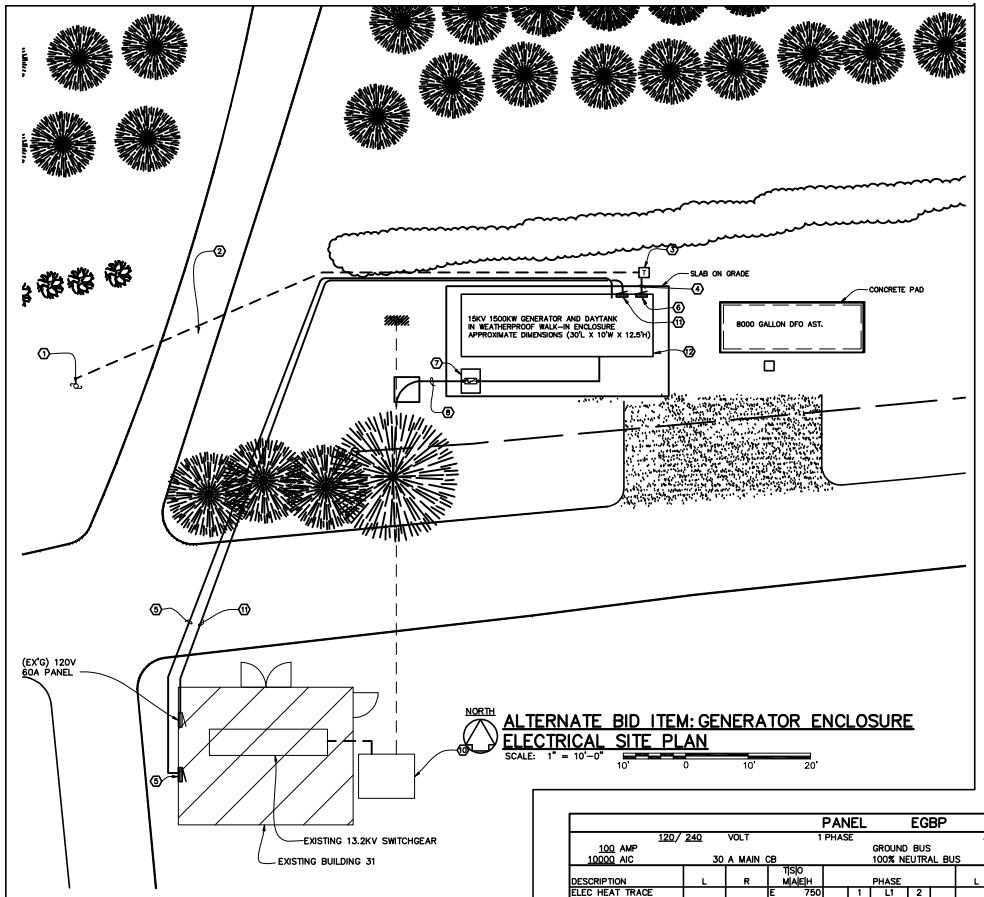
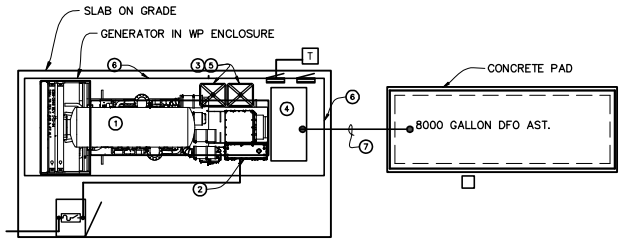


NORTH

ALTERNATE BID ITEM: GENERATOR ENCLOSURE ELECTRICAL SITE PLAN

SCALE: 1" = 10'-0"

10' 0 10' 20'



NORTH

ALTERNATE BID: GENERATOR ENCLOSURE ELECTRICAL POWER PLAN

SCALE: 1/8" = 1'-0"

8' 0 8' 16'

GENERAL NOTES:

A. CONTRACTOR TO BID GENERATOR WEATHER-PROOF ENCLOSURE AND CONCRETE FOUNDATION AS SHOWN ON THESE DRAWINGS AS THE ALTERNATE BID.

B. SEE STRUCTURAL AND ARCHITECTURAL FOR CONCRETE PAD AND SLAB DETAILS. COORDINATE PAD DIMENSIONS WITH ACTUAL GENERATOR AND TANK PURCHASED.

C. LOUVERS TO BE AN INTEGRAL PART OF THE ENCLOSURE.

GENERATOR EQUIPMENT ENCLOSURE SCHEDULE

MARK	DESCRIPTION	LOAD	VOLT-PH	FEEDER	O.C. PROTECTION C.B	O.C. PROTECTION FUSE	REMARKS
1	JACKET WATER HEATERS	6420 W	240-1	(2#8+#10G) 3/4 "C	35A2P		PANEL GEP
2	ALTERNATOR HEATER	600 W	120-1	(2#12+#12G) 1/2 "C	20A1P		PANEL GEP
3	BATTERY CHARGER	650 W	120-1	(2#12&#12G) 3/4 "C	20A1P		PANEL GEP
4	DAY TANK- PUMPS	750 W	120-1	(2#12+#12G) 1/2 "C	20A1P		PANEL EGBP-2
5	BATTERY WARMING PADS	300 W	120-1	(2#12+#12G) 1/2 "C	20A1P		PANEL GEP
6	MOTORIZED LOUVERS	0.167 HP	120-1	(2#12+#12G) 1/2 "C	20A1P		PANEL GEP
7	ELEC HEAT TRACE	750.00 W	120-1	(2#12+#12G) 1/2 "C	20A1P		PANEL EGBP-1
8	LIGHTING	672 W	120-1	(2#12+#12G) 1/2 "C	20A1P		PANEL EGBP-3
9	HEATING	5000 W	240-1	(2#10+#10G) 3/4 "C	30A2P		PANEL GEP
10	NOT USED						
11	VEEDER ROOT PANEL	500 W	120-1	(2#12+#12G) 1/2 "C	20A1P		BLDG 31 PANEL

NOTES:
A. PANEL GEP AND BREAKERS FURNISHED WITH GENERATOR ENCLOSURE

FLAG NOTES THIS SHEET: ⬡

1. EXISTING PRIMARY POWER POLE WITH CUTOUTS DISCONNECTS. PROVIDE NEW FUSES AND 15KV CONDUCTORS FROM POLE TO PAD MOUNTED TRANSFORMER.
2. ROUTE 15KV CONDUCTOR IN DIRECT BURIED SCHEDULE 80 PVC CONDUIT. UNDERGROUND CONDUIT INSTALLATION SHALL MEET THE REQUIREMENTS OF NEW 300.50.
3. 13.2KV-240/120V, 1PHASE, 3W 25KVA PAD MOUNTED TRANSFORMER
4. ROUTE 3#1/0 + #6G IN 2" PVC CONDUIT FROM PAD MOUNTED TRANSFORMER TO GEN PANEL.
5. FUEL TANK MONITORING PANEL (VEEDER ROOT OR EQUAL) LOCATED IN BUILDING 31. PROVIDE 2#12 + #12G FROM NEW 20A/1P CIRCUIT BREAKER IN EXISTING PANELBOARD. ROUTE SENSOR WIRING FROM TANK AND GENERATOR TO MONITORING PANEL AS REQUIRED. PROVIDE PHONE LINE TO MONITORING PANEL TO COMMUNICATE ALARM CONDITIONS.
6. 150A MCB, 120/240V, 1PH GEN PANEL LOCATED IN GENERATOR ENCLOSURE FOR ANCILLARY LOADS.
7. NEMA 3R CABINET ENCLOSED 15KV LI DISCONNECT SWITCH WITH CLASS E FUSES. SEE ONE LINE FOR SIZES.
8. ROUTE 15KV GENERATOR OUTPUT FEEDER FROM LI DISCONNECT TO UNGERGROUND CONDUITS ORIGINATING AT EXISTING POWER POLE ROUTED TO BUILDING 31 TRANSITION SWITCH BOX. INTERCEPT THESE CONDUITS THROUGH A NEW 4'X4' PULLBOX (OR AS REQUIRED) AND ROUTE 15KV FEEDER TO EXISTING SWITCHGEAR INPUT B BREAKER. EXISTING 15KV WIRING ON POLE MAY BE RE-USED IF POSSIBLE.
9. CONTRACTOR TO PROVIDE CONTROL WIRING BETWEEN GENERATOR START SIGNAL AT SWITCHGEAR TO GENERATOR. COORDINATE START SIGNAL CONTACTOR REQUIRED BY EATON (SWITCHGEAR MANUFACTURER).
10. EX'G BUILDING 31 TRANSITION SWITCH BOX WITH EX'G CONDUITS INTO B SIDE OF GEAR. ROUTE 15KV GENERATOR OUTPUT FEEDER INTO CAMPUS'S 15KV SWITCHGEAR- INPUT LINE B.
11. ROUTE 3#8+#10G (IN DIRECT BURIED SCHEDULE 80 PVC 2" CONDUIT) FROM 30A/2P BREAKER IN BUILDING 31 PANEL TO FEED PANEL EGBP AT GENERATOR ENCLOSURE.
12. GENERATOR SHALL BE 1500KW, 15KV GENSET.

PANEL EGBP — NEW

120/240 VOLT, 1 PHASE, 3 WIRE SERVICE
100 AMP, 10000 AIC, 30 A MAIN CB, GROUND BUS, 100% NEUTRAL BUS, SERVICE RATED PANEL, SURFACE MOUNTED

DESCRIPTION	L	R	T|S|O M|A|E|H		PHASE			L	R	T|S|O M|A|E|H		DESCRIPTION
ELEC HEAT TRACE			E	750	1	L1	2			E	750	DAY TANK
LIGHTING	650				3	L2	4					SPR
SPR					5	L1	6					SPR
SPR					7	L2	8					SPR
SPR					9	L1	10					SPR
					11	L2	12					
					13	L1	14					
					15	L2	16					
					17	L1	18					
TOTAL	650	0	M 0 A 0 E 750		LOADS IN VOLT-AMPERES			0	0	M 0 A 0 E 750		TOTAL

	CONNECTED	D.F.	DEMAND		
LIGHTING	0.7	1.25	0.8	CONNECTED	2.2 KVA
RECEPT. (FIRST 10 KW)	0.0	1.00	0.0	DESIGN	7.2 KVA
RECEPT. (REMAINDER)	0.0	0.50	0.0	DEMAND	2.3 KVA
MOTORS	0.0	1.00	0.0	SPARE	4.9 KVA
LARGEST MOTOR	0.0	1.25	0.0	CONNECTED	
APPLIANCES	0.0	1.00	0.0	L1	1.5 KVA
EQUIPMENT	1.5	1.00	1.5	L2	0.7 KVA
HEATING	0.0	1.00	0.0		
TRANSFORMER	0.0	1.00	0.0		
OTHER	0.0	1.00	0.0		
		0.00	0.0		
		0.00	0.0		
		0.00	0.0		
TOTAL	2.2 KVA		2.3 KVA	ALL CIRCUIT BREAKERS	
LOAD	9.0 AMPS		9.6 AMPS	ARE 20 AMP, 1 POLE	
DESIGN			30.0 AMPS	UNLESS NOTED OTHERWISE	
SPARE			20.4 AMPS	SP = SPACE SPR = SPARE	

L = LIGHTING, R = RECEPTACLE, M = MOTOR, T= TRANSFORMER, H = HEATING
S = SUBFEED, E = EQUIPMENT, A = APPLIANCE, O = OTHER

NOTES:

PANEL GEP — NEW

120/240 VOLT, 1 PHASE, 4 WIRE SERVICE
150 AMP, 10000 AIC, 150 A MAIN CB, GROUND BUS, 100% NEUTRAL BUS, SERVICE RATED PANEL, SURFACE MOUNTED

DESCRIPTION	L	R	T|S|O M|A|E|H		PHASE			L	R	T|S|O M|A|E|H		DESCRIPTION
JACKET WATER HTRS			H	3210	35 1	L1	2			E	650	BATTERY CHARGER
			H	3210	3	L2	4			M	750	MOTO LOUVERS
JACKET WATER HTRS			H	3210	35 5	L1	6					SPR
			H	3210	7	L2	8					SPR
ALTERNATOR HEATER			H	600	9	L1	10					SPR
ENCLOSURE HEATER			H	2500	30 11	L2	12					SPR
			H	2500	13	L1	14					SPR
					15	L2	16					
					17	L1	18					
					19	L2	20					
					21	L1	22					
					23	L2	24					
					25	L1	26					
					27	L2	28					
					29	L1	30					
TOTAL	0	0	M 0 A 0 E 18440		LOADS IN VOLT-AMPERES			0	0	M 750 A 0 E 650		TOTAL

	CONNECTED	D.F.	DEMAND		
LIGHTING	0.0	1.25	0.0	CONNECTED	19.8 KVA
RECEPT. (FIRST 10 KW)	0.0	1.00	0.0	DESIGN	36.0 KVA
RECEPT. (REMAINDER)	0.0	0.50	0.0	DEMAND	20.0 KVA
MOTORS	0.0	1.00	0.0	SPARE	16.0 KVA
LARGEST MOTOR	0.8	1.25	0.9	CONNECTED	
APPLIANCES	0.0	1.00	0.0	L1	10.2 KVA
EQUIPMENT	0.7	1.00	0.7	L2	9.7 KVA
HEATING	18.4	1.00	18.5		
TRANSFORMER	0.0	1.00	0.0		
OTHER	0.0	1.00	0.0		
		0.00	0.0		
		0.00	0.0		
		0.00	0.0		
TOTAL	19.8 KVA		20.0 KVA	ALL CIRCUIT BREAKERS	
LOAD	82.7 AMPS		83.5 AMPS	ARE 20 AMP, 1 POLE	
DESIGN			150.0 AMPS	UNLESS NOTED OTHERWISE	
SPARE			66.5 AMPS	SP = SPACE SPR = SPARE	

L = LIGHTING, R = RECEPTACLE, M = MOTOR, T= TRANSFORMER, H = HEATING
S = SUBFEED, E = EQUIPMENT, A = APPLIANCE, O = OTHER

NOTES:

Professional Engineer (Electrical) ROSSELLE D. MELLOTT 12185 Date WYOMING

REVISIONS

No: XX	DATE XX
XX	
XX	
No:	DATE
No:	DATE
No:	DATE
No:	DATE

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PROJECT:
VETERAN'S ADMINISTRATION MEDICAL CENTER
EXTEND EMERGENCY POWER
2360 EAST PERSHING AVENUE
CHEYENNE, WYOMING

TITLE
ALTERNATE ELECTRICAL PLAN

DATE	OCTOBER 2, 2009
SCALE	1/8" = 1'-0"
APPROVED BY:	CMG
CHECKED BY:	RDM
DESIGNED BY:	RDM
DRAWN BY:	ELE

MKK PROJ # 2008150045
VA PROJ # 442B-118

SHEET NO.
E1.1
OF SHEETS