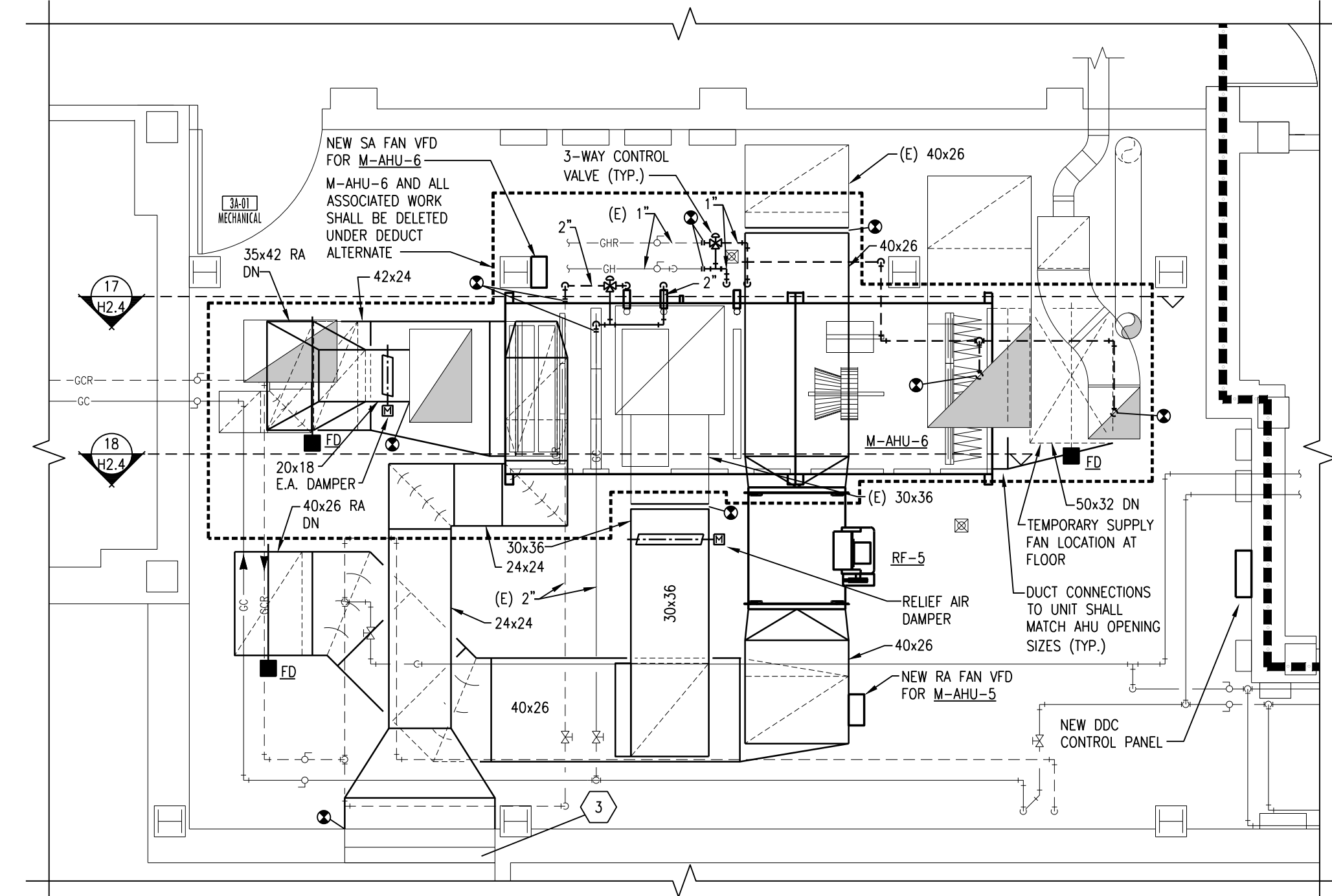
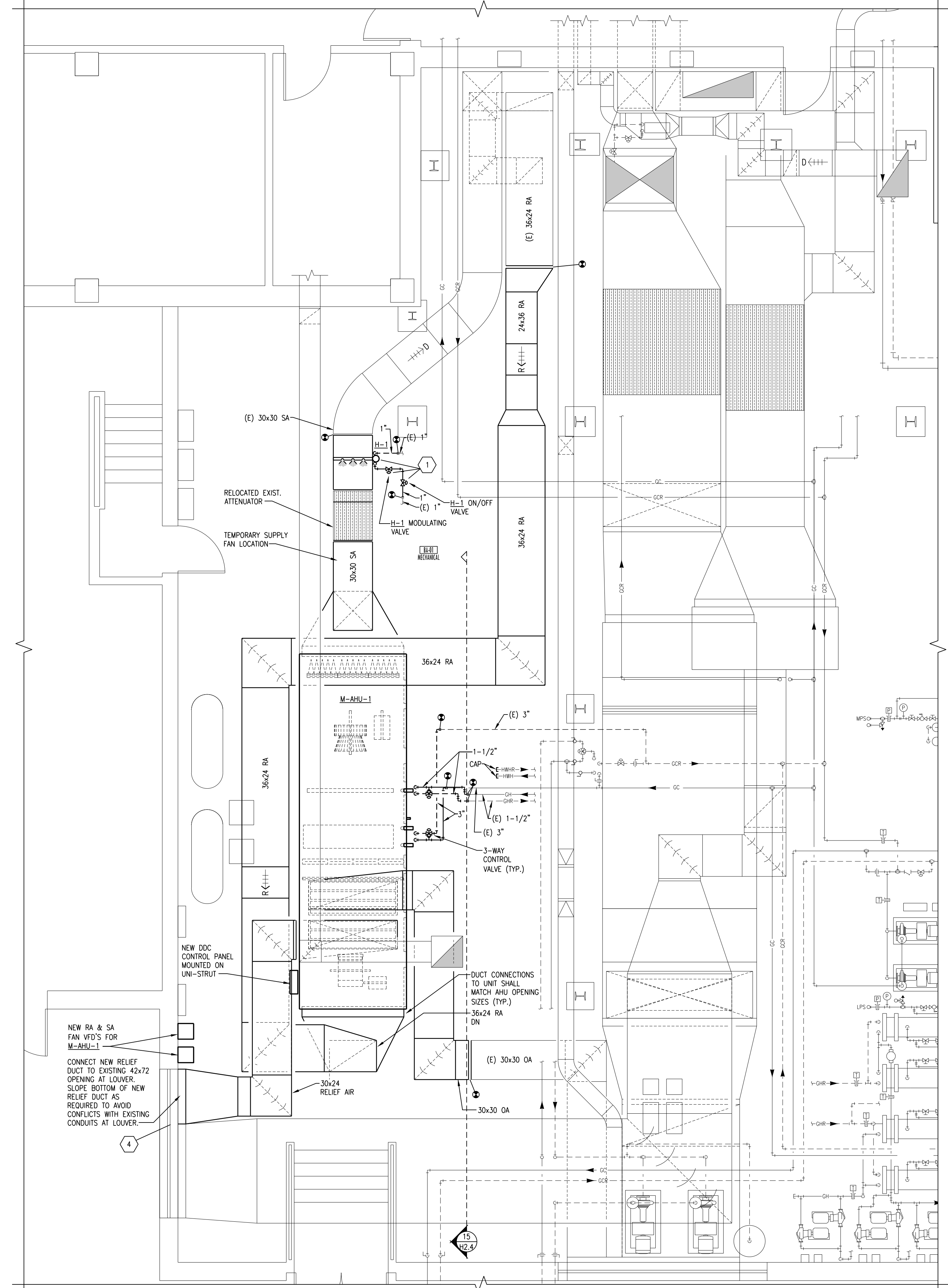


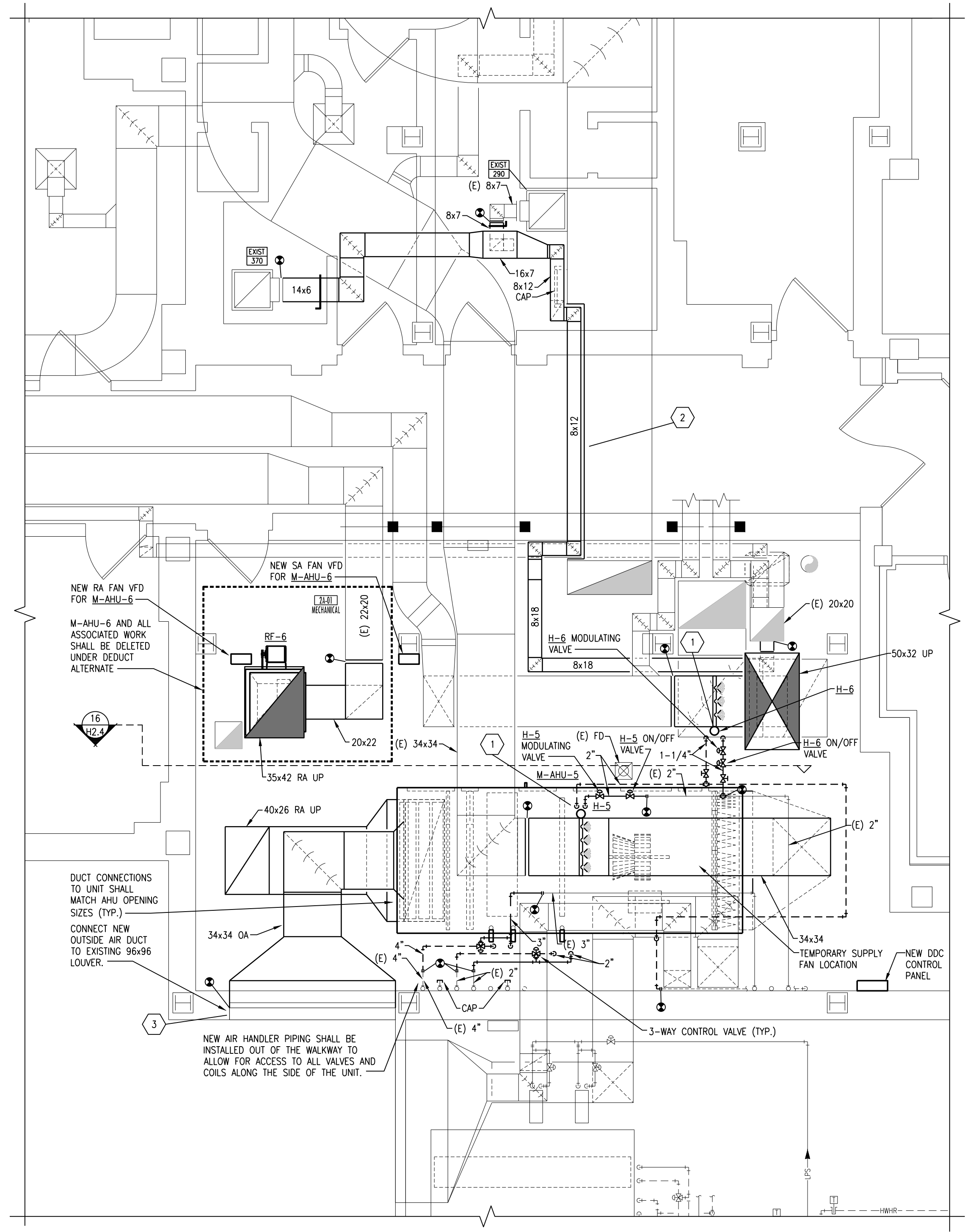
4 EXISTING LAYOUT BB-05 REMODELING PLAN  
SCALE: 1/4" = 1'-0"



2 EXISTING LAYOUT 3A-01 REMODELING PLAN  
SCALE: 1/4" = 1'-0"



3 EXISTING LAYOUT BA-01 REMODELING PLAN  
SCALE: 1/4" = 1'-0"



1 EXISTING LAYOUT 2A-01 REMODELING PLAN  
SCALE: 1/4" = 1'-0"

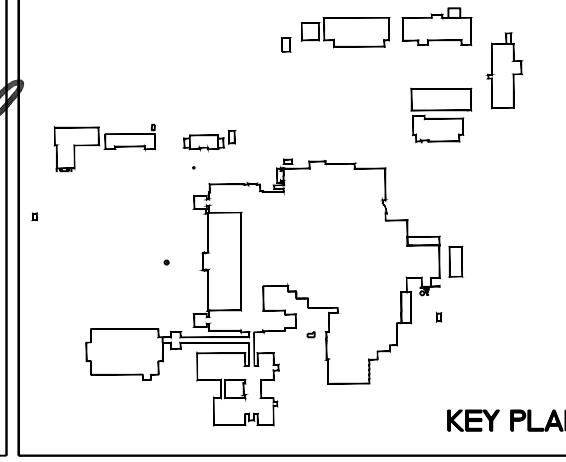
- AIR HANDLER PHASING NOTES:**
1. ALL AIR HANDLER REPLACEMENTS SHALL BE PERFORMED IN APRIL/MAY OR SEPTEMBER/OCTOBER MONTHS IN CAREFUL COORDINATION WITH THE OWNER. PROVIDE A MINIMUM OF 2 WEEKS NOTICE PRIOR TO BEGINNING WORK.
  2. FOR TEMPORARY AIR HANDLER OPERATION, PROVIDE A TEMPORARY FAN EQUAL TO THE UNIT AIRFLOW/HORSE POWER, AND HEPA FILTER TO BE MOUNTED TO THE SUPPLY DUCTWORK PRIOR TO REMOVING UNIT. REFER TO FLOOR PLANS FOR SUGGESTED TEMPORARY SUPPLY FAN LOCATION. FAN SHALL RUN CONTINUOUSLY. MAINTAIN THE MECHANICAL ROOM TEMPERATURE AT A MINIMUM OF 55 DEGREES AND MAXIMUM OF 70 DEGREES DURING AHU CHANGE OUT USING EXISTING HEATING UNITS OR TEMPORARY COOLING/HEATING UNITS. OUTSIDE AIR, RETURN AIR, RELIEF AIR, AND SUPPLY AIR DUCTS SHALL BE LEFT OPEN TO USE THE MECHANICAL ROOM AS A PLENUM.
  3. ALL UNIT SHUTDOWN WORK SHALL BE COMPLETED DURING WEEKEND AND EVENING HOURS. REPLACEMENT OF UNIT SHALL BE COMPLETED AS QUICKLY AS POSSIBLE WITH MULTIPLE SHIFTS REQUIRED TO EXPEDITE WORK. ALL CONTROLS WORK THAT CAN BE COMPLETED BEFORE AND SHALL BE COORDINATED. WORK SHALL BE COMPLETED DURING SPRING, FALL, OR WINTER MONTHS.
  4. DISASSEMBLE NEW AIR HANDLERS TO THEIR SMALLEST COMPONENTS AS REQUIRED TO FIT THROUGH EXISTING DOORS. TEMPORARILY REMOVE EXISTING MECHANICAL ROOM DOORS AS NECESSARY.

- MECHANICAL NOTES:**
- A. 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.
  - B. COORDINATE ALL HVAC PIPING AND DUCTWORK INSTALLATION WITH GENERAL PLUMBING, FIRE PROTECTION, AND ELECTRICAL CONTRACTORS. INSTALL ALL HVAC PIPING AND DUCTWORK AS HIGH AS POSSIBLE. PROVIDE ALL NECESSARY OFFSETS (DROPS AND RISES) TO KEEP HVAC PIPING AND DUCTWORK TIGHT TO THE STRUCTURE ABOVE AND INSTALLATION BY ALL TRADES. OFFSET HVAC PIPING AND DUCTWORK TO AVOID BEAMS.
  - C. THIS CONTRACTOR SHALL OPEN ALL EXISTING WALLS AND/OR CEILINGS FOR INSTALLATION OF NEW HVAC PIPING AND VENTILATION DUCTWORK, EQUIPMENT, ETC. AS REQUIRED. PATCH WALLS AND/OR CEILINGS TO MATCH EXISTING.
  - D. MAINTAIN 3'-0" CLEAR SPACE IN FRONT OF ALL ELECTRICAL, CONTROL, AND ACCESS PANELS FOR ACCESSIBILITY.
  - E. ALL SHUT-OFF VALVES, CONTROL VALVES, STRAINERS, DAMPERS, ETC., SHALL BE INSTALLED IN ACCESSIBLE CEILING. VALVES SHALL BE LOCATED NOT MORE THAN 2 FEET ABOVE ACCESSIBLE CEILING.
  - F. 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.
  - G. ALL OPEN ENDS OF DUCTS SHALL BE CAPPED AT THE END OF CONSTRUCTION EACH DAY.
  - H. ALL NEW PIPING SHALL BE INSTALLED AS HIGH AS POSSIBLE TO AVOID TRIPPING HAZARDS IN WALKWAYS BUT AT A HEIGHT TO REMAIN ACCESSIBLE. KEEP ALL EQUIPMENT ACCESS PATHS CLEAR.
1. ALL EXISTING DIFFUSERS, GRILLES, AND FLEX DUCTS AFFECTED BY CEILING REMOVAL AND RE-INSTALLATION SHALL BE TEMPORARILY SUPPORTED DURING CONSTRUCTION AND RE-INSTALLED AFTER CEILING WORK IS COMPLETE. ALL SPRINKLER ESCUTCHEONS SHALL BE REMOVED AND RE-INSTALLED AS REQUIRED FOR CEILING WORK.
  2. REPLACE EXISTING HUMIDIFIER INCLUDING DUCT DISTRIBUTION TUBE, ON/OFF CONTROL VALVE, MODULATING CONTROL VALVE, SEPARATOR, CONDENSATE TEMP. SENSOR, STRAINER, VALVES, AND TRAPS. RECONNECT TO EXISTING STEAM AND CONDENSATE PIPING.
  3. CUT OUT THE CORNER OF EXISTING 50x30 RETURN DUCT IN ORDER TO ROUTE NEW EXHAUST DUCT IN THE SAME LOCATION. RELOCATE EXISTING DUCT SENSOR TO THE OTHER SIDE OF THE RETURN DUCT IN ORDER TO FACILITATE WORK.
  4. RE-INSTALL EXISTING LOUVER AFTER INSTALLATION OF AIR HANDLER AND CONNECT TO DUCTWORK INSIDE THE BUILDING. SEAL AROUND LOUVER AIR AND WATER TIGHT.
  5. DISCONNECT AND REMOVE EXISTING MOTORIZED DAMPER AND ALL ASSOCIATED CONTROLS, ACTUATOR, ETC PRIOR TO RE-INSTALLATION OF DUCTWORK.

**Dept. of Veterans Affairs**  
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2101 Elm Street  
Fargo, ND 58102

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REGISTERED PROFESSIONAL ENGINEER  
JOEL C. PECK  
PE - 6847  
DATE 07/20/2016  
NORTH DAKOTA

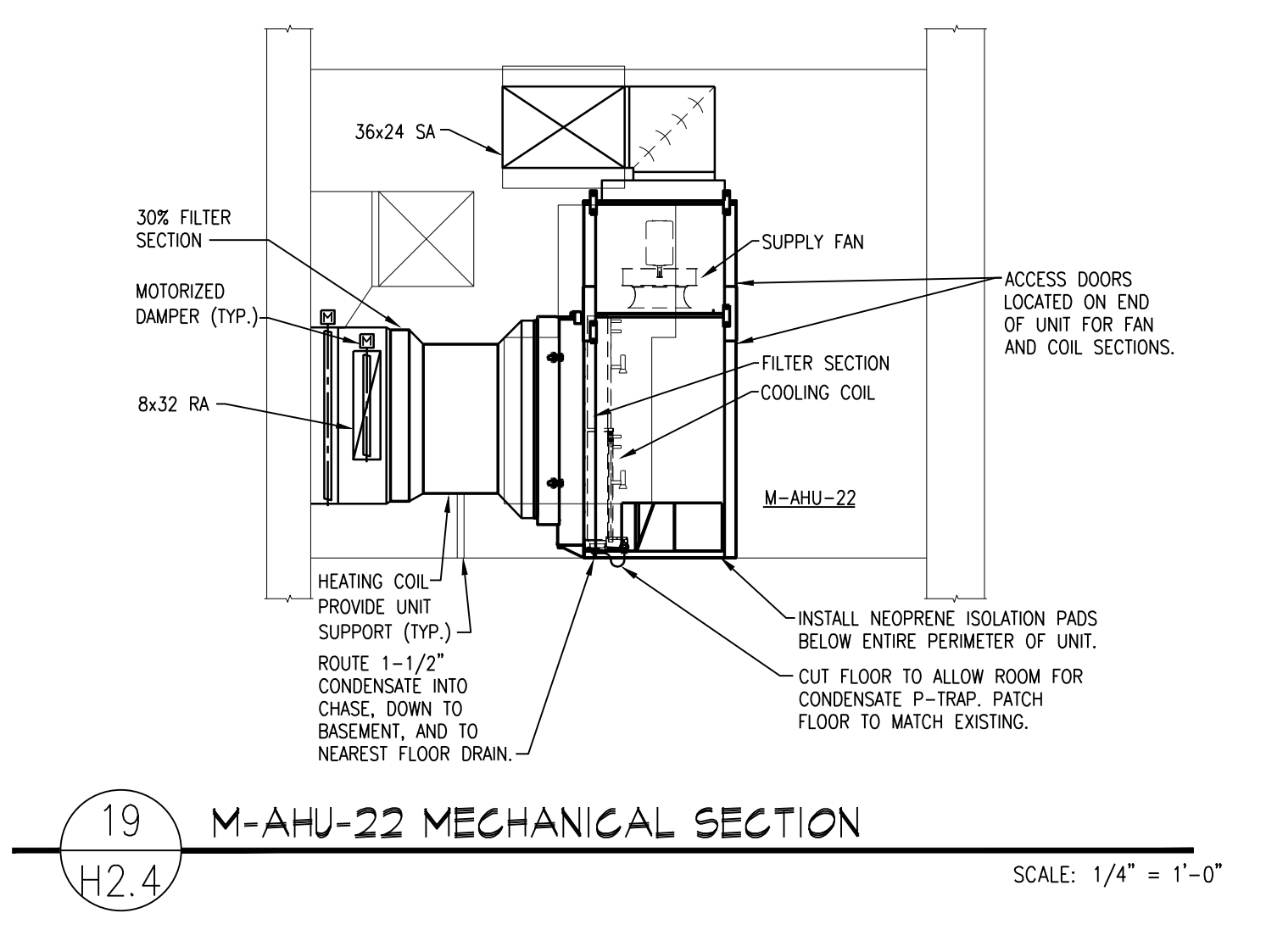


Drawing Title <b>BASEMENT, SECOND FLOOR, &amp; THIRD FLOOR LARGE SCALE REMODELING PLANS</b>		Project Title <b>REPLACE OR UPGRADE HVAC SYSTEM COMPONENTS</b>		Date <b>SEPT. 14, 2016</b>
Project Phase <b>PHASE 2</b>		Contract No. <b>VA263-P-218</b>		Scale <b>AS SHOWN</b>
VA Project No. <b>437-19-111</b>	Contract No. <b>VA263-C-</b>	Designed By <b>JP</b>	Checked By <b>JP</b>	Drawn By <b>JF</b>
Building No. <b>VAMC CAMPUS</b>	AutoCAD File Name <b>202275-P1231010</b>	Location <b>FARGO VA HEALTH CARE SYSTEM FARGO, NORTH DAKOTA</b>		Drawing No. <b>H2.3</b>
				Dwg. 32 of 66

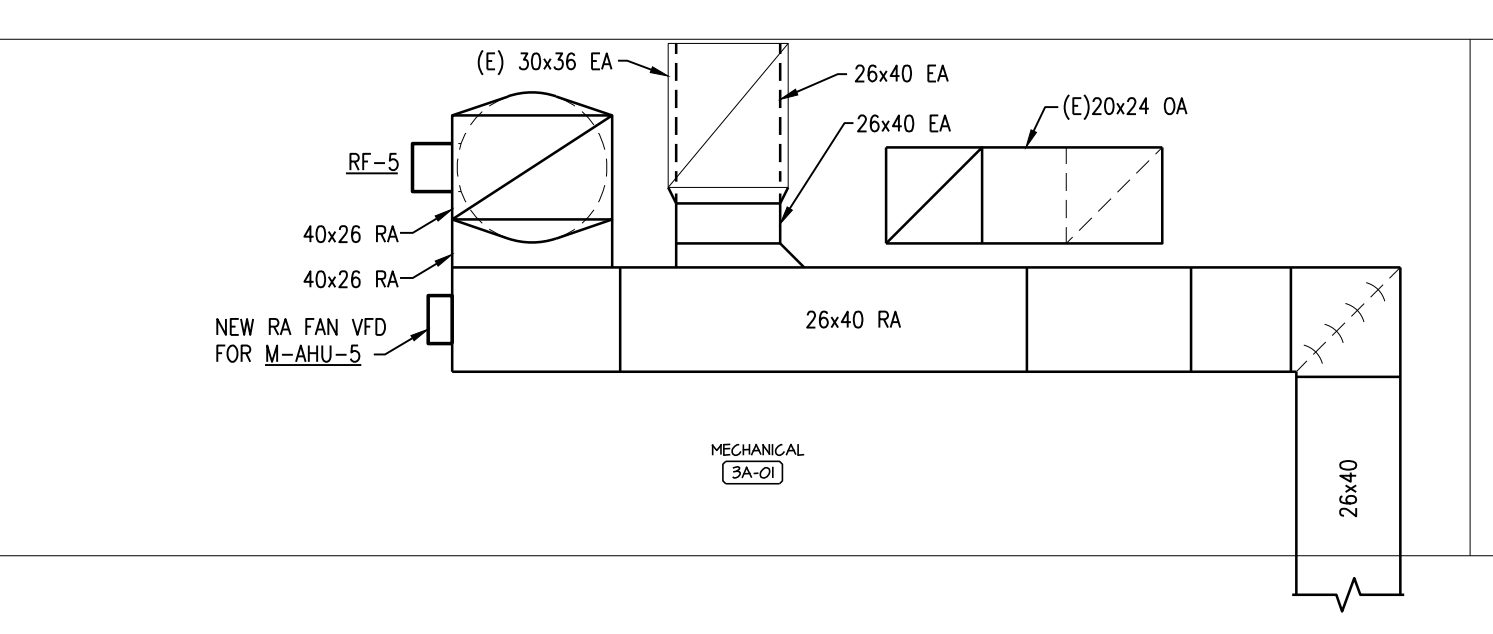
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Revisions	Date

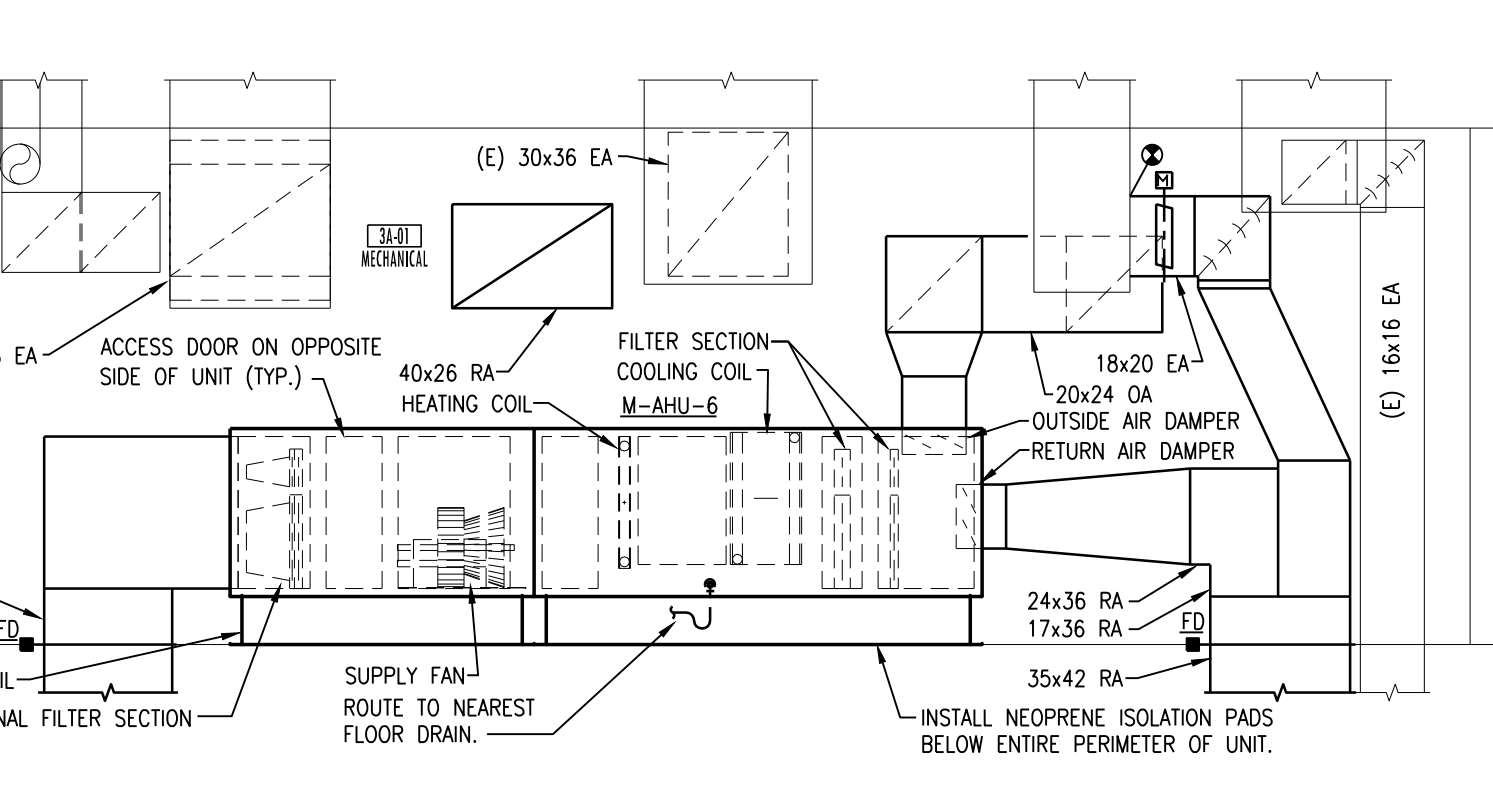
Department of Veterans Affairs



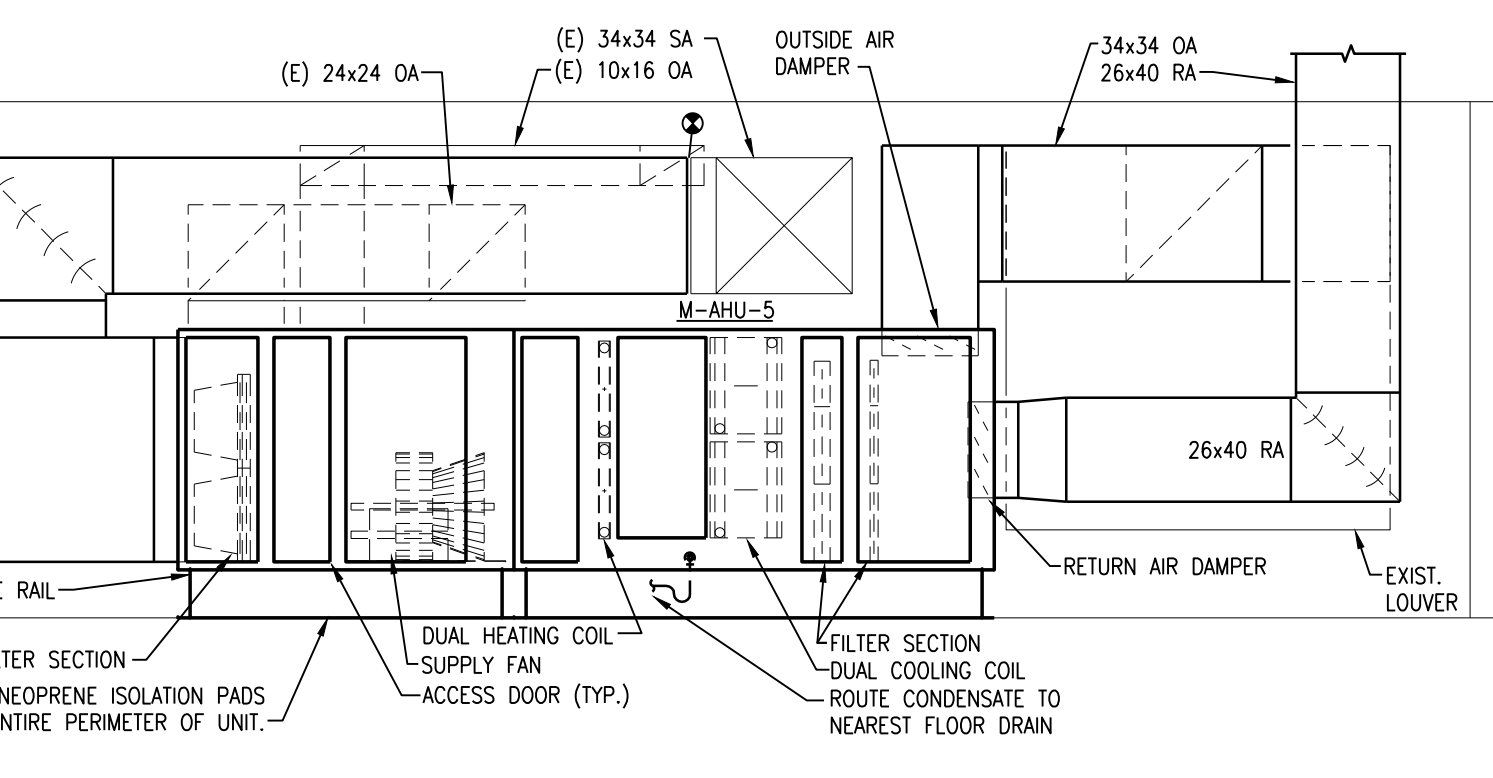
19 M-AHU-22 MECHANICAL SECTION  
 H2.4 SCALE: 1/4" = 1'-0"



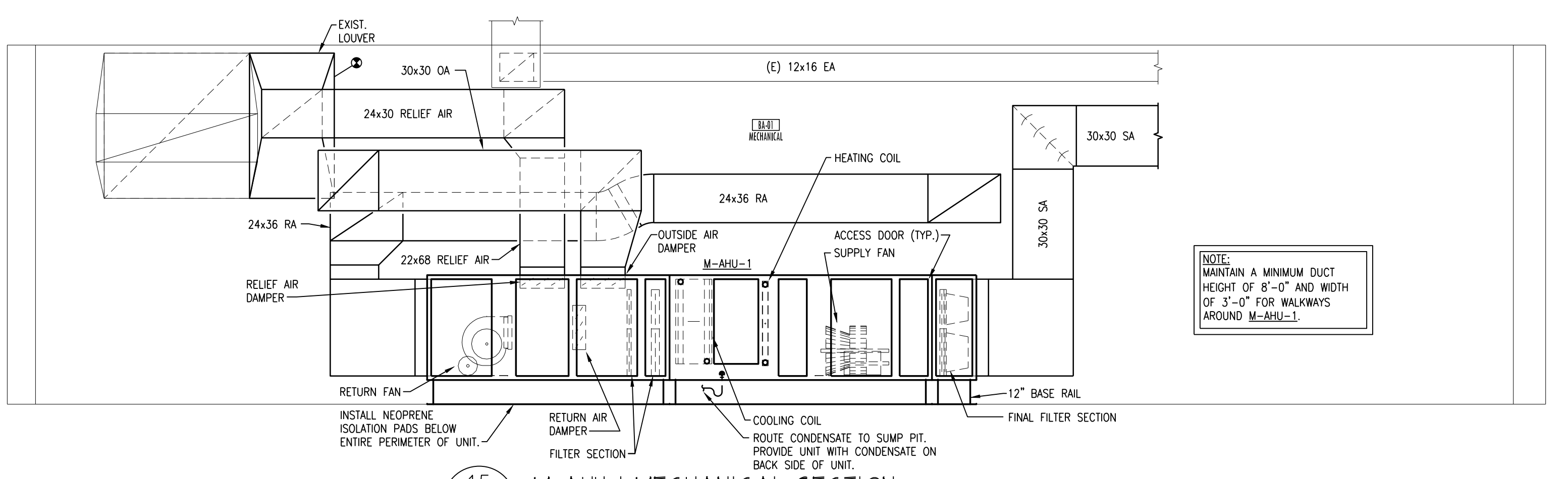
18 M-AHU-6 MECHANICAL SECTION  
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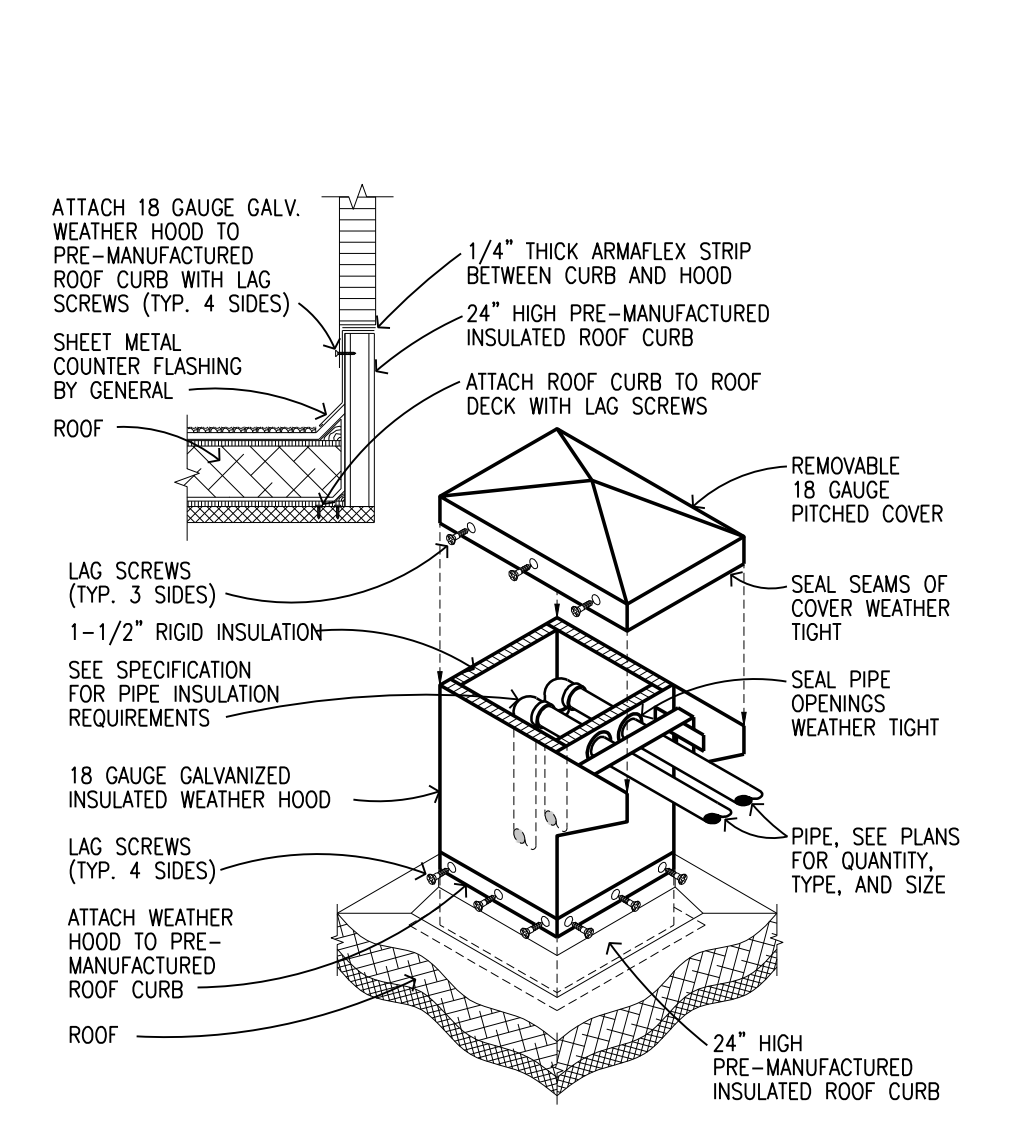
17 M-AHU-6 MECHANICAL SECTION  
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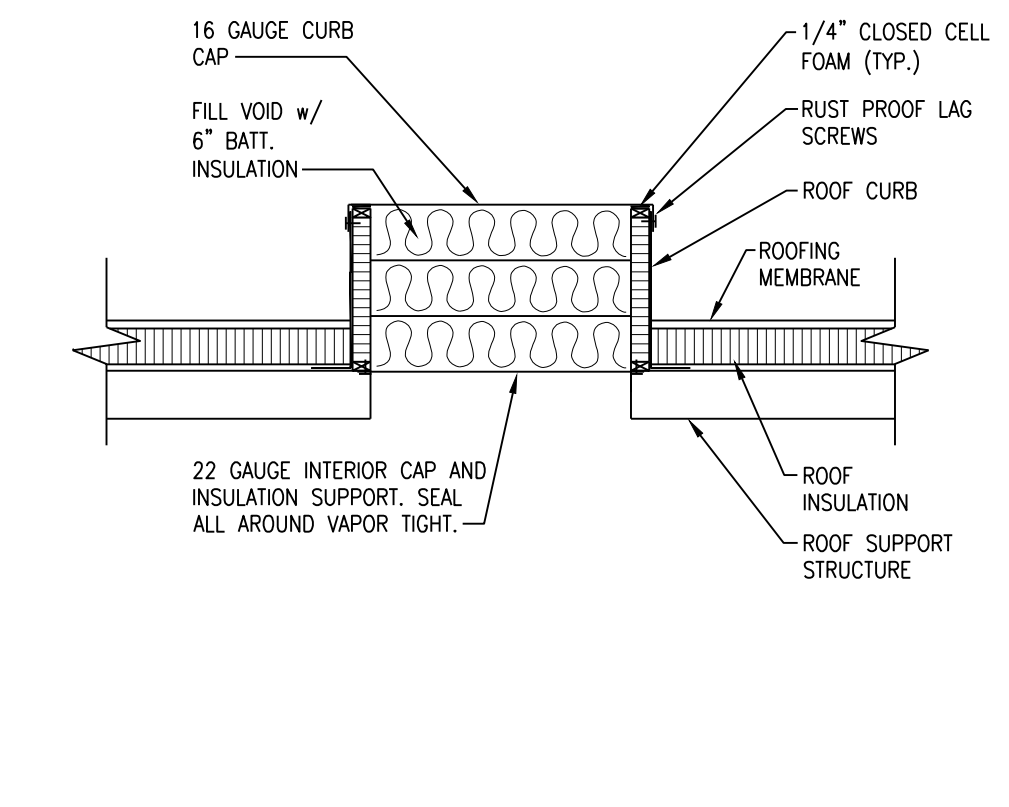
16 M-AHU-5 MECHANICAL SECTION  
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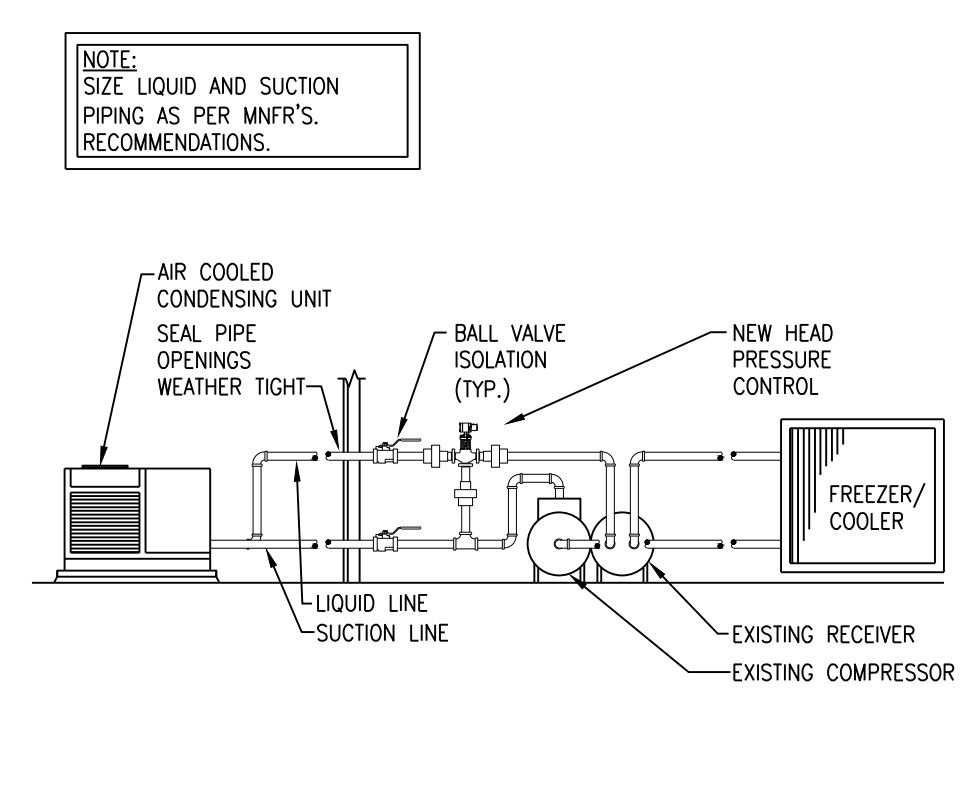
15 M-AHU-1 MECHANICAL SECTION  
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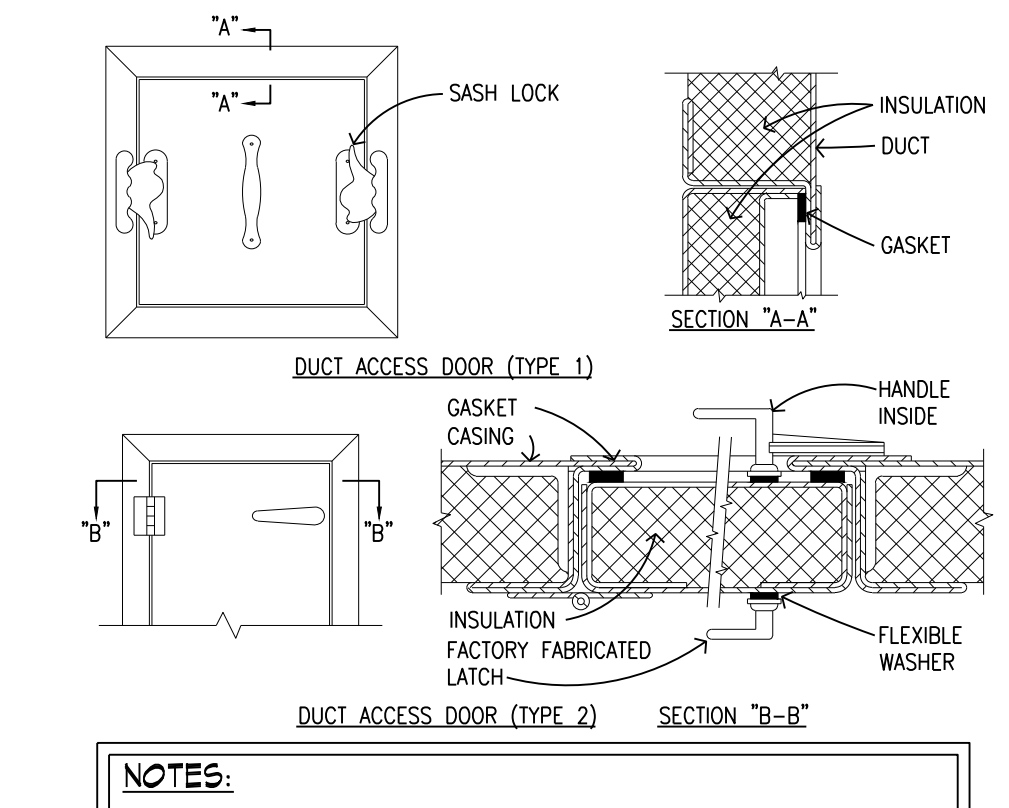
12 ROOF PIPING PENETRATION WEATHER HOOD DETAIL  
 H2.4 SCALE: NTS



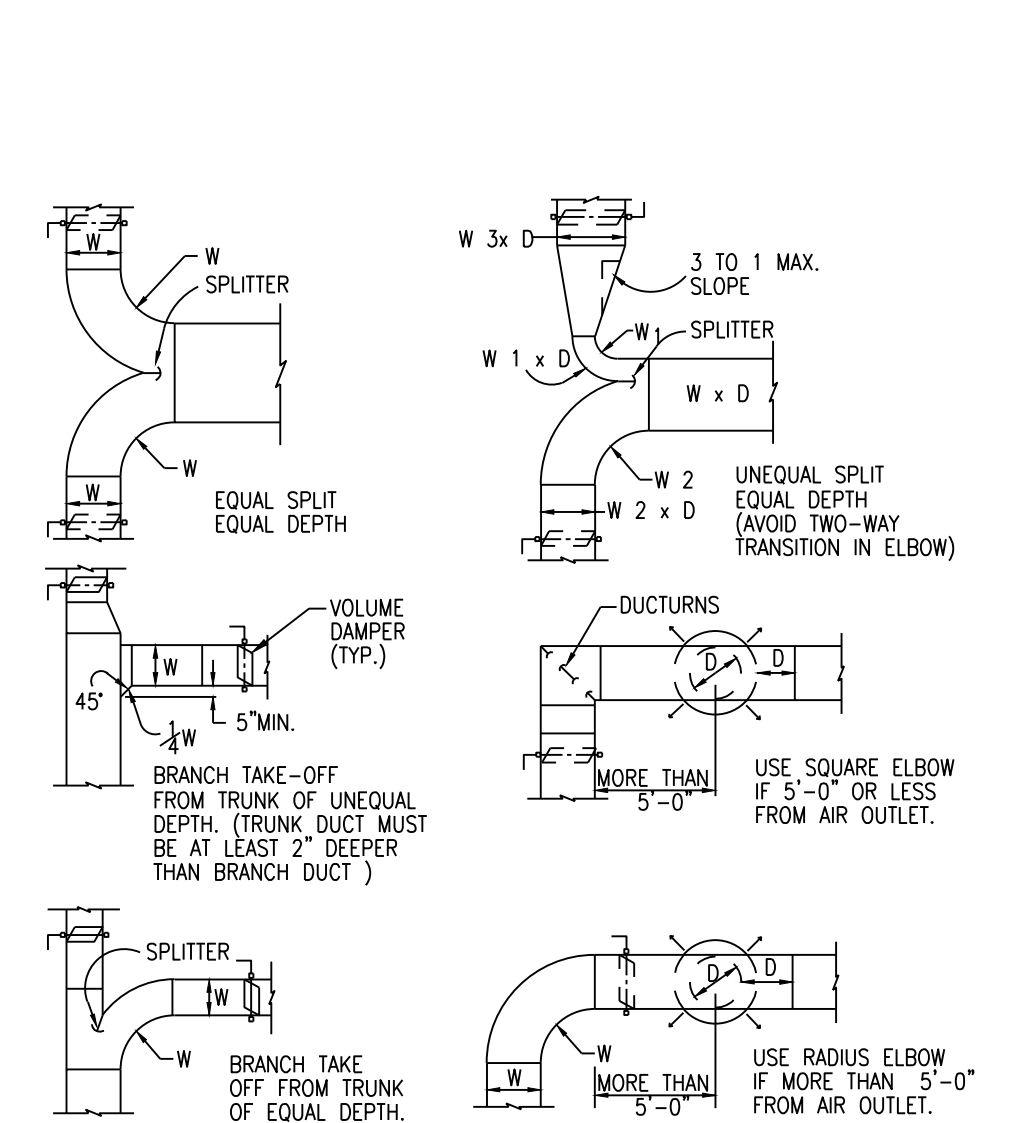
11 TYPICAL CURB CAP DETAIL  
 H2.4 SCALE: NTS



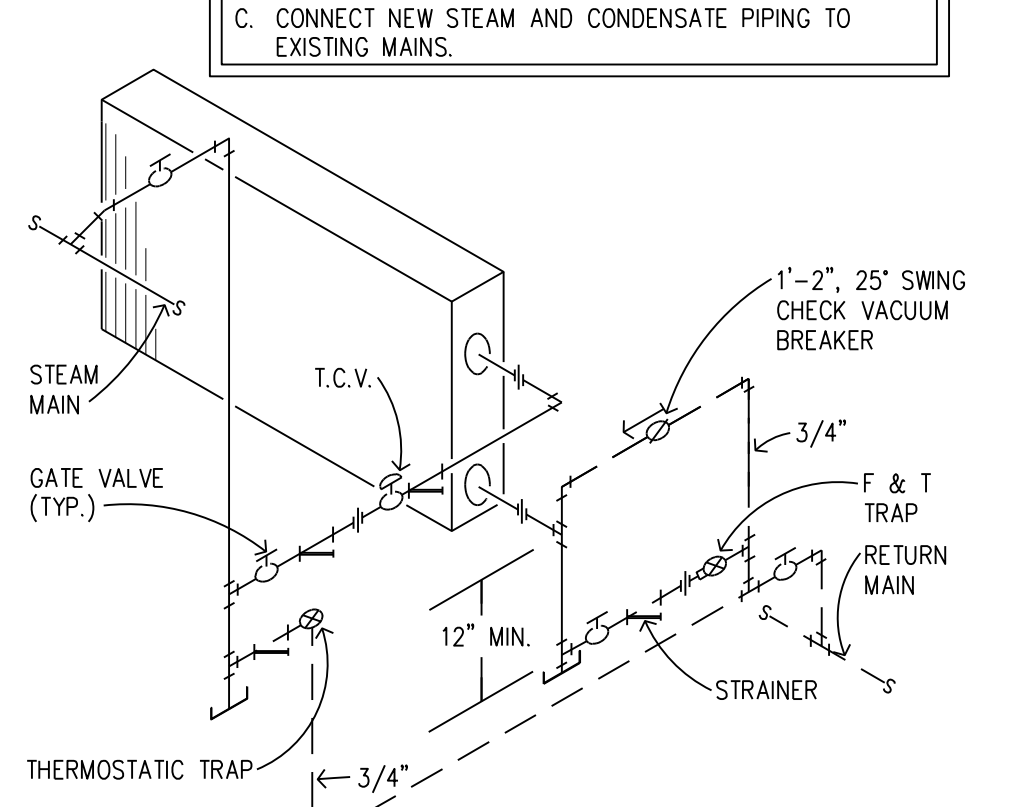
14 REFRIGERATION PIPING DETAIL  
 H2.4 SCALE: NTS



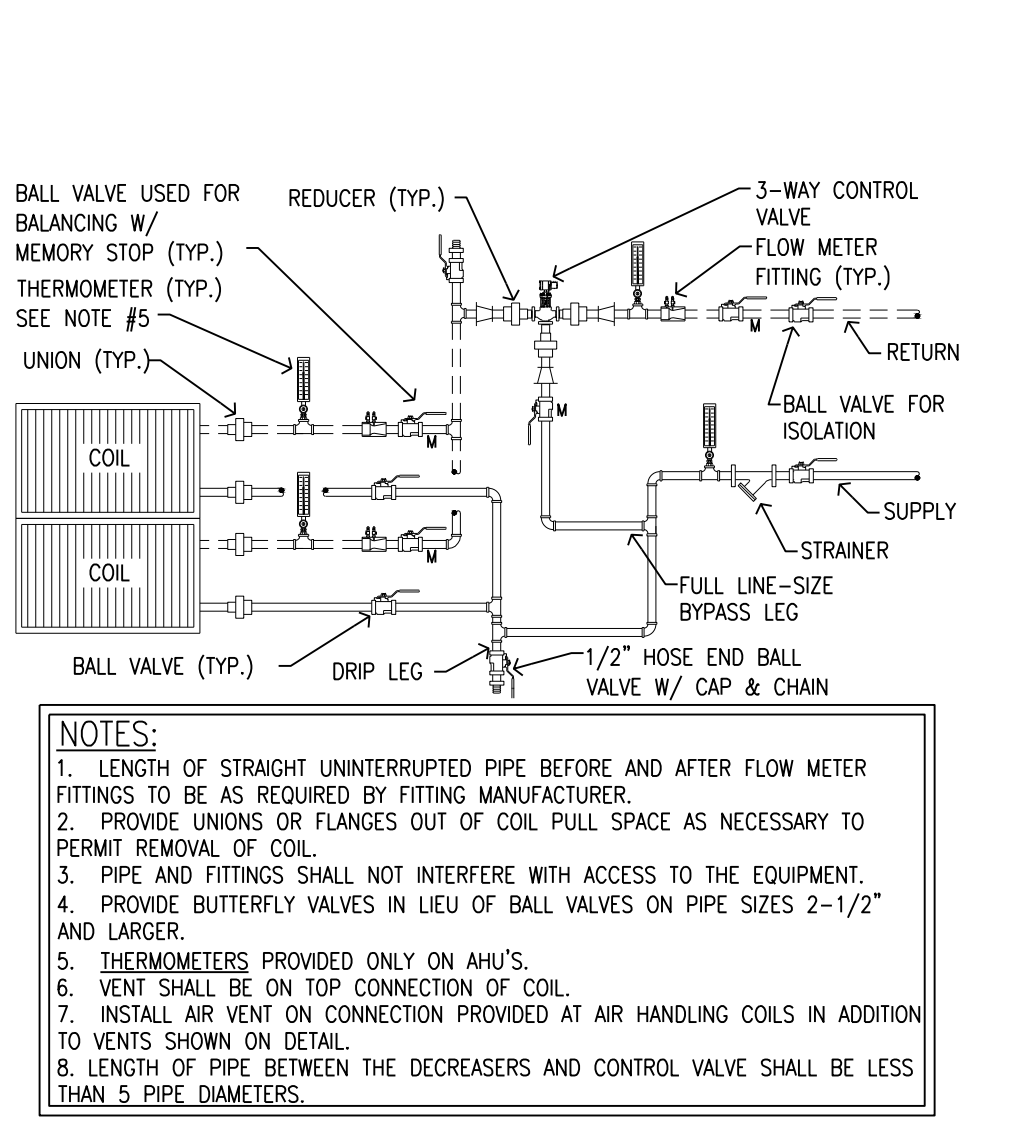
10 DUCT ACCESS DOOR DETAIL  
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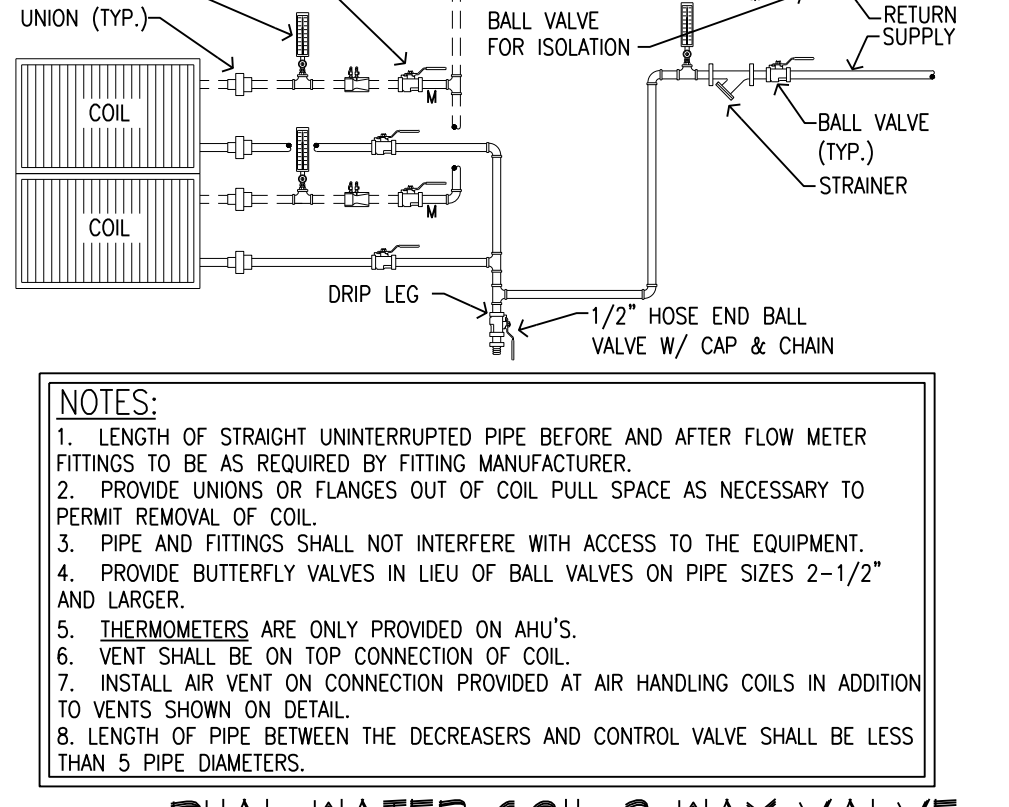
8 DUCT CONNECTION DETAILS  
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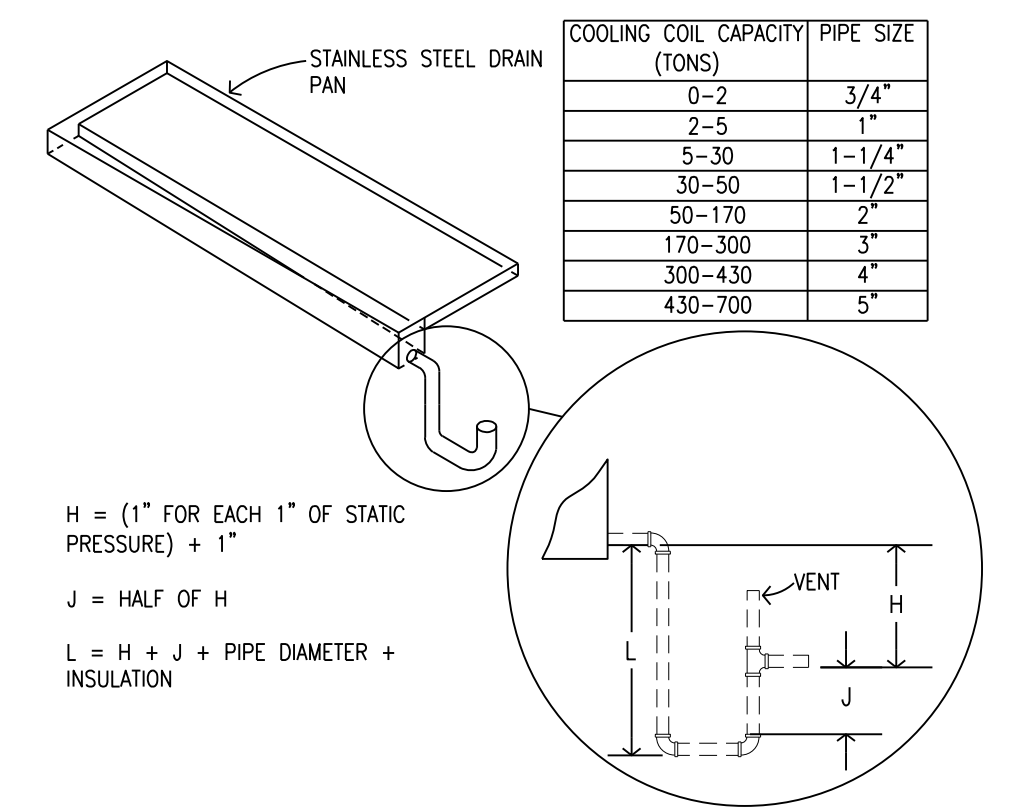
7 STEAM COIL PIPING DETAIL  
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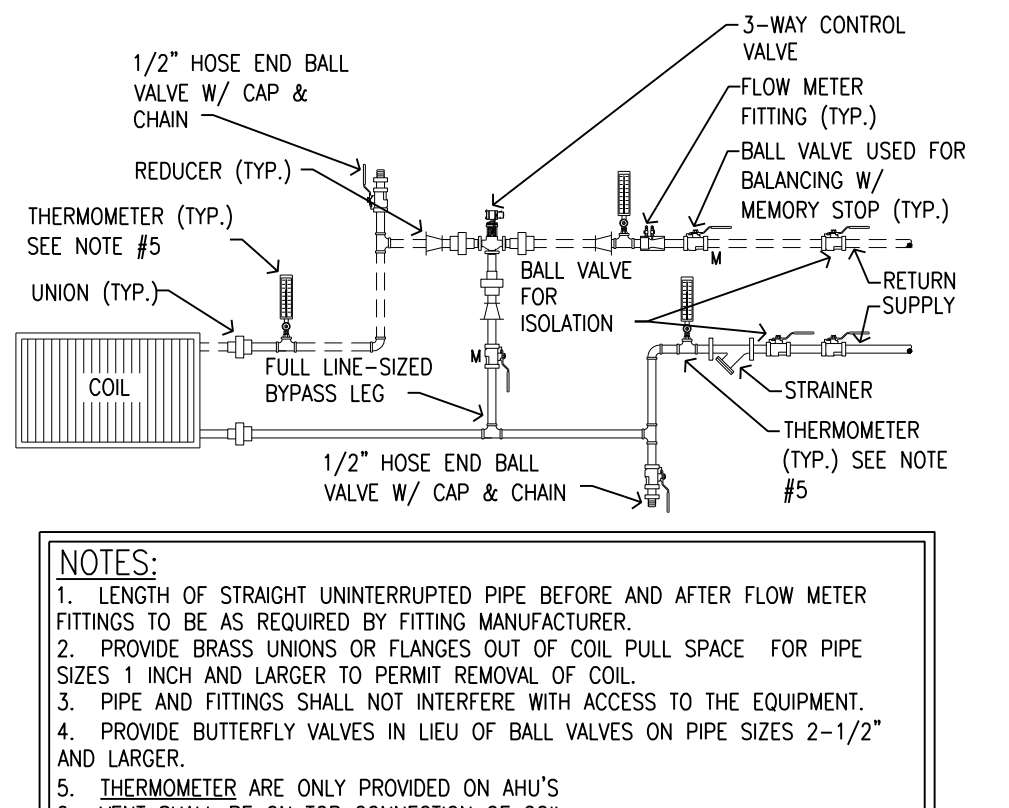
4 DUAL WATER COIL 3-WAY VALVE FLOWMETER PIPING DETAIL  
 H2.4 SCALE: NTS



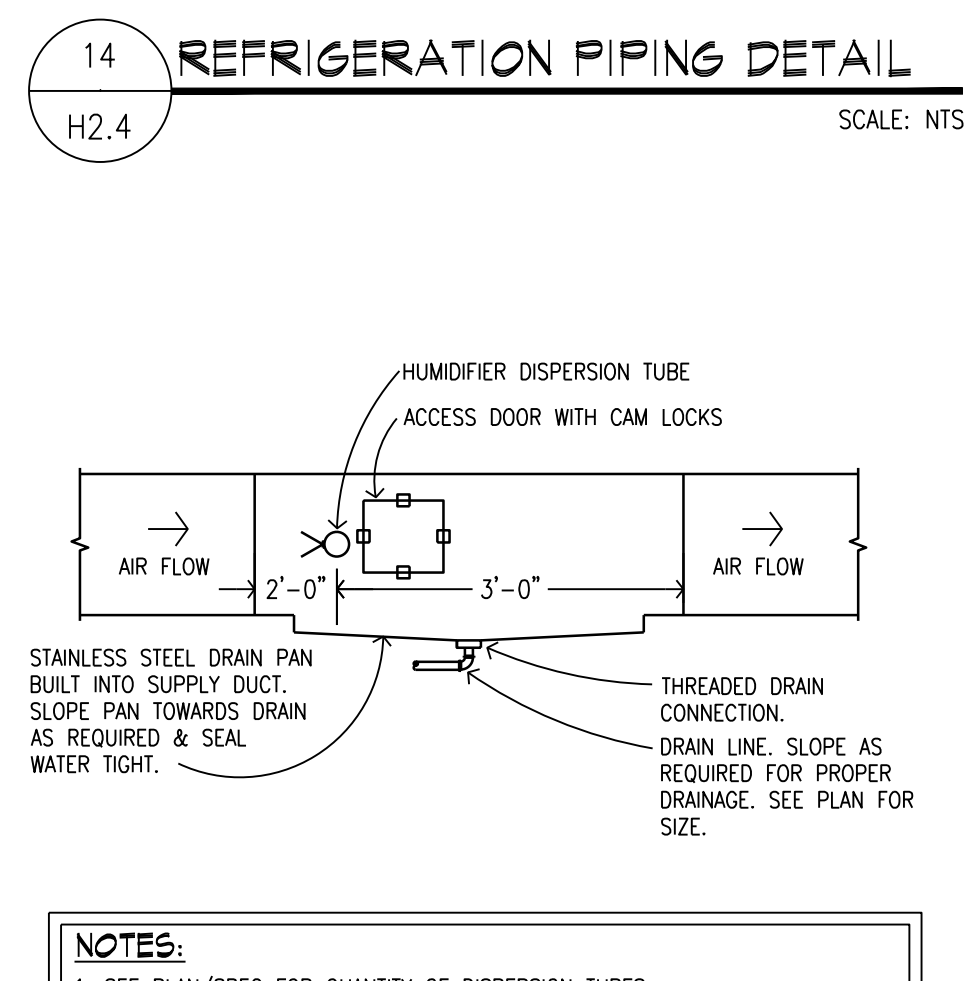
3 DUAL WATER COIL 2-WAY VALVE FLOWMETER PIPING DETAIL  
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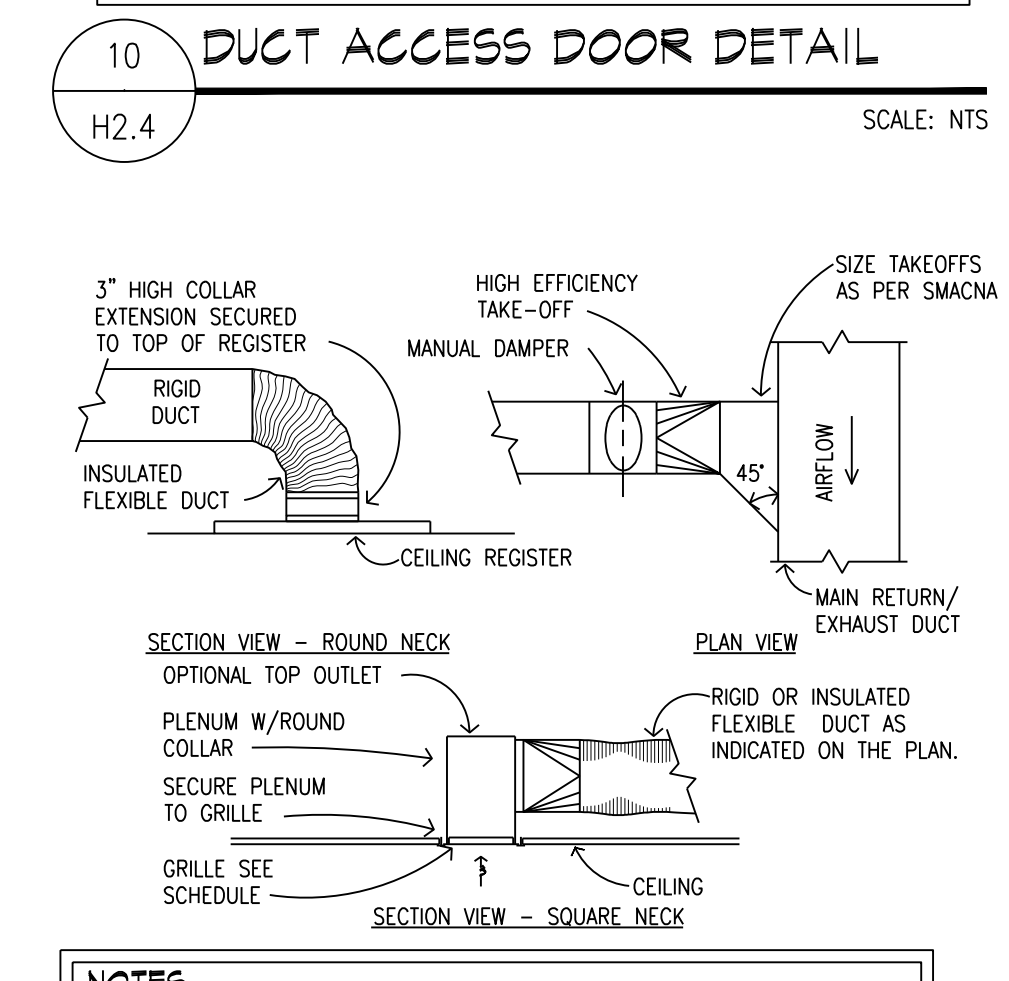
6 CONDENSATE DRAIN (DRAW THRU UNIT) DETAIL  
 H2.4 SCALE: NTS



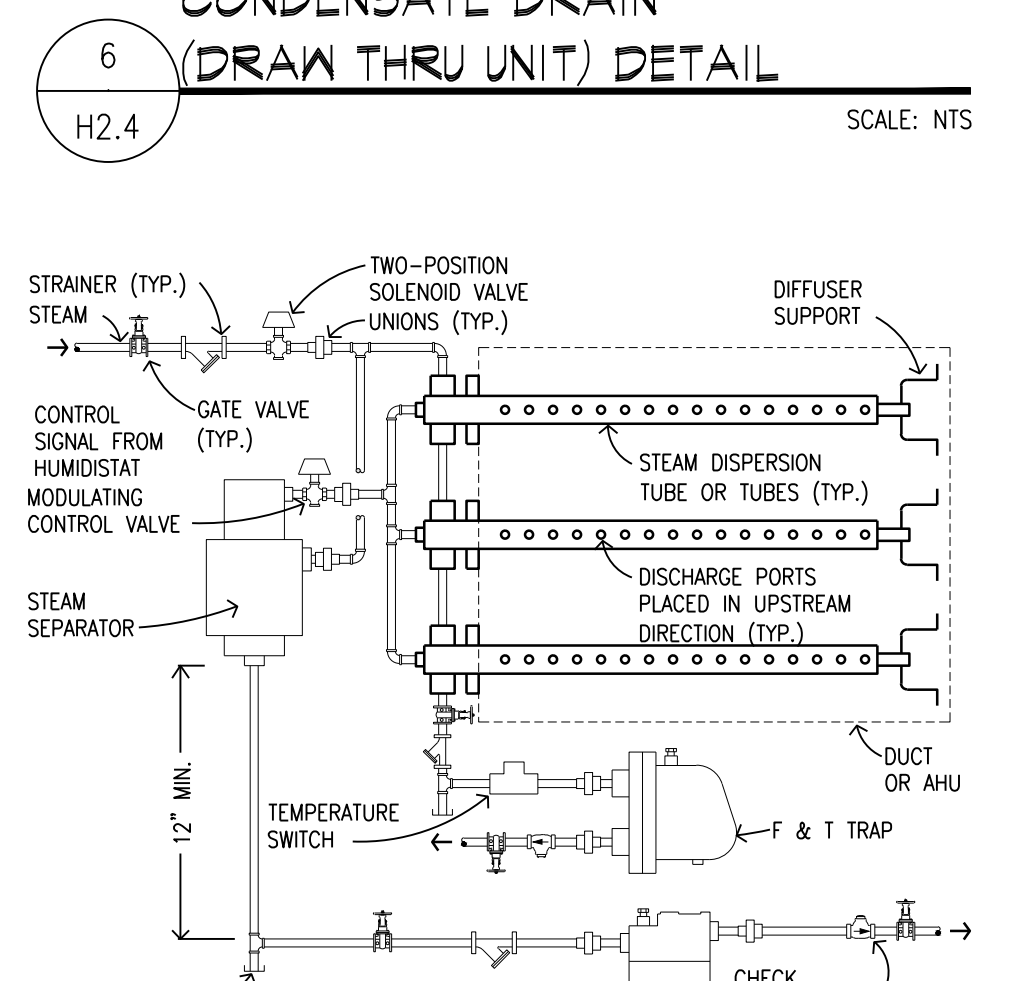
2 WATER COIL 3-WAY VALVE FLOWMETER PIPING DETAIL  
 H2.4 SCALE: NTS



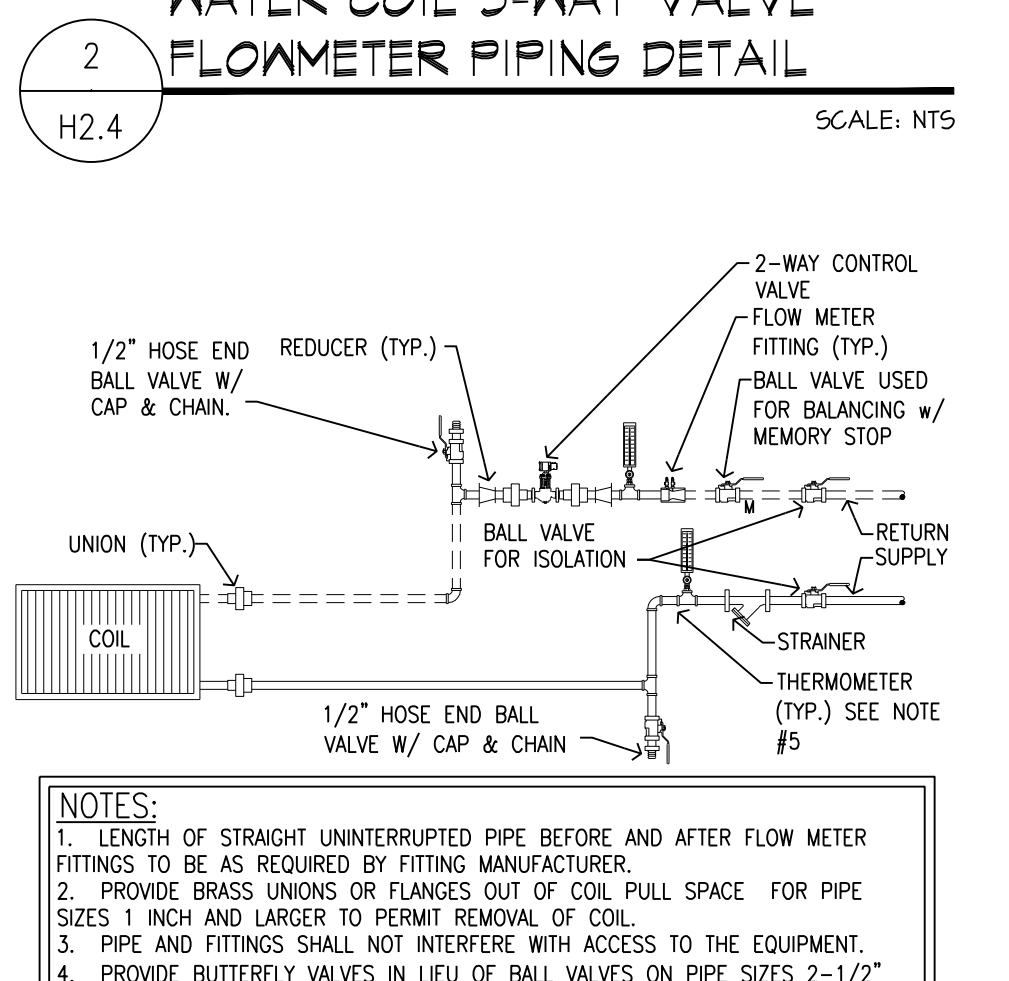
13 HUMIDIFIER DRAIN PAN DETAIL  
 H2.4 SCALE: NTS



9 RETURN/EXHAUST DUCT TO GRILLE DETAIL  
 H2.4 SCALE: NTS



5 STEAM HUMIDIFIER (HORI. TYPE) DETAIL MULTIPLE DISPERSION  
 H2.4 SCALE: NTS



1 WATER COIL 2-WAY VALVE FLOWMETER PIPING DETAIL  
 H2.4 SCALE: NTS

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Dept. of Veterans Affairs  
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Drawing Title  
 MECHANICAL DETAILS & SECTIONS

Project Phase  
 PHASE 2

VA Project No.  
 437-13-111

Contract No.  
 VA263-P-218  
 VA263-C-

Building No.  
 VAMC CAMPUS

Project Title  
 REPLACE OR UPGRADE HVAC SYSTEM COMPONENTS

Designed By  
 JP

Checked By  
 JP

Drawn By  
 JF

Location  
 FARGO VA HEALTH CARE SYSTEM  
 FARGO, NORTH DAKOTA

Date  
 SEPT. 14, 2016

Scale  
 AS SHOWN

Drawing No.  
 H2.4

Dwg. 33 of 66

Department of Veterans Affairs

STEAM HUMIDIFIER SCHEDULE. Table with columns: HUMID. NO., ROOM SERVED, CFM, ABSORPTION DISTANCE, EAT, LAT, ENT. ON-OFF VALVE, ENT. CNTRL. VALVE, ON-OFF & CNTRL. VALVE, DUCT SIZE.

DIFFUSER, REGISTER AND GRILLE SCHEDULE. Table with columns: UNIT NO., MATERIAL, TYPE, NECK SIZE, FRAME SIZE, MOUNTING, AIR, OBD, REMARKS.

WATER COILS, HEATING. Table with columns: COIL NO., SYSTEM, CFM, MAX FV, MAX SPD, AIR TEMP, CIRCULATING FLUID, MIN. BTUH.

WATER COILS, COOLING. Table with columns: COIL NO., SYSTEM, CFM, MAX FV, MAX SPD, AIR TEMP, CIRCULATING FLUID, MIN. BTUH.

AIR FILTER SCHEDULE. Table with columns: FILTER NO., CFM, SYSTEM, VA GRADE, RATED EFF. %, MAX S.P. DROP, HOUSING TYPE, CARTRIDGES.

AIR HANDLING UNIT SOUND POWER SCHEDULE. Table with columns: UNIT NO., LOCATION, OCTAVE BAND, NOTES.

AIR COOLED CONDENSER SCHEDULE. Table with columns: UNIT NO., LOCATION, MIN. REFRIG. EFFECT BTU/H, REFRIGERANT CIRCUITS, O.A. TEMP, UNIT RPM, ELECTRICAL DATA, CONDENSER FAN MOTOR.

SPLIT SYSTEM OUTDOOR CONDENSING UNIT SCHEDULE. Table with columns: UNIT NO., UNIT TYPE, AMBIENT OUTDOOR TEMPERATURE, COOLING, HEATING, ELECTRICAL, DISC BY, NOTES.

SPLIT SYSTEM FAN COIL UNIT SCHEDULE. Table with columns: UNIT NO., INDOOR UNIT TYPE, TYPE, CFM, ESP, COOLING, HEATING, ELECTRICAL, DISC BY, NOTES.

FAN SCHEDULE. Table with columns: UNIT NO., LOCATION, CFM, E.S.P., FAN TYPE, ARRANGEMENT, WHEEL, MAX. RPM, DRIVE, MOTOR, NOTES.

AIR HANDLING UNIT SCHEDULE. Table with columns: UNIT NO., LOCATION, AREA SERVED, SUPPLY FAN NO., RETURN FAN NO., CFM, EXTERNAL STATIC PRESSURE, SPECIFIED INTERNAL LOSSES, UNSPECIFIED INTERNAL LOSSES, TYPE SYSTEM.



Project information block including Drawing Title (MECHANICAL SCHEDULES), Project Title (REPLACE OR UPGRADE HVAC SYSTEM COMPONENTS), Project Phase (PHASE 2), VA Project No. (437-19-111), Contract No. (VA263-P-1218), and other details.

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