

# MADE

## Summerfield eco-housing

location: Birmingham

This eco-housing project in Summerfield, Birmingham evolved after local residents raised concerns to the Family Housing Association (FHA) on energy efficiency and the negative impact of rising fuel bills.

The FHA identified opportunities for accessing new renewable technologies and converted one of their properties into their very first eco-house, to promote and demonstrate to local residents the potential energy saving systems available. From this relatively humble beginning, the dialogue between the community and FHA and its partners continued to develop, and this resulted in a decision being taken collectively with Birmingham City Council and Urban Living to make Summerfield Birmingham's first eco-neighbourhood.

### Introduction

Summerfield is a fairly typical residential suburb to the north west of Birmingham city centre. It has seen a number of environmental and social improvements over the last few years after an £11m regeneration programme undertaken with Birmingham City Council. Now private home owners are starting to benefit from the £2.3m eco-neighbourhood project, the largest renewable energy project of its kind in the UK.



The initial project of eco-remodelling a single dwelling has now been used to inform a similar refurbishment programme across an entire neighbourhood. So far FHA, with Birmingham City Council, have installed 329 homes with solar panels. This will reduce fuel bills by up to £150 per year and it is estimated that the systems will deliver 60 per cent of each households' hot water per annum

### Design process

Working with Birmingham City Council and Urban Living, the Birmingham/Sandwell Housing Market Renewal Pathfinder, FHA installed a number of new technologies in a Victorian semi which was being converted from a house in multiple occupation into a large family home. The eco-house was officially opened in June 2006.

The eco-house also opened up the opportunity for FHA to work with primary school children on promoting energy efficiency. By working with the city council's housing education initiative, FHA has invested £20k, helping over 500 young people from the local schools develop an eco-website, eco-radio station and an energy advice DVD.

The eco-house is one of five that has been refurbished and provided by Family for affordable rent in the Summerfield neighbourhood in north west Birmingham. The five eco-homes are all older Victorian properties which were converted into flats in the 1970's and have been given a new lease of life and de-converted into much needed large family homes.

Family Housing, with Birmingham City Council, have also installed 329 homes with solar panels. This will significantly reduce fuel bills by up to £150 per year and it is estimated that the systems will deliver 60 per cent of each households hot water per annum. In addition, a number of innovative technologies have been piloted to make the five eco-homes as green as possible, including installing solar photovoltaic panels which generate electricity, grey water recycling and air source heat pumps, sunpipes, high performance insulation made from recycled paper, denim and sheep's wool, kitchens made from recycled materials, A plus rated white goods, low energy lighting and water saving devices.

Summerfield will also act as a pilot for future approaches in the improvement of the FHA's existing housing stock.

## **Evaluation**

An impressive aspect of this project has been the commitment by the development partners in using the project as a learning tool to inform future investment strategies and regeneration programmes. The project demonstrates this itself, in the way that the scheme has grown from a single dwelling remodelling, to a neighbourhood wide programme.

David Stevenson, FHA's Director of Investment said, 'This property is one of five new eco show homes developed using cutting edge green technologies and demonstrates our ongoing commitment to developing Summerfield as Birmingham's first Eco Neighbourhood and continues to push the boundaries in terms of testing new technologies when refurbishing existing homes.'

'This is clearly an exemplar of eco-regeneration that can be applied elsewhere. In fact, the scheme has been so successful that we are rolling out similar interventions in other parts of the Pathfinder area. I am particularly proud of the imaginative ways in which local residents have been engaged,' stated Peter Latchford, Chairman of Urban Living.

Councillor John Lines, Cabinet Member for Housing said: 'This innovative scheme provides a real opportunity to address the issues of global warming through a practical project which will reduce the harmful carbon emissions of domestic homes, and act as a pilot for future approaches in the improvement of the existing housing stock.'

The remodeled properties have been very well received by residents. A delighted new occupier said 'This is a dream house! We love it because it meets all our needs and the recycling and energy efficiency features are making a difference to our fuel bills. Everything has been improved to a really high standard with the kitchen being especially well planned and the loft conversion providing us with even more space.'

The refurbishment program demonstrates outstanding energy preservation, minimal pollution, use of sustainable building materials, transport and land-use and water conservation. The bulk of the fabric of the building was retained and reused. The five eco-home properties have been fitted with extra environmentally friendly features so they achieve the Department of Communities and Local Government (DCLG) Sustainable Homes Standard Code level 3 and level 4.

An independent evaluation by Sheffield Hallam University in April 2008 confirmed the success of the project, concluding that it had made a positive environmental impact, both in terms of the practical measures taken, and the influence on residents' attitudes and behaviour with respect to energy consumption, recycling and water conservation. The University is hoping to release detailed information about the energy savings made and their financial value, but estimated energy and fuel bill savings for the five eco-homes are expected to be in excess of £1,084 per year: a 35 per cent saving.

### **Key design features to look out for**

- The way that the remodelled houses do not detract from the existing urban environment. The fact that they are difficult to spot along the street belies the radical remodelling that has gone on behind the historic façade. This demonstrates that going 'green', can almost seamlessly be integrated into our normal daily lives.

### **Link and downloads**

Family Housing Association

<http://www.family-housing.co.uk/Eco+Projects/>

UK Housing Awards 2007 - Increasing Environmental Sustainability.

[http://www.cih.org/ukha/pdfs/BirminghamCC%20SummerfieldEcoProject%20IES\\_Finelist.pdf](http://www.cih.org/ukha/pdfs/BirminghamCC%20SummerfieldEcoProject%20IES_Finelist.pdf)

Birmingham Mail Article Feb 2007.

<http://www.birminghammail.net/news/top-stories/2007/02/13/bid-to-create-eco-village-on-city-estate-97319-18614943/>

CABE. 'What makes an eco-town?' PDF document

<http://www.cabe.org.uk/AssetLibrary/12242.pdf>

## **Contact for further information**

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