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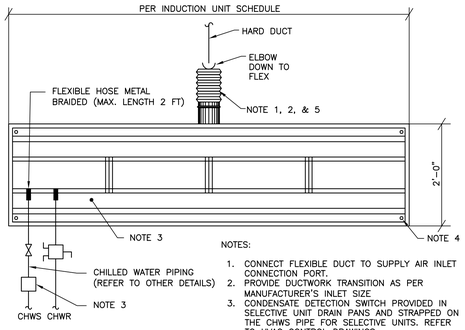
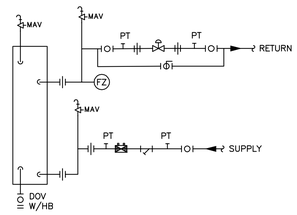
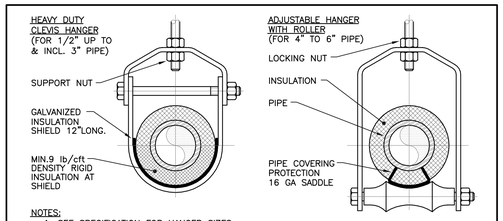


NOTES:
1. CONNECT FLEXIBLE DUCT TO SUPPLY AIR INLET CONNECTION PORT.
2. PROVIDE DUCTWORK TRANSITION AS PER MANUFACTURER'S INLET SIZE.
3. CONDENSATE DETECTION SWITCH PROVIDED IN SELECTIVE UNIT DRAIN PANS AND STRAPPED ON THE CHWS PIPE FOR SELECTIVE UNITS. REFER TO HVAC CONTROL DRAWINGS.
4. HANGER SUPPORTS IN ACCORDANCE WITH UNIT MANUFACTURER'S RECOMMENDATIONS.
5. 4 FOOT MAXIMUM LENGTH OF INSULATED FLEX DUCT.

INDUCTION UNIT DETAIL (SINGLE UNIT)
SCALE: NTS

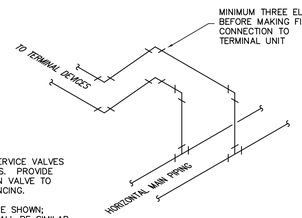


SINGLE DUCT MOUNTED WATER HEATING COIL W/ 2-WAY CONTROL VALVE
SCALE: NTS



NOTES:
1. SEE SPECIFICATION FOR HANGER SIZES.
2. PIPE 8" AND LARGER SHALL HAVE ROLLER SUPPORTED WITH DUAL RODS.
3. FOR CHW SERVICE OVER 3" REPLACE SADDLE WITH 12" LONG 14 GA SHIELD WITH RIGID INSULATION BETWEEN PIPE AND SHIELD.

PIPE HANGER SUPPORT
SCALE: NTS

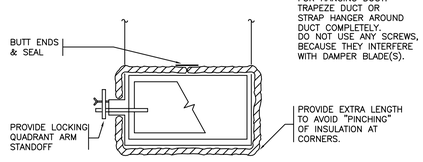


NOTES:

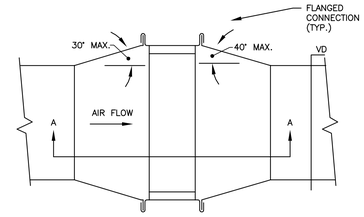
1. PROVIDE ISOLATION SERVICE VALVES AT ACCESSIBLE LOCATIONS. PROVIDE MEMORY STOP ON RETURN VALVE TO FACILITATE SYSTEM BALANCING.

2. TOP CONNECTIONS ARE SHOWN; BOTTOM CONNECTIONS SHALL BE SIMILAR.

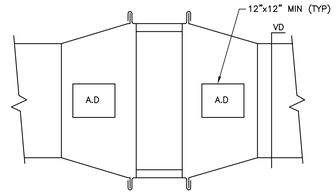
TERMINAL UNIT BRANCH TAKE-OFF
SCALE: NTS



TYPICAL DUCT INSULATION & SUPPORTS NEAR VOLUME DAMPERS
SCALE: NTS

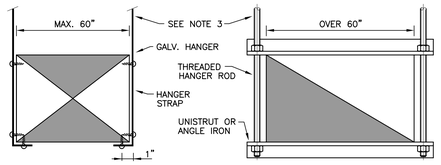


PLAN VIEW



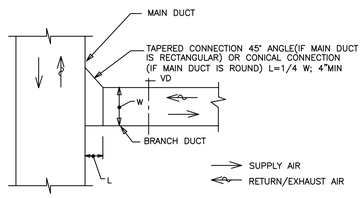
ELEVATION

DUCT MOUNTED HEATING COIL
SCALE: NTS



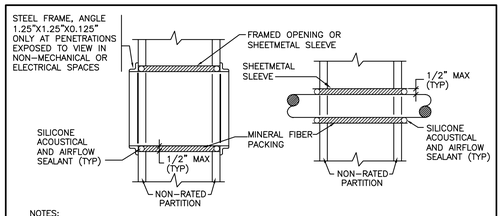
NOTES:
1. ON DUCTS OVER 48" WIDE, BOTTOM SHALL BE BRACED BY ANGLE. FOR CROSS SECTION AREA MORE THAN 8 SQ FT, DUCT SHALL BE BRACED BY ANGLES ON ALL FOUR SIDES.
2. CUTTING AND PATCHING SHALL BE LIMITED TO A MINIMUM AS REQUIRED FOR PROPER INSTALLATION.
3. SUPPORTS SHALL BE SPACED AND SIZED AS PER SMACNA.

DUCT HANGER SUPPORT
SCALE: NTS



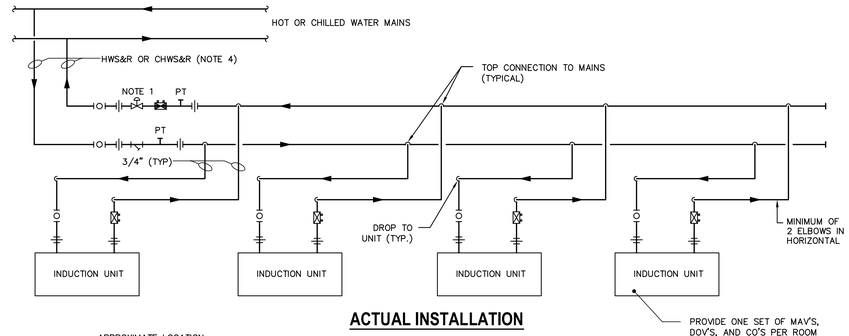
DUCT TAKE-OFF

BRANCH TAKE-OFFS
SCALE: NTS

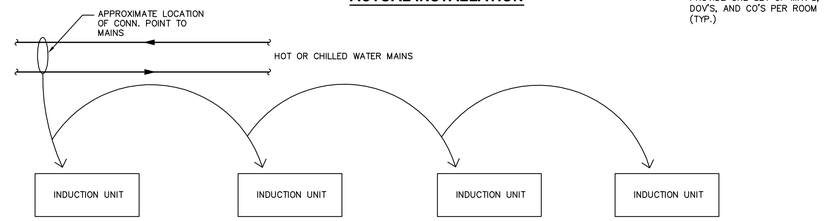


NOTES:
1. AT FIRE RATED PARTITIONS WITHOUT FIRE DAMPER, REPLACE PACKING AND SILICONE SEALANT WITH UL LISTED FIRE STOP SYSTEM. INSTALL IN ACCORDANCE WITH UL LISTING.
2. FIRE STOP DUCT PENETRATIONS THRU CORRIDOR WALLS ABOVE CEILINGS.

DUCT PENETRATION OF FULL HEIGHT PARTITIONS
SCALE: NTS



ACTUAL INSTALLATION



REPRESENTATION ON PLANS

NOTES:

1. PROVIDE 3-WAY CONTROL VALVE FOR 33% OF THE ROOMS AT ENDS OF RUNS; PROVIDE PIPE REDUCERS AS REQUIRED FOR SIZING OF CONTROL VALVE. PROVIDE A SINGLE 3-WAY DIVERTING VALVE AND IN-LINE PUMP FOR HEATING SIDE OF IU-D UNITS, AND 3-WAY TEMPERATURE CONTROL VALVES FOR EACH ZONE.

2. PROVIDE A SINGLE 3-WAY DIVERTING VALVE AND IN-LINE PUMP FOR HEATING SIDE OF ALL IU-D UNITS. PROVIDE A 3-WAY TEMPERATURE CONTROL VALVE FOR EACH IU-D HEATING CONTROL ZONE.

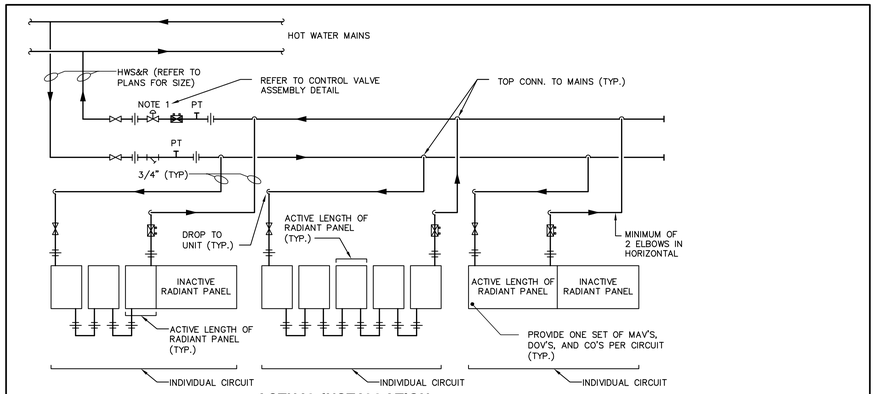
3. REFER TO DETAIL FOR A SINGLE IU FOR ADDITIONAL ACCESSORIES AND REQUIREMENTS.

4. PIPE SIZE 3/4" FOR SERVING UP TO (2) INDUCTION UNITS, 1" UP TO (4) UNITS, 1-1/2" FOR UP TO (10) UNITS.

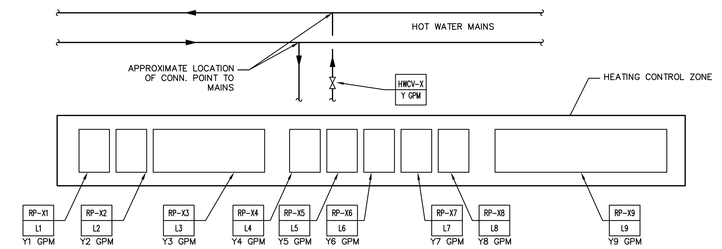
5. FIELD COORDINATE EXACT LAYOUT AND ROUTING OF PIPES.

6. PROVIDE AN INDIVIDUAL ZONE OF TEMPERATURE CONTROL FOR EACH ROOM HAVING INDUCTION UNITS; ROOMS WITH MOVABLE PARTITIONS COUNT AS TWO SEPARATE ROOMS.

INDUCTION UNIT PIPING DETAIL (TYPICAL FOR EACH ROOM WITH EITHER SINGLE OR MULTIPLE INDUCTION UNITS)
SCALE: NTS



ACTUAL INSTALLATION



REPRESENTATION ON PLANS

NOTES:

1. PROVIDE 3-WAY ZONE CONTROL VALVE FOR 33% OF THE ROOMS AT ENDS OF RUNS; PROVIDE PIPE REDUCERS AS REQUIRED FOR SIZING OF CONTROL VALVE.

2. REFER TO DETAIL FOR A SINGLE RP FOR ADDITIONAL ACCESSORIES AND REQUIREMENTS.

3. FIELD COORDINATE EXACT LAYOUT AND ROUTING OF PIPES.

4. L VALUES REPRESENT ACTIVE LENGTH OF RADIANT PANEL REQUIRED. PROVIDE CONTINUOUS LENGTH IN COORDINATION WITH ARCHITECTURAL RCPS & CENTER ACTIVE LENGTH SPECIFIED OPPOSITE ENVELOPE GLAZING.

5. UNITS ARE DAISY CHAINED AS REQUIRED FOR A MINIMUM TOTAL GPM OF 0.5 THROUGH EACH CIRCUIT, UP TO A MAXIMUM OF FIVE (5) PANELS IN THE DAISY CHAIN (WHICHEVER GOVERNS), WITHIN THE ZONE. REFER TO THE PLANS FOR THE INDIVIDUAL GPM REQUIREMENTS FOR EACH INDIVIDUAL PANEL.

RADIANT PANEL PIPING DETAIL (TYPICAL PER HEATING CONTROL ZONE AS INDICATED ON PLANS)

ROWAN UNIVERSITY · RUTGERS, CAMDEN · BOARD OF GOVERNORS

Project:
JOINT HEALTH SCIENCES CENTER - CAFE FITOUT

Prepared For:
Rowan University - Rutgers Camden
Board of Governors
200 Federal Street, Suite 300
Camden, NJ 08103

Contract No: 16.07011.12

HOK
One Logan Square, Suite 1510
Philadelphia, PA 19103 USA
t +1 215 940 3570 f +1 215 940 3571

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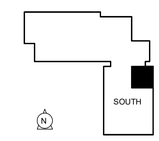
In Association with:

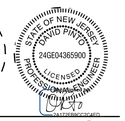
J.F. McKernan Jr. Architects & Assoc., LLC
100 Dobbs Lane, Suite 204
Cherry Hill, NJ 08034

R.G. Vanderweil Engineers, LLP
101 Grovers Mill Road
Lawrenceville, NJ 08648

Key Plan



Professional Seals



No.	Description	Date
1	ISSUED FOR CONSTRUCTION	01/17/2020

Drawn by: GP Reviewed by: BB
Project No: 16.07011.12

ISSUED FOR CONSTRUCTION - 01.17.20

Sheet Title
HVAC DETAILS

Original drawing is 42 x 30. Do not scale contents of this drawing.

Sheet Number
M-501.CF

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