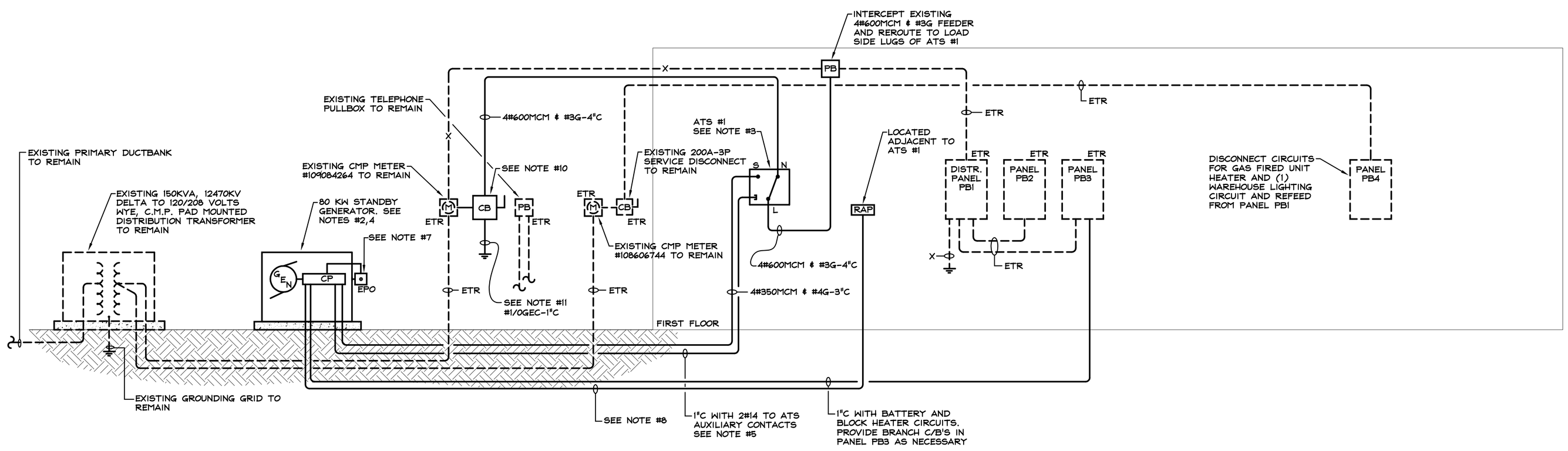
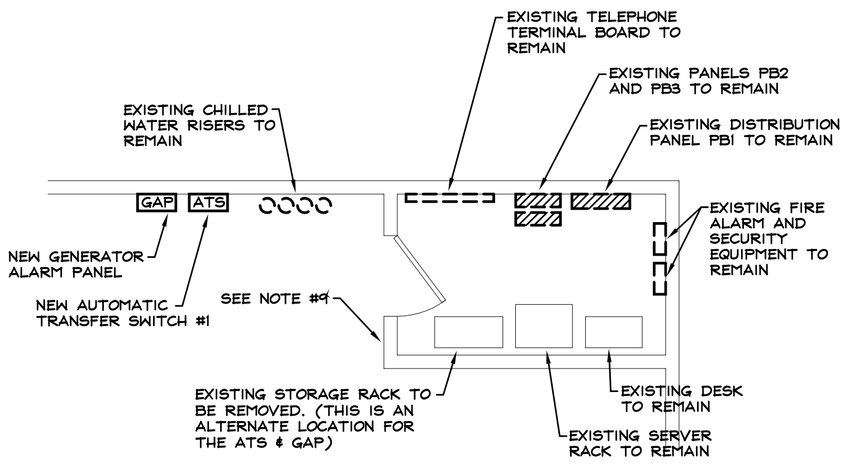
ONE LINE POWER DISTRIBUTION RISER DIAGRAM



PART PLAN @ MAIN ELECTRIC ROOM



ONE LINE POWER RISER NOTES

1. ALL CONDUCTOR SIZES ARE BASED ON COPPER CONDUCTOR AMPACITIES. UPSIZE FEEDER CONDUCTORS IF ALUMINUM CABLES ARE USED IN ACCORDANCE WITH ARTICLE 310.16.

2. EACH ITEM REFERRED TO THIS NOTE IS A NATURAL GAS FIRED EMERGENCY GENERATING SET WITH RATINGS AS FOLLOWS: 80KW, 100KVA, 120/208 VOLT, 3 PHASE, 4 WIRE, 60 HERTZ. GENERATOR CONTROL PANEL SHALL BE EQUIPPED WITH (1) 300A-3P, 100% RATED FEEDER CIRCUIT BREAKER. GENERATOR SHALL BE ENCLOSED IN A WEATHER PROTECTIVE HOUSING. INSTALL BATTERY WARMERS, RELAY, OUTLET, CONDUIT & WIRING.

3. EACH ITEM REFERRED TO THIS NOTE IS A 400A, 3P, 5N, 120/208 VOLT 60 HERTZ, AUTOMATIC TRANSFER SWITCH RATED FOR 50K A.I.C. IN A NEMA ONE ENCLOSURE.

4. EACH ITEM REFERRED TO THIS NOTE IS AN ACOUSTICALLY BAFFLED ENCLOSURE.

5. EACH ITEM REFERRED TO THIS NOTE IS A 2#12 & #12G - 1"C CIRCUIT RUN FROM THE GENERATOR CONTROL PANEL TO THE A.T.S. START CONTACTS.

6. ALL PANELBOARDS, CONDUCTOR CONNECTORS, ETC. SHALL BE LISTED AND IDENTIFIED FOR USE WITH 75°C RATED CONDUCTORS.

7. EACH ITEM REFERRED TO THIS NOTED IS AN "EMERGENCY POWER OFF" SWITCH IN A NEMA 3R WEATHERPROOF STOPPER COVER. EPO SWITCH SHALL BE MOUNTED ON THE EXTERIOR OF THE GENERATOR ENCLOSURE IN AN ACCESSIBLE LOCATION. THE EPO SWITCH SHALL SHUT TRIP THE GENERATOR OUTPUT CIRCUIT BREAKER AND SHUT DOWN THE GENERATOR.

8. PROVIDE A CAT 6 CABLE HOMERUN FROM THE GENERATOR CONTROL PANEL TO THE REMOTE ALARM PANEL IN A 1" CONDUIT.

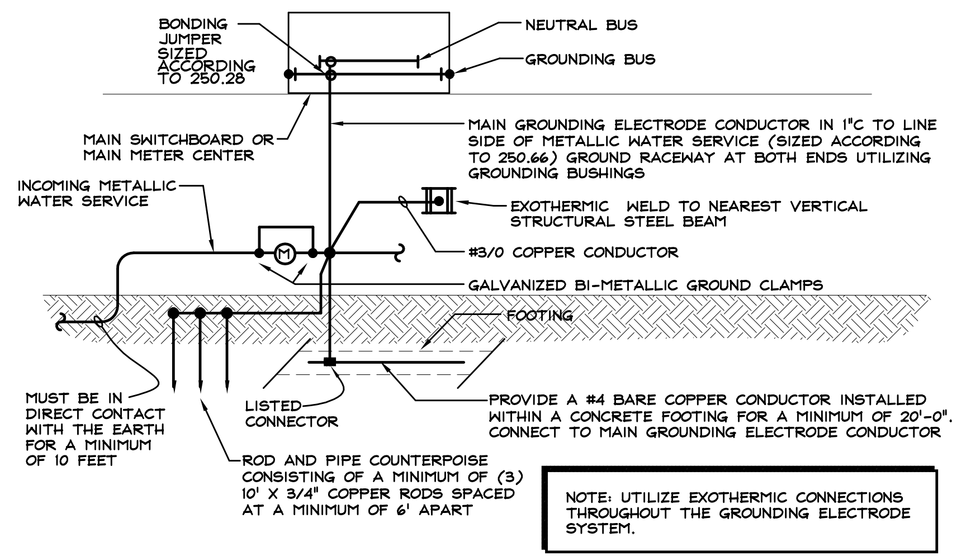
9. PROVIDE A SIGN @ THE MAIN ELECTRIC ROOM DESCRIBING THE LOCATION OF ALL ON SITE STANDBY POWER GENERATING SYSTEMS.

10. EACH ITEM REFERRED TO THIS NOTE IS A 100% RATED MOLDED CASE CIRCUIT BREAKER 400A FRAME 400A-3P TRIP, 30K A.I.C. SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT IN A NEMA 3R ENCLOSURE.

11. PROVIDE A GROUNDING ELECTRODE SYSTEM IN ACCORDANCE WITH THE MAIN SERVICE GROUNDING ELECTRODE DETAIL ON THIS DRAWING.

MAIN SERVICE GROUNDING SYSTEM DIAGRAM

NOTE: PROVIDE A GROUNDING ELECTRODE SYSTEM AS DETAILED BELOW (IF AVAILABLE ON THE PREMISES) UNTIL A MAXIMUM RESISTANCE LEVEL OF 25 OHMS TO GROUND IS ATTAINED. PERFORM A GROUND RESISTANCE TEST AND PROVIDE A COPY OF THE TESTING REPORT TO THE ENGINEER.



NOTE: UTILIZE EXOTHERMIC CONNECTIONS THROUGHOUT THE GROUNDING ELECTRODE SYSTEM.

STAMP:

ENGINEER:
Engineered Building Systems, Inc.
Consulting Engineers
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CONTRACTOR:

DATE:

REVISIONS:

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CHECKED BY: RFG/JAH	
DATE:	12/27/11
SCALE:	N.T.S.
PROJECT #:	211211

PROJECT NAME:
NEW ENGLAND LIFE CARE
STANDBY GENERATOR SYSTEM
108 INDUSTRIAL WAY
PORTLAND, ME

SHEET NAME:
ONE LINE POWER RISER
21211-E2.dwg

Sheet #:
E-2