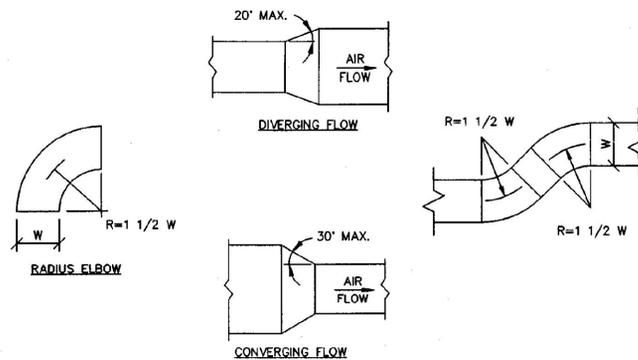
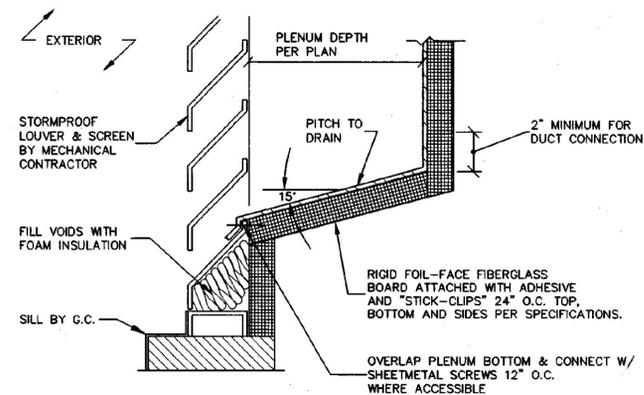


EXPOSED REGISTER DUCT TAKE-OFF DETAIL
SCALE: NONE

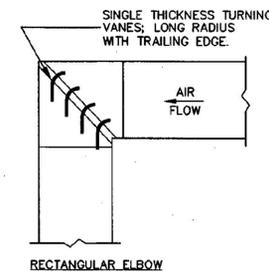


DUCT TRANSITIONS, OFFSETS, AND ELBOWS
SCALE: NONE



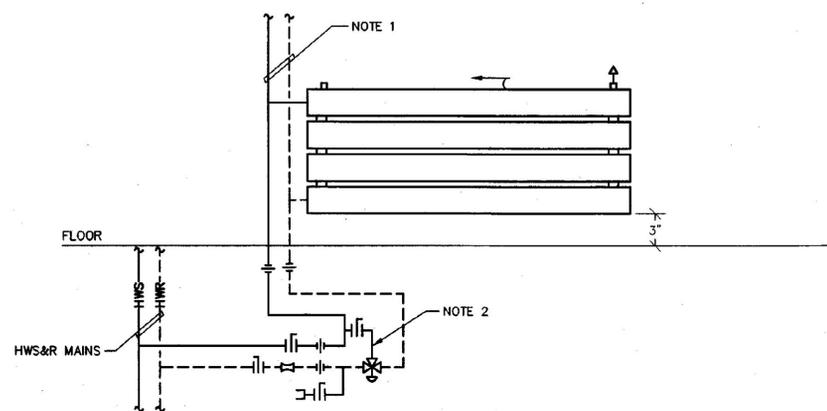
PLENUM AT LOUVER DETAIL
SCALE: NONE

NOTES:
SHEETMETAL CONSTRUCTION PER SMACNA.
SUPPORT PLENUM FROM FLOOR OR STRUCTURE ABOVE WITH GALVANIZED STEEL ANGLES AND CHANNELS, CROSS BREAK ALL PANELS FOR RIGIDITY.



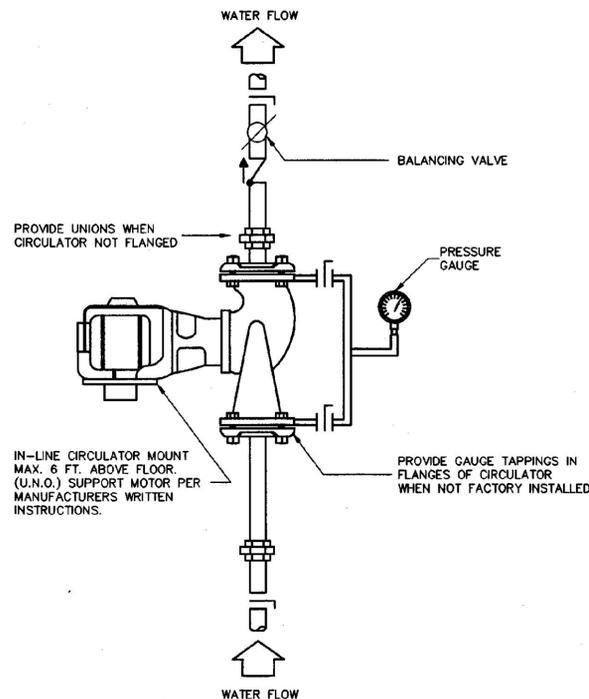
TURNING VANES FOR SQUARE ELBOW
SCALE: NONE

NOTES:
1. LOCKING LUGS INTEGRAL WITH VANE.
2. MAXIMUM UNSUPPORTED VANE LENGTH 48".
3. FRAMES-BOLTED OR RIVETED TO ELBOW.
4. VANES AND FRAMES - SAME GAUGE AS ELBOW.
5. TO BE USED ONLY WHERE SPECIFICALLY SHOWN ON THESE DRAWINGS.



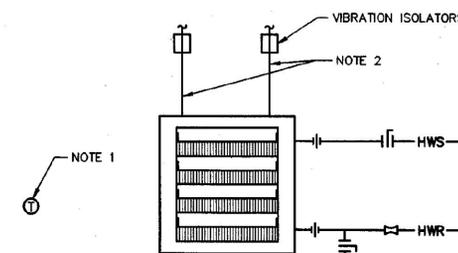
HEATING RADIATOR DETAIL
SCALE: NONE

NOTES:
1. REFER TO PLANS TO DETERMINE WHETHER PIPING FEEDS UP OR DOWN. WHERE PIPING FEEDS DOWN, PROVIDE VALVES IN CEILING SPACE ABOVE.
2. PROVIDE 3-WAY VALVE WHERE INDICATED ON PLANS.
3. DESIGN INTENT FOR THIS PROJECT IS TO INSTALL ALL VALVES AND FITTINGS IN CRAWL SPACE.
4. NOTE THAT 3-WAY VALVE MAY SERVE MORE THAN ONE RADIATION SECTION. REFER TO PLANS-ADJUST DETAIL ACCORDINGLY SO THAT EACH SECTION OF RADIATION IS INDIVIDUALLY ISOLATED AND BALANCED AND DRAINABLE.



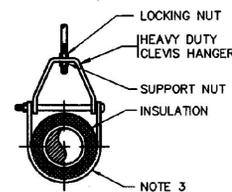
IN - LINE CIRCULATOR PIPING DETAIL
SCALE: NONE

NOTES:
1. REFER TO PIPING SCHEMATICS FOR ADDITIONAL VALVES AND FITTINGS.

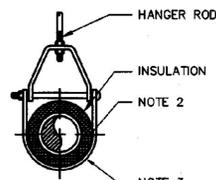


HOT WATER UNIT HEATER PIPING DETAIL
SCALE: NONE

NOTES:
1. COORDINATE THERMOSTAT LOCATION WITH PLANS. IF PLANS DO NOT SHOW A THERMOSTAT, MOUNT THERMOSTAT ON UNIT.
2. PROVIDE 3/8" HANGERS. MOUNT UNIT TIGHT TO BOTTOM OF FLOOR JOISTES.



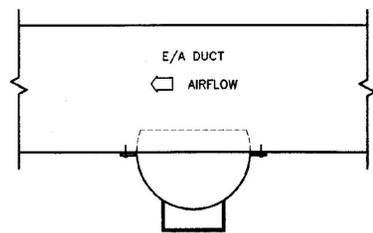
CLEVIS HANGER
(TYPICAL OF ALL PIPING LESS THAN 4")



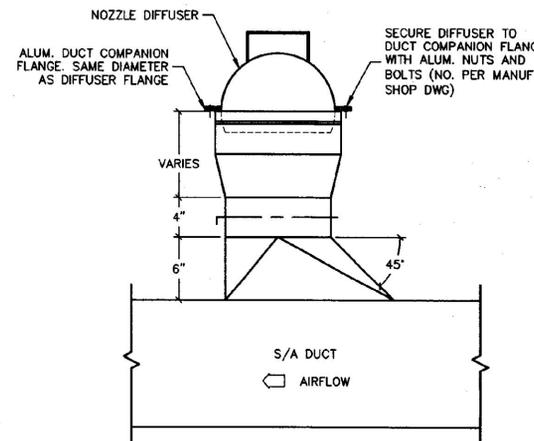
ADJ. CLEVIS HANGER
(TYPICAL COLD WATER PIPING, UP TO 100', 4" & LARGER)

PIPE HANGER DETAILS
SCALE: NONE

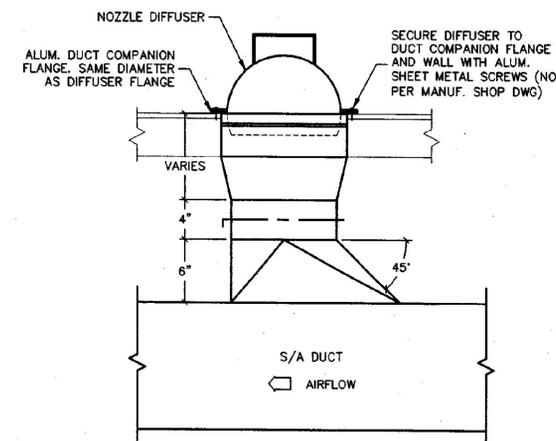
NOTES:
1. COORDINATE THESE DETAILS WITH REQUIREMENTS OF SPECIFICATIONS.
2. PROVIDE CALCIUM SILICATE INSULATION INSERT UNDER INSULATION. SHIELD LENGTH: 3x PIPE Ø. EXPAND PIPING INSULATION VAPOR BARRIER.
3. 16 GA. ZINC COATED SHEET STEEL SADDLE AT LEAST 12" LONG W/ BANDS.



BOTTOM OF DUCT TAKE-OFF



EXPOSED DETAIL



SURFACE MOUNTED DETAIL

"NOZZLE" TYPE SUPPLY/RETURN/EXHAUST CONNECTION DETAIL
SCALE: NONE

No.	DATE	REVISION

DUNCAN • WISNIEWSKI ARCHITECTURE
255 SOUTH CHAMPLAIN STREET, BURLINGTON, VERMONT 05401 (802) 864-0080

Hallam Associates
60 Farrell Street, Suite 300
So. Burlington, Vermont 05403
(802) 688-4891

WILLISTON INFORMATION CENTER
189 NORTHBOUND
STATE PROJECT # IM-BLDG (4)

HVAC DETAILS

DRAWN: J.LAMOTHE
CHECKED: M.COOK
PROJ.No: 10215
DATE: JAN 15, 2001

H-9nb