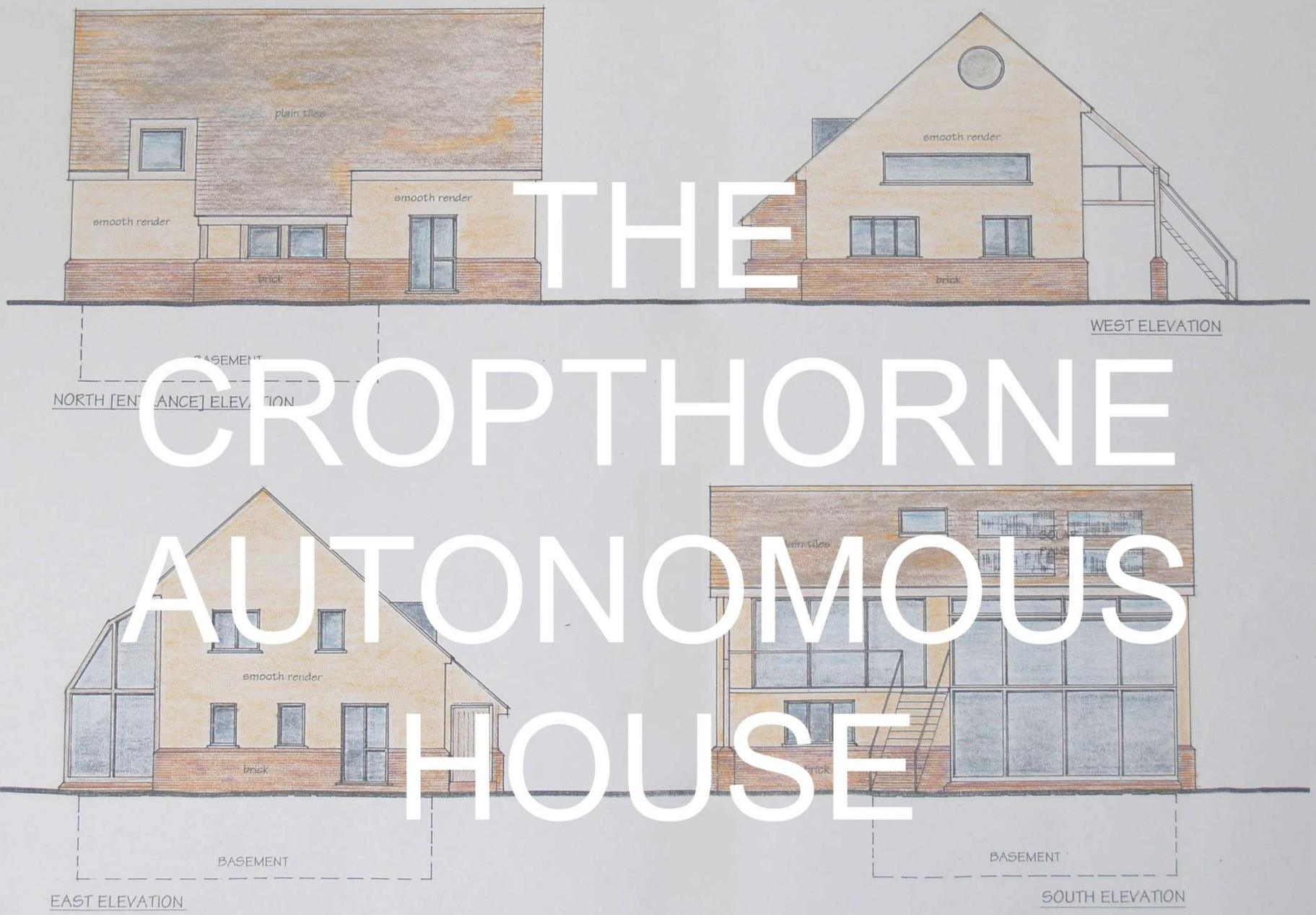


THE CROPTHORNE AUTONOMOUS HOUSE

THE DESIGN AIMS

- MINIMAL IMPACT ON THE ENVIRONMENT
- AS FAR AS POSSIBLE, OBTAIN EVERYTHING IT NEEDS FROM THE LAND AROUND IT
- ATTRACTIVE & PROVIDE A PLEASANT, COMFORTABLE LIVING ENVIRONMENT

FOR THE SERVICING NEEDS:

- MINIMAL HEATING
- THERMALLY MASSIVE
- VERY HIGH LEVELS OF INSULATION
- HIGHLY EFFICIENT WINDOWS:
  MINIMUM HEAT LOSS, MAXIMUM SOLAR HEAT GAIN

CROPTHORNE AUTONOMOUS HOUSE

FOR THE SERVICING NEEDS:

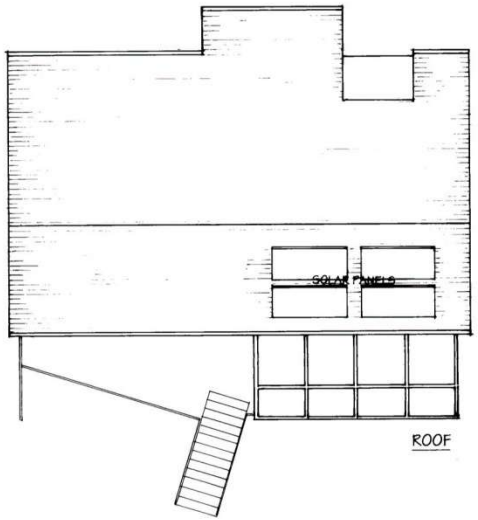
- AIRTIGHT TO REDUCE HEAT LOSS
- A MECHANICAL VENTILATION SYSTEM TO RECLAIM HEAT FROM THE EXTRACTED AIR
- REDUCED NEED FOR ARTIFICIAL LIGHTING
- NO MAINS WATER OR WASTE CONNECTIONS

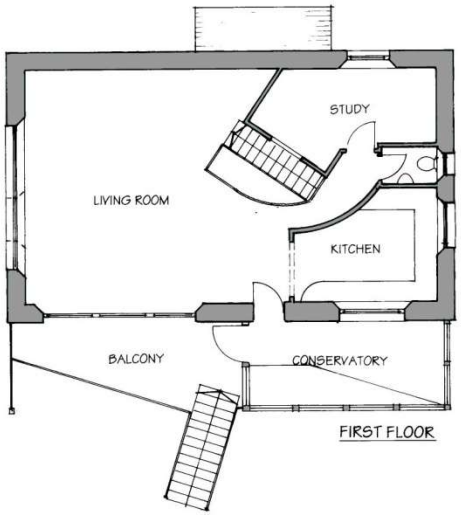
MATERIALS

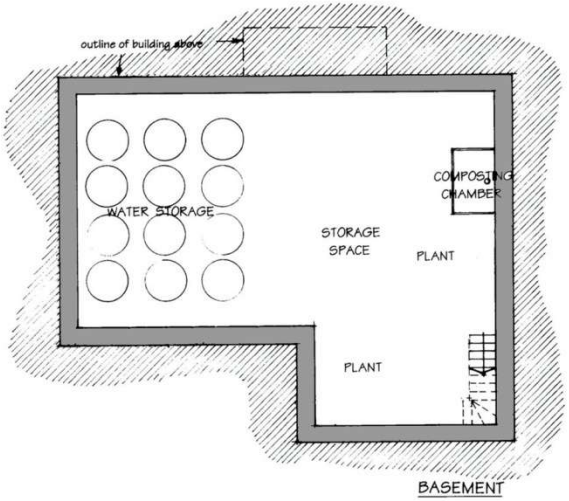
- MINIMAL ENVIRONMENTAL DAMAGE

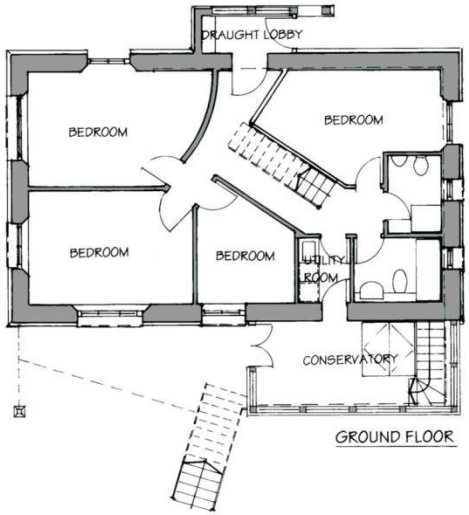
CROPTHORNE AUTONOMOUS HOUSE

CROPTHORNE AUTONOMOUS HOUSE









CROPTHORNE AUTONOMOUS HOUSE

CROPTHORNE AUTONOMOUS HOUSE

CROPTHORNE AUTONOMOUS HOUSE

Passive House Verification

Photo or Drawing

Building:	House for Mike Coe and Lizzie Stoodley
Location and Climate:	Cropthorne, Worcs. Stratford also corrected for small solar reflector
Street:	
Postcode/City:	
Country:	UK
Building Type:	Detached house
Home Owner(s) / Client(s):	Mike Coe and Lizzie Stoodley
Street:	
Postcode/City:	
Architect:	
Street:	
Postcode/City:	
Mechanical System Consultant:	
Street:	
Postcode/City:	

no standard climate

Year of Construction:	2008			
Number of Dwelling Units:	1			
Enclosed Volume V_e:	372.4	m³	Indoor Temperature:	20.0 °C
Number of Occupants:	2.0		Internal Heat Sources:	0.7 W/m²

Internal Heat Sources

Building Type: Residence

Type of Values Used: PHPP-Calculation

Complete field in IHS work

Planned Number of Occupants:

2 Planning

Specific requirements with reference to the treated floor area.

Treated Floor Area: 151.80 m²

Verification: Monthly Method

	Applied:	Monthly Method	PH Certificate:	met?
Specific Space Heat Requirement:	2	kWh/(m²a)	15 kWh/(m²a)	✔
Pressurization Test Result:	0.40	h^{-1}	0.6 h^{-1}	✔
Specific Primary Energy Requirement (DHW, heating, aux. & household electricity):	35	kWh/(m²a)	120 kWh/(m²a)	✔
Specific Primary Energy Requirement (DHW, heating and auxiliary electricity):	11	kWh/(m²a)		
Specific Primary Energy Requirement Saving by solar-generated electricity:	0	kWh/(m²a)		
Heat Load:	8.2	W/m²		

Specific Heat Requirement, Annual Method	1.7
Specific Heat Requirement, Monthly Method	2.3

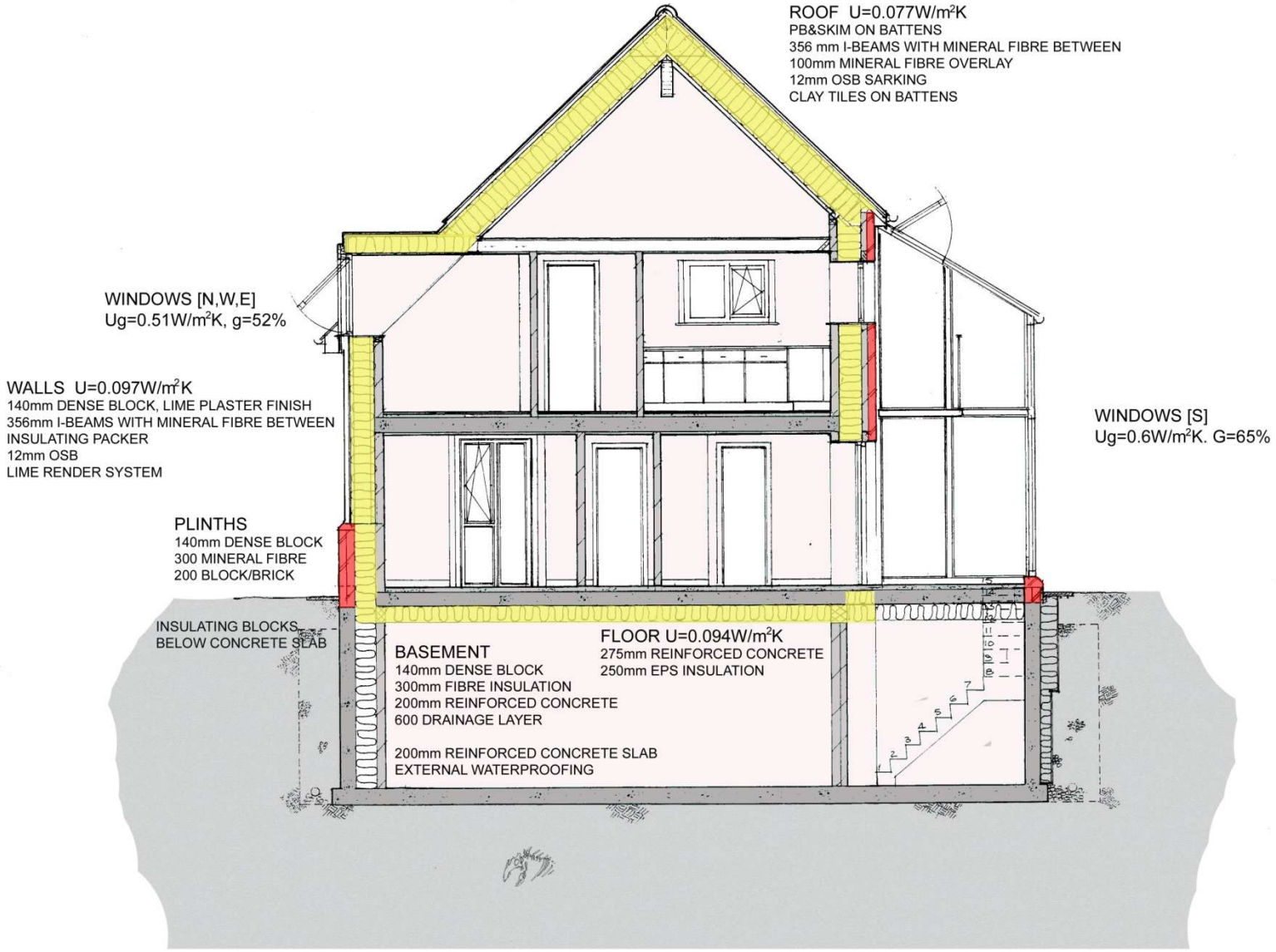
Frequency of Overheating: 5.9% over 25 °C

We certify that the values given here have been calculated according to the PHPP methodology and are based on the characteristics of the building. The PHPP calculations are enclosed with this application.

Issued on:

Signature:

CROPTHORNE AUTONOMOUS HOUSE



CROPTHORNE AUTONOMOUS HOUSE

Client Mike Coe and Lizzie Stoodley	
Architect Neill Lewis Chartered Architect	**Energy Consultant** David Olivier, Energy Advisory Associates
Structural Engineer Stuart Derbyshire	**Project Manager** Mike Neate, EcoDC on site Graham King, QS
Local Authority Wyre Forest District Council	**Building Control** ACT Building Control Ltd
Groundworks Contractor LeBrun Building Contractors	**General Contractor** EcoDC
Windows and Doors Optiwin Alu2Wood supplied by Green Building Stores	**Solar Thermal Panels** Velux supplied & installed by Llanisolar Ltd
MVHR Paul Thermos 200 Unit System designed and supplied by Green Building Stores, Andrew Farr	**Insulation** Knauf mineral wool supplied by Sheffield Insulations Ltd Neopor EPS
Composting Unit Kingsley Clivus	**I-Beams** Boise Cascade