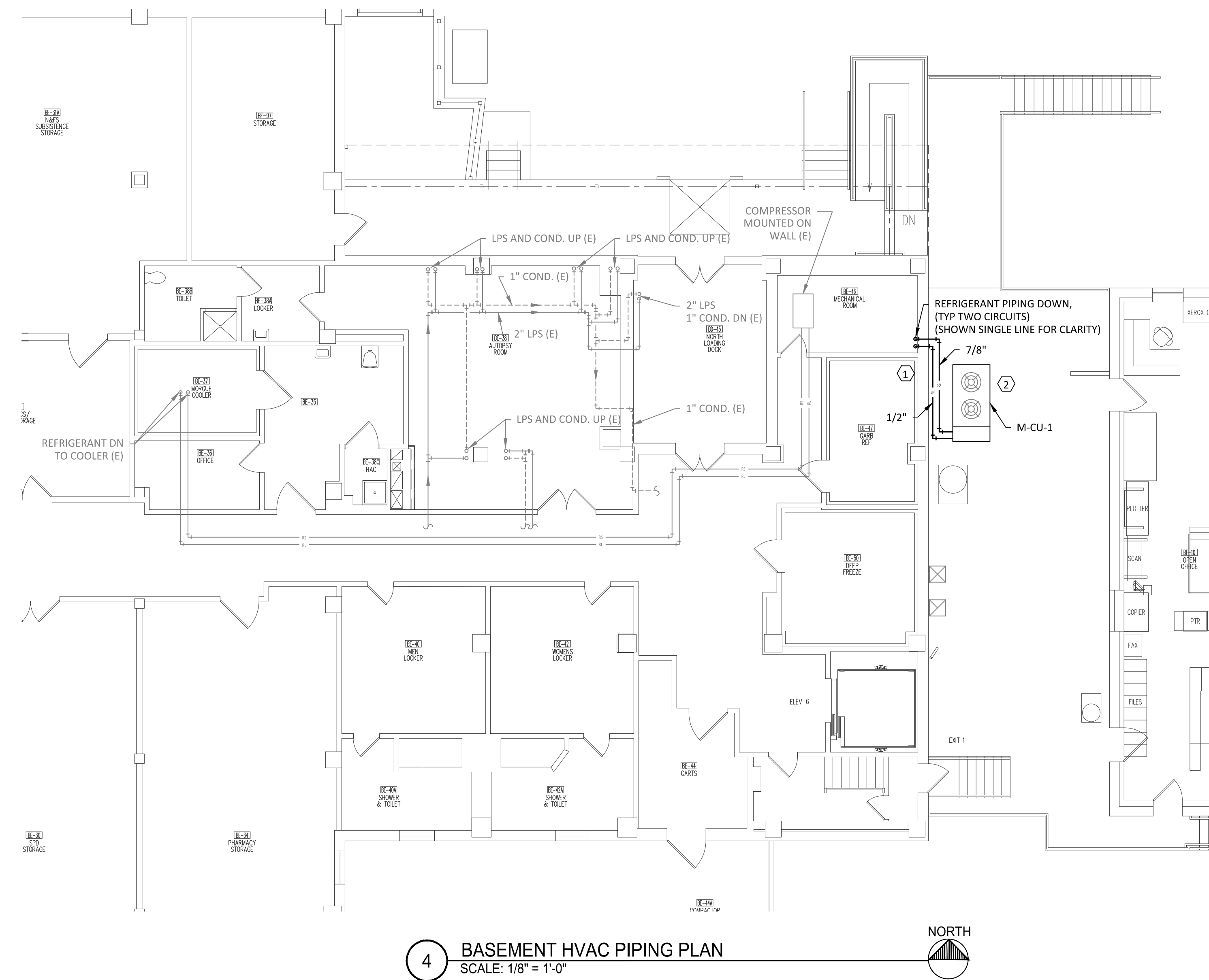
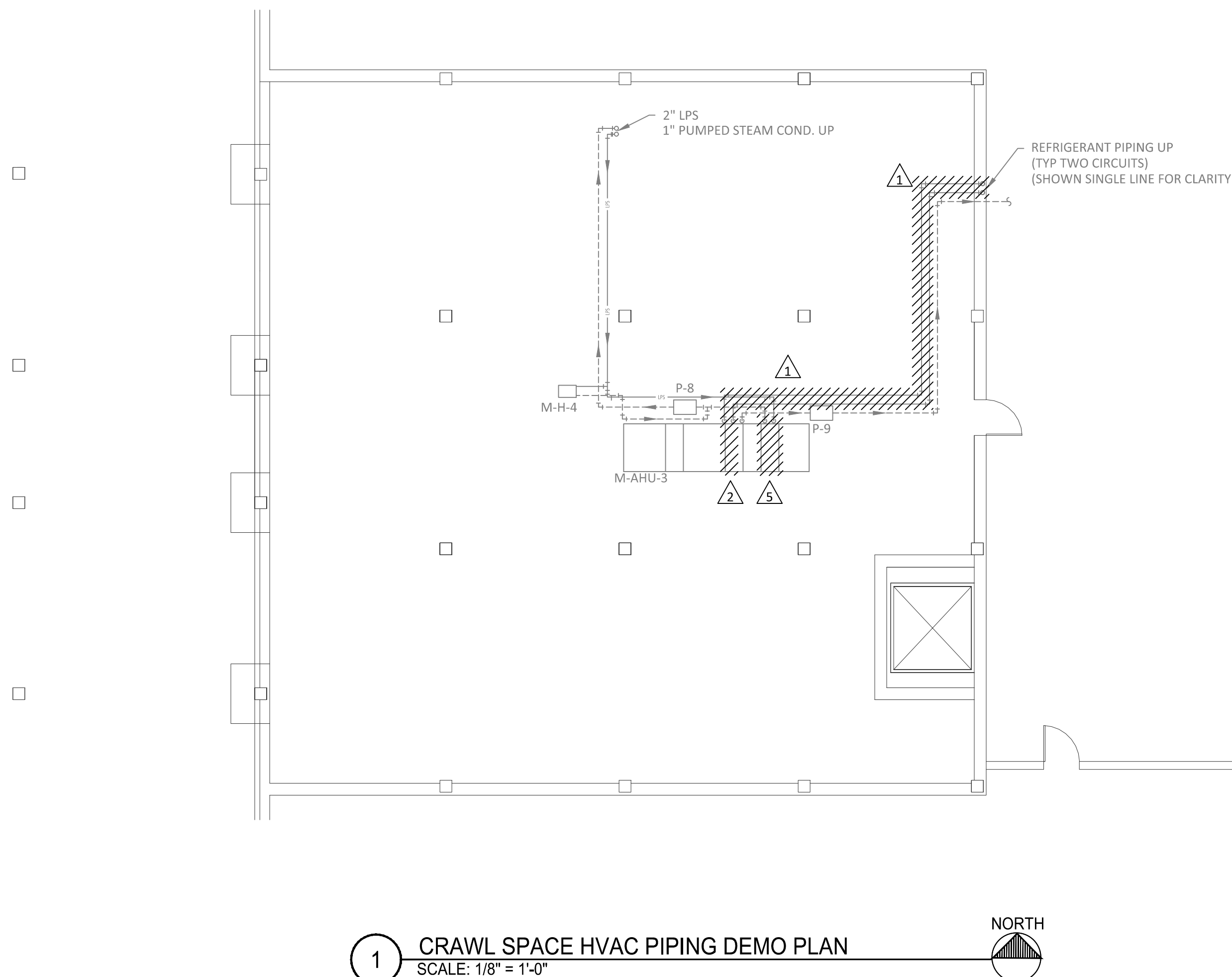


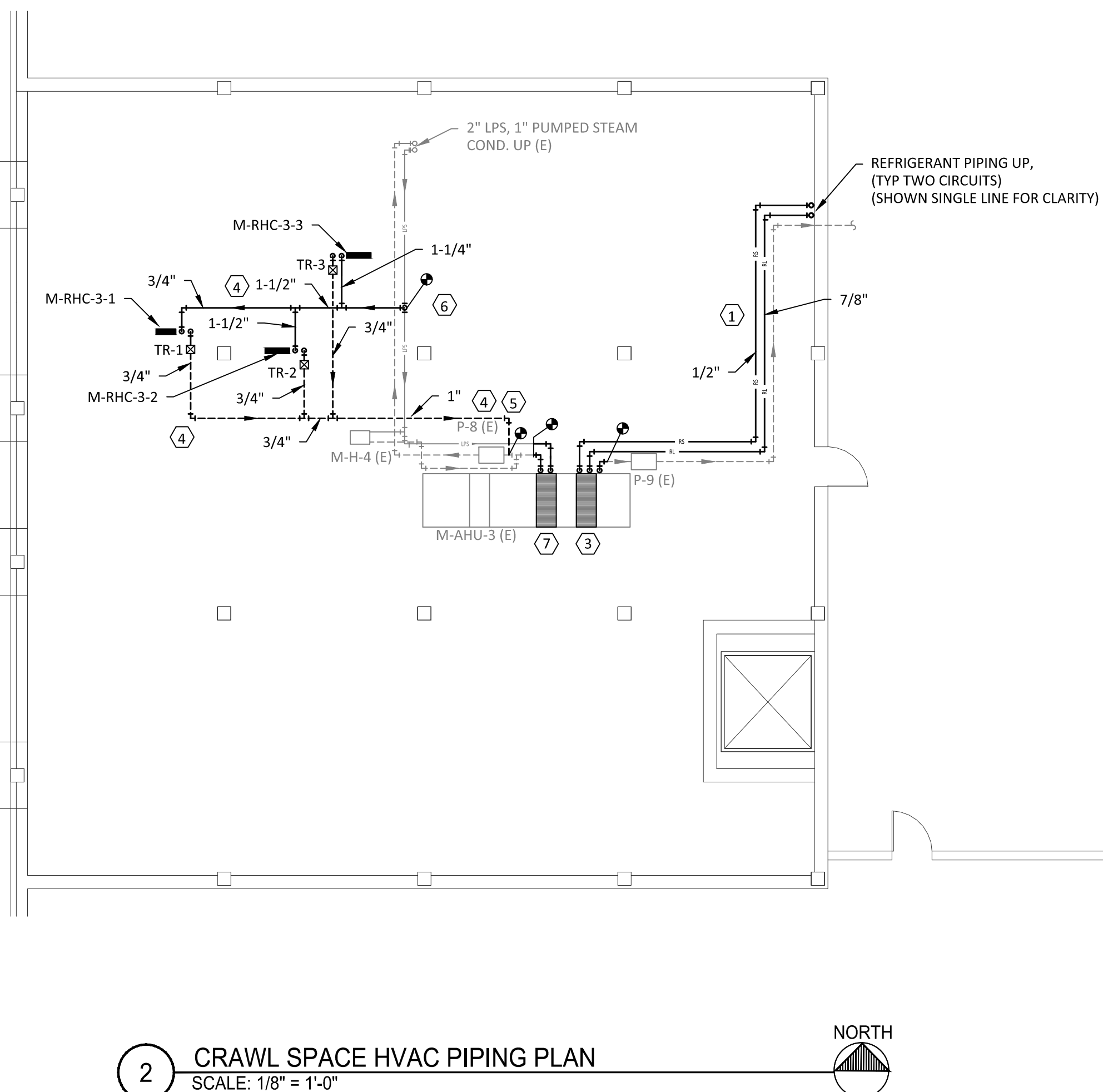
3 BASEMENT HVAC PIPING DEMO PLAN
SCALE: 1/8" = 1'-0"



4 BASEMENT HVAC PIPING PLAN
SCALE: 1/8" = 1'-0"



1 CRAWL SPACE HVAC PIPING DEMO PLAN
SCALE: 1/8" = 1'-0"



2 CRAWL SPACE HVAC PIPING PLAN
SCALE: 1/8" = 1'-0"

HVAC PIPING DEMOLITION NOTES:

- DEMOLITION DRAWINGS ARE DIAGRAMMATIC ONLY AND ARE BASED ON CASUAL FIELD OBSERVATION AND EXISTING RECORD DRAWINGS. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS.
- CONTRACTOR IS RESPONSIBLE FOR ANY ADDITIONALLY REQUIRED REMOVAL AND RE-INSTALLING OF EXISTING CEILING TILE NOT SHOWN FOR THE DEMOLITION OF EXISTING HVAC PIPING, EQUIPMENT, ETC. VERIFY WITH ARCHITECTURAL PLANS FOR CEILING WORK. ANY CEILING TILE OR GRID DAMAGED DURING CONSTRUCTION SHALL BE REPLACED NEW BY CONTRACTOR.
- SEE ARCHITECTURAL SHEET A1 FOR PATCHING/CUTTING OF WALLS, FLOOR AND ROOF.

PHASING NOTES:

- WORK WILL BE SHUT DOWN AS REQUIRED FOR STAFF/PATIENT NEEDS OR NOISE ISSUES.
- CORRIDORS TO REMAIN OPEN AT ALL TIMES AND SHOULD BE SCHEDULED AFTER BUSINESS HOURS OR ON WEEKENDS, AND SHOULD BE SUBDIVIDED TO MAINTAIN CIRCULATION.
- CORRIDOR ACCESS TO ROOMS MUST BE MAINTAINED AT ALL TIMES (EXCEPT POSSIBLY OUTSIDE BUSINESS HOURS WHEN WORK COULD BE COORDINATED AND COMPLETED).
- WORK MUST BE COORDINATED WITH THE IMMEDIATE REINSTALLATION OF FINISHES SO CORRIDORS DO NOT REMAIN IN AN UNFINISHED STATE.
- ALL WORK IN ROOM BE-31 SHALL BE SCHEDULED FOR AFTER HOURS OR ON WEEKENDS. COORDINATE WITH VA A MINIMUM OF TWO (2) WEEKS IN ADVANCE. ALL ROOM SHALL BE RESTORED TO USABLE CONDITION AT THE END OF EACH SHIFT.
- ALL WORK IN ROOM BE-31A SHALL BE PERFORMED WITHIN CONSTRUCTION BARRIER DURING REGULAR WORK HOURS.

DEMO NOTES:

- ⚠ RECLAIM AND DISPOSE OF REFRIGERANT. DEMO CONDENSING UNIT, PIPING, HANGERS AND ALL ASSOCIATED ITEMS.
- ⚠ DEMO DIRECT EXPANSION COOLING COIL. PREP AIR HANDLING UNIT CASING FOR NEW COIL.
- ⚠ DEMO THERMOSTAT AND ALL ASSOCIATED CONTROLS BACK TO EXISTING AIR HANDLING UNIT / BAS.
- ⚠ REROUTE WATER LINES AS NECESSARY FOR DUCT INSTALLATION. INSULATE TO MATCH EXISTING. INSULATE 3 LINEAR FEET OF PIPE INSULATION TO MATCH EXISTING REMOVED BY ABATEMENT CONTRACTOR. COORDINATE WITH ABATEMENT WORK SHOWN ON ARCHITECTURAL SHEET A1.
- ⚠ DISCONNECT AND REMOVE STEAM HEATING COIL. SALVAGE FOR RELOCATION. PREP PIPING FOR RELOCATED STEAM COIL.

HVAC PIPING NOTES:

- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS.
- COORDINATE ALL HVAC PIPING INSTALLATION WITH GENERAL PLUMBING, VENTILATION, AND ELECTRICAL WORK. INSTALL ALL HVAC PIPING AS HIGH AS POSSIBLE. PROVIDE ALL NECESSARY OFFSETS (DROPS AND RISES) TO KEEP HVAC PIPING TIGHT TO THE STRUCTURE OR DUCTWORK ABOVE. OFFSET HVAC PIPING TO AVOID BEAMS.
- REFER TO AND COORDINATE WITH THE ARCHITECTURAL PLANS FOR CEILING TYPES, HEIGHTS, SOFFIT AREAS, AND ELEVATIONS FOR INSTALLATION OF NEW HVAC PIPING, EQUIPMENT, ETC.
- CONTRACTOR IS RESPONSIBLE FOR ANY ADDITIONALLY REQUIRED REMOVAL AND RE-INSTALLING OF EXISTING CEILING TILE NOT SHOWN FOR THE DEMOLITION OF EXISTING HVAC PIPING, EQUIPMENT, ETC. VERIFY WITH ARCHITECTURAL PLANS FOR CEILING WORK. ANY CEILING TILE OR GRID DAMAGED DURING CONSTRUCTION SHALL BE REPLACED NEW BY CONTRACTOR.
- MAINTAIN 3'-0" CLEAR SPACE IN FRONT OF ALL ELECTRICAL, CONTROL, AND ACCESS PANELS FOR ACCESSIBILITY.
- ALL SHUT-OFF VALVES, CONTROL VALVES, STRAINERS, ETC. SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS.
- PROVIDE 1/2" DRAIN VALVE AT ALL LOW POINTS OF EACH SYSTEM TO ENABLE COMPLETE DRAINAGE. PROVIDE 1/2" VENT VALVES AT ALL HIGH POINTS OF EACH SYSTEM TO ENABLE COMPLETE VENTING.
- REFER TO HVAC PIPING DETAILS FOR ADDITIONAL INFORMATION ON INDIVIDUAL TERMINAL DEVICES AND COILS.
- 3/4" HWS & HWV TO ALL TERMINAL UNITS UNLESS OTHERWISE SPECIFIED ON PLANS.

PLAN NOTES:

- ROUTE TWO NEW REFRIGERANT CIRCUITS FROM CONDENSING UNIT TO NEW COOLING COIL IN EXISTING AIR HANDLING UNIT. PIPING EXTERIOR OF BUILDING TO CONDENSING UNIT SHALL BE BACKED ON WALL.
- INSTALL CONDENSING UNIT ON CONCRETE DECK. SEE DETAIL FOR REFRIGERANT PIPING AND ACCESSORIES.
- MODIFY EXISTING AIR HANDLING UNIT PANEL AS NECESSARY TO INSTALL NEW COOLING CC-1 AND RECONNECT CONDENSATE PIPING. PATCH AND SEAL EXISTING HOLES IN AIR HANDLING UNIT PANEL AS NECESSARY. MODIFY DRAIN PAN AND PIPING AS NECESSARY TO PROVIDE FULL COIL COVERAGE.
- ROUTE LOW PRESSURE STEAM AND CONDENSATE PIPING AS NECESSARY.
- MODIFY STEAM CONDENSATE PIPING AS NECESSARY FOR NEW STEAM CONDENSATE DRAIN CONNECTION.
- CONNECT NEW 3-1/2" LOW PRESSURE STEAM TO TOP OF EXISTING LOW PRESSURE STEAM MAIN.
- INSTALL SALVAGED STEAM HEATING COIL DOWNSTREAM OF COOLING COIL FOR DEHUMIDIFICATION. REWORK STEAM PIPING AND AIR HANDLING UNIT SECTION AS NECESSARY.

Revisions	Date

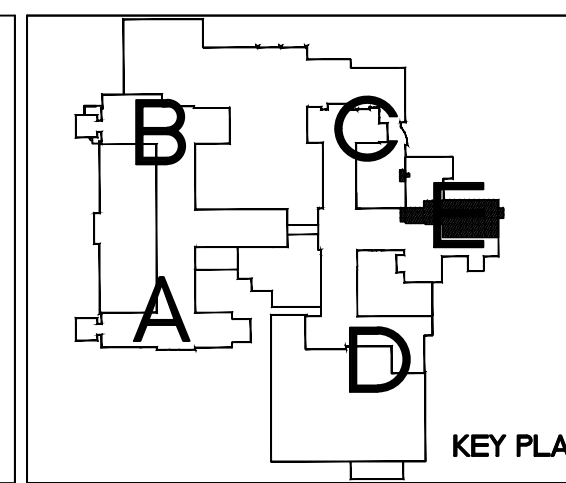
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IMAGE
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IMAGE GROUP INC.
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MOORHEAD, MN 56560

I hereby certify that this plan specification, or report was prepared by me or under my direct supervision, and that I am duly Registered Engineer under the laws of the State of North Dakota.
Spencer P. Williams
Date 09-15-17 Reg. No. PE-5639



Drawing Title
**BASEMENT / CRAWL SPACE - AREA 'E'
HVAC PIPING PLAN**

VA Project No. 437-16-210
Contract No. 437-R75521
Building No. 1
AutoCAD File Name: HI - PIPING.dwg

Project Title
**UPGRADE BASEMENT DRY GOODS
AIR CONDITIONING**

Designed By: JPK
Checked By: RJS
Drawn By: KAR

Location: FARGO VA HEALTH CARE SYSTEM
FARGO, ND

Date: SEPTEMBER 15, 2017
Scale: SEE PLAN
Drawing No.: H1
Dwg. 3 of 9

