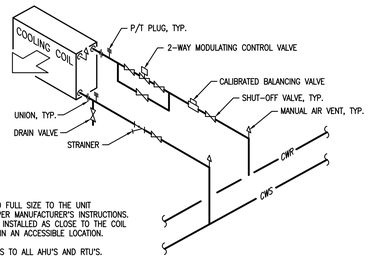
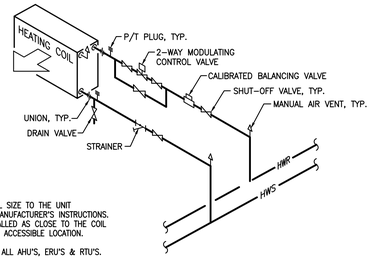


NOTES:

1. COILS TO BE PIPED FULL SIZE TO THE UNIT CONNECTION AND PER MANUFACTURER'S INSTRUCTIONS. ALL VALVES TO BE INSTALLED AS CLOSE TO THE COIL AS POSSIBLE AND IN AN ACCESSIBLE LOCATION.
2. THIS DETAIL APPLIES TO ALL AHU'S AND RTU'S.

1 AHU COOLING COIL PIPING DETAIL

NO SCALE

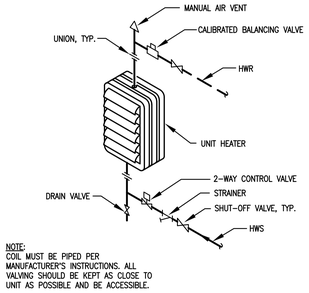


NOTES:

1. COILS TO BE PIPED FULL SIZE TO THE UNIT CONNECTION AND PER MANUFACTURER'S INSTRUCTIONS. ALL VALVES TO BE INSTALLED AS CLOSE TO THE COIL AS POSSIBLE AND IN AN ACCESSIBLE LOCATION.
2. THIS DETAIL APPLIES TO ALL AHU'S, ERU'S & RTU'S.

2 AHU HEATING COIL PIPING DETAIL

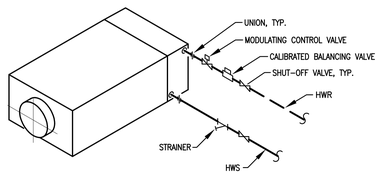
NO SCALE



NOTE:
COIL MUST BE PIPED PER MANUFACTURER'S INSTRUCTIONS. ALL VALVING SHOULD BE KEPT AS CLOSE TO UNIT AS POSSIBLE AND BE ACCESSIBLE.

3 HORIZ. UNIT HEATER PIPING DETAIL

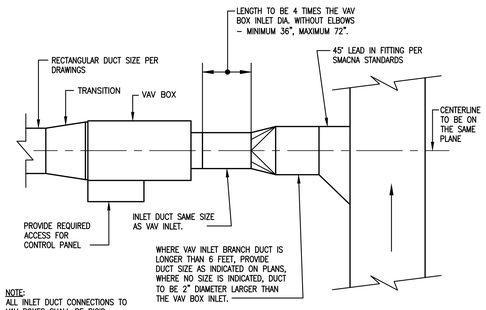
NO SCALE



NOTE:
COIL MUST BE PIPED PER MANUFACTURER'S INSTRUCTIONS. ALL VALVING SHOULD BE KEPT AS CLOSE TO UNIT AS POSSIBLE AND IN AN ACCESSIBLE LOCATION.

4 VAV BOX PIPING DETAIL

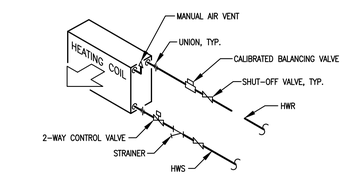
NO SCALE



NOTE:
ALL INLET DUCT CONNECTIONS TO VAV BOXES SHALL BE RIGID ROUND DUCT.

5 VAV BOX DUCT INLET CONNECTION DETAIL

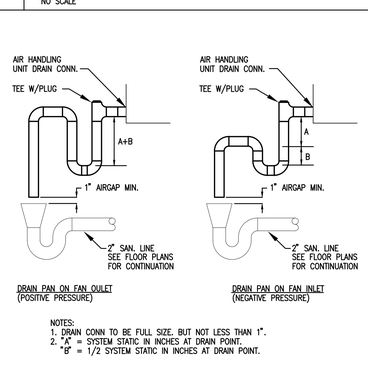
NO SCALE



NOTE:
1. COIL MUST BE PIPED PER MANUFACTURER'S INSTRUCTIONS. ALL VALVING SHOULD BE INSTALLED WITHIN CABINET ENCLOSURE AND BE ACCESSIBLE.

6 CABINET HEATER COIL PIPING DETAIL

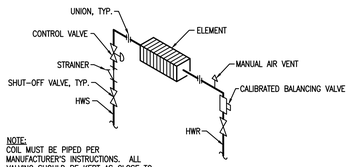
NO SCALE



NOTES:
1. DRAIN CONN TO BE FULL SIZE, BUT NOT LESS THAN 1".
2. "A" = SYSTEM STATIC IN INCHES AT DRAIN POINT.
"B" = 1/2 SYSTEM STATIC IN INCHES AT DRAIN POINT.

7 CONDENSATE DRAIN DETAIL

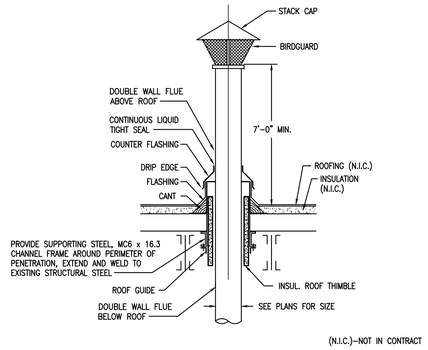
NO SCALE



NOTE:
COIL MUST BE PIPED PER MANUFACTURER'S INSTRUCTIONS. ALL VALVING SHOULD BE KEPT AS CLOSE TO UNIT AS POSSIBLE AND BE ACCESSIBLE.

8 FIN-TUBE RADIATION PIPING DETAIL

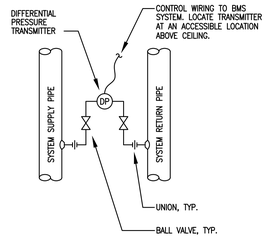
NO SCALE



(N.I.C.)–NOT IN CONTRACT

9 BOILER FLUE STACK DETAIL

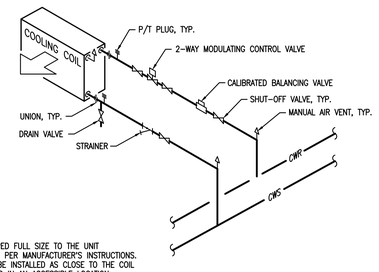
NO SCALE



NOTES:
1. REFER TO PLANS FOR APPROXIMATE LOCATIONS. COORDINATE FINAL LOCATION WITH BMS MANUFACTURER'S REQUIREMENTS.
2. PROVIDE A MINIMUM OF TWO DIFFERENTIAL PRESSURE TRANSMITTER LOCATIONS PER SYSTEM.

10 DIFFERENTIAL PRESSURE TRANSMITTER DETAIL

NO SCALE

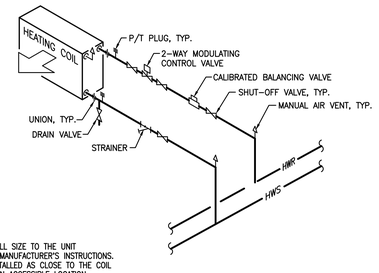


NOTES:

1. COILS TO BE PIPED FULL SIZE TO THE UNIT CONNECTION AND PER MANUFACTURER'S INSTRUCTIONS. ALL VALVES TO BE INSTALLED AS CLOSE TO THE COIL AS POSSIBLE AND IN AN ACCESSIBLE LOCATION.
2. THIS DETAIL APPLIES TO ALL PAH'S & FC'S.

11 PAH COOLING COIL PIPING DETAIL

NO SCALE



NOTES:

1. COILS TO BE PIPED FULL SIZE TO THE UNIT CONNECTION AND PER MANUFACTURER'S INSTRUCTIONS. ALL VALVES TO BE INSTALLED AS CLOSE TO THE COIL AS POSSIBLE AND IN AN ACCESSIBLE LOCATION.
2. THIS DETAIL APPLIES TO ALL PAH'S AND FC'S, EXCEPT WHERE INDICATED ON DRAWINGS H-B2 AND H-A4.

12 PAH & DUCT MOUNTED HEATING COIL PIPING DETAIL

NO SCALE

GENERAL PROJECT NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING SECTIONS. USE INFORMATION RELATING TO CEILING HEIGHTS, FLOOR TO FLOOR ELEVATIONS, ETC. TO DETERMINE PIPE AND DUCT RISER QUANTITIES AND TO VERIFY ROUTING OF SAME.
2. REFRIGERANT PIPING RUNS BETWEEN DX EVAPORATOR COILS AND THEIR ASSOCIATED AIR-COOLED CONDENSING UNITS SHALL BE SIZED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. RUN LENGTHS SHALL BE CALCULATED FROM PLANS, BUILDING SECTIONS AND FIELD CONDITIONS. ALL REFRIGERANT PIPING SHALL BE CONCEALED. PROVIDE ALL REQUIRED TRAPS IN VERTICAL REFRIGERANT RISERS AND ALL MISCELLANEOUS REFRIGERANT COMPONENTS THAT ARE INDICATED IN THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. HVAC CONTRACTOR IS REQUIRED TO COORDINATE ALL HVAC WORK WITH THE WORK OF ALL OTHER TRADES TO ENSURE CORRECT AND QUALITY INSTALLATIONS.
4. DUCT FITTINGS THAT ARE BETWEEN STRAIGHT SECTIONS OF DUCT THAT IS SHOWN LINED SHALL ALSO BE LINED.
5. DUCT DIMENSIONS GIVEN ARE METAL (OUTSIDE) DIMENSIONS UNLESS OTHERWISE NOTED.
6. THE HVAC CONTRACTOR SHALL COORDINATE ALL WORK ABOVE THE CEILING WITH THE ELECTRICAL, PLUMBING, FIRE PROTECTION AND GENERAL CONTRACTORS TO INSURE THE SCHEDULED CEILING HEIGHTS CAN BE MAINTAINED.
7. ALL LOW VOLTAGE WIRING (UNDER 120V) REQUIRED FOR HVAC EQUIPMENT SHALL BE PROVIDED BY THE HVAC CONTRACTOR PER THE MANUFACTURER'S WRITTEN INSTRUCTIONS UNLESS OTHERWISE NOTED.
8. HVAC CONTRACTOR TO PROVIDE LINTELS ABOVE ALL REQUIRED WALL PENETRATIONS NEEDED TO COMPLETE INDICATED HVAC WORK. REFER TO LINTEL SCHEDULE(S) SHOWN ON STRUCTURAL DRAWINGS FOR REQUIRED TYPES AND SIZES.
9. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR REQUIRED CONCRETE FLOOR AND ROOF DECK PATCHING DETAILS AS REQUIRED.

HVAC LEGEND

(ALL SYMBOLS MAY NOT APPLY TO THIS PROJECT)

2-WAY CONTROL VALVE	HWS	HEATING WATER SUPPLY	
3-WAY CONTROL VALVE	HWR	HEATING WATER RETURN	
BACKFLOW PREVENTER	DTS	DUAL TEMPERATURE WATER SUPPLY	
SAFETY RELIEF VALVE	DTR	DUAL TEMPERATURE WATER RETURN	
WATER PRESSURE REDUCING VALVE	CWS	CHILLED WATER SUPPLY	
BALL OR BUTTERFLY VALVE	CWR	CHILLED WATER RETURN	
CALIBRATED BALANCING VALVE	CS	CONDENSER WATER SUPPLY	
CHECK VALVE	CR	CONDENSER WATER RETURN	
STRAINER	HPWS	HEAT PUMP WATER SUPPLY	
TRIPLE DUTY VALVE	HPWR	HEAT PUMP WATER RETURN	
HIGH CAPACITY AUTOMATIC AIR VENT	PWS	POOL WATER SUPPLY	
MANUAL AIR VENT	PWR	POOL WATER RETURN	
UNION OR FLANGED CONNECTION	RL	REFRIGERANT LIQUID	
FLEXIBLE PIPE CONNECTION	RS	REFRIGERANT SUCTION	
FLOW METER	FOS	FUEL OIL SUPPLY	
ELECTROMAGNETIC FLOW METER	FOR	FUEL OIL RETURN	
SOLENOID VALVE	FOG	FUEL OIL GAGE	
(T) TEMPERATURE SENSOR	FOV	FUEL OIL VENT	
(H) HUMIDITY SENSOR	CD	CONDENSATE DRAIN	
(C) CO2 SENSOR		VERTICAL FIRE DAMPER – 1 1/2 HR	
(S) SENSOR		HORIZONTAL FIRE DAMPER – 1 1/2 HR	
TEMPERATURE/HUMIDITY SENSOR	3	VERTICAL FIRE DAMPER – 3 HR	
ACCESS DOOR	3	HORIZONTAL FIRE DAMPER – 3 HR	
PRESSURE GAUGE	S	VERTICAL SMOKE DAMPER	
THERMOMETER	S	HORIZONTAL SMOKE DAMPER	
P/T PLUG	S/F	VERTICAL COMBINATION SMOKE/ FIRE DAMPER	
[E] ELECTRIC OPERATOR	S/F	HORIZONTAL COMBINATION SMOKE/ FIRE DAMPER	
[P] PNEUMATIC OPERATOR	#	KEYED DRAWING NOTE	
[B] EMERGENCY BOILER SHUT-DOWN SWITCH	#	KEYED DEMOLITION NOTE	
[A] AQUASTAT		CONNECT TO EXISTING	
[S] SMOKE DETECTOR FURNISHED BY OTHERS INSTALLED BY HC		EXTENT OF DEMOLITION	
NEEDLE VALVE		INDICATES LINED DUCTWORK (SEE SPECS FOR MATERIAL)	
[M] MOTOR OPERATED DAMPER		INDICATES MANUAL BALANCING DAMPER	
EXISTING CONDITIONS	EXIST	EXISTING	
NEW WORK	XX	EQUIP. TYPE	
DEMOLITION	X.X	GPM	EXISTING HYDRONIC HVAC EQUIPMENT TO BE RE-BALANCED TO INDICATED FLOW RATE
DUCTWORK DEMOLITION			

ABBREVIATIONS

ABV	ABOVE
A.L.	ACOUSTICALLY LINED
ALUM	ALUMINUM
BDD	BACKDRAFT DAMPER
BEL	BELOW
CLG	CEILING
DN	DOWN
EC	ELECTRICAL CONTRACTOR
EA	EACH
EX	EXISTING
EXH	EXHAUST
EXIST	EXISTING
FLR	FLOOR
GC	GENERAL CONTRACTOR
GTC	GENERAL TRADES CONTRACTOR
HC	HVAC CONTRACTOR
MOD	MOTOR OPERATED DAMPER
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
OA	OUTSIDE AIR
PC	PLUMBING CONTRACTOR
RA	RETURN AIR
RC	ROOFING CONTRACTOR
REQ'D	REQUIRED
SA	SUPPLY AIR
TYP	TYPICAL
UV	UNIT VENTILATOR
VD	VOLUME DAMPER – MANUAL
W/	WITH

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3700 PERKIOMEN AVENUE, READING, PA 19606-2795
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www.aem-arch.com

HVAC LEGEND, NOTES AND DETAILS
SHEET 1
RENOVATIONS TO THE COCALICO MIDDLE SCHOOL
COCALICO SCHOOL DISTRICT
SOUTH 4TH STREET, DENVER BOROUGH, LANCASTER COUNTY PA

ALL DIMENSIONS and EXISTING CONDITIONS shall be CHECKED and VERIFIED by the CONTRACTOR at the SITE.

JOB NO.: 23001.00
DRAWN BY: RLC
DATE: 04.12.24

H-4