Darren Evans Assessments Ltd Graham Suttill 033 5777 577 graham @darren-evans.co.uk

## **Regulations Compliance Report**



Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.3.13 Printed on 30 September 2016 at 13:05:28

Project Information:

Assessed By: Michael Brogden (STRO000212) Building Type: Detached House

Dwelling Details:

NEW DWELLING DESIGN STAGE Total Floor Area: 579.99m<sup>2</sup>

Site Reference: 115 Frognal (PV proposed)

**Address:** 115 Frognal (proposed)

Client Details:

Name: Will Potter Paartnership
Address: 60 Arley Hill, Bristol, BS6 5PP

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 13.94 kg/m<sup>2</sup>

Dwelling Carbon Dioxide Emission Rate (DER) 10.65 kg/m<sup>2</sup> OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 62.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 56.1 kWh/m<sup>2</sup>

OK

2 Fabric U-values

**Element Highest Average** 0.20 (max. 0.70) External wall 0.19 (max. 0.30) OK Floor 0.17 (max. 0.25) 0.29 (max. 0.70) **OK** Roof 0.14 (max. 0.20) 0.14 (max. 0.35) OK **Openings** 1.41 (max. 2.00) 1.60 (max. 3.30) OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals 5.00 (design value)

Maximum 10.0 **OK** 

4 Heating efficiency

Main Heating system: Boiler systems with radiators or underfloor heating - mains gas

Data from manufacturer

Efficiency 89.0 % SEDBUK2009

Minimum 88.0 % OK

Secondary heating system: None

5 Cylinder insulation

Hot water Storage: Measured cylinder loss: 2.14 kWh/day

Permitted by DBSCG: 3.92 kWh/day

Primary pipework insulated: Yes OK

OK

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6 Controls			
Space heating controls	Space heating controls TTZC by plumbing and electrical services		OK
Hot water controls:	Cylinderstat		OK
	Independent timer for	DHW	OK
Boiler interlock:	Yes		OK
7 Low energy lights			
Percentage of fixed lights with low-energy fittings		100.0%	
Minimum		75.0%	OK
8 Mechanical ventilation			
Not applicable			
9 Summertime temperature			
Overheating risk (Thames valley	):	Slight	OK
Based on:			
Overshading:		Average or unknown	
Windows facing: North		25m²	
Windows facing: South		43.77m²	
Windows facing: South West		26.61m²	
Windows facing: West		10.03m²	

Ventilation rate: Blinds/curtains:

Windows facing: South East

Roof windows facing: Horizontal

Closed 100% of daylight hours

29.76m<sup>2</sup> 2.67m<sup>2</sup>

4.00

## 10 Key features

Thermal bridging 0.037 W/m²K

Photovoltaic array