



Energytest Ltd
502 Fulwood Road
Sheffield
South Yorkshire
S10 3QD

T: 0114 2302812
E: info@energy-test.co.uk

14/02/2017

Rob Wicks,

Dear Rob,

RE: SAP calculations for the new build - Crowick House Belle Free Lane, Cudworth, Barnsley, S72 8LU

Based on the following, I am pleased to say the proposed development has **passed** the SAP assessment:

- Thermal elements within the proposed dwelling to achieve the following U-values:

Element	Spec	U Value
Ground Floors	200mm Kingspan under 100mm concrete slab	0.09
Exposed First Floor	200mm Kingspan between floor joists	0.15
Timber Clad External Walls	Timber cladding, 75mm Kingspan between studs, 100mm Kingspan between studs, plasterboard and skim	0.16
Rendered Block Walls	Render, 100mm Block, 100mm Kingspan between studs, 75mm Kingspan between studs, plasterboard and skim	0.13
Stone Walls	100mm Stone, 100mm Kingspan between studs, 75mm Kingspan between studs, plasterboard and skim	0.13
Flat Roof	200mm Kingspan between roof joists	0.15

Rafter Roof	200mm Kingspan between roof rafters	0.16
Glazing and Doors	Triple Glazing, Aluminium frame	0.8

- The number of low energy lights should be **100%**.
- I have specified a **Design Air Permeability** of **10m³/h/m²** which relates to an air leakage test which is carried out on completion.
- I have specified a **Biomass Boiler** which feeds under floor heating throughout the house and a hot water cylinder.
- The heating controls are to have **Time and Temperature Zone Controls**.
- **Electric Under Floor** heating has been specified as a secondary heating system.
- An **MVHR** system with a **specific fan power of 0.75** and an **efficiency of 90%** has been specified.
- **12kWh of Solar PV** has been specified.
- I have specified the use of **Accredited Construction Details** on all relevant junctions. These focus on limiting thermal bridging and air leakage. ACD's during construction will enable the constructor to demonstrate that provision has been made to eliminate all reasonably avoidable thermal bridges through the continuity of insulation and ensuring good levels of airtightness. Information on available ACD's can be found on the planning portal website.

Please be advised that any alterations to the construction of the proposed development will undoubtedly have an effect on the final SAP calculations and must be communicated to the SAP assessor when the as-built SAP calculations are processed.

If you have any questions, then don't hesitate to contact me.

Regards,



Andrew Hart