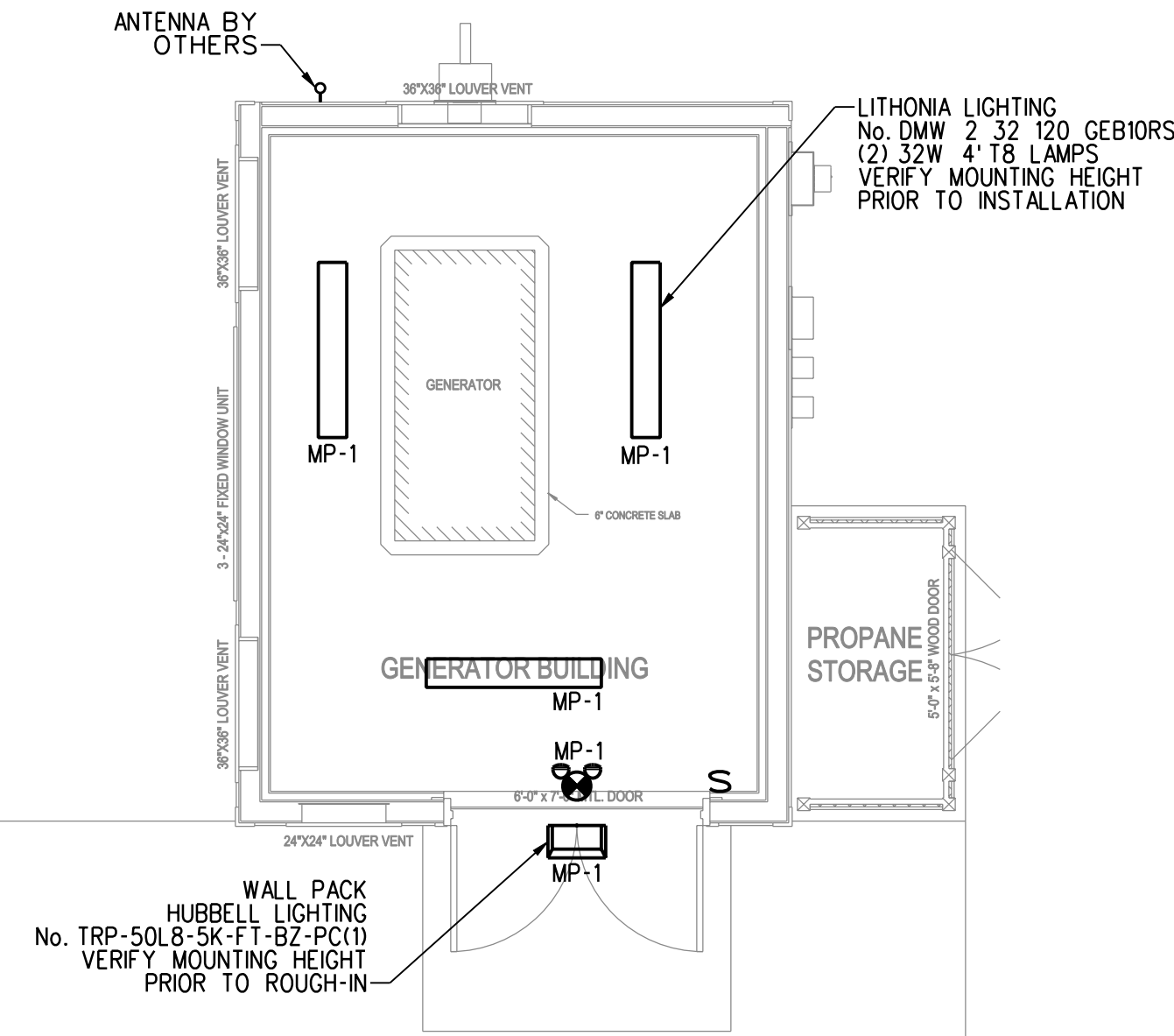
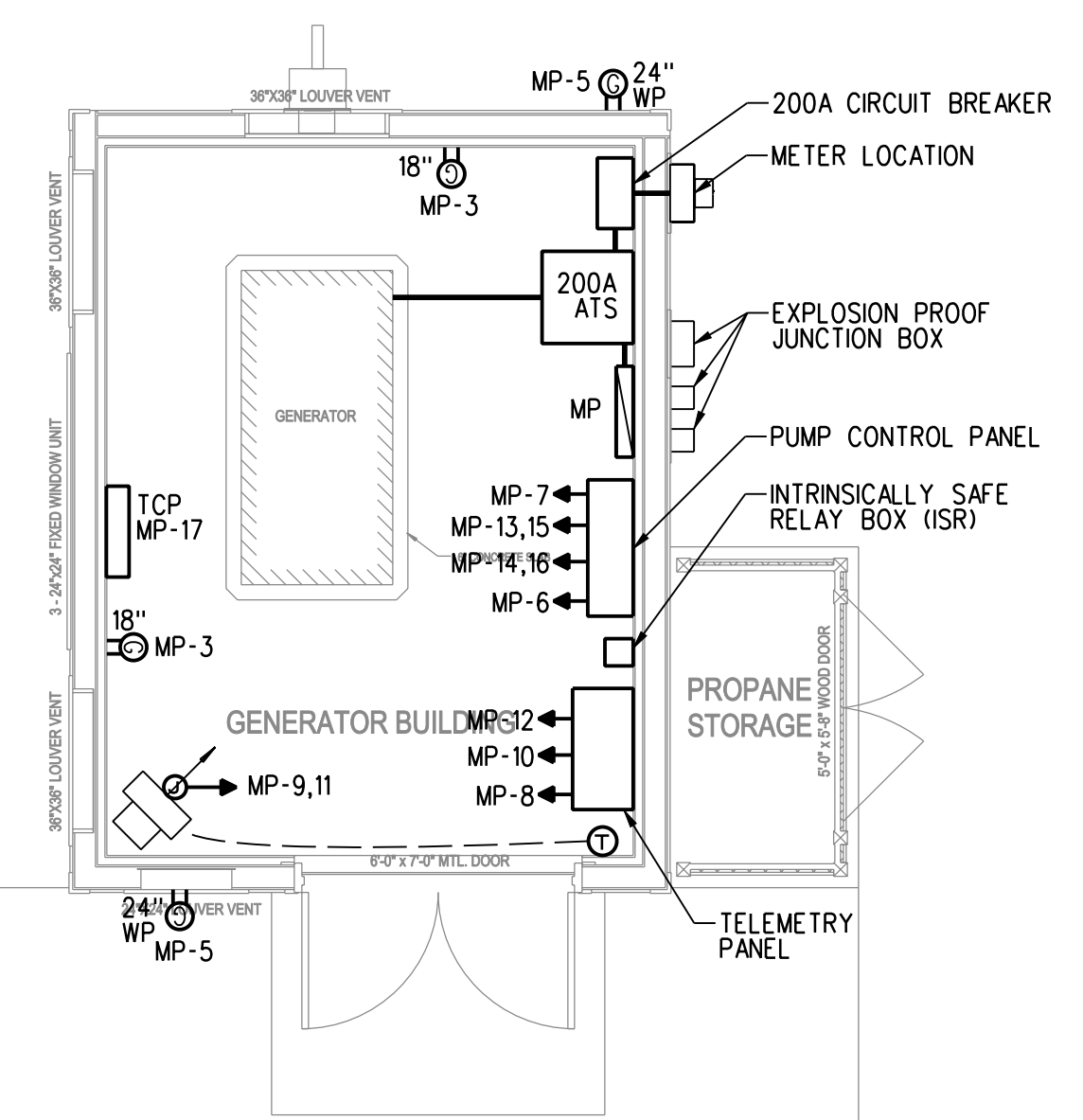


**GENERAL NOTES:**

1. SITE HAS SINGLE PHASE POWER. CONTRACTOR SHALL PROVIDE AND INSTALL, TOSHIBA G-9 VFD'S TO CREATE THREE PHASE POWER FOR THE PUMPS.
2. THE CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM THAT MEETS THE INTENT OF THE PORTLAND WATER DISTRICT AND ALL APPLICABLE ELECTRICAL, MECHANICAL AND BUILDING CODES.
3. ALL RECEPTACLES SHALL BE GROUND FAULT PROTECTED.
4. CONDUIT FOR LIGHTING AND RECEPTACLES MAY BE SURFACE MOUNTED.
5. PROVIDE UNDER-FLOOR CONDUIT BETWEEN THE STANDBY GENERATOR PAD AND THE VARIOUS EQUIPMENT, AT A MINIMUM, AS SHOWN.
6. PROVIDE ALLEN-BRADLEY No. 1492-C SERIES OR EQUAL TERMINAL STRIPS IN THE EXPLOSION PROOF JUNCTION BOXES, APPROPRIATELY SIZED TO MAKE CONNECTIONS BETWEEN THE REMOVABLE WIRING RUNNING FROM THE WET WELL AND THE PERMANENT WIRING RUNNING TO THE BUILDING WIRE NUTS AND ELECTRICIAN'S TAPE ARE NOT ACCEPTABLE FOR CONNECTIONS AT THESE LOCATIONS.
7. PROVIDE 3KW ELECTRIC UNIT HEATER CONTROLLED BY A THERMOSTAT AND A MANUAL RESET SHUTOFF TIMER SUCH THAT THE HEATER WILL AUTOMATICALLY TURN OFF AFTER 1 HOUR OF OPERATION.
8. SINCE THE BUILDING IS ROUTINELY UNHEATED EXCEPT FOR OCCASIONAL OCCUPANCY, PROVIDE COLD WEATHER BALLASTS FOR LIGHTING.



**GENERATOR BUILDING LIGHTING PLAN**  
SCALE: 1/4"=1'-0"

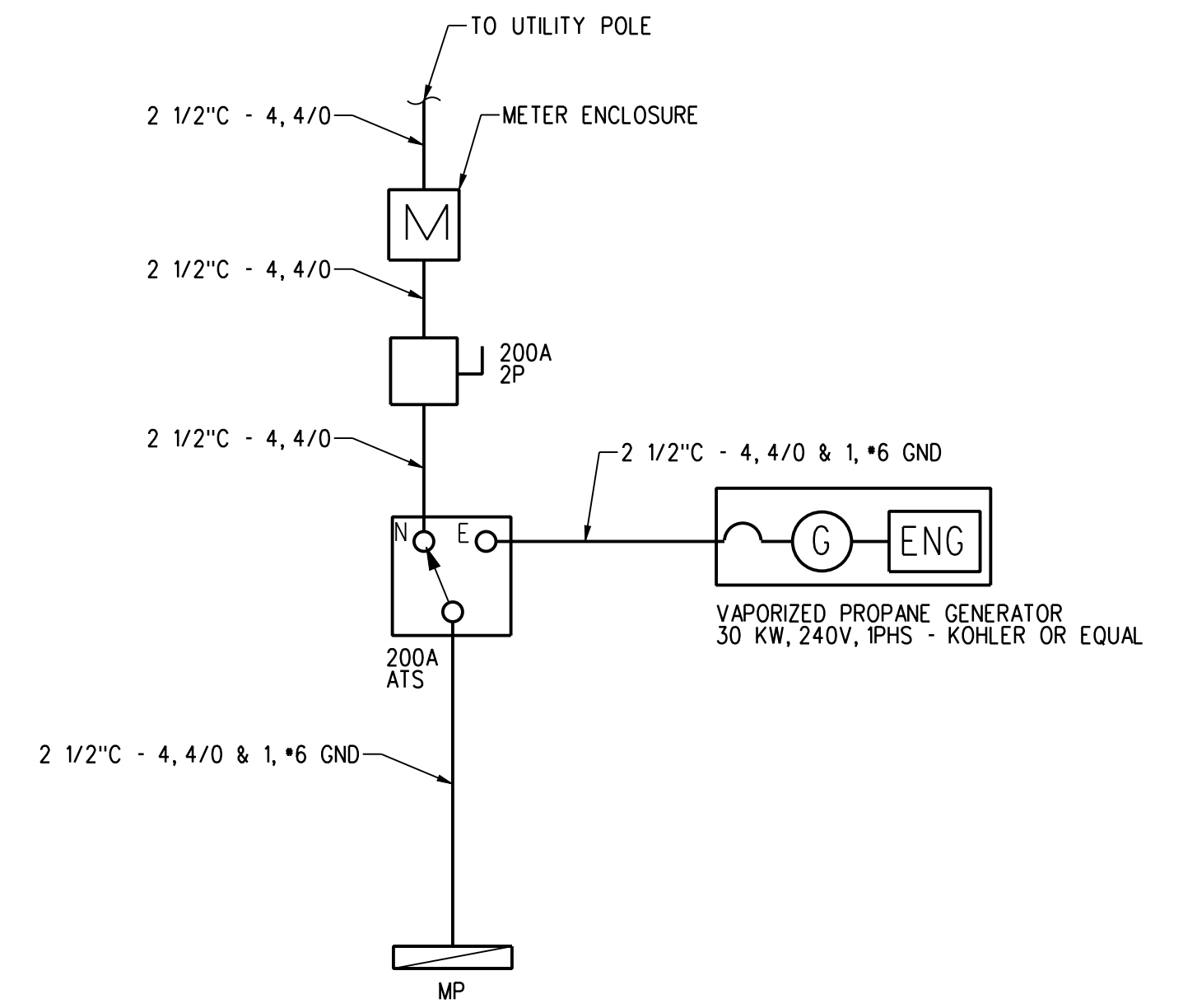


**GENERATOR BUILDING POWER PLAN**  
SCALE: 1/4"=1'-0"

PROJECT:		SINGLE PHASE		PANEL DESIGNATION:	
PEAKS ISLAND PUMP STATION PEAKS ISLAND, ME		PANELBOARD SCHEDULE		MP	
MAIN BRKR: 200A, 2P		VOLTS: 240/120		PHASE: 1	
				WIRE: 3	
KVA LOAD					KVA LOAD
.30	LIGHTING	1 1P 20	20	2 2P 20	1.5
.60	OUTLETS	3 1P 20	20	4 2P 20	1.5
.20	EXTERIOR OUTLET	5 1P 20	20	6 2P 20	1.5
1.5	VFD ENCLOSURE HEATER	7 2P 20	20	8 2P 20	1.5
	UNIT HEATER	9 2P 30	30	10 2P 20	1.0
		11 1P 20	20	12 1P 20	1.0
	SEWAGE PUMP P1	13 2P 100	100	14 2P 100	
	VIA VFD	15 1P 100	100	16 VIA VFD	
	TCP	17 1P 20	20	18 1P 20	
		19 1P 20	20	20 1P 20	
		21 1P 20	20	22 1P 20	
		23 1P 20	20	24 1P 20	
TOTAL CONN. LOAD 20.0				TOTAL DEM. LOAD 15	

**SYMBOL LEGEND**

- POWER PANEL 120/240, 1PHS, 3WIRE
  - ELECTRIC MOTOR DRIVEN EQUIPMENT, HP SHOWN
  - DISCONNECT SWITCH - VOLT SIZE & NUMBER OF POLES AS NOTED.
  - LIGHTING FIXTURES - TYPE AS INDICATED ON PLANS. LOWER CASE LETTERS INDICATE SWITCH CONTROL.
  - RACEWAY & WIRING OR MC CABLE RUN CONCEALED UNDERSLAB.
  - RACEWAY & WIRING RUN EXPOSED
  - HOME RUN TO PANEL-ARROWS INDICATE QUANTITY OF CIRCUITS- NUMERALS DENOTE CIRCUIT NUMBERS
  - SINGLE POLE SWITCH, 120 VOLT, 20 AMP, SPEC GRADE, GROUNDING TYPE ,MOUNT 48" AFF, 3-3-WAY, 4-4 WAY, P-PILOT
  - PILOT LIGHT SWITCHES SHALL BE PROVIDED W/ ENGRAVED NAMEPLATE IDENTIFYING USE.
  - DUPLEX RECEPTACLE- 20A, 125V SPEC GRADE GROUNDING TYPE AND MATCHING PLATE - MOUNT 18" AFF.
  - DUPLEX RECEPTACLE- GROUND FAULT OUTLET 20A, 125V- WITH MATCHING PLATE FURNISHED W/ OUTLET. FLUSH MOUNTED 45" AFF EXCEPT AS NOTED.
  - EXIT/EMERGENCY LIGHT COMBO, DUAL-LITE No. EVC-U-G-W-D-1 OR APPROVED EQUAL
  - WEATHERPROOF CONSTRUCTION
- BRANCH CIRCUIT WIRING SHALL CONSIST OF 2\*12, 1\*12G, 1/2" UNLESS OTHERWISE NOTED. ASTERISK INDICATES \*10 AWG FOR ALL CIRCUITS CONTAINED IN HOMERUN. DOUBLE ASTERISK INDICATES 2, \*8 & 1, \*10, \*7, 4" C



**ONE LINE DIAGRAM**  
SCALE: NONE

RELEASED FOR BIDS

**BENNETT ENGINEERING**  
MECHANICAL - ELECTRICAL  
(207) 865-9475

REV	DATE	DESCRIPTION
3	01.31.13	RELEASED FOR BIDS
2	01.10.13	90% REVIEW SET
1	12.12.12	60% REVIEW SET
REV	DATE	DESCRIPTION
REVISIONS		

STATE OF MAINE  
**MICHAEL L. CLAYPOLE**  
REGISTERED PROFESSIONAL ENGINEER  
17824

PROJECT: PEAKS ISLAND - PORTLAND, MAINE SEWERAGE EXTENSIONS & WATER MAIN RENEWAL ISLAND AVENUE AND WINDING WAY AREAS  
SHEET TITLE: **ELECTRICAL PLAN AND DETAILS**  
CLIENT: **PORTLAND WATER DISTRICT**

**DH DeLUCA-HOFFMAN ASSOCIATES, INC.**  
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DRAWN: twg DATE: DEC. 2012  
DESIGNED: SCALE: AS NOTED  
CHECKED: WSBJR JOB NO. 3134  
FILE NAME: FILE NAME  
SHEET **E1.1**