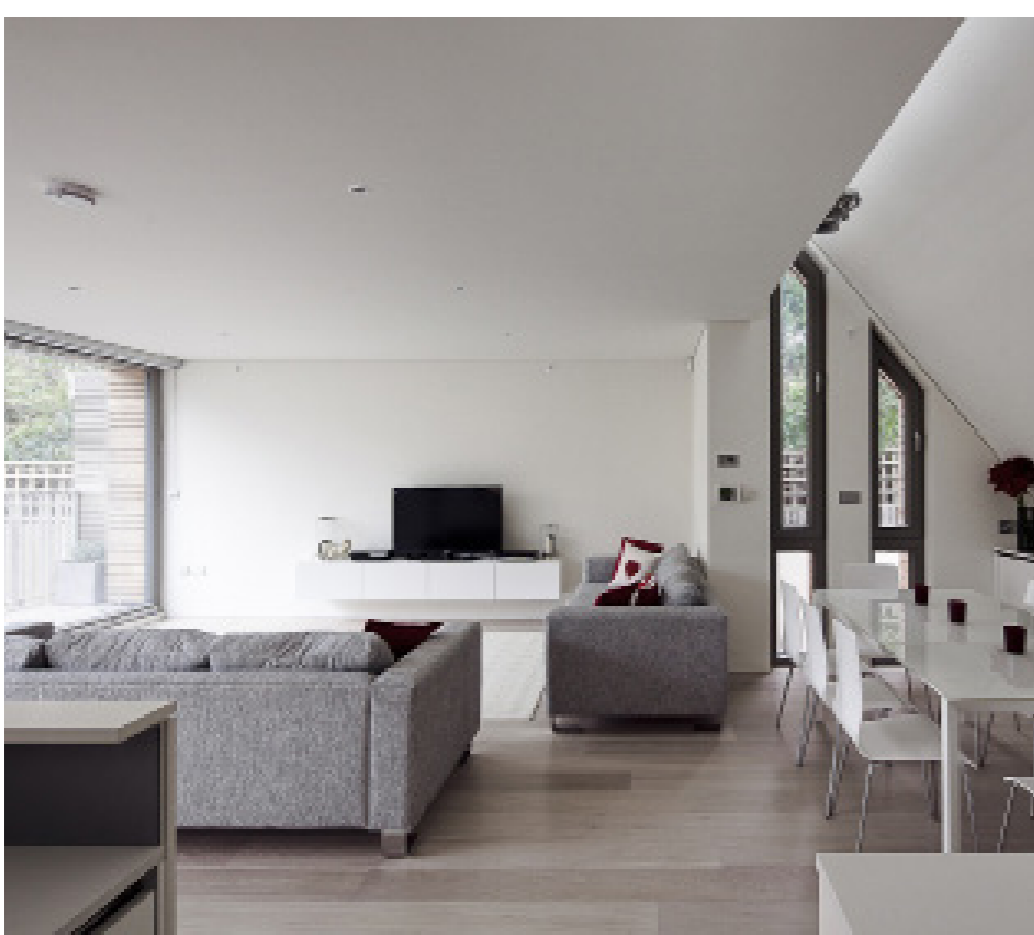


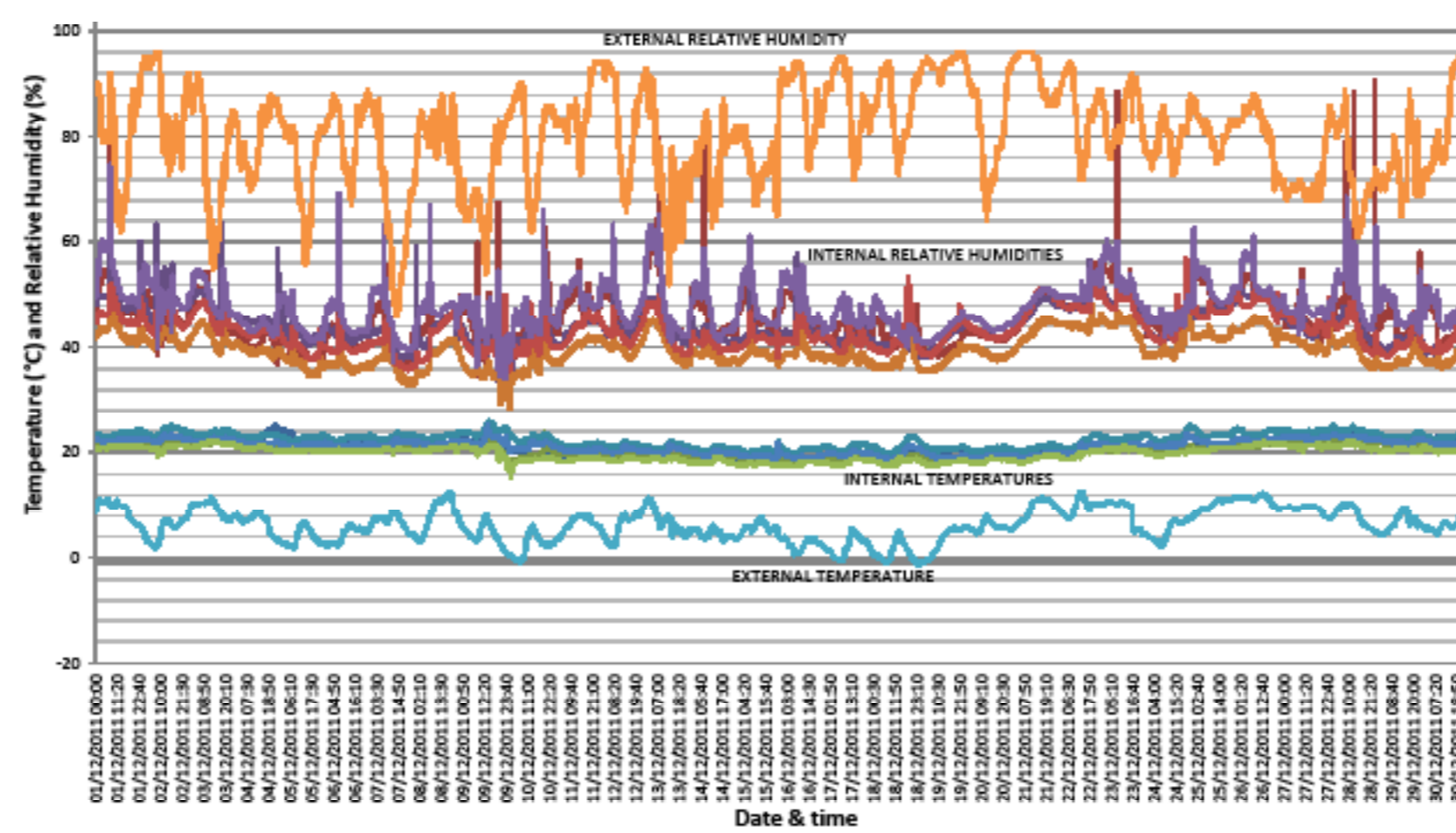
Camden Passivhaus bere:architects



Camden Passivhaus is situated in the London Borough of Camden and it was bere:architects first certified passivhaus, and also London's first passivhaus. It was used as a vehicle to learn about advanced, thermally-efficient European timber frame techniques; the culmination of an 18 month knowledge transfer exercise, with Matthias Kaufmann of Kaufmann Zimmerei in their office, a 'test-bed' for their Welsh-made passivhaus homes. Detailed monitoring by University College London, has found that passivhaus techniques have resulted in a comfortable and healthy home for their client's young family, and is showing that the building is performing even better than designed. The Arup BUS survey found it to have the highest user approval rating of any low energy house officially tested using the BUS methodology.



LIVING AND DINING AREA



Project Overview

Name: Camden Passivhaus
Location: Camden, London
Building Type: Single family house
Construction type: Timber frame
Completed in: Summer 2010
Occupancy status: Occupied since December 2010
Construction Cost: Substructure £813/sqm
Superstructure £1354.33/sqm, Fitout £1645/sqm

Sustainability features

Primary Energy Demand: 99kWh/(m²a)
Heating and Cooling Demand: 13kWh/(m²a)
Ventilation strategy: Heat recovery ventilation using a PAUL thermos 200DC with frost protection
Heating strategy: Post heater to provide heat to the fresh incoming air as the primary heating strategy. Two small towel rails were also provided in the bathrooms.
Shading strategy: External venetian blinds with automatic solar and wind controls.
U values: Exterior lower walls 0.125W/(m²K), Exterior upper walls 0.116W/(m²K), Flat roof 0.076W/(m²K), Sloping roof 0.116W/(m²K), Terrace 0.139W/(m²K) Floor 0.112W/(m²K), Windows 0.76W/(m²K), Doors 0.78W/(m²K)
Other features: Solar thermal for hot water generation, rainwater harvesting to underground tank in the garden, two wild flower meadow roofs and an ivy planted wall.

Measured Performance

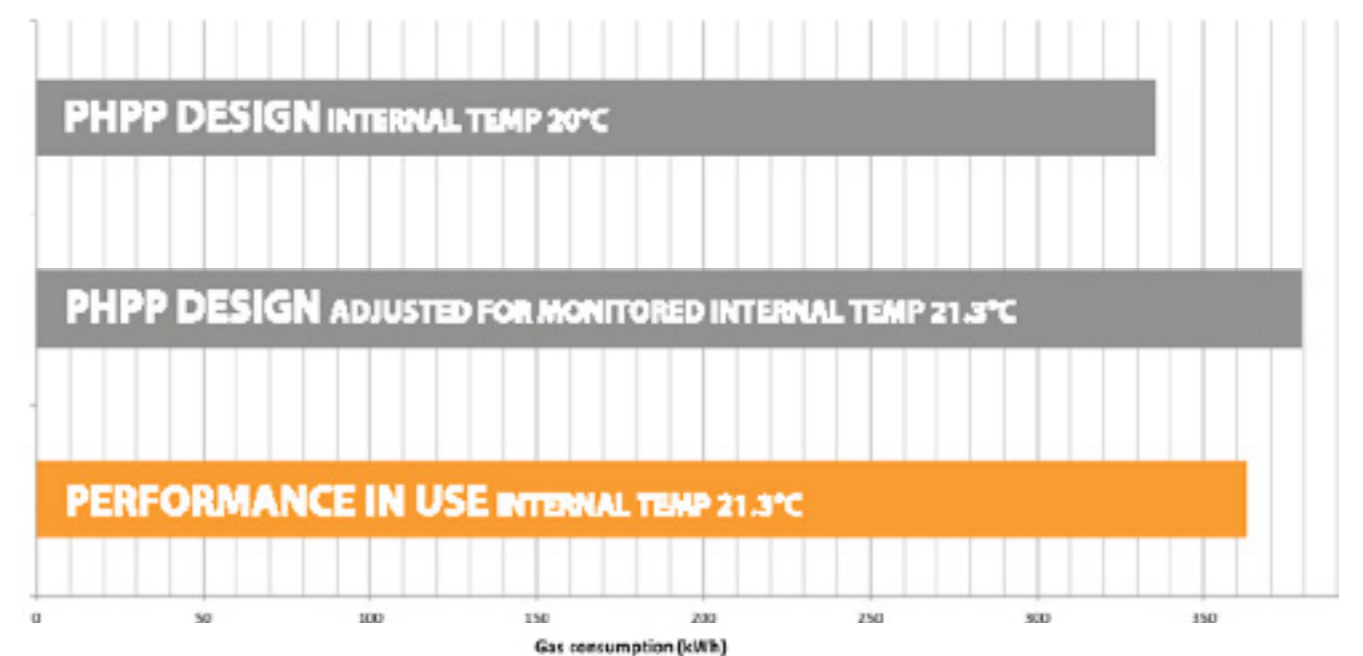
Analysis of actual energy use:
Gas in use 27.76kWh/(m²a) (PHPP 27.1kWh/(m²a))
Electricity in use 24.9kWh/(m²a) (PHPP 32.6kWh/(m²a))

Total Primary energy in use 118.64kWh/(m²a) of which 88kWh/m² electric, 30.5kWh/m² gas (PHPP 99kWh/(m²a))

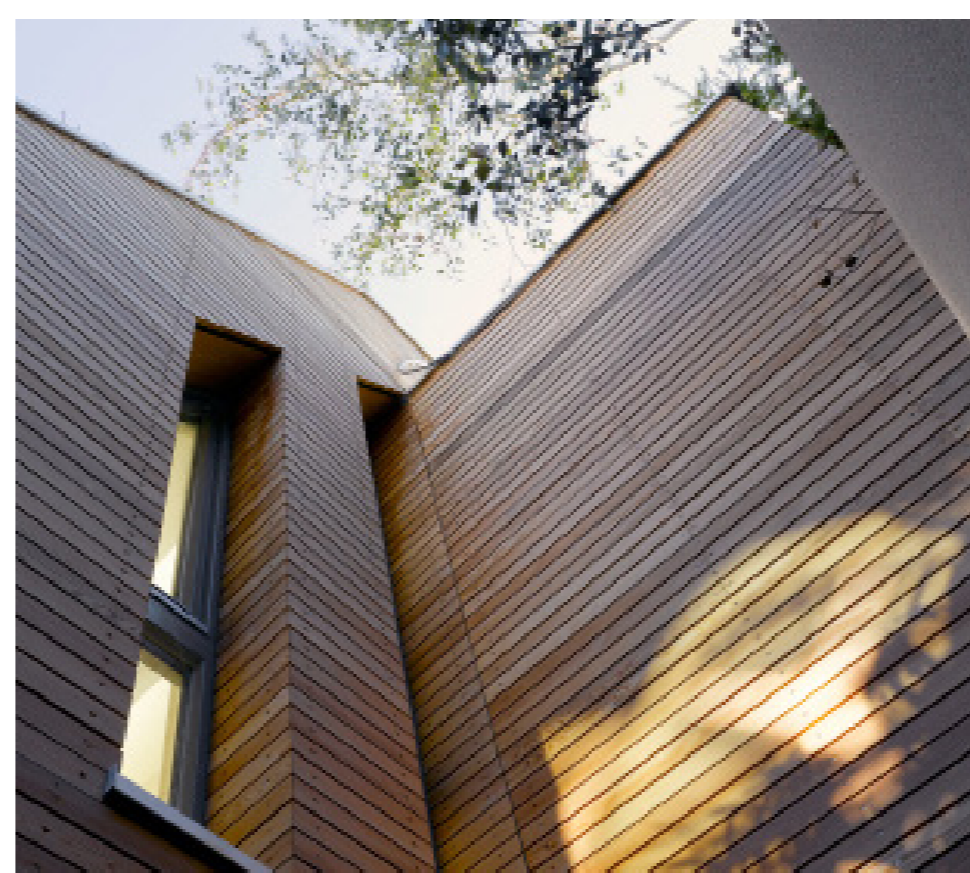
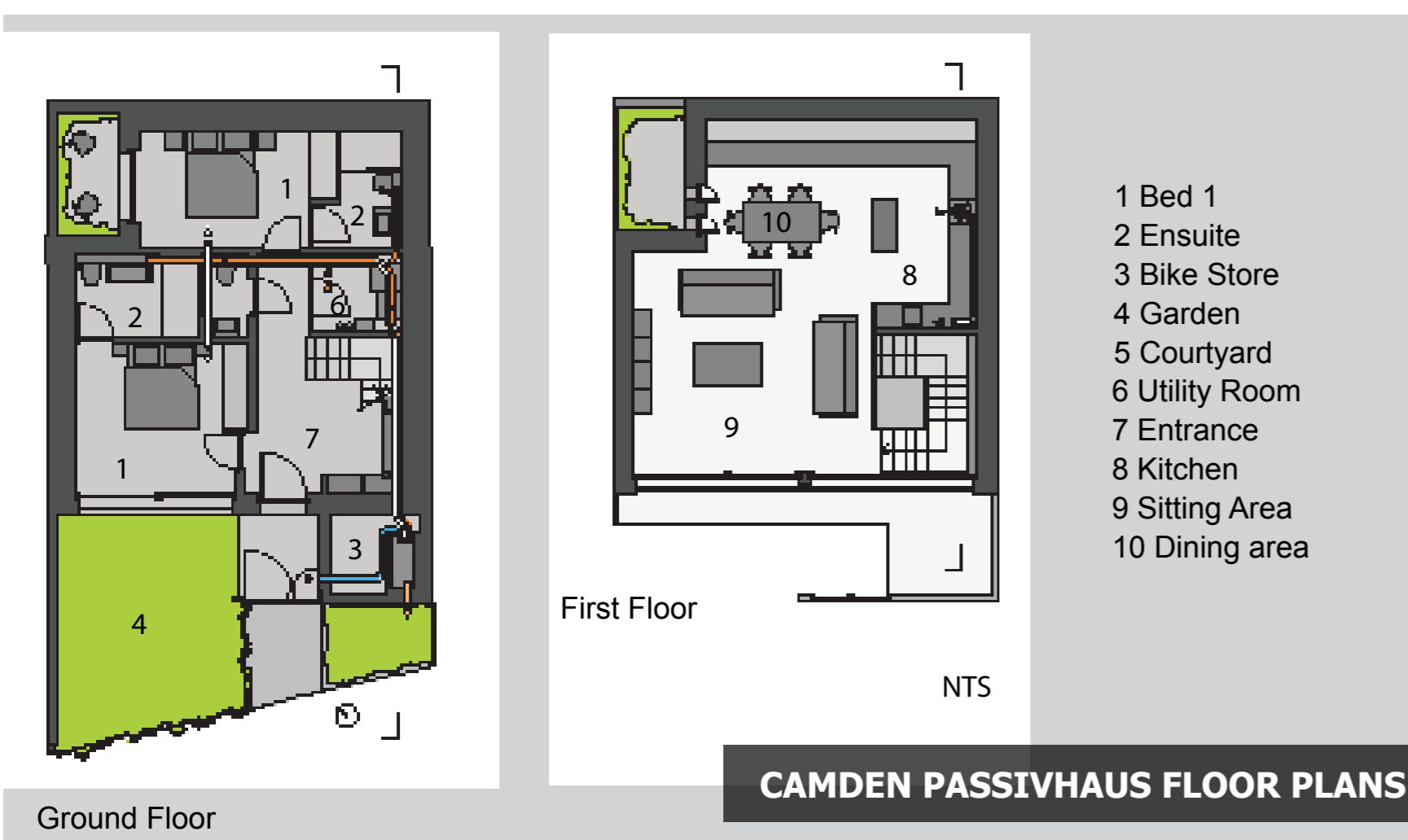
Air pressure result: 0.44 ach @50Pa

Occupant Feedback:

"It's absolutely beautifully warm in here and zero degrees outside. And it's always got that lovely sort of ambiance in here it feels really warm and comfortable and fresh"
- Mrs F Terry, Resident.



PHPP versus in use gas consumption, 1st monitored winter



TEAM CREDITS

Client: Mr & Mrs Terry Architect: bere:architects
Consultants: Rodrigues Associates - structural engineer
Alan Clarke - services engineer
Andrew Farr - heat recovery vent design
UK based main contractor: Visco
Superstructure engineering & fabrication: Kaufmann Zimmerei
Certifier: Warm

Residential award sponsored by

