

## Perowne Street, CB1 2AY

### Elizabeth Baggs

Elizabeth moved into her 1890's Victorian mid terrace in 2001. She was spurred into making the changes to her home by talking to her neighbours, receiving leaflets and chatting to Cambridge Carbon Footprint. Being able to use the thermal imaging camera to highlight the problem areas she says was an "eye opener" and making the decision to stay in her home for as long as possible post retirement meant that she needed to make it warm and comfortable.



#### Overview

**Property age:** 1890's

**Type:** Solid brick

**Project Timescale:** Several phases over several years completed end of 2015

**Wall type:** Partly solid, partly cavity.

**Floor area:** 94m<sup>2</sup>

**Cost of retrofit:** £50,000 plus £6,000 grant

**Occupants:** 1 adult

#### Key features

- Radiator reflectors
- Loft insulation, internal and external solid wall insulation
- Passive solar thermal gain and daylighting from extension
- Double glazing
- Low energy lighting
- A+ fridge freezer
- A+++ washing machine, dishwasher
- New boiler
- Low water use wet room
- Water management in loos
- Solar power Velux blinds
- LED lighting

#### Insulation and heating

Elizabeth recalls her house used to lose all its heat within twenty minutes of turning her heating off and now her only complaint is that it's too hot! "Blankets and woolly hats – that used to be me!"

She started with some small-scale measures such as draught stripping and brushes around the doors and secondary glazing using film. A few years later she installed double-glazing, and a few years after that, with the help of a local authority grant, external and internal solid wall insulation.

Internal insulation was installed at the front because she lives in a conservation area and external insulation was used at the back and on to the side passage wall.



#### Extension

Elizabeth wanted to prepare a warm comfortable and beautiful house for her old age. Part of this future planning included re-designing the ground floor of her house to remove steps into her kitchen, build an extension and replace a shower/toilet with a water efficient wet room.

### People Exploring Low Energy Homes

This also gave her the opportunity to insulate the walls, floors and ceilings of the extension and maximise passive solar gain in this part of the house (allowing the warmth of the sun to reduce heating demands). She has also created a beautiful space for her and her family to enjoy.



#### **Appliances, lighting and water**

Elizabeth has changed as many lights as she could to low energy bulbs. She employed an electrician to carefully select and install LED lights in her extension.

She has also replaced her old boiler with a new condensing one, her old fridge-freezer to an A+ rated model and dishwasher and washing machine to A+++.

Elizabeth used to have water butts but found she had a problem with mosquito's so decided to have a soakaway built in her garden to take water from the roof, which although not a water saving measure allows her to save money on part of her water bill.

She uses Hippos in the WCs and fitted water efficient taps and showers in her wet room to conserve water usage.



#### **Performance**

The house so far is performing to Elizabeth's expectations and has greatly increased her homes warmth and comfort. The new double glazing is what Elizabeth says "has been my greatest achievement and joy", explaining that her rooms already keep the heat better and that another benefit is that it is also much quieter inside.

#### **Future plans**

Air sealing around edge of floors. Draught stripping.

#### **Professional contacts**

Glazing: Lawrence Smith Joinery Ltd.  
Unit 9 Harding Way  
St Ives, Cambs, PE27 3WR

[www.lawrencsmith-joinery.co.uk](http://www.lawrencsmith-joinery.co.uk)

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