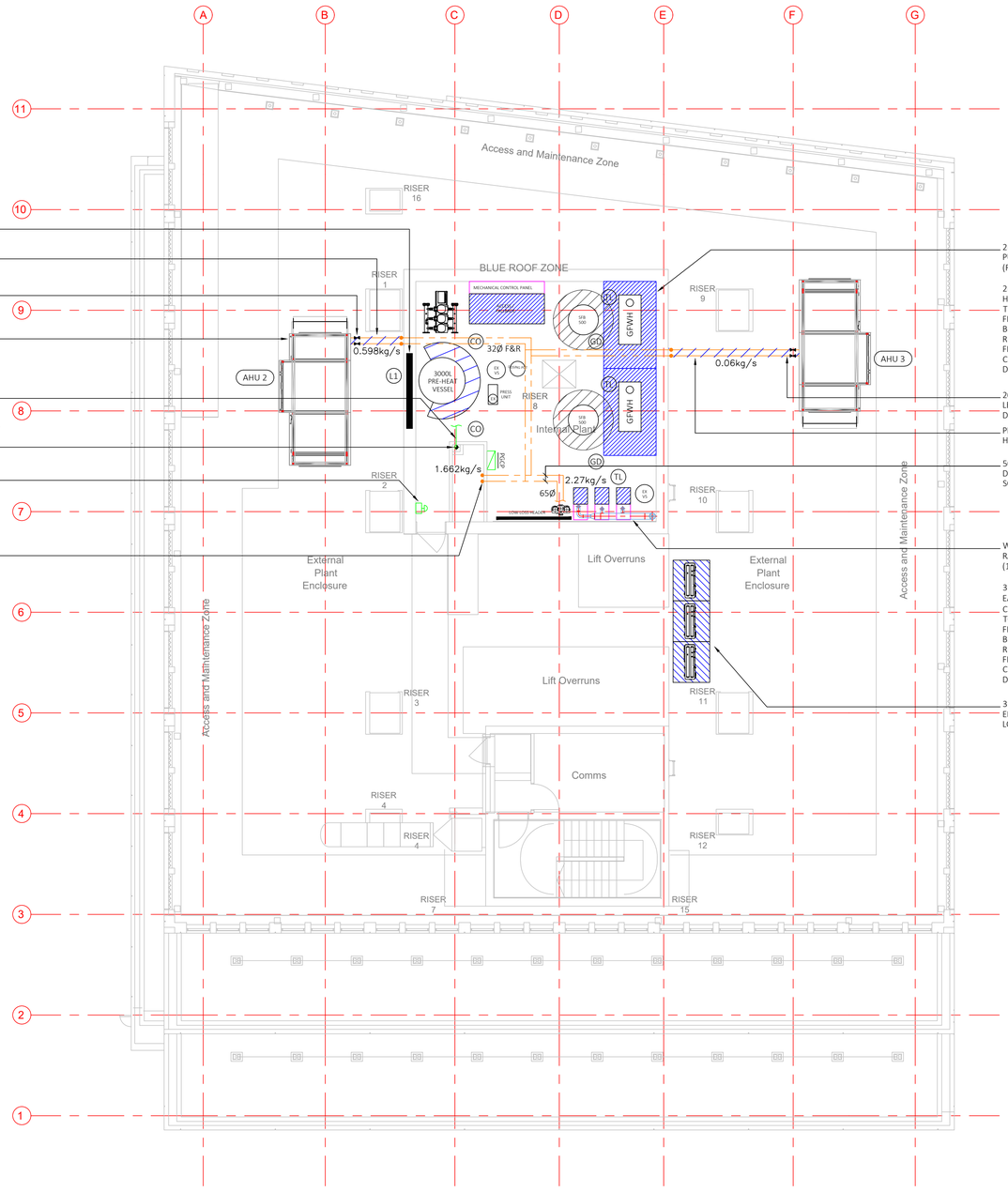
INCLUDE ALL NECESSARY OFFSETS OF SERVICES IN CEILING VOIDS, SERVICE DUCTS AND ALL OTHER AREAS TO ACHIEVE CROSSOVERS AND CO-ORDINATION OF MECHANICAL AND ELECTRICAL SERVICES.



2000x24000mm(FULL HEIGHT) COMBINED HIGH & LOW LEVEL REMOVABLE PANEL LOUVRE FOR PLANT ROOM. LOUVRE PANEL TO BE REMOVABLE TO ALLOW FOR PLANT REPLACEMENT ACCESS.(REFER TO LOUVRE SCHEDULE FOR FURTHER INFORMATION).

PIPEWORK RUN AT L/L ON ROOF C/W TRACE HEATING.

32Ø LTHW CT FLOW AND RETURN DROPS TO LOW LEVEL AND OFFSETS TO SERVE AHU2, REFER TO DETAIL A.

32Ø LTHW CT FLOW AND RETURN DROPS TO LOW LEVEL TO SERVE AHU2, REFER TO DETAIL A.

125Ø GAS SUPPLY RISES TO HIGH LEVEL WITHIN PLANT ROOM AND OFFSETS TO SERVE GAS BURNING APPLIANCES. REFER TO CENTRAL PLANT SCHEMATIC AND GAS FIELD SCHEMATIC FOR FURTHER DETAILS.

125Ø GAS SUPPLY RISES FROM BELOW WITHIN RISER AND OFFSETS AS INDICATED. INDICATIVE GAS PIPE ROUTE SHOWN, TO BE COORDINATED WITH PLANT ITEMS.

GAS EMERGENCY STOP BUTTON, INDICATIVELY SHOWN ON DRAWING. EXACT POSITION TO BE CONFIRMED WITH ARCHITECT.

50Ø LTHW CT FLOW & RETURN OFFSETS AS INDICATED AND DROPS TO BELOW IN THE POSITION SHOWN WITHIN THE SERVICE RISER TO SERVE AHU1, AHU4 & THE GROUND FLOOR OVERDOOR AIR CURTAIN. REFER TO CENTRAL LPHW SCHEMATIC FOR FURTHER DETAILS AND PIPE SIZES.

2No. GAS FIRED WATER HEATERS, ASSOCIATED PUMPS AND ANCILLARIES. SF65 SUPAFLO EVO5 (REFER TO SPECIFICATION FOR FURTHER DETAILS)

2No. FLUES (PROVISIONALLY 250Ø) OFFSETS AT HIGH LEVEL TO RISE IN POSITION SHOWN TO TERMINATE ABOVE ROOF LEVEL.
FLUE SIZE, ROUTE AND TERMINATION HEIGHT TO BE DETERMINED BY FLUE SPECIALISTS IN LINE WITH RELEVANT SECTION OF THE SPECIFICATION.
FLUES TO BE TWIN WALLED, INSTALLED AT THE CORRECT FALLS AND COMPLETE WITH ADEQUATE DRAIN POINTS AS REQUIRED.

20Ø LTHW CT FLOW AND RETURN DROPS TO LOW LEVEL AND OFFSETS TO SERVE AHU3, REFER TO DETAIL A.

PIPEWORK RUN AT L/L ON ROOF C/W TRACE HEATING.

50Ø LTHW FLOW & RETURN OFFSETS TO SERVE DEVELOPMENT. REFER TO CENTRAL LPHW SCHEMATIC FOR FURTHER DETAILS AND PIPE SIZES.

WORCESTER BOSH GB162 CONDENSING BOILER RANGE TL3 CONFIGURATION WITH PUMP GROUPS (1 No. 85 kW & 2 No. 65 kW BOILERS).

3 NUMBER BOILER FLUES (PROVISIONALLY 100Ø EACH) OFFSETS AT HIGH LEVEL AND COMBINE TO COMMON 250Ø FLUE TO RISE IN POSITION SHOWN TO TERMINATE ABOVE ROOF LEVEL.
FLUE SIZE, ROUTE AND TERMINATION HEIGHT TO BE DETERMINED BY FLUE SPECIALISTS IN LINE WITH RELEVANT SECTION OF THE SPECIFICATION.
FLUES TO BE TWIN WALLED, INSTALLED AT THE CORRECT FALLS AND COMPLETE WITH ADEQUATE DRAIN POINTS AS REQUIRED.

3No. DAIKIN ALTHERMA M EDLQ016CW1
LOW TEMPERATURE MONOBLOCS.

DRAWING NOTES:

PLANT ROOM GAS CONTROL PANEL INDICATIVELY SHOWN ON DRAWING, EXACT POSITION TO BE CONFIRMED.

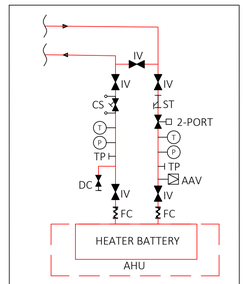
INDICATIVE POSITIONS FOR SENSORS, EXACT POSITION TO BE DETERMINED ON SITE.

PLANTROOM GAS CONTROL PANEL (POSITION INDICATIVE).
EMERGENCY STOP BUTTON (POSITIONS INDICATIVE).
CO DETECTORS (POSITIONS INDICATIVE).
GAS DETECTORS (POSITIONS INDICATIVE).
THERMAL LINKS (POSITIONS INDICATIVE).

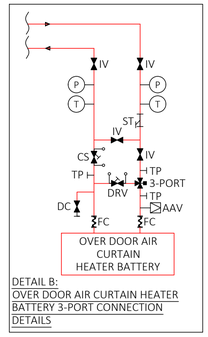
FOR FURTHER DETAILS ON THE LPHW CT FLOW AND RETURN CONNECTS TO AHU, REFER TO DETAIL A & B ON THIS DRAWING AND THE LPHW CENTRAL PLANT SCHEMATIC FOR FURTHER DETAILS.

ALL EXTERNAL LPHW PIPEWORK TO BE TRACE HEATED (INCLUDED UNDER THIS CONTRACT), REFER TO THE SPECIFICATION FOR FURTHER DETAILS.

NOTE:
THIS CONTRACT SHALL INCLUDE FOR TRACE HEATING TO ALL PIPEWORK LOCATED ON ROOF AREA.
POWER SUPPLIES UNDER ELECTRICAL CONTRACT.
ALL STATS, CONTROLS AND CABLING UNDER THIS CONTRACT.



DETAIL A:
AHUs HEATER BATTERY 2-PORT CONNECTION DETAILS



DETAIL B:
OVER DOOR AIR CURTAIN HEATER BATTERY 3-PORT CONNECTION DETAILS

GENERAL NOTES (LPHW & GAS):

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, STRUCTURAL AND INTERIOR DESIGN DRAWINGS.

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT MEP SCHEMATICS AND SPECIFICATIONS.

DO NOT SCALE FROM THIS DRAWING, VERIFY ALL DIMENSIONS BY SITE MEASUREMENT.

SERVICES ROUTES SHOWN ARE INTENDED TO DEMONSTRATE INDICATIVE PROPOSED ROUTES TO BE TAKEN ONLY. FINAL LOCATIONS TO BE AGREED WITH THE CONSULTING ENGINEERS FURTHER TO REVIEW OF THE CONTRACTORS COORDINATED INSTALLATION DRAWINGS.

ALL PLANT, EQUIPMENT AND ANCILLARY POSITIONS ARE INDICATIVE ONLY. FINAL LOCATIONS TO BE AGREED WITH THE CONSULTING ENGINEERS FURTHER TO REVIEW OF THE CONTRACTORS COORDINATED INSTALLATION DRAWINGS.

REFER TO MAIN LPHW SCHEMATIC FOR FURTHER DETAILS ON LPHW INDICATIVE INSTALLATION WITHIN THE PLANT ROOM.

REFER TO GAS FIELD SCHEMATIC FOR FURTHER DETAILS ON GAS INSTALLATION WITHIN THE PLANT ROOM.

OVERDOOR AIR CURTAINS TO BE C/W LOW & HIGH TEMPERATURE CUT OUTS AND BMS REMOTE ON/OFF, MONITORING AND HAVE LOCAL CONTROL (POSITIONS INDICATED ON THIS DRAWING ARE TO BE CO-ORDINATED AND CONFIRMED ON SITE).
REFER TO THE SPECIFICATION FOR FURTHER DETAILS.

REFER TO THE SPECIFICATION FOR FURTHER DETAILS ON LPHW PIPEWORK, JOINTING AND ANCILLARY ITEMS.

ALL EXTERNAL LPHW PIPEWORK TO BE TRACE HEATED, REFER TO THE SPECIFICATION FOR FURTHER DETAILS.

LEGEND:

—— - - ——	REFERS TO PIPEWORK WITHIN CEILING VOID.
—— - - ——	REFERS TO PIPEWORK AT HIGH LEVEL.
——	REFERS TO PIPEWORK AT LOW LEVEL.
- - - - - -	REFERS TO PIPEWORK UNDERGROUND / IN FLOOR BELOW.
ODAC X	OVERDOOR AIR CURTAIN REF. REFER TO THE SPECIFICATION FOR FURTHER DETAILS.
AHU X	AIR HANDLING UNIT REF. REFER TO THE VENTILATION DRAWINGS / SPECIFICATION FOR FURTHER DETAILS.
-	EMERGENCY STOP BUTTON (INDICATIVE POSITIONS)
CO	CARBON MONOXIDE DETECTOR (INDICATIVE POSITIONS)
GD	GAS DETECTOR (INDICATIVE POSITIONS)
TL	THERMAL LINK (INDICATIVE POSITIONS)
PGCP	PLANT ROOM GAS CONTROL PANEL (INDICATIVE POSITIONS)

ASSOCIATED MECHANICAL SYMBOLS AND ABBREVIATIONS

SYMBOL	ABBREVIATION	DESCRIPTION
		FLOW DIRECTION
	AAV	AUTOMATIC AIR VENT
	TP	TEST POINT
	DC	DRAIN COCK
		GAUGE (TEMPERATURE, PRESSURE, FLOW, LEVEL, ETC)
	IV	ISOLATING VALVE
	2-PORT/2P	TWO PORT MOTORISED VALVE
	3-PORT/3P	THREE PORT MOTORISED VALVE
	CS / DRV	COMMISSIONING SET / DOUBLE REGULATING VALVE WITH MEASUREMENT ORIFICE.
	FC	FLEXIBLE CONNECTION
	ST	STRAINER
		PIPEWORK C/W TRACE HEATING

REV	DATE	DESCRIPTION	DR	CK
C1	07/09/20	CONSTRUCTION ISSUE	DML	GK

Caldwell

ARCHITECT
SIMPSON HAUGH

JOB
CHARLES STREET
MANCHESTER

DRAWING
MECHANICAL SERVICES INSTALLATION
LPHW & GAS INSTALLATION

LEVEL 16

DRAWING No./REVISION
3919/M503

SCALE/PRINTED AT	DATE	DRAWN	CHECKED
1:100@A1	JAN'20	JD	GJK

UNIT 6 FORESTGROVE BUSINESS PARK, NEWTOWNBREDA, BELFAST, BT8 6AW
TEL: 028 9069 9720 FAX: 028 9064 1625 EMAIL: admin@caldwellconsulting.net