



The outside of the houses



The biomass boiler

HOUSING PROJECT

THE GREENWAY, STAINES ROAD

Hounslow, London

CLIENT:

CATALYST HOUSING GROUP

ARCHITECT:

MEPK ARCHITECTS

CONTRACTOR:

WILLMOTT DIXON HOUSING

COST:

£5,000,000

Environmentally Friendly

The Greenway is a development of fourteen flats and four houses designed from the outset to be kind to the environment. Through carefully planned energy savings and other innovative measures it is one of the first small-scale developments to achieve Code for Sustainable Homes Level 6. The engineering challenges were further enhanced by the proximity of the site to the Heathrow flight path, the noise of landing aircraft meaning residents could not be expected to open their windows!

Heating

The properties in The Greenway are extremely well insulated and air-tight, including triple glazed windows, to reduce the heating requirements. Ventilation is supplied by a MVHR system. What heating and hot water is required is provided by a central biomass boiler. Through the use of wood pellets from sustainable forests carbon already present in the atmosphere is recycled.

Innovative Cooling

To reduce the risk of overheating in the summer the mass of the building itself has been utilised by leaving the concrete ceilings exposed in the living areas and bedrooms. During hot periods the exposed concrete is cooled at night by a series of water pipes embedded in it, with the heat dissipated via an underground pipework loop. The cooled concrete can then absorb the heat during the day.

Electricity Generation

An array of photovoltaic panels sits on top of the block of flats, providing electricity to the communal areas of the flats as well as the scheme's houses.

Reducing Water Usage

Water is an often overlooked precious resource. The Greenway reduces the domestic consumption by collecting rainwater into an underground tank. The collected water is then used to flush the 27 WCs present.

Other Factors

Each unit is supplied with an easy-to-read smart meter so residents can easily see how much energy they are using, and how much it is costing them. All units are supplied with energy-efficient white goods. To the rear of the development, above the buried cooling loop, are also allotments for the use of those living in the scheme.

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