Energy Statement

Proposed New Dwelling at Land to West of Wrangham Villa, Bridge of Alford, Alford

For Mrs Helen Farquhar

Thermally efficient & Energy efficient design

The proposed dwelling has been designed to ensure that the main living areas of the property including Dining, Family room and kitchen benefit from large areas of glazing to the South facing elevation.

The insulation envelope has been designed to a level significantly better than the figures recommended in the current Building Regulations.

Please see below figures

Wall Construction 'U' value of 0.15w/m2K compared to SBSA figure of 0.22w/m2K

Roof Construction 'U' value of 0.11w/m2K compared to SBSA figure of 0.15w/m2K

Ground Floor Construction 'U' value of 0.12w/m2K compared to SBSA figure of 0.18w/m2K

Window 'U' value of 1.20w/m2K compared to SBSA figure of 1.60w/m2K

Percentage Reduction from TER – SAP calculation to be provided at Building Warrant Stage

Systems, Services & Technologies to be adopted

Heating - The proposal is to install a high efficiency Air Source Heat Pump with underfloor heating to ground floor slab and low temp radiators to first floor complete with thermostatic valves, room sensors and zone control all as required by Building Control with a Wood burning stove installed within Lounge.

Hot Water Systems – Renewable energy -Solar thermal panels installed to South facing Elevation serving fully insulated high efficiency thermal store.

Water – low flow / dual flush cisterns to all toilets, and low flow shower heads & mixer taps will be utilised throughout the property to minimise water consumption.

Electricity - 'A' rated appliances will be utilised throughout the dwelling. A minimum 100% of all lighting to be low energy type and low energy fans to be utilised.

Drainage - Foul drainage will be via private sewage treatment plant to partial soakaway as per recommendations of Sarah McGregor report dated 22 April 2020 and in accordance with SEPA requirements.

SUDS will be adopted throughout the development with use of swales, filter trenches and soakaway as per recommendations of Sarah McGregor report. Rainwater harvesting via water butts may be utilised to provide water for gardening use.

Construction Materials

The proposed construction of the property will embrace the principles of sustainable design with the use of timber kit construction, triple / double glazed windows, and natural slate roofing.

Concrete and concrete blockwork will be sourced locally.

All timber will be PEFC certified.

Note

Please note a full SAP calculation will be provided at Building Warrant stage prior to any commencement of works on site.

The proposed dwellings will in accordance with The Council's Supplementary Planning Guidance on Carbon Neutrality in New Developments achieve at least a Bronze Active rating under Section 7 of the Building Standards Technical Handbook.

Mike Strachan Architecture

13/01/21