

NOTES:

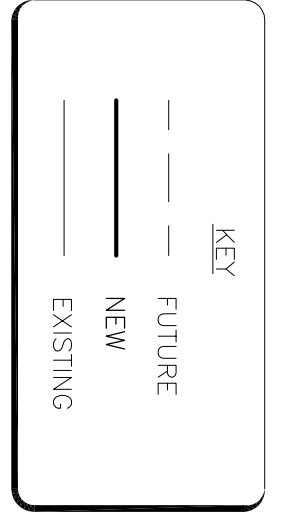
1. 1" - (1)M/G SERVICE GROUNDING CONDUCTOR FROM SWITCHBOARD GROUND BUS TO DOMESTIC WATER SERVICE PIPE
2. BUILT-IN TRANSIENT VOLTAGE SURGE SUPPRESSOR (SEE SPECIFICATION)
3. PROVIDE FULLY RATED VERTICAL AND HORIZONTAL BUS SECTIONS
4. INSTAL FEEDER IN EXISTING (3)"-4" CONDUITS
5. WITH ISOLATED GROUND BUS
6. FOR FEEDER ROUTING IN EXISTING BUILDING REFER TO POWER PLANS, PENHOUSE/STEELES THROUGH EXISTING ROOF AND NEW MECHANICAL PENHOUSE FLOOR SHALL BE SLOPED
7. FOR FEEDER SIZES NOT DEFINED ON ONE-LINE DIAGRAM REFER TO RESPECTIVE PANELBOARD SCHEDULES ON DWG. E3.1 OR TRANSFORMER FEEDER SCHEDULE ON THIS DWG.
8. GROUNDING CONDUCTOR TO PAD-MOUNTED TRANSFORMER GROUNDING LOOP REFER TO POWER PLAN
9. SLEEVE FOR 1" CONDUIT REFER TO SPECIFICATION AND NOTE #87 ON DRAWING E2.0 FOR REQUIREMENTS
10. SLEEVE FOR 3" CONDUIT REFER TO SPECIFICATION AND NOTE #87 ON DRAWING E2.0 FOR REQUIREMENTS
11. FINISH AND INSTAL NEW C.B. OF IDENTIFIED SIZE IN EXISTING PANEL
12. PROVIDE NEW 80% 3P CIRCUIT BREAKER IN EXISTING PANEL
13. REFER TO GENERAL NOTE ON THIS DRAWING
14. NOT USED
15. PROVIDE NEW 60% 3P CIRCUIT BREAKER IN EXISTING PANEL
16. EXTEND 3" CONDUIT
17. 1/2" FLOOR SLEEVE
18. EXTEND 1" CONDUIT
19. INSTAL NEW WIRING FOR FEEDER SIZE REFER TO TRANSFORMER SCHEDULE ON THIS DRAWING
20. INSTAL NEW WIRING FOR FEEDER SIZE REFER TO SWITCHBOARD OR RESPECTIVE PANELBOARD SCHEDULE UNLESS SPECIFIED ON THIS DRAWING

FEEDER SCHEDULE	
CONDUIT	FEEDER
(1)	(8) 4#50kcmil
(2)	(2)-(4#50kcmil & 1#1/0 CND)
(3)	(3)-(4#50kcmil & 1#3/0 CND)
(4)	(2)-(4#50kcmil & 1#1/0 CND)
(5)	3#3/0 & 1#50kcmil
(6)	4#3 & 1#8 CND
(7)	4#6, 1#4 C.C. & 1#10 CND
(8)	2 SETS (3-35kcmil & 1#1/0 CND)
(9)	4#6 & 1#10 CND
(10)	4#1/0 & 1#8 CND

DRY TYPE TRANSFORMER SCHEDULE					
ID	KVA	480 VOLT OVER CURRENT/DIVIDER CURRENT	208 VOLT	480V FEEDER	GROUNDING (5)
T1	15	30A, 3P	3#1/0 & 1#10CND - 3/4°C	4#6 & 1#10CND - 1°C	#6 - 3/4°C
T2	30	60A, 3P	3#6 & 1#10CND - 1°C	4#3 & 1#8CND - 1 1/4°C	#6 - 3/4°C
T3	45	90A, 3P	3#4 & 1#6CND - 1 1/4°C	4#1/0 & 1#6CND - 2°C	#6 - 3/4°C
T4	75	150A, 3P	3#1/0 & 1#6CND - 1 1/2°C	4#250kcmil & 1#45CND - 3°C	#2 - 3/4°C
T5	150	300A, 3P	3#3/0 & 1#250kcmil & 2#250CND	(2)-(3°C), 8#250kcmil & 2#250CND	#2/0 - 3/4°C

TRANSFORMER NOTES:

1. GROUND NEUTRAL OF TRANSFORMER SECONDARY TO THE TRANSFORMER CASE, WITH BONDING JUMPER
2. STRUCTURAL STEEL AND/OR BROWN GROUND ROD IN ACCORDANCE WITH N.E.C. 250-50 AND 250-52
3. ALL CONDUCTOR SIZES ARE FOR COPPER CONDUCTORS, N.E.C. TABLE 310-16
4. SECONDARY OVER CURRENT PROTECTION SHALL BE LOCATED WITHIN 100' (10) FEET OF THE TRANSFORMER BREAKER
5. TRANSFORMER BONDING JUMPER AND GROUNDING ELECTRODE CONDUCTOR, EXCEPT NOTED OTHERWISE
6. TRANSFORMER BONDING JUMPER (1-300kcmil)

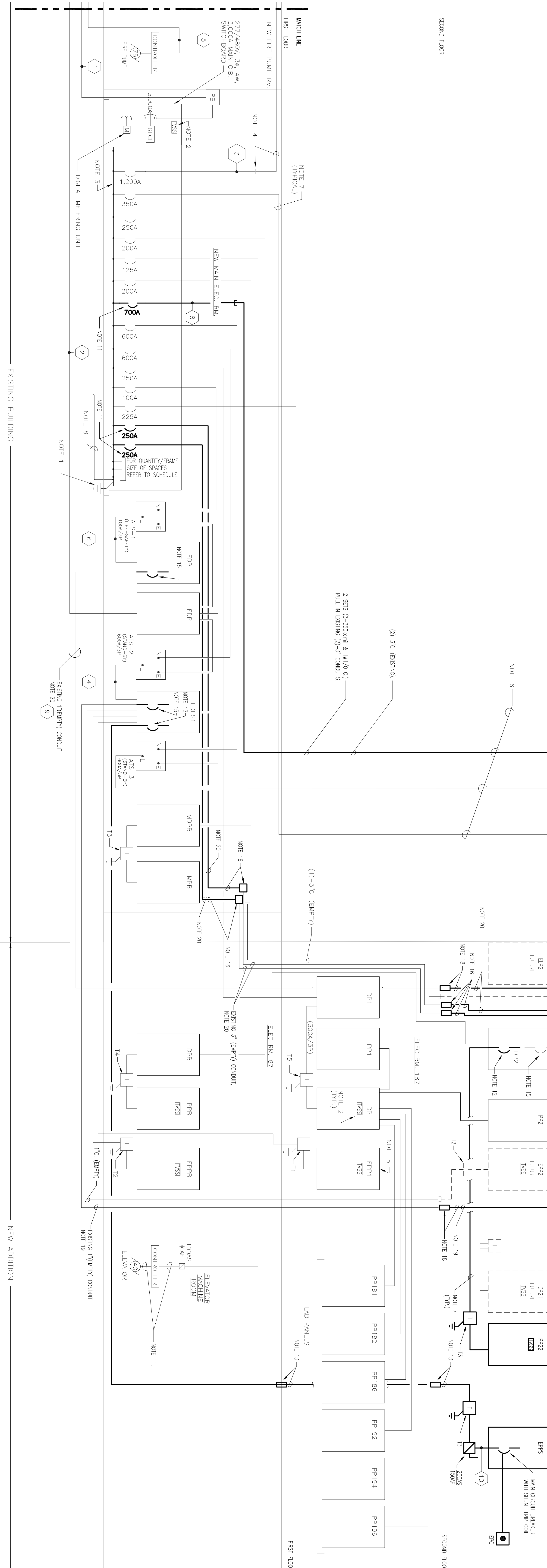
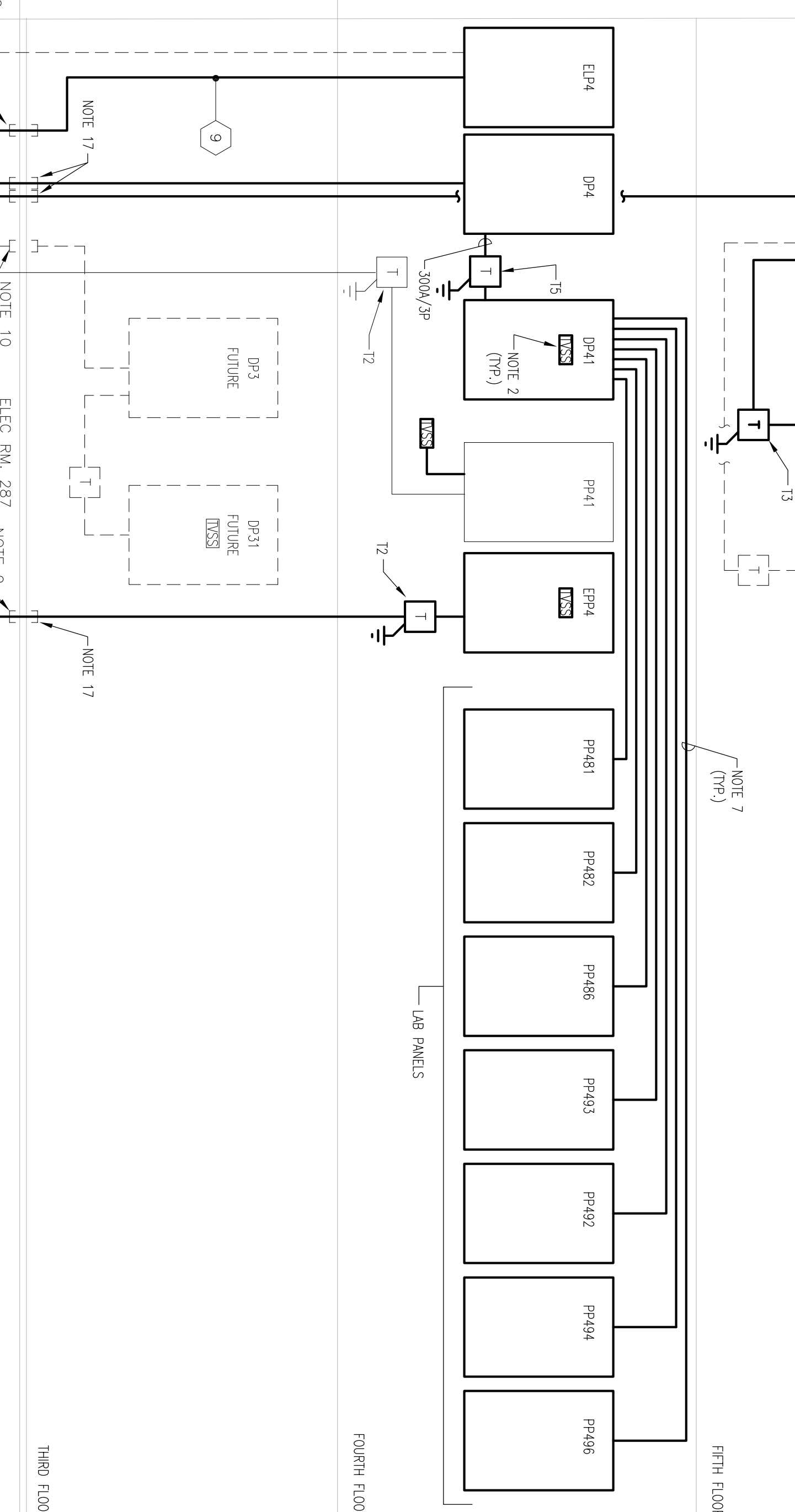
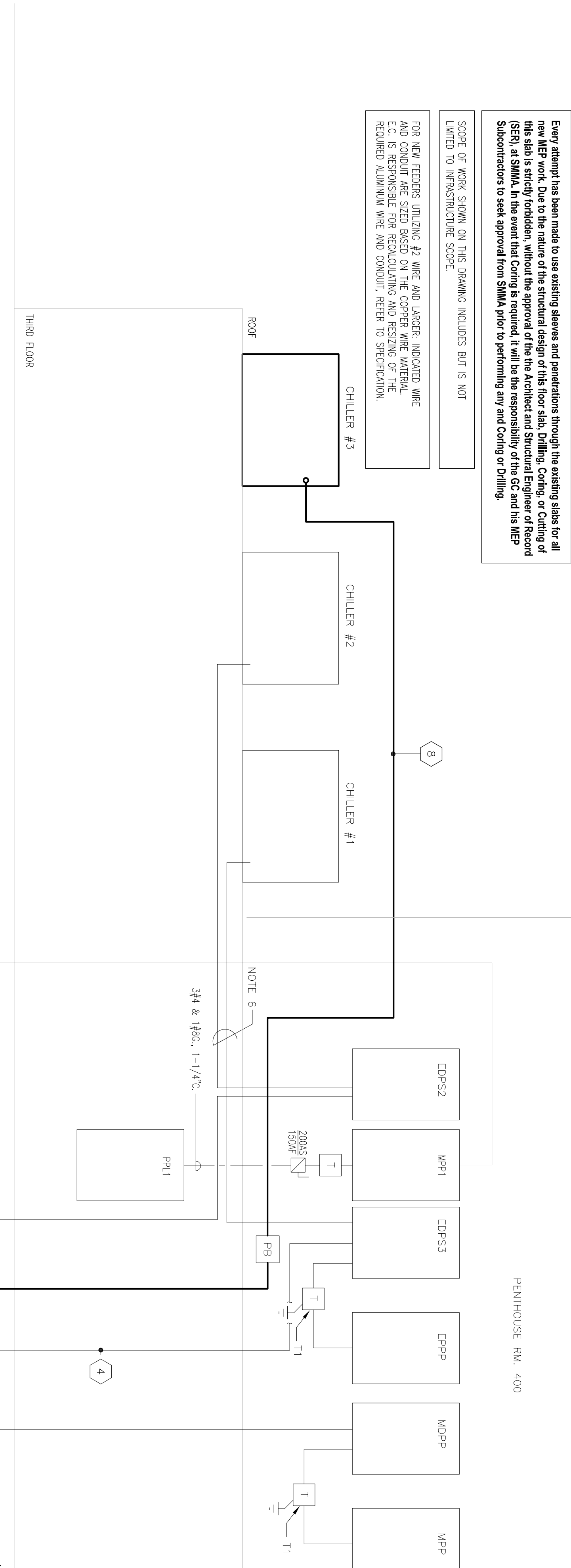
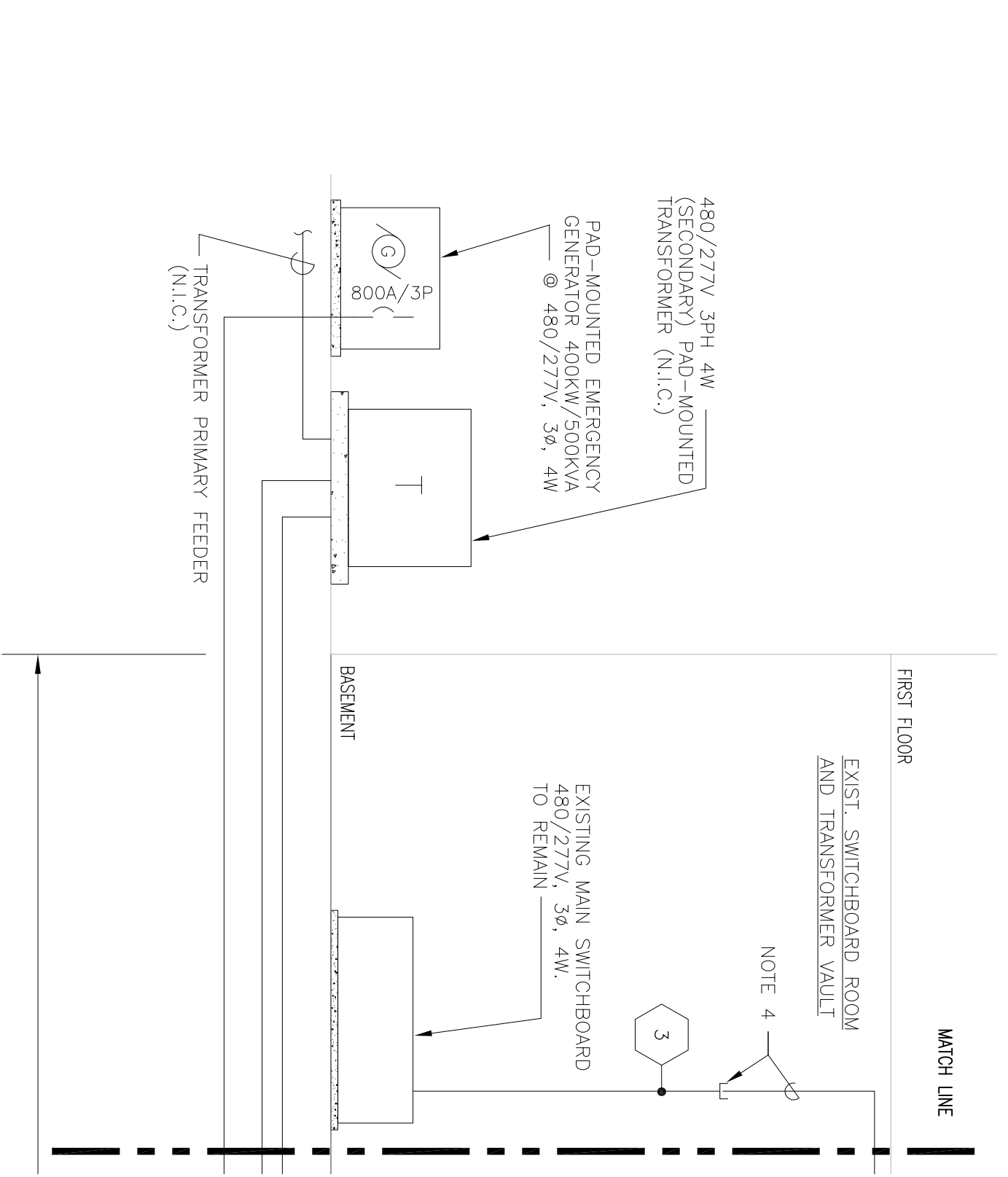


GENERAL NOTES:

Every attempt has been made to use existing sleeves and penetrations through the existing slabs for all new feeders. If it is determined that this is not possible, the contractor shall be responsible for providing the necessary sleeves and penetrations. This shall be strictly in accordance with the approval of the Architect and Structural Engineer of Record (SE/SA). In the event that Coring is required, it will be the responsibility of the GC and his MEP Subcontractors to seek approval from SMMA prior to performing any and Coring or Drilling.

SCOPE OF WORK SHOWN ON THIS DRAWING INCLUDES BUT IS NOT LIMITED TO INFRASTRUCTURE SCOPE.

FOR NEW FEEDERS INCLUDING #2 WIRE AND LARGER INCONDUIT WIRE THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECALCULATING AND DESIGNING OF THE REQUIRED ALUMINUM WIRE AND CONDUIT. REFER TO SPECIFICATION.



POWER ONE-LINE DIAGRAM

OWNER REVIEW

NAME	DATE

ISSUE LOG

NO.	DATE	DESCRIPTION
06.21.06	ISSUED FOR CONSTRUCTION	
06.01.06	SCORE REVISION	
03.22.06	100% QC REVIEW	
	PROGRESS PRINT	
A	03.16.06	80% PROGRESS PRINT
	DATE	DESCRIPTION

△ = GROUND CHANGE

UNIVERSITY OF SOUTHERN MAINE
79 FALMOUTH STREET
PORTLAND, MAINE

RESEARCH WING
PHASE III FIT-OUT

ONE-LINE DIAGRAM

SCALE	N.T.S.
DRAWN BY	SAI
CHECKED BY	PROJ. MGR./ ENGR. SD
PROJ. MGR.	RCH
JOB NO.	03048110
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