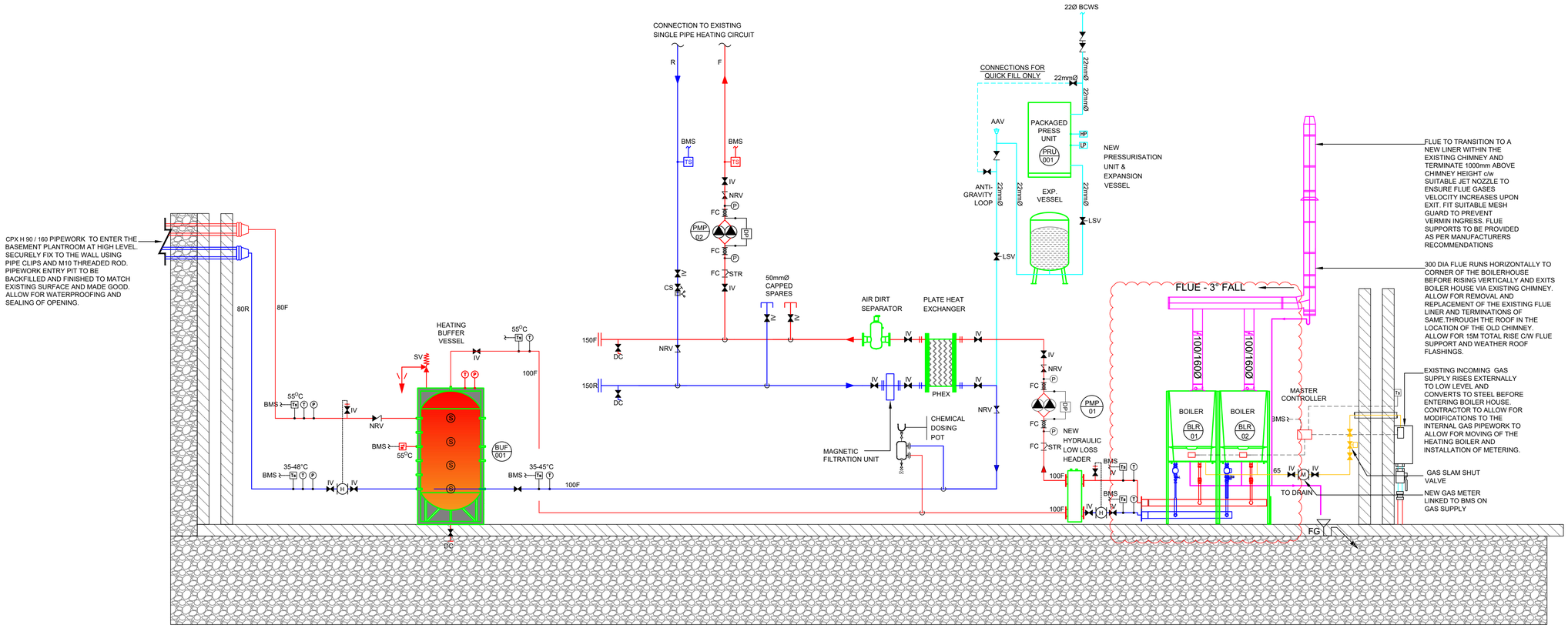
BOILERHOUSE SCHEMATIC

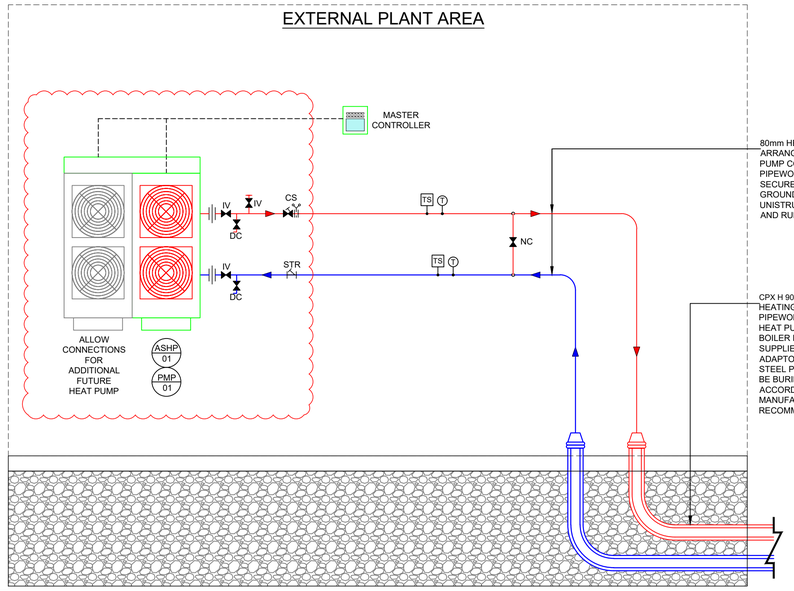
THIS DRAWING IS FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRODUCING WORKING DRAWINGS



LTHW HEATING LEGEND

- ISOLATION VALVE
- NON RETURN CHECK VALVE
- DOUBLE REGULATING VALVE
- COMMISSIONING VALVE
- COMMISSIONING SET
- THREE PORT CONTROL VALVE
- THREE PORT VALVE
- TWO PORT CONTROL VALVE
- ANGLE PRESSURE RELIEF SAFETY VALVE
- MEASURING STATION
- LOCKSHIELD VALVE
- DEADWEIGHT VALVE
- PRESSURE RELIEF SAFETY VALVE
- PRESSURE INDEPENDENT CONTROL VALVE
- DIFFERENTIAL PRESSURE VALVE
- DIFFERENTIAL PRESSURE VALVE C/W TWO PORT CONTROL
- ANGLE VALVE
- STRAINER
- FLEXIBLE CONNECTION
- AP ANCHOR POINT
- EXPANSION GUIDE
- EXPANSION BELLOWS
- DC DRAINCOCK C/W HOSE UNION
- H HEAT METER
- M METER
- SINGLE PUMP
- TWIN PUMP
- DP DIFFERENTIAL PRESSURE SENSOR
- T TEMPERATURE GAUGE
- TS TEMPERATURE SENSOR
- P PRESSURE GAUGE
- PS PRESSURE SENSOR
- RS ROOM SENSOR
- AAV AUTOMATIC AIR VENT
- MAV MANUAL AIR VENT
- PIPEWORK AT LOW LEVEL
- PIPEWORK AT HIGH LEVEL
- PIPEWORK IN CEILING VOID
- PIPEWORK UNDER FLOOR
- HEATING FLOW PIPEWORK SERVING GF
- HEATING RETURN PIPEWORK SERVING GF
- HEATING FLOW PIPEWORK SERVING FF
- HEATING RETURN PIPEWORK SERVING FF
- HEATING FLOW/RETURN PIPEWORK SERVING CIRCULATION
- HEATING FLOW/RETURN PIPEWORK CONSTANT TEMP
- LPHW LOW PRESSURE HOT WATER
- MPHW MEDIUM PRESSURE HOT WATER
- HPHW HIGH PRESSURE HOT WATER
- VTC VARIABLE TEMPERATURE CIRCUIT
- CTC CONSTANT TEMPERATURE CIRCUIT
- DTA DROPS TO ABOVE
- DTB DROPS TO BELOW
- RTA RISES TO ABOVE
- RFB RISES FROM BELOW
- C/V CEILING VOID
- H/L HIGH LEVEL
- L/L LOW LEVEL

EXTERNAL PLANT AREA



AIR TO WATER HEAT PUMP SCHEDULE

ITEM	MAKE/MODEL	NOMINAL HEATING CAPACITY (EN14511)	SIZE	SCOP @ NOMINAL OUTPUT	DESIGN TEMPERATURES	REFRIGERANT	COMPRESSOR TYPE	POWER SUPPLY	NOTES:
ASHP 01	HIGH TEMPERATURE AIR SOURCE HEAT PUMP.	63.7W	2660X1130X2136 LXWXH	3.67	55°C FLOW TEMPERATURE @ A7 / W55	R290	SEMI-HERMETIC	400/3ph/50Hz	ASHP TO BE SUPPLIED WITH MASTER/SLAVE CONTROLLER TO ENABLE STEPPED PERFORMANCE c/w ALL PIPE FITTINGS, PUMPS AND FINAL CONNECTORS. HEAT PUMPS TO BE PROVIDED WITH INTEGRAL HYDRAULIC CONNECTOR KIT WITH FLANGED CONNECTION FOR HEATING FLOW AND RETURN.

BOILER SCHEDULE

ITEM	MAKE/MODEL	OUPUT DUTY @ 50 / 30 °C:	GAS CONSUMPTION (Kg/Hr)	SIZE	WEIGHT (EMPTY)	FLUE	SBEM SEASONAL EFFICIENCY	NOTES:
BOILER 1	CONTRACTOR SELECTION	150 kW	11.3	600x584x952	147kg	C13 110/160mm	96.8	BOILER TO BE SUPPLIED c/w ALL PIPE FITTINGS, PUMPS AND FINAL CONNECTORS
BOILER 2	CONTRACTOR SELECTION	150 kW	11.3	600x584x952	147kg	C13 110/160mm	96.8	BOILER TO BE SUPPLIED c/w ALL PIPE FITTINGS, PUMPS AND FINAL CONNECTORS

PUMP SCHEDULE

ITEM	CIRCUIT	DUTY	STATIC HEAD	TYPE	POWER	CONTROLS
P1	BUFFER PRIMARY LOOP	12.5 kg/s	55 kPA	TWIN HEAD INLINE	230v/1ph/50Hz	VARIABLE SPEED PUMP c/w DIFFERENTIAL PRESSURE CONTROLS & BACNET BMS LINK
P2	HEATING CIRCUIT	12.5 kg/s	120 kPA	TWIN HEAD INLINE	230v/1ph/50Hz	VARIABLE SPEED PUMP c/w DIFFERENTIAL PRESSURE CONTROLS & BACNET BMS LINK

BUFFER VESSEL SCHEDULE

ITEM	MAKE/MODEL	CAPACITY:	PRESSURE RATING	SIZE:	NOTES:
BFF 01	750 LITRE BUFFER VESSEL SUITABLE FOR LARGE VOLUME STORAGE OF HOT WATER	750 LITRES	3 Bar	1970mmH x 750mmØ	PRE INSULATED - FACTORY FITTED. SENSOR POCKETS TO BE PROVIDED ALONG THE VERTICAL FACE OF THE BUFFER VESSEL FOR TEMPERATURE MONITORING.

PLATE HEAT EXCHANGER SCHEDULE

ITEM	CIRCUIT	HEAT OUTPUT	F&R TEMP PRIMARY SIDE °C	F&R TEMP SECONDARY SIDE °C	MIN PLATE AREA
PHE1	GROUND FLOOR HEATING CIRCUIT	426kW	55 / 45	55 / 45	38-42m²

PRESSURISATION UNIT & EXPANSION SCHEDULE

ITEM	TYPE	VESSEL CAPACITY	VESSEL DIAMETER
PRU001	WALL MOUNTED FILL UNIT WITH FLOOR STANDING EXPANSION VESSEL	500 LITRE	650MM MAX

REV	DESCRIPTION	DRN	CKD	DATE
T02	BOILER & ASHP SIZE & QUANTITIES UPDATED	SK	SF	11-06-2026
T01	TENDER ISSUE	SK	SF	08-05-2026

ISSUE: TENDER STAGE

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PROJECT TITLE: SCHOOLS ENERGY PATHFINDER - 8.2 OUR LADY OF MERCY

DRAWING TITLE: BOILERHOUSE HEATING SCHEMATIC

DRAWING REFERENCE	DRN	SCALE
3232-SMK-8.2-ZZ-SC-M-5601 (Project – Originator – Volume – Level – Type – Role – Number)	SK	NTS @ A1