

Our Ref: SAP-0498 (Rev A)

18th March 2014

Mr. Ralph Evans
R & G Builders Ltd
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Hayling Island
Hampshire
PO11 9ES



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Dear Ralph,

Re: SAP Calculations - 3 Legion Road, Hayling Island

Further to your recent instruction to prepare SAP2009 calculations for the above development, we are pleased to enclose the following documents which have been prepared using (BRE) government approved software:-

- SAP Calculation Report No. SAP-0498 (AD) Rev A (18-03-14)

A copy of this report will be required by your local building control or NHBC department, the attached reports have been provided in an electronic format for easier distribution.

If you have any queries or require any further information, please feel free to contact the undersigned at the address above.

Yours sincerely,

Darren Pinnick

BSc (Hons) Construction

Energy & Environmental Services

SAP Calculations, PEAs & EPCs
SBEM Calculations & DECs
Low & Zero Carbon Technology Statements
10% Renewables Statements
Code for Sustainable Homes Assessments

Testing & On Site Services

Domestic Air Pressure Testing
Commercial Air Pressure Testing
Sound Insulation Acoustic Testing
PPG24 Acoustic Testing
Thermographic Surveys

IMPORTANT INFORMATION

In order to gain compliance we have had to make amendments to the plans as listed above and it is important you recognise the following changes as they have been used in our calculations:-

1. **Assumed Air Permeability:** To have a rating of $6.00\text{m}^3/\text{h}/\text{m}^2$ @ Pa
2. **Thermal Bridging:** Development must use accredited construction details of 0.08 (see robust detail and local building office for more details about registration) A copy of the completed and signed ACD's by the site manager will be required before the "as built" & EPC Can be produced.
3. **Floor Construction:** **Ground Floor:-** U-Value $0.12\text{W}/\text{m}^2\text{K}$ 100mm Dense Concrete Slab, 150mm Celotex XR4000, 75mm Screed.
4. **Wall Construction:** **External Walls:-** U-Value $0.22\text{W}/\text{m}^2\text{K}$ 13mm Render, 100mm Thermalite Shields, 100mm Earthwool Dritherm 32, 100mm Thermalite Shields, 12.5mm Plasterboard on dabs.
Vertical Studwork:- U-Value $0.17\text{W}/\text{m}^2\text{K}$ 100mm Celotex between studwork, 40mm Celotex inner boarding, 12.5mm Plasterboard internally.
5. **Roof Construction:** **Pitched Roof Areas:-** U-Value $0.11\text{W}/\text{m}^2\text{K}$ 100mm Mineral Wool between Joists, 300mm Laid over the top, 12.5mm Plasterboard internally.
Sloping Roof Areas:- U-Value $0.18\text{W}/\text{m}^2\text{K}$ 100mm Celotex GA4000 between rafters, 40mm Celotex under boarding, 12.5mm Plasterboard to the inside.
6. **Openings:** **Windows:-** not to exceed a maximum: $1.60/\text{m}^2\text{K}$
Front Door:- not to exceed a maximum: $1.80/\text{m}^2\text{K}$
7. **Boiler:** **Main Heating:** Alpha Intec 28x Gas Combination boiler fitted WITH a Zenex Gas Saver.
Hot Water: Via primary heating above.
8. **Cylinder:** N/A.
9. **Secondary Heating:** None.
10. **Low Energy Light Fittings:** A minimum of 100% energy efficient light fittings.
11. **Additional Notes:** None.

Please note this information is only a brief summary and should be read in conjunction with the attached full SAP calculations every effort has been made to ensure this summary is correct. However in no event shall BEAT Solutions be liable for any incidental, indirect, consequential or special damages of any kind, or any damages whatsoever, including, without limitation, those resulting from loss of profit, loss of contracts, goodwill, data, information, income, expected savings or business relationships, whether or not advised of the possibility of such damage, arising out of or in connection with the use of this document.