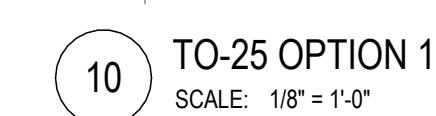
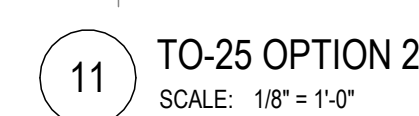


8 TO-25 BASE - FIFTH LEVEL
SCALE: 1/8" = 1'-0"



OPTION 1: PURCHASE AND INSTALL BOILERS AND PUMPS (EQUIPMENT ONLY).
EXISTING HYDRONIC PIPING AND STEAM PIPING TO REMAIN.
EXISTING HEATING HOT WATER SYSTEMS TO REMAIN AND TO BE FULLY OPERATIONAL



OPTION 2: INSTALL ALL NEW DIV 23 PROJECT INFRASTRUCTURE, INSTALL ALL NEW DIV 22 PIPING



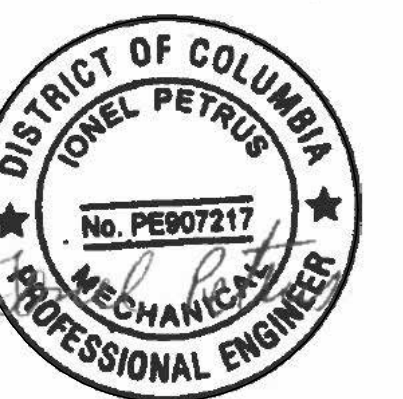
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SUITE 100
WASHINGTON, DC 20006
202.842.2100
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[illegible]

SEALS AND SIGNATURES



KEYPLAN



SHEET TITLE

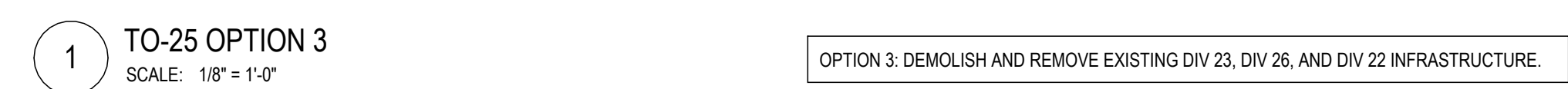
HVAC OPTION PLANS

15749.000

PROJECT NUMBER

SHEET NUMBER

G1.2



OPTION 3: DEMOLISH AND REMOVE EXISTING DIV 23, DIV 26, AND DIV 22 INFRASTRUCTURE.



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SEALS AND SIGNATURES



HVAC OPTION PLANS

PROJECT NUMBER

15749.000

SHEET NUMBER

G1.3



Plot Date:

SHEET NUMBER

USE DRAWING M-10 FOR ABBREVIATIONS, SYMBOLS, GENERAL NOTES.

A. REMAIN TO BE REMOVED. ALL EXISTING STRUCTURES ARE TO BE MAINTAINED ALTHOUGH WIRING, CIRCUIT CONTINUITY, PROTECT FROM DAMAGE DURING CONSTRUCTION.

B. ALL EXISTING BUILDINGS ARE TO BE MAINTAINED EQUIPMENT THAT IS TO REMAIN IN USE ARE REQUIRED TO BE SHUT DOWN. COORDINATE WITH THE OWNER 14 DAYS PRIOR TO SHUT DOWN OF EQUIPMENT. ALL EQUIPMENT TO BE SHUT DOWN DURING THIS WORK DURING WEEKENDS AND EVENINGS. INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER WHERE SHUT DOWN MUST BE MAINTAINED FOR THE WORK. ALL EQUIPMENT TO BE SHUT DOWN FOR ALL WORK ON OR WITHIN EXISTING EQUIPMENT.

D. CONTRACTOR TO COORDINATE WITH EQUIPMENT MANUFACTURER FOR ALL EQUIPMENT TO BE SHUT DOWN FOR MAINTENANCE AND SYSTEMS.

E. THE CONTRACTOR SHALL COORDINATE EXACT LOCATION OF EQUIPMENT, PANELS, AND CONTROLLERS WITH EQUIPMENT INSTALLER PRIOR TO ROUGH-IN.

F. INSTALL VALVE AND/OR PRESSURE GAUGE TO OPEN IN A DIRECTION SPECIFIED TO BE NORMALLY CLOSED.

G. PRIOR TO ANY DEMOLITION AND NEW WORK, PERFORM TESTING AND INSPECTION OF ALL EXISTING HOT WATER AND COLD WATER HYDRAULIC PUMPING SYSTEMS SERVING THE MOBILE BUILDING AND THE C-STREET ADDITION. MEASURE PUMP FLOW, PUMP HEAD, PRESSURE, TEMPERATURE, AND FLOW. SUBMIT DATA TO SYSTEM FLOW AT EXISTING OPERATING PUMP SPEED. SUBMIT TAB REPORT TO OWNER AND EOR FOR REVIEW. DO NOT PROCEED WITH NEW WORK WITHOUT PRIOR TO FORMAL DISCUSSION WITH THE OWNER.



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M301 PROVIDE HIGH PERFORMANCE SEGMENTED BALL VALVE WITH A TURNDOWN RATIO OF 300:1 BASIS OF DESIGN: VSI, SERIES V 1000X/4 WITH MODULATING ELECTRONIC ACTUATOR. BUTTERFLY VALVES ARE NOT ACCEPTABLE FOR THIS APPLICATION. REFER TO M5 SERIES FOR ALL LOCATIONS AND VALVE SIZES.

M304 CONNECT NEW HHWSR TO EXISTING HHWSR PIPING FOR SECONDARY LOOP SERVING ORIGINAL REHEAT COIL LOOP AT POINT OF CONNECTION.

M305 CONNECT NEW HHWSR TO EXISTING HHWSR PIPING FOR SECONDARY LOOP SERVING ORIGINAL NORTH FIN TUBE RADIATOR LOOP AT POINT OF CONNECTION.

M306 CONNECT NEW HHWSR TO EXISTING HHWSR PIPING FOR SECONDARY LOOP SERVING EAST-ESTREE RADIATOR LOOP AT POINT OF CONNECTION.

M307 CAP EXISTING HHWSR PIPING FOR SECONDARY LOOP SERVING ORIGINAL FIN TUBE RADIATOR RADIATOR LOOP AT POINT OF CONNECTION.

M308 PROVIDE 1/2" LINE ELECTROMAGNETIC FLOWMETER TO MONITOR FLOW RATES TO AND FROM THE CONDENSER. BUD. FT:3200. TYPICAL FOR ALL FLOW METERS ON PROJECT.

M310 WALL-MOUNTED BOILER EMERGENCY POWER-OFF (EPO) SWITCH TO BE INSTALLED IN THE MECHANICAL ROOM FOR CONNECTION TO MILLER SAFETY SYSTEMS.

M314 PROVIDE VITACUIC FLEX COUPLINGS AND/OR VITACUIC EXPANSION JOINTS TO BE USED TO ALLOW POINT FOR THE EXPANSION OF ALL NEW PIPING SYSTEMS. CALCULATE REQUIREMENTS FOR THERMAL EXPANSION OF PIPING SYSTEMS AND FOR SEISMIC EXPANSION. PROVIDE EXPANSION JOINTS, LOOPS, AND SWING CONNECTIONS AND INFORMATION. A DEDICATED DESIGN SUBMITTAL FOR REVIEW AND APPROVAL IS REQUIRED. FOR ADDITIONAL INFORMATION, SEE SPECIFICATION SECTION 220516 - EXPANSION FITTINGS AND LOOPS FOR HVAC PIPING.

M315 PROVIDE AN APPROVED EXPANSION JOINT FOR ALL PIPING RISERS. FOR ADDITIONAL INFORMATION, SEE SPECIFICATION SECTION 220516 - EXPANSION FITTINGS AND LOOPS FOR HVAC PIPING.

M317 PROVIDE NEW 1/2" PREHEATED 1" TO REMOVE EXCESS DIMENSIONS OF STEAM COIL. FIELD MEASURE THE AMPLITUDE OF EXISTING STEAM COIL. PROVIDE A COIL LONGER THAN TO THE EXISTING STEAM COIL. DO NOT PROCEED WITH ANY WORK UNTIL PRELIMINARY APPROVAL FOR THE WING-SPREAD SET (SEE M316 FOR PRELIMINARY APPROVAL).

M319 CONNECT TO HHWSR PIPING INSTALLED IN BASE OPTION. PROVIDE HIGH PERFORMANCE SEGMENTED BALL VALVE WITH A TURNDOWN RATIO OF 300:1 BASIS OF DESIGN: VSI, SERIES V 1000X/4 WITH MODULATING ELECTRONIC ACTUATOR. BUTTERFLY VALVES ARE NOT ACCEPTABLE FOR THIS APPLICATION. REFER TO M5 SERIES FOR ALL LOCATIONS AND VALVE SIZES.

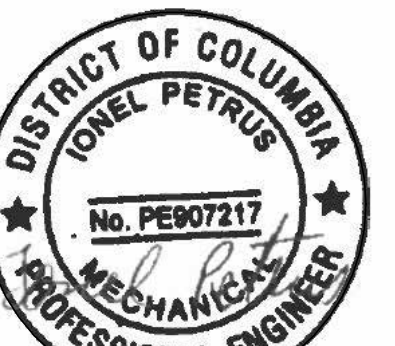
M322 INSTALL NEW CONDENSING UNIT ON NEW CONCRETE PAD. NEW PAD TO MATCH HEIGHT OF ADJACENT EXISTING CONCRETE.

M326 REFER TO M5.2 AND M1.6 FOR ADDITIONAL INFORMATION REGARDING EXPANSION TANK CONNECTIONS. REFER TO LUMBER DRAWINGS FOR NEAREST DOMESTIC COOL WATER LINE.

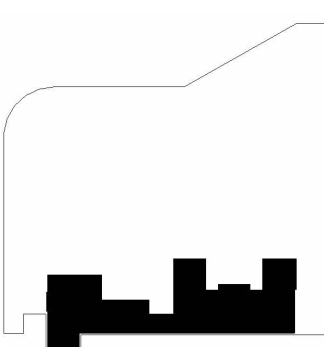
M328 RE-ROUTE AND RECONNECT EXISTING REFRIGERANT PIPING AND REFRIGERANT COILS TO THE NEW CONDENSER TO SUPPORT RELOCATION OF EXISTING HEAT PUMP.

[illegible]

SEALS AND SIGNATURES



KEYPLAN

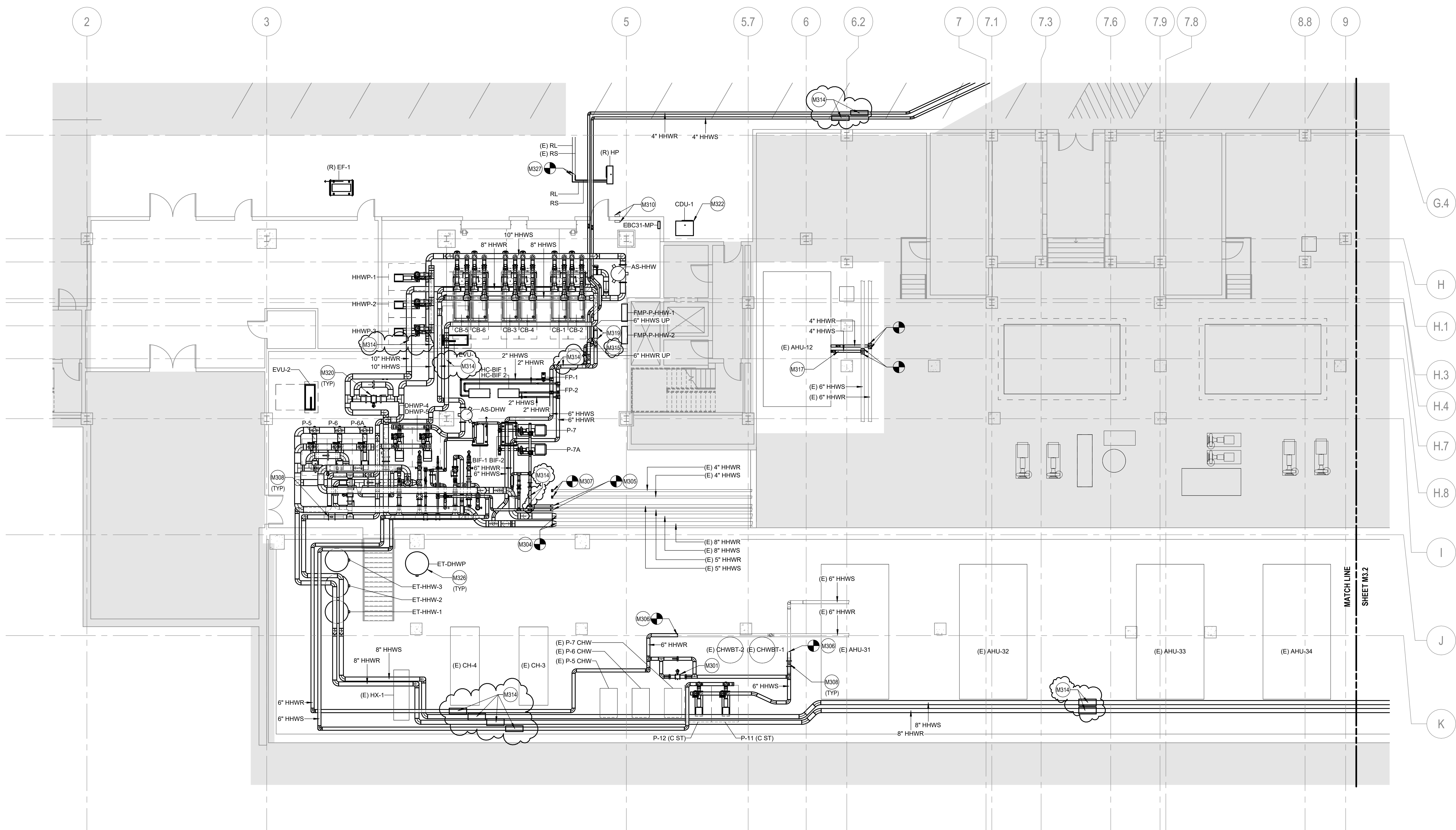


15749.00

15749.000

M3.1

SHEET NUMBER



1 PARKING LEVEL FLOOR PLAN WEST - HVAC PIPING NEW WORK
SCALE: 1/8" = 1'-0"

Author

8/27/2025 3:55:49 PM

Plot Date:

USE DRAWING M-10 FOR ABBREVIATIONS, SYMBOLS, GENERAL NOTES.

A. PERSONS WITH AN 'EY' SCHEDULE ARE EXISTING TO REMAIN. MAINTAIN ALL CONTACT WIRING, CIRCUIT CONTINUITY. PROTECT FROM DAMAGE DURING CONSTRUCTION.

B. ALL ELECTRICAL EQUIPMENT SHALL BE REMOVED. EQUIPMENT THAT IS TO REMAIN IN USE ARE REQUIRED TO BE SHUT DOWN. TO COORDINATE WITH THE OWNER 14 DAYS PRIOR TO SHUT DOWN. ALL ELECTRICAL WORK SHALL BE COMPLETED PRIOR TO SHUT DOWN. WORK DURING WEEKENDS AND EVENINGS INCLUDE ALL COSTS FOR OVERTIME TEMPORARY LIGHTING. SHUT DOWN MUST BE OCCUR FOR PERIODS LONGER THAN THESE.

C. FOR ALL WORK OR ON WITHIN EXISTING EQUIPMENT, CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE FACTORY TO MAINTAIN WARRANTIES AND UL LISTINGS OF EQUIPMENT AND SYSTEMS.

D. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF EQUIPMENT, PANELS, AND CONTROLLERS WITH EQUIPMENT INSTALLER PRIOR TO CLOSING.

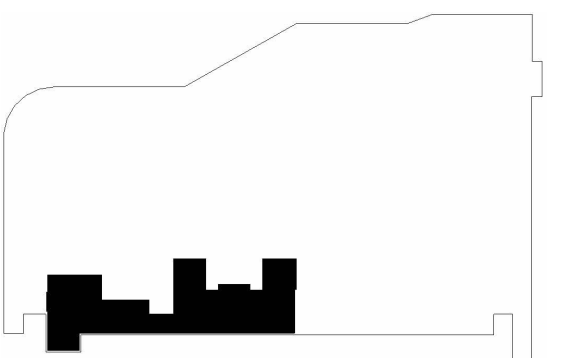
E. LOCATION VALVE AND/OR OPEN IN OPEN (N) NOT WATER SPECIFIED TO BE NORMALLY CLOSED.

F. PRIOR TO ANY DEMOLITION AND NEW WORK, MEASURE TESTING AND BALANCING OF THE EXISTING SYSTEM. THE EXISTING HOT WATER HYDRONIC PUMPING SYSTEMS SERVING THE MULTIPLE THERMALS AND THE C-STREET ADDITION. MEASURE PUMP FLOW, PUMP HEAD, PRESSURE, TEMPERATURE, AND FLOW. PROVIDE A TOTAL SYSTEM FLOW AT EXISTING OPERATING PUMP SPEED. SUBMIT TA REPORT TO OWNER AND EOR FOR REVIEW. DO NOT PROCEED WITH NEW WORK WITHOUT PRIOR TO FORMAL DIRECTION FROM THE OWNER.



SMITHGROUP

○ SHEET KEYNOTES

SEALS AND SIGNATURES

15749.000

PROJECT NUMBER

M3.2

SHEET NUMBER



SEE DRAWING M-1 FOR ABBREVIATIONS, SYMBOLS, GENERAL NOTES

A. MAINTAIN ALL EXISTING UTILITIES UNHARMED. DO NOT REMOVE OR DESTROY EXISTING UTILITIES. MAINTAIN ALL CONDUIT, WIRING, CIRCUIT CONTINUITY. PROTECT FROM DAMAGE DURING CONSTRUCTION.

B. ALL ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. ALL ELECTRICAL EQUIPMENT THAT IS TO BE REMOIN USE ARE REQUIRED TO BE SHUT DOWN, COORDINATE WITH THE OWNER 14 DAYS PRIOR TO SHUT DOWN.

C. ALL ELECTRICAL WORK SHALL BE COMPLETED PRIOR TO THE START OF THE PROJECT. ALL ELECTRICAL WORK DURING WEEKENDS AND EVENINGS. INCLUDE ALL COSTS FOR WORKING THROUGH POWER WHERE SHUT DOWN MUST BE COMPLETED PRIOR TO THE START OF THE PROJECT.

D. FOR ALL WORK ON OR WITHIN EXISTING EQUIPMENT, COORDINATE WITH EQUIPMENT MANUFACTURER FOR ALL WORK ON OR WITHIN EXISTING EQUIPMENT AND SYSTEMS.

E. THE CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ELECTRICAL PANELS, CONTROLLERS WITH EQUIPMENT INSTALLATION PRIOR TO CLOSURE.

F. ISOLATION VALVE SHALL BE NORMALLY OPEN IN THE POSITION NOTIFIED TO BE NORMALLY CLOSED IN THE FIELD.

G. PRIOR TO ANY DEMOLITION AND NEW POWER TESTING THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR ALL HYDRAULIC PUMPING SYSTEMS SERVING THE MULTIPLE BUILDING AND THE STREET-ADJACENT MEASURE PUMP FLOW, PUMP PRESSURE, PUMP HEAD, PUMP EFFICIENCY, PUMP CURVE, SYSTEM FLOW AT EXISTING OPERATING PUMP SPEED, SUBMIT TAB REPORT TO OWNER AND EOR FOR REVIEW. DO NOT PROCEED WITH ANY WORK WITHOUT PRIOR TO FIELD DIRECTION FROM THE OWNER.



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○ SHEET KEYNOTES

M310 WALL-MOUNTED BOILER EMERGENCY POWER-OFF
BUTTON, WITH SAFETY COVERING, REFER TO M6 SERIES
POW CONNECTOR TO BOILER EMERGENCY SYSTEM.

M314 PROVIDE VITALLIC FLEX COUPLINGS AND/OR VITALLIC
RIGID JOINTS AS REQUIRED TO ACCOUNT FOR THE
EXPANSION OF ALL NEW PIPING SYSTEMS. CALCULATE
REQUIREMENTS FOR THERMAL EXPANSION OF PIPING
SYSTEMS AND FOR SELECTING AND INSTALLING
EXPANSION JOINTS, LOCATION AND SIZING OF CONNECTIONS
AND PROVIDE A DETAILED DESIGN SUBMITTAL FOR
REVIEW AND APPROVAL BY EOR. FOR ADDITIONAL
INFORMATION, SEE SPECIFICATION SECTION 20356 -
EXPANSION FITTINGS AND JOINTS FOR PIPING.

M317 PROVIDE STEAM COIL FOR EACH EXISTING
AHU PREHEAT STEAM COIL. FIELD MEASURE THE
DIMENSIONS OF EXISTING STEAM COIL. PROVIDE A COIL
SUBMITTAL TO THE EOR FOR REVIEW. DO NOT PROCEED
UNTIL THE WORK UNIT IS IN FULL AGREEMENT WITH THE
OWNER SEE DETAIL 5-6 M61 FOR COIL PIPING
CONNECTIONS.

[illegible]

SEALS AND SIGNATURES



KEYPLAN



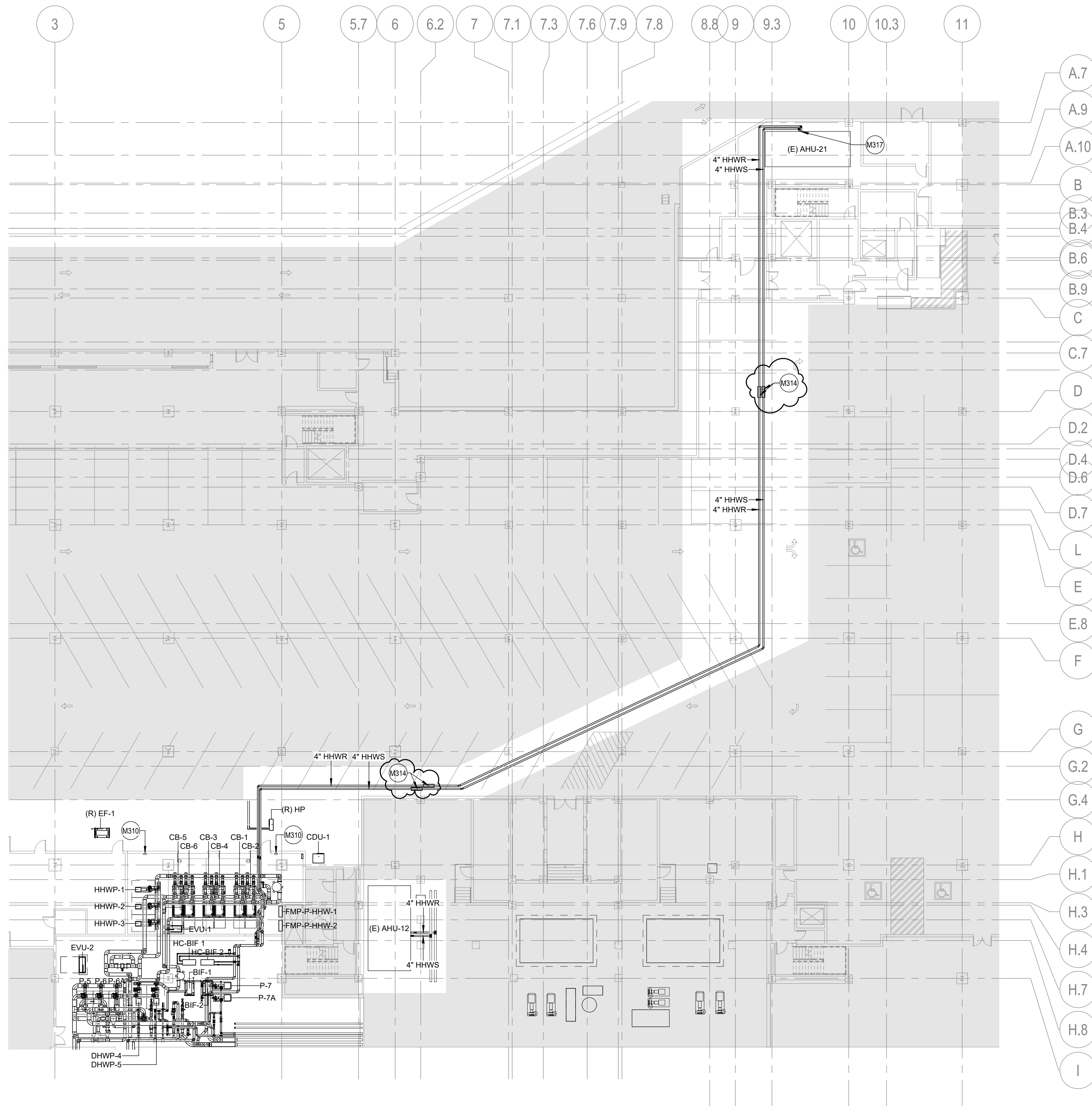
SHEET TITLE

5749.000

PROJECT NUMBER

M3.3

SHEET NUMBER



1 PARKING LEVEL FLOOR PLAN NORTH - HVAC PIPING NEW WORK
SCALE: 1/16" = 1'-0"

- A. SEE DRAWING M-1 FOR ABBREVIATIONS, SYMBOLS, GENERAL NOTES.
- B. WORK WITH AN 'E' SUBSCRIPT ARE EXISTING TO REMAIN, MAINTAIN ALL CONDUIT, WIRING, CIRCUIT EQUIPMENT. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- C. PRIOR TO ANY ASSOCIATED ELECTRICAL OR CLIMATE EQUIPMENT THAT IS TO REMAIN IN USE ARE REQUIRED TO BE SHUT DOWN, COORDINATE WITH THE OWNER 14 DAYS PRIOR TO SHUT DOWN. THE ASSOCIATED ELECTRICAL AND CLIMATE EQUIPMENT TO BE SHUT DOWN DURING WEEKENDS AND EVENINGS, INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER WHERE SHUT DOWN MUST BE EXCEEDED PERIODS.
- D. FOR ALL WORK ON OR WITH EXISTING EQUIPMENT.
- E. CONTRACTOR TO COORDINATE WITH EQUIPMENT MANUFACTURER FOR THE REMOVAL OF WAREHOUSE EQUIPMENT, REFRIGERATION AND SYSTEMS.
- F. THE CONTRACTOR SHALL COORDINATE EXACT LOCATION OF EQUIPMENT, PANELS, AND CONTROLLERS WITH EQUIPMENT INSTALLER PRIOR TO ROUGH-IN.
- G. THE CONTROL VALVES AND/OR VALVE LINE (N/O) (N/C) (N/O) (N/C) SPECIFIED TO BE NORMALLY CLOSED (N/C).
- H. PRIOR TO ANY DEMOLITION AND NEW WORK, PERFORM TESTING AND ANALYSIS OF THE EXISTING SYSTEMS TO DETERMINE THE HYDRO-PNEUMATIC SYSTEMS SERVING THE MULTIRITE BUILDING AND THE C-STREET ADJACENT MEASURE PUMP FLOW, PUMP HEAD, PRESSURE, PUMP EFFICIENCY, PUMP SPEED, AND THE TOTAL SYSTEM FLOW AT EXISTING OPERATING PUMP SPEED. SUBMIT TAB REPORT TO OWNER AND EOR FOR REVIEW. DO NOT PROCEED WITH NEW WORK WITHOUT PRIOR TO FORMAL DIRECTION FROM THE OWNER.



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○ SHEET KEYNOTES

- [illegible]

NORTH



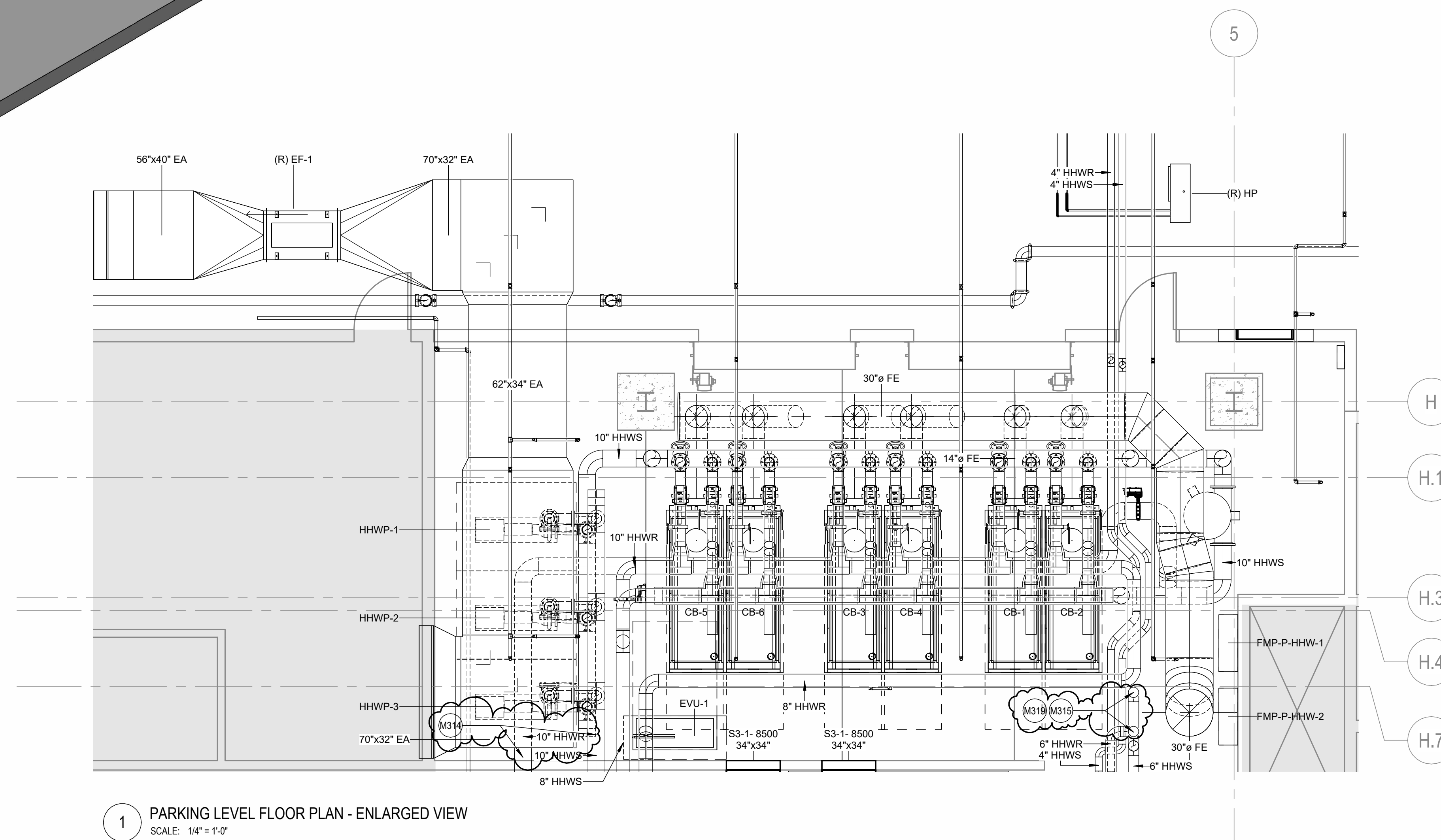
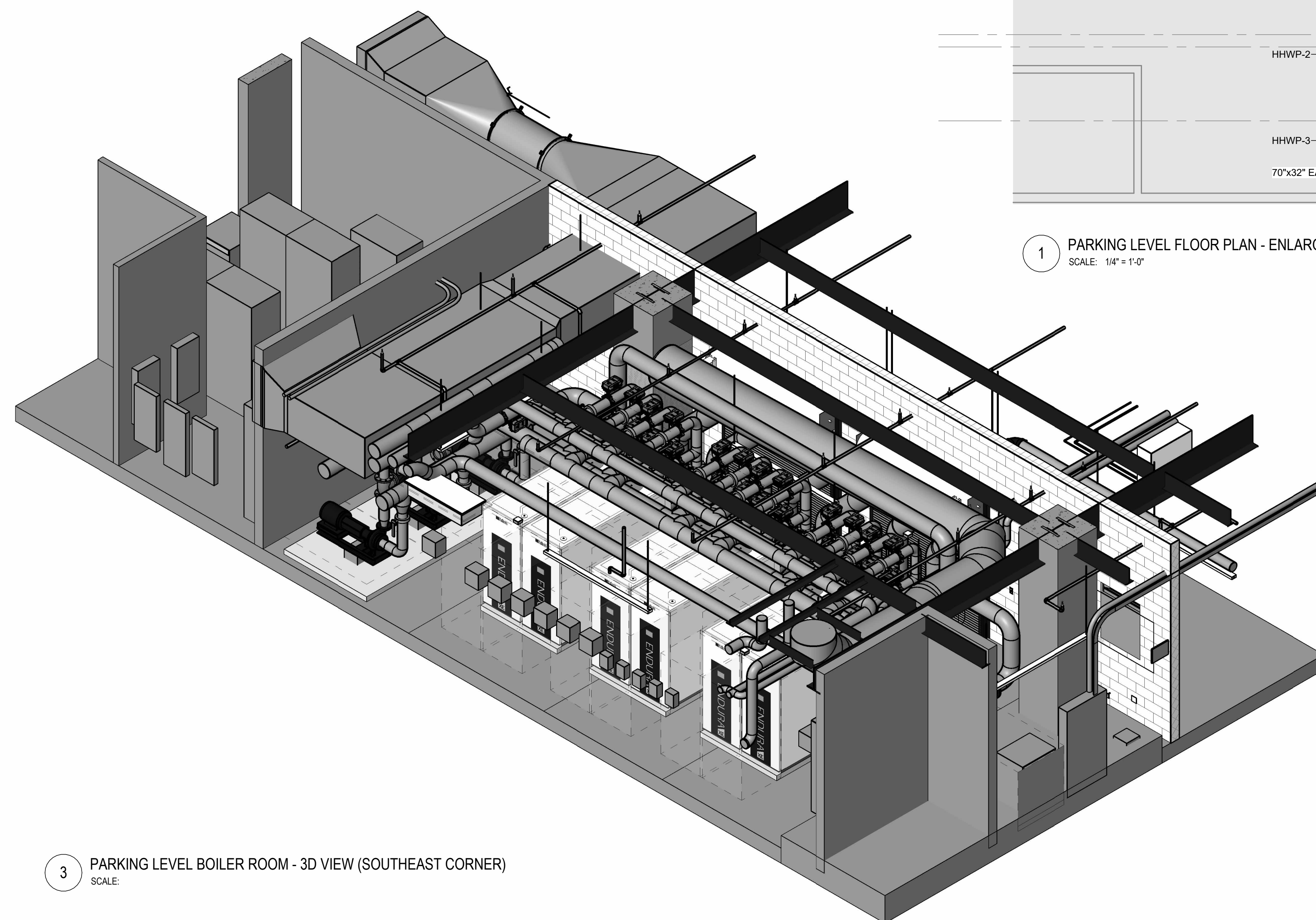
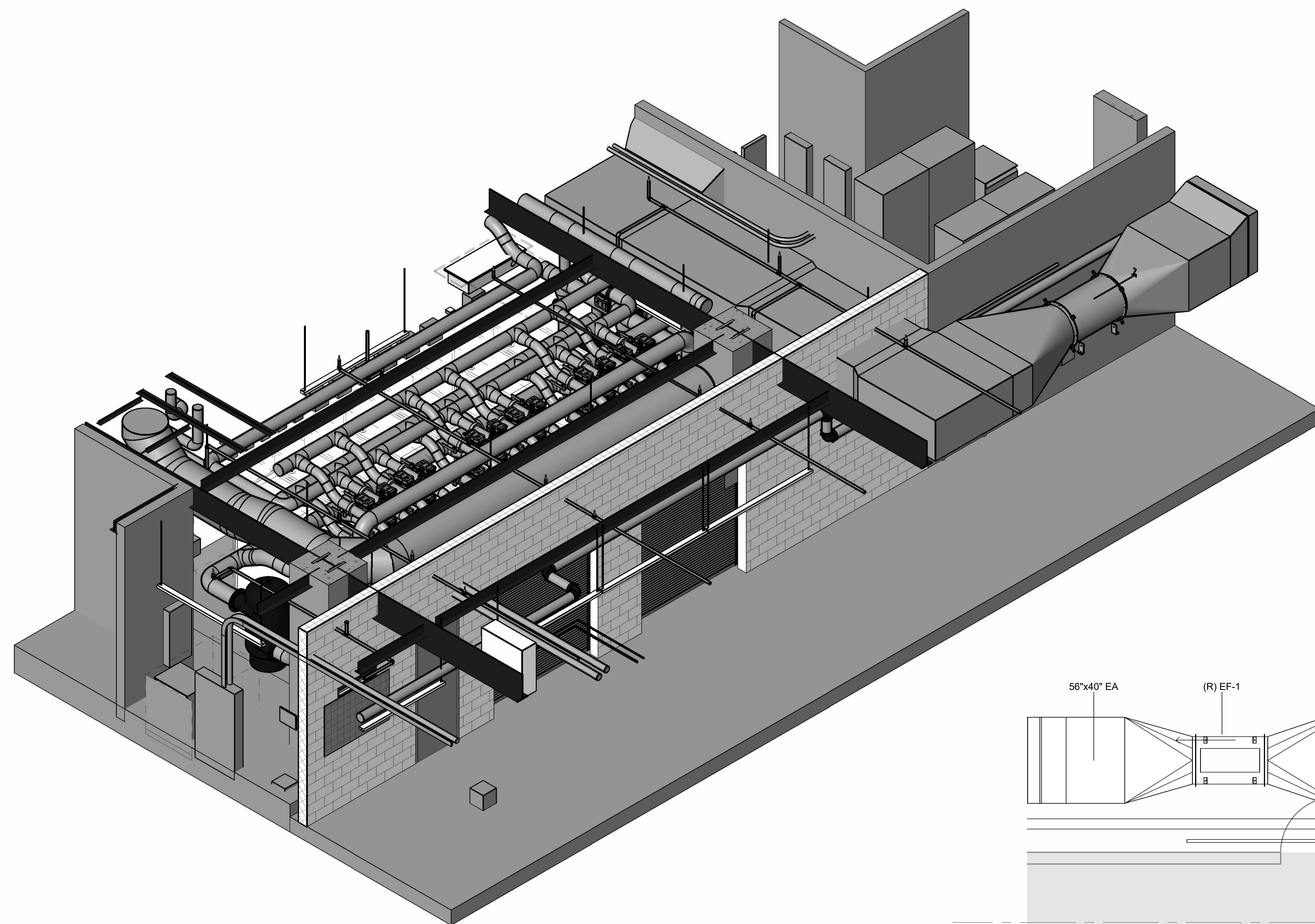
SHEET NUMBER

M3.4

SHEET NUMBER



Plot Date:



GENERAL SHEET NOTES

- | | |
|---|--|
| A | SEE DRAWING MD 10 FOR ABBREVIATIONS, SYMBOLS, & GENERAL NOTES. |
| B | SYSTEMS WITH AN 'E' SUBSCRIPT ARE EXISTING TO REMAIN. |
| C | REMOVE ALL CONDUIT, WIRING, CIRCUIT CONTINUITY PROTECT FROM DAMAGE DURING CONSTRUCTION. |
| D | EXISTING BUILDING EQUIPMENT TO REMAIN OR EQUIPMENT THAT IS TO REMAIN IN USE ARE REQUIRED TO BE SHUT DOWN. |
| E | COORDINATE WITH THE OWNER 14 DAYS PRIOR TO SHUT DOWN. |
| F | FOR ALL ASSOCIATED WORK, THE CONTRACTOR SHALL BE ON SITE FOR WORK DURING WEEKENDS AND EVENINGS. INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER WHERE SHUT DOWN MUST BE FOR A PERIOD OF MORE THAN 24 HOURS. |
| G | FOR ALL WORK ON OR WITH EXISTING EQUIPMENT. |
| H | CONTRACTOR TO COORDINATE WITH EQUIPMENT MANUFACTURER TO OBTAIN WARRANTIES AND ALL LISTINGS OF EQUIPMENT AND SYSTEMS. |
| I | THE CONTRACTOR SHALL COORDINATE EXACT LOCATION OF THE EQUIPMENT. PANELED EQUIPMENT SHALL BE INSTALLED BY THE INSTALLER PRIOR TO ROUGH-IN. |
| J | ISOLATION VALVES ARE NORMALLY OPEN UNLESS OTHERWISE NOTED TO BE NORMALLY CLOSED. |
| K | PRIOR TO ANY DEMOLITION AND NEW WORK, POWER TESTING AND BALANCING OF THE EXISTING HEATING HOT WATER SYSTEM AND CHILLING PLANT SHALL BE COMPLETED BY THE BUILDING AND THE C-STREET ADDRESS. MEASURE PUMP FLOW, PUMP PRESSURE, MEASURE CHILLER FLOW, MEASURE CHILLER PRESSURE, SYSTEM FLOW AT EXISTING OPERATING FLOW. SUBMIT TAB REPORT TO OWNER AND FOR REVIEW. DO NOT PROCEED WITH NEW WORK WITHOUT PRIOR TO FORMAL DIRECTION FROM THE OWNER. |



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○ SHEET KEYNOTES

- | | |
|------|--|
| M314 | PROVIDE VICTAULC FLEX COUPLINGS AND/OR VICTAULC EXPANSION JOINTS AS REQUIRED TO ACCOUNT FOR THE EXPANSION OF ALL NEW PIPING SYSTEMS. CALCULATE REQUIREMENTS FOR THERMAL MOVEMENT OF PIPING SYSTEMS AND FOR SELECTING AND DESIGNING EXPANSION JOINTS, LOOPS, AND SWING CONNECTIONS AND PROVIDE A DELEGATED DESIGN SUBMITTAL FOR REVIEW AND APPROVAL BY EOR. FOR ADDITIONAL INFORMATION, SEE SPECIFICATION SECTION 230516 - EXPANSION FITTINGS AND JOINTS FOR HVAC PIPING. |
| M315 | PROVIDE ANCHORS AT THE BOTTOM OF THE HYDRONIC PIPING RISERS. FOR ADDITIONAL INFORMATION, SEE SPECIFICATION SECTION 230516 - EXPANSION FITTINGS AND JOINTS FOR HVAC PIPING. |
| M319 | CONNECT TO HWHS/R RISER INSTALLED IN BASE OPTION |

[illegible]

SEALS AND SIGNATURES



KEYPLAN



SHEET TITLE

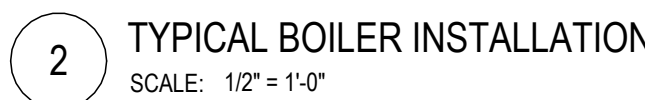
PARKING LEVEL BOILER
ROOM - ENLARGED VIEW

PROJECT NUMBER

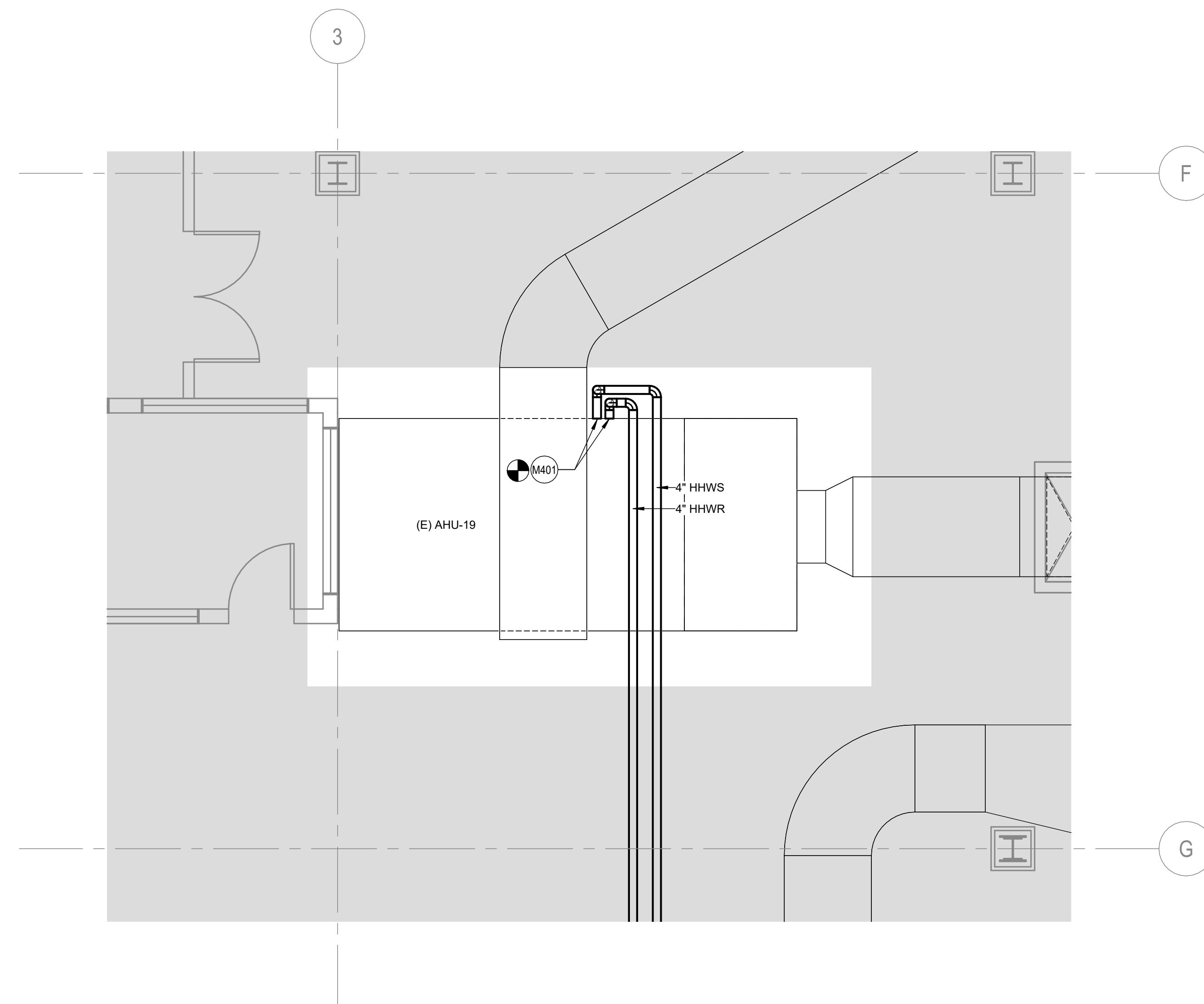
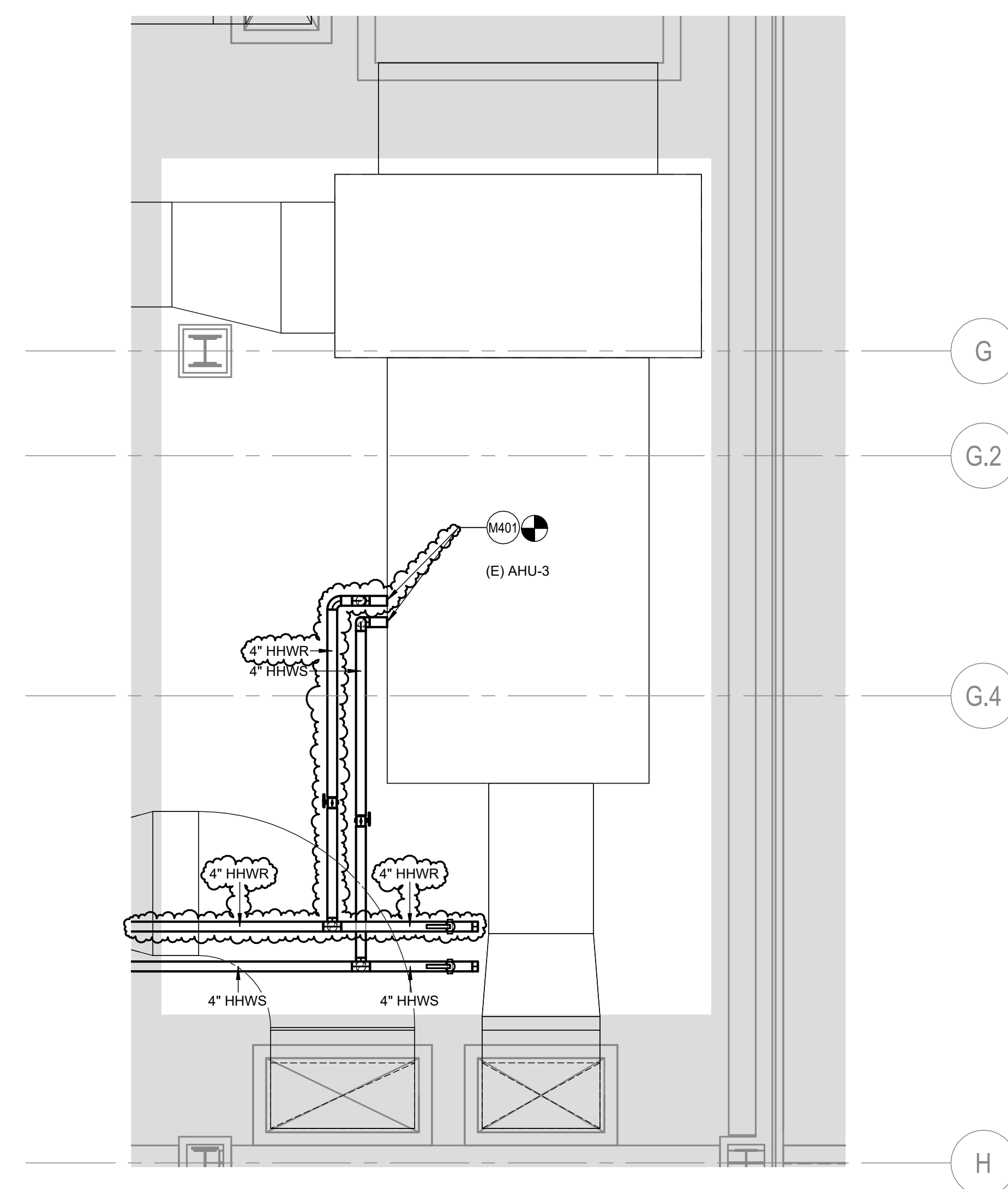
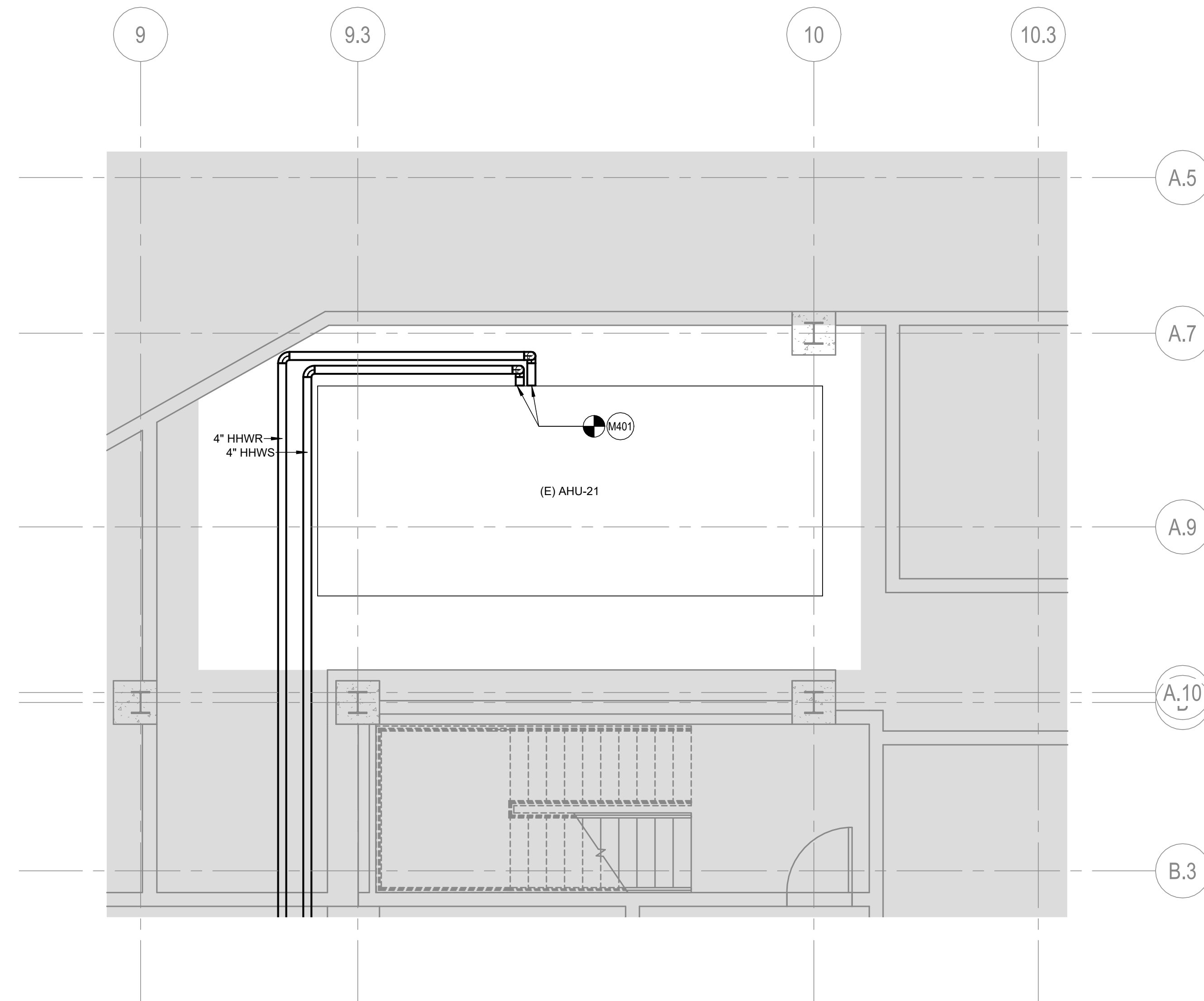
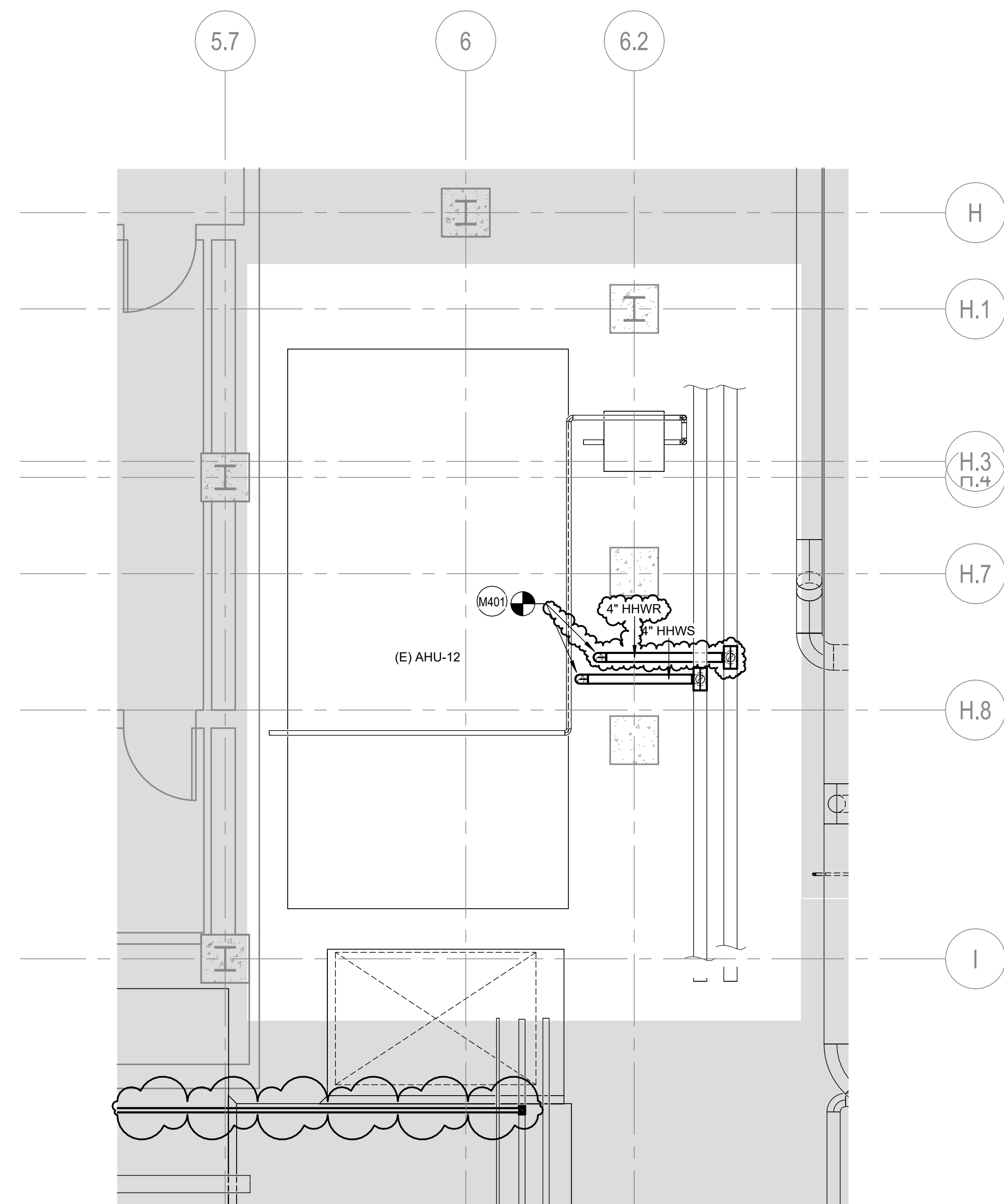
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SHEET NUMBER

M4.1



SHEET NUMBER



○ SHEET KEYNOTES

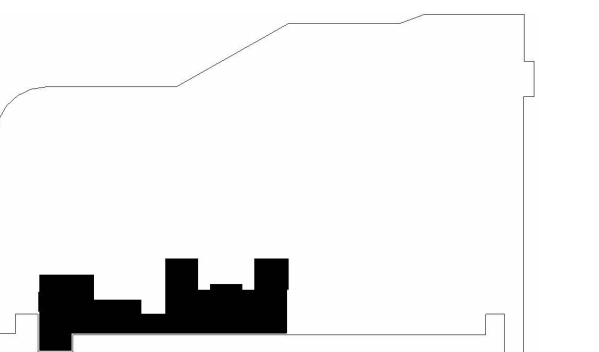
M401 CONNECT NEW HHWS/R TO EXISTING HHWS/R PIPING AT POINT OF CONNECTION. PROVIDE NEW AHU PREHEAT COIL. REFER TO M6.2 FOR AHU COIL CONNECTION DETAIL.

[illegible]

SEALS AND SIGNATURES



KEYPLAN



SHEET TITLE

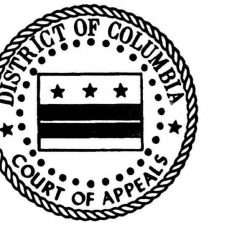
AHU NEW WORK - HVAC -
ENLARGED VIEW

PROJECT NUMBER

5749.000

SHEET NUMBER

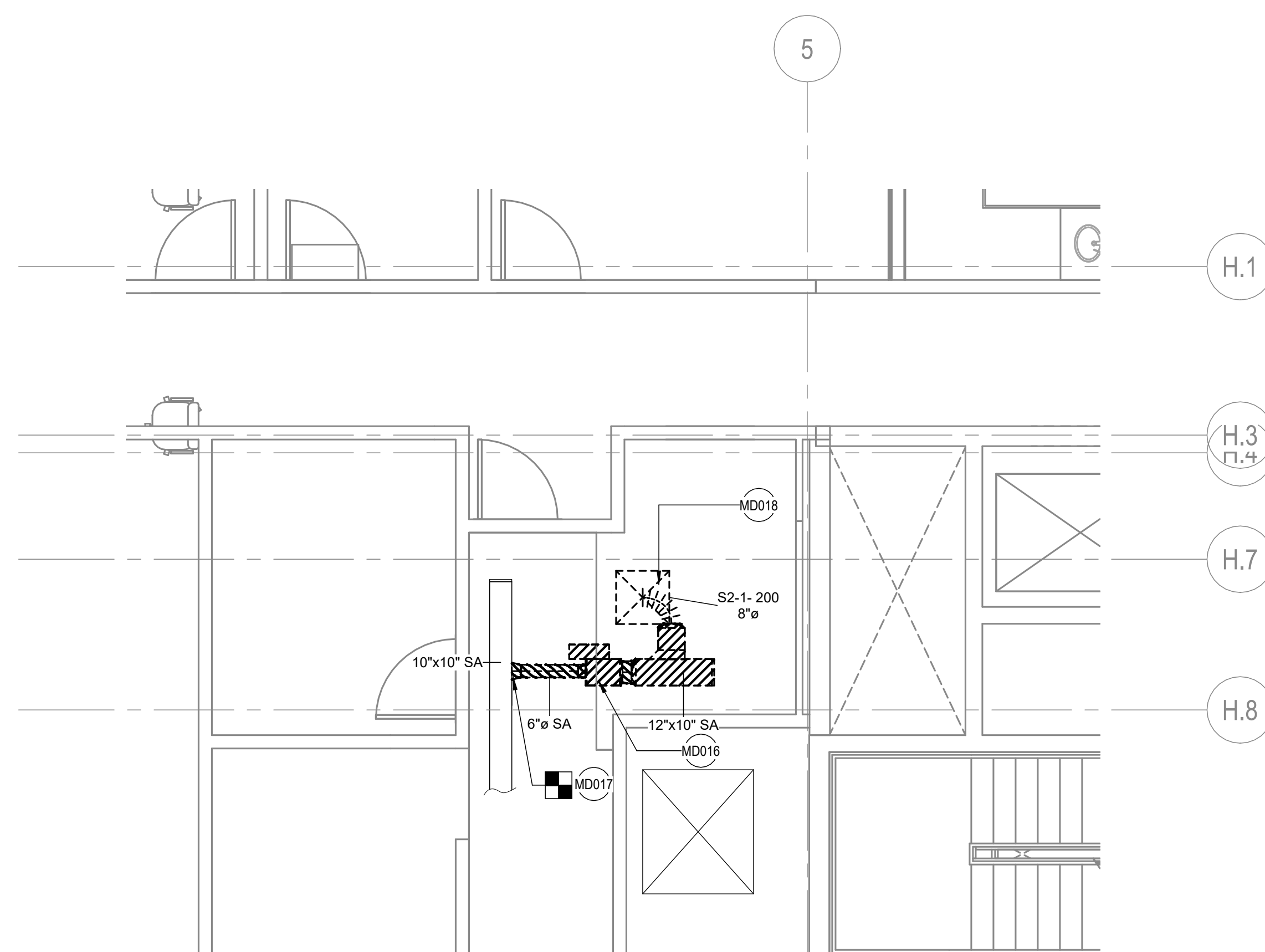
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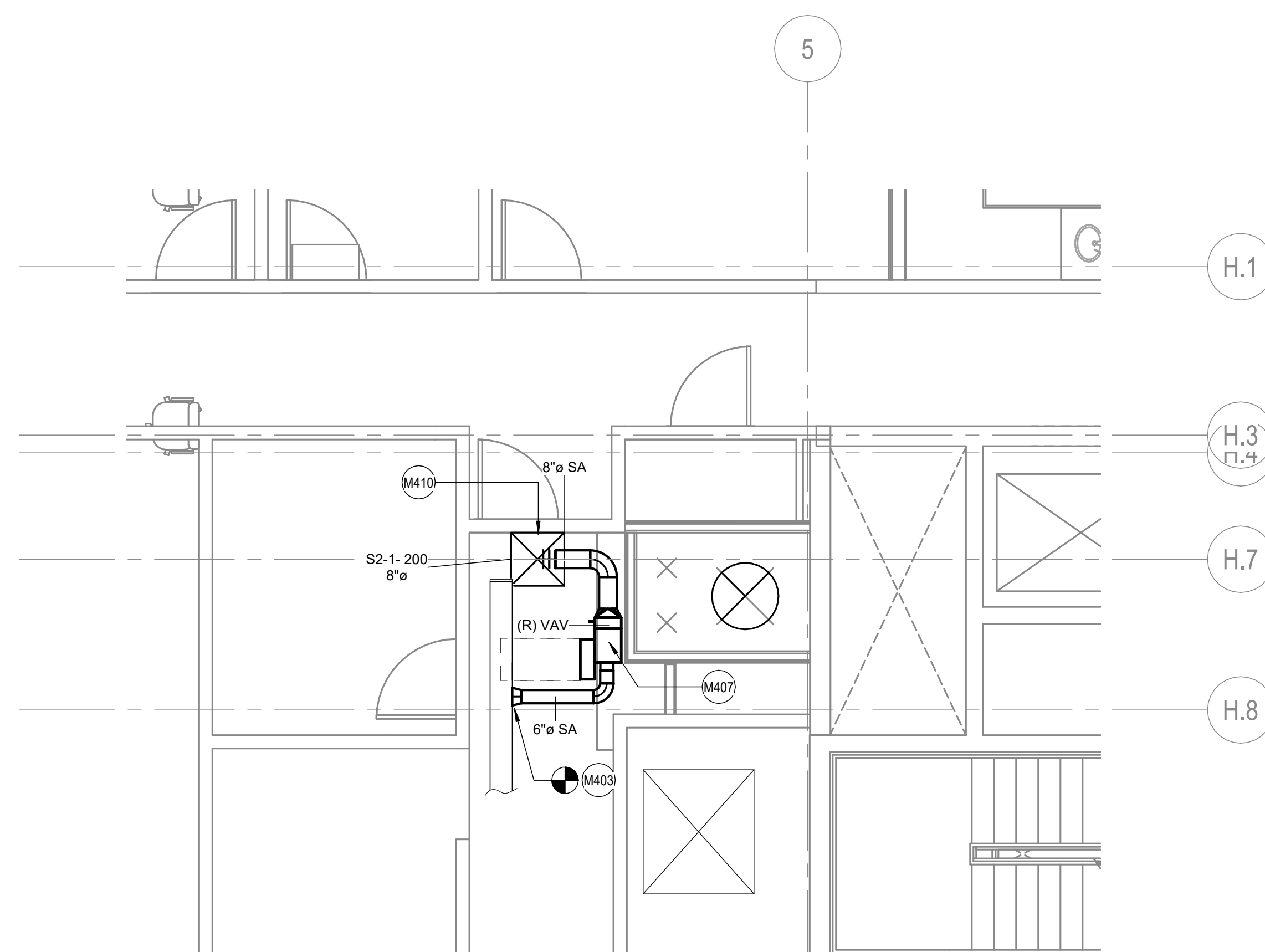
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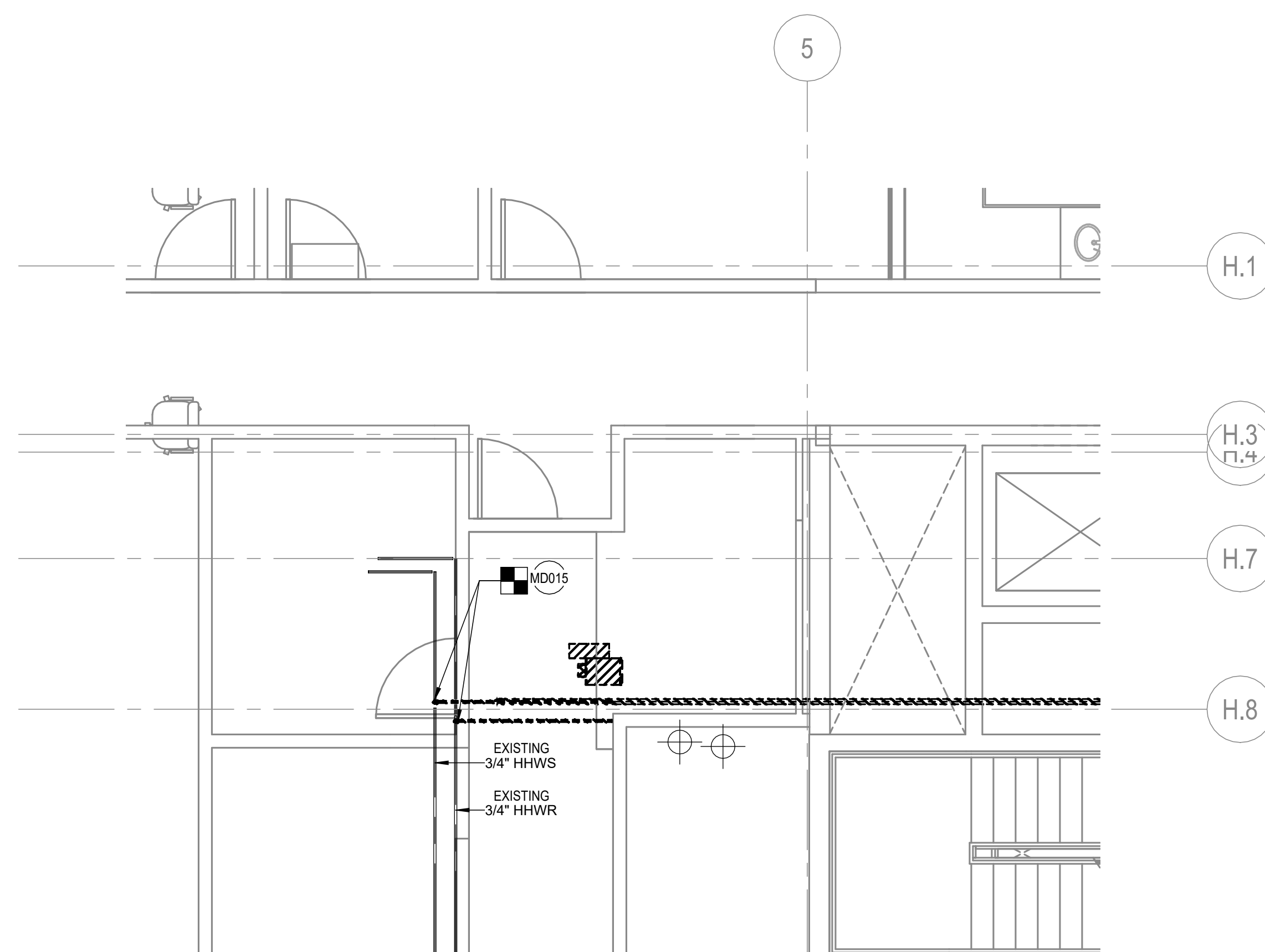
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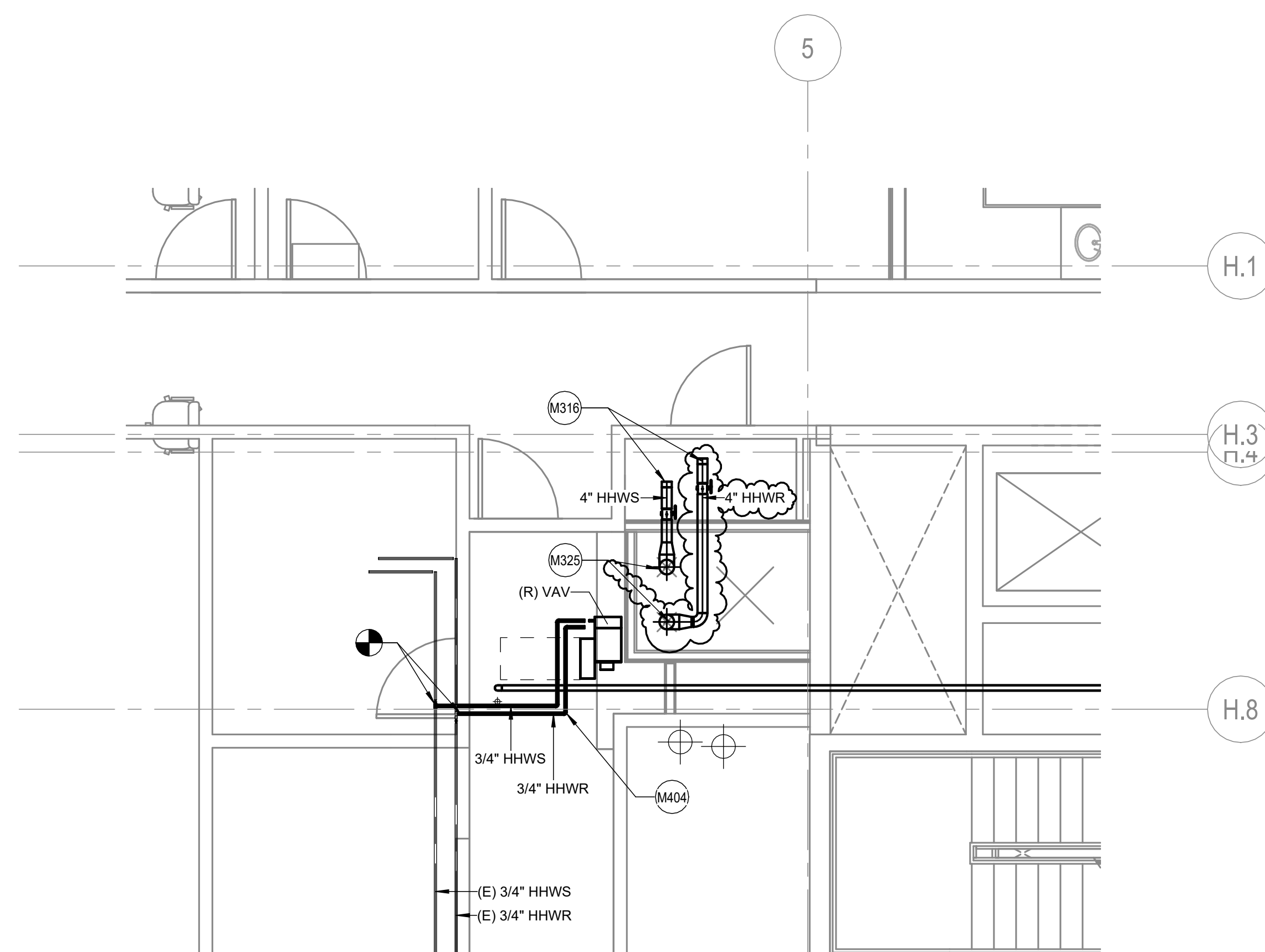
1 02 C STREET LEVEL DEMO HVAC - ENLARGED
SCALE: 1/4" = 1'-0"



2 02 C STREET LEVEL NEW CONSTRUCTION HVAC - ENLARGED VIEW
SCALE: 1/4" = 1'-0"



3 02 C STREET LEVEL DEMO PIPING - ENLARGED VIEW
SCALE: 1/4" = 1'-0"



4 02 C STREET LEVEL NEW CONSTRUCTION PIPING - ENLARGED VIEW
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

- A. SEE DRAWING MO-11 FOR ABBREVIATIONS, SYMBOLS, & GENERAL NOTES.
- B. SYSTEMS WITH AN 'E' SUBSCRIPT ARE EXISTING TO REMAIN.
- C. MAINTAIN ALL CONDUIT, WIRING, CIRCUIT CONTINUITY. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- D. MAINTAINING EXISTING EQUIPMENT OR EQUIPMENT THAT IS TO REMAIN IN USE ARE REQUIRED TO BE SHUT DOWN. COORDINATE WITH THE OWNER 14 DAYS PRIOR TO SHUT DOWN. THE ASSOCIATED ASSOCIATE CONTRACTOR SHALL BE RESPONSIBLE FOR WORK DURING WEEKENDS AND EVENINGS. INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER WHERE SHUT DOWN MUST BE FOR PERIODS OF MORE THAN 24 HOURS.
- E. FOR ALL WORK ON OR WITHIN EXISTING EQUIPMENT, CONTRACTOR TO COORDINATE WITH EQUIPMENT MANUFACTURER TO OBTAIN WARRANTIES AND ALL LISTINGS OF EQUIPMENT AND SYSTEMS.
- F. THE CONTRACTOR SHALL COORDINATE EXACT LOCATION OF EXISTING PANELS, PANEL SCHEDULES, AND EQUIPMENT WITH THE INSTALLER PRIOR TO ROUGH-IN.
- G. ISOLATION VALVES ARE NORMALLY OPEN (N/O) UNLESS SPECIFIED TO BE NORMALLY CLOSED (N/C).
- H. PRIOR TO ANY DEMOLITION AND NEW WORK, PERFORMANCE TESTING AND BALANCING OF THE EXISTING HEATING HOT WATER SYSTEM, AND PUMPING OF THE EXISTING CHILLED WATER SYSTEM, BUILDING AND THE C-STREET ADDITION, MEASURE PUMP FLOW, PUMP CURVE, PRESSURE, AND TEMPERATURE. PROVIDE PRESSURE RECORDING SYSTEM FLOW AT EXISTING OPERATING PUMP FLOW. SUBMIT TAB REPORT TO OWNER AND FOR REVIEW. DO NOT PROCEED WITH NEW WORK WITHOUT PRIOR TO FORMAL DIRECTION FROM THE OWNER.



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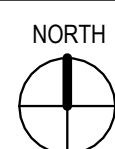
○ SHEET KEYNOTES

[illegible]

SEALS AND SIGNATURES



KEYPLAN



SHEET TITLE

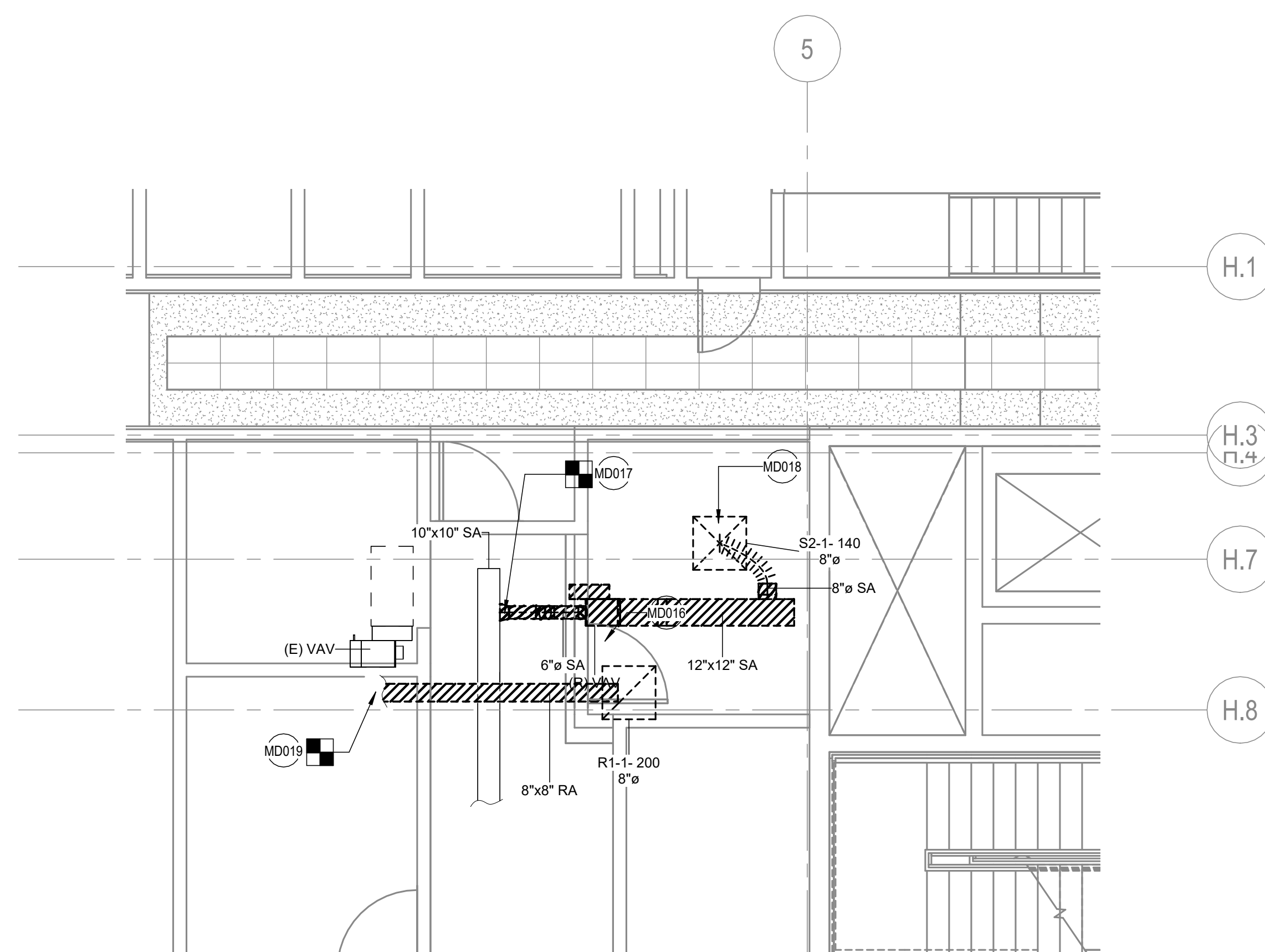
C STREET LEVEL PLAN -
ENLARGED VIEW

PROJECT NUMBER

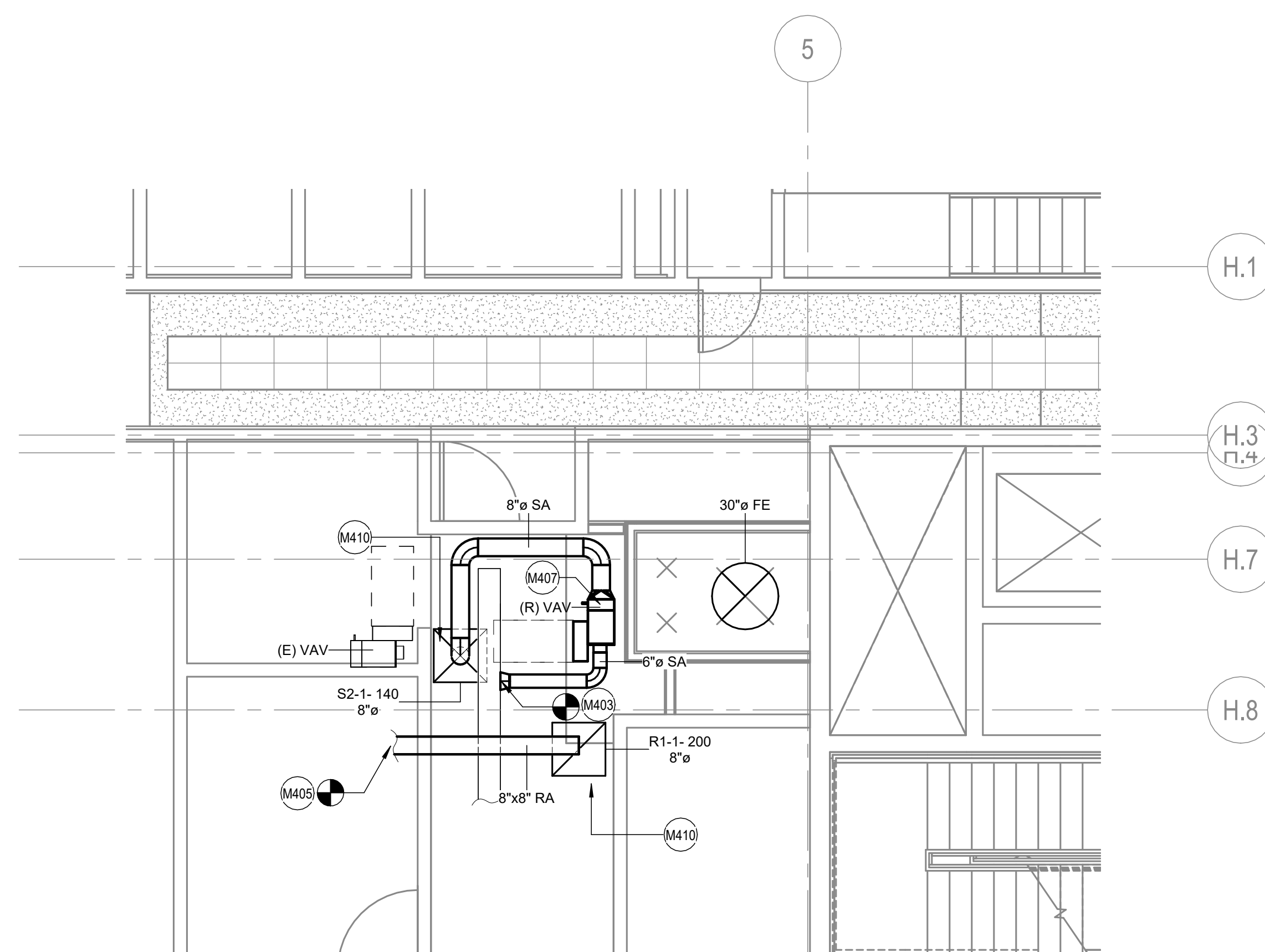
15749.000

M4.4

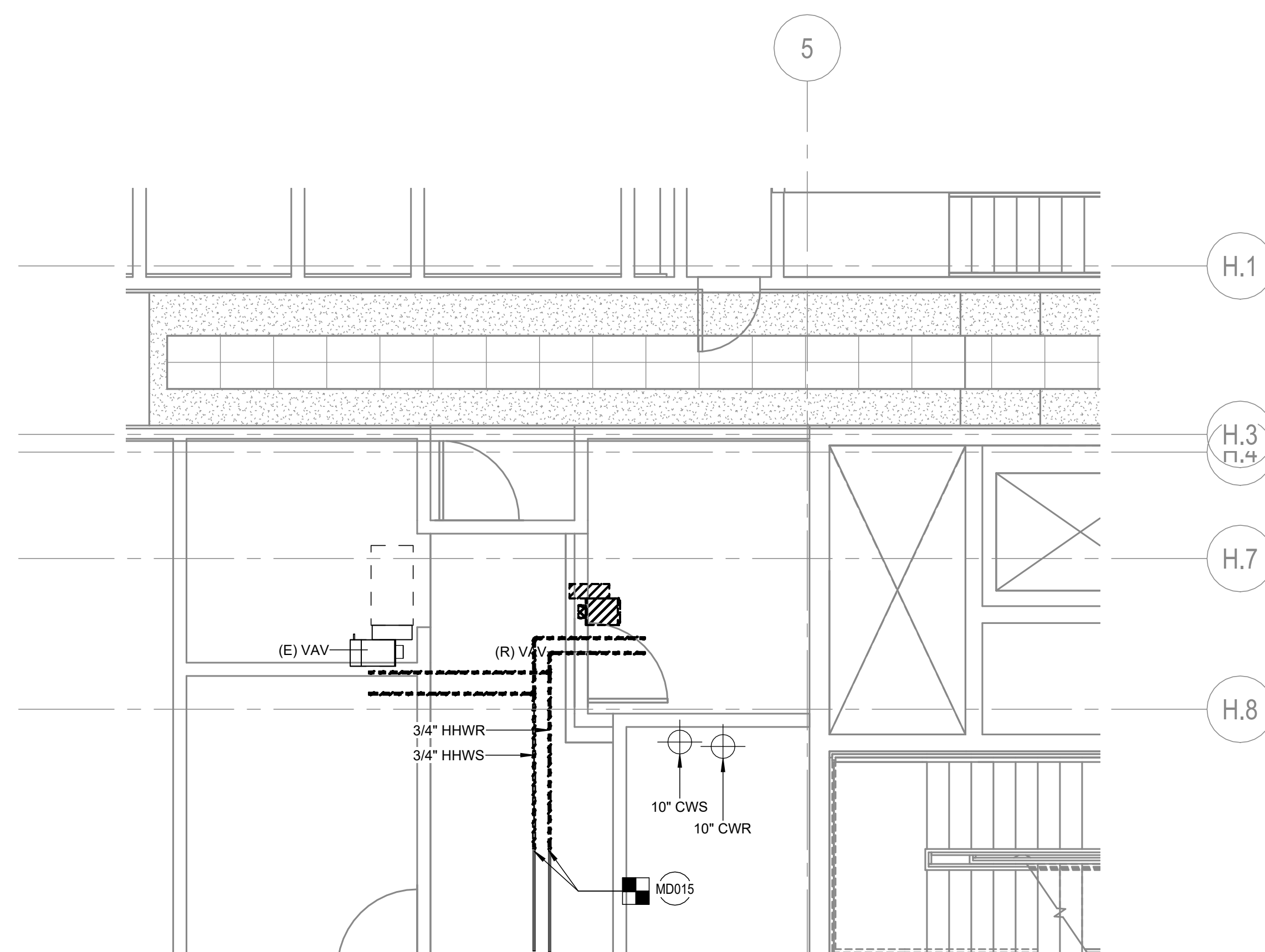
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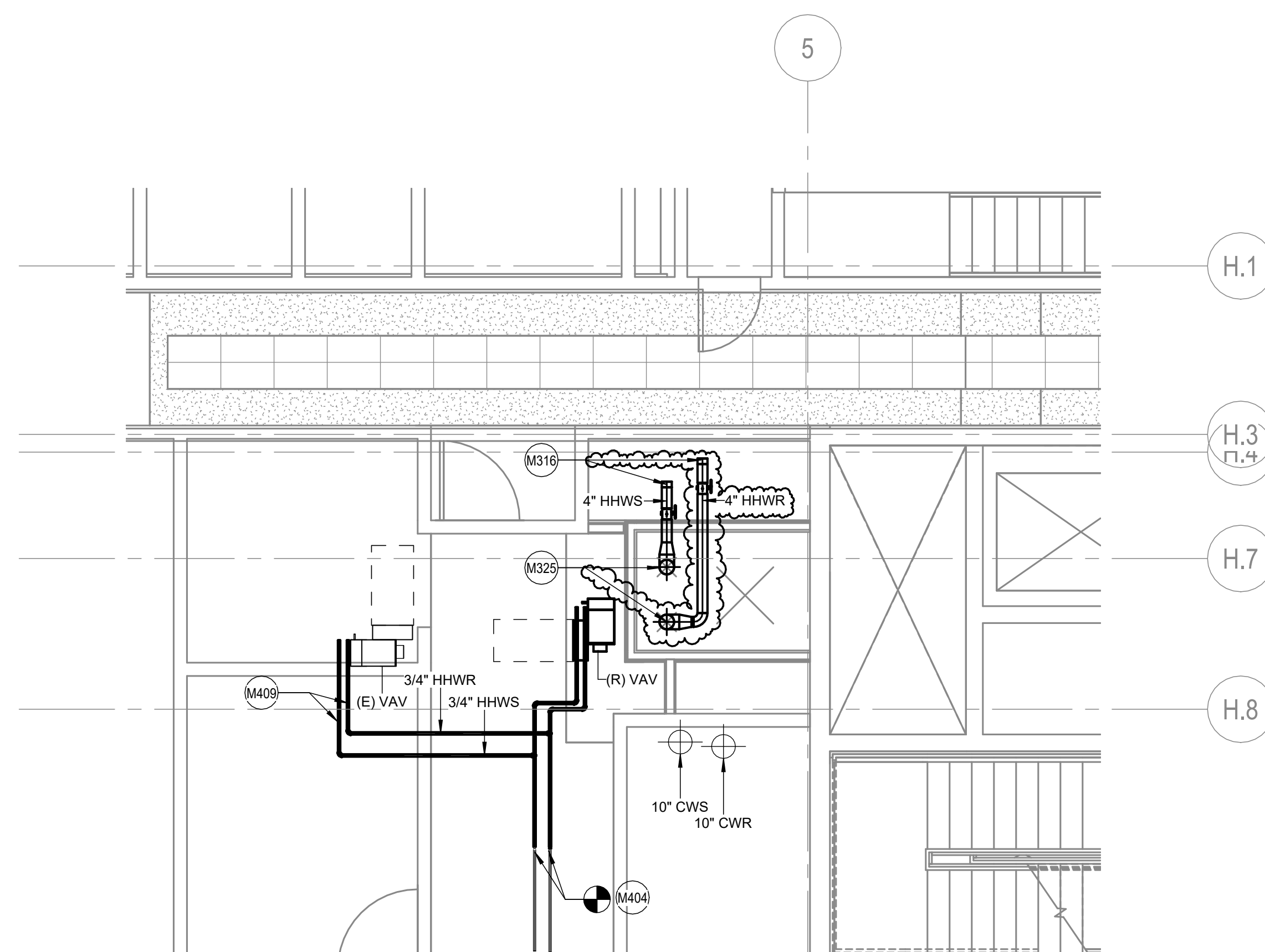
1 JOHN MARSHALL LEVEL DEMO HVAC - ENLARGED VIEW
SCALE: 1/4" = 1'-0"



2 JOHN MARSHALL LEVEL NEW CONSTRUCTION HVAC- ENLARGED VIEW
SCALE: 1/4" = 1'-0"



3 JOHN MARSHALL LEVEL DEMO PIPING - ENLARGED VIEW
SCALE: 1/4" = 1'-0"



4 JOHN MARSHALL LEVEL NEW CONSTRUCTION PIPING - ENLARGED VIEW
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

- A. SEE DRAWING MO-11 FOR ABBREVIATIONS, SYMBOLS, & GENERAL NOTES.
- B. SYSTEMS WITH AN 'E' SUBSCRIPT ARE EXISTING TO REMAIN.
- C. MAINTAIN ALL CONDUIT, WIRING, CIRCUIT CONTINUITY. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- D. MAINTAINING EXISTING EQUIPMENT OR EQUIPMENT THAT IS TO REMAIN IN USE ARE REQUIRED TO BE SHUT DOWN. COORDINATE WITH THE OWNER 14 DAYS PRIOR TO SHUT DOWN. THE ASSOCIATED ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR WORK DURING WEEKENDS AND EVENINGS. INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER WHERE SHUT DOWN MUST BE FOR PERIODS OF 24 HOURS OR MORE.
- E. FOR ALL WORK ON OR WITHIN EXISTING EQUIPMENT, CONTRACTOR TO COORDINATE WITH EQUIPMENT MANUFACTURER TO OBTAIN WARRANTIES AND ALL LISTINGS OF EQUIPMENT AND SYSTEMS.
- F. THE CONTRACTOR SHALL COORDINATE EXACT LOCATION OF EXISTING PANELS, PANEL SCHEDULES, AND EQUIPMENT WITH THE INSTALLER PRIOR TO ROUGH-IN.
- G. ISOLATION VALVES ARE NORMALLY OPEN (N/O) UNLESS SPECIFIED TO BE NORMALLY CLOSED (N/C).
- H. PRIOR TO ANY DEMOLITION AND NEW WORK, PERFORMANCE TESTING AND BALANCING OF THE EXISTING HEATING HOT WATER SYSTEM, AND PUMPING OF THE EXISTING CHILLED WATER SYSTEM, BUILDING AND THE C-STREET ADDITION, MEASURE PUMP FLOW, PUMP PRESSURE, MEASURE PUMP CURVE, MEASURE PRESSURE LOSS IN THE SYSTEM FLOW AT EXISTING OPERATING PUMP FLOW. SUBMIT TAB REPORT TO OWNER AND FOR REVIEW. DO NOT PROCEED WITH NEW WORK WITHOUT PRIOR TO FORMAL DIRECTION FROM THE OWNER.



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○ SHEET KEYNOTES

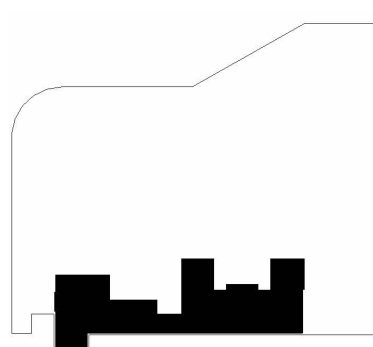
M316	PROVIDE ISOLATION VALVES AND CAPPED ENDS PER 4" HWHR AND 6" HWHR BRANCH PIPING ON EACH FLOOR FOR FUTURE CONNECTIONS.
M325	6" HWHR RISER AND 6" HWHR RISER ROUTED FROM PARKING LEVEL. SEE MECHANICAL RETURN AND PARKING LEVEL MECHANICAL PIPING PLANS FOR ADDITIONAL INFORMATION.
M403	PROVIDE NEW 6" AND 8" DULIND SUPPLY DUCT AS INDICATED. CONNECT TO EXISTING SUPPLY DUCT MAIN.
M404	PROVIDE NEW 3/4" HWHR AND 3/4" HWHR PIPING AS INDICATED AND CONNECT TO EXISTING 3/4" HWHR AND 3/4" HWHR PIPING.
M405	PROVIDE NEW RETURN DUCT AS INDICATED.
M406	REMOVE EXISTING VAV BOX AS INDICATED.
M409	CONNECT NEW 3/4" HWHR AND 3/4" HWHR PIPING TO EXISTING VAV.
M410	REMOVE EXISTING DIFFUSER AS INDICATED.
M0151	DISCONNECT AND REMOVE EXISTING 3/4"HWHR AND 3/4"HWHR PIPING AS INDICATED.
M0016	DISCONNECT EXISTING VAV BOX AS INDICATED. SAVE BOX FOR FUTURE REUSE. SEE NEW WORK PLAN FOR ADDITIONAL INFORMATION.
M0017	DISCONNECT AND REMOVE EXISTING SUPPLY DUCT AS INDICATED.
M0018	REMOVE EXISTING DIFFUSER AS INDICATED. SAVE DIFFUSER FOR FUTURE REUSE. SEE NEW WORK PLAN FOR ADDITIONAL INFORMATION.
M0019	DISCONNECT AND REMOVE EXISTING RETURN DUCT AS INDICATED.

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SEALS AND SIGNATURES



KEYPLAN



SHEET TITLE

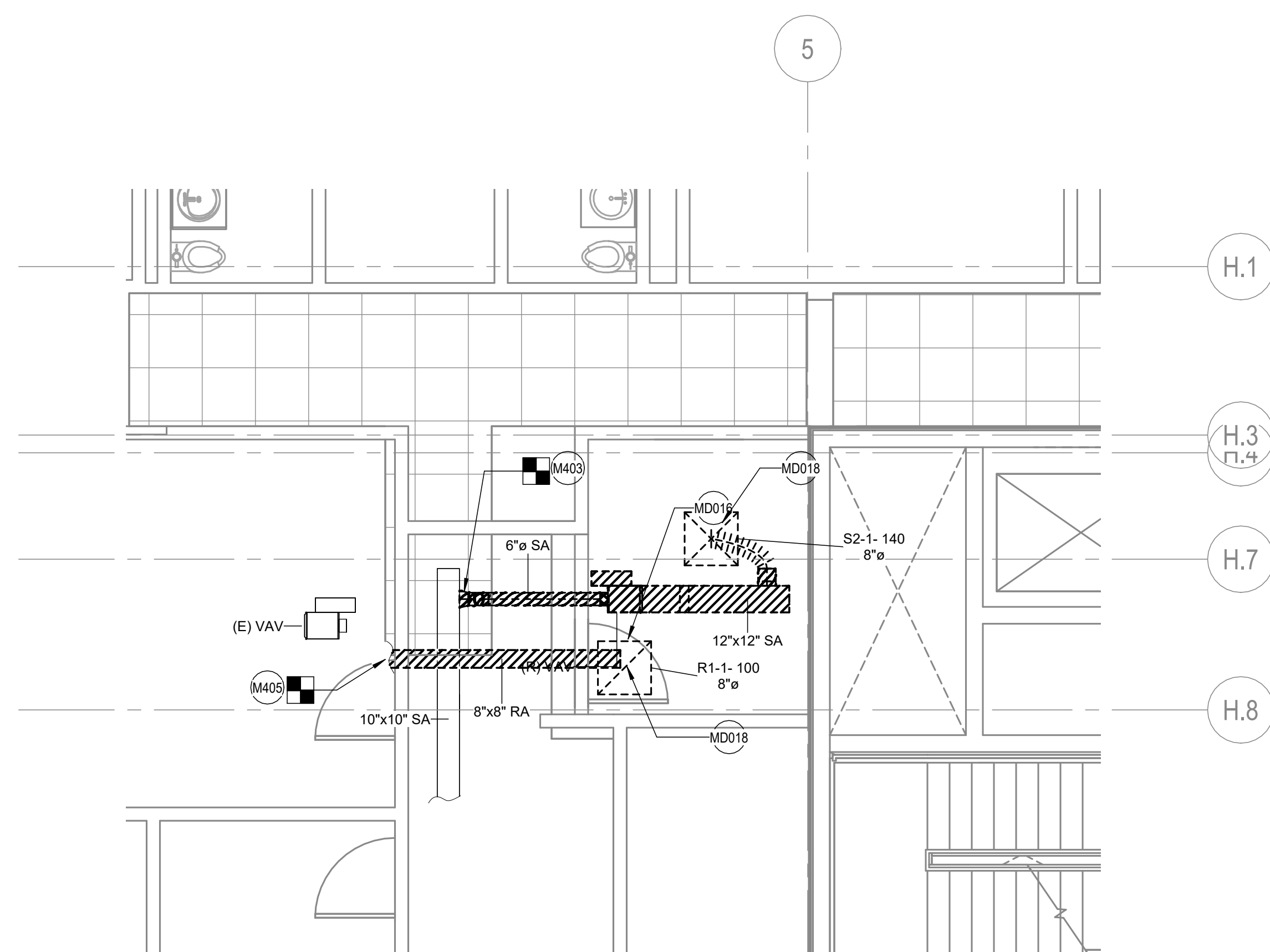
JOHN MARSHALL LEVEL
PLAN - ENLARGED VIEW

PROJECT NUMBER

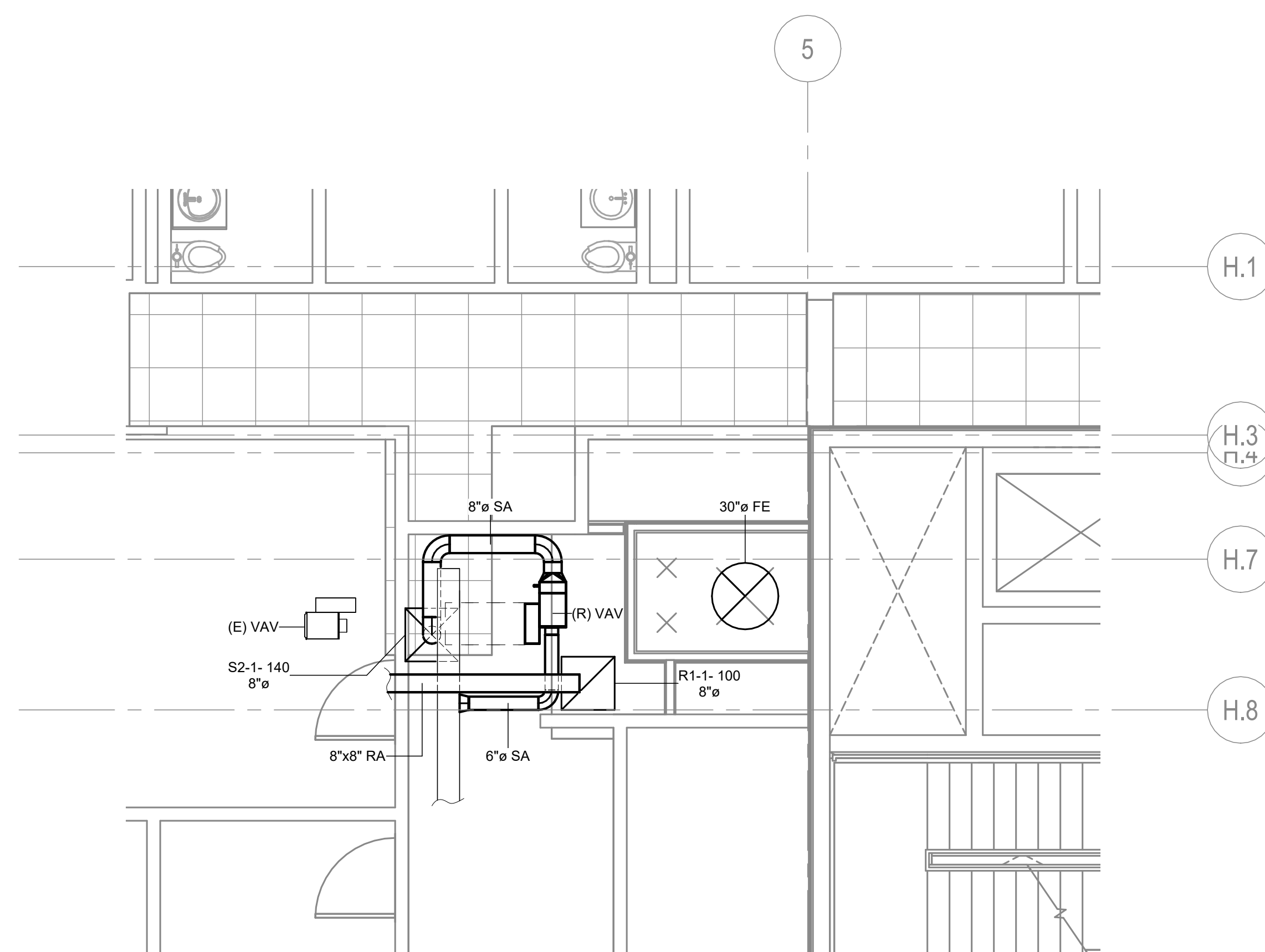
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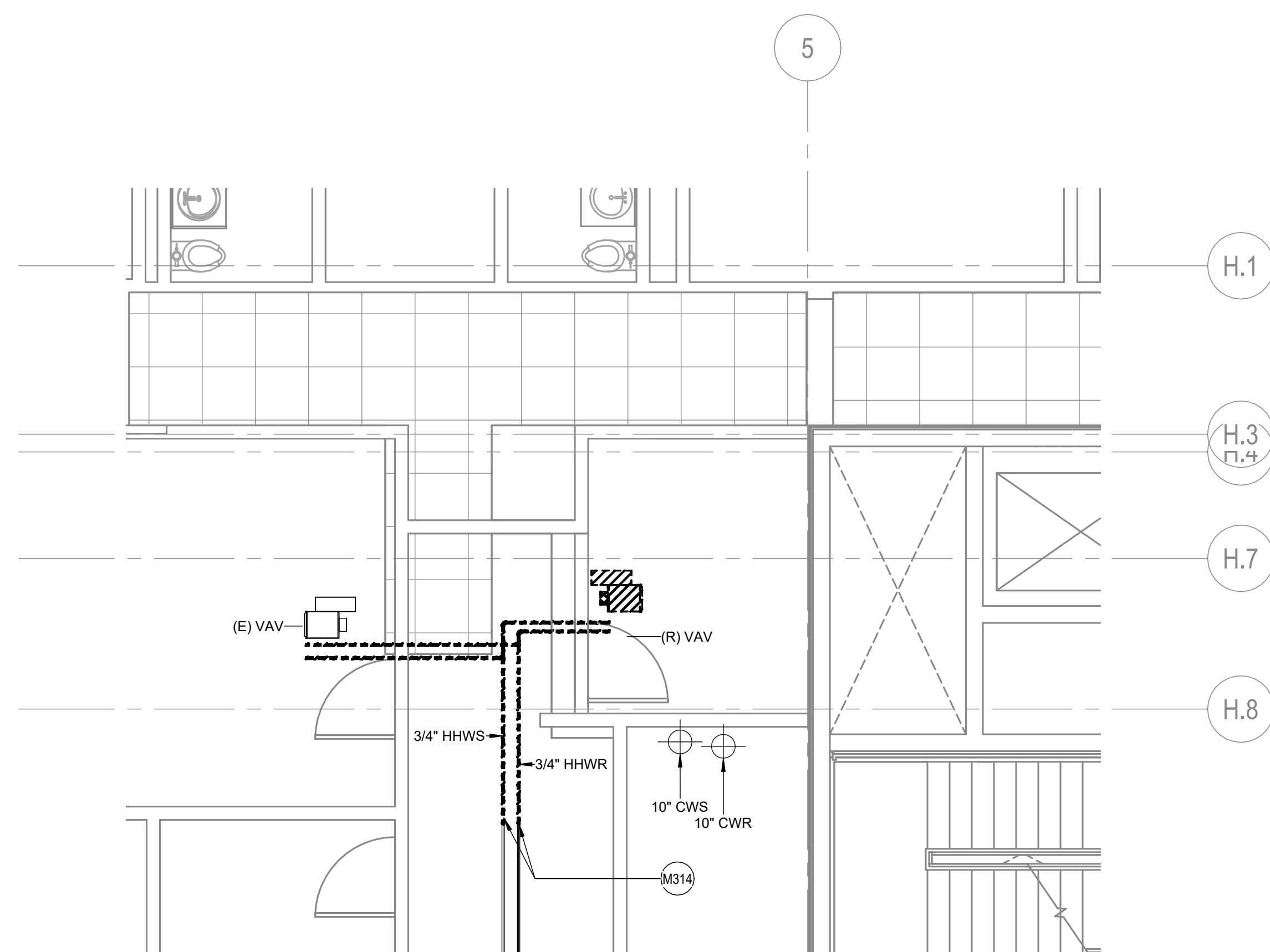
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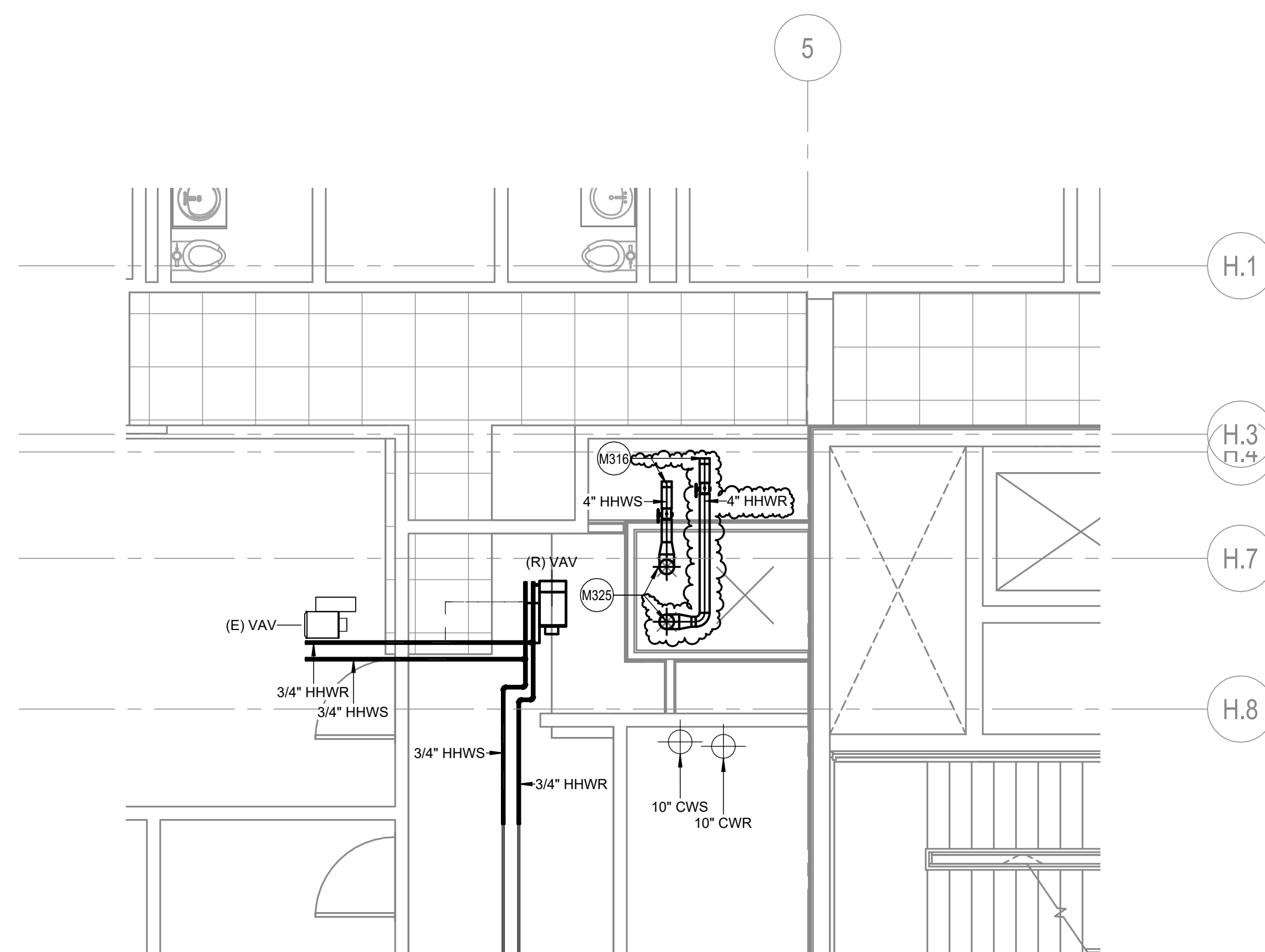
1 INDIANA AVENUE LEVEL DEMO HVAC - ENLARGED VIEW
SCALE: 1/4" = 1'-0"



2 INDIANA AVENUE LEVEL NEW CONSTRUCTION HVAC- ENLARGED VIEW
SCALE: 1/4" = 1'-0"



3 INDIANA AVENUE LEVEL DEMO PIPING - ENLARGED VIEW
SCALE: 1/4" = 1'-0"



4 INDIANA AVENUE LEVEL NEW CONSTRUCTION PIPING - ENLARGED VIEW
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

- A. SEE DRAWING MO-11 FOR ABBREVIATIONS, SYMBOLS, & GENERAL NOTES.
- B. SYSTEMS WITH AN 'E' SUBSCRIPT ARE EXISTING TO REMAIN.
- C. MAINTAIN ALL CONDUIT, WIRING, CIRCUIT CONTINUITY. PROTECT FROM DAMAGE DURING CONSTRUCTION.
- D. MAINTAINING EXISTING EQUIPMENT OR EQUIPMENT THAT IS TO REMAIN IN USE ARE REQUIRED TO BE SHUT DOWN. COORDINATE WITH THE OWNER 14 DAYS PRIOR TO SHUT DOWN. THE ASSOCIATED ASSOCIATE CONTRACTOR SHALL BE RESPONSIBLE FOR WORK DURING WEEKENDS AND EVENINGS. INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER WHERE SHUT DOWN MUST BE FOR PERIODS OF MORE THAN 24 HOURS.
- E. FOR ALL WORK ON OR WITHIN EXISTING EQUIPMENT, CONTRACTOR TO COORDINATE WITH EQUIPMENT MANUFACTURER TO OBTAIN WARRANTIES AND ALL LISTINGS OF EQUIPMENT AND SYSTEMS.
- F. THE CONTRACTOR SHALL COORDINATE EXACT LOCATION OF EXISTING PANELS, PANEL SCHEDULES, AND EQUIPMENT WITH THE INSTALLER PRIOR TO ROUGH-IN.
- G. ISOLATION VALVES ARE NORMALLY OPEN (N/O) UNLESS SPECIFIED TO BE NORMALLY CLOSED (N/C).
- H. PRIOR TO ANY DEMOLITION AND NEW WORK, PERFORMANCE TESTING AND BALANCING OF THE EXISTING HEATING HOT WATER SYSTEM, AND PUMPING OF THE EXISTING CHILLED WATER SYSTEM, BUILDING AND THE C-STREET ADDITION, MEASURE PUMP FLOW, PUMP CURVE, PRESSURE, AND TEMPERATURE. PROVIDE PRESSURE RECORDING SYSTEM FLOW AT EXISTING OPERATING PUMP FLOW. SUBMIT TAB REPORT TO OWNER AND FOR REVIEW. DO NOT PROCEED WITH NEW WORK WITHOUT PRIOR TO FORMAL DIRECTION FROM THE OWNER.



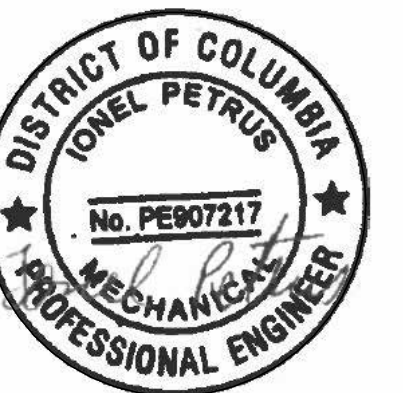
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○ SHEET KEYNOTES

M314	<p>REMOVE VICTALIC FLEX COUPLINGS AND PROVIDE VICTALIC EXPANSION JOINTS AS REQUIRED TO ACCOUNT FOR THE EXPANSION OF ALL NEW PIPING SYSTEMS. CALCULATE THE THERMAL EXPANSION OF THERMAL EXPANSION OF PIPING SYSTEMS AND FOR SELECTING AND DESIGNING EXPANSION JOINTS. LOOPS, AND SWING CONNECTIONS TO BE SUBMITTED FOR DESIGN SUBMITTAL FOR REVIEW AND APPROVAL BY OR FOR ADDITIONAL INFORMATION SEE SPECIFICATION SECTION ON CONNECTIONS, FITTINGS AND LOOPS FOR HVAC PIPING.</p>
M316	<p>REMOVE ISOLATION VALVES AND CAPPED ENDS PER 6" HHWR RISER AND 4" HHWR RISER PIPING ON EACH FLOOR FOR FUTURE CONNECTION.</p>
M325	<p>6" HHWR RISER AND 6" HHWR RISER ROUTED FROM PARKING LEVEL MECHANICAL SECTIONS AND PROVIDE NEW MECHANICAL PIPING PLANS FOR ADDITIONAL INFORMATION.</p>
M403	<p>REMOVE NEW 6" AND 8" ROUND SUPPLY DUCT AS INDICATED. CONNECT TO EXISTING SUPPLY DUCT MAIN.</p>
M405	<p>REMOVE NEW RETURN DUCT AS INDICATED.</p>
M016	<p>DISCONNECT EXISTING VAV BOX AS INDICATED. SAVE BOX FOR FUTURE REUSE AND NEW WORK PLAN FOR ADDITIONAL INFORMATION.</p>
M018	<p>REMOVE EXISTING DIFFUSER AS INDICATED. SAVE DIFFUSER FOR FUTURE REUSE AND NEW WORK PLAN FOR ADDITIONAL INFORMATION.</p>



KEYPLAN



INDIANA AVENUE LEVEL
PLAN - ENLARGED VIEW

5749.000

PROJECT NUMBER

M4.6

SHEET NUMBER

A. SEE DRAWING M-10 FOR ABBREVIATIONS, SYMBOLS, GENERAL NOTES.

B. MAINS WITH AN 'E' SUBSCRIPTION ARE EXISTING TO REMAIN. MAINTAIN ALL CONDUIT, WIRING, CIRCUIT CONTINUITY. PROTECT FROM DAMAGE DURING CONSTRUCTION.

C. ALL ELECTRICAL WORK SHALL BE DONE BY LICENSED EQUIPMENT THAT IS IN REGULAR USE ARE REQUIRED TO BE SHUT DOWN. COORDINATE WITH THE OWNER 14 DAYS PRIOR TO SHUT DOWN. ALL ELECTRICAL WORK SHALL BE COMPLETED PRIOR TO THIS WORK DURING WEEKENDS AND EVENINGS. INCLUDE ALL COSTS FOR OVERTIME, TRAVEL, AND TRAFFIC CONTROL. SHUT DOWN MUST OCCUR FOR PERIODS LONGER THAN THESE HOURS.

D. ALL WORK FOR OR WITHIN EXISTING EQUIPMENT, ELECTRICAL PANELS, CONDUITS, AND ELECTRICAL MANUFACTURER TO MAINTAIN WARRANTIES AND UL LISTINGS OF EQUIPMENT AND SYSTEMS.

E. ELECTRICAL PANELS SHALL COORDINATE EXACT LOCATION OF ELECTRICAL PANEL, SLOTS, AND CONTROLLERS WITH EQUIPMENT INSTALLER PRIOR TO ROUGH-IN.

F. ALL ELECTRICAL WORK SHALL BE DONE IN OPEN N-1 UNLESS SPECIFIED TO BE NORMALLY CLOSED N-1.

G. PRIOR TO ANY DEMOLITION AND NEW WORK, PERFORM TESTING AND EVALUATION OF EXISTING ELECTRICAL SYSTEMS AND HOT WATER HYDRO-PUMPING SYSTEMS SERVING THE MOULTRE BUILDING AND THE C-STREET ADDITION. MEASURE PUMP FLOW, PUMP EFFICIENCY, PUMP CURVE, PUMP HEAD, PUMP VIBRATION, AND SYSTEM FLOW AT EXISTING OPERATING PUMP SPEED. SUBMIT TAB REPORT TO OWNER AND FOR REVIEW. DO NOT PROCEED FOR PUMP WORK WITHOUT PRIOR TO FURNISH DIRECTION FROM THE OWNER.



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○ SHEET KEYNOTES

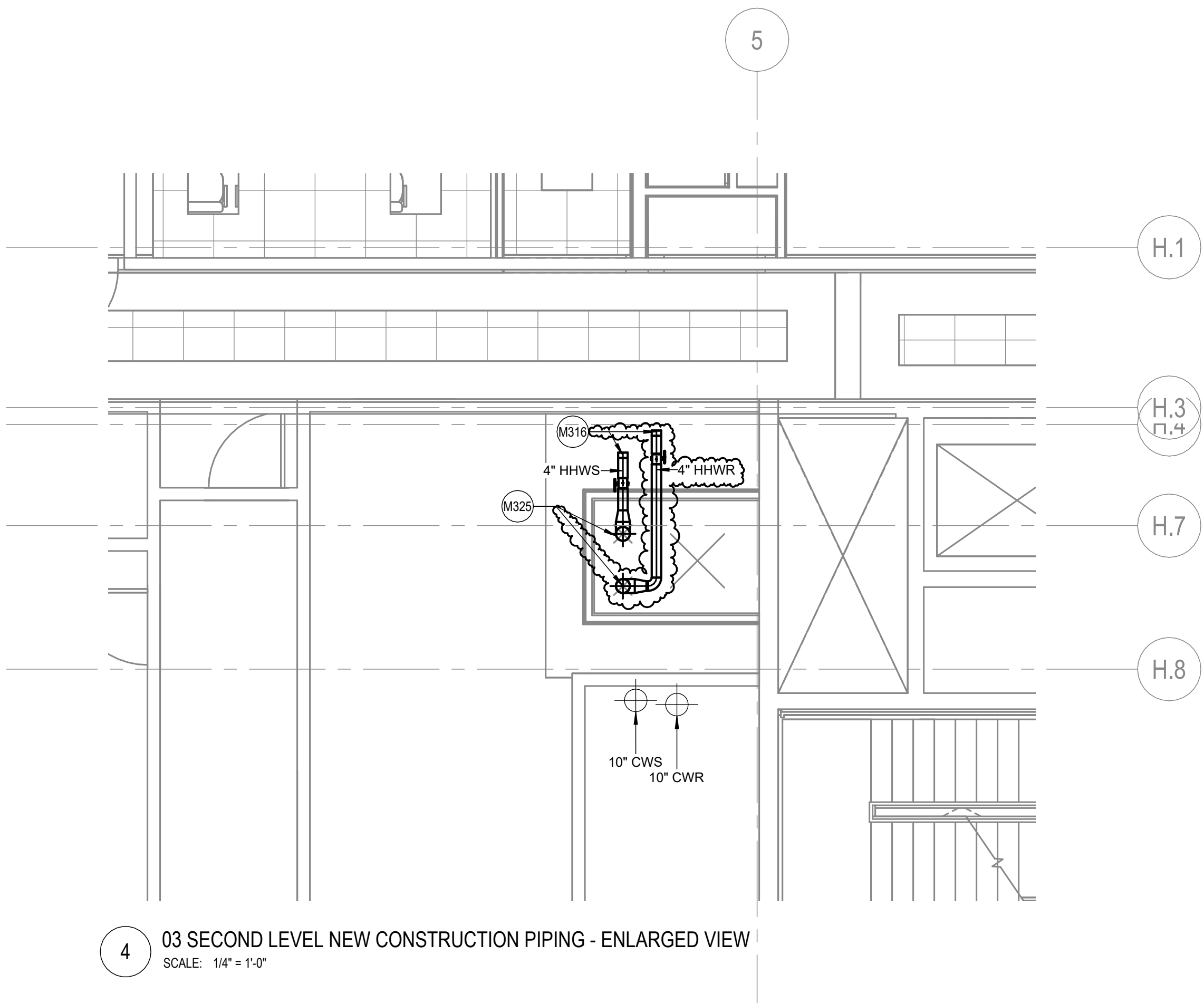
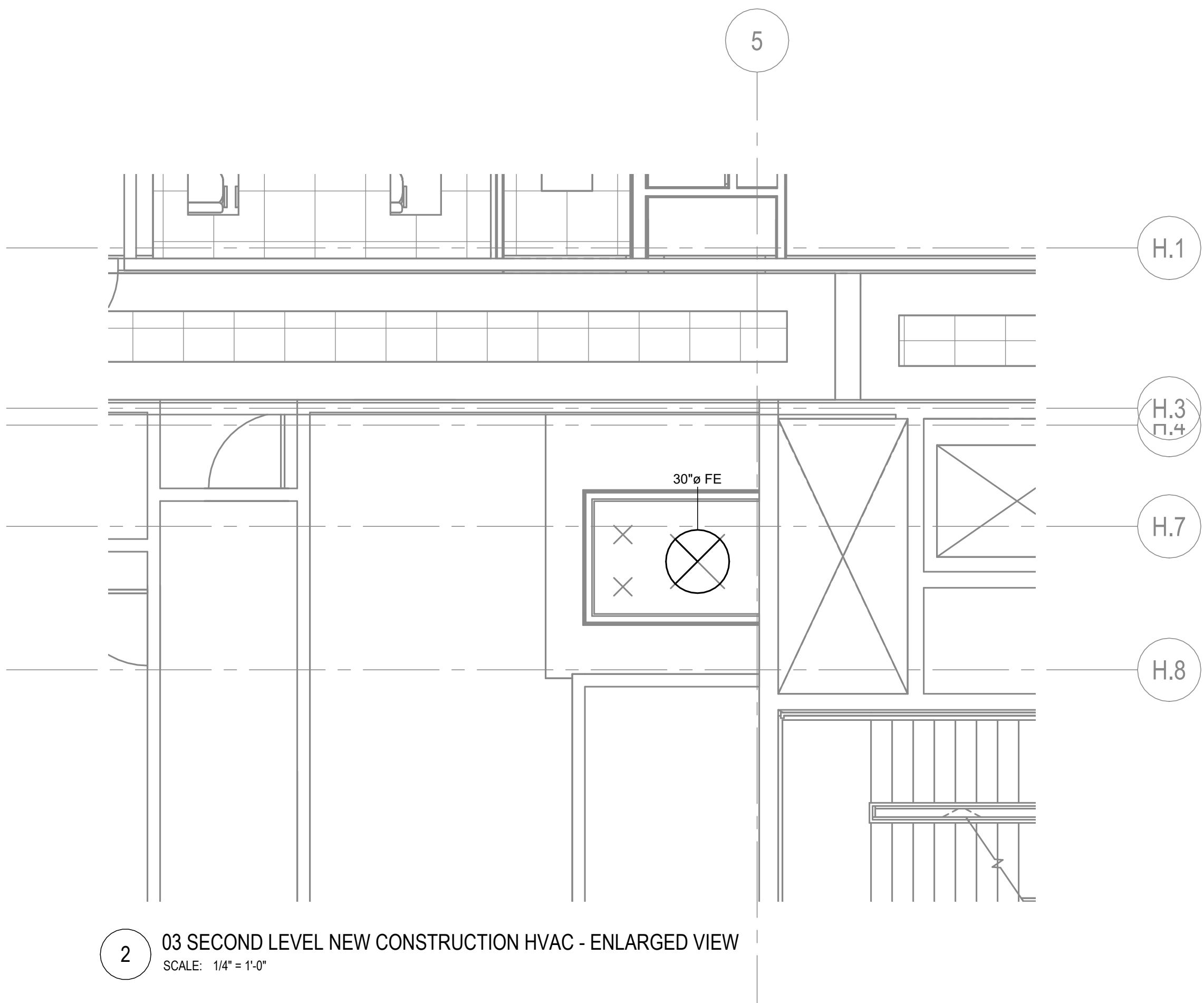
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NORTH

15749.000

SHEET NUMBER

M4.7



USE DRAWING M-10 FOR ABBREVIATIONS, SYMBOLS, GENERAL NOTES.

A. REMAIN TO BE REMOVED. ALL EXISTING STRUCTURES ARE TO REMAIN MAINTAIN ALL CONDUIT, WIRING, CIRCUIT CONTINUITY, PROTECT FROM DAMAGE DURING CONSTRUCTION.

B. ALL EXISTING BUILDING EQUIPMENT OR EQUIPMENT THAT IS TO REMAIN IN USE ARE REQUIRED TO BE SHUT DOWN. COORDINATE WITH THE OWNER 14 DAYS PRIOR TO SHUT DOWN OF EQUIPMENT. ALL EQUIPMENT TO BE SHUT DOWN DURING THIS WORK DURING WEEKENDS AND EVENINGS. INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER WHERE SHUT DOWN MUST BE MAINTAINED FOR MORE THAN 24 HOURS.

D. ALL WORK ON OR WITHIN EXISTING EQUIPMENT, CONTRACTOR TO COORDINATE WITH EQUIPMENT MANUFACTURER AND/OR VENDOR FOR PARTS, REPAIRS, MAINTENANCE AND SYSTEMS.

E. THE CONTRACTOR SHALL COORDINATE EXACT LOCATION OF EQUIPMENT, PANELS, AND CONTROLLERS WITH EQUIPMENT INSTALLER PRIOR TO ROUGH-IN.

F. INSTALL VALVE AND/OR PRESSURE GAUGE OPEN IN ACCESS SPECIFIED TO BE NORMALLY CLOSED.

G. PRIOR TO ANY DEMOLITION AND NEW WORK, PERFORM TESTING AND ANALYSIS OF EXISTING HOT WATER SYSTEM, HOT WATER HYDROPNEUMATIC SYSTEMS SERVING THE MOBILE BUILDING AND THE C-STREET ADDITION. MEASURE PUMP FLOW, PUMP HEAD, PRESSURE, TEMPERATURE, AND FLOW. SUBMIT DATA SYSTEM FLOW AT EXISTING OPERATING PUMP SPEED. SUBMIT TAB REPORT TO OWNER AND EOR FOR REVIEW. DO NOT PROCEED WITH NEW WORK WITHOUT PRIOR TO FORMAL DISCUSSION WITH THE OWNER.



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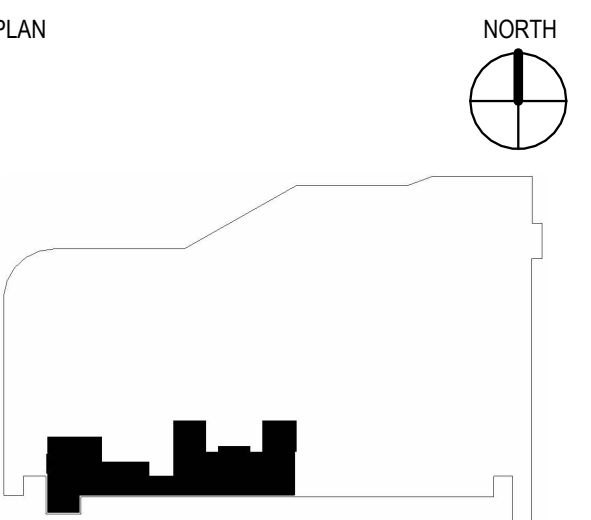
○ SHEET KEYNOTES

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SEALS AND SIGNATURES



KEYPLAN

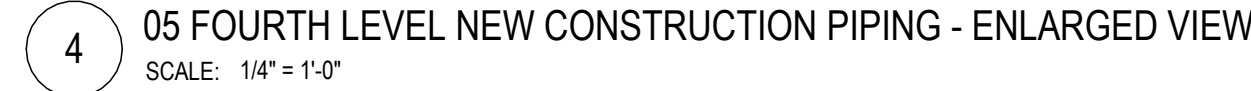
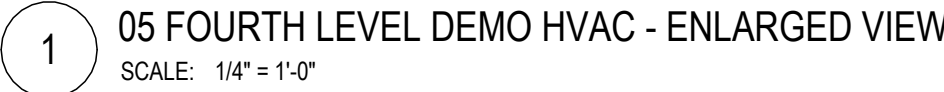


PROJECT NUMBER

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M4.9

SHEET NUMBER



A. SEE DRAWING M-10 FOR ABBREVIATIONS, SYMBOLS, GENERAL NOTES.

B. MAINTAIN ALL EXISTING UTILITIES. EXISTING UTILITIES TO BE REMOVED OR RELOCATED SHALL BE REMOVED OR RELOCATED PRIOR TO CONSTRUCTION. MAINTAIN ALL CONDUIT, WIRING, CIRCUIT CONTINUITY. PROTECT FROM DAMAGE DURING CONSTRUCTION.

C. ALL UTILITIES SHALL BE PROTECTED BY SHELTER EQUIPMENT THAT IS TO REMAIN IN USE ARE REQUIRED TO BE SHUT DOWN.

D. COORDINATE WITH THE OWNER 14 DAYS PRIOR TO SHUT DOWN. THE OWNER SHALL BE NOTIFIED OF ANY SCHEDULE CHANGES TO THIS WORK DURING WEEKENDS AND EVENINGS. INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER. WORK SHUT DOWN MUST BE COMPLETED PRIOR TO THE NEXT BUSINESS DAY.

E. ALL WORK ON OR WITH ANY EXISTING EQUIPMENT, MANUFACTURER, CONTRACTOR TO COORDINATE WITH EQUIPMENT MANUFACTURER AND CONTRACTOR TO COORDINATE WITH EQUIPMENT MANUFACTURER AND SYSTEMS.

F. THE CONTRACTOR SHALL COORDINATE EXACT LOCATION OF EQUIPMENT, PANELS, AND CONTROLLERS WITH EQUIPMENT INSTALLER PRIOR TO ROUGH-IN.

G. COORDINATION AND VERIFICATION OF OPEN N.O. DEVICES SPECIFIED TO BE NORMALLY CLOSED.

H. PRIOR TO ANY DEMOLITION AND NEW WORK, PERFORM TESTING AND INSPECTION OF ALL EXISTING EQUIPMENT AND SYSTEMS. HYDRO-PUMPING SYSTEMS SERVING THE MOULTRIE BUILDING AND THE C-STREET ADDITION. MEASURE PUMP FLOW, PUMP HEAD, PUMP EFFICIENCY, PUMP CURVE, PUMP VIBRATION, PUMP SYSTEM FLOW AT EXISTING OPERATING PUMP SPEED. SUBMIT TAB REPORT TO OWNER AND EOR FOR REVIEW. DO NOT PROCEED FROM THIS WORK WITHOUT PRIOR TO FORMAL DECISION FROM THE OWNER.

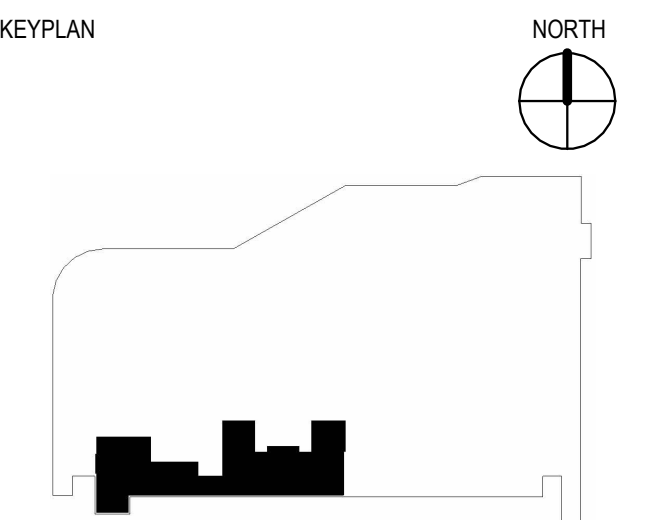


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○ SHEET KEYNOTES

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SEALS AND SIGNATURES

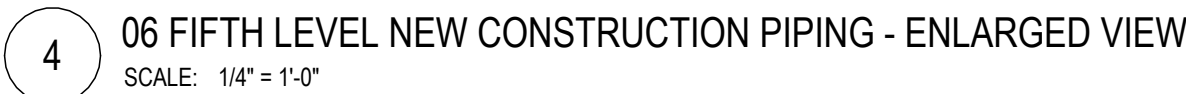
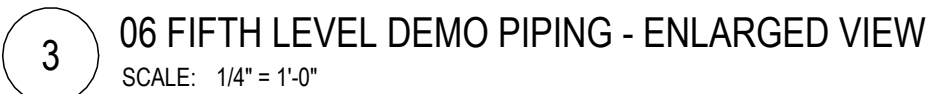
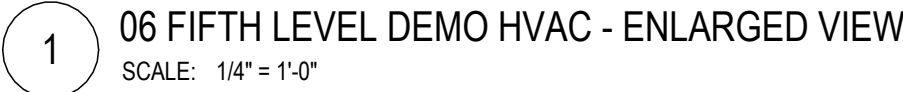


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M4.10

SHEET NUMBER



SEE DRAWING M-1 FOR ABBREVIATIONS, SYMBOLS, GENERAL NOTES.

A. BIDDING SHALL BE FOR THE FOLLOWING:

B. WORK WITH AN 'EY' SCHEDULE ARE EXISTING TO REMAIN MAINTAIN ALL CONDUIT, WIRING, CIRCUIT CONTINUITY, PROTECT FROM DAMAGE DURING CONSTRUCTION.

C. ALL EXISTING BUILDING EQUIPMENT OR EQUIPMENT THAT IS TO REMAIN IN USE ARE REQUIRED TO BE SHUT DOWN, COORDINATE WITH THE OWNER 14 DAYS PRIOR TO SHUT DOWN THE EQUIPMENT. THE ASSOCIATION SHALL BE NOTIFIED 10 DAYS PRIOR TO THIS WORK DURING WEEKENDS AND EVENINGS. INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER WHICH SHUT DOWN MUST BE PROVIDED FOR THE PERSONNEL TO BE IN THE BUILDING FOR ALL WORK ON OR WITHIN EXISTING EQUIPMENT.

D. CONTRACTOR TO COORDINATE WITH EQUIPMENT MANUFACTURER TO OBTAIN THE REQUIRED INFORMATION TO BE USED FOR THE DESIGN AND SYSTEMS.

E. THE CONTRACTOR SHALL COORDINATE EXACT LOCATION OF EXISTING PANELS, AND CONTROLLERS, WITH EQUIPMENT INSTALLER PRIOR TO ROUGH-IN.

F. INSTALLATION VALVES ARE NORMALLY OPEN TO P.O. UNLESS SPECIFIED TO BE IN CLOSED POSITION (C.N.).

G. PRIOR TO ANY DEMOLITION AND NEW WORK, PERFORM TESTING AND BALANCING OF THE EXISTING HEATING HOT WATER SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE BUILDING AND THE C-STREET ADJACENT, MEASURE PUMP FLOW, PUMP SUCTION PRESSURE, PUMP DISCHARGE PRESSURE, AND TOTAL HEAD LOSS. THE EXISTING SYSTEM SHALL BE TESTED WITH REPORT TO OWNER AND EOR FOR REVIEW. DO NOT PROCEED WITH ANY WORK WITHOUT PRIOR TO FORMAL DIRECTION FROM THE EOR.



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○ SHEET KEYNOTES

[illegible]

NORTH

15749.000

M4.11

