



New build high energy efficient home - 'Tree Top House'

Design company name: **Taus Larsen Architecture**

Build company name: **Earthwise Construction**

Project location: **Totterdown, Bristol**

Project completion date: **Ongoing**

Project brief

The 'Tree Top House' is a highly energy efficient three-bedroom home, located on an awkward end of terrace plot with fantastic panoramic views across Bristol. The constrained access to the site, and its precarious location - perched at the top of a slope with its boundary overlooking a railway line - led to a particularly challenging structural design and build process.

The first hurdle was the foundation: a mobile micro piling rig had to be maneuvered onto the site to install the 9-meter-deep piled foundations for the ground beams and concrete slab. The superstructure was assembled on site from timber l-joists and glulam beams, without any potential for prefabrication due to the access limitations.

The layout of the home is 'upside down' — with bedrooms on the ground floor and living spaces upstairs. This allows the split-level open plan living spaces upstairs to benefit from the fantastic views offered by the site.

Sustainability features

- The frame is insulated with a hemp fibre insulation between joists, and externally with a wood fibre insulation layer to reduce cold bridging and clad with a durable Accoya timber
- High-performance triple-glazed timber framed windows
- Mechanical Ventilation with Heat Recovery (MVHR) system
- Air Source Heat Pump (ASHP) and photovoltaic (PV) panels with battery storage handle all heating and electrical needs

Find out more: www.Earthwiseconstruction.co.uk www.Tauslarsen.com

