

- ### GENERAL SHEET NOTES
- FURNISH ALL LABOR AND MATERIAL NECESSARY FOR THE INSTALLATION, CONNECTION, TESTING AND ADJUSTMENT OF ALL CIRCUITS AND ELECTRICAL EQUIPMENT SPECIFIED HEREIN, SHOWN, OR NOTED ON THE DRAWINGS, SPECIFIED OR REQUIRED IN OTHER PORTIONS OF THIS SPECIFICATION AND DELIVERED TO THE CUSTOMER AS A COMPLETE INSTALLATION IN ALL RESPECTS READY FOR USE.
 - THE CONTRACTOR SHALL FIELD VERIFY CONDITIONS SHOWN IN THE ELECTRICAL DRAWINGS. EQUIPMENT SHALL BE LOCATED SO THAT IT DOES NOT INTERFERE WITH OTHER EQUIPMENT AND COMPLY WITH REQUIRED CLEARANCES FOR MAINTENANCE AND SERVICING.
 - WIRING DIAGRAMS ARE SCHEMATIC IN NATURE AND NOT INTENDED TO INDICATE THE EXACT LOCATION OF EVERY CONDUIT RUN. THE CONTRACTOR SHALL INSTALL WIRING AND CONDUIT SO THAT IT IS NEAT, AT RIGHT-ANGLES AND DOES NOT INTERFERE WITH EQUIPMENT FROM OTHER TRADES.
 - REFER TO SHEET I-108 FOR ADDITIONAL INFORMATION.

- ### KEYED NOTES
- PROVIDE AND INSTALL A WALL MOUNTED ELECTRIC HEATER WITH WALL MOUNTED THERMOSTAT AND WALL MOUNTED BRACKET. MOUNT AT CEILING. UNIT SHALL BE AS MANUFACTURED BY CHROMALOX #LH-02-21 (240V-1φ, 2.0KW) OR APPROVED EQUAL.
 - MOTORIZED DAMPER SHALL BE INTERLOCKED WITH EXHAUST FAN. DAMPER SHALL OPEN WHEN EXHAUST FAN IS ENERGIZED. REFER TO EXHAUST FAN AND MOTORIZED DAMPER CONTROL DIAGRAM, THIS SHEET, FOR ADDITIONAL INFORMATION.
 - STUB OUT 2" CONDUIT 5'-0" FROM PANELBOARD "PH" FOR FUTURE CONNECTION. REFER TO ELECTRICAL SITEPLANS FOR ADDITIONAL INFORMATION.
 - 2#2 AND 1#6 GROUND IN A 1-1/4" CONDUIT. EXTEND TO A 10A-2P CIRCUIT NUMBER AS INDICATED ON HOWEVER. COORDINATE LOCATION OF JUNCTION BOXES FOR 15HP BOOSTER PUMPS IN FIELD PRIOR TO INSTALLATION. BOOSTER PUMP WFD PROVIDED WITH PUMPS. CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS.
 - 250V-30A-2P HEAVY-DUTY FUSIBLE DISCONNECT SWITCH. FUSE AS RECOMMENDED BY UNIT MANUFACTURER. EXTEND 3#10 AND 1#10 GROUND IN 3/4" CONDUIT TO A 20A-2P CIRCUIT NUMBER AS INDICATED ON HOWEVER.
 - NEW PANEL "PH" ON EXTERIOR WALL. REFER TO PANEL SCHEDULE FOR ADDITIONAL INFORMATION. NEMA 3R ENCLOSURE. COORDINATE LOCATION IN FIELD PRIOR TO INSTALLATION.
 - MOUNT EXHAUST FAN AS HIGH AS POSSIBLE.
 - 18"/18" LOWER RUSKIN #ELC445 OR APPROVED EQUAL. PROVIDE WITH MOTORIZED DAMPER WITH BOTTOM OF LOUVER AT 24" A.F.F. INTERLOCK WITH EXHAUST FAN. REFER TO MOTORIZED DAMPER AND EXHAUST FAN INTERLOCK DIAGRAM, THIS SHEET, FOR ADDITIONAL INFORMATION.
 - EXTEND 3/4" CONDUIT WITH PULLWIRE FROM THE PUMP STATION CONTROL PANEL TO THE IRRIGATION SATELLITE CONTROLLER.
 - EXTEND 2#10 AND 1#10 GROUND IN 1" CONDUIT TO PUBLIC INFORMATION BUILDING (BLDG. #1), CLOSET #1, FOR FUTURE USE WITH NO HEAT WARNING SYSTEM. STUB-UP CONDUIT IN ROOM AND CAP. COORDINATE STUB-UP LOCATIONS AND ROUTING IN PUMPHOUSE AND PUBLIC INFORMATION BUILDING IN FIELD PRIOR TO INSTALLATION.
 - EXTEND 1" CONDUIT WITH 2#10 AND 1#10 GROUND TO HOTBOX. CONNECT TO A SPARE 20A-1P CIRCUIT BREAKER IN PANEL "PH".

LIGHT FIXTURE SCHEDULE

TYPE	FIXTURE DESCRIPTION	LAMPS	MOUNTING
P	1X4 VAPORITITE, SURFACE MOUNTED FLUORESCENT FIXTURE, 2-LAMP, ELECTRONIC BALLAST METALUX #VT2-232-120V-EB81	(2)32W T8 3500K	SURFACE

LOAD SUMMARY - PANEL "PH"

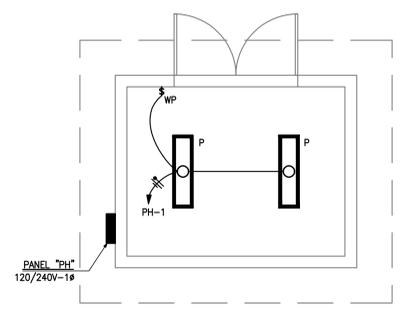
DESCRIPTION	
PANELBOARD "PH"	
ESTIMATED DEMAND PER NEC 220	
MECHANICAL UNITS (2.7 KVA CONN)	2.5 KVA
LARGEST AT 125% (2.0 KVA)	0.7 KVA
REMAINING AT 100% (0.7 KVA)	
RECEPTACLES (0.4 KVA CONN)	0.4 KVA
FIRST 10 KVA AT 100%	0.0 KVA
REMAINING AT 50%	
LIGHTING (0.1 KVA CONN) AT 125%	0.2 KVA
(CONTINUOUS LOAD)	
EQUIPMENT (29.4 KVA CONN) AT 100%	29.4 KVA
TOTAL ESTIMATED LOAD:	33.8 KVA
122 AMPERES AT 120/240V-1φ-3W	
MINIMUM RECOMMENDED SERVICE SIZE =	150 AMPS

DESCRIPTION	BREAKER	LOAD (VA)	CCCT (NO.)	LOAD (VA)	CCCT (NO.)	LOAD (VA)	BREAKER	DESCRIPTION
LIGHTING	20A/1P	114	1	482	2	360	20A/1P	GFCI RECEPTACLES
SPARE	20A/1P	-	3	400	4	400	20A/1P	IRRIGATION CONTROLLER
SPARE	20A/1P	-	5	-	6	300	20A/1P	HOT BOX
MOTORIZED DAMPER	20A/1P	150	7	650	8	500	20A/1P	BACKFLOW PREVENTER
EXHAUST FAN	20A/1P	696	9	696	10	-	20A/1P	SPARE
ELECTRIC WALL HEATER	20A	1000	11	1000	12	-	20A/1P	SPARE
	2P	1000	13	1000	14	-	20A/1P	SPARE
15HP BOOSTER PUMP	110A	7200	15	14400	16	7200	110A	2P
	2P	7200	17	14400	18	7200	2P	15HP BOOSTER PUMP
TOTAL LOAD (VA)		16578	15660					
TOTAL CONNECTED (KVA):		32.2	ESTIMATED DEMAND (KVA):					

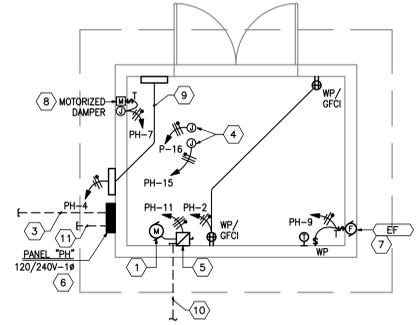
EXHAUST FAN SCHEDULE

MARK	FAN TYPE	SERVICE/ MOUNTING	CFM	EXT. SP-IN	FAN RPM	MOTOR HP	ELECTRICAL VOLTS	PHASE	SONES	DRIVE	MANUFACTURER MODEL #
EF	SIDEWALL PROP EXHAUST	PUMP HOUSE/ SIDEWALL	300	0.25	710	1/4	115	1	9.0	BELT	GREENHECK SBE-IH20

- NOTES:
- FAN IS SELECTED AT 5800 FT ABOVE SEA LEVEL.
 - PROVIDE FAN WITH INTEGRAL VIBRATION ISOLATION.
 - PROVIDE FAN WITH BACKDRAFT DAMPER.
 - PROVIDE FAN WITH MOTORIZED ANTI-BACKDRAFT DISCHARGE LOUVER, MOTOR-SIDE WELDED STEEL WIRE MOTOR SUPPORTS AND FAN GUARD. MOTOR MOUNTED TO SUPPORT GUARD WITH NEOPRENE ISOLATORS, AND LOUVER DAMPER WEATHERHOOD.
 - ELECTRICAL DIVISION SHALL INTERLOCK FAN WITH INTAKE LOUVER MOTORIZED DAMPER. REFER TO ELECTRICAL.
 - ELECTRICAL DIVISION SHALL INTERLOCK FAN WITH WALL MOUNT COOLING-ONLY THERMOSTAT. REFER TO ELECTRICAL.
 - PROVIDE ALL SERVICE AND OPERATIONAL CLEARANCES AS REQUIRED, INCLUDING ALL CLEARANCES REQUIRED BY NEC ARTICLE 110.
 - REFER TO MANUFACTURER DATA FOR EQUIPMENT WEIGHTS.



B6 PUMPHOUSE ELECTRICAL LIGHTING PLAN SCALE: 1/4" = 1'-0"



D6 PUMPHOUSE ELECTRICAL/MECHANICAL POWER PLAN SCALE: 1/4" = 1'-0"

LIGHTING COMPLIANCE - 2006 IECC

INTERIOR LIGHTING	EXTERIOR LIGHTING
BUILDING TYPE: WAREHOUSE	TRADABLE WATTS ALLOWED: N/A
SQUARE FOOTAGE: 150	ACTUAL TRADABLE WATTS: N/A
TOTAL WATTS ALLOWED: 120	NONTRADABLE WATTS ALLOWED: N/A
ACTUAL WATTS: 114	ACTUAL NONTRADABLE WATTS: N/A

THIS PROJECT IS IN COMPLIANCE WITH 2006 IECC

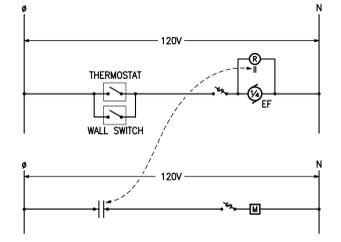
EXCEPT FOR SIGNAGE, SAFETY OR SECURITY LIGHTING, AND LOW-VOLTAGE LANDSCAPE LIGHTING; ALL EXTERIOR LUMINAIRES THAT OPERATE ABOVE 100 WATTS HAVE A MINIMUM EFFICACY OF 60 LUMENS PER WATT.

INDEPENDENT CONTROL AND UNIFORM LIGHT REDUCTION CAPABILITY REQUIREMENTS ARE MET CONSIDERING EXCEPTIONS.

AUTOMATIC SHUTOFF CONTROLS ARE PROVIDED IN BUILDINGS LARGER THAN 5,000 SQ. FT.; OR OCCUPANCY SENSOR IS PROVIDED IN EACH OF THOSE SPACES.

EXTERIOR LIGHTING HAS AUTOMATIC CONTROLS CONTROLLED BY A PHOTOSENSOR OR ASTRONOMICAL TIME SWITCH TO TURN LIGHTING OFF WHEN SUFFICIENT DAYLIGHT IS AVAILABLE OR WHEN LIGHTING IS NOT REQUIRED.

FLUORESCENT AND HID LAMPS ARE PROVIDED WITH ELECTRONIC BALLASTS.

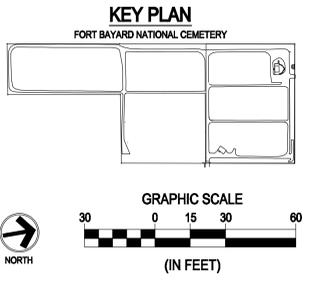


EXHAUST FAN AND MOTORIZED DAMPER INTERLOCK

SCALE: NONE

- MOTORIZED DAMPER
- MOTOR/PUMP
- ⊕ RELAY
- ⌘ SWITCH
- ⌘ THERMAL OVERLOAD SWITCH
- ⌘ CONTACTOR

IN THE EVENT THAT BONES OR HISTORIC ARCHEOLOGICAL MATERIAL ARE UNCOVERED DURING CONSTRUCTION OR EARTH DISTURBING ACTIVITIES, CEASE WORK IMMEDIATELY AND PROTECT THE REMAINS FROM FURTHER DISTURBANCE. NOTIFY THE OWNER, THE DIRECTOR OF FORT BLISS NATIONAL CEMETERY AT 915-564-0201. THE OWNER WILL CONTACT THE NEW MEXICO HISTORIC PRESERVATION DIVISION (SHPO). THE OWNER AND SHPO MAY DISCUSS THE APPROPRIATE WAY TO PROCEED. DIRECTION TO THE CONTRACTOR WILL BE PROVIDED BY THE OWNER.



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 quarter inch = one foot
one eighth inch = one foot

Revisions:

No.	Description	Date

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Drawing Title: PUMP HOUSE MECHANICAL AND ELECTRICAL PLANS

Approved: Director Office of Construction Management

Project Title: CEMETERY IMPROVEMENTS AND NEW MAINTENANCE BUILDING

Project Number: 885CM3007

Building Number: BLDG #4

Location: FORT BAYARD, NEW MEXICO

Date: NOVEMBER 18, 2011

Checked: DDR

Drawn: TFR

Drawing Number: E-131

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NATIONAL CEMETERY ADMINISTRATION OFFICE OF DESIGN AND CONSTRUCTION

Department of Veterans Affairs