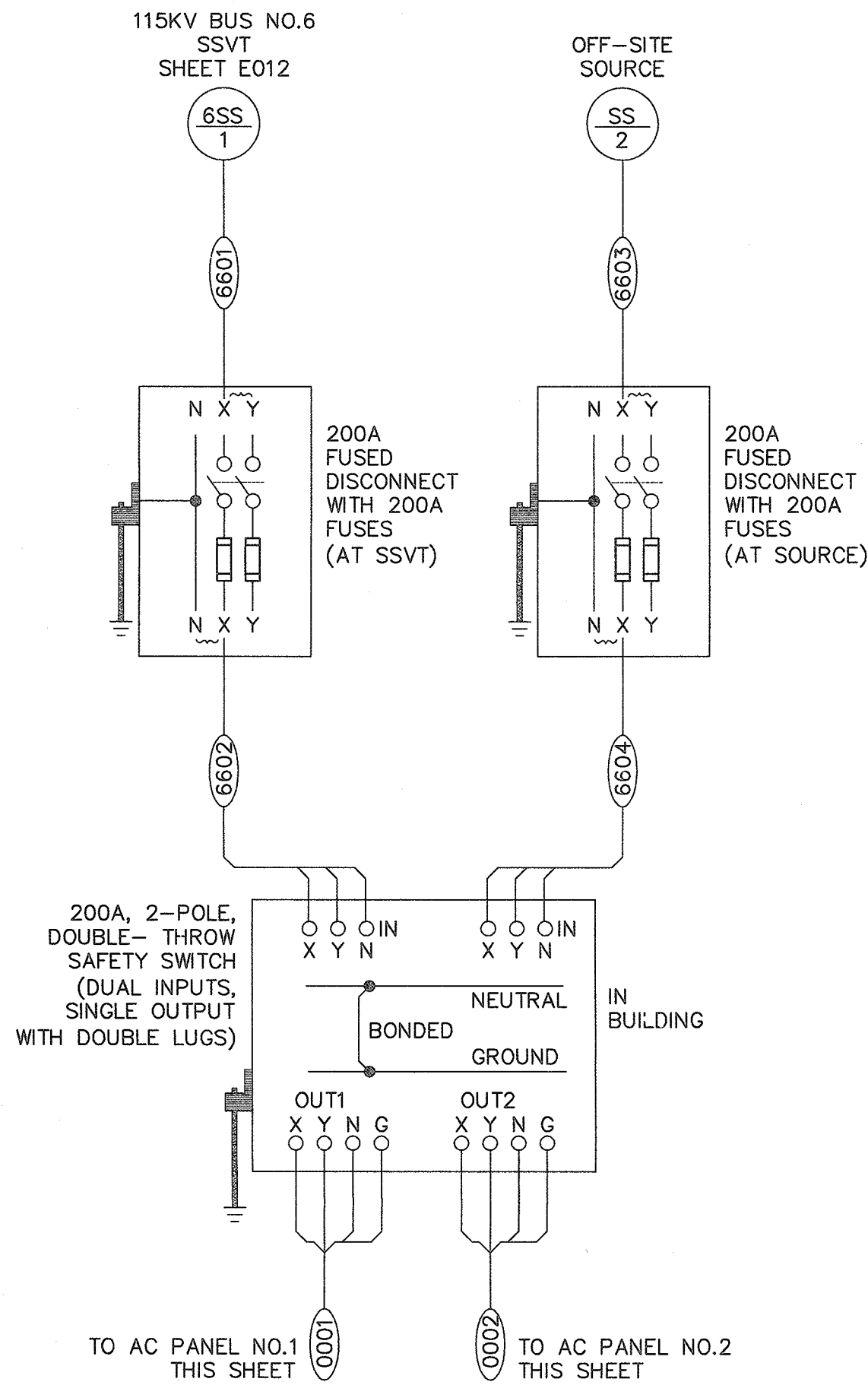


GREENVILLE UTILITIES GREENVILLE, NORTH CAROLINA			
GREENVILLE POD #3 230KV TO 115KV SUBSTATION CONTROL HOUSE SECTIONS AND DETAILS			
Booth & Associates, LLC 3811 Glenwood Avenue Raleigh, NC 27612 CONSULTING ENGINEERS INC P-0591			
NO.	REVISIONS	DATE	SCALE: 1/4"=1'-0"
0	RELEASED FOR BIDS	04/26/16	1:1
DATE:	03/01/16	APPD. MLC	DWG. NO. CH3
DATE:	03/01/16	APPD. MLC	14022CH3



LEGEND
 DC1 125VDC PANELBOARD NO.1
 DC2 125VDC PANELBOARD NO.2
 ATS-DC 125VDC AUTOMATIC TRANSFER SWITCH

PRELIMINARY - DO NOT USE FOR CONSTRUCTION	GREENVILLE UTILITIES GREENVILLE, NORTH CAROLINA				
	GREENVILLE SOUTH 230KV POD #3 125 VDC SYSTEM INTERCONNECTION DIAGRAM				
	Booth & Associates, LLC <small>9811 Cloverwood Avenue Raleigh, NC 27612 CONSULTING ENGINEERS INC P-0291</small>				
	A	PRELIMINARY	01/19/16	DWN. BCW CKD. BCW	DATE: 01/11/16 APPD. BCW
© 12/15		NO.	REVISIONS	DATE	SCALE: NONE PLOT: 1:1

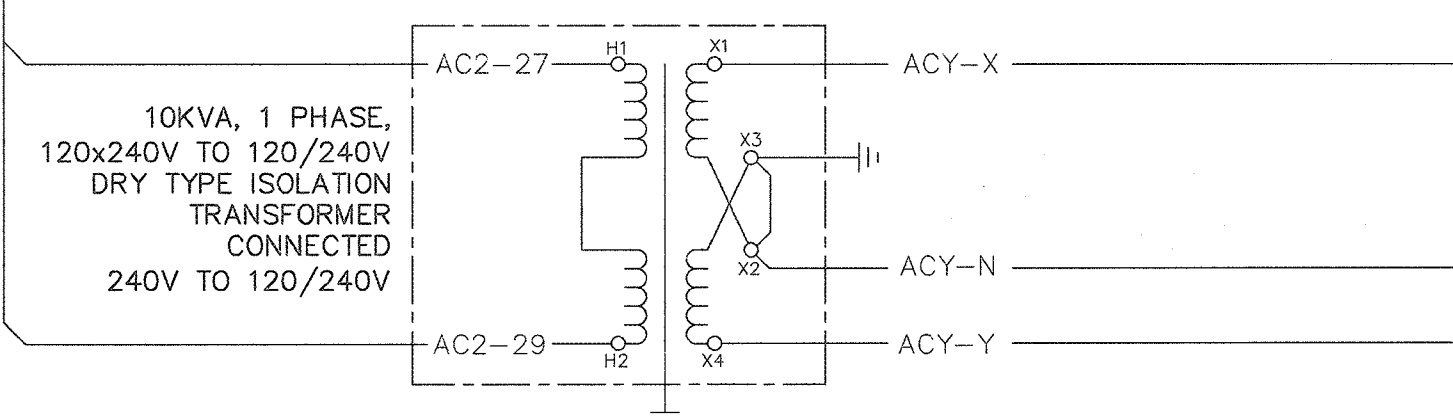


NOTES:

- ALL AC BRANCH FEEDERS SHALL OBSERVE THE FOLLOWING COLOR CODE:
X- BLACK Y- RED G- GREEN N-WHITE

DEVICE CODES

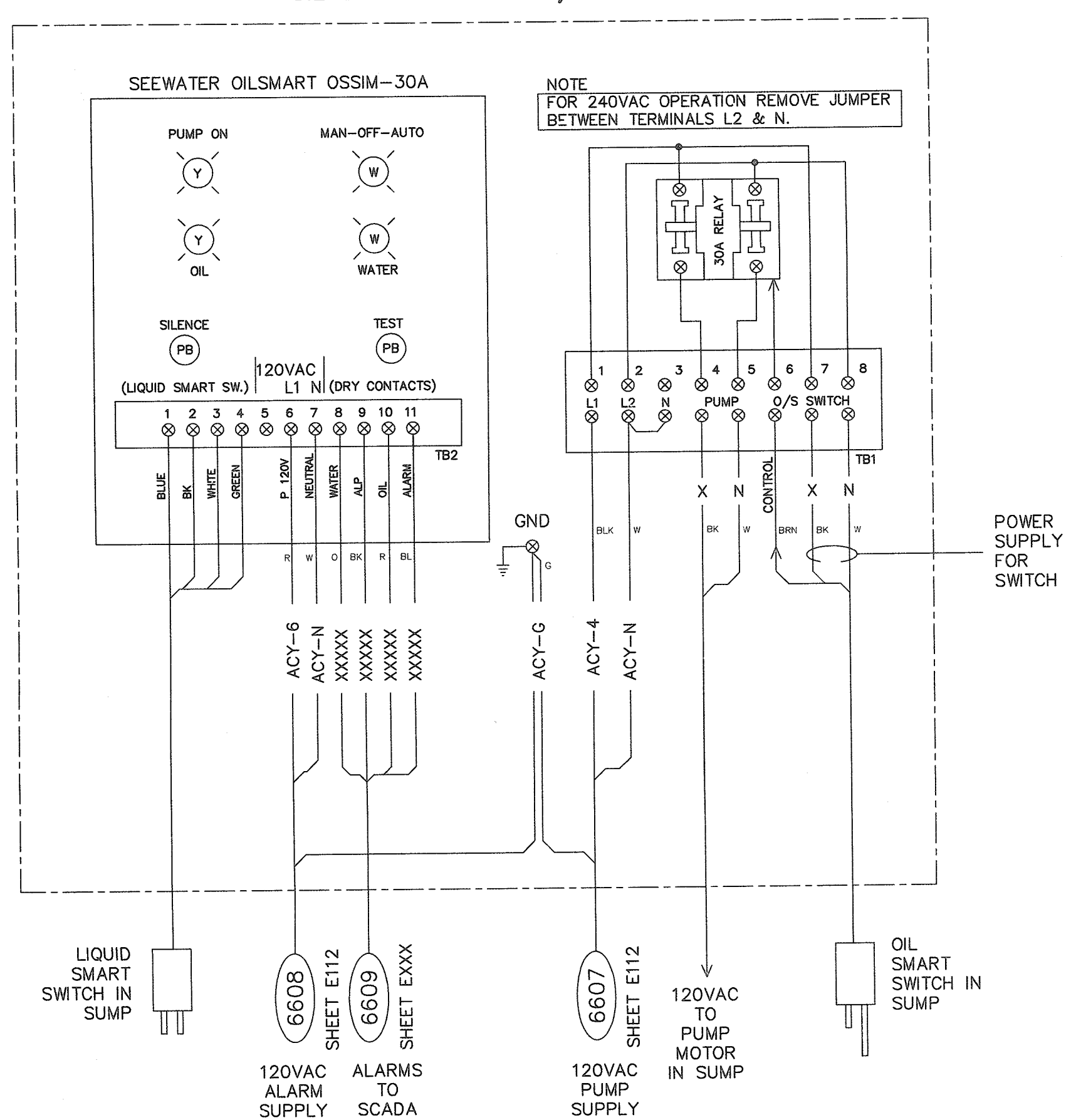
- | | |
|------|-----------------------------------|
| AC-X | AC SERVICE BREAKER PANEL No. x |
| X | SWITCHBOARD No. x |
| TX | TRANSFORMER No. x |
| 52-X | BREAKER No. x |
| SS-X | STATION SERVICE TRANSFORMER No. x |



PRELIMINARY - DO NOT USE FOR CONSTRUCTION		GREENVILLE UTILITIES GREENVILLE, NORTH CAROLINA				
		GREENVILLE SOUTH 230KV POD #3 120/240 VAC SYSTEM INTERCONNECTION DIAGRAM				
PRELIMINARY - DO NOT USE FOR CONSTRUCTION		Booth & Associates, LLC <small>5811 Glenwood Avenue Raleigh, NC 27612 CONSULTING ENGINEERS INC P-0021</small>				
		C	PRELIMINARY	04/13/16	DWN. BCW CKD. BCW	DATE: 01/12/16 APPD. BCW
© 12/15	NO.	REVISIONS	DATE	SCALE: NONE	PLOT: 1:1	14022-E112 (ID 35259).DWG

9/9/2013 4:17:28 PM

**SUMP PUMP (BANK 1)
OIL SMART CONTROLS/ALARMS**



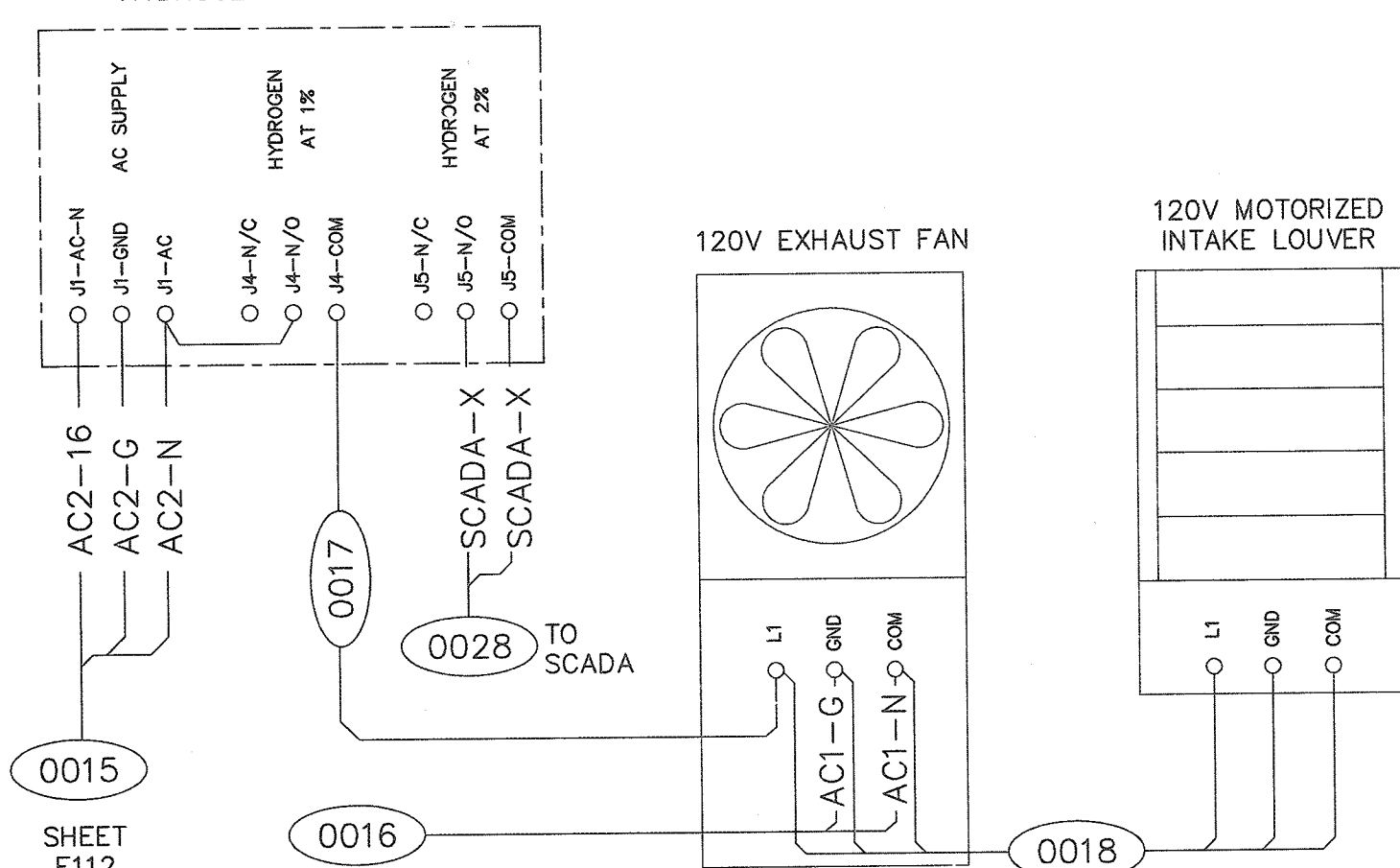
LEGEND

- PB PUSHBUTTON
- ⊗ TERMINAL BLOCK IN OILSMART JUNCTION BOX

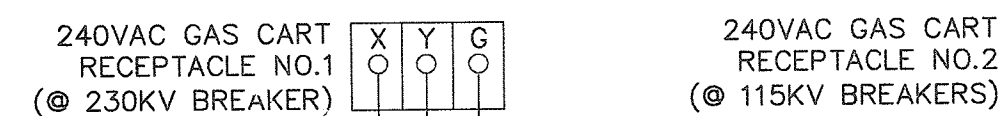
OPERATION

- 120VAC SOURCE SUPPLIED TO OIL SMART SWITCH (OSS).
- OSS CONTACT CLOSES, PUTS 120VAC ON BROWN CONTROL WIRE WHICH OPERATES 30A CONTACTOR.

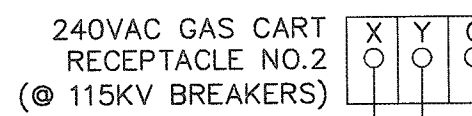
HYDROGEN GAS SENSOR



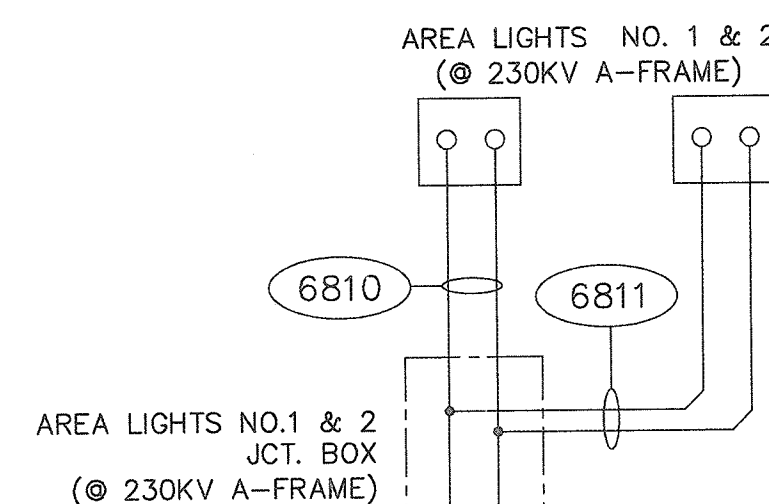
CONTROL HOUSE VENTILATION



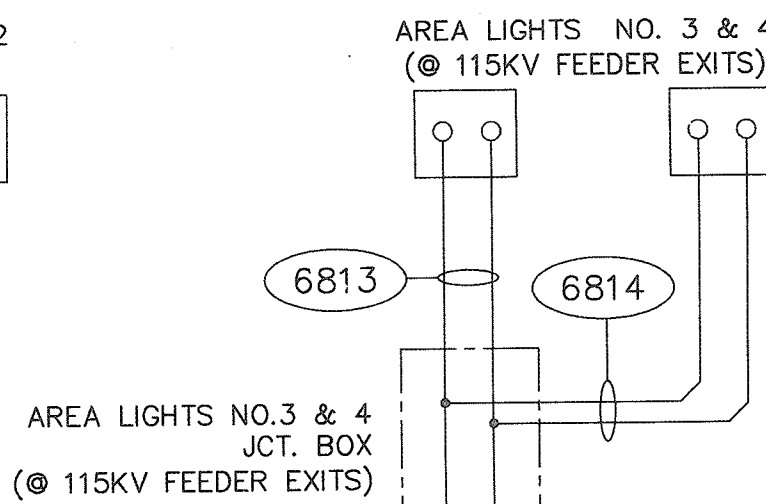
6605 SHEET E112



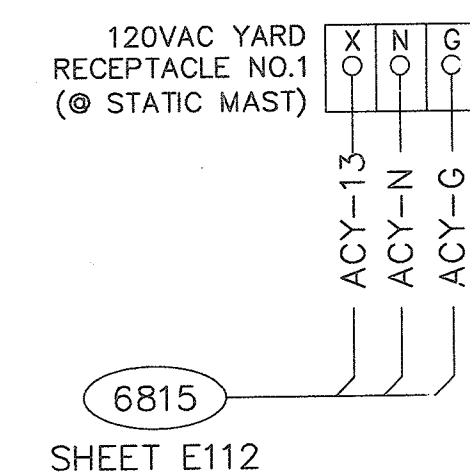
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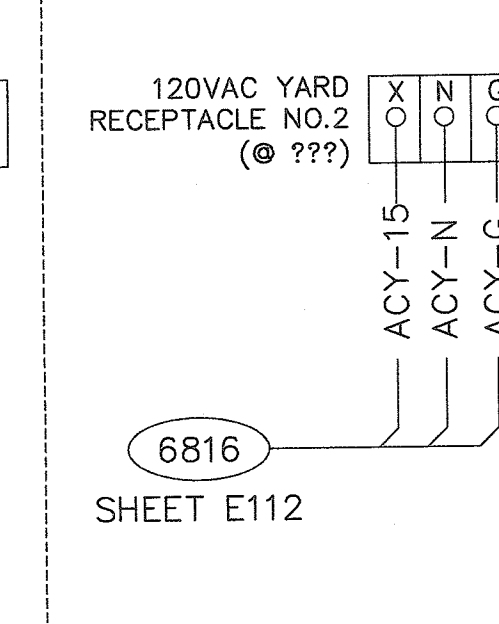
6809 SHEET E112



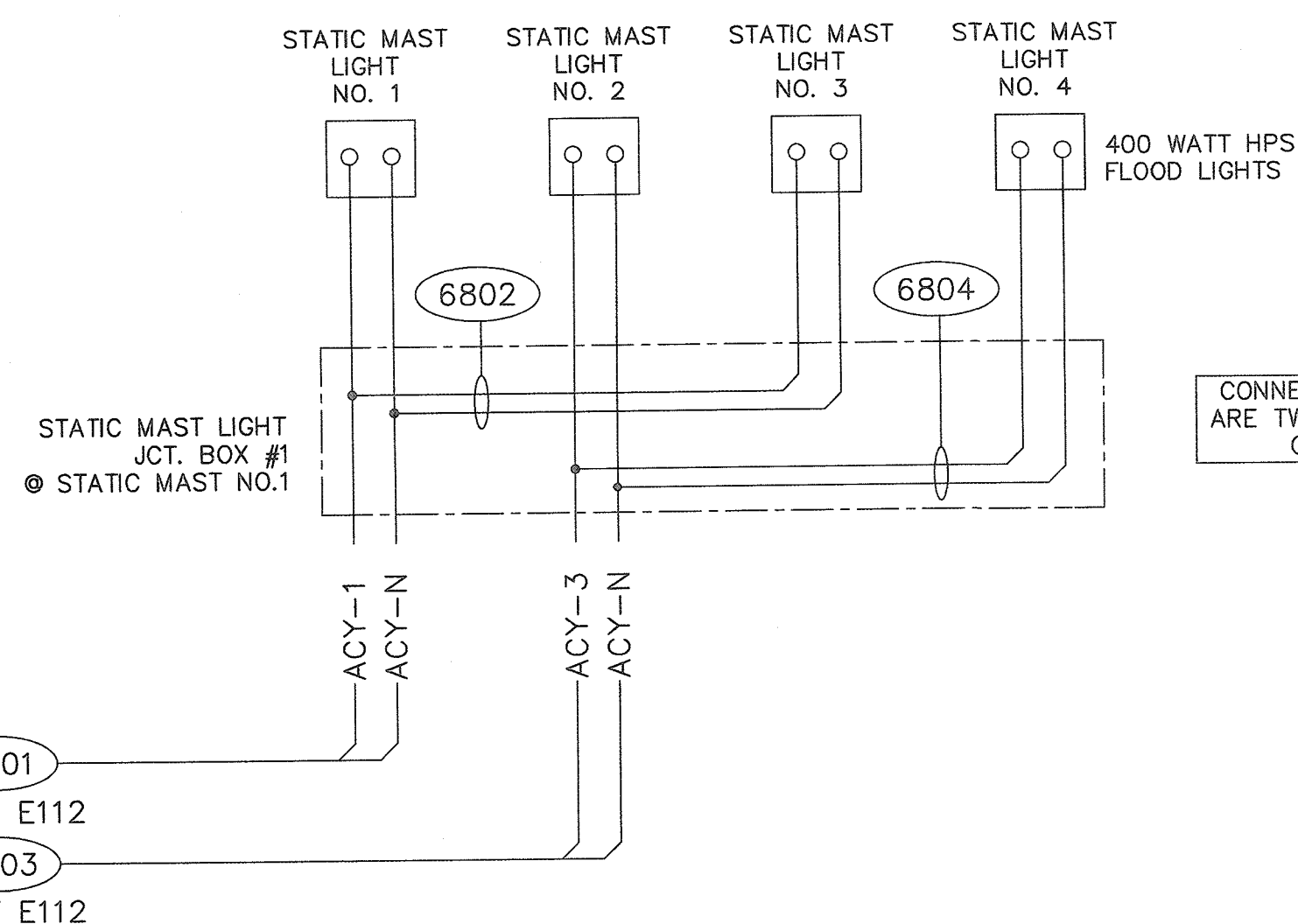
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6815 SHEET E112

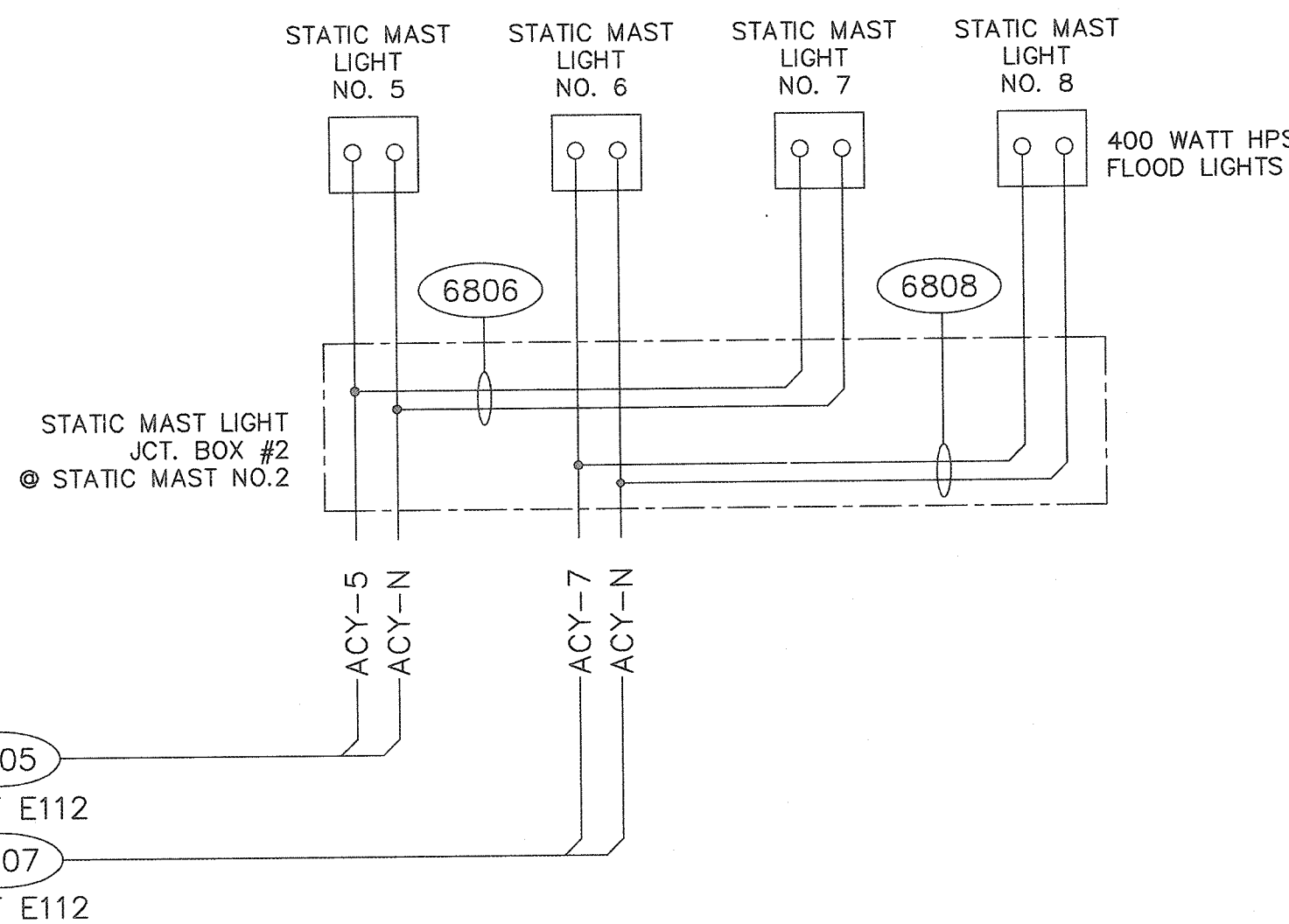


6816 SHEET E112



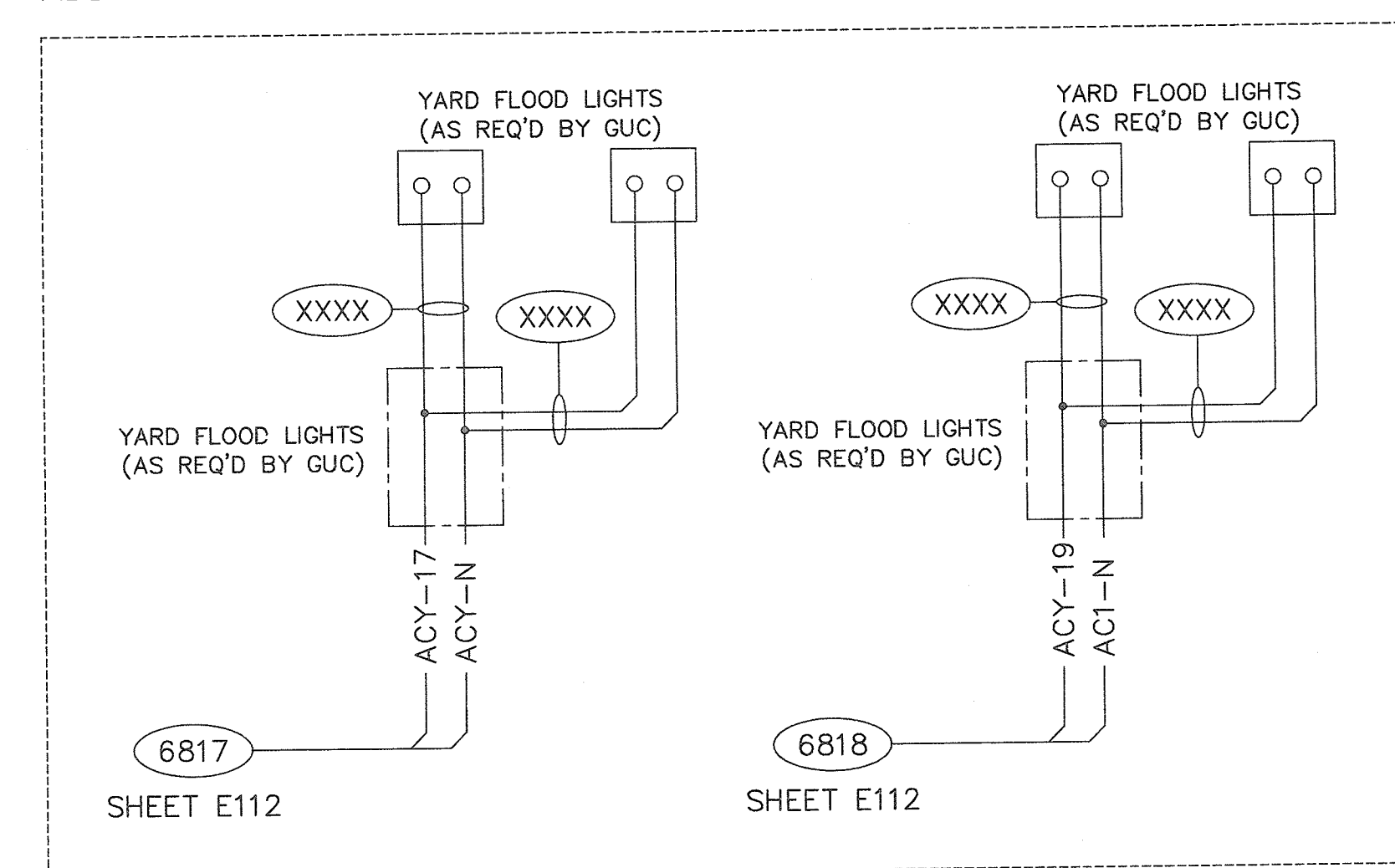
6801 SHEET E112
6803 SHEET E112

NOTE:
CONNECTIONS IN BOXES
ARE TWIST-ON WIRE NUT
CONNECTORS



6805 SHEET E112
6807 SHEET E112

ADDITIONAL YARD FLOOD LIGHTS AS REQUIRED BY GUC



**PRELIMINARY -
DO NOT USE FOR
CONSTRUCTION**

PRELIMINARY		GREENVILLE UTILITIES GREENVILLE, NORTH CAROLINA	
		GREENVILLE SOUTH 230KV POD #3 YARD LIGHTS, RECEPT., SUMP PUMP INTERCONNECTION DIAGRAM	
Booth & Associates, LLC <small>3811 Glenwood Avenue • Raleigh, NC 27612 • CONSULTING ENGINEERS INC # 0021</small>			
NO.	REVISIONS	DATE	SCALE: NONE
c		04/07/16	DWN. BCW CKD. BCW
			DATE: 02/02/16 APPD. BCW
			DWG. NO. 14022 E119