

# Relish™ show flat

## 42 Cambourne Court, Shelly Road

### Worthing, BN11 4BQ

## Overview

Owner: Worthing Homes

Type: purpose built flat in block

Age: 48 years (built 1966)

Beds: 1

Walls: brick, cavity filled

Area: 50m<sup>2</sup>

Resident: vacant (but 2 adults)

## Features

Airtightness

Cavity wall insulation

Condensing boiler

Double glazing

Energy saving education

Energy saving ventilation

Low energy appliances

Low energy lighting

## Introduction and approach

Worthing homes initially undertook a multi award winning pilot study, known as Relish™ (Residents 4 Low Impact Sustainable Homes), covering four of their homes to assess the most cost effective methods of retrofit on a modest budget (£6,500). They also set out to assess the impact of educating residents on simple methods of minimising energy use and comparing the impact of lifestyle behaviour

These simple lessons led on to phase 2, where the challenge was identified to 'educate' both the supply chain and residents within the large scale refurbishment of three blocks purchased from another RP - Cambourne, Dene and Glyndebourne. The education was targeted to 159 households, which included 27 leaseholders; to date 52% of the residents are 'engaged'.

The show flat demonstrates the impact of cavity wall insulation, good double glazing, high efficiency boiler and controls. At the



same time, the flat enjoys carefully detailed draught proofing and airtightness, coupled with energy saving ventilation.

Yet the flat goes beyond simple fabric improvements, to serve as an educational environment where numerous tips for managing energy use are illustrated using eye catching cartoons and labels on the relevant equipment. Residents have access to an energy advisor and are given free energy monitors, to help them track down waste and control costs.

Developed in 2009 and still going strong, the Worthing Homes Relish™ project takes a sensible and low cost approach to reducing household fuel bills. Its innovative approach is still being recognised today; Relish has gone on to win numerous sustainability awards including recently - Sustainable Housing Provider winner, national winners with Constructing Excellence as well as being included in the Sustania100 list of inspiring international solutions.

## Energy efficiency measures

### Heating and hot water

An A-rated condensing Worcester Bosch boiler provides heating and hot water, with a mains pressure hot water cylinder with factory fitted insulation; simple to use good heating controls are standard.

Cutaway panels illustrate how heating pipes have been insulated under floors and within walls, to ensure that heat is only delivered where it is needed. A vent in the wall of the airing cupboard allows heat from that area to escape to the lounge.

## Insulation

**Walls** – the block has rockwool filled cavities, greatly minimising heat loss; this has been topped up where identified.

**Windows** – good quality sealed double glazing is fitted throughout.

**Airtightness** – a lot of effort has gone into making the fabric of the flats airtight by replastering walls and filling gaps and cracks, especially to the bits that you don't see e.g. behind ducts, underneath the bath. The front door also has a draughtproof strip in its perimeter and a curtain rail above for further draught exclusion. The main humid areas, kitchen and bathroom, have energy saving ventilation fans.

## Renewables and low carbon technology

There are no renewables or other obvious low carbon technology employed, as it was identified the payback was too long and is considered unsustainable in a social housing business.

## Electricity

Lamps in the flat are all low energy as these offer the greatest return on investment.

The free Current Cost energy monitor displays instantaneously the power being used, which raises awareness of waste.

The show flat pilots a scheme, known as the Relish™ smartwire™ whereby a single switch can be flicked to turn off all non essential sockets, on going to bed or leaving the flat. However, this is hard to retrofit, as it effectively involves a complete rewire. The smartwire™ was used as an education tool with residents to demonstrate the cost of leaving and / or using appliances. This has been installed as a pilot into 20 new homes of a 51 home development also in Worthing, in tandem with bespoke energy advice.

## Carbon emissions

As the show flat is only intermittently occupied, the exact impact of energy saving measures is not known, but consumption is likely to be around 50% lower than an average comparable dwelling.

## Other sustainable measures / lifestyle decisions

Water conservation – double click taps are fitted, which deliver water initially at a modest flow rate, unless deliberately clicked twice. This not only saves water, but also energy on the hot water system. Similarly, residents are encouraged to take showers rather than baths and to use the timer fitted.

## Lessons learned

The phase 1 pilot scheme made it clear that coupling energy education with refurbishment delivered much more substantial savings than refurbishment alone. It also demonstrated that these can be delivered at low cost

Worthing Homes now employ an energy advisor to visit homes to help people build energy saving measures into their lifestyles. However, only around half of the tenants have taken advantage of this scheme. Even so, many have wholeheartedly embarked on energy conservation and keenly control their usage.

Although this is an award winning initiative, it is well known within the sector and to high profile advocates such as Kevin McCloud, it is lesser known in Worthing!

## More information

Residents 4 Low Impact Sustainable Homes.  
[www.relish.org/](http://www.relish.org/)

## Professionals

Faithorn Farrell Timms – energy surveys / advice

Monitoring equipment – [www.currentcost.com](http://www.currentcost.com)

Worthing Homes – project developers, client and Relish™ champions

