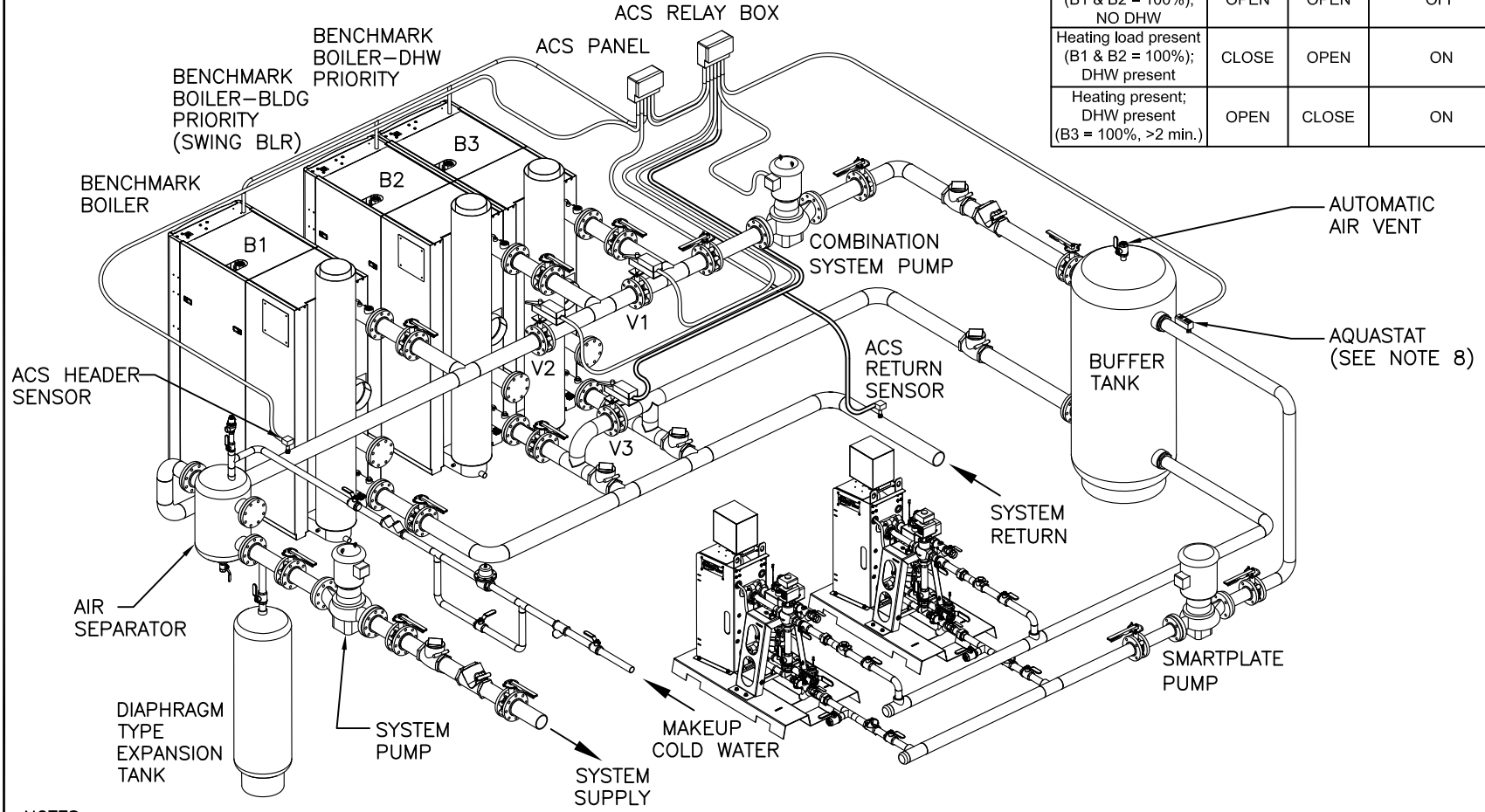


	V1 / V3	V2	COMBINATION SYSTEM PUMP	B2 - BLDG PRIORITY (SWING)	B3 - DHW PRIORITY
Heating + DHW loads present	CLOSE	OPEN	ON	HEATING MODE	CONSTANT SETPOINT
Heating load present (<100%); NO DHW	CLOSE	OPEN	OFF	HEATING MODE	STANDBY
Heating load present (B1 & B2 = 100%); NO DHW	OPEN	OPEN	OFF	HEATING MODE	HEATING MODE
Heating load present (B1 & B2 = 100%); DHW present	CLOSE	OPEN	ON	HEATING MODE	CONSTANT SETPOINT
Heating present; DHW present (B3 = 100%, >2 min.)	OPEN	CLOSE	ON	CONSTANT SETPOINT	CONSTANT SETPOINT



NOTES:

- SEE COMBINATION HEATING/DOMESTIC WATER HEATING APPLICATIONS GUIDE TAG-0050 AND WIRING DIAGRAM SD-A-884 FOR COMPLETE APPLICATION AND CONTROLS DETAILS.
- THE ABOVE DIAGRAM DEPICTS THE COMBINATION HEATING/DOMESTIC WATER PIPING ONLY. FOR GAS PIPING AND THE REST OF THE WATER-SIDE PIPING DETAILS, REFER TO APPROPRIATE BENCHMARK BOILER INSTALLATION DRAWINGS.
- FOR ACTUAL SIZES AND LOCATIONS OF PIPING AND OTHER CONNECTIONS TO THE BOILER, SEE APPROPRIATE BENCHMARK BOILER DIMENSIONAL DRAWING.
- REFER TO SMARTPLATE APPLICATIONS GUIDE, SP-1010, FOR BUFFER TANK SIZING.
- REFER TO SMARTPLATE INSTALLATION DRAWINGS FOR RECOMMENDED DOMESTIC PIPING INSTALLATION: SD-A-772, SD-A-773, SD-A-774, SD-A-775, SD-A-776, SD-A-777
- BOILER PUMP MUST BE SIZED TO PROVIDE THE APPROPRIATE FLOW AT THE DESIGN ΔT OF BOILER PLANT.
BOILER PUMP MUST MAINTAIN BENCHMARK BOILER(S) REQUIRED MINIMUM FLOW:
BMK 750-1000 - 12 GPM MINIMUM FLOW
BMK 1500-3000 - 25 GPM MINIMUM FLOW
BMK 5000-6000 - 75 GPM MINIMUM FLOW
- THIS IS A TYPICAL INSTALLATION DRAWING. LOCAL CODES AND AUTHORITIES SHOULD BE CONSULTED.
- MOUNT THE AQUASTAT IMMEDIATELY DOWNSTREAM OF BUFFER TANK'S OUTLET PORT THAT SUPPLIES BOILER WATER TO THE SMARTPLATE.
- THE SMARTPLATE PUMP SHALL BE OPERATED CONSTANTLY OR CONTROLLED BY THE BUILDING AUTOMATION SYSTEM.

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BENCHMARK BOILER/SMARTPLATE - COMBINATION HEATING/DHW PIPING WITH BOILER SIDE BUFFER TANK - DESIGNATED DHW BOILER(S) AND DESIGNATED BUILDING PRIORITY BOILER(S) APPLICATIONS

DWN. BY <u>K.S.</u> DATE <u>120612</u>	REV. <u>D</u>
SCALE <u>NTS</u>	
APPD. _____ DATE _____	SD-A-797