

POWER NOTES:
1. REFER TO DRAWING E0.00 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

WOLF SWAMP SCHOOL BOILER SHUT DOWN SYSTEM

EXISTING CONDITIONS:
1. CO DETECTORS AND BOILER SHUTDOWN EQUIPMENT/CONTROLS INSTALLED UNDER PREVIOUS BOILER #1 REPLACEMENT PROJECT TO REMAIN AND REWORKED TO ACCOMMODATE REPLACEMENT OF BOILER #2.

EXISTING SEQUENCE OF OPERATIONS:
1. CO SENSOR, UPON REACHING SETPOINT, WILL INITIATE THE FOLLOWING:
A. DISCONNECT POWER TO THE BOILER CONTROL PANEL FOR SYSTEM SHUTDOWN.
B. SEND SUPERVISORY SIGNAL TO FIRE ALARM SYSTEM.
2. IF CO DETECTOR SYSTEM LOSES POWER, RELAYS WILL OPEN AND DISCONNECT POWER TO THE BOILERS.
3. EXISTING FIRESTATS ARE WIRED TO INDEPENDENTLY SHUTDOWN RESPECTIVE BOILER ONLY.

NEW WORK SCOPE:
1. EXISTING BOILER #2 FIRESTAT TO BE MAINTAINED AND REWIRED TO NEW BOILER #2.
2. NEW BOILER #2 SHUTDOWN CONTROL CIRCUIT WIRING SHALL BE WIRED THROUGH EXISTING "BOILER #2" RELAY AS REQUIRED TO ALLOW SYSTEM SHUTDOWN VIA CO DETECTION SYSTEM OR EMERGENCY SHUTOFF SWITCH.
3. UPON COMPLETION OF WORK, FIRE ALARM SYSTEM AND SHUTDOWN SEQUENCE OF OPERATION SHALL BE RE-TESTED. REFER TO SPECIFICATIONS FOR FIRE ALARM INSTALLATION, DOCUMENTATION REQUIREMENTS AND NFPA 72 TESTING/RE-ACCEPTANCE TESTING REQUIREMENTS.

ELECTRICAL BOILER ROOM KEYNOTES

1. EXISTING MECHANICAL EQUIPMENT STARTERS AND DISCONNECTS TO REMAIN (TYPICAL).
2. EXISTING PANELBOARD SERVING BOILER ROOM EQUIPMENT TO BE MODIFIED AS REQUIRED TO SERVE NEW BOILER.
3. EXISTING EMERGENCY BOILER SHUT OFF DISCONNECT SWITCHES TO REMAIN.
4. EXISTING CARBON MONOXIDE DETECTORS TO REMAIN (TYPICAL).
5. EXISTING BOILER #2 DISCONNECT SWITCHES TO BE REMOVED.
6. EXISTING BOILER #2 CONTROLS DISCONNECT SWITCH AND ASSOCIATED BRANCH CIRCUIT TO BE REMOVED.
7. NEW BOILER #2 DISCONNECT SWITCH TO BE MOUNTED ON STRUT SUPPORT SYSTEM.
8. PROVIDE BOILER #2 SHUTDOWN CIRCUIT (2 #12 IN 3/4" C.) FROM NEW BOILER #2 CONTROL PANEL TO EXISTING BOILER #2 RELAY LOCATED OUTSIDE BOILER ROOM (ABOVE EMERGENCY DISCONNECT SWITCHES).

SCOPE OF WORK:
ALL WORK AT THIS FACILITY IS TO BE PERFORMED DURING UNOCCUPIED HOURS. COORDINATE ALL SYSTEM SHUTDOWNS WITH OWNER. EXISTING ELECTRICAL, HEATING, AND DOMESTIC HOT WATER SYSTEMS ARE TO REMAIN IN OPERATION DURING CONSTRUCTION WHILE BUILDING IS OCCUPIED.

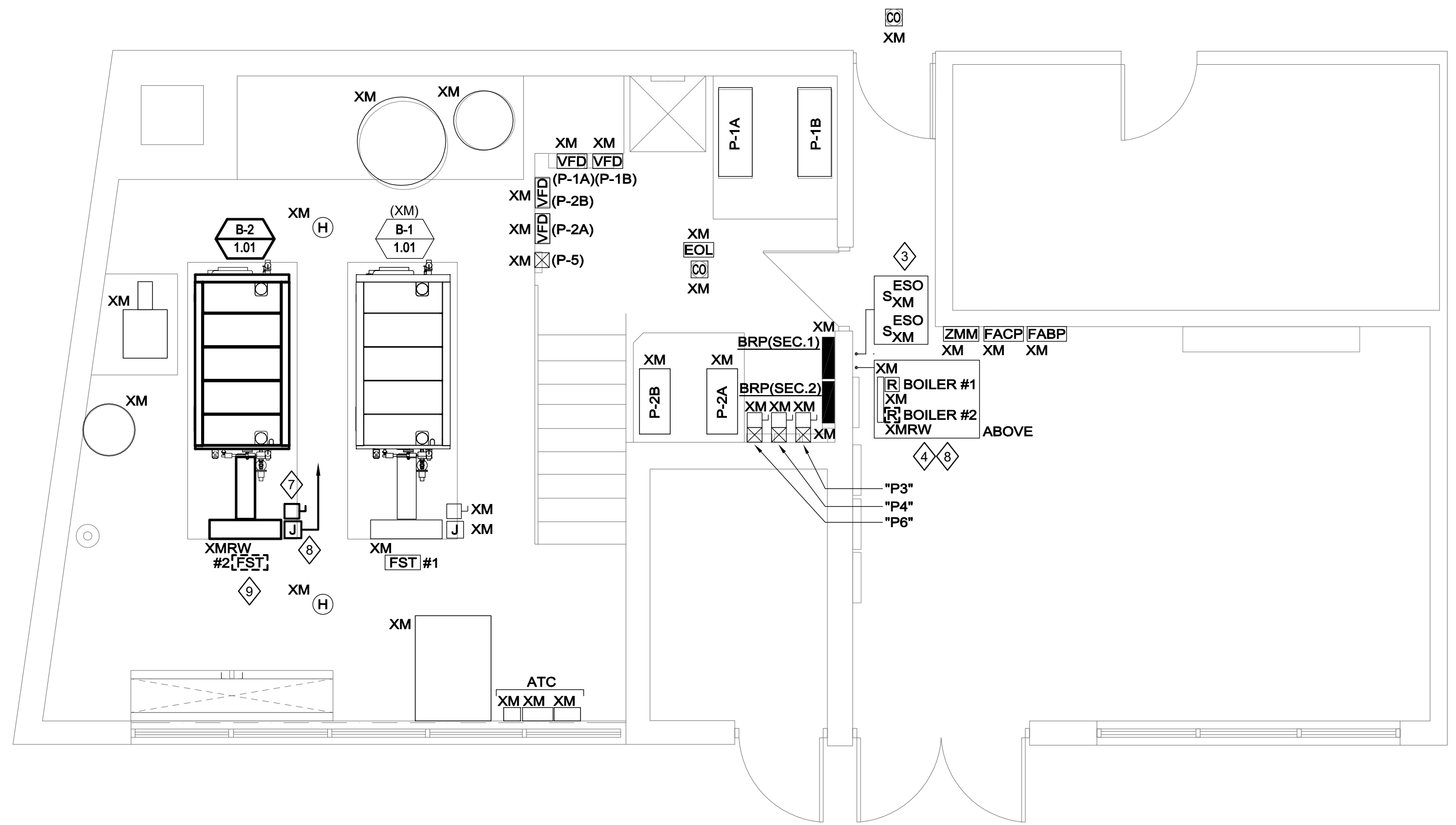
LOAD TAG	STARTER LOCATION	LOAD										STARTER					POWER SOURCE		CONNECTION					BRANCH CIRCUIT	REMARKS		
		HP	FLA	KVA	VOLT	PH	NEMA SIZE	TYPE	OVERCURRENT			PB	HOA	INDICATING LIGHTS			AUXILIARY	PANEL	C/B	FLEX	JB	REC	DISC				
									CB	RK1 FUSE	MCP			R	G	A							CPT			CONTACTS NO	NC
B-2-1.01	PACKAGED CONTROLLER	1.5	6.6	2.4	208	3										BRP 49/51/53	20A/3P	X	-	-	-	30	-	1	4#10 & 1#10G. - 3/4" C.	REFER TO NOTES 11,12 & 13	

CIR	AMPS/POLES	DESCRIPTION OF LOAD	LOAD KVA	LOAD BY PHASE, KVA			LOAD KVA	DESCRIPTION OF LOAD	AMPS/POLES	CIR
				A	B	C				
1			0.00							2
3	20/3 (XM)	FUEL PUMPS		0.00	0.00			PUMP 4	20/3 (XM)	4
5										6
7	20/3 (XM)	SPARE (ON)		0.00	0.00			PUMP 5	20/3 (XM)	8
9										10
11				0.00		0.00				12
13	80/3 (XM)	PUMP 1A			0.00			PUMP 6	20/3 (XM)	14
15										16
17				0.00		0.00				18
19										20
21	80/3 (XM)	PUMP 1B			0.00			SPARE	20/3 (XM)	22
23						0.00				24
25				0.00						26
27	45/3 (XM)	PUMP 2A			0.00			RTU-2	60/3 (XM)	28
29										30
31				0.00				HOT WATER BOILER	20/1	32
33	45/3 (XM)	PUMP 2B				0.00		CIRC. PUMP TO TANK	20/1	34
35								CIRC. PUMP TO RETURN WATER	20/1	36
37				0.00				ROOF GFI	20/1	38
39	20/3 (XM)	PUMP 3			0.00			UH-8 RM 123	20/1	40
41								UNMARKED LOAD (BKR ON)	20/1	42
TOTAL KVA BY PHASE -				0.00	0.00	0.00		TOTAL KVA-	0.00	
								TOTAL AMPERES-	0.00	

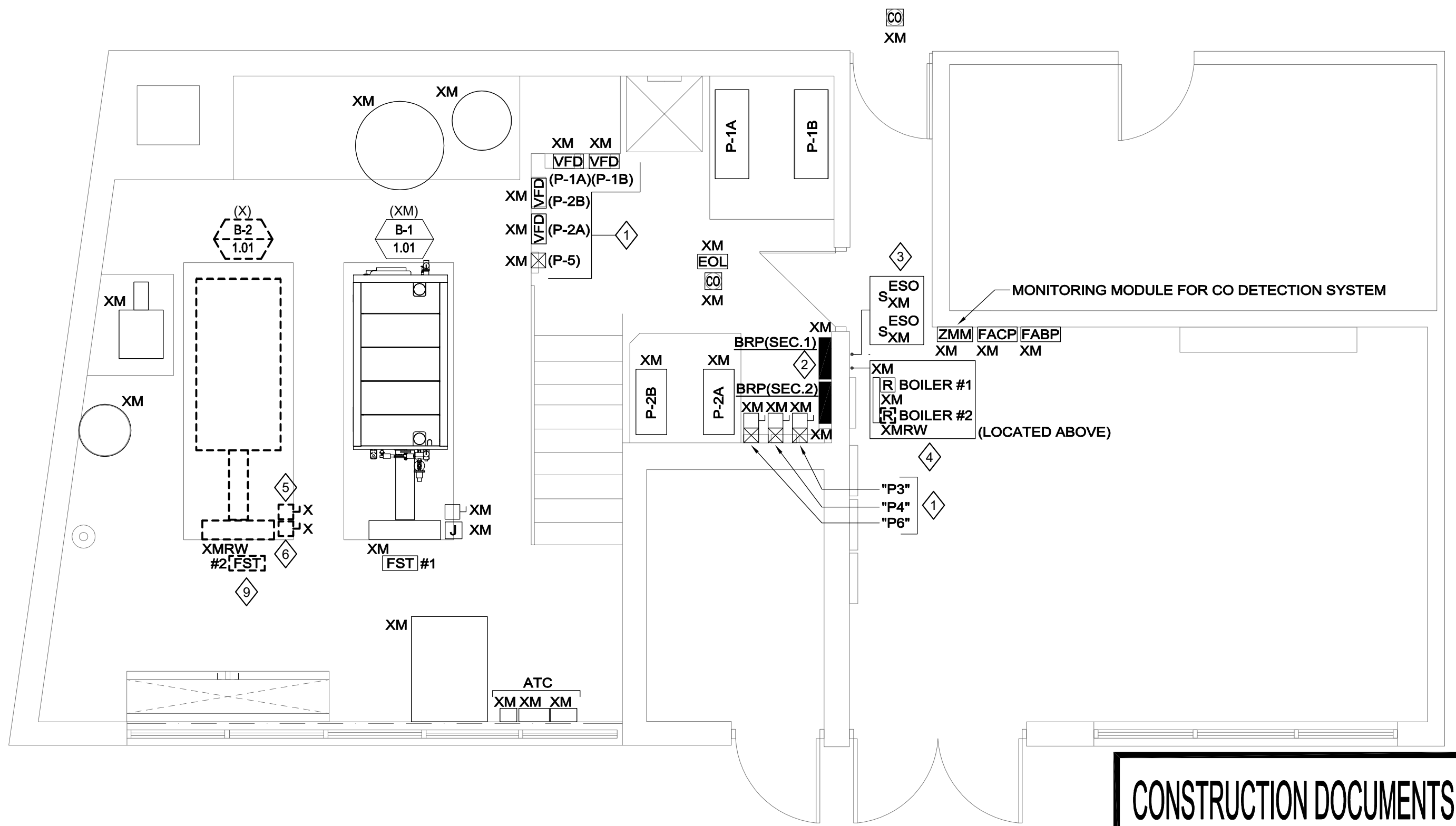
EXISTING PANELBOARD NOTES:
1. PANELBOARD INFORMATION BASED ON FIELD SURVEY AND AVAILABLE SITE INFORMATION.
2. CONTRACTOR TO CIRCUIT TRACE AND METER ALL EXISTING CIRCUITS TO DETERMINE WHETHER THEY ARE ACTIVE/IN-USE PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR TO WORK WITH SCHOOL FACILITIES STAFF.
3. CONTRACTOR TO PROVIDE NEW TYPE WRITTEN PANEL DIRECTORY IN EACH PANELBOARD WITH UPDATED LOAD DESCRIPTION INFORMATION.

CIR	AMPS/POLES	DESCRIPTION OF LOAD	LOAD KVA	LOAD BY PHASE, KVA			LOAD KVA	DESCRIPTION OF LOAD	AMPS/POLES	CIR
				A	B	C				
43				0.00				CO DETECTOR - BOILER SHUTDOWN	20/1 (XM)	44
45	20/3 (XM)	BOILER 1			0.00			SPARE	20/1 (XM)	46
47								SPARE	20/1 (XM)	48
49			0.83	0.83				UNMARKED LOAD (BKR ON)	60/3 (XM)	50
51	20/3 (XM)	BOILER 2		0.83	0.83				20/1 (XM)	52
53			0.83			0.83				54
55	20/1 (XM)	UH-9 BOILER RM.		0.00				SPACE	-	56
57	20/1 (XM)	RECPT LOWER BOILER ROOM			0.00			SPACE	-	58
59	20/1 (XM)	SPARE				0.00		SPACE	-	60
61	20/1 (XM)	SPARE (BOILER 2 CONTROL)		0.00				SPACE	-	62
63	20/1 (XM)	EMIS BOILER RM.			0.00			SPACE	-	64
65	20/1 (XM)	REC UNDER PANEL				0.00		SPACE	-	66
67	20/1 (XM)	REC SUMP PUMP		0.00				SPACE	-	68
69		SPACE			0.00			SPACE	-	70
71		SPACE				0.00		SPACE	-	72
TOTAL KVA BY PHASE -				0.83	0.83	0.83		TOTAL KVA-	2.48	
								TOTAL AMPERES-	6.90	

* REUSE EXISTING CIRCUIT BREAKER MADE AVAILABLE THROUGH DEMOLITION
** EXISTING CIRCUIT BREAKER MADE "SPARE" AVAILABLE THROUGH DEMOLITION

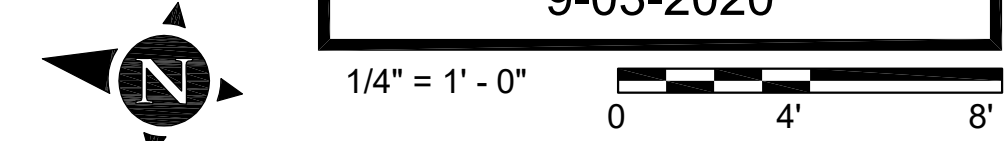


ELECTRICAL MECHANICAL ROOM NEW PLAN
SCALE: 1/4" = 1'-0"



ELECTRICAL MECHANICAL ROOM DEMO PLAN
SCALE: 1/4" = 1'-0"

CONSTRUCTION DOCUMENTS
9-03-2020



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REVISIONS

DATE	CHK	DESCRIPTION

SEAL

PROJECT

NUMBER: 0200375
DATE: 08/27/2020
LONGMEADOW WOLF SWAMP ELEMENTARY SCHOOL BOILER REPLACEMENT

DRAWING

DRAWN BY: KEG
CHECKED BY: KEG
SCALE: 1/4" = 1'-0"
ELECTRICAL MECHANICAL ROOM FLOOR PLANS

W:\03\15\Projects\0200375\0200375 - Longmeadow Wolf Swamp For Dem - 5th Floor\03\15\Drawings\03\15 - Electrical\Floor Plans\0200375 - E2.00 ELECTRICAL FLOOR PLANS.dwg [New] September 03, 2020 12:11pm James.Lourenco