



Ditchingham Passivhaus

Location: Ditchingham, Norfolk

Completion Status: Summer 2012

Occupancy: Occupied Summer 2012

Architect: Parsons + Whittley

Consultant: Davis Langdon

Contractor: Bramall Construction

Client: Hastoe Housing Association

Ditchingham Passivhaus provides 14 rural exception site dwellings for local needs affordable housing to the Passivhaus standard in a single curved terrace. Achieving Passivhaus certification through BRE as a complete block means some dwellings will perform better than others. Early monitoring of 9 units shows performances within the anticipated range.

Maintaining internal temperatures averaging around 21 – 22 degrees whilst preserving an internal air quality of around 800ppm CO₂ along with a relative humidity of 55% provides a very comfortable internal environment.

The scheme is in a conservation area, adjacent Tayler & Green Grade II listed buildings. Any appreciation of the scheme requires an understanding of the Tayler & Green legacy and their innovative approach to rural housing.

Innovative thermal bridge free foundation and floor slab detailing and the use of a 300mm fully insulated cavity along with simplicity of detailing and construction have delivered the exacting Passivhaus performance and reflect the Tayler & Green historic context.

The properties achieve Code for Sustainable Homes level 4, (subject to certification). Code addresses a number of sustainable elements including:

- Internal Water Use – less than 105 Litres/Person/Day
- Materials – All of the key elements of the building envelope achieve a Green Guide rating between A+ and C
- Surface Water Drainage – using SuDS techniques, protecting receiving waters from pollution and minimising the risk of flooding and other environmental damage in watercourses.
- Sound Insulation – The dwellings have sound insulation values are at least 5dB better than the Building Regulations.
- Lifetimes Homes – Joseph Rowntree Lifetime Homes standard.
- Ecology & Bio-diversity –enhanced above the original.

Occupant feedback

"I love living in my new home, I couldn't ask for more. Its very spacious and thanks to the large windows there is lots of natural light. The mechanical ventilation system is very simple to use ... does all the work, maintaining a comfortable temperature"

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