

BASIC COMPLIANCE REPORT

Calculation Type: New Build (As Designed)

Property Reference	3388- Plot 52	Issued on Date	18/03/2021
Assessment Reference	Plot 52	Prop Type Ref	Type 1213
Property	Plot 52, Bonscale, Langley		

SAP Rating	85 B	DER	15.87	TER	16.15
Environmental	87 B	% DER<TER	1.73		
CO₂ Emissions (t/year)	1.47	DFEE	44.40	TFEE	48.74
General Requirements Compliance	Pass	% DFEE<TFEE	8.90		

Assessor Details	Mr. Adam Lindley, Complete Sustainability Solutions, Tel: 01617060298, adam@completesustainability.co.uk	Assessor ID	m004-0001
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Client	
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SUMMARY FOR INPUT DATA FOR New Build (As Designed)

Criterion 1 – Achieving the TER and TFEE rate

1a TER and DER

Fuel for main heating	Mains gas		
Fuel factor	1.00 (mains gas)		
Target Carbon Dioxide Emission Rate (TER)	16.15	kgCO ₂ /m ²	
Dwelling Carbon Dioxide Emission Rate (DER)	15.87	kgCO ₂ /m ²	Pass
	-0.28 (-1.7%)	kgCO ₂ /m ²	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	48.74	kWh/m ² /yr	
Dwelling Fabric Energy Efficiency (DFEE)	44.40	kWh/m ² /yr	
	-4.3 (-8.8%)	kWh/m ² /yr	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.23 (max. 0.30)	0.23 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.16 (max. 0.25)	0.16 (max. 0.70)	Pass
Roof	0.13 (max. 0.20)	0.16 (max. 0.35)	Pass
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	Pass

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals	5.10 (design value)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

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Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Potterton Promax Ultra Combi 28 ErP Combi boiler Efficiency: 89.1% SEDBUK2009 Minimum: 88.0%	Pass
Secondary heating system	None	

5 Cylinder insulation

Hot water storage	No cylinder	
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6 Controls

Space heating controls	Programmer, room thermostat and TRVs	Pass
Hot water controls	No cylinder	
Boiler interlock	Yes	Pass

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100	%	
Minimum	75	%	Pass

8 Mechanical ventilation

Continuous extract system (decentralised)		
Specific fan power	0.1600 0.1600	
Maximum	0.7	Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (Thames Valley)	Slight	Pass
Based on:		
Overshading	Average	
Windows facing South East	6.71 m ² , No overhang	
Windows facing North West	8.18 m ² , No overhang	
Air change rate	2.50 ach	
Blinds/curtains	None	

Criterion 4 – Building performance consistent with DER and DFEE rate

Party Walls

Type	U-value	W/m ² K	
Filled Cavity with Edge Sealing	0.00	W/m ² K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	5.10 (design value)	
Maximum	10.0	Pass

10 Key features

Party wall U-value	0.00	W/m ² K
Roof U-value	0.09	W/m ² K

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.