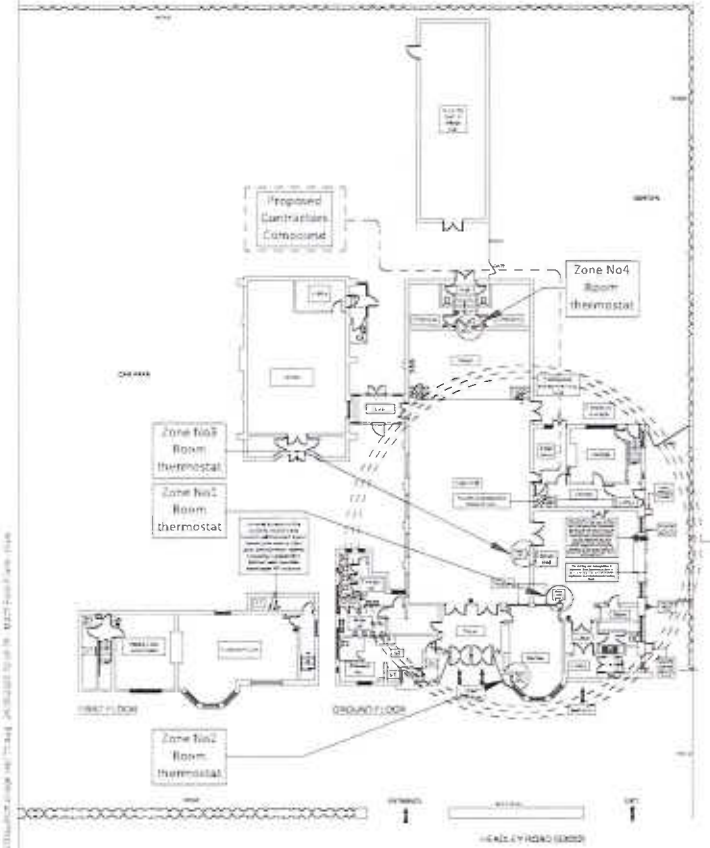
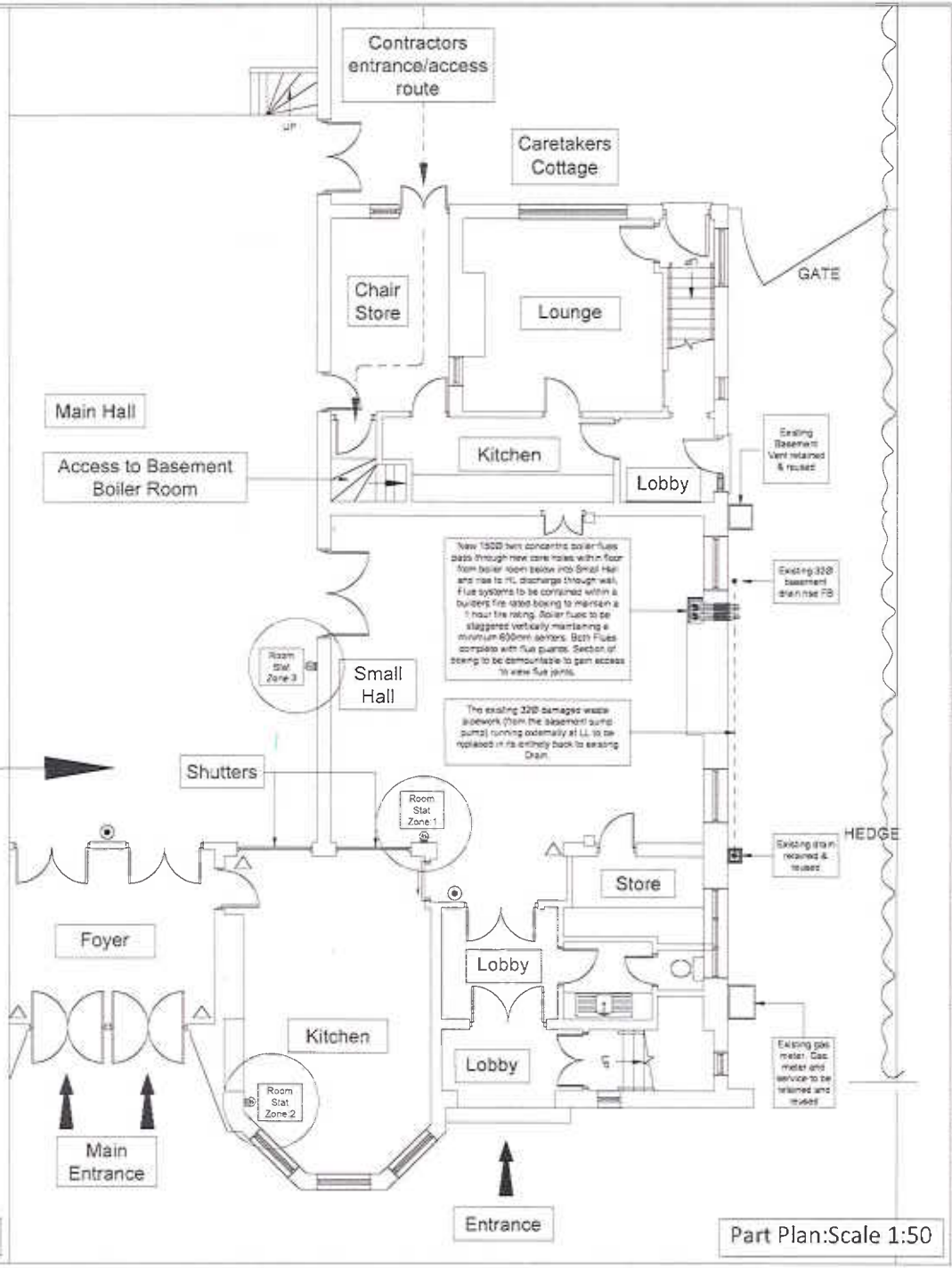
APPENDIX 14



Building Floor Plan: Scale: 1:200



Part Plan:Scale 1:50

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CDM - DESIGN RISK INFORMATION

Notes

All positions are indicative only and must be confirmed on site with the ground engineer prior to installation
Do not scale from the drawings.

If In Doubt ASK

Revision	Description	Date
T1	Notes amended in line with client comments	29/10/25
T	Preliminary/Review/Comments	08/10/25

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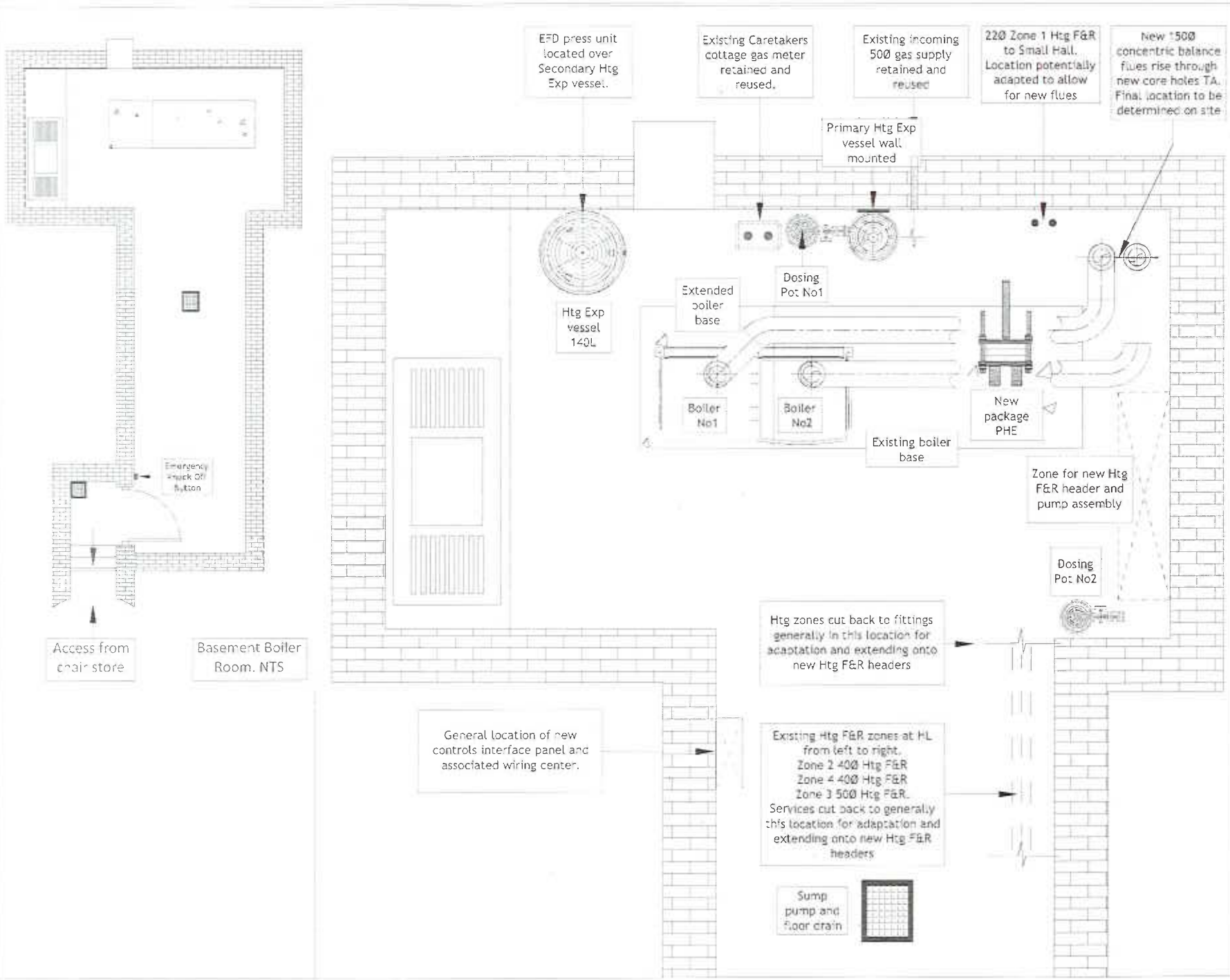
Grayshott Village Hall
Headley Rd, Grayshott,
Hindhead GU26 6TZ

General Floor Plan

Status	Tender
Date	September 2025
Drawn by MJP	Checked by NV

MBL960/M001

Scale As noted @ A1	Revision T1


EFD press unit located over Secondary Htg Exp vessel.
Existing Caretakers cottage gas meter retained and reused.
Existing incoming 50Ø gas supply retained and reused
22Ø Zone 1 Htg F&R to Small Hall. Location potentially adapted to allow for new flues
New 150Ø concentric balance flues rise through new core holes TA. Final location to be determined on site
Primary Htg Exp vessel wall mounted
Htg Exp vessel 140L
Dosing Pot No1
Extended boiler base
Boiler No1
Boiler No2
New package PHE
Existing boiler base
Zone for new Htg F&R header and pump assembly
Dosing Pot No2
Emergency Shut Off Button
Access from chair store
Basement Boiler Room. NTS
Htg zones cut back to fittings generally in this location for adaptation and extending onto new Htg F&R headers
General location of new controls interface panel and associated wiring center.
Existing Htg F&R zones at HL from left to right.
Zone 2 40Ø Htg F&R
Zone 4 40Ø Htg F&R
Zone 3 50Ø Htg F&R.
Services cut back to generally this location for adaptation and extending onto new Htg F&R headers
Sump pump and floor drain
If In Doubt ASK
MBL
Grayshott Village Hall
Headley Rd, Grayshott,
Hinchead GU26 6TZ
Boiler Room
Mechanical plant Floor Plan
Tender
September 2025
MLP
NV
MBL960/M002
1:20 @ A1

NOTES: Specification Part C

All works must fully comply with the McCarthy Bainbridge ltd, particular and standard specifications, manufacturers specifications and recommendations. Along with current applicable M&E services regulations bye-laws and legislation.
MBL Standard Part 'A' & 'B' specifications can be downloaded using the link below, or copied and pasted into your web browser.
https://www.mccarthybainbridgeltd.co.uk/wp-content/uploads/2025/09/Part-A-B-Specification.pdf
The specification must also be read in conjunction with MBL layout drawings M001 to M004.

Site access is strictly by appointment only and must be made through Grayshott Village Hall Chairman Mr Stephen Penny Email: stephen@grayshottvillagehall.co.uk
Telephone: 07775 517 838

Overview:
Grayshott Village Hall is one of the largest village halls in Hampshire, and is located at the Hampshire/Surrey border. It has been at the heart of community life providing a welcoming venue for events, celebrations, and vital activities for more than 100 years.
Grayshott Village Hall is located at Headley Rd, Grayshott, Hindhead GU26 6TZ.

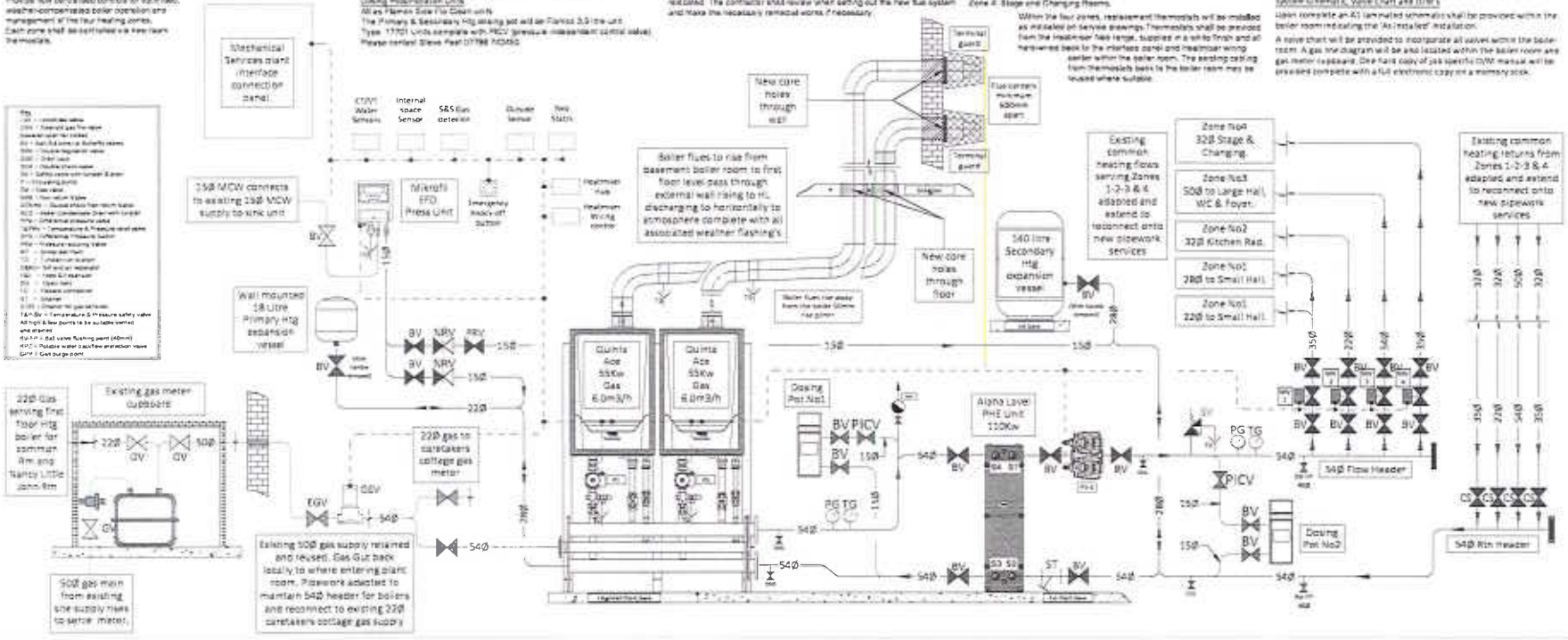
The works package proposed will be as follows:
Scope of Works:
General
Remove the existing boiler plant, redundant controls, flue system, pumps, and all associated ancillary services.
Retain and reuse the existing heating zones and emitters.
Adapt existing heating flow and return pipework within the boiler room to connect with the new services, including upgraded zone control valves and room thermostats.
Boiler Plant:
Install 2 No. cascade-mounted, fully modulating condensing natural gas-fired boilers, connected via a plate heat exchanger to achieve full separation between the new boiler plant and the existing heating system.
Both primary (boiler) and secondary (heating) circuits shall be fully pressurised, each with Expansion vessels from a combined pressurisation unit.
Flue arrangements
Concentric, room-sealed balanced flue systems, proved to both combustion air intake and exhaust to atmosphere.
Flues shall rise from the basement boiler room, and pass through the floor into the Small Hall, and discharge horizontally through the external wall to atmosphere.
Within the Small Hall, flues shall be enclosed in a builder's boxing, designed for aesthetics and incorporating a fire-rated enclosure.
The existing coal chute shall be retained for general ventilation only.
Pumping Arrangements
Provide new primary boiler pumps (supplied with the boiler package) to serve the plate heat exchanger.
Install new secondary hot/chilled heating pumps to serve the four heating zones.
Gas Services
Modify the incoming gas service at the entry point into the boiler room, incorporating a new Emergency Gas Valve (EGV) and Gas solenoid valve.
Adapt pipework to serve the new boiler plant and reconnect to the gas check meter supplying the caretaker's cottage. The care takers gas supply shall be taken downstream side of the GSV ensuring that its fully isolated in an emergency.
Gas Monitoring & Safety
Install a new gas detection and monitoring system.
Detectors shall provide continuous monitoring for: Natural Gas (Methane) Carbon Monoxide (CO) Oxygen depletion. On detection, the system shall automatically shut down the boiler plant.
System Controls
Provide new centralised controls for optimised, weather-compensated boiler operation and management of the four heating zones.
Each zone shall be controlled via new room thermostats.

Gantry
The system shall include remote internet access by the client allowing for designated operations to monitor operation, Adjust temperatures, switch individual zones on/off as required.
Site Attendance & General Requirements
The contractor shall visit the site prior to tender submission to fully appreciate the extent of the works.
No claims for additional costs will be considered on the basis of lack of knowledge.
Site visits shall be arranged strictly by appointment through Stephen Penny.
The contractor shall include within the tender for:
All lifting and hoisting required for positioning of new plant, equipment, and associated items.
The removal from site of all redundant plant, equipment, pipework, and materials.
Disposal of all redundant materials at a certified waste recycling centre, with appropriate documentation provided.
The existing heating system works on an open vented particular. As the upgraded system will be sealed the existing F&E tank will be fully disconnected from all services and will become redundant. All existing open vent and cold feed pipework shall be cut back and capped off within the boiler room.
Potable Cold water services.
The existing building MCW service within the boiler room will be enabled and extended to serve the new pressurisation unit.
Builders works
The Contractor shall allow for all associated builders, core holes, decorative and protective works as necessary to ensure the works are completed to a professional standard and handed over in a clean, finished condition.
The existing redundant flue aperture shall be infilled and made good to match the surrounding finishes.
The Contractor shall supply and install a 60-minute fire rated enclosure to fully encase the new flue systems within the Small Hall. The enclosure shall run from finished floor level to finished ceiling level.
The fire-resisting assembly shall use fire-rated board(s) and framing in accordance with the board manufacturer's tested details and the applicable building regulations. All joints, service penetrations and closures shall be sealed with approved fire/smoke materials to maintain the 60-minute rating.
Where practical, the visible face of the enclosure shall replicate the existing wall panelling, wall frieze, skirting and ceiling coving, maintaining the hall aesthetics. Access/panel, provide discrete access panels where required for visual inspection of the flue joints. Access panels shall be fire-rated to the same level as the enclosure and finished to match adjacent panelling.
Upon completion of the works the boiler room floor shall receive two coats of grey floor paint suitable for the environment. The floor shall be prepared, cleaned and primed in accordance with the paint manufacturer's instructions. All adjacent surfaces shall be masked and protected during application.
Electrical services
The contractor shall allow all associated small power modification in their entirety for the installation of the new mechanical services control system and ancillary small power services.
Valves.
All valves shall be as manufactured by Boss, Flamco or equal and approved. General isolation full bore ball valves shall be used up to 50mm and Butterfly valves thereafter. Gate valves shall not be used under any circumstances. Isolation of the the heating expansion vessel shall be made using a ball valves with the handle removed and be swapped to the body for future use. Valves above 65Ø shall be Flanges and threaded below.
Safety valves to be high lift type as 40Ø SV Flamco Prezcor SR.
Dosing Pots/Filtration units
All as Flamco Solar for Clean units
The Primary & Secondary Htg dosing pot will be Flamco 3.5 line unit.
Type: 17701 Units complete with PICV (pressure independent control valve).
Please contact Steve Peet 07796 742450

Boilers
All as manufactured by Broag Remeha
Contact Area Manager Andrew Bell on 07836 630683
andrew.bell@baxi.co.uk
2No Quinta Ace 55Kw cascade mounted boiler complete with flue systems. All boilers to be fully commissioned by Broag engineer upon completion.
Please contact the Commissioning Engineer: Luke Lawson Mobile: 07501 349 719
lmacfarlane@electraphase.co.uk
Upon completion a landlords certificate will need to be provided for the new gas fired boiler plant.
Pressurisation units & Expansion vessels
The primary and secondary pressurisation unit shall be provided by Mikrofil Type: EFD 3.
Please contact Nick Bailey on 0845 283 6520.
The expansion vessels shall be supplied by Flamco from their Flexcon Premium range.
Secondary Heating
New 140 litre Flamco expansion vessel.
Primary Heating
New 18 litre Flamco expansion vessel.
Please contact Steve Peet 07796 742450
Pipework & Insulation
All pipework shall be black heavy grade or carbon steel, or table X copper. Pipework jointing can be screwed, soldered or crimped as Mapress or equal.
All pipework to be fully insulated with Phenolic Foam to Flow pressure complete with ID banding in service areas all as manufactured by Kingspan, sizes to meet current building Part L requirement and as follows.
Any existing damaged or undersized pipe work shall be re-insulated.
Please note: all new insulation shall be foil faced finish.
15Ø thickness 19mm
20Ø thickness 25mm
25Ø thickness 25mm
32Ø to 50Ø thickness 30mm
The new plate exchanger shall also be covered with manufacturers insulation jacket.
Pumps
All pumps shall be as manufactured by Dabs Pumps UK Ltd
All pumps complete with integral inverter driven controls to assist in commissioning.
Primary Boiler No1 Short Pump P1 & P2
Provided as part of the Broag Quinta boiler pack.
Heating VT pump P3-4
EVOPLUS D 150/280 50 N
Please contact Dabs Account Manager Steve Hart on : 01279 653 778
Flue system
The boiler flue system shall be installed using the Quinta Ace flue concentric flue components. The new flue system shall be suitable for condensing boilers and installed conforming to local and/or Building Regs. All flue work shall be complete with a weather proof seal when passing through the exterior wall.
Alternatively the system can be installed and designed by a Flue specialist namely - Cheviflue Ltd. Please contact Sam Ford 01264 333078.
Please note: the contractor shall allow for full liaison with the flue engineers during the installation process.
Existing Small Hall Heating Circuit.
With the installation of the new flue system the existing 22Ø Htg F&R rising from the boiler room to the LL being within the Small Hall may need to be relocated. The contractor shall review when setting out the new flue system and make the necessary remedial works if necessary.

System Cleaning & Flushing
The systems shall be chemically cleaned using a non-corrosive multi-metal circulated throughout the system inline with the manufactures requirements. The system upon completion and prior to any new boiler plant being run shall be dosed with a suitable inhibitor to maintain water condition and control Pitting. Chemical treatment can be as Sentinel X100 or equal and approved.
Water sample will be required for verification of final water quality from both the primary and secondary heating systems.
Please note: As part of the works new flushing points shall be added as indicated to the flow and return heating systems.
NB: The existing Htg water systems will be checked to ensure there are no contaminants prohibiting draining directly into the local drainage systems. Should contaminants be detected then a discharge licence will be required. Should the service waiting for the licence to be granted have an impact on the works program then contaminated water will be held in storage cells until such times until the licence has been released.
Plate Heat Exchanger
All as manufactured by Alfa Laval.
Unit: AQD-FM range at 110Kw
Item no. 4840284113
Unit to be complete with floor support kit and insulation jacket.
Please contact Kareem Alkhedary
Technical Sales Engineer, Business Unit - Energy Equipment
Office +44 1276 413 630
E-mail: kareem.alkhedary@alfalaval.com
Controls Systems
Heating & Controls Specification
All controls shall comply with the MBL specification, providing full system control using the Heatmiser System Control Platform.
Please contact: Paul Slater – Aztec Controls (07770 685 861).
The controls specialist shall agree the controls philosophy with the mechanical consultant prior to manufacture and installation after completely reviewing the existing installation.
The controls specialist shall include all modifications, wiring, and containment associated with the controls and plant systems.
Electrical containment shall be provided in surface-mounted galvanised conduit and cable tray.
System Operation
Heating shall operate on an optimised weather-compensated direct boiler control basis.
A Heatmiser hub will be provided and connected to the existing WAP hub to allow remote adjustment of the four heating zones.
Facility for setback temperatures shall be provided between normal operational times on all thermostats.
The boiler plant shall operate on demand from the zone valves and revert to standby mode when no zones call for heat.
Boilers shall operate via an interface providing complete modulation control of the burners, with a weekly rotating lead/lag sequence.
Heating Zones
New 3-port motorised valves (MVHB) will be installed on the heating flow to the following zones:
Zone 1: Small Hall
Zone 2: Was the Common Room now only single radiator within storage.
Zone 3: Large Hall, WC & Foyer.
Zone 4: Stage and Changing Rooms.
Within the four zones, replacement thermostats will be installed as indicated on service drawings. Thermostats shall be provided from the Heatmiser Neo range, supplied in a white finish and all hardwired back to the interface panel and Heatmiser wiring center within the boiler room. The existing cabling from thermostats back to the boiler room may be reused where suitable.

Gantry
NB: The existing thermostat within the kitchen is an RF wireless unit connected to a receiver located within the first-floor boiler cupboard. The tender submission is dependent on the stakeholder landing (at the top of the Common Room stairs). This existing thermostat arrangement will be replaced in its entirety with a new Neo Air thermostat and a RF Switch V2 arrangement, and then reconnected to the existing signal cables previously connected to the old RF Receiver that run back to the boiler room.
Controls Interface Panel
A new interface panel will be located in the boiler room, generally in the location of the existing heating panel.
The panel shall integrate all the associated boiler plant, pumps, motorised valves, thermostats, and ancillary services wiring.
The system shall allow direct boiler modulation control and stand-alone zone management.
Sensors & Monitoring
A new external non-facing sensor and common internal room sensor shall be installed for frost protection and weather compensation purposes.
The system will incorporate high and low pressurisation alarms via the pressurisation unit which will deactivate all the plant under fault conditions.
All required air and water sensors and socket installations shall be provided for full system functionality. Contractors liaison with Aztec controls is essential.
Safety & Protection Systems
A new gas detector/sensor unit shall be installed and integrated into the control system. On gas detection, the system shall shut down all plant and gas solenoid valve.
Heat detectors over each boiler will shut down boilers, circulation pumps, and gas solenoid valve when activated.
The system shall be fully interfaced with the building centralised fire alarm.
All plant and ancillary services shall shut down on activation from the building main fire alarm system. A delay sequence shall be incorporated by the fire alarm specialist to prevent nuisance boiler shutdowns during weekly alarm tests.
An emergency manual kick-off button shall be located at the entrance to the boiler room. This when activated shall close down all plant in case of emergency.
NO Gas extension
All as manufactured by SAS Northern Ltd
Type GDP28: Safe Area Gas Detection & Controller
Contact Tel: +44(0) 1702 291 735.
External remedial works
From the pumped sump within the basement boiler room a 32Ø Upvc pumped sump rises to LL externally running along the side of the building at low level to drain. Currently a section has been damaged. The contractor shall allow to replace the drain in its entirety from where the pipework rises and above ground level through to the raised drain outlet. All pipework shall be Polypipe or equal in a black finish complete with solvent welded jointing and all associated brackets.
Commissioning
All systems to be fully commissioned upon completion and contractor to allow a full training sessions for maintenance personnel.
The contractor shall allow to set up the Heatmiser system initially to the client's operational times. The client can make any future changes as necessary to suit the buildings operational requirements.
System schematic, Valve Chart and O/M's
Upon complete an A1 laminated schematic shall be provided within the boiler room indicating the 'As installed' installation.
A valve chart will be provided to incorporate all valves within the boiler room. A gas line diagram will be also located within the boiler room and gas meter cupboard. One hard copy of job specific O/M manual will be provided complete with a full electronic copy on a memory stick.



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Mark J Pragnell
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CDM - DESIGN RISK INFORMATION

Residual risks which can have not been able to design out and which cannot could not be reasonably expected to know about		
Risk to life & Health	Suggested to contract manager	Date/Sign

Notes:
All positions are indicative only and must be confirmed on site with the project engineer prior to installation. Do not scale from the drawings.

If In Doubt ASK

Revision	Description	Date
T1	Notes amended none with client comments	09/09/25
T	Preliminary Revise/Comments	08/09/25

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Grayshott Village Hall
Headley Rd, Grayshott,
Hindhead GU26 6TZ

Plant Schematic & Notes

Status	Tender
Date	September 2025
Drawn by MJP	Checked by NV
MBL960/M003	
Scale NTS @ A1	Revision T1