

COPPER FEEDER SCHEDULE					
FEEDER ID	# OF SETS	BUILDING WIRE QUANTITY & SIZE TYPE THWN - DRY	MINIMUM CONDUIT SIZE	FEEDER ID	# OF SETS
30	1	3#10,#10 G	3/4"	30V	1
35	1	3#8,#10 G	3/4"	35V	1
40	1	3#8,#10 G	3/4"	40V	1
45	1	3#6,#10 G	1"	45V	1
50	1	3#6,#10 G	1"	50V	1
60	1	3#4,#10 G	1"	60V	1
70	1	3#4,#8 G	1 1/4"	70V	1
80	1	3#3,#8 G	1 1/4"	80V	1
90	1	3#2,#8 G	1 1/4"	90V	1
100	1	3#1,#8 G	1 1/4"	100V	1
110	1	3#2,#6 G	1 1/2"	110V	1
125	1	3#1,#6 G	1 1/2"	125V	1
150	1	3#1/0,#6 G	2"	150V	1
175	1	3#2/0,#6 G	2"	175V	1
200	1	3#3/0,#6 G	2"	200V	1
225	1	3#4/0,#4 G	2 1/2"	225V	1
250	1	3-250KCM,#4 G	2 1/2"	250V	1
300	1	3-350KCM,#4 G	2 1/2"	300V	1
350	2	3#2/0,#3 G	2"	350V	2
400	1	3-600KCM,#3 G	4"	400V	1
450	2	3#4/0,#2 G	2 1/2"	450V	2
500	2	3-250KCM,#2 G	2 1/2"	500V	2
600	2	3-350KCM,#1 G	3"	600V	2
700	2	3-500KCM,#1/0 G	4"	700V	2
800	2	3-600KCM,#1/0 G	4"	800V	2
1000	3	3-500KCM,#2/0 G	4"	1000V	3
1200	4	3-350KCM,#3/0 G	3"	1200V	4
1600	4	3-600KCM,#4/0 G	4"	1600V	4
2000	5	3-600KCM,#250 G	4"	2000V	5
2500	6	3-600KCM,#350 G	4"	2500V	6

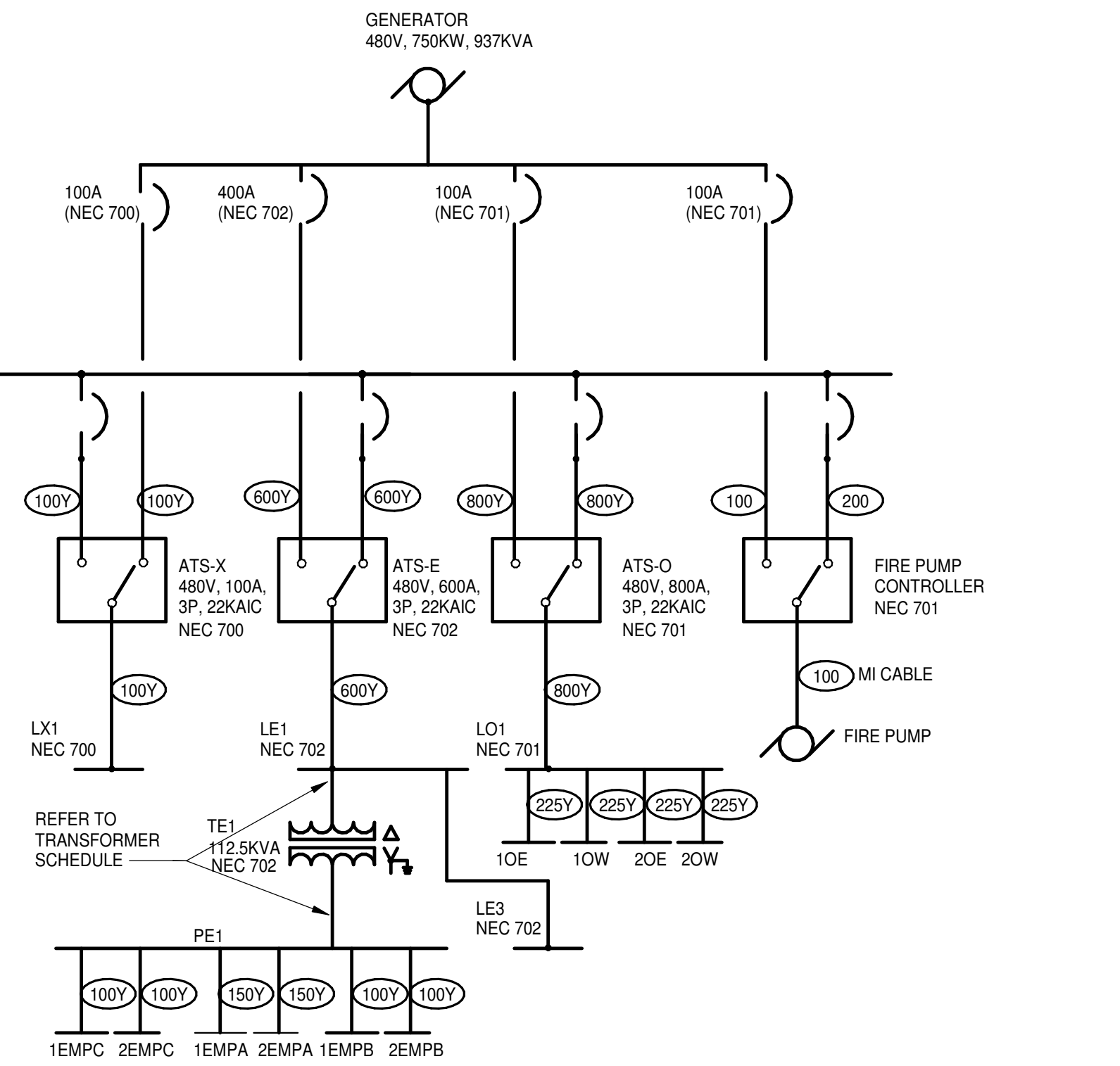
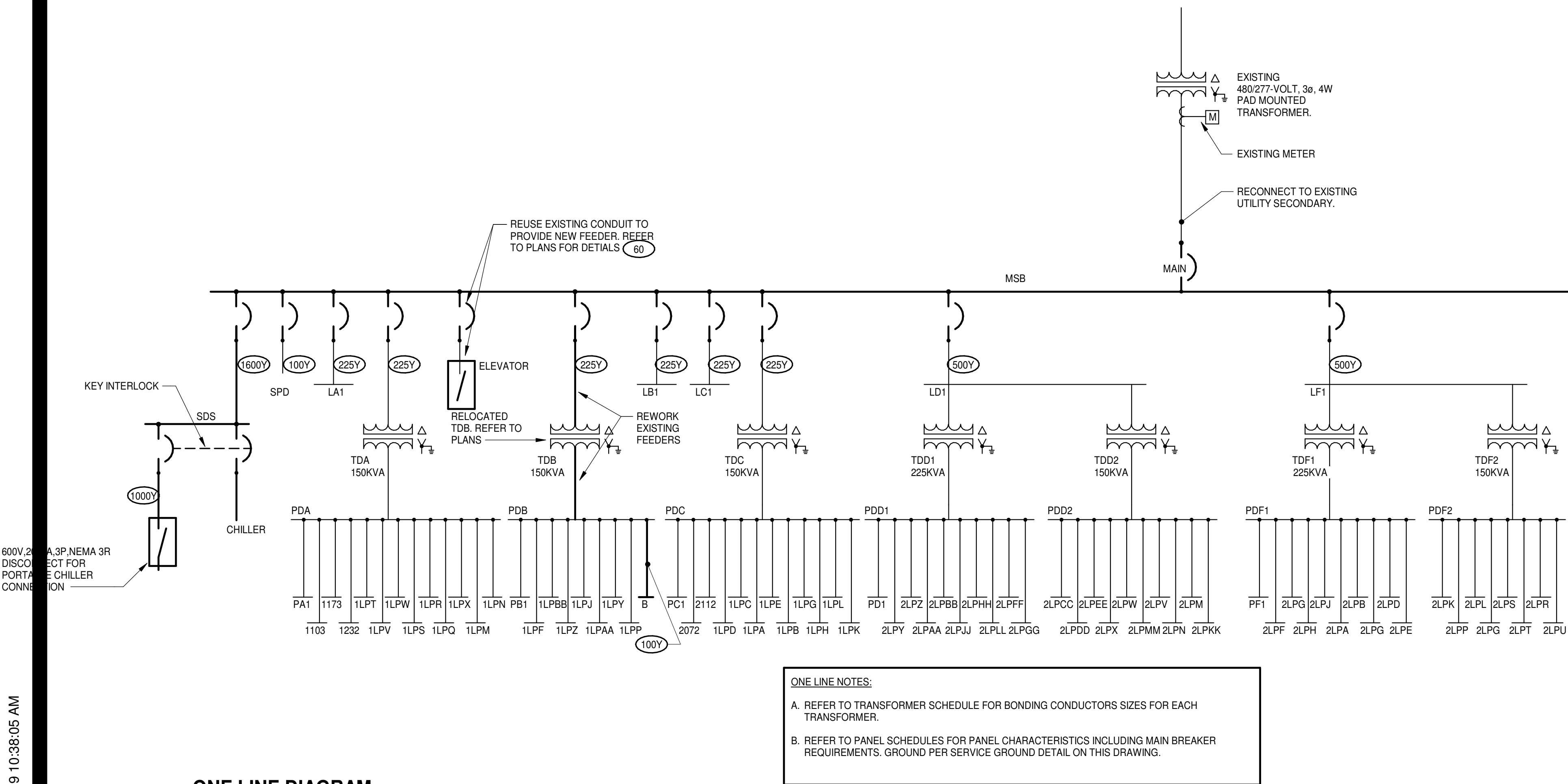
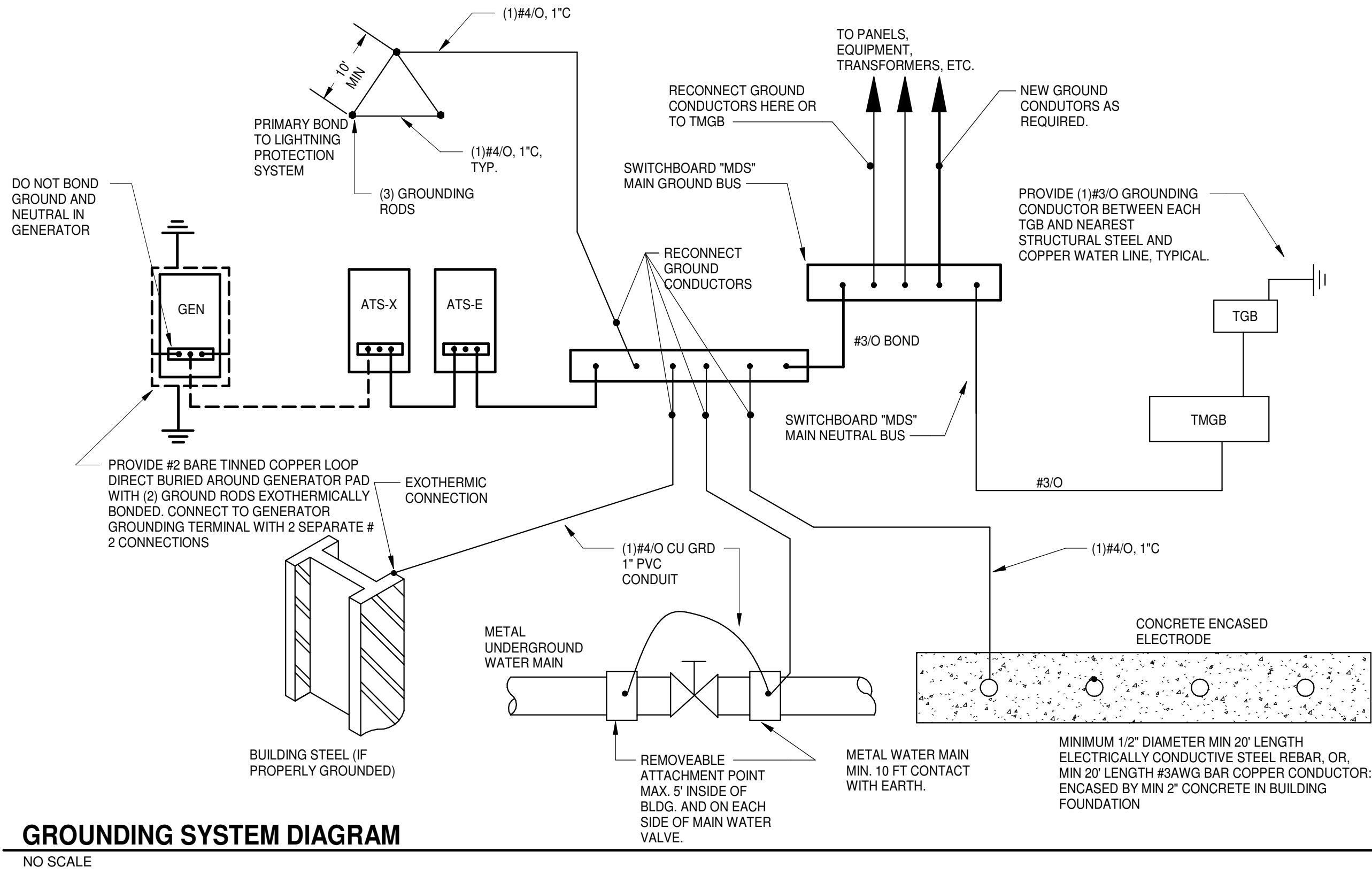
NOTES:

1. ELECTRICAL CONTRACTOR TO VERIFY CONDUIT SIZE REQUIRED IF WIRE TYPES OTHER THAN THOSE LISTED ABOVE ARE USED.

2. FEEDER SIZES BASED ON TABLE 310.16, 75° C.

3. SIZES ADJUSTED PER NEC 110.14.

SWITCHBOARD SCHEDULE MDS							
HORIZONTAL... 4000 A		NEMA ENCL:		NEMA... FRONT ACCESS			
GROUND BUS: 4000 A		MAIN SWITCH: 4000 A		VOLTAGE: 480Y/277V 3 PH 4 WIRE			
VERTICAL... 4000 A		CT SECTION: YES		BRACING: AMPS...			
NEUTRAL BUS: 4000 A							
DEVIC E NO.	DESCRIPTION	A	B	C	NUMBER OF POLES	RATING	NOTES
1	FIRE PUMP CONTROLLER	0.00 kVA	0.00 kVA	0.00 kVA	3	200 A	MAGNETIC ONLY
2	SPD	0.00 kVA	0.00 kVA	0.00 kVA	3	100 A	
3	SDS	327.23 kVA	327.23 kVA	327.23 kVA	3	1600 A	
4	ATS-O	101.12 kVA	101.12 kVA	101.12 kVA	3	800 A	
5	ATS-X	7.20 kVA	4.27 kVA	2.93 kVA	3	100 A	
6	ATS-E	129.28 kVA	128.08 kVA	130.60 kVA	3	225 A	
7	ELEVATOR	20.00 kVA	20.00 kVA	20.00 kVA	3	100 A	PROVIDE SHUNT TRIP BREAKER. REFER TO DETAIL ON DRAWING E4.1
8	LA1	3.28 kVA	6.21 kVA	3.98 kVA	3	225 A	RECONNECT EXISTING
9	PDA VIA TDA	5.90 kVA	0.90 kVA	1.26 kVA	3	225 A	RECONNECT EXISTING
10	PDB VIA TDB	8.77 kVA	5.58 kVA	5.40 kVA	3	225 A	RECONNECT EXISTING
11	LB1	23.33 kVA	23.33 kVA	23.33 kVA	3	225 A	RECONNECT EXISTING
12	LC1	0.00 kVA	3.28 kVA	2.20 kVA	3	225 A	RECONNECT EXISTING
13	PDC VIA TDC	3.90 kVA	0.60 kVA	1.66 kVA	3	225 A	RECONNECT EXISTING
14	LD1	12.38 kVA	5.96 kVA	5.38 kVA	3	500 A	RECONNECT EXISTING
15	LF1	14.16 kVA	7.15 kVA	3.40 kVA	3	500 A	RECONNECT EXISTING
16							
17							
18							
TOTAL		656.32 kVA	633.61 kVA	628.43 kVA			
LOAD TYPE		CONNECTED KVA	DEMAND KVA				
INTERIOR LIGHTING		46.24 kVA	57.80 kVA				
EXTERIOR LIGHTING		70.00 kVA	87.50 kVA				
RECEPTACLES		8.48 kVA	8.48 kVA				
AC / HEAT PUMP		1663.32 kVA	1663.32 kVA				
ELECTRIC HEAT		0.00 kVA	0.00 kVA				
KITCHEN		0.00 kVA	0.00 kVA				
MISCELLANEOUS		127.34 kVA	127.34 kVA				
LARGEST MOTOR		0.00 kVA	0.00 kVA				
<div><div>TOTAL CONNECTED KVA: 1918 kVA</div><div>TOTAL DEMAND KVA: 1947 kVA</div><div>TOTAL CONNECTED... 2307 A</div><div>TOTAL DEMAND AMPS: 2342 A</div></div>							
NOTES:							
1. SWITCHBOARD SHALL BE UL SERVICE ENTRANCE RATED							
2. PROVIDE SPD WITH OVERCURRENT DEVICE, DISCONNECTING MEANS & CONDUCTORS, SIZE PER SPD MFR REQUIREMENTS MOUNTED ON TOP OF EQUIPMENT							
3. PROVIDE DISCONNECTING MEANS LABEL PER 2008 NEC 230.70(B)							
4. PROVIDE GROUND FAULT PROTECTIVE RELAY, DOCUMENT TEST, PROVIDE PHASE LOSS AND UNDERVOLTAGE DRY CONTACT FOR BAS PICKUP.							
5. PROVIDE FACTORY INSTALLED DIGITAL MULTIMETER, PLUS MONITORING CABLE IN CONDUIT TO BAS PICKUP MODULE, COORDINATE WITH DIV 23.							
6. PROVIDE SIGN PER NEC 702: "LIFE SAFETY STANDBY FROM GENERATOR LOCATED IN EQUIPMENT YARD OUTSIDE, VIA ATS-X"							
7. PROVIDE SIGN PER NEC 702: "OPTIONAL STANDBY FROM GENERATOR LOCATED IN EQUIPMENT YARD OUTSIDE, VIA ATS-E"							
8. FOR NON-SIMULTANEOUS LOADS, ONLY LARGER OF LOADS IS INCLUDED IN TOTAL.							
9. PROVIDE INDIVIDUAL METERING AND BAS CABLING FOR THIS CIRCUIT....							



TRANSFORMER SCHEDULE						
kVA	TYPE	PRIMARY	SECONDARY	COPPER PRIMARY FEEDER	COPPER SECONDARY FEEDER	BONDING CONDUCTOR
15 kVA	LINEAR	480V-3Ø	208Y/120V	3#10, #10 G, 3/4" C.	4#4, #6 G, 1" C.	#8
30 kVA	LINEAR	480V-3Ø	208Y/120V	3#6, #10 G, 1" C.	4#1, #6 G, 1-1/2" C.	#6
45 kVA	LINEAR	480V-3Ø	208Y/120V	3#4, #8 G, 1-1/4" C.	4#1/0, #6 G, 2" C.	#6
75 kVA	LINEAR	480V-3Ø	208Y/120V	3#1, #6 G, 1-1/2" C.	4-250KCM, #2 G, 2-1/2" C.	#2
112.5 kVA	LINEAR	480V-3Ø	208Y/120V	3#2/0, #6 G, 2" C.	4-600KCM, #1/0 G, 4" C.	#1/0
150 kVA	LINEAR	480V-3Ø	208Y/120V	3#4/0, #4 G, 2-1/2" C.	(2 SETS) 4-250KCM, #3/0 G, 2-1/2" C.	#3/0
225 kVA	LINEAR	480V-3Ø	208Y/120V	(2 SETS) 3#2/0, #3 G, 2" C.	(2 SETS) 4-600KCM, #3/0 G, 4" C.	#3/0
300 kVA	LINEAR	480V-3Ø	208Y/120V	(2 SETS) 3#4/0, #2 G, 2-1/2" C.	(3 SETS) 4-600KCM, #3/0 G, 4" C.	#3/0
500 kVA	LINEAR	480V-3Ø	208Y/120V	(2 SETS) 3-600KCM, #3/0 G, 4" C.	(5 SETS) 4-600KCM, #3/0 G, 4" C.	#3/0



Dobo Hall Renovation - Package A

SCO PROJECT NO. 18-19798-01A

UNC Wilmington

4978 CAHILL DR, WILMINGTON, NC 28403

PROJECT NO:	DATE:
580999	MARCH 27, 2019
REVISIONS	
DATE	DESCRIPTION

POWER ONE-LINE DIAGRAM

E5.1

MOSELEYARCHITECTS

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