AT MAXIMUM BTU/HR INPUT, MAINTAIN MINIMUM
GAS PRESSURE AT 4.0" W.C.
MAX. GAS PRESSURE=14" W.C.

* MANUAL GAS SHUTOFF
GAS REGULATOR (SEE NOTE 9)

HEAT EXCHANGER (SUPPLIED BY OTHERS)
SNOWMELT
RETURN/SUPPLY

HIGH TEMP. SYSTEM RETURN (i.e. 140°F)

SHELL DRAIN VALVE
SNOWMELT SYSTEM PUMP

LOW TEMP. SYSTEM RETURN (i.e. 100°F)

DHW SYSTEM PUMP

AUTOMATIC AIR VENT
BUFFER TANK

RELIEF VALVE
HEADER SENSOR (SEE NOTE 10)
2 TO 10 FEET (SEE NOTE 10)

SYSTEM AIR SEPARATOR
SYSTEM PUMP
PRESSURE REDUCING FILL VALVE
WATER SUPPLY
SYSTEM SUPPLY

DIAPHRAGM TYPE EXPANSION TANK

NOTES:
1. FOR ACTUAL SIZES AND LOCATIONS OF PIPING AND OTHER CONNECTIONS TO THE HEATER, SEE DIMENSIONAL DRAWING.
2. SHELL DRAIN VALVE AND CONDENSATE HOSE SHOULD BE ARRANGED TO PERMIT THE FLUIDS TO DRAIN FREELY, BY GRAVITY, TO A FLOOR DRAIN. RELIEF VALVE DISCHARGE SHOULD BE PIPED TO THE NEAREST FLOOR DRAIN. WHEN NO FLOOR DRAIN IS AVAILABLE, THE RELIEF VALVE DISCHARGE SHOULD BE PIPED VERTICALLY TO A HEIGHT 18" ABOVE THE FLOOR.
3. ALL (*) ITEMS ARE INCLUDED SEPARATELY IN SHIPMENT.
4. LOCATE WATER INLET AND OUTLET FITTINGS (i.e. UNIONS, ELBOWS, ETC.) A MINIMUM OF 6" FROM HEATER FITTINGS, TO PREVENT INTERFERENCE WITH REMOVAL OF BOILER PANELS AND COVERS. ALL PIPING AND ELECTRIC CONNECTIONS (SERVICE SWITCHES, CONDUIT BOXES) SHOULD LIKewise BE 6" AWAY FROM SIDE PANELS.
5. REFER TO SMARTPLATE APPLICATIONS GUIDE, SP-1010, FOR BUFFER TANK SIZING.
6. REFER TO SMARTPLATE INSTALLATION DRAWINGS FOR RECOMMENDED DOMESTIC PIPING INSTALLATION:
7. BOILER PUMP MUST BE SIZED TO PROVIDE THE APPROPRIATE FLOW AT THE DESIGN ΔT OF BOILER PLANT. MAXIMUM ΔT ACROSS BOILER IS 100°F. BOILER PUMP MUST MAINTAIN BENCHMARK BOILER(S) REQUIRED MINIMUM FLOW OF 25 GPM.
8. THIS IS A TYPICAL INSTALLATION DRAWING. LOCAL CODES AND AUTHORITIES SHOULD BE CONSULTED.
9. AT 14" W.C. OR BELOW, A GAS REGULATOR IS OPTIONAL UNLESS REQUIRED BY LOCAL CODE.
10. HEADER SENSOR MUST BE INSTALLED BETWEEN 2 TO 10 FEET FROM JUNCTION AND FROM LAST UNIT.
11. THE DHW SYSTEM PUMP TO BE ENABLED/DISABLED BY BAS OR OTHER EXTERNAL SYSTEM CONTROL.
12. THE SNOWMELT SYSTEM PUMP MAY BE ENABLED/DISABLED BY SNOWMELT SYSTEM CONTROL.
13. USE OF BALANCING VALVES IS RECOMMENDED IF THE PIPING ARRANGEMENT IS NOT REVERSE RETURN.