CONDENSATE PIPING NOTES

1. Piping is shown diagrammatically and does not indicate all the offsets, rises and drops that will be required.
2. Condensate piping to be Schedule 40 PVC plastic.
3. Provide cleanouts at the ends on longer runs and where shown on plans.
4. Branch condensate pipe sizes are not shown on plan - size as follows:
   - 4.1. One unit --¾"
   - 4.2. Two to four units -- 1"
   - 4.3. Five to ten units -- 1¼"
   - 4.4. over ten units -- 1½"

REFRIGERANT PIPING NOTES

1. Piping is shown diagrammatically and does not indicate all the offsets, rises and drops that will be required.
2. All piping from the Outdoor units (OU) to the Branch Central Controllers (BCC) to be Type "K" hard drawn copper tubing.
3. All branch piping from the Branch Central Controllers (BCC) to air handlers (AH) to be ACR bendable refrigerant tube.
4. All connections to be brazed or mechanically fastened. Run a flow of nitrogen through the tubing when brazing pipe.
5. All connections to the Branch Central Controllers (BCC) to have a refrigerant rated shutoff valve

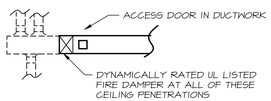
DUCTWORK IN BAR JOIST NOTES

1. DUCTWORK THAT IS TO BE RUN IN THE JOIST SPACE IS INDICATED ON THE DRAWINGS WITH DASHED LINES.

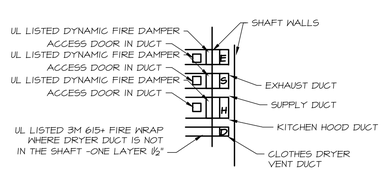
2. DUCTWORK THAT IS TO BE RUN BELOW THE JOIST SPACE IS INDICATED ON THE DRAWINGS WITH SOLID LINES.

FIRE DAMPERS

1. UL Listed fire dampers are required at the following locations.
2. At all penetrations of the sheetrock ceiling attached to the bottom of the wood trusses.



3. At all penetrations of shaft wall (except for dryer vents).



SHEETMETAL LEGEND

- LINEAR BAR GRILLE WITH FIRE DAMPER AND REMOTE OPERATED VOLUME DAMPER
- RETURN OR EXHAUST INLET, SURFACE MOUNT
- 45 DEG. TAKEOFF
- 45 DEG. TAKEOFF WITH HEAVY DUTY 24 GA DAMPER AND CLOSED END BEARING
- BELLMOUTH TAKEOFF
- BELLMOUTH TAKEOFF WITH HEAVY DUTY 24 GA. DAMPER AND CLOSED END BEARING
- UL LISTED FLEXIBLE DUCTWORK. INSULATED 1-1/2". MAXIMUM RUN LENGHT 6'-0"
- MOTORIZED DAMPER
- MANUAL DAMPER - LOCKING QUADRANT
- THERMOSTAT
- THERMOSTAT WITH LOCKING COVER
- TEMPERATURE SENSOR

PIPING LEGEND

- ACR BENDABLE REFRIGERANT TUBE
- TYPE "K" COPPER REFRIGERANT TUBING
- PVC SCHEDULE 40 CONDENSATE PIPING

SHEETMETAL NOTES

1. All ductwork to be fabricated and installed per SMACNA Low Pressure Ductwork Standards.
2. Ductwork is shown diagrammatically and does not indicate all the offsets, rises and drops that will be required.
3. All square elbows are to be installed with turning vanes.
4. Flexible ductwork to be insulated with 1-1/2" fiberglass duct wrap with foil-faced vapor barrier. Flexible ductwork to be ULIBI listed and limited to a maximum run of 6'-0".
5. All supply ductwork (including supply duct from ERV-1 to the air handling units to be insulated with 1-1/2" fiberglass duct wrap with foil faced vapor barrier.n.
6. Clothes dryer vents to be aluminum with a removable section for cleaning. No sheetmetal screws can be used - pop rivets only.

GENERAL NOTES

1. All systems are to be to meet the following Codes and Standards.
   - 1.1. ASHRAE 90.1 2007 - Energy Standard for Commercial Buildings.
   - 1.2. ASHRAE 60.1 2007 - Standard for Indoor Air Quality in Commercial Buildings.
   - 1.3. 2009 IECC - International Energy Conservation Code.
   - 1.4. NFPA - National Fire Protection Association Standards.
2. Do not cut any structural members with pre-approval of structural engineer.

ACCESS DOORS

1. Provide and install access doors in the ductwork to allow inspection and service to:
   - 1.1. All fire dampers in the shafts.
   - 1.2. Fire dampers in sheetrock ceilings.
   - 1.3. Hot water coils between hot water coil and air handler.
2. Provide access doors for the sheetrock ceiling for installation by others. Note - these are approximate sizes and counts. The mechanical contractor should coordinate sizes and locations with the General Contractor to try to minimize the number and the sizes of the access doors.
   - 2.1. 60-12"x12" for access to fire dampers and volume dampers.
   - 2.2. 24- 18"x18" for access to air handlers and hot water duct coils and controls.
   - 2.3. 4- 24"x36" for access to Basic Central Controllers.

N

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MECHANICAL SCHEDULES & NOTES

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MSE PROJECT 1332