

PROJECT →

The Caretaker's House, Hooke Park



Architect
Invisible Studio
Location
Hooke Park, Dorset
Completion date
2012

By Hugh Strange

The AA's Hooke Park has a remarkable assortment of innovative timber structures, from the early workshop by Richard Burton and Frei Otto, through works by Edward Cullinan and Buro Happold, to more recent constructs built by the AA's students themselves.

Last April saw the addition of the Big Shed, constructed by the students as part of the school's Design & Make programme, and in November the campus's latest structure was completed: the Caretaker's House by Piers Taylor's Invisible Studio together with AA Intermediate Unit 2.

While not quite as hands-on as some of the school's recent projects, the house nevertheless involved AA students in various ways from start to finish: providing conceptual scheme design layouts, working at Invisible Studio's

offices on technical construction drawings, and taking summer internships with the main contractor on site.

The new building provides on-site staff accommodation within a single-storey building, with separate living and sleeping blocks joined by an over-sailing roof. To the north is a largely blank, well-insulated wall, while the rooms address the south, with French doors opening out to a covered verandah extending the length of the building.

The house is largely constructed out of green timber sourced from Hooke Park's own woodland. The meant that the design team was not able to specify the timber species, but instead improvised on site with what the forester provided them. In the event, this turned out to be a lot of spruce, which was used for the structure, a small amount of Douglas fir that formed the ground beams, cedar that was sawn and used for external cladding, and poplar that was used for the internal joinery.

Passivhaus standards were achieved with excellent levels of insulation and airtightness provided by full fill insulation

and taping the outside of the OS boards. Heating is provided by a solid fuel Rayburn cooking stove that supplies radiators and hot water cylinder. For fuel, the Rayburn uses waste wood from student construction projects; the building's lightweight and well insulated construction responds very quickly.

While the use of green timber resulted in a fair amount of movement within the construction over the first six months, this has now settled, and use of tongue and grooved and lapped joints throughout limited the impact of this initial stage.

PROJECT TEAM

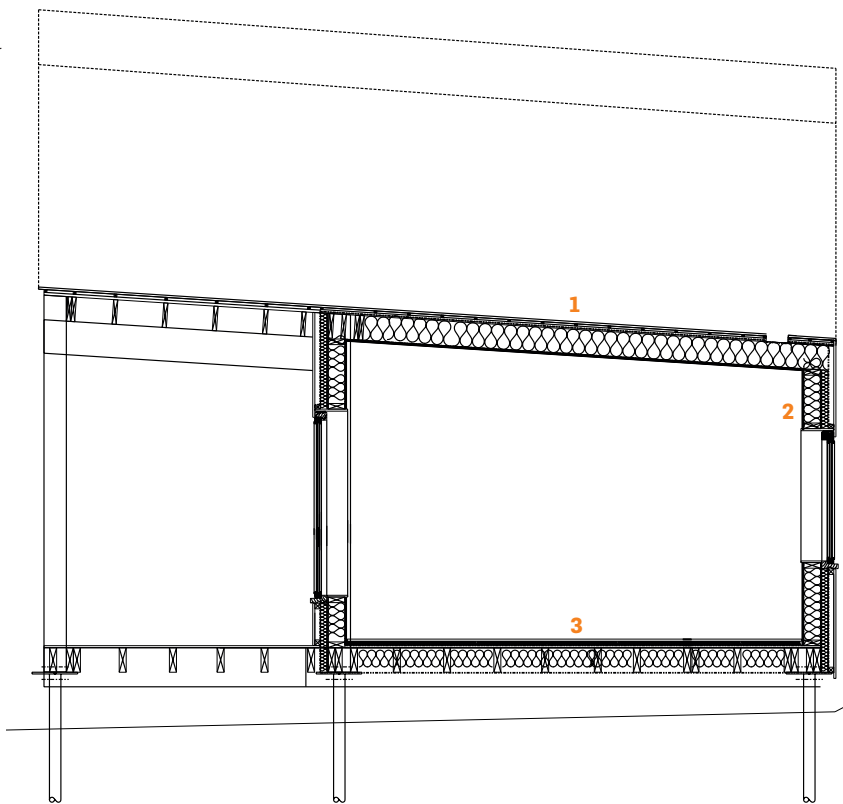
Architect
Invisible Studio with
AA Intermediate Unit 2
Client
Architectural Association
Structural and services engineer
Buro Happold
Quantity surveyor
Invisible Studio
Planning supervisor
Clark Associates
Main contractor
Greenheart Sustainable Construction

Short section

1 Roof
Galvanised sinusoidal metal sheeting on battens
Roofshield underlay
Structural sheathing
SW roof joists with full fill insulation
Vapour barrier
15mm fair-faced plywood

2 Exterior wall
25mm rough sawn timber fixed with s/s screws
Roofshield underlay
60mm continuous insulation
150x50mm SW wall studs with full fill insulation
Vapour barrier
12mm fair-faced plywood

3 Floor
19mm T&G plywood with glued joints
40mm floating floor insulation
Vapour barrier
Sarking board
SW floor joists with 200mm full fill insulation
Steel piles



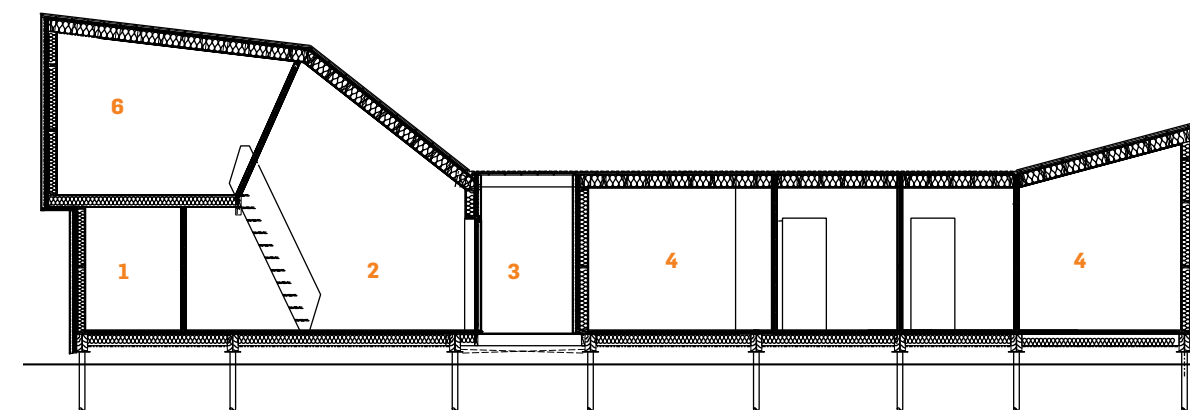
Above left: Stairs lead up to the living room mezzanine.

Above: A verandah with views of the woods extends along the building.

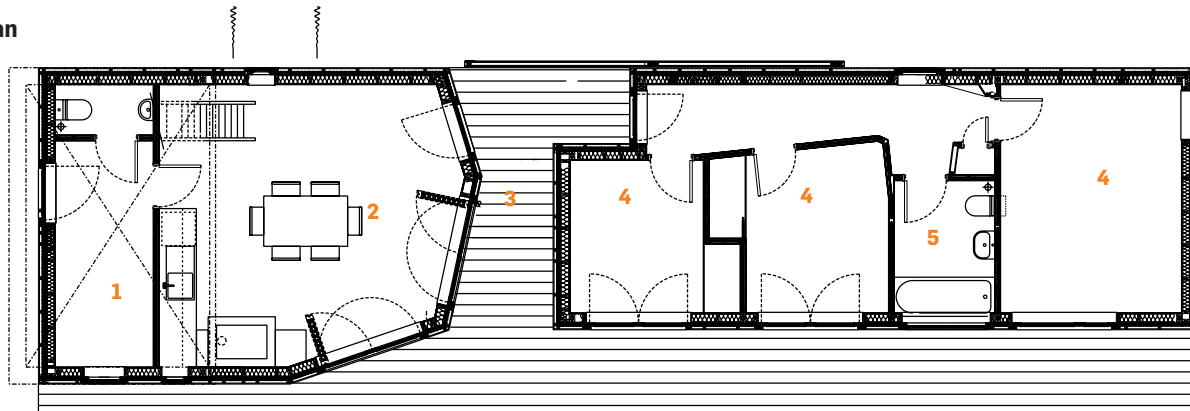
Left: An over-sailing roof joins the bedroom wing (right), to the living area.

Long section

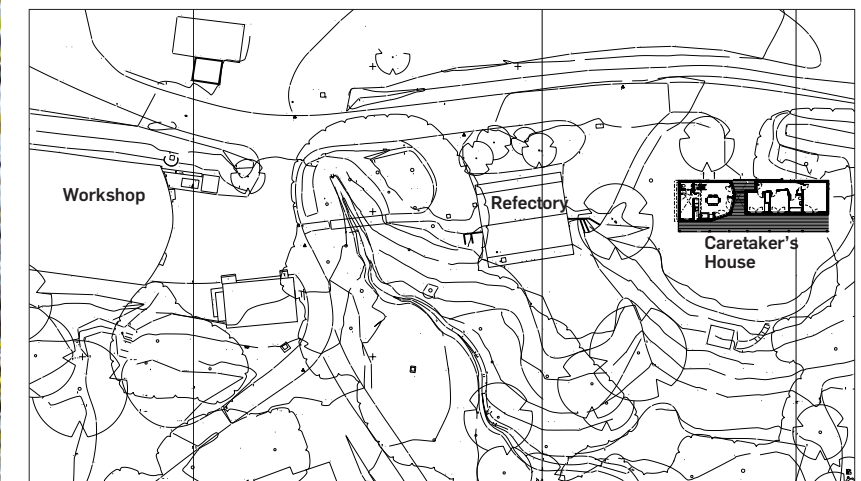
1 Utility room
2 Dining room
3 Breezeway
4 Bedroom
5 Bathroom
6 Living room / mezzanine



Ground floor plan



Site plan



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