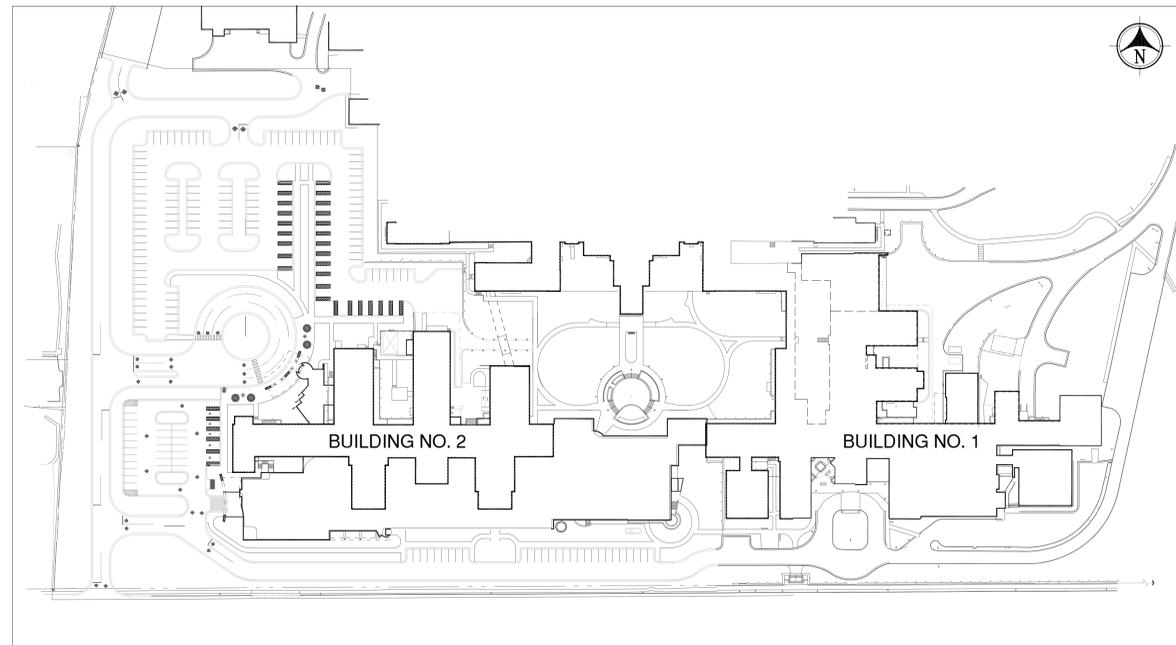




VA MEDICAL CENTER  
WEST HAVEN, CT

# INSTANTANEOUS HOT WATER IMPROVEMENTS PROJECT NO. 689-10-214

## SITE MAP



### DRAWING LIST

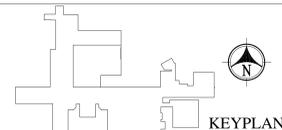
GENERAL		
1. COVER SHEET		GI001
HAZARDOUS MATERIALS		
2. SUB-GROUND, GROUND AND BASEMENT LEVEL - AREAS 'D', 'G', 'H' AND BOILER HOUSE		ACM1
PLUMBING		
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4. PLUMBING SUB-GROUND LEVEL PARTIAL DEMOLITION AND NEW WORK PLANS - AREA 'G'		P101
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11. ELECTRICAL BASEMENT LEVEL PARTIAL PLANS - AREA 'D' & GROUND LEVEL BOILER HOUSE		E102
12. ELECTRICAL DETAILS		E201



### VICINITY MAP

NOT TO SCALE

#### FULLY SPRINKLERED BUILDING



#### GENERAL NOTES:

- WHEREVER THE TERM "REMOVE" OR "DEMOLISH" IS USED, THE INTENT OF THE TERMS SHALL BE TO "REMOVE AND DISPOSE OF OFF-SITE IN ACCORDANCE WITH ALL LOCAL, FEDERAL, EPA AND DEP REGULATIONS".
- WHEREVER THE TERM "PROVIDE" OR "NEW" IS USED, THE INTENT OF THE TERMS SHALL BE TO "PROVIDE AND INSTALL".

#### ENGINEERS:

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VZHS PROJECT# 2010163.00

#### CONSULTANTS:

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Drawing Title

**COVER SHEET**

Approved: Project Director

Project Title

**INSTANTANEOUS HOT  
WATER IMPROVEMENT**

Location

**VACHS WEST HAVEN, CT**

Date

02/25/2011

Checked

SSK

Drawn

AWS

Project Number

**689-10-214**

Building Number

**01, 02, 16**

Drawing Number

**GI001**

Dwg. 1 of 12

**Office of  
Facilities  
Management**

Department of  
Veterans Affairs

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one quarter inch = one foot  
three eighths inch = one foot  
one half inch = one foot  
one inch = one foot  
three quarters inch = one foot  
one and one half inches = one foot  
three inches = one foot

A

B

C

D

E

F

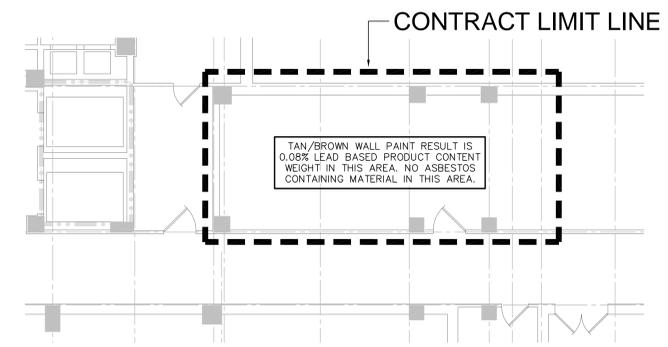
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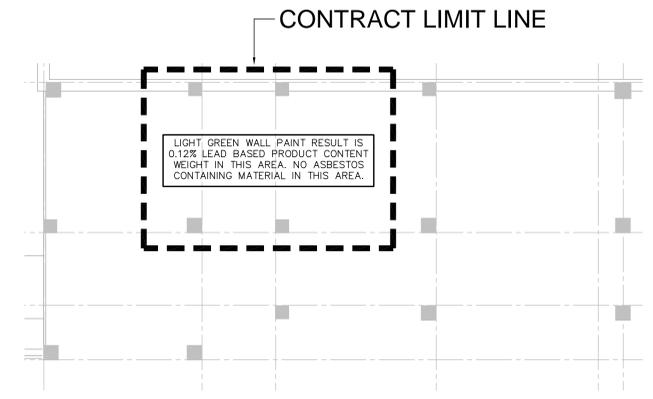
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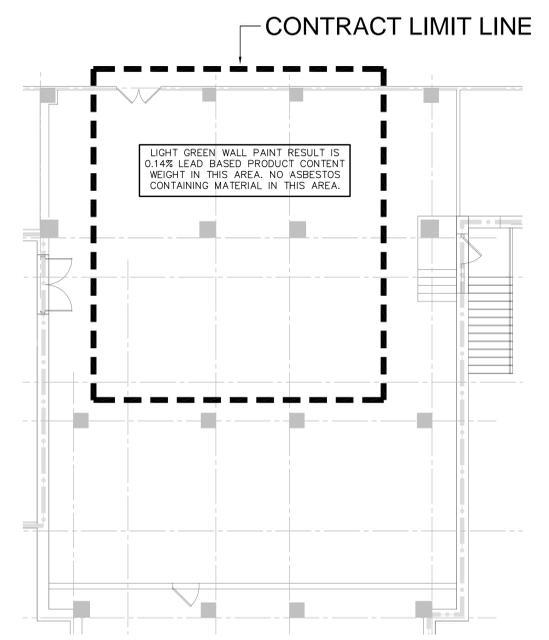
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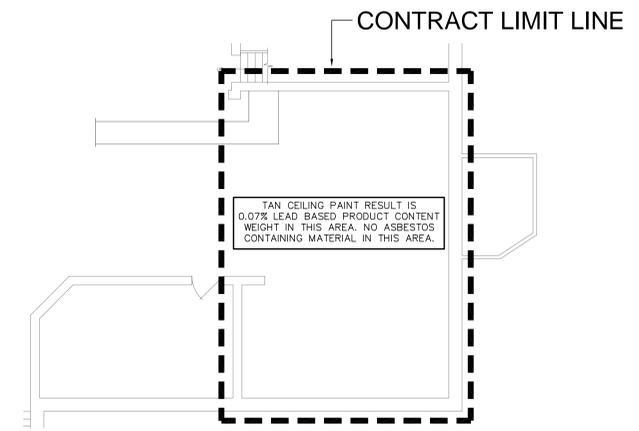
**1 BUILDING 1 - SUB-GROUND LEVEL PARTIAL PLAN - AREA 'G'**  
 Scale: 1/8"=1'-0"



**2 BUILDING 1 - SUB-GROUND LEVEL PARTIAL PLAN - AREA 'H'**  
 Scale: 1/8"=1'-0"



**3 BUILDING 2 - BASEMENT LEVEL PARTIAL PLAN - AREA 'D'**  
 Scale: 1/8"=1'-0"



**4 BUILDING 16 - GROUND LEVEL PARTIAL PLAN**  
 Scale: 1/8"=1'-0"

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Revisions:	Date
3	BID DOCUMENTS 2/25/11
2	100% CD FINAL REVIEW SUBMISSION 1/17/11
1	75% CD PROGRESS SUBMISSION 12/22/10

**FULLY SPRINKLERED BUILDING**

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Drawing Title  
**SUB-GROUND, GROUND AND BASEMENT LEVEL AREAS 'D', 'G', 'H' AND BOILER HOUSE**  
 Approved: Project Director

Project Title  
**INSTANTANEOUS HOT WATER IMPROVEMENT**

Project Number  
**689-10-214**

Building Number  
**1, 2, 16**

Location  
**VACHS WEST HAVEN, CT**

Date  
 02/25/2011

Checked  
**SSK**

Drawn  
**SAO/AWS**

Drawing Number  
**ACM1**  
 Dwg. 2 of 12

**Office of Facilities Management**

Department of Veterans Affairs

three inches = one foot  
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### GENERAL ELECTRICAL DEMOLITION NOTES

- A. ALL ELECTRICAL DEVICES SHOWN CROSS HATCHED SHALL BE REMOVED UNLESS OTHERWISE NOTED.
- B. EXISTING FIRE ALARM SYSTEM SHALL REMAIN.
- C. DISCONNECT AND REMOVE EXISTING WIRING, CONDUIT, BOXES, ETC. SERVING ALL EQUIPMENT BEING REMOVED BY MECHANICAL AND OTHER TRADES. REFER TO PLUMBING, MECHANICAL AND ARCHITECTURAL DRAWINGS FOR COORDINATION OF REQUIRED WORK. REMOVALS SHALL BE BACK TO SOURCE PANEL COMPLETE.
- D. EXISTING ELECTRICAL ITEMS THAT ARE BEING DISCONNECTED AND REMOVED AND NOT BEING REUSED SHALL BE DISPOSED OF PROPERLY.
- E. ALL ABANDONED ELECTRICAL WIRING AND DEVICES SHALL BE REMOVED.
- F. IF CONTINUITY OF WIRING TO EXISTING ELECTRICAL ITEMS IS INTERRUPTED BY REMOVAL OF DEVICES, CONTRACTOR SHALL INSTALL ALL NECESSARY WIRING AND RACEWAY TO ENSURE THE CONTINUITY OF CIRCUITRY IN OTHER AREAS.
- G. WIRING FOR ITEMS BEING REMOVED SHALL BE REMOVED BACK TO POWER SOURCE OR LAST DEVICE TO REMAIN ACTIVE UNLESS OTHERWISE NOTED.
- H. NOTIFY CONSTRUCTION MANAGER OR GENERAL CONTRACTOR OF OPENINGS CAUSED BY REMOVAL OF EXISTING EQUIPMENT NOT BEING REPLACED. ENSURE THE PATCHING IS COMPLETE.
- I. THE BUILDING WILL BE OCCUPIED DURING DEMOLITION. COORDINATE PHASING OF DEMO WORK WITH CONSTRUCTION MANAGER OR GENERAL CONTRACTOR. EXISTING PANELS MAY NEED TEMPORARY RE-FEED. ENSURE CONTINUITY OF SERVICES.

### GENERAL ELECTRICAL NOTES

- A. ALL HOMERUNS/CIRCUITS TO BE 2#12, 1#12G, 3/4" C TO A 20A-1P CIRCUIT BREAKER IN DESIGNATED PANEL, UNLESS NOTED OTHERWISE. NUMBERS SHOWN AT EACH DEVICE/HOMERUN REPRESENT BRANCH CIRCUIT NUMBER IN PANELBOARD.
- B. WIRE AND RACEWAY SIZES INDICATED ON HOMERUNS/CIRCUITS SHALL BE CONTINUOUS FOR ENTIRE LENGTH, UNLESS NOTED OTHERWISE.
- C. ALL WIRING (CONDUITS, ETC.) SHALL BE INSTALLED NEAT AND PARALLEL TO BUILDING STRUCTURE.
- D. ALL WIRING ABOVE CEILING THAT IS NOT IN CONDUIT AND IS LOCATED IN A PLENUM SPACE SHALL BE PLENUM RATED. REFER TO MECHANICAL PLANS FOR PLENUM AREAS.
- E. ELECTRICAL CONDUITS, WIRING, BOXES, ETC. SHALL NOT PENETRATE STAIR ENCLOSURE, UNLESS THEY ARE FEEDING DEVICES LOCATED WITHIN THE STAIR ENCLOSURE.
- F. PROVIDE ELECTRICAL OUTLET PLATE GASKET SEALS AT RECEPTACLES, SWITCHES AND OTHER ELECTRICAL BOXES ON EXTERIOR WALLS AND INTERIOR WALLS BETWEEN CONDITIONED AND NON-CONDITIONED SPACES.
- G. ALL INDIVIDUAL OR GENERAL PURPOSE BRANCH 120 VOLT CIRCUITS OVER 100'-0" IN CONDUCTOR LENGTH SHALL BE INCREASED ONE WIRE SIZE (i.e. FROM #12AWG TO #10AWG) AND CIRCUITS OVER 170'-0" IN CONDUCTOR LENGTH SHALL BE INCREASED TWO WIRE SIZES (i.e. FROM #12AWG TO #8AWG) UNLESS NOTED OTHERWISE.
- H. ALL INDIVIDUAL OR GENERAL PURPOSE BRANCH 277 VOLT CIRCUITS OVER 230'-0" IN CONDUCTOR LENGTH SHALL BE INCREASED ONE WIRE (i.e. FROM #12AWG TO #10AWG) AND CIRCUITS OVER 380'-0" IN CONDUCTOR LENGTH SHALL BE INCREASED TWO WIRE SIZES (i.e. FROM #12AWG TO #8AWG) UNLESS NOTED OTHERWISE.
- I. PROVIDE UNIVERSAL BLANK PLUGS ON ALL SPARE CONDUIT EQUAL TO CARLON 'MAEPG' SERIES.
- J. SEAL ALL CONDUITS AT THE LAST STRUCTURE PRIOR TO CONDUITS ENTERING A BUILDING AND WHERE CONDUITS ENTER A BUILDING WITH CARLON 'MAT' OR 'MAQ' SERIES DUCT PLUG FOR CONDUITS WITH WIRES AND CARLON 'MAE' SERIES FOR SPARE CONDUITS OR EQUAL. ALL SPARE CONDUITS SHALL HAVE NYLON PULL STRING AND FOOTAGE TAPE.
- K. RACEWAY AND WIRING INDICATED ON DRAWINGS ARE RECOMMENDATIONS FOR SPECIFIC ROUTES OR SPECIAL CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR DETERMINING ACTUAL ROUTING.
- L. ALTHOUGH ALL FEEDER AND BRANCH CIRCUIT WIRE AND CONDUIT IS NOT SPECIFICALLY SHOWN, IT IS THE INTENT OF THESE DOCUMENTS THAT A COMPLETE FEEDER AND BRANCH CIRCUIT WIRING SYSTEM BE INSTALLED.

### POWER

	DUPLEX RECEPTACLE. COORDINATE INSTALLATION WITH ARCHITECT.
	ELECTRICAL PANEL 480/277 VOLT
	ELECTRICAL PANEL 120/208 VOLT
	SPECIAL-PURPOSE ELECTRICAL PANEL OR EQUIPMENT
	ELECTRICAL POWER TRANSFORMER
	MAGNETIC STARTER
	FUSED DISCONNECT SWITCH WITH AMP FRAME OVER AMP TRIP
	COMBINATION MAGNETIC STARTER AND DISCONNECT SWITCH
	ELECTRIC MOTOR
	VARIABLE FREQUENCY DRIVE
	JUNCTION BOX
	ELECTRIFIED BUS DUCT WITH FUSIBLE, PLUG-IN, BRANCH CIRCUIT DEVICE
	HARD-WIRED EQUIPMENT CONNECTION

### WIRING

	BRANCH CIRCUIT POWER WIRING
	BRANCH CIRCUIT SWITCHED WIRING
	BRANCH CIRCUIT AC OR DC CONTROL WIRING
	CONDUIT UP
	CONDUIT DOWN
	HOME RUN. 3/4" CONDUIT, #12 AND #10 GROUND, UNLESS OTHERWISE NOTED. NOTE: HOME RUN SHALL BE FROM FIRST ELECTRICAL DEVICE BACKBOX IN CIRCUIT TO ELECTRICAL PANEL.
	EMERGENCY FEEDER

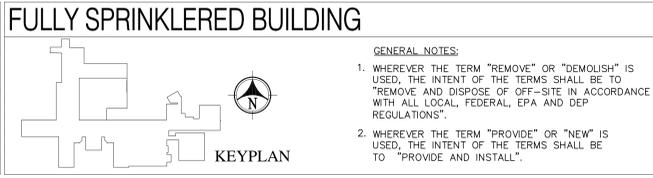
### LEGEND NOTE

THESE ARE THE GENERAL LEGENDS OF SYMBOLS AND ABBREVIATIONS, AND SHALL BE USED AS A DICTIONARY TO DEFINE ITEMS INDICATED ON DRAWINGS. NOT ALL SYMBOLS OR ABBREVIATIONS DEFINED ARE NECESSARILY USED ON THIS PROJECT.

### ABBREVIATIONS

SYMBOL	DESCRIPTION
A	AMPERE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
C	CONDUIT
CATV	CABLE TELEVISION
C/B	CIRCUIT BREAKER
CR	CIRCUIT
CUH	CABINET UNIT HEATER
CT	CABLE TRAY
ER	EXISTING TO REMAIN
EF	EXHAUST FAN
ELTR	EXISTING LIGHTING TO REMAIN (WITHIN SPECIFIED AREA)
EM	EMERGENCY
EMT	ELECTRIC METALLIC TUBING
EPR	EXISTING POWER TO REMAIN (WITHIN SPECIFIED AREA)
EW	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
F	FUSED
FA	FIRE ALARM
FMC	FLEXIBLE METALLIC TUBING
GFI	GROUND FAULT INTERRUPTER
IG	ISOLATED GROUND
MAU	MAKE-UP AIR UNIT
MD	MOTORIZED DAMPER
NF	NON-FUSED
NE	NEW LOCATION OF EXISTING RELOCATED
NL	NIGHT LIGHT
NR	NEW TO REPLACE EXISTING
P	POLE
PE	PRIMARY ELECTRIC SERVICE
PVC	POLYVINYL CHLORIDE CONDUIT
RE	REMOVE EXISTING
REF	ROOF EXHAUST FAN
RL	RELOCATE EXISTING
RMC	RIGID METALLIC CONDUIT
RR	REMOVE AND REPLACE ON NEW SURFACE
RTU	ROOFTOP UNIT
SD	SMOKE DAMPER
SE	SECONDARY ELECTRIC SERVICE
S&P	SPACE AND PROVISION
T	TELEPHONE SERVICE
TC	TEMPERATURE CONTROL PANEL
TV	TELEVISION
TX	TRANSFORMER
W	WIRE
WG	WIRE GUARD
WP	WEATHERPROOF
UNIV	UNIVERSAL

Revisions:	Date
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VZHS PROJECT# 2010163.00

**CONSULTANTS:**  
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Amherst, NH 03031  
T: 603. 801.4310

Drawing Title  
**ELECTRICAL LEGENDS AND GENERAL NOTES**

Approved: Project Director

Project Title  
**INSTANTANEOUS HOT WATER IMPROVEMENT**

Project Number  
**689-10-214**

Building Number  
**01, 02, 16**

Location  
**VACHS WEST HAVEN, CT**

Date  
02/25/2011

Checked  
**JFR**

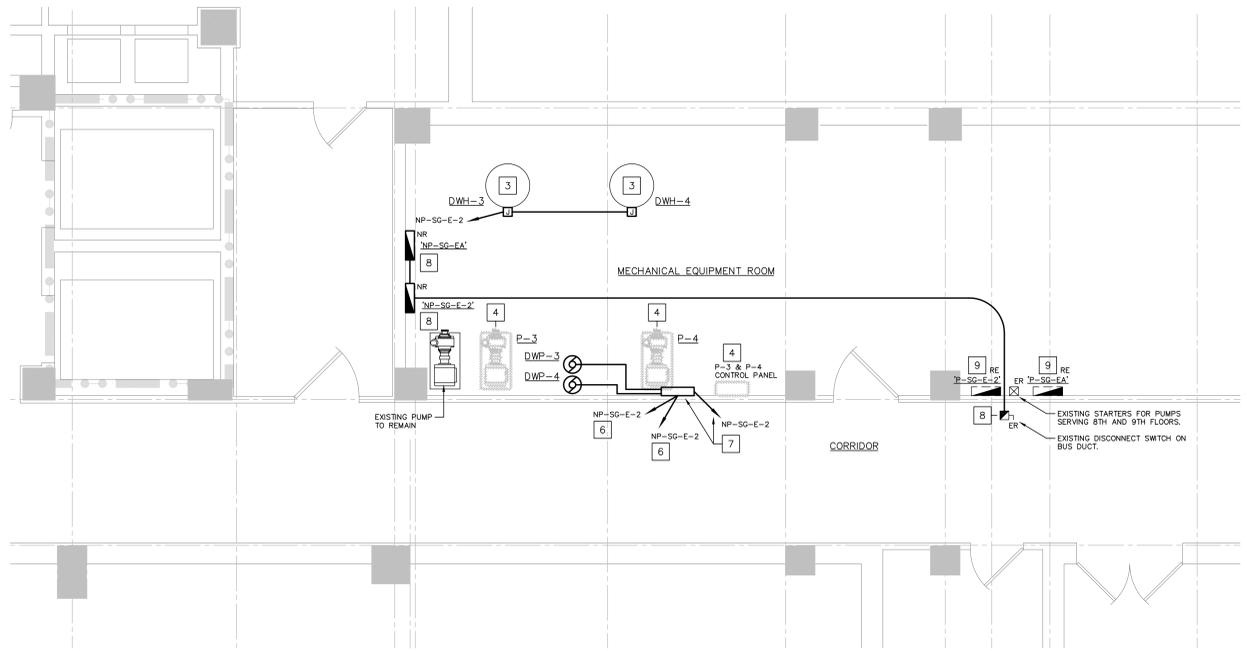
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Drawing Number  
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Dwg. 9 of 12

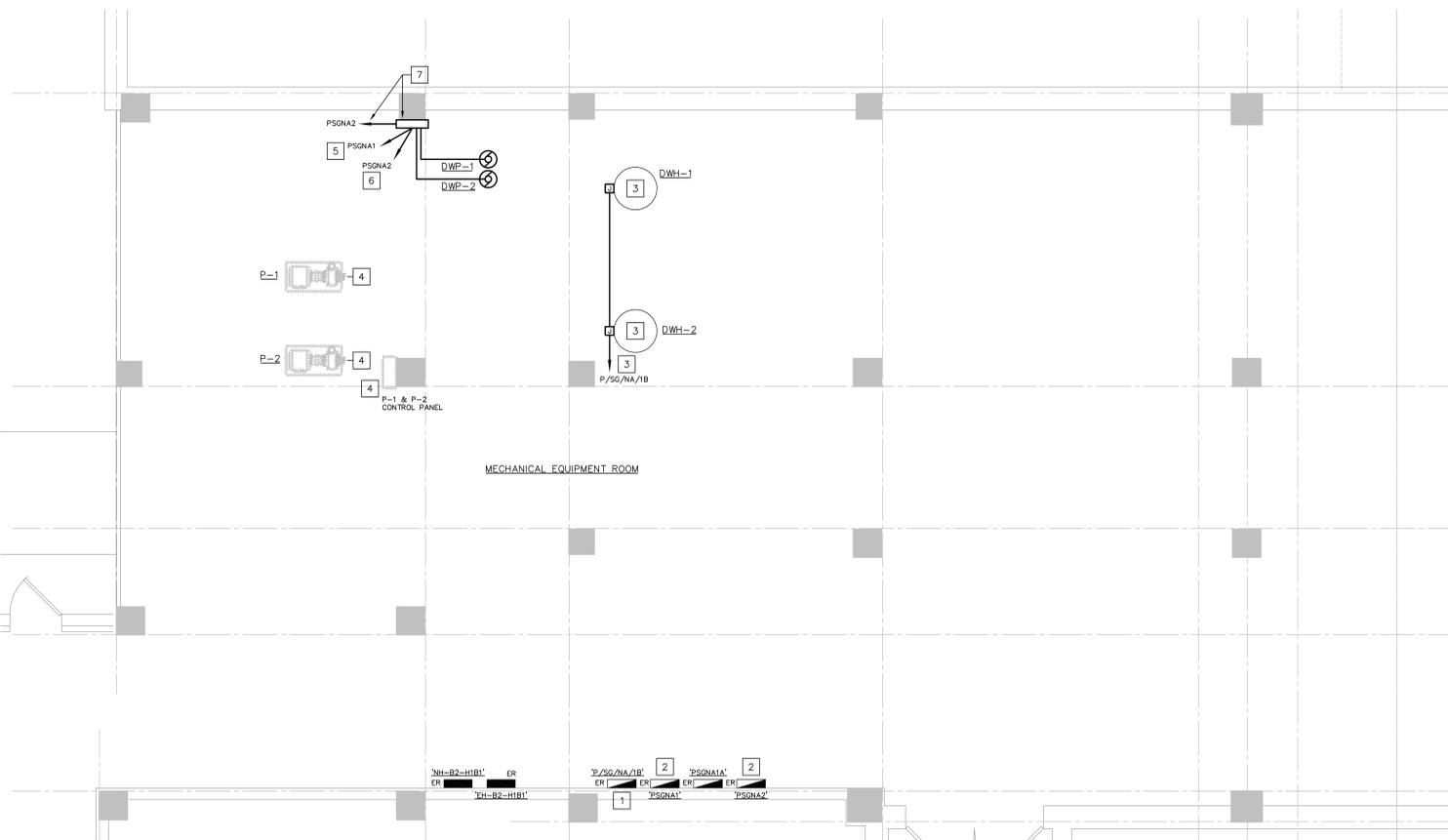
**Office of Facilities Management**

Department of Veterans Affairs

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**1 ELECTRICAL SUB-GROUND LEVEL PARTIAL PLAN - AREA 'G'**  
 E101 Scale: 1/4"=1'-0"



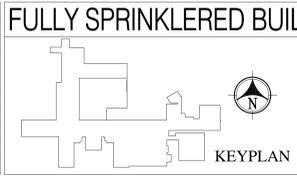
**2 ELECTRICAL SUB-GROUND LEVEL PARTIAL PLAN - AREA 'H'**  
 E101 Scale: 1/4"=1'-0"

- DRAWING KEY NOTES:**
- 1 EXISTING PANEL (SQUARE-D 'NODD') TO REMAIN. NEW BREAKERS SHALL BE LISTED COMPATIBLE WITH EXISTING PANEL. COORDINATE WITH EXISTING CONDITIONS IN FIELD.
  - 2 EXISTING PANEL (WESTINGHOUSE) TO REMAIN. NEW BREAKERS SHALL BE LISTED COMPATIBLE WITH EXISTING PANEL. COORDINATE WITH EXISTING CONDITIONS IN FIELD.
  - 3 EXISTING WATER HEATER TO BE REMOVED. CONNECT NEW WATER HEATER ONTO EXISTING 20A-1P BRANCH CIRCUIT IN EXISTING PANEL.
  - 4 EXISTING PUMP AND PUMP CONTROLS TO BE REMOVED. REMOVE EXISTING BRANCH CIRCUIT AND CONDUIT BACK TO SOURCE PANEL.
  - 5 4#12 & 1#12 GND IN 3/4" TO EXISTING 20A-3P BREAKER IN EXISTING PANEL. BREAKER MADE AVAILABLE WITH REMOVAL OF EXISTING PUMPS. COORDINATE WITH EXISTING CONDITIONS IN FIELD.
  - 6 4#12 & 1#12 GND IN 3/4" TO NEW 20A-3P BREAKER IN INDICATED PANEL.
  - 7 NEW PUMP CONTROL PANEL WITH STARTERS. PROVIDE 120V BRANCH CIRCUIT FOR CONTROL POWER. WIRING FROM PUMP SHALL BE ROUTED THROUGH VFD AND CONTROL PANEL TO BREAKER IN ELECTRICAL PANEL INDICATED. COORDINATE WITH SUPPLIED CONTROL PANEL.
  - 8 NEW PANEL TO MATCH EXISTING BEING REMOVED. PROVIDE NEW FEEDER, 4#1/0&#186;G. IN 2" C., FROM EXISTING 125A DISCONNECT SWITCH ON BUS DUCT IN CORRIDOR. COORDINATE POWER INTERRUPTIONS WITH OWNER.
  - 9 EXISTING PANEL TO BE REMOVED. PROVIDE JUNCTION BOXES TO INTERCEPT EXISTING BRANCH CIRCUITS AND EXTEND TO NEW PANEL. COORDINATE WITH EXISTING CONDITIONS IN FIELD.

- DRAWING GENERAL NOTES:**
- A. COORDINATE ALL WORK WITH EXISTING CONDITIONS IN FIELD.
  - B. REFER TO PHASING NOTES ON DRAWING E201.

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Revisions:	Date
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Drawing Title  
**ELECT. SUB-GROUND LEVEL PARTIAL WORK PLANS - AREA 'G' AND 'H'**  
 Approved: Project Director

Project Title  
**INSTANTANEOUS HOT WATER IMPROVEMENT**

Project Number  
**689-10-214**

Building Number  
**01**

Location  
**VACHS WEST HAVEN, CT**

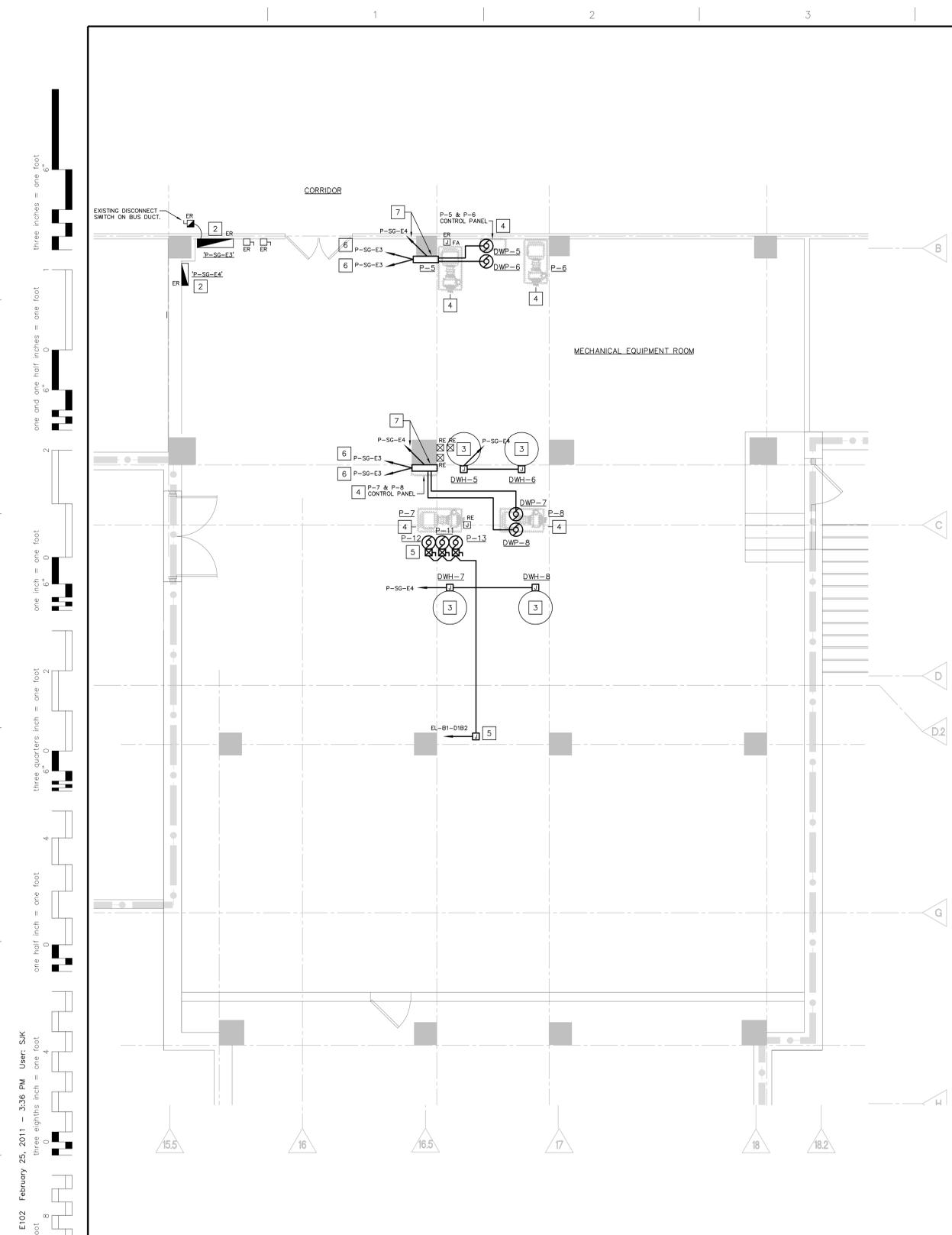
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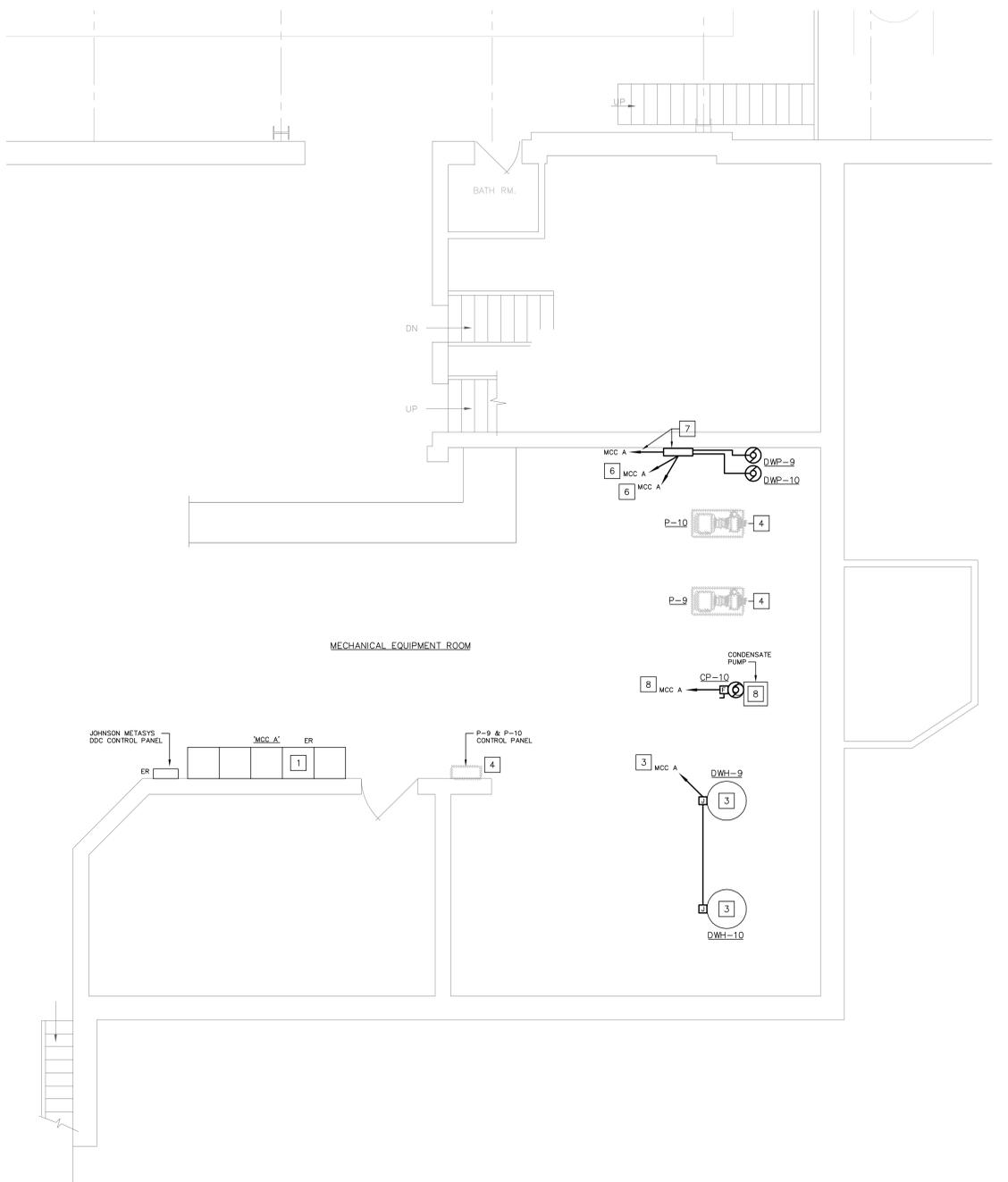
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 Dwg. 10 of 12





**1** ELECTRICAL BASEMENT LEVEL PARTIAL PLAN - AREA 'D'  
 E102 Scale: 1/4"=1'-0"

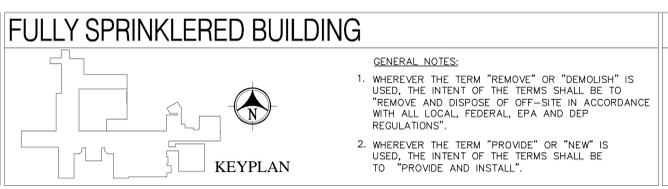
- DRAWING KEY NOTES:**
- 1 EXISTING PANEL WITHIN MOTOR CONTROL CENTER MCC A (SIEMENS) TO REMAIN. NEW BREAKERS SHALL BE LISTED COMPATIBLE WITH EXISTING PANEL. COORDINATE WITH EXISTING CONDITIONS IN FIELD.
  - 2 EXISTING PANEL (WESTINGHOUSE) TO REMAIN. NEW BREAKERS SHALL BE LISTED COMPATIBLE WITH EXISTING PANEL. COORDINATE WITH EXISTING CONDITIONS IN FIELD.
  - 3 EXISTING WATER HEATER TO BE REMOVED. CONNECT NEW WATER HEATER ONTO EXISTING 20A-1P BRANCH CIRCUIT IN EXISTING PANEL.
  - 4 EXISTING PUMP AND PUMP CONTROLS TO BE REMOVED. REMOVE EXISTING BRANCH CIRCUIT AND CONDUIT BACK TO SOURCE PANEL.
  - 5 4#12 & 1#12 GND IN 3/4" TO EXISTING 20A-3P BREAKER IN EXISTING PANEL 'EL-B1-D1B2'. BREAKER (#14,16,18) MADE AVAILABLE WITH REMOVAL OF EXISTING PUMPS. PROVIDE PULLBOX TO INTERCEPT EXISTING BRANCH FEEDER IN MECHANICAL EQUIPMENT ROOM. COORDINATE WITH EXISTING CONDITIONS IN FIELD.
  - 6 4#12 & 1#12 GND IN 3/4" TO NEW 20A-3P BREAKER IN INDICATED PANEL.
  - 7 NEW PUMP CONTROL PANEL WITH STARTERS. PROVIDE 120V BRANCH CIRCUIT FOR CONTROL POWER WIRING FROM PUMP SHALL BE ROUTED THROUGH VFD AND CONTROL PANEL TO BREAKER IN ELECTRICAL PANEL INDICATED. COORDINATE WITH SUPPLIED CONTROL PANEL.
  - 8 EXISTING CONDENSATE PUMP TO BE REMOVED. CONNECT NEW CONDENSATE PUMP ONTO EXISTING 20A-1P BRANCH CIRCUIT IN EXISTING PANEL.
- DRAWING GENERAL NOTES:**
- A. COORDINATE ALL WORK WITH EXISTING CONDITIONS IN FIELD.
  - B. REFER TO PHASING NOTES ON DRAWING E201.



**2** ELECTRICAL GROUND LEVEL PARTIAL PLAN - BOILER HOUSE  
 E102 Scale: 1/4"=1'-0"

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Drawing Title  
**ELECT. BASEMENT LEVEL PARTIAL WORK PLAN - AREA 'D' & GROUND LEVEL - BOILER HOUSE**  
 Approved: Project Director

Project Title  
**INSTANTANEOUS HOT WATER IMPROVEMENT**

Project Number  
**689-10-214**

Building Number  
**02 & 16**

Location  
**VACHS WEST HAVEN, CT**

Date  
 02/25/2011

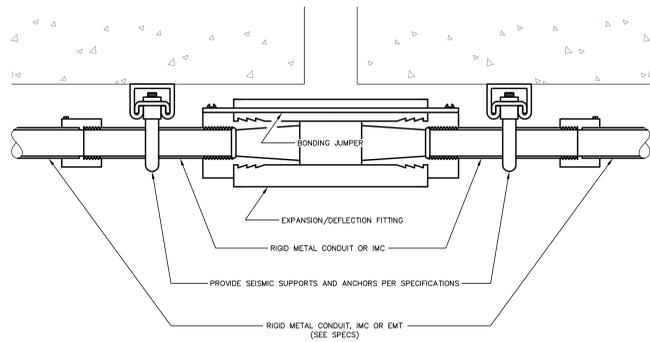
Checked  
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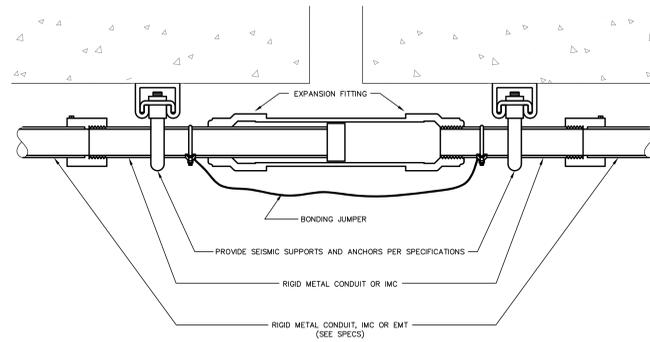
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**E102**  
 Dwg. 11 of 12

**Office of Facilities Management**

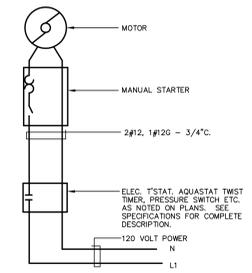
Department of Veterans Affairs



**EXPOSED METAL CONDUIT AT SEISMIC JOINT**  
NOT TO SCALE



**EXPOSED CONDUIT AT EXPANSION JOINT**  
NOT TO SCALE



**TYPICAL FRACTIONAL HP FCU, CUH, UH OR EF WIRING DIAGRAM**  
N.T.S.

**WATER HEATER INSTALLATION PHASING NOTES:**

THESE PHASING NOTES ARE ONLY TO BE USED AS A GUIDE TO ILLUSTRATE INTENT OF PROJECT SCOPE OF WORK. DEMOLITION AND INSTALLING CONTRACTORS SHALL SUBMIT PROPOSED WATER HEATER REPLACEMENT ACTION PLAN TO VAMC AND ENGINEER FOR REVIEW AND APPROVAL. ACTION PLAN SHALL DESCRIBE IN DETAIL DATE, DURATION, AND SCOPE OF WORK ASSOCIATED WITH EACH OF THE SHUTDOWNS. CONTRACTORS SHALL NOT COMMENCE DEMOLITION WORK UNTIL NOTICE TO PROCEED IS RECEIVED AND ALL NECESSARY EQUIPMENT AND MATERIALS ARE ON SITE TO MINIMIZE QUANTITY AND DURATION OF SHUTDOWNS.

PRIOR TO ANY WORK PERFORMED, BALANCING CONTRACTOR SHALL PROVIDE ULTRASONIC WATER FLOW MEASUREMENTS, AND TEMPORARY PRESSURE AND TEMPERATURE GAUGES AT EACH PUMP TO VERIFY FLOW, PRESSURE AND TEMPERATURE OPERATING CHARACTERISTICS. CONTRACTOR SHALL NOT USE OR RELY ON ANY EXISTING GAUGES FOR THIS PURPOSE. SUBMIT DOCUMENTED VALUES (IN SPREAD SHEET FORMAT) TO VAMC AND ENGINEER FOR REVIEW AND RECORD PURPOSES. DURING SYSTEM REBALANCING, CONTRACTOR SHALL BALANCE PUMPS AND SYSTEM TO MEET CURRENT FLOW AND TEMPERATURE CHARACTERISTICS.

1. REPLACE WATER HEATER STEAM ISOLATION VALVES 'V-2' & 'V-3' DURING WEEKEND SHUTDOWN BY MAIN STEAM ISOLATION VALVE 'V-1'.
2. ISOLATE DOMESTIC HOT WATER ISOLATION VALVE 'V-8' AND HOT WATER RETURN ISOLATION VALVE 'V-7' TO ISOLATE EITHER OF TWO DOMESTIC HOT WATER HEATERS.
3. REPLACE PRIMARY DOMESTIC HOT WATER HEATER AND ALL ASSOCIATED PIPING, VALVES, CONTROLS, ETC. AS SHOWN FOR COMPLETE INSTALLATION AND OPERATION. PRIMARY WATER HEATER SHALL BE DETERMINED BY EITHER PRESENT OPERATING CONDITION OR EASE OF INSTALLATION. ANY WATER HEATERS CURRENTLY OFF-LINE SHALL BE CONSIDERED 'PRIMARY'.
4. UPON VERIFICATION THAT INSTALLATION IS COMPLETE THROUGH SYSTEM TESTING, BRING NEW PRIMARY DOMESTIC HOT WATER HEATER ON-LINE AND SHUTDOWN SECONDARY WATER HEATER AND REPEAT WATER HEATER REPLACEMENT PROCEDURE.
5. DEPENDING ON EXISTING CONDITIONS, DURATION OF SHUTDOWN, PROCUREMENT OF CIRCULATING PUMPS, ETC. CONTRACTOR SHALL INCORPORATE PUMP REPLACEMENT IN A SIMILAR MANNER AS THE WATER HEATERS TO MINIMIZE QUANTITY AND DURATION OF SYSTEM SHUTDOWNS. PUMPS SHALL BE INSTALLED AS COMPLETE AS POSSIBLE INCLUDING VALVES, SUPPORTS, INSULATION, AND ELECTRICAL CONNECTIONS IN NEW LOCATIONS PRIOR TO REMOVAL OF EXISTING PUMPS. WHERE INDICATED ON PLANS TO CONNECT TO EXISTING (CURRENTLY IN USE) BREAKERS, PRE-WIRE NEW PUMPS TO PULLBOX ADJACENT TO ELECTRICAL PANEL. FINAL CONNECTION TO EXISTING BREAKERS SHALL OCCUR AT TIME OF SHUTDOWN AND TRANSITION FROM EXISTING PUMP TO NEW PUMP.

PANEL	LOCATION	PANEL DESCRIPTION				BRANCH CIRCUIT BREAKER		REMARKS
		MAINS	VOLTAGE	POLES	MT'G	A.I.C.	ACTIVE	
NP-SG-E-2	MECHANICAL EQUIPMENT ROOM	225A MLO	120/208V 3Ø, 4W	42	SURF.	22K	(2) 20A-1P (2) 20A-3P	(5) 20A-1P** CORROSION RESISTANT PAINT FINISH PER 262416-2.2.
NP-SG-EA	MECHANICAL EQUIPMENT ROOM	125A MLO	120/208V 3Ø, 4W	42	SURF.	22K	(2) 20A-1P**	CORROSION RESISTANT PAINT FINISH PER 262416-2.2.

\* BREAKER SIZE AND QUANTITY TO MATCH EXISTING PANELS.  
\*\* BREAKER QUANTITY INDICATED IS MINIMUM. PROVIDE QUANTITY OF 20A-1P SPARE BREAKERS AS NECESSARY TO PROVIDE A FULL (42 POLE) CAPACITY.

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 three eighths inch = one foot  
 one quarter inch = one foot  
 one eighth inch = one foot  
 one half inch = one foot  
 three quarters inch = one foot  
 one inch = one foot  
 one and one half inches = one foot  
 three inches = one foot  
 six inches = one foot

Revisions:	Date
3	BID DOCUMENTS 2/25/11
2	100% CD FINAL REVIEW SUBMISSION 1/17/11
1	75% CD PROGRESS SUBMISSION 12/22/10

**FULLY SPRINKLERED BUILDING**

**GENERAL NOTES:**

1. WHEREVER THE TERM "REMOVE" OR "DEMOLISH" IS USED, THE INTENT OF THE TERMS SHALL BE TO "REMOVE AND DISPOSE OF OFF-SITE IN ACCORDANCE WITH ALL LOCAL, FEDERAL, EPA AND DEP REGULATIONS".
2. WHEREVER THE TERM "PROVIDE" OR "NEW" IS USED, THE INTENT OF THE TERMS SHALL BE TO "PROVIDE AND INSTALL".

**ENGINEERS:**

MEP ENGINEERS:  
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 VZHS PROJECT# 2010163.00

**CONSULTANTS:**

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 19 Winterberry Drive  
 Amherst, NH 03031  
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Drawing Title  
**ELECTRICAL DETAILS**

Approved: Project Director

Project Title  
**INSTANTANEOUS HOT WATER IMPROVEMENT**

Project Number  
**689-10-214**

Building Number  
**01, 02, 16**

Location  
**VACHS WEST HAVEN, CT**

Date  
 02/25/2011

Checked  
**EDA**

Drawn  
**JMB**

Drawing Number  
**E201**

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**Office of Facilities Management**

Department of Veterans Affairs