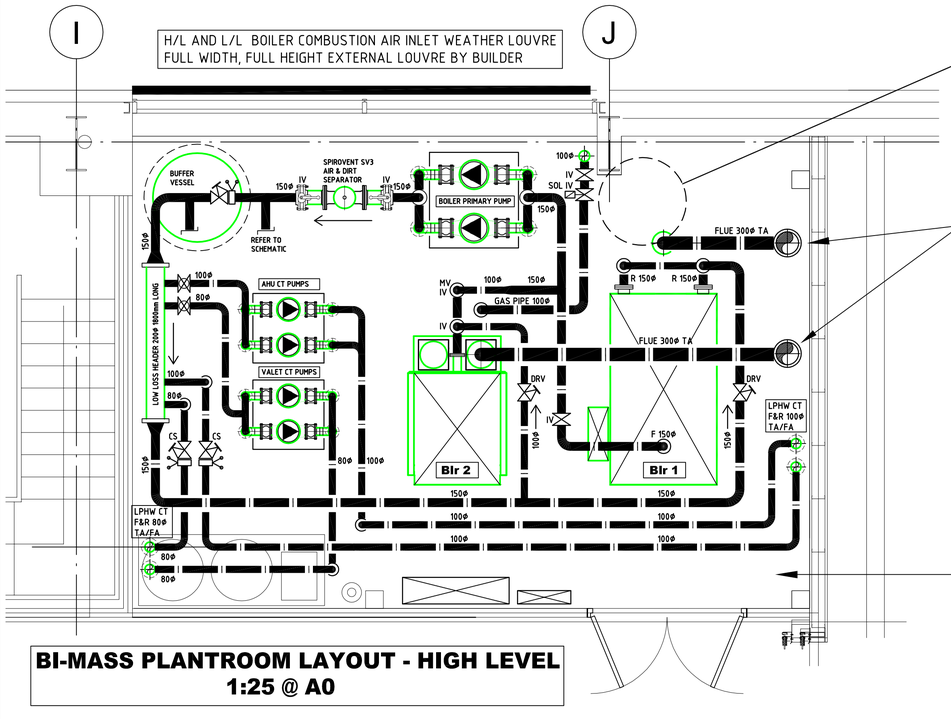


BI-MASS PLANTROOM LAYOUT - HIGH LEVEL
1:25 @ A0

Gas Solenoid Valve

LINE SIZE GAS SOLENIOD VALVE ON GAS PIPEWORK - LINKED TO FIRE ALARM SYSTEM VIA BOILER ROOM CONTROL PANEL

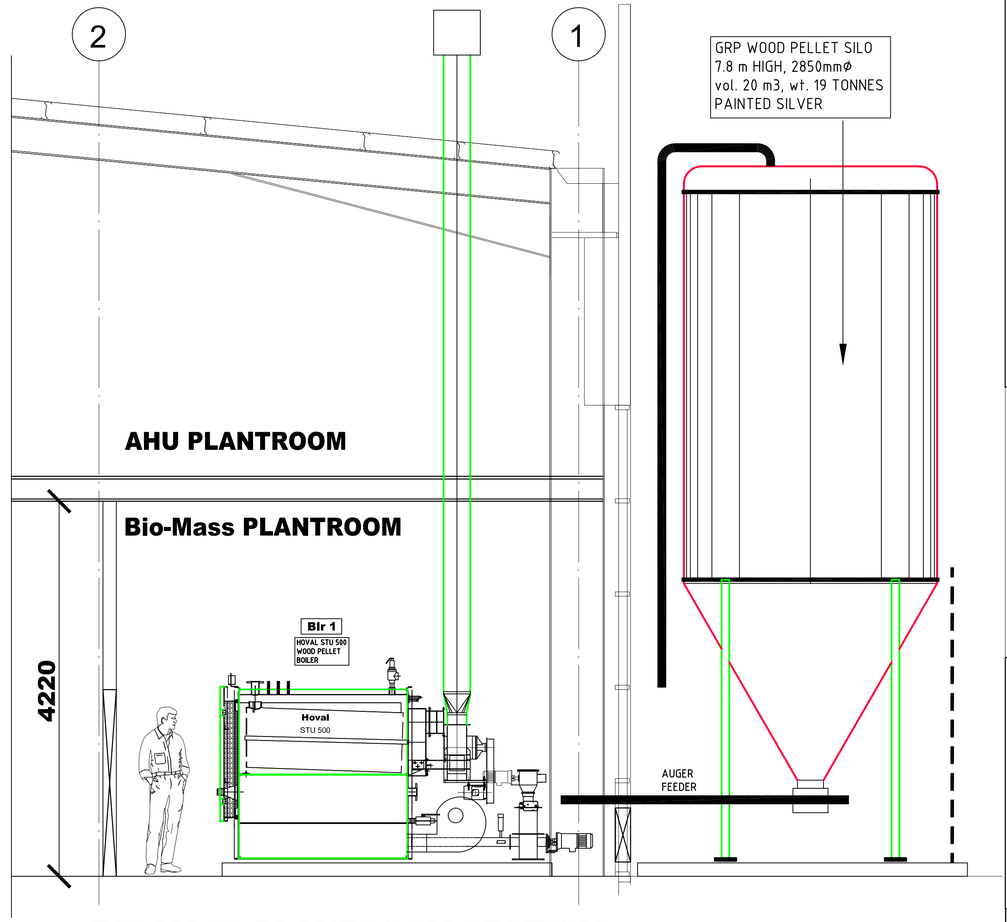
Boiler Flues to Roof

NOTE: 2 No. 300ø FLUES RISE TO ABOVE THROUGH AHU PLANTROOM AND TERMINATE AT 1200mm ABOVE ROOF LEVEL. PROVIDE WEATHERING CRAVAT TO SUIT ROOF PROFILE AND INSTALL SAME.

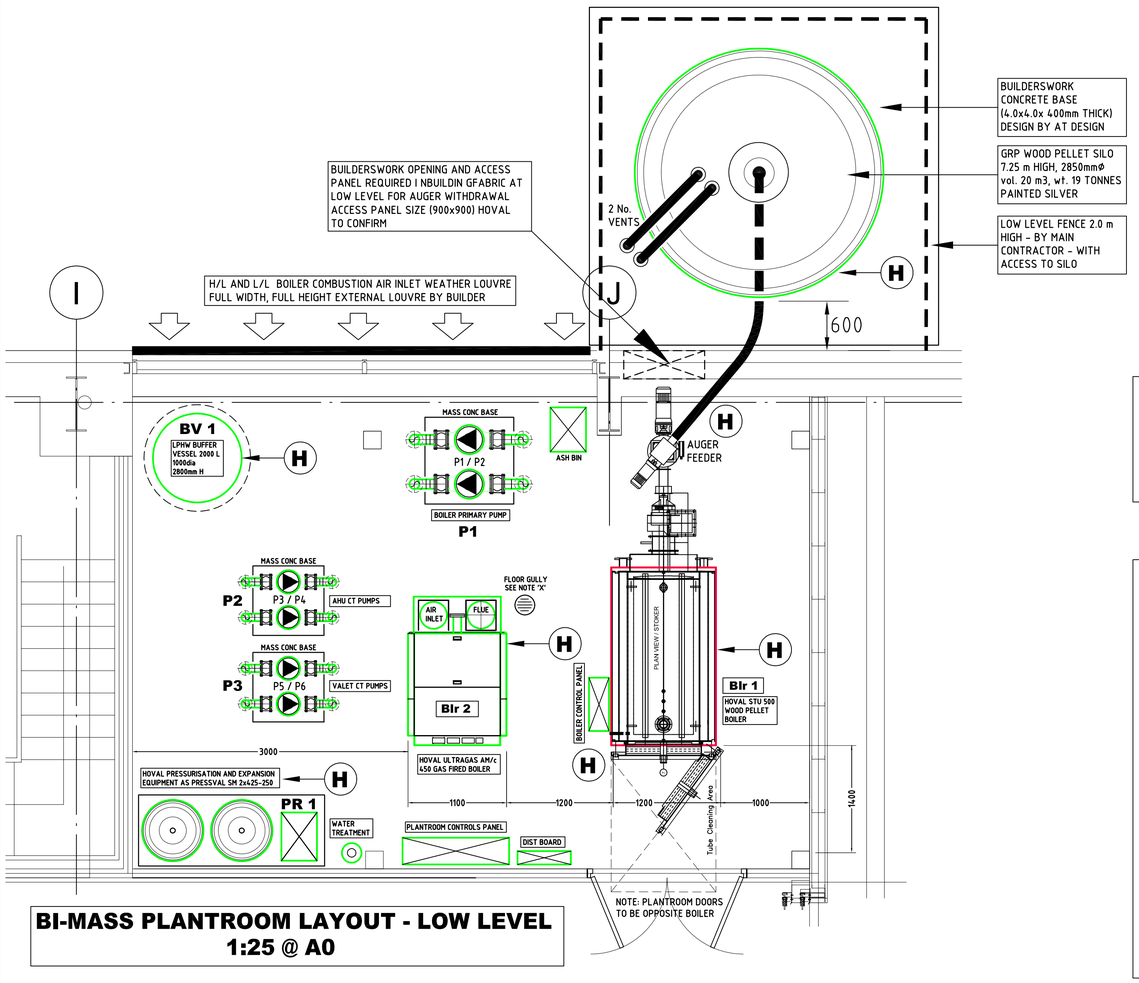
ALLOW TO BOX IN FLUES THROUGH AHU PLANTROOM WITH FIRE RATED BOXING. SUPPLY AND INSTALL FIRE COLLARS AT PLANTROOM SLAB PENETRATION

Valves

NOTE: REFER TO PIPEWORK SCHEMATIC FOR FULL COMPLIMENT OF PIPE SIZES AND VALVES REQUIRED IN PLANTROOM



BIO-MASS PLANTROOM SECTION



BI-MASS PLANTROOM LAYOUT - LOW LEVEL
1:25 @ A0

Plant Schedule

REF	SUPPLIER	SPECIFICATION DETAIL	DUTY
BLR 1	HOVAL	STU 500	500 kW
BLR 2	HOVAL	ULTRAGAS AM/c 450	430 kW
PR 1	HOVAL	PRESSVAL SM 2x425-250	-
BV 1	HOVAL	BUFFER VESSEL 2000 litres	-

Pump Schedule

REF	SERVICE	REF	SIZE	DUTY	ELECTRICAL DATA
P1	BOILER PRIMARY CCT	P1 / P2	100mm	14 l/s @ 120 kPa	2.5 kW motors 3 Phase 415 V
P2	AHU CT CCT.	P3 / P4	80mm	9 l/s @ 160 kPa	1.5 kW motors 3 Phase 415 V
P3	VALET CT CCT.	P5 / P6	65mm	5 l/s @ 160 kPa	0.8 kW motors 3 Phase 240 V

Notes / Legend

1.0 **H** SYMBOL ON PLANT DENOTES ITEMS OF EQUIPMENT TO BE PURCHASED DIRECT FROM HOVAL BY CLIENT.

DENOTED ITEMS OF EQUIPMENT SHALL BE SUPPLIED AND INSTALLED BY HOVAL Ltd.

SAME ITEMS TO BE PIPED, WIRED AND COMMISSIONED BY MECHANICAL CONTRACTOR.

2.0 FLOOR GULLY / DRAIN TO BE PROVIDED BY AT DESIGN / BUILDER SUITABLE FOR CONDENSATE DRAIN AND GENERAL PLANTROOM DRAINAGE

3.0 THE CONTRACTOR SHALL SUBMIT FULLY DEVELOPED WORKING DRAWINGS FOR APPROVAL PRIOR TO INSTALLATION

4.0 SUPPLY & INSTALL SLEEVES AND FIRE COLLARS WHERE PIPEWORK OR SERVICE PASS THROUG WALLS, SLABS & FIRE BARRIERS ETC

Controls Specification

1.0 THE CONTRACTOR SHALL EMPLOY A CONTROLS SPECIALIST TO DESIGN, FABRICATE INSTALL, SET TO WORK AND COMMISSION THE AUTOMATIC CONTROSL TO OPERATE THE WHOLE OF THE WORKS.

INCORPORATE TH EFOLLOWING
.01 INVERTER DRIVEN PUMPS
.02 TREND SERIES 3 BMS SYSTEM WITH 1Q VIEW.
.03 LINK TO HOVAL STU BOILER CONTRO PANEL
.04 LINK TO FIRE ALARM PANEL
.05 INCORPORATE LINEK TO ADJACENT MITSUBISHI ELEXTRIC Ltd
.06 AG150 CONTROLLER FOR OFFICES AIR CONDITONING
.06 PROVIDE PANEL DRAWINGS FOR APPROVAL PRIOR TO MANUFACTURER

Bio-Mass Plantroom

LEGEND

STANDARD LIST OF ABBREVIATIONS:

F	FLOW PIPE
R	RETURN PIPE
IV	ISOLATING VALVE
LSV	LOCKSHIELD VALVE
SC	STOP COCK
GC	GAS COCK
DC	DRAIN COCK
AV	AIR VENT
AAV	AUTOMATIC AIR VENT
CS	COMMISSIONING STATION
DRV	DOUBLE REG. VALVE
OP	ORIFICE PLATE
MV	MOTORISED CONTROL VALVE
SOL IV	SOLENOID VALVE
DCV	DOUBLE CHECK VALVE
STR	PIPELINE STRAINER
MV	MOTORISED VALVE
NRV	NON RETURN VALVE
PRV	PRESSURE RED. VALVE
(T)	TEMPERATURE GAUGE
(P)	PRESSURE GAUGE
▷	PIPELINE REDUCER

NOTES

1.0 DRAIN COCKS AND AIR VENTS ON PUMPS
2.0 PUMPS ON MASS CONCRETE BASES

NOTES :

1.00 THE CONTRACTOR SHALL VISIT SITE DURING TENDER

2.00 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CO-ORDINATION, THE DESIGN OF ALL BRACKETS & SUPPORT WORK, AND BUILDERSWORK DETAILS

3.00 THE MECHANICAL CONTRACTOR SHALL SET TO WORK THE WHOLE OF THE INSTALLATIONS - INCLUDNG CONTROLS AND CONTROLS WIRING - AND FULLY COMMISSION AND BALANCE THE SYSTEMS, IN ACCORDANCE WITH ALL INDUSTRY STANDARDS, BUILDING CONTROL REQUIREMENTS, WAYSIDE REQUIREMENTS AND GOOD PRACTICE

4.00 INSTALL THE WORKS IN ACCORDANCE WITH ALL STANDARD INDUSTRY HEALTH & SAFETY & BUILDING CONTROL REQUIREMENTS

5.00 THE CONTRACTOR SHALL SUBMIT RISK ASSESSMENTS AND METHOD STATEMENTS TO CS2 FOR ALL ELEMENTS OF THE WORKS PRIOR TO WORKS TAKING PLACE

Note: Contractors' Coordination Responsibility

THE INFORMATION ON THIS DRAWING IS FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL PRODUCE DIMENSIONED AND FULLY COORDINATED WORKING DRAWINGS FOR INSTALLATION FOR APPROVAL PRIOR TO PROCUREMENT - THE CONTRACTOR SHALL COORDINATE MECHANICAL, ELECTRICAL, STRUCTURAL, ARCHITECTURAL ELEMENTS OF THE PROJECT, AS WELL AS COORDINATE THE CEILING LAYOUT AND INSTALLATION.

Important Note:

IMPORTANT NOTE: READ ALL NOTES, SCHEDULES AND INSTALLATION INSTRUCTIONS ON DRAWING - THEY FORM SPART OF THE SPECIFICATION, WHICH MAY NOT BE REPEATED IN THE WRITTEN DOCUMENTATION.

Rev	Description	Date
C	CONTRACT ISSUE	-
T	TENDER ISSUE	-

client
WAYSIDE GROUP

project manager
CS2 Ltd

project architect
MDG

project title
BMW & MINI
NORTHFIELD DRIVE, NORTHFIELD, MILTON KEYNES

MK Consulting Engineers Ltd
Building Services Engineering Design & Draughting
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Drawing Title
MECHANICAL SERVICES
BIO-MASS PLANTROOM
PLANT AND PIPEWORK LAYOUT

Scale	1:25 @ A0	Drawn	AK
Date	-	Checked	AK

Drawing Number: MK/600/HTG 02
Revision: C1

Drawing Status
CONTRACT ISSUE