

# Upper Dolfor Road – Mid-Wales

**Architect:**

Chris Turnbull - CTDE Ltd

**Principle contractor:**

Barry Bellis - B.W Bellis Ltd

**Client:** Private

**Cost of build:** £485k

**Location:** Mid-Wales

**Type of contract:** Self-build

**Aircrete contractor:**

B.W Bellis Ltd

**Aircrete build time:** 6 weeks

**Executive summary:**

A self-build, six-bedroom, detached property, nestled in rural Powys overlooking both the Severn Valley and Newtown.

**Project description:**

Using aircrete, a certified modern method of construction, main contractor B.W Bellis was able to complete the block-work on the large six-bedroom property within six weeks. Apart from some technical assistance from H+H on working with aircrete, all of the block work was laid by a single worker during this time.

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"I used Celcon Blocks for my own five-bedroom home, almost seven years ago. I thought the insulation benefits would be better than alternative building materials available if I used aircrete.

The results have been astonishing. My annual energy bill was less than £200 last year! I do have solar panels as well, but it is the aircrete that creates the great efficiency which has led to the savings.

A member of staff from H+H visited the site and showed us the best way of laying the aircrete, and how to cut it to the right size. With that knowledge, we had what we needed to get on with the job."

**Barry Bellis, Main contractor**

## Reason for choosing H+H aircrete:

Main contractor, Barry Bellis had used H+H Celcon Blocks when building his own home in 2010 and was impressed with the thermal performance so recommended the use of aircrete to the client for this build.

## Products used / aircrete specification:

H+H Celcon 140mm Jumbo Bloks were used on the inner leaf cavity walls of the property.

## Foundations:

Traditional strip foundations and ground bearing slab were utilised, along with a 150mm/75mm integrated underfloor heating system.

## External walls:

The exterior of the property has been clad in a simple but elegant brick façade with corbeled finishes eliminating the requirement for fascia and soffit boarding.

## Roof:

A timber truss roof was used for the property which was then clad in traditional Welsh slate roof tiles.

## Floor:

Tiled flooring on the ground floor with pozi joists and carpet to the first and second floor.



"When Barry came to us with proposals to use aircrete blocks, he spoke of the huge gains in build speed as well as the thermal efficiency benefits that could be achieved. Seeing how he'd used the blocks for his own property we took this to be a mark of their quality.

The blocks are good quality and quick to install. We wouldn't hesitate to use them again." **Client comment**

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## Product benefits:

- Easily meets or exceeds Part L and Part E of the Building Regulations
- Simplifies the construction process
- H+H aircrete products use up to 80% recycled material
- Achieves A+ rating in the BRE Green guide

## Other benefits included:

- Block-work is highly adaptable, easily allowing for any last minute design changes
- Aircrete achieves an air permeability of  $0.12\text{m}^3/\text{hr}/\text{m}^2$
- Has excellent fire resistance with a Class 0 rating for surface spread of flame

## H+H aircrete applications

- Internal and external leaf in cavity walls
- Solid walls
- Separating / party walls
- Flanking walls
- Partitions
- Multi-storey
- Foundations



Aircrete is an excellent all round commercial and industrial building material. Used in partition and external walls (both solid and cavity), fire walls and as infill to steel and concrete framed buildings it provides durability, fire resistance and superb thermal and acoustic insulation.

H+H aircrete has exceptional sustainability credentials: not only does it provide excellent thermal and acoustic insulation and contributes to air-tightness but, being manufactured from up to 80% recycled materials, it is sustainable both in manufacture and in use.

We also have BES 6001:2008 accreditation for responsible sourcing of materials in addition we have an A+ rating under in the BRE green guide on both cavity and solid external walls. Couple this with H+H UK's rigorous approach to pursuing the highest environmental standards throughout the whole of its business and it's easy to see why this innovative and award winning system is now firmly established within the UK.

## Contact details

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For further information about the subjects covered or the H+H products used in this case study, please visit our website  
[www.hhcelcon.co.uk](http://www.hhcelcon.co.uk)