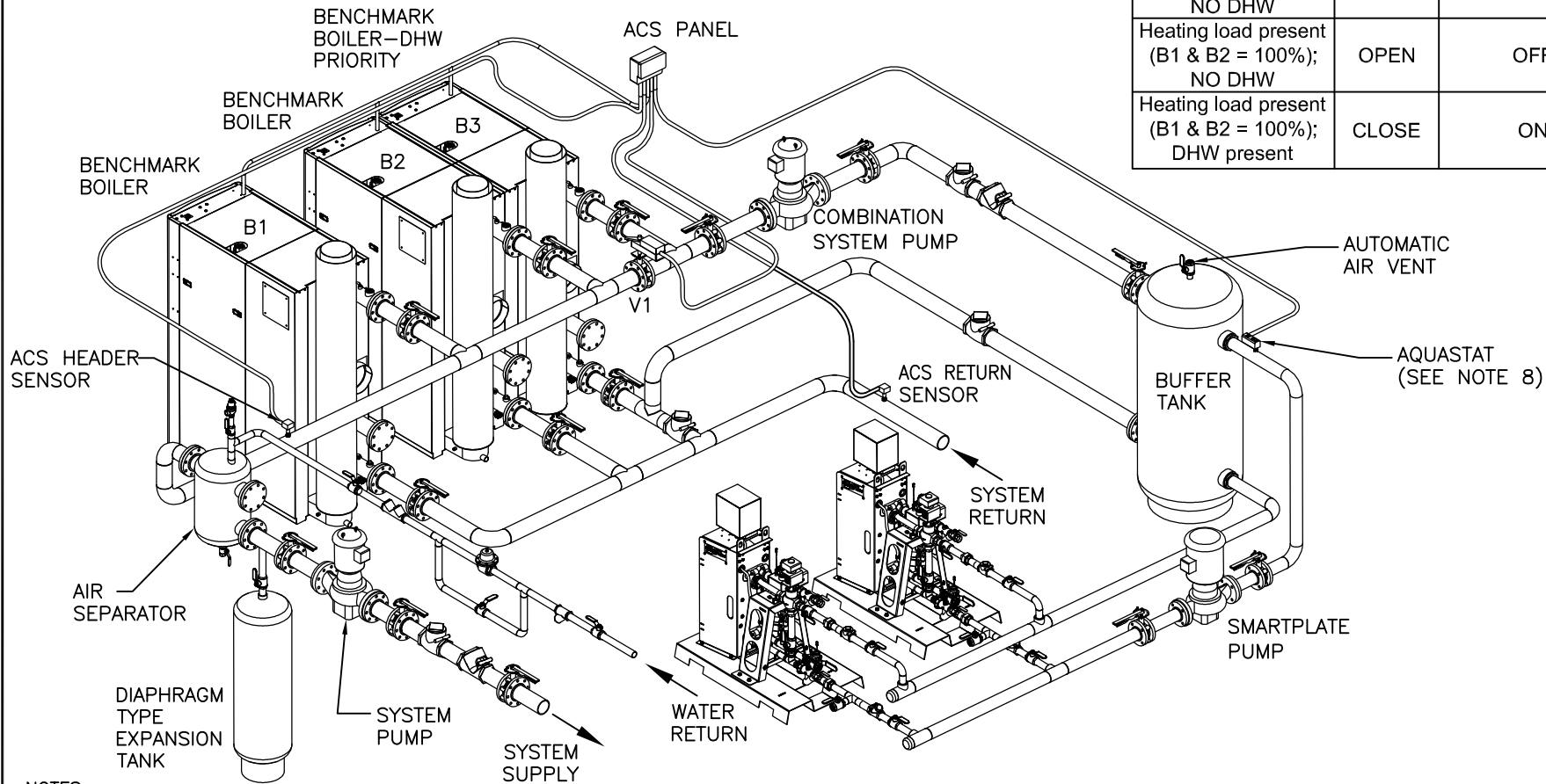



	V1	COMBINATION SYSTEM PUMP (NOTE 10)	B3 - DHW PRIORITY
Heating + DHW loads present	CLOSE	ON	CONSTANT SETPOINT
Heating load present (<100%); NO DHW	CLOSE	OFF	STANDBY
Heating load present (B1 & B2 = 100%); NO DHW	OPEN	OFF	HEATING MODE
Heating load present (B1 & B2 = 100%); DHW present	CLOSE	ON	CONSTANT 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.
- USE OF BALANCING VALVES IS RECOMMENDED IF THE PIPING ARRANGEMENT IS NOT REVERSE RETURN.

 A WATTS Brand	100 ORITANI DRIVE BLAUVELT, NY 10913 aerco.com	
	BENCHMARK BOILER/SMARTPLATE - COMBINATION HEATING/DHW PIPING WITH BOILER SIDE BUFFER TANK - DESIGNATED DHW BOILER APPLICATIONS WITHOUT ACS RELAY BOX	
DWN. BY <u>K.S.</u> DATE <u>120612</u> SCALE <u>NTS</u> APPD. _____ DATE _____	SD-A-916	REV. <u>E</u>