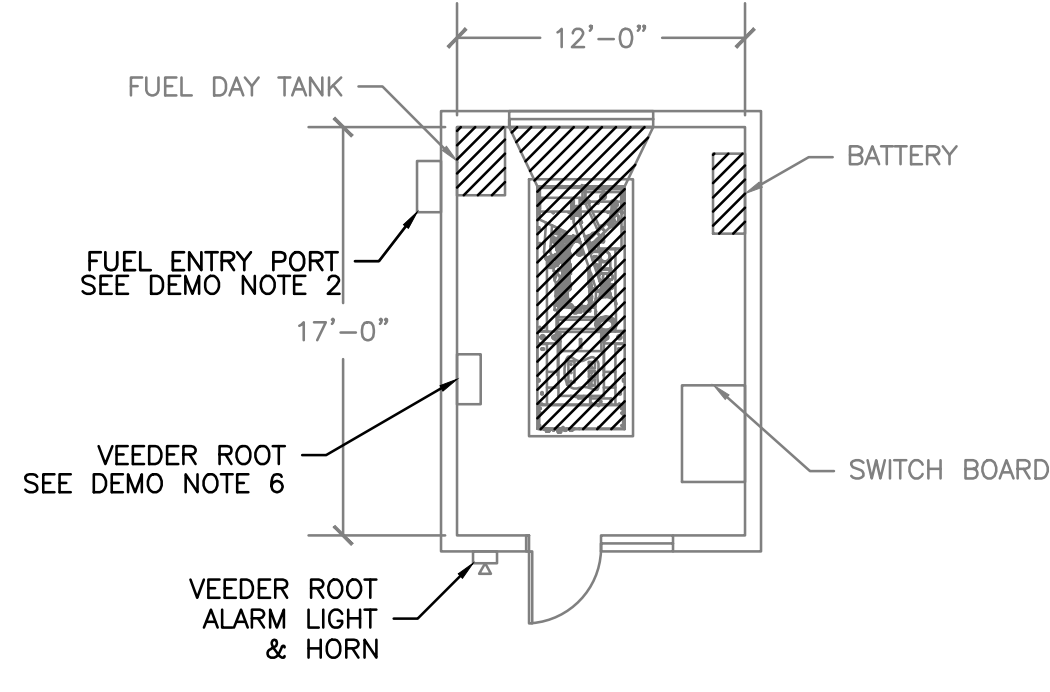
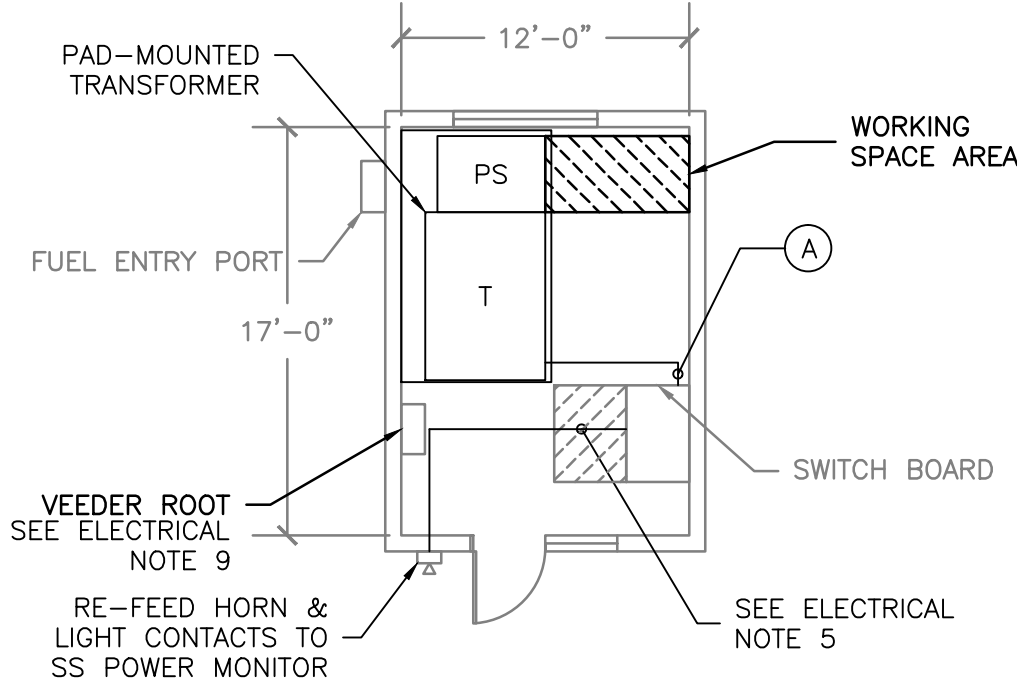


three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one eighth inch = one foot
one quarter inch = one foot
one eighth inch = one foot



1 BUILDING APU 71 DEMO
E-108 SCALE 1/8" = 1'



2 BUILDING APU 71 POWER PLAN
E-108 SCALE 1/8" = 1'

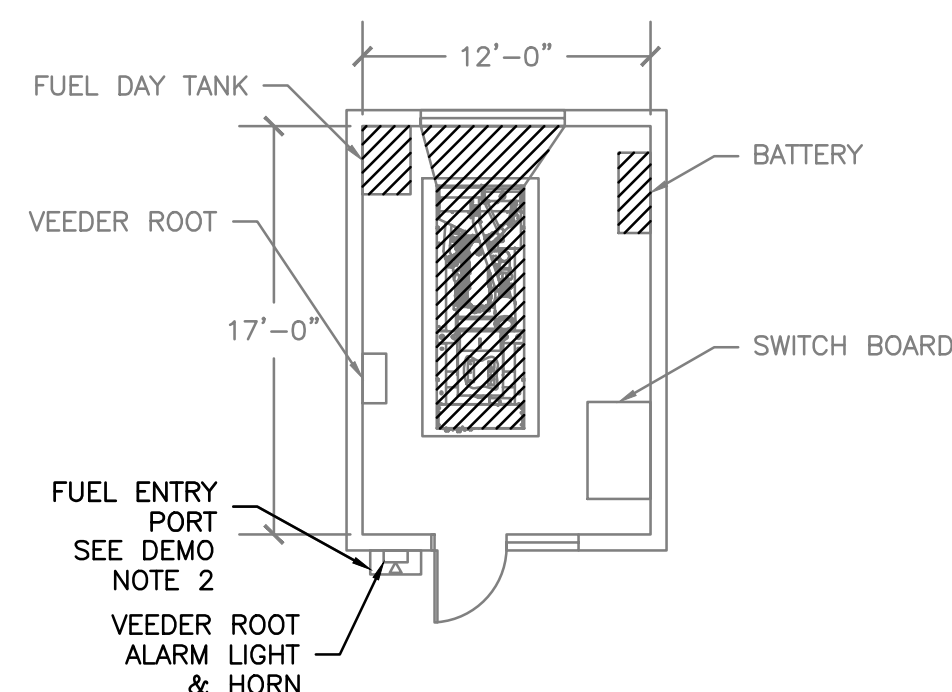
- FUEL SYSTEM DEMOLITION:
1. EMPTY, DISCONNECT, & REMOVE DAY TANK & APPURTENANCES.
 2. REMOVE FUEL LINES BACK TO FLEXIBLE HOSES LOCATED UNDER METAL BOX JUST OUTSIDE BUILDING.
 3. CAP & SEAL LINES.
 4. REPLACE BOX.
 5. EMPTY IN-GROUND TANK COMPLETELY. CONDITION FUEL & TRANSFER ELSEWHERE AS DIRECTED BY COTR.
 6. WHEN IN-GROUND TANK HAS BEEN EMPTIED, DISCONNECT ALARM LIGHT & HORN FROM VEEDER ROOT MONITOR & CONNECT TO UNIT SUB-STATION POWER MONITOR.

NOTE: EXISTING VEEDER-ROOT TLS-300 MONITOR MUST REMAIN IN OPERATION UNTIL IN-GROUND TANKS ARE CLEANED, FILLED, & ABANDONED IN PLACE, OR TANKS ARE REMOVED. IN GROUND TANK WORK IS NOT INCLUDED IN THIS CONTRACT.

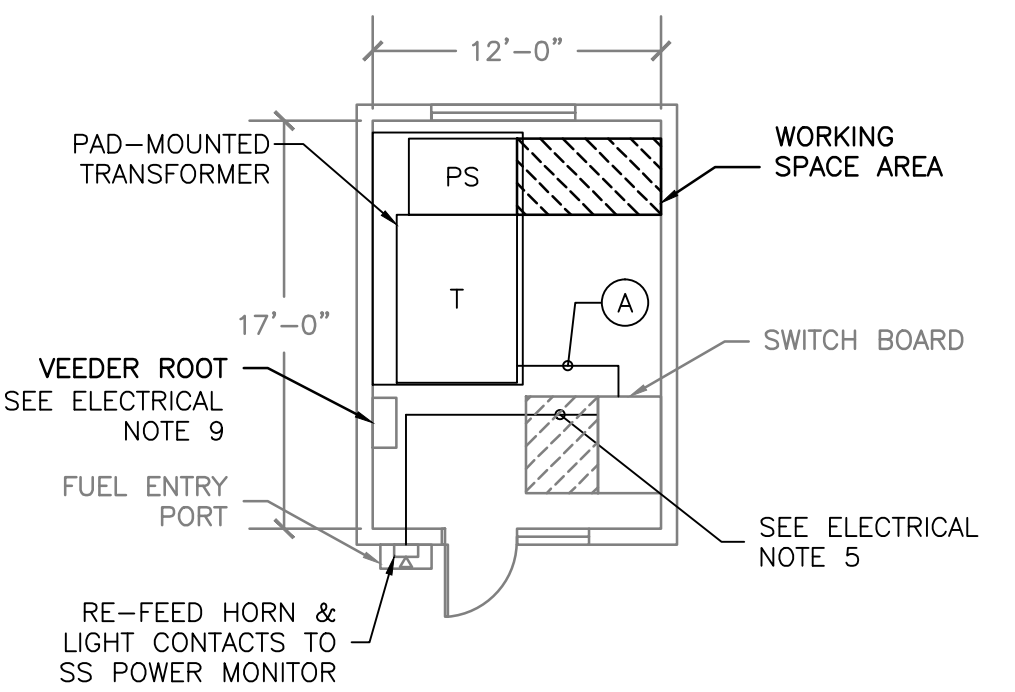
- DEMOLITION NOTES:
1. DEMO ELECTRICAL CONDUCTORS AND CONDUIT BACK TO FIRST JUNCTION BOX ABOVE CEILING, FOR ALL DEVICES SHOWN IN THIS PLAN.
 2. DEMO FUEL LINE TO OUTSIDE BUILDING. CAP LINE ABOVE GRADE UNDER BOX. SEAL OPENING TO BUILDING. (SEE FUEL DEMOLITION NOTES).
 3. REMOVAL OF GENERATOR SHALL INCLUDE ALL GENERATOR APPURTENANCES (BATTERY CHARGER, FUEL PUMPS & DAY TANKS)
 4. VEEDER ROOT ALARM SHALL REMAIN IN OPERATION, RELOCATE AS NEEDED.
 5. DO NOT REMOVE OR MODIFY ROOM VENTILATION UNLESS OTHERWISE NOTED IN MECHANICAL DRAWINGS.

LOW VOLTAGE FEEDER SCHEDULE		
TAG	AMPACITY	DESCRIPTION
A	800A	(2) PARALLEL RUNS, EACH 4-500 kCMIL, 2/0 AWG EG, IN 3-1/2" C
B	600A	(2) PARALLEL RUNS, EACH 4-350 kCMIL, 1 AWG EG, IN 3" C

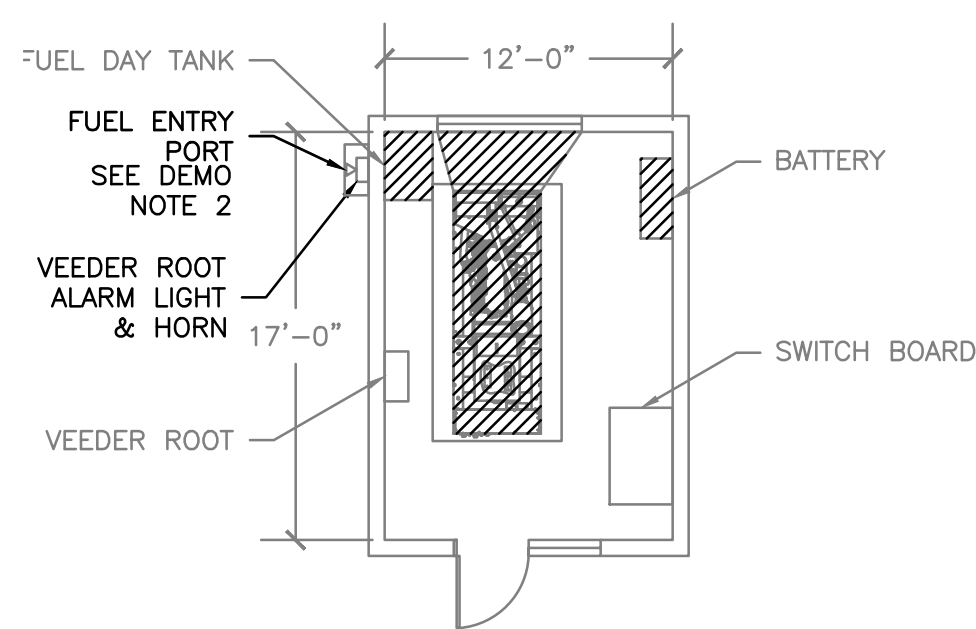
- ELECTRICAL NOTES:
1. ALL RECEPTACLE CONDUCTORS SHALL BE 2-12 AWG, 1-12 AWG EG IN 3/4" EMT OR MC CABLE UNLESS NOTED OTHERWISE.
 2. VERIFY LOCATION OF MECHANICAL EQUIPMENT WITH MECHANICAL DRAWINGS.
 3. THE TRANSFORMER USED IN CONJUNCTION WITH AN AUTOMATIC TRANSFER SWITCH WITH A SOLID NEUTRAL IS NOT A SEPARATELY DERIVED SYSTEM. AS SUCH, DO NOT BOND THE NEUTRAL TO GROUND AT THE TRANSFORMER SECONDARY OR SECONDARY DISCONNECT.
 4. CONTRACTOR PROVIDE POWER MONITORING FOR ALL TRANSFORMERS. MONITORING SHALL INCLUDE AT A MINIMUM INSTANTANEOUS & PEAK A, KW, KVA, PF, AND L-L & L-N VOLTAGES, AND A LOSS OF VOLTAGE, LOSS OF PHASE ALARM WITH REMOTE CONTACT.
 5. PROVIDE LOSS OF POWER/LOSS OF PHASE ALARM SIGNAL TO EXISTING ALARM LIGHT & HORN ON OUTSIDE OF BUILDING. (SEE FUEL DEMOLITION NOTES).
 6. RELOCATE EXISTING VEEDER ROOT PANEL AND ANY OTHER EQUIPMENT AS NEEDED.
 7. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING BID.
 8. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LATEST NEC AND LOCAL CODES.
 9. CONTRACTOR TO RELOCATE AS NECESSARY EXISTING EQUIPMENT INTERFERING WITH NEW WORK



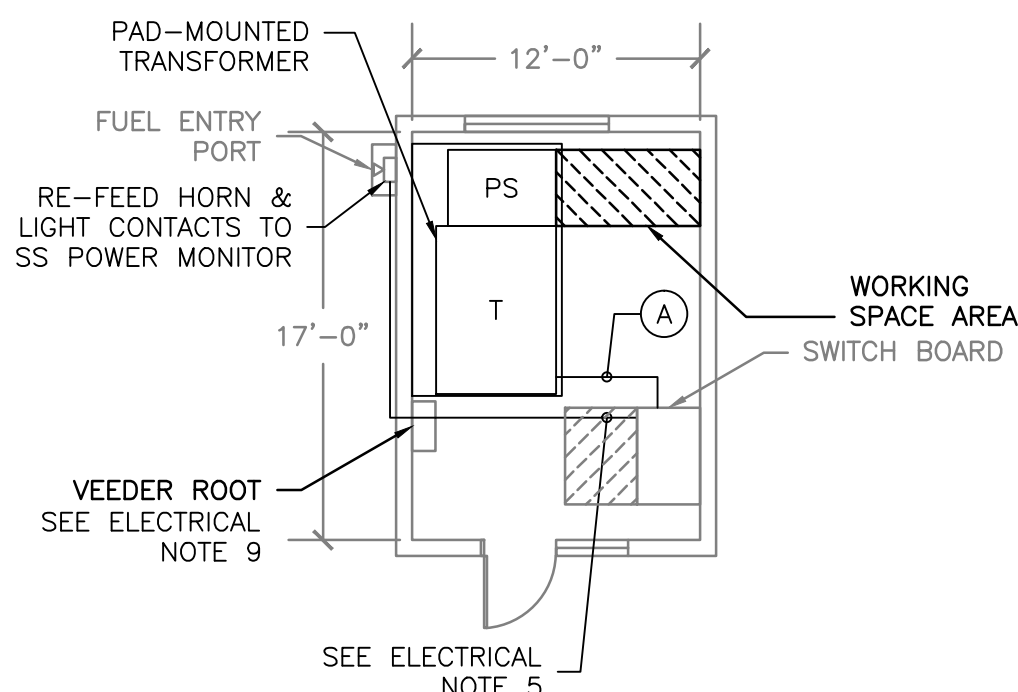
3 BUILDING APU 81 DEMO
E-108 SCALE 1/8" = 1'



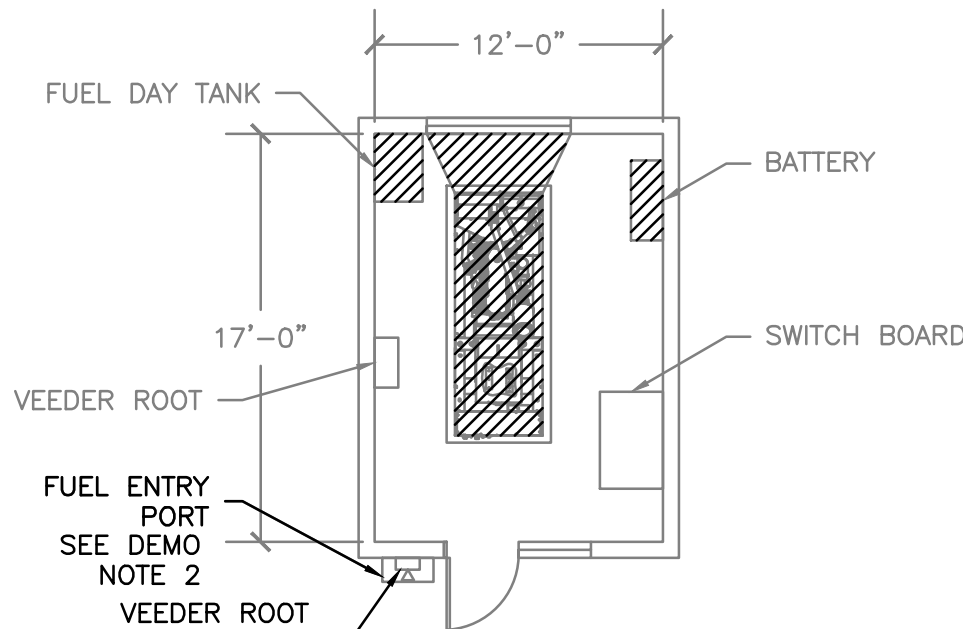
4 BUILDING APU 81 POWER PLAN
E-108 SCALE 1/8" = 1'



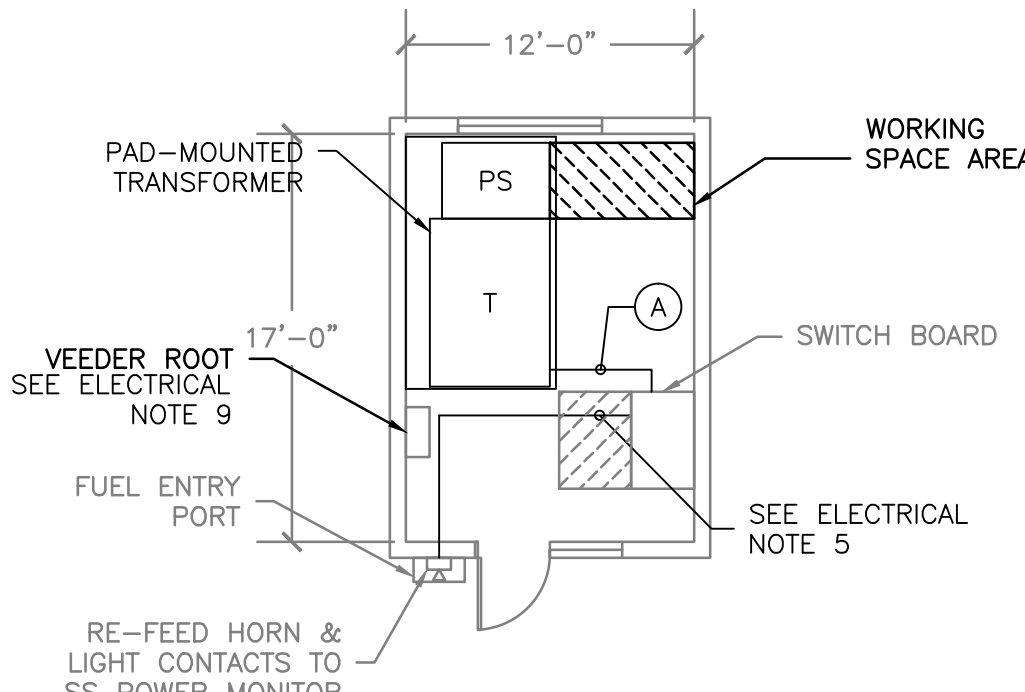
5 BUILDING APU 75 DEMO
E-108 SCALE 1/8" = 1'



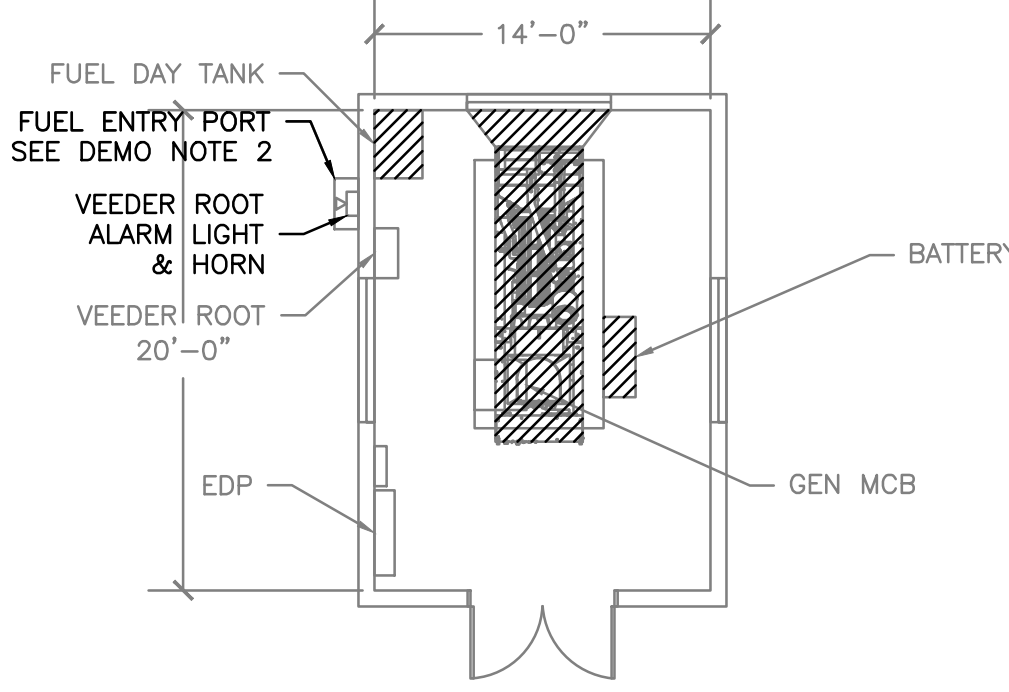
6 BUILDING APU 75 POWER PLAN
E-108 SCALE 1/8" = 1'



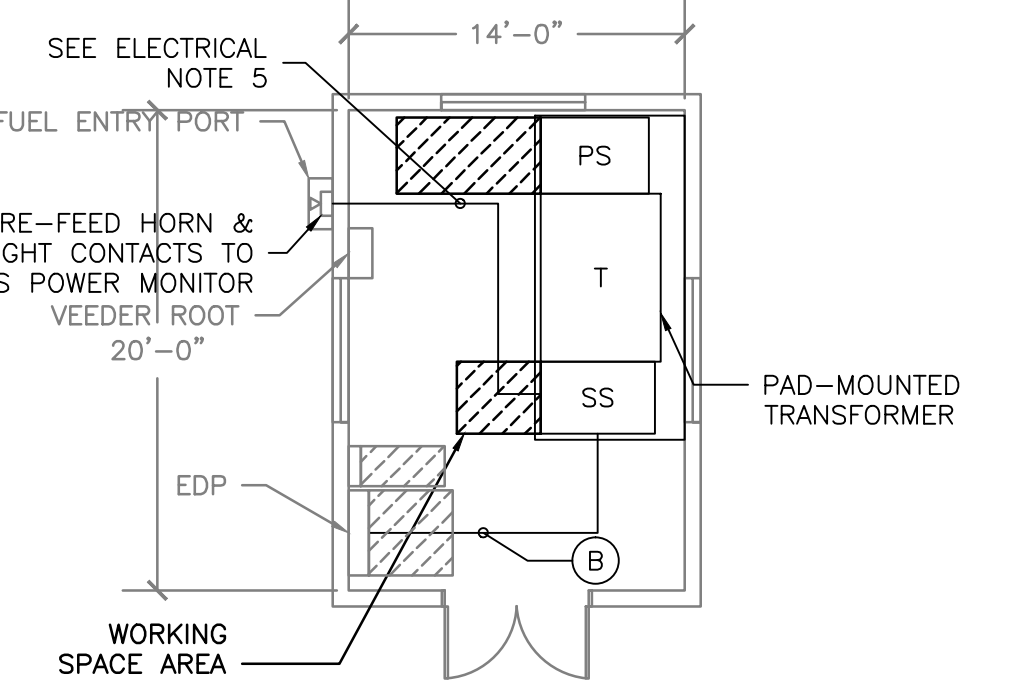
7 BUILDING APU 79 DEMO
E-108 SCALE 1/8" = 1'



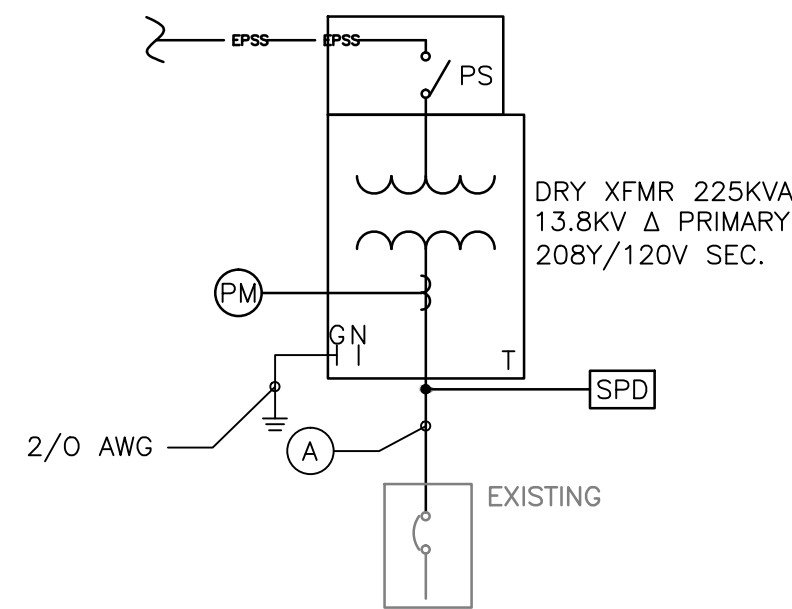
8 BUILDING APU 79 POWER PLAN
E-108 SCALE 1/8" = 1'



9 BUILDING APU 100 DEMO
E-108 SCALE 1/8" = 1'



10 BUILDING APU 100 POWER PLAN
E-108 SCALE 1/8" = 1'



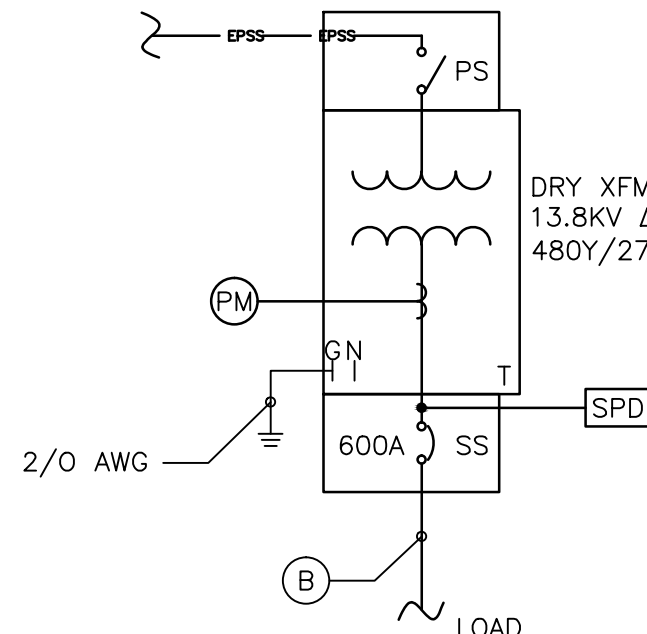
11 BUILDING 71, 75, 79 AND 81 ONE-LINE DIAGRAM
E-108 SCALE NTS

BONDING OF NEUTRAL TO GROUND:

1. THE EMERGENCY POWER GENERATOR OR UNIT SUBSTATION SUPPLYING 3-POLE AUTOMATIC TRANSFER SWITCH(ES) WITH SOLID NEUTRAL DOES NOT CONSTITUTE A SEPARATELY DERIVED SYSTEM.
2. CONTRACTOR VERIFY EACH EMERGENCY POWER SYSTEM IS CONFIGURED AS FOLLOWS PRIOR TO DEMOLITION.
A. SERVED AUTOMATIC TRANSFER SWITCHES ARE 3-POLE WITH SOLID NEUTRAL.
B. NEUTRAL IS NOT BONDED TO GROUND IN THE GENERATOR OR OUTPUT DISCONNECT OR SWITCHBOARD.
3. IF ITEM #2 IS NOT THE CASE, NOTIFY COTR FOR FUTURE GUIDANCE.
4. DO NOT BOND NEUTRAL TO GROUND AT THE SECONDARY OF THE TRANSFORMER OR IN THE SECONDARY SIDE (SS) DISCONNECT.
5. PER NEC (2011) ARTICLE 700.7, VERIFY OR INSTALL SIGNAGE AT THE ASSOCIATED MAIN SERVICE POINT. SIGNAGE SHALL READ:

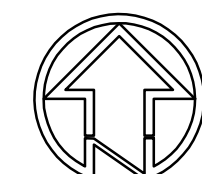
WARNING
SHOCK HAZARD EXISTS IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE IS ENERGIZED

GROUNDING LOCATION FOR NORMAL SERVICE AND FOR UNIT SUBSTATION LOCATED IN (BUILDING/ROOM #)



12 BUILDING 100 ONE-LINE DIAGRAM
E-108 SCALE NTS

TRANSFORMER SCHEDULE								
BLDG.	PRI. VOLTAGE	PRI. NF. SW.	TYPE	SIZE	SEC. VOLTAGE	SEC. OCPD.	POWER MONITORING	SURGE PROTECTION
71	13.8 kV	YES	DRY	225 kVA	208Y/120V	NO	YES	YES
75	13.8 kV	YES	DRY	225 kVA	208Y/120V	NO	YES	YES
79	13.8 kV	YES	DRY	225 kVA	208Y/120V	NO	YES	YES
81	13.8 kV	YES	DRY	225 kVA	208Y/120V	NO	YES	YES
100	13.8 kV	YES	DRY	500 kVA	480Y/277V	600A	YES	YES



KEY PLAN
SCALE NTS

100% CONSTRUCTION DOCUMENTS

		PATIENT SAFETY MANAGER	INFECTION PREVENTIONIST	SUPERVISOR, PROJECT SECTION	PROJECT MANAGER (COTR)	<div>ENGINEERS/ARCHITECT:</div> <div><div><div><div><div></div><div>POGEE</div></div><div><div>Raleigh, NC Indianapolis, IN Atlanta, GA Columbia, MD (919) 858-7420 www.apg-pa.com</div></div><div><div>Apogee Project # 2010 228</div></div></div><div><div><div><div></div><div>WSP • SELLS</div></div><div>Transportation & Infrastructure</div></div><div><div><div><div></div><div>LandDesign</div></div></div></div><div><div>WALDON STUDIO</div><div>ARCHITECTS & PLANNERS, PC</div><div>6520 Woodside Court, Suite 310 Columbia, Maryland 21046 Tel: 410-295-9680 Fax: 410-295-5777 www.waldonstudio.com</div></div></div></div><div>Professional Stamp/Seal</div></div>	Drawing Title ELECTRICAL DEMO & POWER PLANS, BUILDING 71, 75, 79, 81, 100		Project Title COATESVILLE - VA MEDICAL CENTER A/E INSTALL EMERGENCY GENERATOR		Date 9/23/11	VA
		SUPERVISION, BIOMED/ M&O	ENVIRON HEALTH FIRE/SAFETY SECTION	SAFETY/OCCUPATIONAL HEALTH MANAGER	CHIEF, ACQUISITION MGT SECT, CONTRACTING OFFICER		Project No. 542-11-104					
		VA POLICE CHIEF	PATIENT CARE SECTION	GENERAL PROPERTIES SECTION	GENERAL UTILITIES SECTION		DRAWING No. E-108					
Revisions		Date					Dwg. 9 Of 16					

ENGINEERS/ARCHITECT:

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Apogee Project # 2010 228

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