

RADIATOR & EQUIPMENT SCHEDULES



Myson Premier HE Radiators (Radiators Sized At 45/40 F&R Temps)				
Room	Temp	Watts	Catalogue	Len Hgt
Lounge	21	396	21 DPX 37	946 530
Lounge	21	353	21 DPX 33	844 530
Kitchen/Dining	21	400	12 DC 47	1200 300
Kitchen/Dining	21	360	27 DC 21	540 690
Cloakroom	21	190	27 DC 11	286 690
Hall	21	442	27 DPX 33	844 690
Bedroom-1	21	445	21 SC 61	1556 530
Bedroom-2	21	509	21 DC 37	946 530
Bathroom	22	283	27 SC 33	844 690

Heat Pump Minimum Clearances			
Minimum Clearances	Unit	Heating mode	Heating & Cooling mode
Left Side	mm	100	100
Above	mm	1000	1000
Behind	mm	200	250
Right Side	mm	500	500
In Front	mm	600	600

Heat Pump Sound Levels					
Model	Sound Power		Sound Pressure Levels		
	Level A7/W55	1M distance	3M distance	5M distance	
aroTHERM plus 3.5kW	54 dB	46 dB (A)	36 dB (A)	32 dB (A)	
aroTHERM plus 5kW	54 dB	46 dB (A)	36 dB (A)	32 dB (A)	
aroTHERM plus 7kW	55 dB	47 dB (A)	37 dB (A)	33 dB (A)	
aroTHERM plus 10kW	60 dB	52 dB (A)	42 dB (A)	38 dB (A)	
aroTHERM plus 12kW	60 dB	52 dB (A)	42 dB (A)	38 dB (A)	

ASHP	Vaillant aroTherm Plus 3.5 kW	
ASHP	RATED OUTPUT 4.1 kW	
RADIATORS	Myson Premier HE Roundtop Radiators	
RADIATOR VALVES	TRV's & LSV's to all Radiators except room containing room stat. Radiator/s in this room to have 2No. LSV's.	
T.R.V.s		
HEAT PUMP CONTROLLER / HW TIMER & THERMISTAT	Heat Pump Interface Vaillant SensiCOMFORT	
3-Port Valve / Diverter Valve	Diverter Valve	
ADDITIONAL KITS	Ball Filter Valve 28mm	
ADDITIONAL KITS	Fernox HP-15C	
ADDITIONAL KITS	System Cleaned with Adey Chemical MC3+	
ADDITIONAL KITS	Then Inhibited with Adey Chemical MC1+	
ADDITIONAL KITS	Y Stainer	
ADDITIONAL KITS	Honeywell Automatic By-Pass Valve	
SEALED SYSTEM EQUIP	Flamco Flexcon Premium 12/01	
SEALED SYSTEM EQUIP	Flamco Flexcon Pressure Gauge	
SEALED SYSTEM EQUIP	Flamco Flexcon Safety Valve/Discharge	
CYLINDER	Vaillant Unistor Heat Pump Cylinder 150 Litre	
ADDITIONAL KITS	Glycol discharge vessel	
ADDITIONAL KITS	750mm flexihose for air to water heat pump (pair)	
ADDITIONAL KITS	Anti-vibration feet (large)	

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PIPEWORK BELOW FLOOR LEVEL _____ F.A. = FROM ABOVE F.B. = FROM BELOW
PIPEWORK AT LOW LEVEL _____ T.A. = TO ABOVE T.B. = TO BELOW
PIPEWORK AT HIGH LEVEL _____ RS = ROOM THERMISTAT
PIPEWORK IN ROOF SPACE _____

REV.	DATE.	REVISION.
CLIENT :	C O U N T R Y S I D E P A R T N E R S H I P S	
HOUSE TYPE :	A T K I N S	
SITE :	H O L L I N G A T E , L I T T L E B O R O U G H	
SHEET :	1 OF 4	DRAWING No. : V240015-15
DRAWN BY :	P G	DATE : 0 7 / 0 2 / 2 4

INSTALLATION NOTES.



- 1

THIS SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH THE PARAMETERS GIVEN IN BS 12828-2012 + A1:2014 AND TO THE TEMPERATURES SPECIFIED UNDER CONTINUOUS OPERATION WITH AN EXTERNAL TEMPERATURE OF -4 C. HOWEVER, TO MAINTAIN THESE TEMPERATURES DURING EXTREME WEATHER CONDITIONS IT MAY BE NECESSARY TO USE A SUPPLEMENTARY HEAT SOURCE.
- 2

IT IS THE RESPONSIBILITY OF THE INSTALLER TO INSTALL AND BALANCE THE SYSTEM IN ACCORDANCE WITH BS 12828-2012 + A1:2014
- 3

THE INSTALLATION MUST COMPLY WITH THE CURRENT BRITISH STANDARDS, CODES OF PRACTICE, THE CURRENT INSTALLATION INSTRUCTIONS & MCS MICROGENERATION INSTALLATION STANDARD MIS 3005 V5.0.
- 4

ALL PIPEWORK TO BE LAID TO PERMIT EASE OF DRAINING AND VENTING WITH AIR VENTS AT ALL HIGH POINTS AND DRAIN COCKS AT ALL LOW POINTS.
- 5

IT IS ESSENTIAL THAT THE HEAT PUMP HAS ADEQUATE WATER FLOW RATE AND SYSTEM VOLUME AT ALL TIMES. WATER FLOW RATE CAN BE ACHIEVED USING AUTO RELIEF BYPASS VALVES OR LOW LOSS HEADER / BUFFER VESSEL. ADEQUATE SYSTEM VOLUME FOR PURPOSE OF REDUCING CYCLING DURING LOW LOAD / OR TO ASSIST IN THE DEFROST OF ASHP SYSTEMS SHOULD BE CHECKED AND IF REQUIRED, A CORRECTLY SIZED BUFFER OR SYSTEM VOLUMISER SHOULD BE INSTALLED. CHECK MANUFACTURERES RECOMMENDATIONS.
- 6

BALLOFIX ISOLATING VALVES INCORPORATING FLOW RESTRICTORS SHALL BE PROVIDED TO ALL SANITARY FITTINGS. FLOW RATES TO BE AS DETERMINED TO COMPLY WITH CODE FOR SUSTAINABLE HOMES OR BUILDING REGULATIONS AS APPLICABLE. NOTE THAT WITH LOW FLOW RATE TAPS FITTED THERE WILL BE A DELAY IN HOT WATER REACHING OUTLETS AND CONSIDERATION SHOULD BE GIVEN FOR A PUMPED SECONDARY RETURN.
- 7

ALL PIPEWORK TO BE INSULATED IN ACCORDANCE WITH BUILDING REGULATIONS, THE TMSA GUIDE FOR ACHIEVING COMPLIANCE WITH PART L OF THE BUILDING REGULATIONS, BS 5422:2009, BS EN 14336:2004 BS8558, BS EN 806 AND THE WATER REGULATIONS GUIDE. ALL PRIMARY PIPEWORK TO INSULATED. WHERE A SECONDARY RETURN IS USED ALL HOT WATER PIPEWORK TO BE INSULATED. SPECIFIC ATTENTION SHOULD BE GIVEN TO PIPEWORK IN UNHEATED AREAS SUCH AS ROOF SPACES AND GARAGES.
- 8

THE DOMESTIC HOT AND COLD WATER STORAGE SYSTEMS MUST BE INSTALLED IN ACCORDANCE WITH THEIR MANUFACTURERS REQUIREMENTS AND ALL RELEVANT CODES OF PRACTICE. ALL STATED STORAGE CAPACITIES ARE ADVISORY ONLY. THE ACTUAL CAPACITY MUST BE CONFIRMED WITH THE STORAGE SYSTEM MANUFACTURER.
- 9

CARE MUST BE TAKEN IN THE DESIGN AND CONSTRUCTION OF FLUES AND CHIMNEYS TO ENSURE THAT A SATISFACTORY FLUE / CHIMNEY TO THAT SPECIFIED IN THE INSTALLATION INSTRUCTIONS. THESE FLUES / CHIMNEYS MUST COMPLY WITH BS 5440 : PART 1 : 2008, AND ALL NATIONAL AND LOCAL REGULATIONS.
- 10

ALL THE ANCILLARY EQUIPMENT LISTED TO BE INSTALLED TO THE MANUFACTURERS INSTALLATION INSTRUCTIONS.
- 11

HEATING DESIGN SOLUTIONS REQUIRE THAT JOINTS WHICH ARE TO BE SOLDERED SHOULD BE MADE USING A FLUX THAT IS SPARINGLY APPLIED AND ANY RESIDUE TO BE FLUSHED OUT OF THE SYSTEM BEFORE COMMISSIONING USING A CHEMICAL CLEANSER IF NECESSARY.
- 12

THE DESIGN OF THE DHW IS BASED UPON A MINIMUM DYNAMIC INCOMING MCWS PRESSURE OF 1.5 BAR BEING AVAILABLE AT HIGHEST POINT IN THE SYSTEM. IF THIS IS INSUFFICIENT THEN A SUITABLE ACCUMULATOR AND PRESSURE BOOSTER PUMP MAY NEED TO BE FITTED.
- 13

WHERE TRADITIONAL JOISTS ARE USED, THEY ARE TO BE NOTCHED / DRILLED IN ACCORDANCE WITH BS 12828:2003 AND NHBC RECOMMENDATIONS. WHERE TJI OR ENGINEERED JOISTS ARE USED CARE TOI BE GIVEN TO PIPEWORK CLIPPING TO ENSURE A NEAT AND TIDY INSTALLATION WITH NO HIGH POINTS.
- 14

ALL CENTRAL HEATING SYSTEMS MUST BE CLEANED WITH ADEY MC3+ (CHI-03-01669) THEN INHIBITED WITH ADEY MC1+ (CHI-03-01670). ADEY PROCHECK (ADEY PART NUMBER CP1-03-05132) TO BE COMPLETED AFTER ADEY MC1+ PROTECTOR HAS BEEN DOSED INTO THE HEATING SYSTEM
WHERE WATER HARDNESS EXCEEDS 200 PPM, HEATING DESIGN SOLUTIONS APPROVE ADEY MAGNASCALE 15MM (SRI-03-01978) OR ADEY ELECTROSCALE 22MM (SRI-03-01978). ALL IN ACCORDANCE WITH PART L OF BUILDING REGULATIONS
ONLY ADEY PRODUCTS ARE APPROVED BY HEATING DESIGN SOLUTIONS.
- 15

THERMOSTATIC RADIATOR VALVES MUST BE MOUNTED HORIZONTALLY AND IN ACCORDANCE WITH THEIR MANUFACTURERS INSTALLATION REQUIREMENTS.
ROOMS) CONTAINING THE ROOM THERMOSTAT(S) ARE TO HAVE 1 NO WHEELHEAD VALVE & 1 NO LSV.
- 16

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- 17

THIS DRAWING MUST NOT BE ALTERED OR AMENDED IN ANY FORM WITHOUT THE WRITTEN CONSENT OF HEATING DESIGN SOLUTIONS OR THEIR ASSOCIATED PARTNERS.
- 18

THE DESIGN IS BASED UPON DRAWINGS AND INFORMATION RECEIVED AND THEREFORE IT'S ACCURACY AND PERFORMANCE IS DEPENDANT ON THAT INFORMATION BEING CORRECT. IF ANY PROBLEMS THAT ARISE DUE TO LACK OF INFORMATION PROVIDED OR INCORRECT DRAWINGS BEING SUPPLIED HEATING DESIGN SOLUTIONS CANNOT BE HELD RESPONSIBLE.
- 19

TYPICAL AREAS WHICH NEED ATTENTION ARE SPACE REQUIREMENTS & SITING OF THE UNITS.
THE INSTALLER SHOULD ENSURE ADEQUATE SPACE FOR ACCESS FOR MAINTENANCE, SERVICING, ADJUSTING SET POINTS AND / OR FLOW VALVES, READING METERS ETC.
CARE MUST BE TAKEN IN SITING OF THE OUTDOOR UNIT OF AN ASHP TO ENSURE ADEQUATE AIR FLOW AND THAT THE UNIT DOES NOT CAUSE A NOISE PROBLEM TO OCCUPANTS OR NEIGHBOURS. MCS 020 GIVES GUIDANCE IN THE NOISE LEVELS ACCEPTABLE IN THE IN THE PERMITTED DEVELOPMENT PLANNING RULES.



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PIPEWORK BELOW FLOOR LEVEL	_____	F.A. = FROM ABOVE	F.B. = FROM BELOW
PIPEWORK AT LOW LEVEL	_____	T.A. = TO ABOVE	T.B. = TO BELOW
PIPEWORK AT HIGH LEVEL	_____	RS = ROOM THERMOSTAT	
PIPEWORK IN ROOF SPACE	_____		

CLIENT	:	C O U N T R Y S I D E	P A R T N E R S H I P S
HOUSE TYPE	:	A T K I N S	
SITE	:	H O L L I N G A T E , L I T T L E B O R O U G H	
SHEET	:	2 OF 4	DRAWING No. : V240015-15
DRAWN BY	:	P G	DATE : 0 7 / 0 2 / 2 4

Comissioning Note:
Emitters and pipework sized for
ASHP Flow Temperature: 45 C
ASHP Return Temperature: 40 C

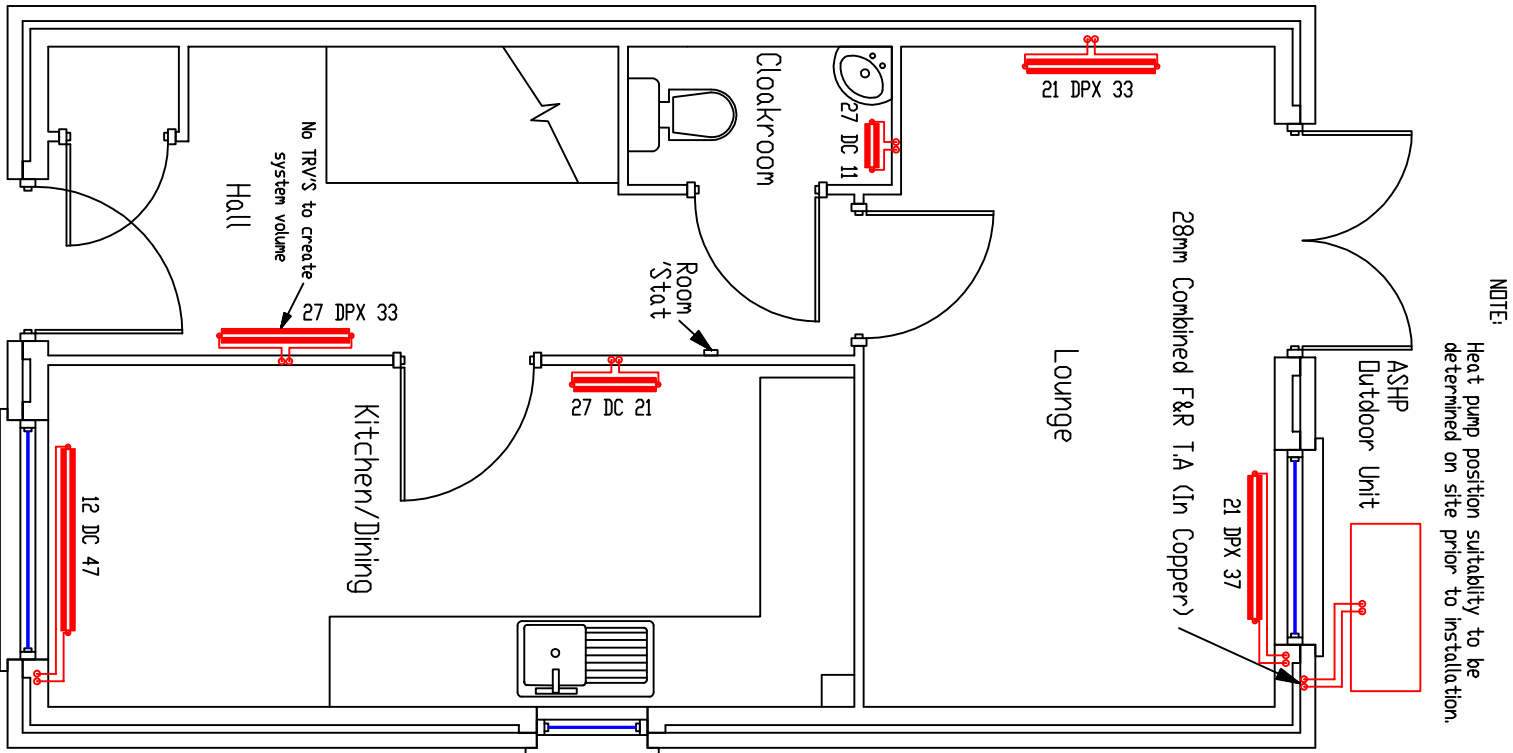
All pipework in unheated areas
to be insulated in accordance
with local and national regulations

Note: Automatic air vents to be installed
on high point of all flow and return
pipework rising into roof/ceiling void.
Where this is not possible, an automatic
air seperator is to be installed on the system
ideally located in the airing cupboard

NOTE: All drops from first floor joist space to ground floor radiators to
be 15mm, Except where shown.



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NOTE: Heat pump position suitability to be
determined on site prior to installation.

ALL RADIATOR PIPEWORK TO BE PLASTIC PIPE, WITH COPPER
FROM THE HEAT PUMP TO CYLINDER & ALL PIPEWORK
WITHIN CYLINDER CUPBOARD.
ALL PIPEWORK TO RADIATORS TO BE RUN IN CONTINUOUS
LENGTHS WITH FORMED BENDS AT CHANGES OF DIRECTION
WITH MINIMUM OF ELBOWS & FITTINGS.

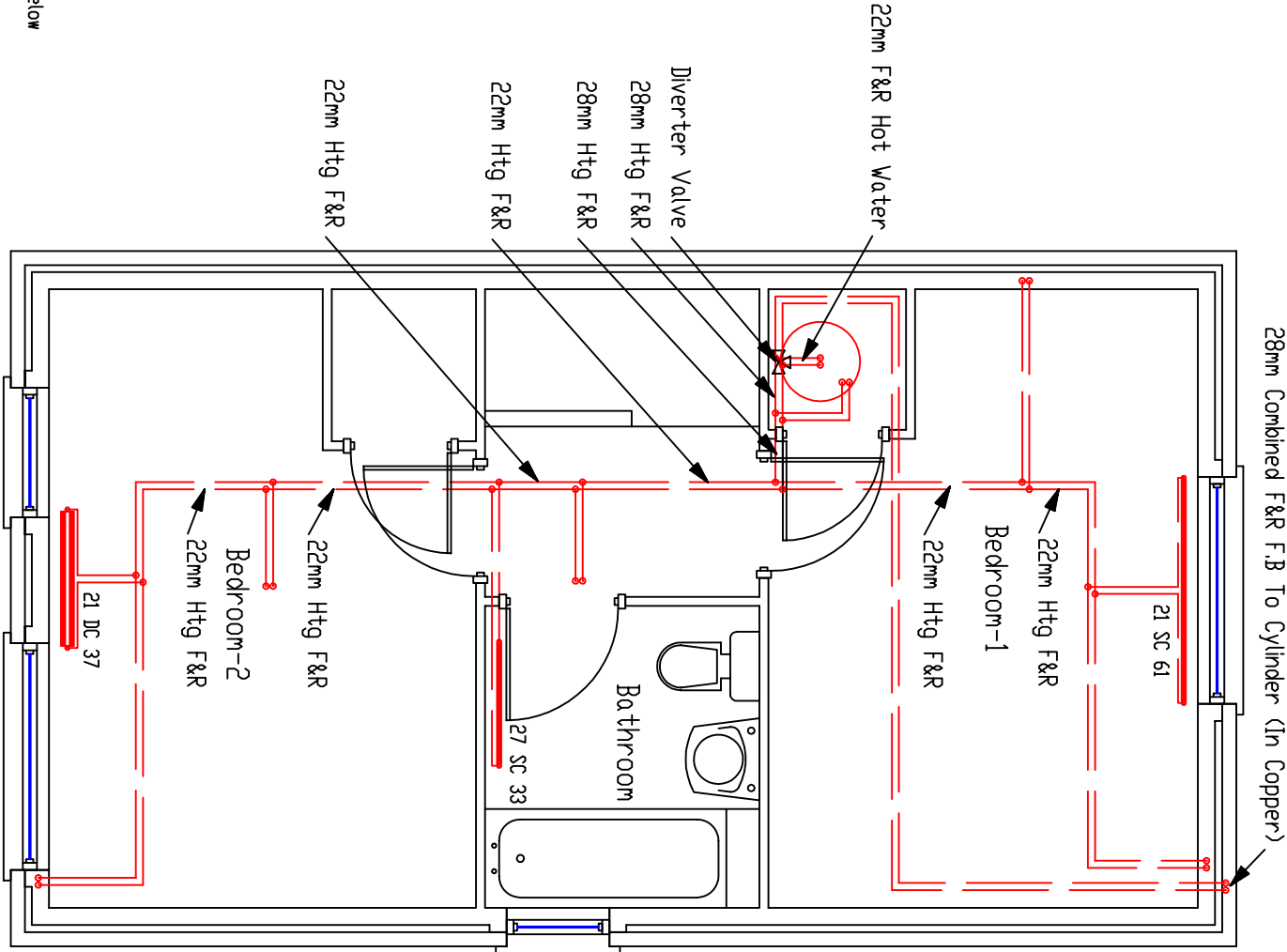
CLIENT	:	C O U N T R Y S I D E	P A R T N E R S H I P S
HOUSE TYPE	:	A T K I N S	
TITLE	:	G R O U N D F L O O R H E A T I N G L A Y O U T	
SHEET	:	3 O F 4	DRAWING No. : V240015-15
SCALE	:	1 : 5 0	DATE : 0 7 / 0 2 / 2 4

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ALL PIPEWORK TO RADIATORS TO BE RUN IN CONTINUOUS
LENGTHS WITH FORMED BENDS AT CHANGES OF DIRECTION
WITH MINIMUM OF ELBOWS & FITTINGS.



- NOTE:
- 1/ All 1st floor radiators to have 15mm F&R.
 - 2/ All drops from first floor joist space to ground floor radiators below to be 15mm from point of drop, except where shown.



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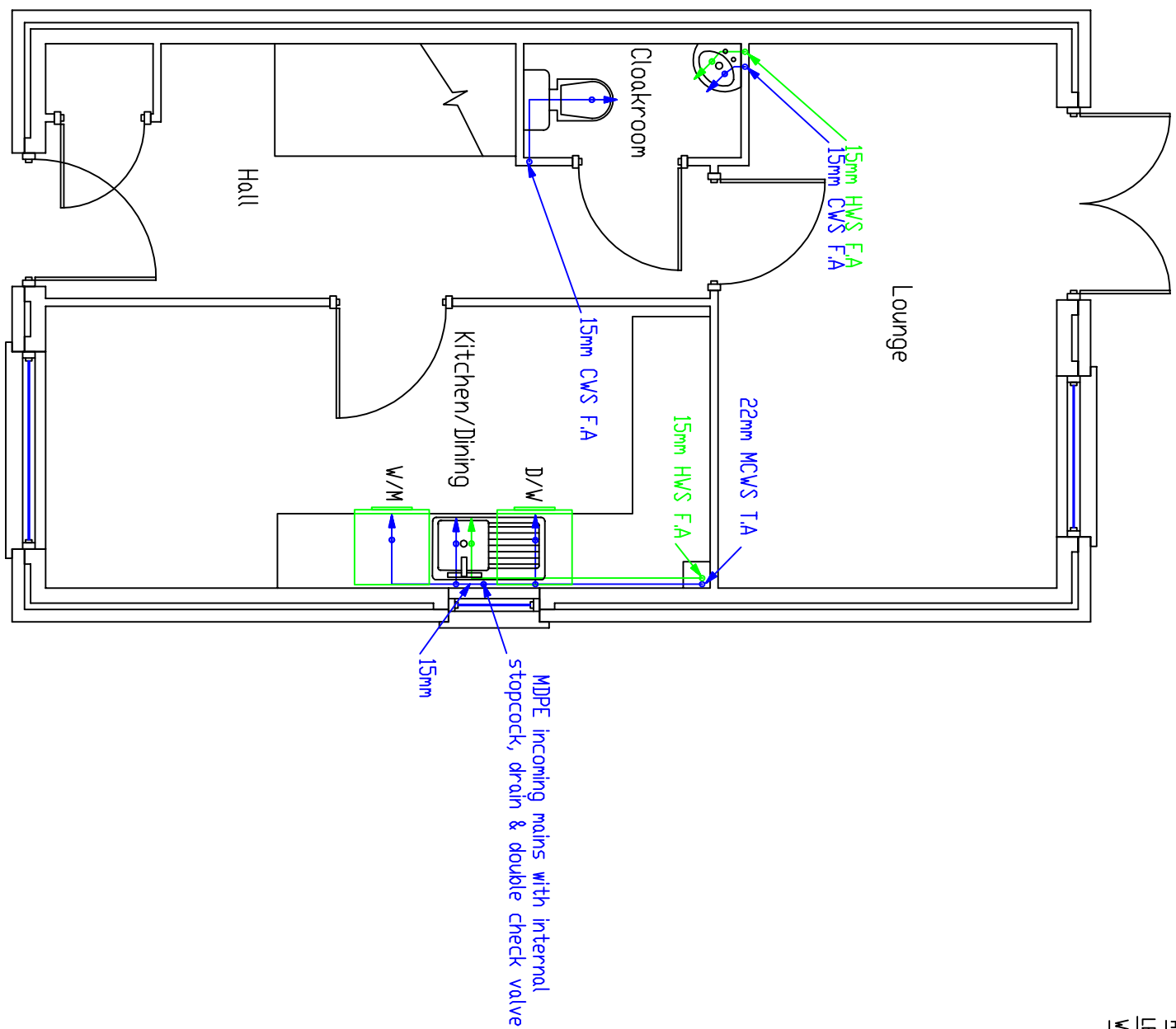
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HOUSE TYPE	:	A T K I N S	
TITLE	:	F I R S T F L O O R	H E A T I N G L A Y O U T
SHEET	:	4	D F 4
SCALE	:	1 : 5 0	DRAWING No. : V240015-15
			DATE : 0 7 / 0 2 / 2 4

Note: Combination isolation and flow restrictor valves compliant with current regulations must be installed on all services to sanitaryware with particular emphasis to the bath and shower to ensure balanced supplies and adequate simultaneous performance.
Note: 15mm connections to all outlets unless otherwise indicated

TMV2 rated blending valve to be fitted at bath connection. Must comply with local authority requirements.

All pipework in unheated areas to be insulated in accordance with local and national regulations

ALL PLUMBING PIPEWORK TO BE PLASTIC PIPE, APART FROM THE MAIN HOT WATER PIPERUN AND SECONDARY RETURN PIPEWORK MUST BE RAN IN COPPER.
ALL PIPEWORK TO BE RUN IN CONTINUOUS LENGTHS WITH FORMED BENDS AT CHANGES OF DIRECTION WITH MINIMUM OF ELBOWS & FITTINGS.



NOTE: The Diameter Of The Last Metre Of Pipework To Fittings To Suit The Size Of The Tails Provided By The Manufacturer.

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	PIPEWORK	BELOW FLOOR LEVEL	_____ F.A. = FROM ABOVE	_____ F.B. = FROM BELOW
	PIPEWORK	AT LOW LEVEL	_____ T.A. = TO ABOVE	_____ T.B. = TO BELOW
	PIPEWORK	AT HIGH LEVEL	_____ MC.W. = MAINS COLD WATER	
	PIPEWORK	IN ROOF SPACE	_____ C.W.S. = COLD WATER SUPPLY	_____ H.W.S. = HOT WATER SUPPLY
CLIENT : COUNTRY SIDE PARTNERSHIPS				
HOUSE TYPE : ATKINS				
TITLE : GROUND FLOOR PLUMBING LAYOUT				
SHEET : 1 OF 2		DRAWING No. : V240015-15		
DRAWN BY : P G		DATE : 07 / 02 / 24		

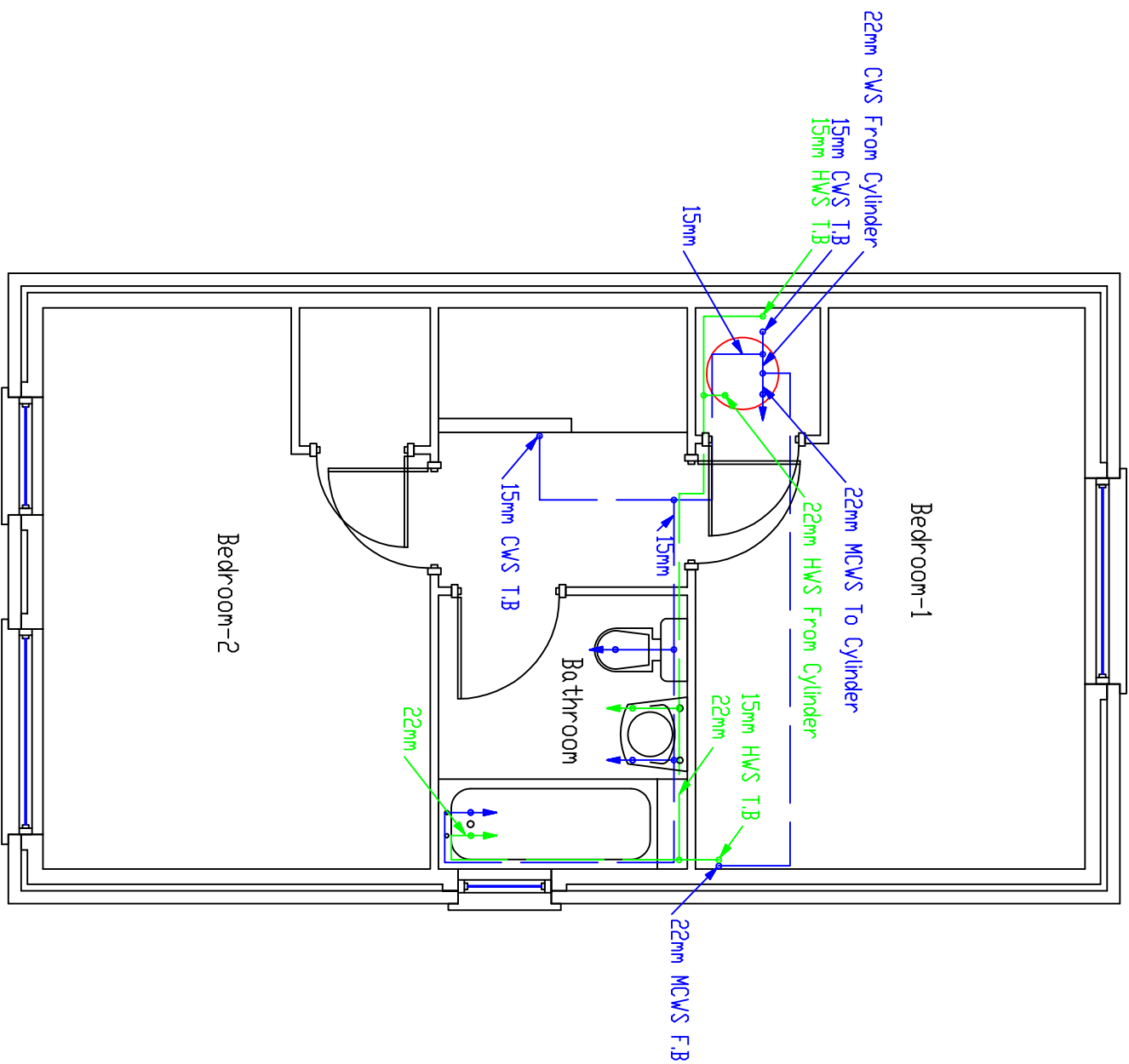
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NOTE: The Diameter Of The Last Metre Of Pipework To Fittings To Suit The Size Of The Tails Provided By The Manufacturer.

		Heating Design Solutions Limited The Axis Building, Mangate, Kingsway North, Tean Valley, Gateshead NE11 0NQ Tel No 0191 404 6843	
PIPEWORK	BELOW FLOOR LEVEL	— F.A. = FROM ABOVE	F.B. = FROM BELOW
PIPEWORK	AT LOW LEVEL	— T.A. = TO ABOVE	T.B. = TO BELOW
PIPEWORK	AT HIGH LEVEL	— M.C.W. = MAINS COLD WATER	
PIPEWORK	IN ROOF SPACE	— C.W.S. = COLD WATER SUPPLY	
		H.W.S. = HOT WATER SUPPLY	
CLIENT	: C O U N T R Y S I D E P A R T N E R S H I P S		
HOUSE TYPE	: A T K I N S		
TITLE	: F I R S T F L O O R P L U M B I N G L A Y O U T		
SHEET	: 2 OF 2	DRAWING No. :	V240015-15
DRAWN BY	: P G	DATE	: 0 7 / 0 2 / 2 4

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