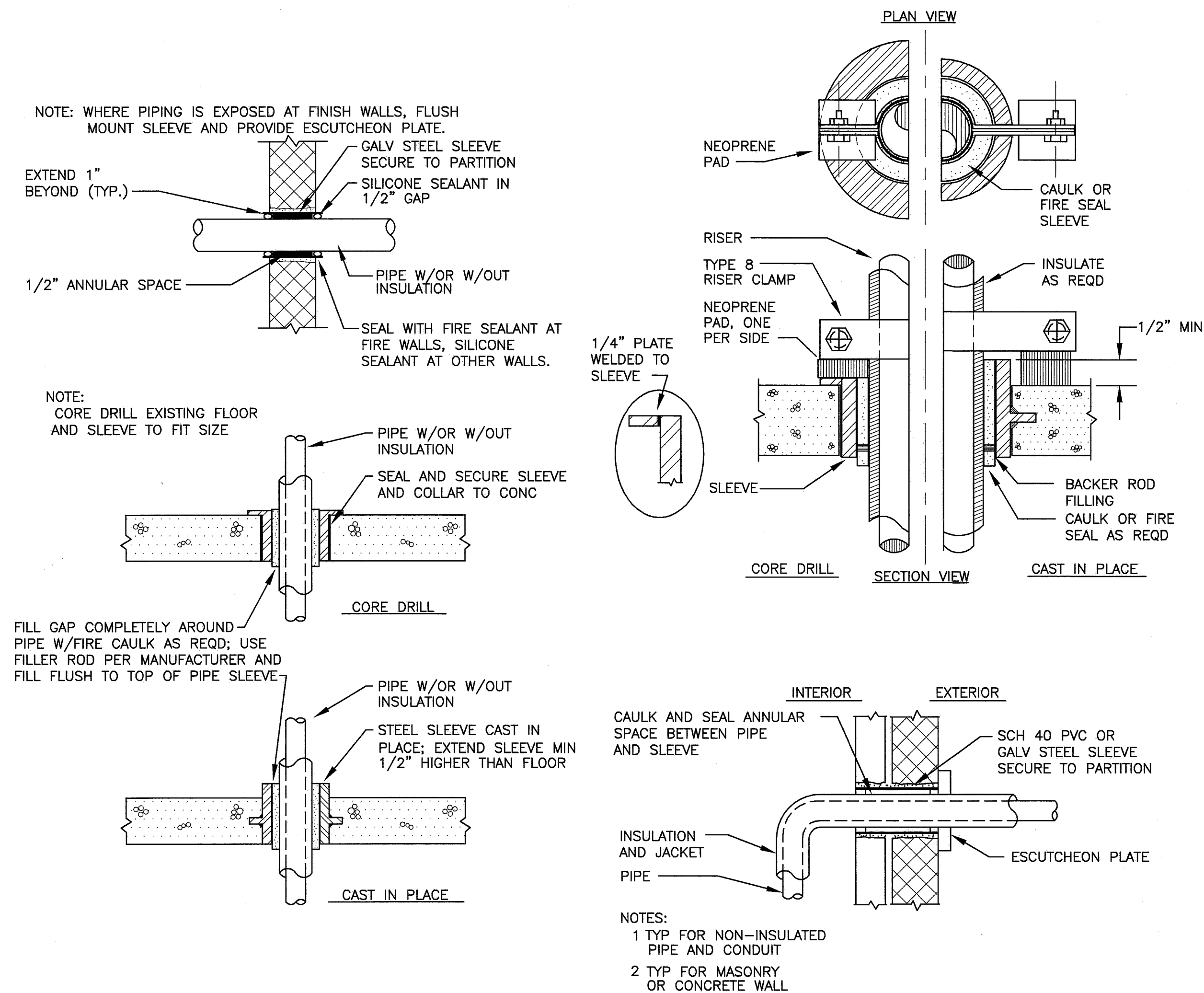


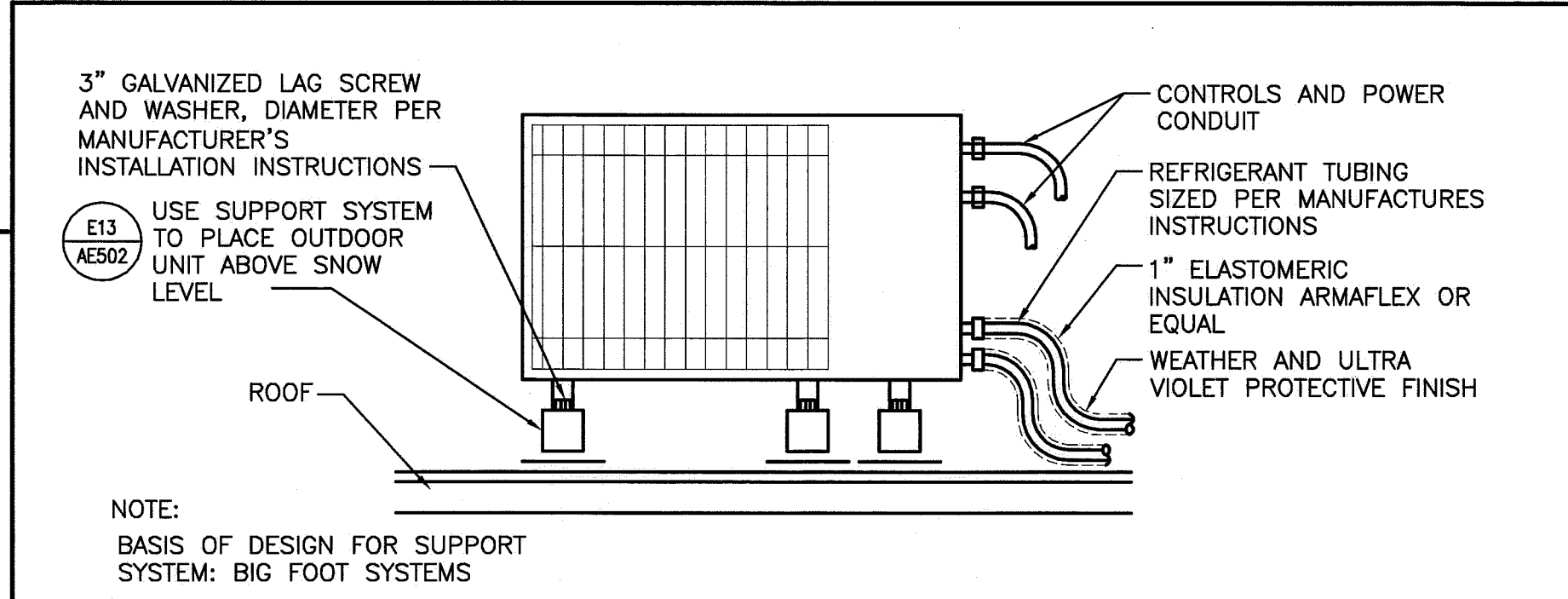
**H1 AIR CONDITIONING DX UNIT**

NOT TO SCALE



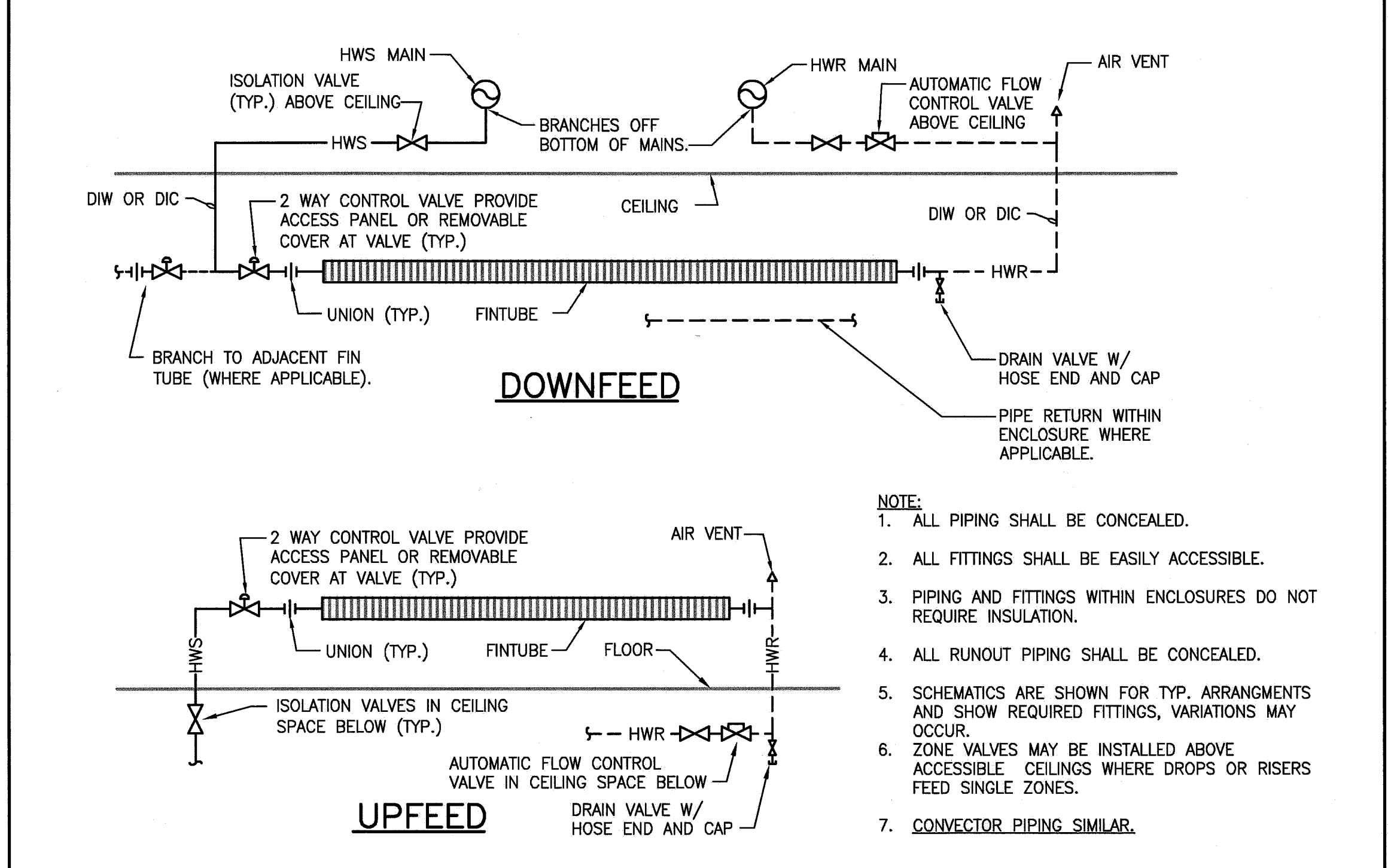
**A1 PIPE PENETRATION DETAILS**

NOT TO SCALE



**F8 CONDENSING UNIT DETAIL**

NOT TO SCALE



**A8 FIN TUBE RADIATION PIPING DETAIL**

NOT TO SCALE

**VARIABLE REFRIGERANT FLOW:**

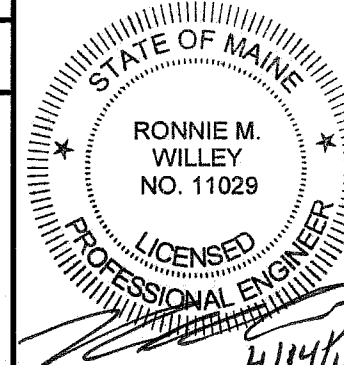
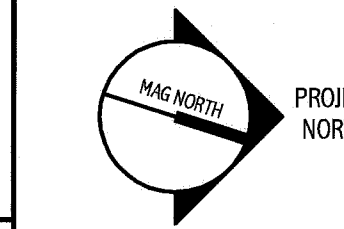
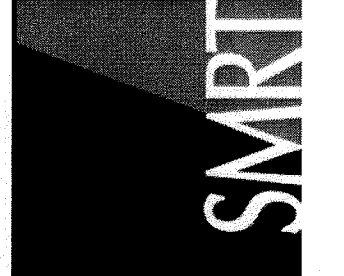
- A. VRF UNITS SHALL BE EQUIPPED WITH FACTORY MOUNTED CONTROLS. CONTROLS SHALL BE PROVIDED WITH A GATEWAY TO COMMUNICATE WITH THE FACILITY BMS. ROOM TEMPERATURE AND ALL ALARMS SHALL BE MONITORED AND REPORTED TO THE BMS. ALARMS TO INCLUDE BUT SHALL NOT BE LIMITED TO COMPRESSOR FAILURE, EVAPORATOR OR CONDENSER FAN FAILURE, HIGH OR LOW REFRIGERANT PRESSURE.
- B. VRF MANUFACTURER SHALL PROVIDE ONE WALL MOUNTED ROOM TEMPERATURE SENSOR PER ZONE AS INDICATED FOR CONTROL OF BOTH VRF COOLING AND FINTUBE HEAT.
- C. OCCUPIED MODE:
  - 1. ON A CALL FOR COOLING THE CONDENSING UNIT AND ROOM EVAPORATOR SHALL BE ENABLED. AFTER ALL SAFETIES HAVE BEEN SATISFIED THE VRF SYSTEM SHALL MAINTAIN ROOM TEMPERATURE AT THE COOLING SET POINT. (75°F ADJ.). ONCE THE ROOM TEMPERATURE HAS BEEN SATISFIED THE ROOM EVAPORATOR SHALL BE DISABLED.
  - 2. THE CONDENSING UNIT SHALL BE ENABLED IF ANY ONE EVAPORATOR HAS BEEN ENABLED.
  - 3. FINNED TUBE: UPON A CALL FOR HEATING THE CONTROL VALVE SHALL OPEN TO MAINTAIN ROOM TEMPERATURE SET POINT, (70°F ADJ.). ONCE THE ROOM TEMPERATURE IS SATISFIED THE CONTROL VALVE SHALL CLOSE.
  - 4. REHEAT COIL: UPON A CALL FOR HEATING THE CONTROL VALVE SHALL OPEN TO MAINTAIN ROOM TEMPERATURE SET POINT, (70°F ADJ.). ONCE THE ROOM TEMPERATURE IS SATISFIED THE CONTROL VALVE SHALL CLOSE.
- D. UNOCCUPIED MODE(NIGHT SETBACK):
  - 1. DURING THE COOLING SEASON THE ROOM TEMPERATURE SHALL BE SETBACK TO 80°F ADJ.
  - 2. DURING THE HEATING SEASON THE ROOM TEMPERATURE SHALL BE SETBACK TO 60°F ADJ.

**J14 SEQUENCE OF OPERATIONS**

NOT TO SCALE

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ISSUED FOR BIDDING & CONSTRUCTION  
4-15-11

CURRENT ISSUE STATUS:

REV	DATE	DESCRIPTION
0	4-15-11	ISSUED FOR BIDDING, PERMITS & CONSTRUCTION

GRAPHIC SCALE:  
0" 1"

SCALE: NOT TO SCALE  
PROJECT MANAGER: SLB  
JC/DRAWN BY: BAL  
A/E OF RECORD: RWM  
CAD FILE: M-502-10150  
PROJECT NO: 10150-00  
DATE: 4-15-11  
SHEET TITLE:

DETAILS AND SEQUENCE OF OPERATIONS

SHEET No.  
**M-502**  
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