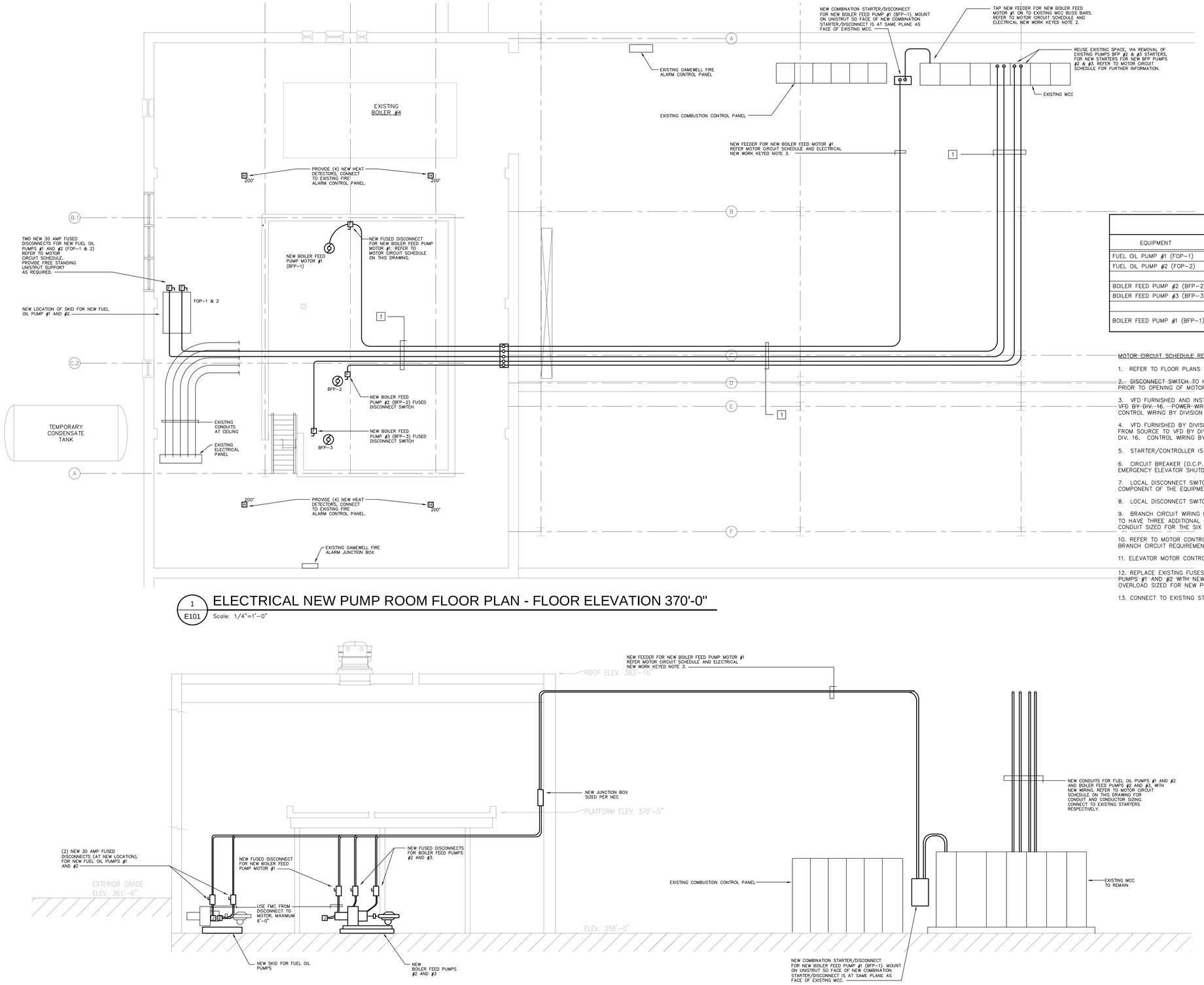


MOTOR CIRCUIT SCHEDULE

EQUIPMENT	LOCAL DISC. SWITCH	FEEDER	MOTOR STARTER TYPE	MOTOR STARTER SIZE	MOTOR STARTER LOCATION	LOAD HP	LOAD PH	LOAD VOLT	REMARKS
FUEL OIL PUMP #1 (FOP-1)	30A/4A FUSE	3 #12, 1 # 12G., IN 3/4" C.	EXISTING MCC			1.5	3	480	SEE NOTES 1,12 & 13
FUEL OIL PUMP #2 (FOP-2)	30A/4A FUSE	3 #12, 1 # 12G., IN 3/4" C.	EXISTING MCC			1.5	3	480	SEE NOTES 1,12 & 13
BOILER FEED PUMP #2 (BFP-2)	60A/35A FUSE	3 #10, 1 # 10G., IN 3/4" C.	FVNR	2	WITHIN EXISTING MCC	15	3	480	SEE NOTE 1
BOILER FEED PUMP #3 (BFP-3)	60A/35A FUSE	3 #10, 1 # 10G., IN 3/4" C.	FVNR	2	WITHIN EXISTING MCC	15	3	480	SEE NOTE 1
BOILER FEED PUMP #1 (BFP-1)	60A/35A FUSE	REFER TO NEW WORK KEYED NOTES 2 & 3	FVNR	2	ADJACENT TO MCC	15	3	480	

MOTOR CIRCUIT SCHEDULE REFERENCED NOTES:

1. REFER TO FLOOR PLANS FOR CIRCUIT/SOURCE PANEL INFORMATION.
2. DISCONNECT SWITCH TO HAVE MICRO SWITCH FOR SIGNALING VFD SHUTDOWN PRIOR TO OPENING OF MOTOR FEEDER BLADES.
3. VFD FURNISHED AND INSTALLED BY DIV. 15. POWER WIRING FROM SOURCE TO VFD BY DIV. 16. POWER WIRING BETWEEN VFD AND MOTORS BY DIV. 16. CONTROL WIRING BY DIVISION 15.
4. VFD FURNISHED BY DIVISION 15 AND INSTALLED BY DIV. 16. POWER WIRING FROM SOURCE TO VFD BY DIV. 16. POWER WIRING BETWEEN VFD AND MOTORS BY DIV. 16. CONTROL WIRING BY DIVISION 15.
5. STARTER/CONTROLLER IS PREWIRED TO MOTORS AND FURNISHED BY DIV. 15.
6. CIRCUIT BREAKER (O.C.P. DEVICE) SHALL BE SHUNT TRIP TYPE FOR EMERGENCY ELEVATOR SHUTDOWN.
7. LOCAL DISCONNECT SWITCH FURNISHED BY DIVISION 15 AS AN INTEGRAL COMPONENT OF THE EQUIPMENT.
8. LOCAL DISCONNECT SWITCH TO BE SIX POLE.
9. BRANCH CIRCUIT WIRING BETWEEN MOTOR CONTROLLER AND MOTOR TERMINALS TO HAVE THREE ADDITIONAL CONDUCTORS (FOR A TOTAL OF SIX CONDUCTORS) IN CONDUIT SIZED FOR THE SIX CONDUCTORS PLUS GROUND.
10. REFER TO MOTOR CONTROL CENTER SCHEDULES FOR MOTOR CONTROLLER AND BRANCH CIRCUIT REQUIREMENTS.
11. ELEVATOR MOTOR CONTROLLER TO BE PROVIDED BY ELEVATOR CONTRACTOR.
12. REPLACE EXISTING FUSES IN EXISTING MCC FOR FUEL OIL PUMPS #1 AND #2 WITH NEW 4 AMP FUSES. PROVIDE THERMAL OVERLOAD SIZED FOR NEW PUMPS.
13. CONNECT TO EXISTING STARTER.

MOTOR CIRCUIT SCHEDULE GENERAL NOTES:

A. REFER TO SPECIFICATIONS FOR STANDARD FEATURES.

B. ABBREVIATIONS:

VFD – VARIABLE FREQUENCY DRIVE
FVNR – FULL VOLTAGE, NON-REVERSING
RVNR – REDUCED VOLTAGE, NON-REVERSING
FHMS – FRACTIONAL HORSEPOWER MOTOR STARTER
2 SPD – TWO-SPEED, NON REVERSING
MAN – MANUAL STARTER (TOGGLE SWITCH WITH THERMAL OVERLOADS)

C. O.C.P. DEVICES AND LOCAL DISC. SWITCHES ARE THREE POLE UNLESS OTHERWISE NOTED.

D. LOCAL DISCONNECT SWITCH SIZE INDICATES SWITCH FRAME FOLLOWED BY FUSE SIZE (I.E. 30A/20A REPRESENTS 30A FRAME SWITCH WITH 20A FUSES).

E. PROVIDE WEATHERPROOF FUSED DISCONNECT SWITCHES WHERE LOCATED OUTSIDE OR IN WET LOCATIONS.

F. STARTERS, DISCONNECT SWITCHES, CIRCUIT BREAKERS, BRANCH CIRCUIT WIRING, ETC. INDICATED IN THE MOTOR CIRCUIT SCHEDULE SHALL BE FURNISHED AND INSTALLED BY DIVISION 16 UNLESS OTHERWISE NOTED.

G. THE "O.C.P. DEVICE" SHALL BE A CIRCUIT BREAKER UNLESS OTHERWISE NOTED.

1 E101 ELECTRICAL NEW PUMP ROOM FLOOR PLAN - FLOOR ELEVATION 370'-0"

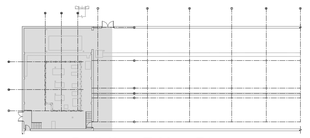
Scale: 1/4"=1'-0"

2 E101 ELECTRICAL NEW PUMP ROOM ELEVATION

Scale: 1/4"=1'-0"

DRAWING KEY NOTES

1. ROUTING OF ALL NEW CONDUITS IS SHOWN DIAGRAMMATICALLY ONLY, COORDINATE CONDUIT RUNS WITH EXISTING FIELD CONDITIONS, AND MAKE ADJUSTMENTS AS REQUIRED. PROVIDE SEPARATE BRANCH CIRCUIT CONDUIT AND WIRING FOR EACH EACH MOTOR.
2. TAP NEW FEEDER FOR NEW BOILER FEED MOTOR #1 ONTO EXISTING MCC BUSS BARS. NEW FEEDER SHALL BE 3 #1/0, 1 #2G., IN 1-1/2" C. AND SHALL NOT EXCEED 25' IN LENGTH.
3. NEW FEEDER FROM NEW COMBINATION STARTER DISCONNECT TO NEW BOILER FEED PUMP MOTOR #1 SHALL BE 3 #8, 1 #10 G., IN 3/4" CONDUIT.



Building 7 Key Plan

Scale: 1/32"=1'-0"

Revisions:	Date
4 Construction Documents	03-21-11
3 100% Review	04-30-10
2 90% Construction Documents	01-22-10
1 PROGRESS SET	07-20-09

ENGINEERS:

HVAC / ELECTRICAL / PLUMBING / FIRE PROTECTION:
VanZelm Heywood & Shadford
10 Talcott Notch
Farmington, CT 06032
T: 860. 284.5064
F: 860. 284.5098
VZHS PROJECT# 2007190.88

CONSULTANTS:

STRUCTURAL:
The Louis Berger Group, Inc.
1001 Elm Street, Suite 203
Manchester, NH 03101
T: 603. 644. 5200
F: 603. 644. 5220

Drawing Title: **ELECTRICAL NEW WORK PUMP ROOM PLAN AND ELEVATION**

Approved: Safety Manager

Approved By: Project Engineer

Approved By: Chief, FMS

Project Title: **BOILER PLANT MODIFICATIONS VETERANS INTEGRATED SERVICE NETWORK 1**

Location: **MANCHESTER, N.H.**

Building #	Scale	Checked	Drawn
7	AS NOTED	CWP	PWM

Date: 03/21/2011

VA Project Number: **608-11-110**

Drawing Number: **E101**

Dwg. 20 of 20

Office of Facilities Management

Department of Veterans Affairs