

Project Name: 142-144 Whitley Wood Road

Target FEE Score: **None**[illegible]

Revision Date	22/04/2025
Revision Reference	Rev -
Revision Comments	Revision for client confirmation. Specification from architects drawings amended to meet new Part L compliance requirements along with planning condition 10. Assumed heating and hot water strategy for now. Psi Values gathered via the use of Unilin insulation as well as additional bespoke Psi Values assumed which need to be calculated before works start on site. PLEASE NOTE THIS IS ONLY A DRAFT SUMMARY AND NOT A COMPLIANCE DOCUMENT, THEREFORE SHOULD NOT BE SUBMITTED TO ANY BUILDING CONTROL OR PLANNING DEPARTMENT AT ANY TIME.

Fabric Elements	External Walls	U-Value = 0.16	(Masonry O/A 383 mm) 102.5mm External Finish, 50mm Cavity, 100mm Unilin Thin-R Plus TX/CWP T&G, 100mm Thermalite Shield Blockwork (or block of similar conductivity 0.15), 15mm Plaster dabs, 12.5mm Plasterboard, 3mm Skim finish												
	Rear Walls	U-Value = 0.27	(Masonry O/A 401mm) 300mm Assumed existing wall thickness, 0.5mm DPM, 25mm Battens, 72.5mm Kingspan Kooltherm K118 insulation backed plasterboard, 3mm Skim finish												
	Roof	U-Value = 0.10	(Timber Rafters O/A 345.5mm) 90mm PIR Insulation (Conductivity 0.022) over the top of rafters, 240mm Rafters with 150mm PIR insulation between (Conductivity 0.022), 12.5mm Plasterboard , 3mm Skim finish												
	Ground Floor	U-Value = 0.12	(Floor Slab O/A 325mm) 100mm Assumed Slab Thickness, 150mm Unilin Thin-R Plus XT/HYF, 75mm Scream												
Openings	Front Door (Solid)	U-Value = 1.00	Overall U-Value not to exceed 1 (Solid)	D/G	✓	T/G		Solid	✓	Solar Transmissio n Factor (g-value)	N/A	Glazing to Frame Ratio	N/A	Data Source	Targeted
	Windows	U-Value = 1.20	Overall U-Value not to exceed 1.2 (Double Glazed)	D/G	✓	T/G		Solid			0.63		N/A		Targeted

DHW & Heating *	Main Heating System	Assumed electric panel heaters supplying space heating to all plots. PLEASE NOTIFY BEAT SOLUTIONS OF ANY CHANGES BEFORE THEY ARE MADE.	
	Emitter Type	Electric Panel Heaters	Notes:
	Controls	Programmer & Appliance Thermostats	Notes:
	Cylinder Size	200 litre Air Source Heat Pump Cylinder to provide hot water demand. SAPs have been based on a Dimplex EDEL Cylinder (https://www.dimplex.co.uk/edel-hot-water-heat-pump-rf#x-101587). PLEASE NOTIFY BEAT SOLUTIONS OF ANY CHANGES BEFORE THEY ARE MADE.	
	Standing Loss	Loss confirmed for the above cylinder as 1.61 kWh\day.	
	Primary Pipe Insulation	Fully insulated primary pipework	Notes: Its is a requirement of Part 2021 to limit unwanted heat gains from any pipework and services (See Part L 2.01 section 4.24):- Therefore, in a new system, all of the following new pipework should be insulated. a. Primary circulation pipes for heating circuits where they pass outside the heated living space, including where pipework passes into voids. b. All primary circulation pipes for domestic hot water. c. All pipes that are connected to hot water storage vessels, for at least 1m from the point at which they connect to the vessel. d. All secondary circulation pipework. Important Note: Photographic Evidence is Required of this for "As Built" SAP and final sign off.
	Secondary Heating	None specified.	

Misc.	Thermal Bridging	"Free" Psi Values gathered via the use of Unilin insulation to the external walls & ground floor. Bespoke Psi Values are required to be calculated for the following 7 junctions: E5, E14, E18 x 2, P1, P4, P5. These values have been based on the notional Psi Values detailed in Table R2 of the SAP 10.2 document. THESE BESPOKE PSI VALUES ARE TO BE CALCULATED AND COMPLETED BEFORE ANY WORKS START ON SITE.				
	Ventilation Type	System 4 - Whole House Ventilation with Heat Recovery (MVHR)	Additional Information:	Based on a Nuair MRXBOXAB-ECO-LP2	System Location:	Inside heated envelope (installed exclusively)
	MVHR Duct Type	Level 1 - i.For supply (or extract, whichever is longer) duct lengths less than or equal to 2m, the duct system must be continuously insulated throughout to a minimum depth of 25mm with an insulant thermal conductivity of 0.04 W/m.K or less. ii.For supply (or extract, whichever is longer) duct lengths greater than 2m, the duct system must be continuously insulated throughout to a minimum depth of 50mm with an insulant thermal conductivity of 0.04 W/m.K or less." Important: Photographic evidence will be required for "as Built" SAP and final sign off.				
	Renewables* Lighting	1.00kW Solar PV currently specified to the flat roof of each dwelling. The solar PV is to face South East at a 10-15 degree pitch. System is to be specifically designed by a Solar PV specialist.				
	Showers	Assumed 100% low energy lighting. Assumed 80lm/W each fitting. For quantity, see schedule above.				
	Water Usage	From main heating system, at maximum flow rate of 7 litres/minute. Refer to your Part G Water Calculation as this may require a value lower than this for compliance.				
	Cooling System	Water usage not to exceed 125 litres/person/day.				
	Other	No cooling present at the moment.				

^{**} All M&E should be designed by a qualified M&E designer, any assumptions made in this summary MUST be checked by a specialist designer for suitability. Any changes, must be confirmed to BEAT Solutions is writing, to check SAP10 compliance, as differences in boiler, Heat Pump & Cylinder efficiencies can greatly affect the dwelling performance figures shown above.

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