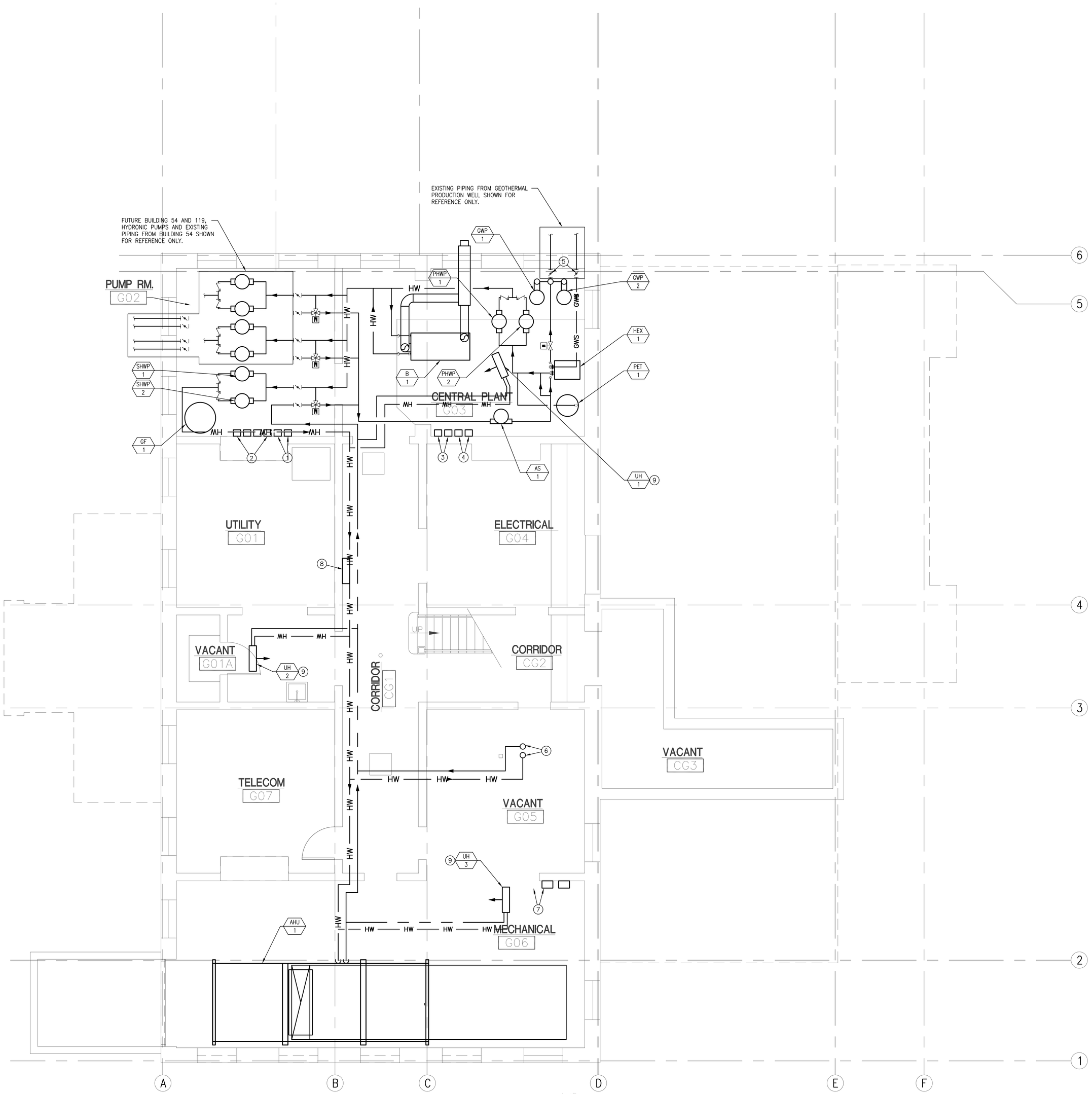

1 GROUND FLOOR HYDRONIC PLAN

0' 4' 8' 12' 16' 20' 24'

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

GENERAL NOTES:

A. ROUTE DUCTWORK IN COORDINATION WITH OTHER TRADES. HOLD DUCTWORK AS HIGH AS POSSIBLE AND ROUTE DUCTWORK WITH IN STRUCTURE WHERE POSSIBLE.

B. UNLESS OTHER WISE NOTED SUPPLY DUCT UPSTREAM OF AFCV IS THE SAME SIZE AS THE DOWN STREAM DUCTWORK. FOR CLEARLY NOT ALL SIZES HAVE BEEN SHOWN.

C. MOUNT TEMPERATURE SENSOR AT 48" AFF COORDINATE LOCATION OF TEMPERATURE SENSORS IN LAB SPACES WITH PLUMBING CONTRACTOR.

D. DUCT SIZES INDICATED FOR CONNECTION TO EQUIPMENT MAY DIFFER FROM EXACT UNIT CONNECTION DIMENSIONS. PROVIDE ALL NECESSARY TRANSITIONS FROM DUCT SIZES LISTED TO UNIT CONNECTION.

E. TEMPERATURE SENSORS SHALL BE INSTALLED AT 48" AFF UNLESS NOTED OTHERWISE. COORDINATE JUNCTION BOX INSTALLATION WITH ELECTRICAL CONTRACTOR.

F. FIRE DAMPERS SHALL BE 1-1/2 HOUR RATED UNLESS OTHERWISE NOTED.

G. CONTRACTOR SHALL PROVIDE ALL NECESSARY TRANSITIONS TO AVOID CONFLICT WITH OTHER DUCTWORK, PIPING, STRUCTURE, ETC. AS PART OF THIS CONTRACT. WHEREVER AVAILABLE SPACE ALLOWS, OFFSETS SHALL BE MADE WITH 45 DEGREE ELBOWS WITH TURNING VANES.

H. ALL CEILING DIFFUSERS SHALL BE PROVIDED WITH 4-WAY THROW PATTERN UNLESS OTHERWISE NOTED.

I. TRANSITION AS NECESSARY FROM DUCT SIZES INDICATED ON PLAN TO EQUIPMENT DUCT CONNECTION.

J. PIPING PENETRATIONS THROUGH RATED ASSEMBLIES SHALL BE FIRESTOPPED IN ACCORDANCE NFPA-90A.

K. DUCTWORK AND PIPING SHOWN ARE FOR GENERAL ROUTING PURPOSES ONLY. CONTRACTOR SHALL CONFIRM EXACT ROUTING WITH OTHER TRADES AND PROVIDE ALL NECESSARY TRANSITIONS, HIGH POINT VENTS AND LOW POINT DRAINS AND OFFSETS NECESSARY TO INSTALL A COMPLETE AND FUNCTIONING SYSTEM.

L. THE CEILING SPACE FROM THE BOTTOM OF THE CEILING GRID TO A MINIMUM OF 6" ABOVE THE BOTTOM OF THE CEILING GRID IS RESERVED FOR INSTALLATION OF CEILING MOUNTED ITEMS (I.E. LIGHT FIXTURES, SPEAKERS, DIFFUSERS). NO PIPING, DUCTWORK, CONDUITS, ETC., EXCEPT DROPS SERVING THE CEILING MOUNTED ITEMS, IS ALLOWED TO BE INSTALLED IN THIS SPACE, UNLESS OTHERWISE APPROVED BY THE RESIDENT ENGINEER.

M. CONTRACTOR IS REQUIRED TO FOLLOW ALL OSHA REGULATIONS CONCERNING CONSTRUCTION. THE SUPERINTENDENT IS REQUIRED TO HAVE COMPLETED, AS A MINIMUM, OSHA'S 10-HOUR TRAINING AND BE KNOWLEDGEABLE OF GENERAL SAFETY REQUIREMENTS FOR CONFINED SPACES, FALL PROTECTION, PERSONAL PROTECTIVE EQUIPMENT, TRENCHING, SCAFFOLDING, CRANES, ELECTRICAL, ETC. APPLICABLE SUBCONTRACTORS ARE TO HAVE A COMPETENT PERSON ON SITE WHEN REQUIRED BY OSHA.

N. IF ACCESSING A CONFINED SPACE, THE CONTRACTOR IS REQUIRED HAVE THEIR OWN CONFINED SPACE AIR MONITOR AND TO TEST THE AIR PRIOR TO ENTERING ANY CONFINED SPACE AIR MONITOR AND TO TEST THE AIR PRIOR TO ENTERING AND CONFINED SPACE. IF THE CONTRACTOR MUST ENTER A SANITARY SEWER MANHOLE, IN ADDITION TO A CONFINED SPACE AIR MONITOR, THEY MUST HAVE PROPER OSHA RESCUE EQUIPMENT FOR A PERMIT REQUIRED CONFINED SPACE. WHERE IT IS NOT POSSIBLE FOR THE VA TO SHUTDOWN AN ELECTRICAL PANEL OR CIRCUIT, THE CONTRACTOR MUST PROVIDE AND USE THE APPROPRIATE SAFETY CLOTHING AND EQUIPMENT AS REQUIRED BY NFPA 70E. THE VA WILL BE MONITORING THE CONTRACTOR'S COMPLIANCE WITH OSHA REGULATIONS. FAILURE TO COMPLY IS GROUNDS FOR STOPPING WORK.

SHEET NOTES:

1. REMOTE MOUNTED VFD FOR BUILDING 33 HOT WATER PUMPS (SHWP-1 & 2) TO BE WALL MOUNTED.
2. LOCATION OF FUTURE BUILDING 54 AND 119 HOT WATER PUMP VFD.
3. REMOVE MOUNTED VFD FOR PRIMARY HEATING LOOP PUMPS (PHWP 1 & 2) TO BE WALL MOUNTED.
4. REMOTE MOUNTED VFD FOR GEOTHERMAL PUMPS (GWP-1 & 2) TO BE WALL MOUNTED.
5. EXTEND NEW 102mm (4") GEOTHERMAL PIPING FROM ISOLATION VALVES AS SHOWN.
6. 51mm (2") HW AND HWR PIPING UP IN CHASE. RE: M2.6 FOR CONTINUATION.
7. REMOTE MOUNTED AHU-1 SUPPLY AND RETURN FAN VFD.
8. DDC CONTROL PANEL.
9. PROVIDE BRAIDED HOSE KIT COMPLETE WITH AUTOMATIC FLOW CONTROL VALVE, CONTROL VALVE, AND STRAINER. FURNISH ALL REQUIRED OFFSETS AND REDUCTIONS FROM HYDRONIC PIPING TO COIL CONNECTION. ROUTE PIPING SUCH THAT COMPLETE ACCESS TO CONTROL PANEL IS AVAILABLE. RE: M3.3 FOR PIPE SIZE.

95% SUBMISSION

REVISIONS | DATE

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DRAWING TITLE: GROUND FLOOR HYDRONIC PLAN

PROJECT TITLE: VAMC ENERGY UPGRADES PHASE ONE BUILDING 33

DATE: 03/03/11

PROJECT NO.: 531-10-114

APPROVED: DIVISION CHIEF

APPROVED: SERVICE DIRECTOR

BUILDING NUMBER: 33 | CHECKED: RME | DRAWN: DJH

LOCATION: BOISE, IDAHO

DRAWING NO.: M2.5

DWG. 15 OF 32

DEPARTMENT OF VETERANS AFFAIRS

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