thermenergy

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Therm Energy Ltd
1 Tarrant Street
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[redacted]

Our Reference : AD-69

Sent By : E-Mail
Software: Stroma FSAP 2012

11/05/2022

Dear Adam

Re : 2 Converted Dwellings, 7-7a Canada Grove, Bognor Regis - Thermal Calculations (Part

Further to receipt of your emails (together with drawings), and subsequent correspondence, please find enclosed thermal calculation reference AD-69.

This confirms the SAP energy rating and Environmental Impact rating of the dwelling, all in accordance with Approved Document L1B.

Attached is the specification upon which the calculations are based.

Yours sincerely

[redacted]

ARUN DISTRICT COUNCIL BR/244/22/DOC

Construction and Insulation	
Element	U-Value (W/m^2K)
Existing Exposed Wall (upgraded) Existing 300mm Brick/Block outer leaf + 60mm Thermaline Super insulated plasterboard + plaster dabs.	0.30
Separating Walls to stair areas 110mm masonry wall + 10mm gap + 50mm Gpryoc APR insulation (between 75mm studs) + 2 Layers of 12.5mm Gyproc soundblock Note : Therm Energy Can Provide Sound Testing	0.38 (includes s/f)
Exposed Floors (over unheated ground floor entrance/stairs areas) Acoustic deck/chipboard + existing timber floors + 150mm Rockwool RW3 acoustic insulation (between joists) + 12.5mm plasterboard.	0.25
Ceiling Voids 450mm mineral wool insulation quilt (100mm between joists + 350mm cross-laid over joists).	0.10
New Windows & Roof and Doors Glazing PVC-u or timber frame double-glazed + 16mm cavity (air or argon gas fill) + low-E soft coat glass, to achieve a U-value of 1.60W/m^2K.	1.60
Solid Doors PVC-u or timber frame double-glazed + 16mm cavity (air or argon gas fill) + low-E soft coat glass, to achieve a U-value of 1.80W/m^2K. *** A Copy of the Window Energy Rating Certificate will be required for our records on completion***	1.80

Heating & Ventilation
Main Heating System Conventional (mains) gas-fired central heating with radiators. Condensing combi-boiler with annual efficiency 88% (or higher).
Water Heating From central heating combi-boiler.
Heating Controls Programmer + room thermostat (or flow switch or boiler energy manager) + boiler interlock + thermostatic radiator valves (TRVs).
Ventilation Background ventilators + intermittent extract fans (Approved Document F1, 2010, amended 2013).

Other
Lighting 75% or greater Low-energy light fittings in accordance with Part L1.
Floor-Ceiling Heights Ground Floor = 2600mm.
Electricity Generation Not applicable.
Air Tightness Part L1B - air pressure test not required.

Other Therm Energy Services (that may be relevant to this project)

> Water Use Calculations

> Air Leakage Testing

> Sound Testing

> Extract Fan Testing