

Design and Installation specification - System Boiler

The installation has been designed in accordance with the following:

Design and Installation specification - SEDBUK rating A System Boiler

The installation has been designed in accordance with the Domestic Building and Compliance Guide 2010 Edition, CIBSE Domestic Heating Guide, Building regulations, Approved Document L1: Conservation of fuel and power in dwellings, Approved Part F and Part G, the relevant British Codes of Practice and manufacturers installation instructions.

Design Parameters

External Temperature: -3°C

Internal Temperatures: As per CIBSE Domestic Heating Design Guide

Flow and return Temperature: 80°C/60°C

U Values: Floor: 0.25

Wall: 0.30

Roof: 0.18

Glass: 1.8

System

The system must be fully pumped sealed system, including expansion vessel (integral or externally mounted) programmer, 2 No. room thermostat and thermostatic radiator valves (TRV's to BS EN 215) on all radiators except in rooms with a thermostat and in bathrooms.

Automatic Bypass valve to be fitted where the boiler manufacturer specifies a bypass circuit.

All pipework must be laid to have access to permit the ease of draining. Pipework at low level must have drain cocks. Pipework at high level must be fitted with automatic air vents to prevent air bottles.

All pipework in garages and unheated spaces must be insulated in accordance with the building regulations Section L:13 & BS 5422.

Dwellings with less than 150m² living space/floor area to have space heating zones with independent temperature control, one dedicated to the general living area

Dwellings with over 150m² living space/floor area or to meet time and temperature control as per sap calculation are to have the heating circuits divided into at least two zones. Each to have independent time and temperature control and to be included in the boiler interlock arrangement.

The system must be installed in accordance with manufacturers installation instructions, current building regulations the following British Codes of Practice

BS 5440: 1	Flues
BS 5440: 2	Boiler Ventilation in Cupboards
BS 5449	Forced Circulation hot water systems
BS 5546	Design, Installation, testing and maintenance of services supplying water
BS 6798	Installation of gas fired hot water boilers
BS 6891	Gas Installation
BS 7593	Code of Practice for treatment of water in heating systems
BS 7671	requirements for electrical installations, IEE Wiring Systems

Flues

Flues must be installed in line with BS 5440: 1 and building Regulations Part J: combustion appliances and fuel storage systems. Section 4.

All flues must terminate as per the minimum terminal positions distances. Please see manufacturer's installation instructions. Flues must have access throughout their length, and have suitable access hatches to inspect each connection as per gas safety current edition.

Unvented Mains Pressure Cylinder

Unvented Mains Pressure Cylinder must be installed fully in accordance with the manufacturer's supplied instructions.

Units must be installed vertically and must allow ease of access to all safety equipment and all serviceable components.

Unvented hot water systems must be installed by a competent person as defined in approved document G6 of building regs (D3 in Scotland)

Equipment Schedule

Boiler	18 kW System Boiler
Flue System	60 / 100mm Horizontal Concentric Flue - 6m Length
Cylinder	250L Unvented Mains Pressure Cylinder
Programmer	7 day, 24 hour channel timer, for 2 Heating Zones
Room Thermostat	Honeywell or Similar
TRV's	Honeywell
Expansion Vessel	Fitted in Boiler
Pump	Fitted in Boiler

Radiator Schedule designed to Flow/Return Temperature 80°C/60°C

No.	Room	Temp	Watts A	Catalogue	Len	Hgt
R1	Kitchen/Dining	21	1212 x2	K2 - 143785	700	600
R2	Utility	21	693	K2 - 143782	400	600
R3	Living	21	1371	K2 - 143722	1000	450
R4	WC	21	392	K1 - 143746	400	600
R5	Hall	21	866	K2 - 143783	500	600
R6	Landing	21	866	K2 - 143783	500	600
R7	Bedroom 1	21	1234	K2 - 143721	900	450
R8	En-Suite	22	557	TR - 142768	500	1744
R9	Bedroom 2	21	1371	K2 - 143722	1000	450
R10	En-Suite	22	866	K2 - 143783	500	600
R11	Bedroom 3	21	823	K2 - 143718	600	450
R12	Bedroom 4	21	823	K2 - 143718	600	450
R13	Bathroom	22	693	K2 - 143782	400	600

Date: 10/07/17 Ref No: 17103

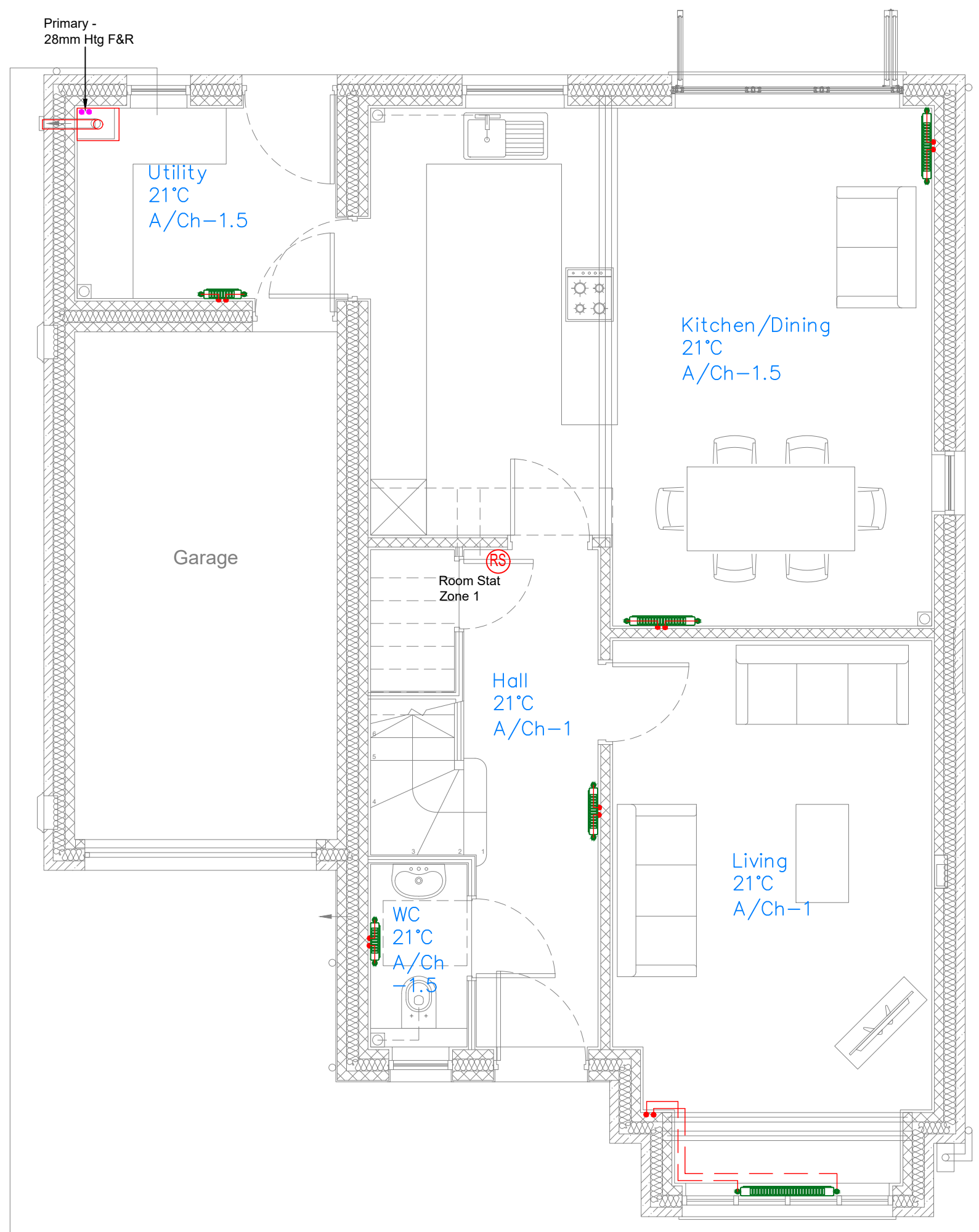
Title: Specification



Drawn By: MJE Scale: 1:50 @ A3


Title: Example House Type

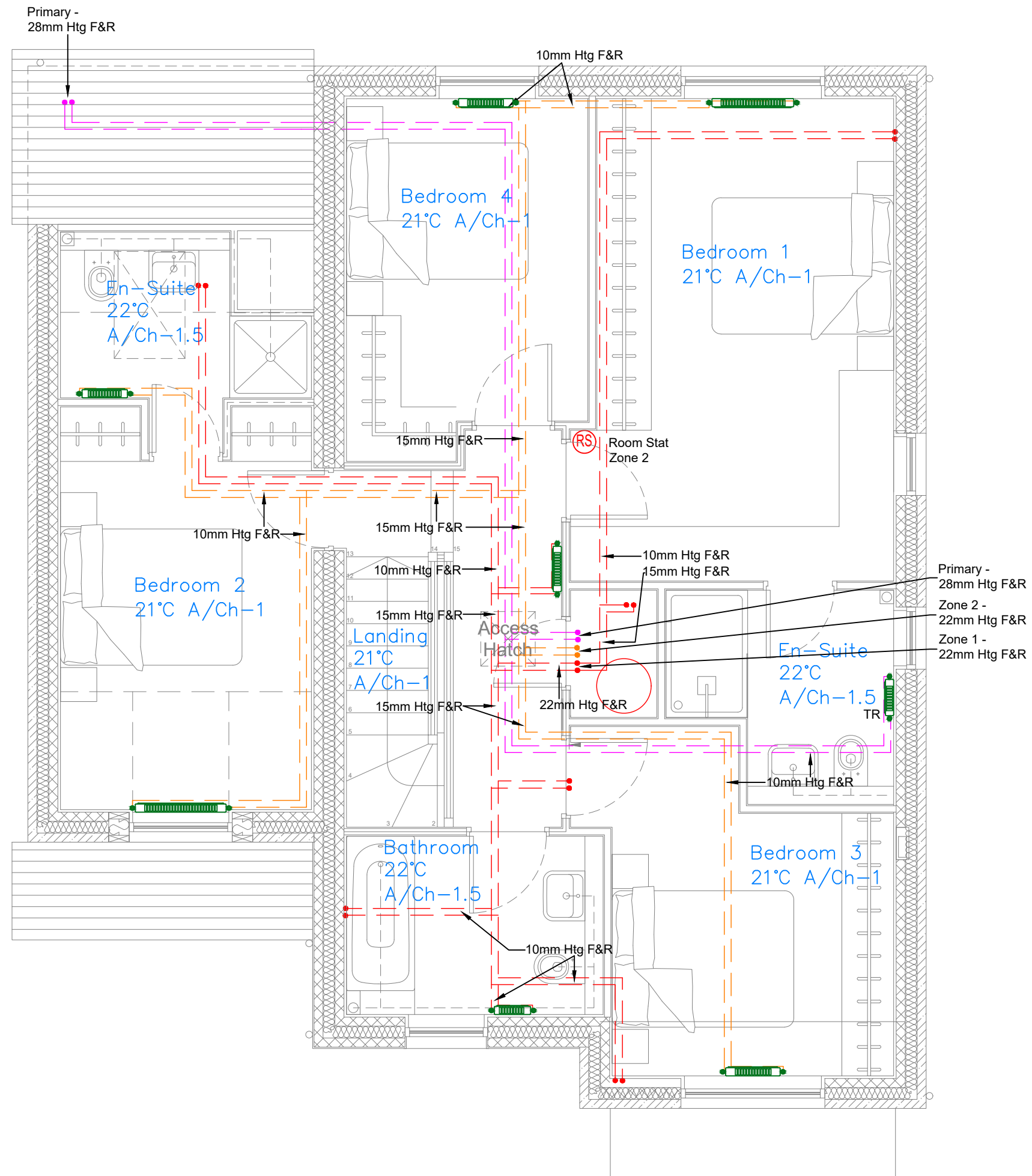
Site: Example Site



Additional Design Notes

Pipework to be run under the floor, in a branch system.
Boiler to be c/w concentric horizontal flue.

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Central Heating Design - Sheet 1 of 2	
	
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Title: Example House Type	
Site: Example Site	



Additional Design Notes

Pipework to be run under the floor, in a branch system.
 Boiler to be c/w concentric horizontal flue.

Primary - 28mm Htg F&R
 Zone 2 - 22mm Htg F&R
 Zone 1 - 22mm Htg F&R

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Central Heating Design - Sheet 2 of 2

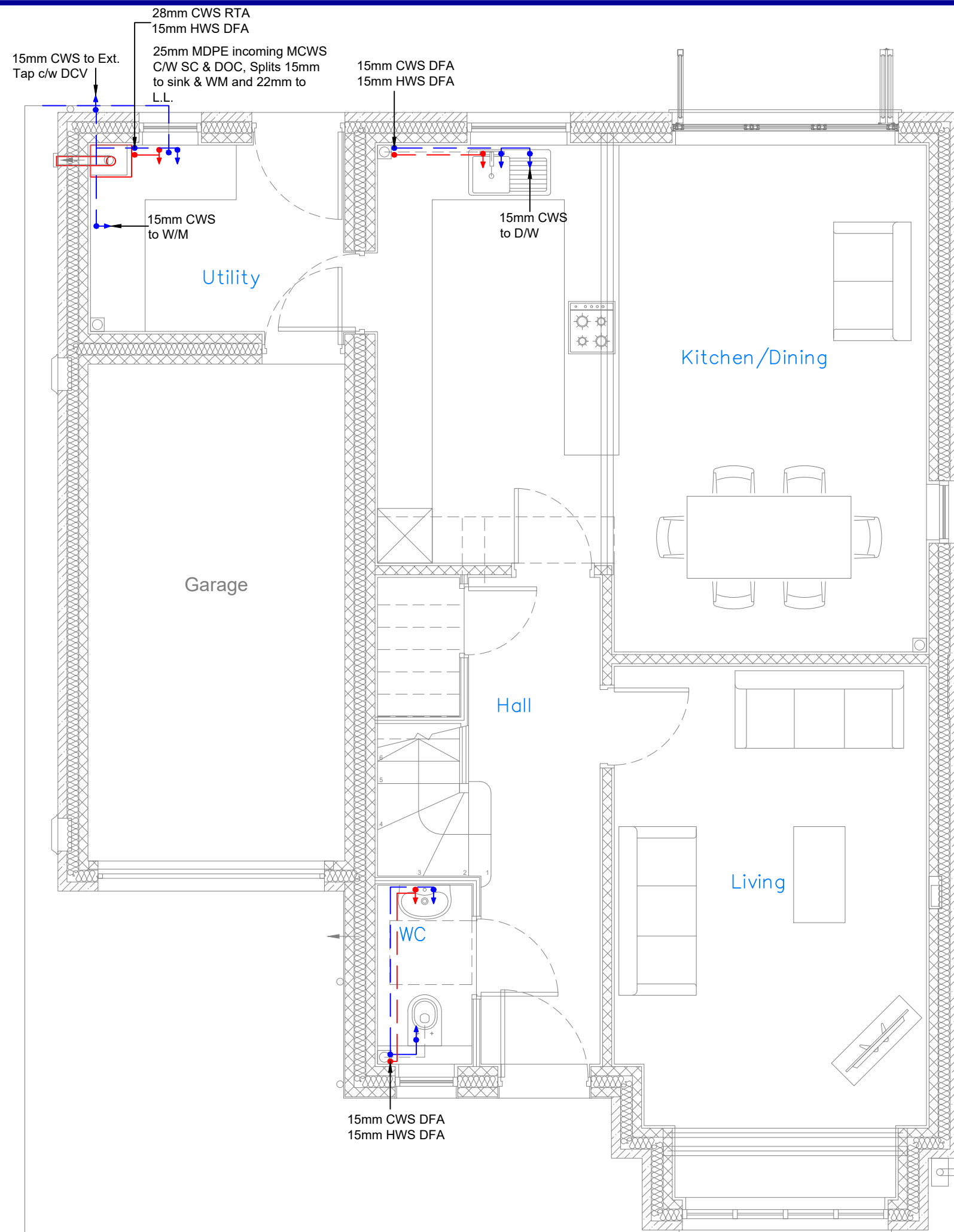


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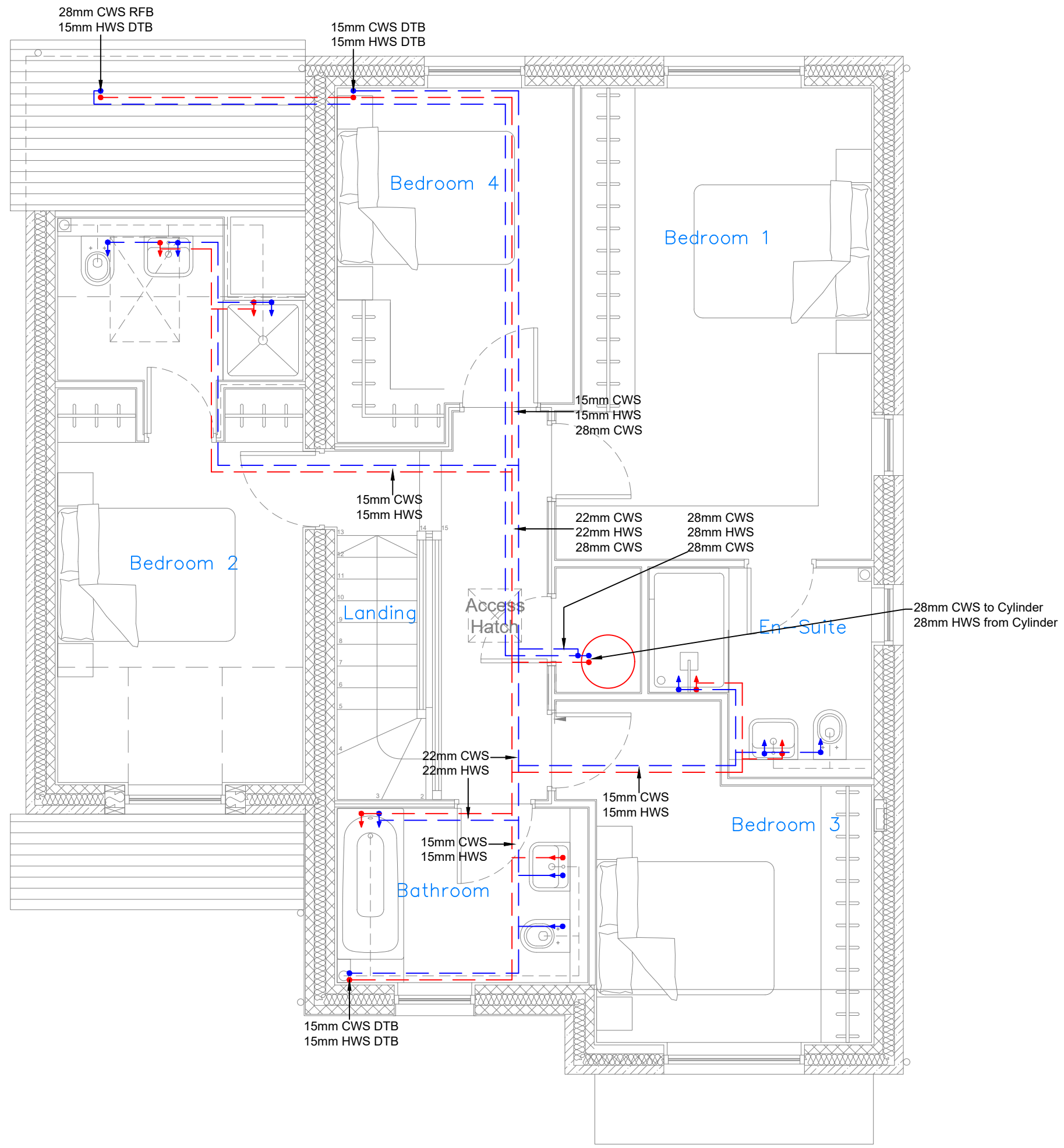


Notes

Plumbing installation is to comply with all current building regulations and requirements

Pipework connections to boiler to be 15mm.


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Hot & Cold Water Services - Sheet 1 of 2	
	
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Site: Example Site	



Notes

Plumbing installation is to comply with all current building regulations and requirements

Pipework connections to boiler to be 15mm.

Date: 27/06/17	Ref No: 17103
Hot & Cold Water Services - Sheet 2 of 2	
	
Drawn By: MJE	Scale: 1:50 @ A3
Title: Example House Type	
Site: Example Site	