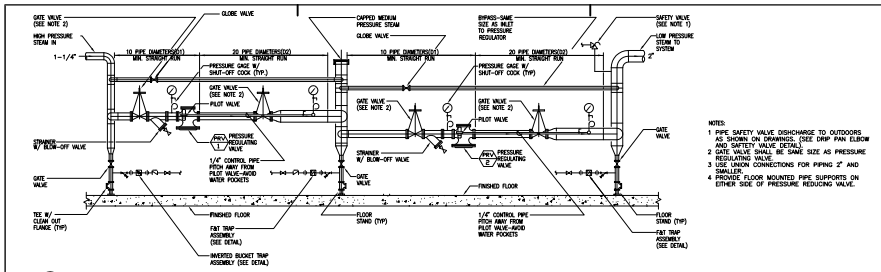
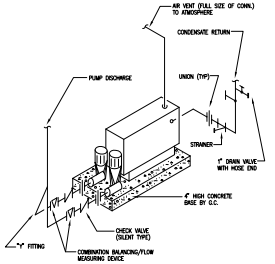
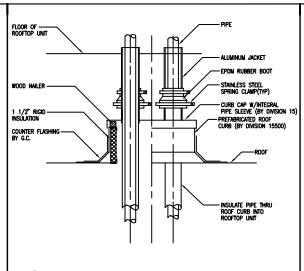


NOTES:
1. PIPE SAFETY VALVE DISHCHARGE TO OUTDOORS AS SHOWN ON DRAWINGS. (SEE DRIP PAN ELBOW AND SAFETY VALVE DETAIL)
2. GATE VALVE SHALL BE SAME SIZE AS PRESSURE REGULATING VALVE.
3. REDUCTION CONNECTIONS FOR PIPING 2" AND SMALLER.
4. PROVIDE FLOOR MOUNTED PIPE SUPPORTS ON EITHER SIDE OF PRESSURE REDUCING VALVE.

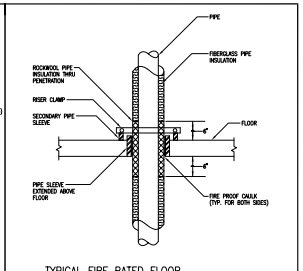
X TWO STAGE – STEAM PRESSURE REDUCING STATION DETAIL
SCALE: NTS



X CONDENSATE PUMP DETAIL
SCALE: NTS

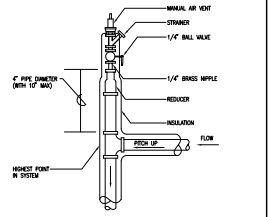


X PIPING ROOF PENETRATION
SCALE: NTS

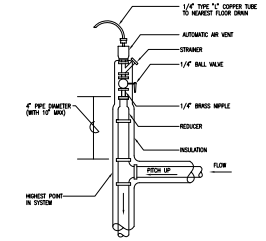


X TYPICAL FIRE RATED FLOOR PIPE PENETRATION
SCALE: NTS

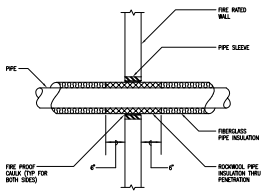
General Notes:



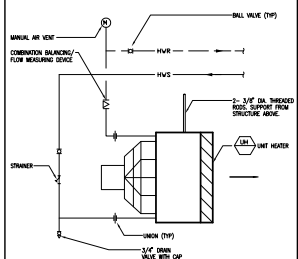
X MANUAL AIR VENT DETAIL
SCALE: NTS



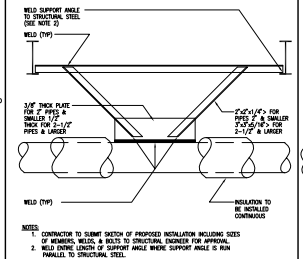
X AUTOMATIC AIR VENT DETAIL
SCALE: NTS



X TYPICAL FIRE-RATED WALL PIPE PENETRATION
SCALE: NTS

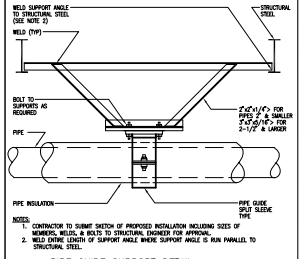


X HOT WATER UNIT HEATER INSTALLATION DETAIL
SCALE: NTS



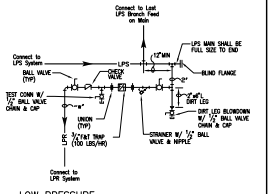
NOTES:
1. CONTRACTOR TO SUBMIT SKETCH OF PROPOSED INSTALLATION INCLUDING SIZES OF MEMBERS, WELDS, & BOLTS TO STRUCTURAL ENGINEER FOR APPROVAL.
2. WELD ENTIRE LENGTH OF SUPPORT ANGLE WHERE SUPPORT ANGLE IS RUN PARALLEL TO STRUCTURAL STEEL.

X PIPE ANCHOR DETAIL STRUCTURAL STEEL
SCALE: NTS

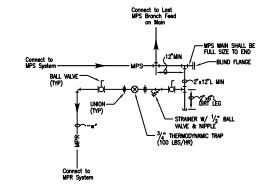


NOTES:
1. CONTRACTOR TO SUBMIT SKETCH OF PROPOSED INSTALLATION INCLUDING SIZES OF MEMBERS, WELDS, & BOLTS TO STRUCTURAL ENGINEER FOR APPROVAL.
2. WELD ENTIRE LENGTH OF SUPPORT ANGLE WHERE SUPPORT ANGLE IS RUN PARALLEL TO STRUCTURAL STEEL.

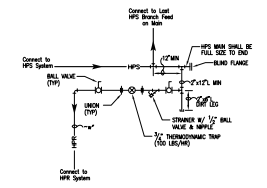
X PIPE GUIDE SUPPORT DETAIL STRUCTURAL STEEL
SCALE: NTS



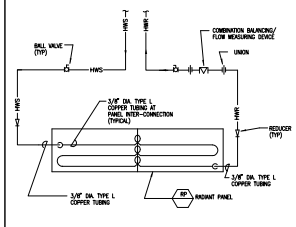
X LOW PRESSURE STEAM TRAP ASSEMBLY DETAIL
SCALE: NTS



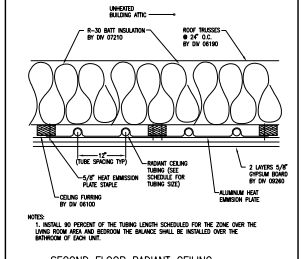
X MEDIUM PRESSURE STEAM TRAP ASSEMBLY DETAIL
SCALE: NTS



X HIGH PRESSURE STEAM TRAP ASSEMBLY DETAIL
SCALE: NTS



X RADIANT PANEL PIPING CONNECTION DETAIL
SCALE: NTS

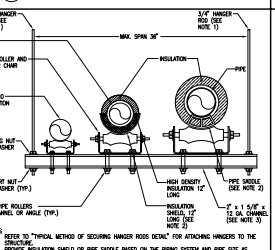


NOTES:
1. INSTALL 90 PERCENT OF THE TUBING LENGTH SCHEDULED FOR THE ZONE OVER THE LIVING ROOM AREA AND BEDROOM THE BALANCE SHALL BE INSTALLED OVER THE BATHROOM OF EACH UNIT.

X SECOND FLOOR RADIANT CEILING INSTALLATION DETAIL
SCALE: NTS

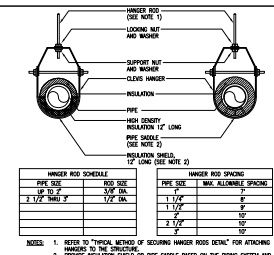
MARK	ISSUE DATE	DESCRIPTION
PERMIT	08/16/04	PERMIT SET
BID	08/28/04	BID SET

Issue Log



NOTES:
1. REFER TO "TYPICAL METHOD OF SECURING HANGER RODS DETAIL" FOR ATTACHING HANGERS TO THE STRUCTURE.
2. PROVIDE INSULATION SHIELD OR PIPE SADDLE BASED ON THE PIPING SYSTEM AND PIPE SIZE AS INDICATED IN THE SPECIFICATIONS.
3. TRAPEZE TYPE HANGER SHALL BE USED FOR A MAXIMUM 1000 LB. UNIFORM LOAD.

X TRAPEZE TYPE PIPE HANGER INSTALLATION DETAIL
SCALE: NTS

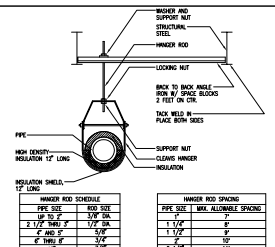


HANGER ROD SCHEDULE	
PIPE SIZE	ROD SIZE
UP TO 2"	3/8" DIA.
2 1/2" THRU 3"	1/2" DIA.

HANGER ROD SPACING	
PIPE SIZE	MAX. ALLOWABLE SPACING
1"	7'
1 1/4"	8'
1 1/2"	9'
2"	10'
2 1/2"	10'
3"	10'

NOTES:
1. REFER TO "TYPICAL METHOD OF SECURING HANGER RODS DETAIL" FOR ATTACHING HANGERS TO THE STRUCTURE.
2. PROVIDE INSULATION SHIELD OR PIPE SADDLE BASED ON THE PIPING SYSTEM AND PIPE SIZE AS INDICATED IN THE SPECIFICATIONS.
3. CLEVIS TYPE PIPE HANGER SHALL BE USED ON ALL PIPING 3" AND SMALLER.

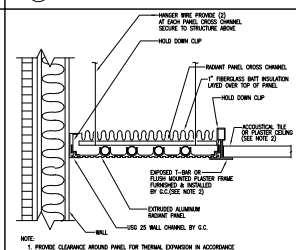
X CLEVIS TYPE PIPE HANGER INSTALLATION DETAIL
SCALE: NTS



HANGER ROD SCHEDULE	
PIPE SIZE	ROD SIZE
UP TO 2"	3/8" DIA.
2 1/2" THRU 3"	1/2" DIA.
4" AND 5"	5/8"
6" THRU 8"	3/4"
10"	7/8"

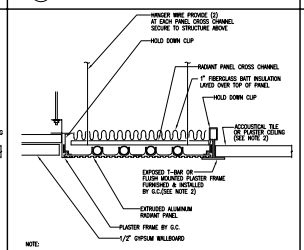
HANGER ROD SPACING	
PIPE SIZE	MAX. ALLOWABLE SPACING
1"	7'
1 1/4"	8'
1 1/2"	9'
2"	10'
2 1/2"	11'
3" THRU 6"	12'
10" & 12"	15'

X PIPE HANGER INSTALLATION DETAIL
SCALE: NTS



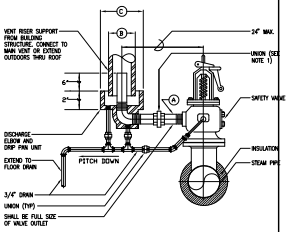
NOTE:
1. PROVIDE CLEARANCE AROUND PANEL FOR THERMAL EXPANSION IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING TYPE.

X RADIANT PANEL INSTALLATION DETAIL
SCALE: NTS



NOTE:
1. PROVIDE CLEARANCE AROUND PANEL FOR THERMAL EXPANSION IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING TYPE.

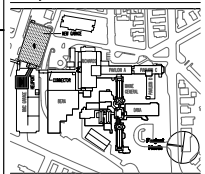
X RADIANT PANEL INSTALLATION DETAIL
SCALE: NTS



X SAFETY VALVE AND DRIP PAN ELBOW DETAIL
SCALE: NTS

SAFETY VALVE PIPE SIZE	A	B	C MIN.
1 1/2"	2 1/2"	3 1/2"	8 1/2"
2"	3"	4"	9 1/2"
2 1/2"	4"	6"	11"
3"	4"	6"	11"
4"	6"	8"	13 3/4"
6"	8"	10"	15"

NOTES:
1. OMIT UNION WHEN SAFETY VALVE IS PROVIDED WITH FLANGED CONNECTION.



Key Plan

TRO
ARCHITECTURE
PLANNING
ENGINEERING
INTERIOR DESIGN
The Ritchie Organization
400 Bishops Forest
Houston, TEXAS 77084-4104
(713) 932-0400

Maine Medical Center
Pkg F - Garage / Vault / Conn / Heliport
Portland, ME MMC Project No. 21845

Drawing Title
HVAC
TYPICAL DETAILS

0" 0 0 0 0

Commission No.	4678	Date Issued	08/28/04
Scale	NTS	Sheet Number	PKG-F
Drawn By	FMC		H600
Approved By	CW/TM		
Filename	4678H600		

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