



The Woods

<http://www.thewoodsbyultrabox.com/>

Description General information

Client: Ultra Box
Architect: Scott Brownrigg
Area: between 370 m2 – 330 m2
Location: Little Brickhill
Reference number: GT046

Consulting jobs

- Code for Sustainable Homes Assessment (CSH)
- Standard Assessment Procedure (SAP)
- Energy Strategy report / studies
- Renewable Energy Feasibility studies
- Daylighting calculations

Sustainable evaluation

The project is certifying for a **CODE 5 for the Code for Sustainable Homes scheme.**

The **energy strategy** for the proposed scheme is to use a highly efficient biomass boiler alongside advanced energy efficiency measures and a 20 m2 solar Photovoltaic for each dwelling array to meet the carbon emissions reductions target set by the Council.

The proposal is to insulate the building to best practice standards, surpassing Part L requirements. The thermal performance targets of the dwelling are the following: U-Values of 0.12 W/m2K for the ground floor and roof, 0.15 W/m2K for walls and windows of 0.7 W/m2K. An air permeability of 3 m3/m2/hr. at 50 pa is targeted, and to be achieved on site.

Thermal bridging will also be kept to a minimum with an average Y-value of 0.08, thus following accredited construction details for all dwellings as a minimum.

A mechanical ventilation system with heat recovery (MVHR) will be implemented in the dwelling, recycling heat that would otherwise be lost. This ventilation system will meet the requirements of Part F.

The **Daylight calculations** (ADF) reports that the Kitchens area achieves a minimum average daylight factor of more than 2%, and the living rooms, dining room and studies achieve a minimum average daylight factor of more than 1.5%. Also that the surrounding buildings have not been affected by the projected shadow of the new building. Likewise the Sunlight calculations (APSH) are that ever flat for this development meets the requirements recommended by BRE, having 5% of sunlight hours on winter months and 25% of the entire year.



Code for Sustainable Homes									
Job No. GT046									
Kings Wood									
Score Summary - Sept 2013									
Category	Element	Score	Weight	Weighted Score	Target	Weighted Score	Weighted Score	Weighted Score	Weighted Score
Energy	Env 1	Carbon Dioxide	6	50	300	280	280	280	280
	Env 2	Energy Efficient Devices	2	20	40	40	40	40	40
	Env 3	Energy Efficient Windows	2	20	40	40	40	40	40
	Env 4	Energy Efficient Walls	2	20	40	40	40	40	40
	Env 5	Energy Efficient Floors	2	20	40	40	40	40	40
	Env 6	Energy Efficient Roofs	2	20	40	40	40	40	40
Water	Wat 1	Water Efficiency	1	10	10	10	10	10	10
	Wat 2	Water Efficiency	1	10	10	10	10	10	10
	Wat 3	Water Efficiency	1	10	10	10	10	10	10
	Wat 4	Water Efficiency	1	10	10	10	10	10	10
	Wat 5	Water Efficiency	1	10	10	10	10	10	10
	Wat 6	Water Efficiency	1	10	10	10	10	10	10
Materials	Mat 1	Responsible Materials	3	30	90	90	90	90	90
	Mat 2	Responsible Materials	3	30	90	90	90	90	90
	Mat 3	Responsible Materials	3	30	90	90	90	90	90
	Mat 4	Responsible Materials	3	30	90	90	90	90	90
	Mat 5	Responsible Materials	3	30	90	90	90	90	90
	Mat 6	Responsible Materials	3	30	90	90	90	90	90
Pollution	Pol 1	Particulate Matter	1	10	10	10	10	10	10
	Pol 2	Particulate Matter	1	10	10	10	10	10	10
	Pol 3	Particulate Matter	1	10	10	10	10	10	10
	Pol 4	Particulate Matter	1	10	10	10	10	10	10
	Pol 5	Particulate Matter	1	10	10	10	10	10	10
	Pol 6	Particulate Matter	1	10	10	10	10	10	10
Health and Wellbeing	Hea 1	Daylighting	2	20	40	40	40	40	40
	Hea 2	Daylighting	2	20	40	40	40	40	40
	Hea 3	Daylighting	2	20	40	40	40	40	40
	Hea 4	Daylighting	2	20	40	40	40	40	40
	Hea 5	Daylighting	2	20	40	40	40	40	40
	Hea 6	Daylighting	2	20	40	40	40	40	40
Management	Man 1	Health and Wellbeing	3	30	90	90	90	90	90
	Man 2	Health and Wellbeing	3	30	90	90	90	90	90
	Man 3	Health and Wellbeing	3	30	90	90	90	90	90
	Man 4	Health and Wellbeing	3	30	90	90	90	90	90
	Man 5	Health and Wellbeing	3	30	90	90	90	90	90
	Man 6	Health and Wellbeing	3	30	90	90	90	90	90
Land Use and Ecology	Env 1	Ecological Features	1	10	10	10	10	10	10
	Env 2	Ecological Features	1	10	10	10	10	10	10
	Env 3	Ecological Features	1	10	10	10	10	10	10
	Env 4	Ecological Features	1	10	10	10	10	10	10
	Env 5	Ecological Features	1	10	10	10	10	10	10
	Env 6	Ecological Features	1	10	10	10	10	10	10
Total				80.81					
Target				80.81					