

VENTILATION NOTES

1. THE MECHANICAL SERVICES CONTRACTOR SHALL ALLOW FOR TAKING THE LEAD ROLE & SHALL ALLOW FOR COORDINATING THE DUCTWORK INSTALLATION WITH THE BUILDING STRUCTURE/PIPEWORK & ELECTRICAL ELECTRICAL SERVICES. NO COSTS SHALL BE CONSIDERED FOR LACK OF COORDINATION.
2. ALL DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH DW144
3. THE MECHANICAL SERVICES CONTRACTOR SHALL ALLOW FOR ALL DUCTWORK TRANSFORMATIONS FOR CONNECTION ONTO THE SUPPLY GRILLES, EXTRACT GRILLES, ATTENUATORS, LINEAR GRILLES & VRY UNITS.
4. FLEXIBLE CONNECTIONS ON DUCTWORK TO BE A MAXIMUM OF 0.5 METRES IN LENGTH.
5. ALL DUCTWORK CONNECTIONS TO AHU's TO BE c/w ACOUSTIC FLEXIBLE CONNECTIONS.
6. ALL DUCTWORK PASSING THROUGH FIRE WALLS TO BE SEALED WITH INTUMESCENT MATERIAL.
7. MECHANICAL SERVICES CONTRACTOR TO PROVIDE ALL PRIMARY & SECONDARY STEELWORK SUPPORTS FOR THE DUCTWORK SYSTEM AS REQUIRED.

8. ALL AHU's SHALL BE POSITIONED ON ISOLATION PADS IN ACCORDANCE WITH ATTENUATOR MANUFACTURERS REQUIREMENTS.
9. THE MECHANICAL SERVICES CONTRACTOR SHALL ALLOW FOR WEATHERING APRONS/CRAVATS TO ALL ROOF PENETRATIONS.
10. THE MECHANICAL SERVICES CONTRACTOR SHALL ALLOW FOR TESTING & COMMISSIONING OF THE INSTALLED SYSTEM & PROVIDING "AS INSTALLED" DRAWINGS & O & M MANUALS
11. ALL DUCTWORK SHALL BE INSULATED c/w ID BANDS.
12. THE MECHANICAL SERVICES CONTRACTOR MUST FULLY CO-ORDINATE WITH ALL SERVICES BEFORE COMMENCING WORKING DRAWING PRODUCTION.
13. THE MECHANICAL SERVICES CONTRACTOR SHALL ALLOW FOR SITE SURVEYING THE EXISTING INSTALLATION AND CO-ORDINATING WITH THE EXISTING SERVICES/BUILDING STRUCTURE. NO COST FOR LACK OF CO-ORDINATION SHALL BE CONSIDERED.
14. ALL DUCTWORK TAPER SECTIONS ARE TO BE FLAT ON TOP UNLESS OTHERWISE STATED.
15. ALL FIRE DAMPERS AND VOLUME CONTROL DAMPERS SHALL BE FITTED WITH ACCESS

DOORS.

16. ALL PLENUM BOXES SHALL BE SUPPORTED FROM THE SOFFIT.
17. ALL FIRE DAMPERS INCLUDING CASING & BLADES SHALL BE FULLY STAINLESS STEEL GRADE 316L.
18. THE MECHANICAL SERVICES CONTRACTOR SHALL SITE MEASURE ALL DUCTWORK CONNECTIONS ONTO LOUVRES AND ALLOW FOR DUCTWORK TRANSFORMATIONS.
19. THE MECHANICAL SERVICES CONTRACTOR IS TO ENSURE THAT ALL FIRE DAMPERS ARE RE-SETABLE & MAINTAINABLE, & THAT ALL DAMPERS, WHETHER FIRE OR BALANCING HAVE ACCESS

PIPEWORK NOTES

1. MECHANICAL SERVICES CONTRACTOR SHALL ALLOW FOR ALL LOW POINTS ON THE SYSTEM TO BE COMPLETE WITH DRAINCOCKS.
2. MECHANICAL SERVICES CONTRACTOR SHALL ALLOW FOR ALL HIGH POINTS ON THE SYSTEM TO BE COMPLETE WITH AIR VENTS & BOTTLES.
3. ALL PIPEWORK PASSING THROUGH PLANTROOM WALLS/FIRE WALLS ARE TO HAVE

INTUMESCENT FIRE SLEEVES.

4. ALL RADIATORS TO BE FITTED WITH TRV's ON THE FLOW PIPEWORK & MATCHING LOCKSHIELD VALVES ON THE RETURN PIPEWORK.
5. THE MECHANICAL SERVICES CONTRACTOR SHALL ALLOW FOR ALL NECESSARY ELBOWS & BRACKETS etc TO FULLY COORDINATE WITH THE BUILDING STRUCTURE & ALL MECHANICAL & ELECTRICAL SERVICES.
6. THE MECHANICAL SERVICES CONTRACTOR SHALL INDICATE WHERE ACCESS HATCHES ARE REQUIRED & PROVIDE INFORMATION TO THE MAIN CONTRACTOR.
7. THE MECHANICAL SERVICES CONTRACTOR SHALL ALLOW FOR TESTING & COMMISSIONING OF THE INSTALLED SYSTEM & PROVIDING "AS INSTALLED" DRAWINGS & O & M MANUALS
8. ALL PIPEWORK SHALL BE INSULATED c/w ID BANDS.
9. THE MECHANICAL SERVICES CONTRACTOR SHALL INSTALL THE 2 7 3-PORT VALVE ARRANGEMENT AS THE STANDARD DETAILS TO ALL HEATER BATTERIES - SEE SCHEMATICS

SPIROVENT SUPERIOR SV4-6 VACUUM DEGASSER & PRESSURISATION UNIT. TO BE INSTALLED AT LOW LEVEL ON A SUITABLE PLINTH WITH BACK SUPPORT FORM THE UNIT AS DETAILED IN MANUFACTURERS INSTRUCTIONS. 500mm TO SEPARATE UNIT CONNECTIONS ON RETURN PIPEWORK

DIRT SEPARATOR INSTALLED ON 150mm RETURN TO BOILERS

LTHW EXPANSION VESSEL - 2No SPIROTECH EV0750R FIXED DIAPHRAGM EXPANSION VESSEL. MAXIMUM LENGTH OF SYSTEM EXPANSION PIPE IS 5m (I.E. PIPE BETWEEN HEADER & VESSEL)

BOILER SHUNT PUMP INSTALLED ON 150mm RETURN PIPE TO BOILERS. TO BE ON SUITABLE AV MOUNTS

150mm LTHW BOILER FLOW AND RETURN HEADERS RUN ROUND PLANT ROOM TO 250mm LOW LOSS HEADER. FLOW RUNS ABOVE RETURN

HEATING PIPEWORK PASSING THROUGH SERVICES VOID BENEATH STAIRCASE. SEE DRG 500/-01/02 FOR CONTINUATION:

- 150mm F&R Reclaimed Heating mains
- 65mm LPHW CT F&R to Pool PHX
- 80mm LPHW CT2 to Air Handling Units
- 65mm LPHW CT SPA F&R
- 32mm LTHW VT2 SPA UNDERFLOOR HEATING

HEATING PIPE WORK DROPS AT THIS WALL TO PASS UNDER STAIR LANDING. PIPES TO BE STACKED WHICH IS HOW THIS IS DETAILED FOR DRAWING CLARITY

150mm RECLAIMED HEAT FROM THE GSHP TO RISE TO HIGH LEVEL IN PLANT ROOM AND RUN ROUND TO SERVE THE THERMAL STORE - SEE DRAWING 71009/SM/500/XX/01 FOR CONTINUATION

GAS FIRED BOILER PLANT CONSISTS OF THREE BOILERS - REFER TO SCHEMATIC DRAWING FOR FURTHER DETAILS. BOILERS TO BE SUPPLIED WITH 3 MODULE PIPING KIT

MECHANICAL INTAKE VENTILATION DUCTWORK DROPS FROM HIGH LEVEL TO LOW LEVEL WITH OPENING ON SIDE TOWARDS BOILERS

250mmØ FLUES FROM BOILERS RISE TO HIGH LEVEL AND LEAVE PLANT ROOM. FLUES THEN RISE TO ABOVE TO DISCHARGE TO ATMOSPHERE AT ROOF LEVEL. SEE DRAWING 71009/M/500/-01/03 FOR CONTINUATION THROUGH BASEMENT

900X500 DISCHARGE DUCTWORK RISES TO HIGH LEVEL FROM THE FAN UNIT AND RUNS TOWARDS EXTERNAL DISCHARGE LOUVRES. TO CONNECT ONTO PLENUM AT HIGH LEVEL.

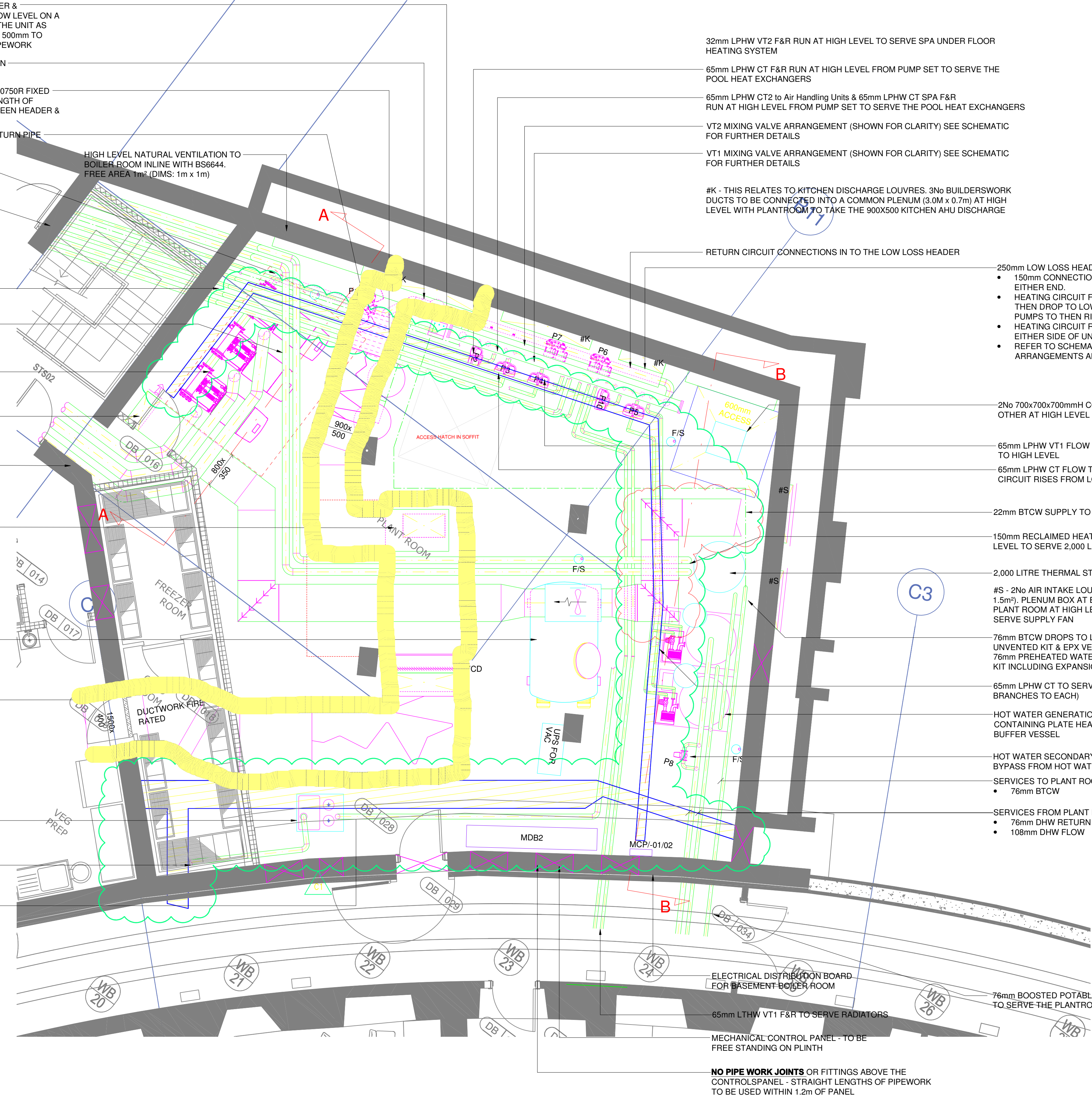
VACUUM PLANT WITH UPS (2750mm LONG X 450mm WIDE X 170mm HIGH) REFER TO DRAINAGE DRAWINGS FOR FURTHER INFORMATION ON THIS INSTALLATION REQUIREMENT

1500X400 FIRE RATED EXTRACT DUCTWORK FROM KITCHEN RUNS AT HIGH LEVEL TO FAN UNIT

SEWAGE PUMP (MULTILIFT MLD) TO TAKE WASTE PIPE FROM KITCHEN TO DISCHARGE INTO THE MAINS SEWAGE OUTFLOW LINE

110mm WASTE FROM KITCHEN TO CONNECT INTO SEWAGE PUMP

110mm WASTE FROM SEWAGE PUMP RISES TO HIGH LEVEL AND RUNS TOWARDS THE MAINS SEWAGE LINE OUTFLOW CONNECTION



- 250mm LOW LOSS HEADER INSTALLED AT HIGH LEVEL:-
- 150mm CONNECTIONS FOR BOILER FLOW & RETURN SHUNT CIRCUIT AT EITHER END.
- HEATING CIRCUIT FLOW BRANCHES FROM UNDERSIDE OF THE HEADER THEN DROP TO LOW LEVEL TO FEED PUMP SETS. DISCHARGE FROM PUMPS TO THEN RISE TO HIGH LEVEL
- HEATING CIRCUIT RETURN CONNECTIONS TO CONNECT INTO HEADER EITHER SIDE OF UNDERSIDE
- REFER TO SCHEMATIC DRAWING 500/XX/01 FOR DETAILS OF VALVE ARRANGEMENTS AND CONNECTIONS REQUIREMENTS

2No 700x700x700mmH CONDENSERS STACKED ONE ON EACH OTHER AT HIGH LEVEL DIRECTLY BEHIND EXTERNAL LOUVRE

65mm LPHW VT1 FLOW RISES FROM LOW AFTER PUMP TO HIGH LEVEL

65mm LPHW CT FLOW TO SERVE DHW PRIMARY CIRCUIT RISES FROM LOW LEVEL AFTER PUMP

22mm BTCW SUPPLY TO THE PRESSURISATION UNIT

150mm RECLAIMED HEAT DROPS FROM HIGH LEVEL TO SERVE 2,000 LITRE THERMAL STORE.

2,000 LITRE THERMAL STORE.

#S - 2No AIR INTAKE LOUVRES AT GROUND FLOOR LEVEL (FA 1.5m<sup>2</sup>). PLENUM BOX AT BOTTOM OF BUILDERS WORK SHAFT IN PLANT ROOM AT HIGH LEVEL. 76mm INTAKE CONNECTION TO SERVE SUPPLY FAN

76mm BTCW DROPS TO LOW LEVEL TO SERVE THERMAL STORE c/w UNVENTED KIT & EPX VESSEL.  
76mm PREHEATED WATER TO FEED DHW BUFFERS VESSELS c/w UNVENTED KIT INCLUDING EXPANSION VESSEL

65mm LPHW CT TO SERVE DHW GENERATION (50mm BRANCHES TO EACH)

HOT WATER GENERATION VIA 2No PACKAGED PLANTS CONTAINING PLATE HEAT EXCHANGERS WITH 1,500 LITRE BUFFER VESSEL

HOT WATER SECONDARY CIRCULATION ON BYPASS FROM HOT WATER FLOW

SERVICES TO PLANT ROOM:

- 76mm BTCW

SERVICES FROM PLANT ROOM:

- 76mm DHW RETURN
- 108mm DHW FLOW

ELECTRICAL DISTRIBUTION BOARD FOR BASEMENT BOILER ROOM

65mm LTHW VT1 F&R TO SERVE RADIATORS

MECHANICAL CONTROL PANEL - TO BE FREE STANDING ON PLINTH

NO PIPE WORK JOINTS OR FITTINGS ABOVE THE CONTROLSPANEL - STRAIGHT LENGTHS OF PIPEWORK TO BE USED WITHIN 1.2m OF PANEL

76mm BOOSTED POTABLE COLD WATER SUPPLY TO SERVE THE PLANTROOM.

THIS DRAWING IS COPYRIGHT. It must not be reproduced or disclosed to third parties without our prior permission

Do not scale from this drawing, or, interrogate and use electronic information. Use dimensioned information only. Only information included in the registered issued drawing to be used.

Any discrepancies should be reported immediately.

This drawing is to be read in conjunction with all relevant consultants, specialist manufacturers drawings and specifications.

Any surveyed information incorporated within this drawing cannot be guaranteed as accurate unless confirmed by fixed dimension.

All dimensions are in millimetres unless noted otherwise.

**PLOTTING**

For this drawing to be plotted as intended, the B3Bgeneral.stb Plot Style must be used as included in .zip folder version

FOR FULL DETAILS OF THE PLANT LAYOUT AND ANCILLARIES PLEASE REFER TO DRAWING

**71009/C/M/500/XX/01**

THIS DRAWING DOES NOT CONTAIN ALL INFORMATION, PLANT & COMPONENTS FOR DRAWING CLARITY PURPOSES

FOR DETAILS OF THE PROPOSED

**GAS MAIN SERVICE**

SEE DRAWING

**71009/C/M/540/XX/01**

C1	14/01/16	Electrical Containment added	MGO	PD
C12	13/01/16	Sewage lift pump added to plantroom	MG	PD
		Ductwork diverted from DHW plant		
		Section A & B-B reference added		
		Contract Issue		
C11	16/10/15	Cold Water Storage Tank & MCWS Relocated.	MG	PD
T5	03/06/15	Cold Water Storage Tank Moved from Ground	APS	PD
T4	16/04/15	Floor Laundry Room Roof.	APS	PD
T3	17/03/15	Plant room layout developed	MG	PD
T2	10/07/14	TENDER ISSUE - Stage 2	MG	PD
T1	09/06/14	TENDER ISSUE	MG	PD
P2	26/06/12	Boiler Flues Updated.	APS	PD
P1	28/05/12	Preliminary Issue	APS	PD

REV	DATE	DESCRIPTION	INITIAL	CHECKED
-----	------	-------------	---------	---------



○ Aberystwyth  
○ Bradford  
○ Cardiff  
○ Glasgow

○ Loughborough  
● Manchester  
○ Newcastle  
○ Newtown

t : 0161 905 2298  
f : 029 2038 4683  
www.b3.co.uk

Buxton Crescent & Spa

High Peak Borough Council

Basement Plantroom Plan

Boiler Room Layout

71009 C/M 500/-01/01 C1