

OAK FRAMED
SELF-BUILD

A novel approach

Demolishing a series of rundown agricultural buildings created space for David and Simone Horn to build their oak frame home in the style of a Dutch barn





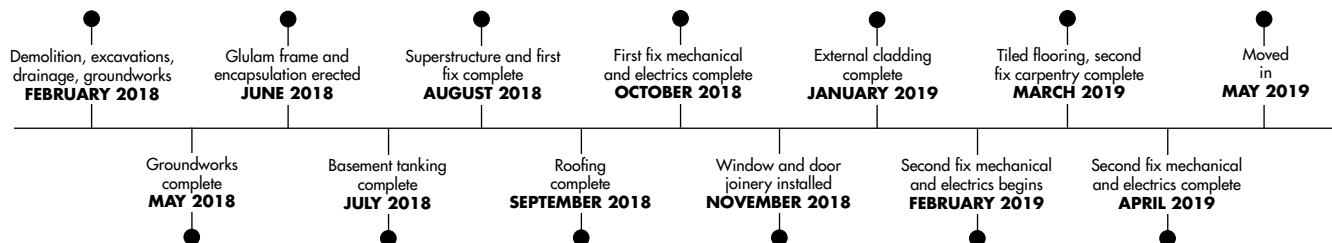
The curved roof shape of David and Simone's new home was inspired by the form of a traditional Dutch barn. Zinc was chosen as the roofing material, complemented by larch cladding and aluminium clad windows and doors. The rainwater goods, plus the detailing around the windows and doors, is also aluminium, powder coated in graphite grey to tie in with the roof.



Architect James was keen to reduce the large scale and massing of the property as viewed from the outside. He did this by breaking the house down into smaller components, including single-storey sections, arranged around various courtyard-style gardens.



TIMELINE



B

RESIDENTS

David and Simone Horn

LOCATION Malvern, Worcestershire

SIZE 630m²

CONSTRUCTION Contemporary oak frame self-build

BUILD ROUTE

Architect designed and project managed, main contractor hired for construction

BUILD TIME 15 months

PLOT COST Already owned

BUILD COST £1.5 million

VALUE Undisclosed

WORDS Rebecca Foster

PHOTOGRAPHY Richard Downer

uilding a house from scratch was a goal David and Simone Horn had dreamt about for the best part of two decades. Yet it wasn't until 2019 that the couple finally realised their vision of a bespoke family home. The couple previously lived in a 1990s developer-built house close to Malvern. "We knew we could be living in something better, which ultimately culminated into our desire to self-build," remembers David.

Keen to remain in the area, David and Simone kept their eyes peeled for plots. Finally, in 2013 they noticed an advertisement for an open day at a local farm that was up for sale. "I came on a Saturday and I remember phoning David and telling him that this was the one — we had to make it happen!" says Simone.

Though the land was overgrown with brambles and housed several dilapidated agricultural buildings, the couple recognised its potential. The farm came with roughly 15 acres spread across three five-acre paddocks. "It's off the main road down a track, so you'd barely know we're here," says David. Plus, only one side of the plot backed onto any neighbouring houses, which meant it had a stunning rural outlook on three sides.

David and Simone's first task was to obtain planning consent to demolish the rundown farm buildings to make way for their new home — a slow and frustrating process. While the couple were waiting, David started clearing the site. "We took it slowly as we weren't under time pressure. I'd come down on the weekends and hack the brambles back. I enjoyed doing it."

Once the couple received outline permission, they could finally get to work on planning the detailed design. However, it soon became clear that they'd need a fresh set of design eyes. "A

"The entire process has been fascinating. We watched James' drawings come to life"

Large-format porcelain tiles were chosen for the floor in the kitchen. As well as providing a durable finish, they're easy to clean and work well with the underfloor heating laid throughout the house. The Shaker-style kitchen was supplied by local company, Cathedral Kitchens. Caesarstone's Statuario Maximus quartz worktop was chosen to mimic real marble.





friend of ours in Devon works in property and he mentioned a design practice – Roderick James Architects – that was building a beautiful house near him,” says Simone. “We looked at their website and their projects were the only houses that really excited me, so we contacted them to take the design forward.”

Architect James Lock takes up the story. “David and Simone wanted to retain the existing red brick dairy and stable building as an annexe, so whatever we built needed to sit in proportion to that,” he says. “They wanted a large house, so I focused on creating a plan for a home that would suit the rural setting without appearing too large from any of the public viewpoints.”

James envisaged a contemporary glulam oak frame property, in the style of a traditional Dutch barn with a curved roof. “We loved the design – it was so different and inspiring,” says David.

PROGRESS ON SITE

With detailed planning permission finally in the bag, work on site could begin. Building firm C J Bayliss was hired as the main contractor with architect James taking on the role of project manager. David and Simone continued living in their house for the build, so they could keep a close eye on progress. “I’d poke my head in every day, even just for five or 10 minutes, to see how things were going,” says David.


Apart from a few hiccups, construction progressed relatively smoothly. “The basement level extends below the water table, so when the excavation work was done there was a constant issue around how to keep water out,” says James. Plus, due to the size and scale of the house, careful sequencing was required. “The plant room is in the basement and for a house

that big, some of the appliances are almost commercial in size, which meant they couldn’t just be brought in through the door,” says James. To get around this issue, a lot of the equipment for the plant room had to be lowered into the basement before the ground floor was built.

The oak glulam frame and cellulose filled encapsulation package was supplied and erected by Oakwrights, who acted as subcontractors to C J Bayliss. “Our builders did all the groundworks and put the basement level in before Oakwrights took over for the frame and the encapsulation system,” says David. “Then C J Bayliss came back to complete the shell.”

The erection of the oak skeleton was one of the most memorable moments. “You go through so many emotions when you see the foundations going in. When the house was coming up to damp-proof course stage, it looked tiny!” says David. “But then the frame went up, it looked more like a cathedral – you suddenly get an idea of the scale.” In total, the structural shell – including the oak frame and the encapsulation system – took just seven weeks to reach wind and watertight stage.

Today, David and Simone have no regrets about taking it on. “Every morning we wake up, go downstairs and are wowed by the fact that we get to live here,” says David. The couple learnt a lot throughout the process, too.

“I picked up a lot of knowledge about green energy – the heating is powered by a ground source heat pump. Plus, we have solar PV panels and a MVHR system,” adds David. “On the whole, the entire process has been fascinating. We watched James’ drawings come to life out of the ground. For us, self-building really has been remarkable.” 

David and Simone put a lot of thought into the interior lighting scheme. Keen to avoid a setup that felt too gadgety or modern, the couple crafted a strategy that complements natural daylight and incorporates uplighters, downlighters, LED strip lamps and other ambient lighting. Having different fittings allows them to create different moods depending on the time of day.

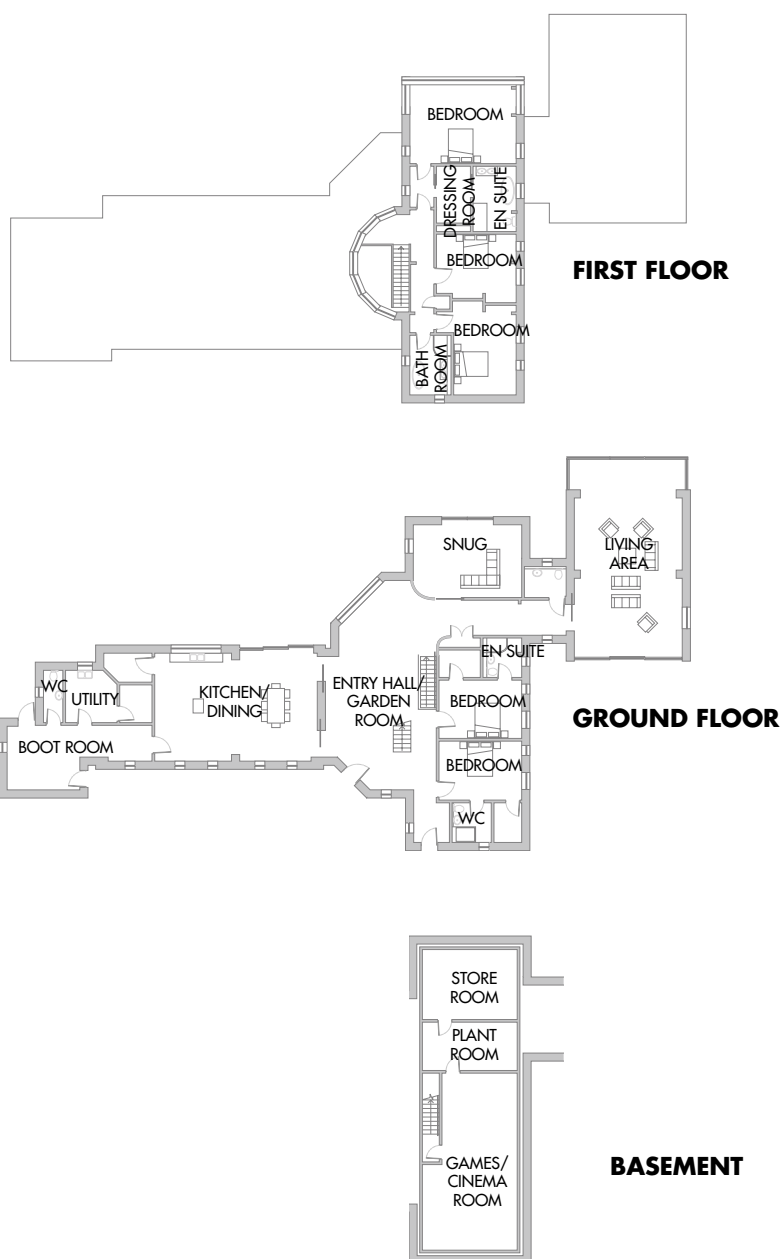


MAKING AN ENTRANCE

The bespoke oak and glass staircase went through several designs before evolving into the modern flight shown below. The smooth, ribbon-style handrail sits atop a glazed balustrade that allows natural daylight to flow through from the top floor. Glass risers further enhance the flow of light.



THE PLANS



SUPPLIERS

ARCHITECT Roderick James Architects:
www.roderickjamesarchitects.com

CONTRACTOR C J Bayliss:
www.cjbayliss.co.uk

GLULAM OAK FRAME & ENCAPSULATION SYSTEM
Oakwrights: www.oakwrights.co.uk

STRUCTURAL ENGINEERS
(structural) Hydrock: www.hydrock.com;
(drainage) Clancy Consulting:
www.clancy.co.uk

ECOLOGIST JG Ecological Surveys:
01395 271417

WINDOWS & DOORS
Velfac: www.velfac.co.uk

LARGE SLIDING DOORS Schueco:
www.schueco.com

CIRCULAR ROOFLIGHT Glazing
Vision: www.glazingvision.co.uk

KITCHEN Cathedral Kitchens:
01684 567888

ELECTRICIAN & LIGHTING Harrison
Electrical Services: 07787 135292

ROOFING (zinc) Q & M Roofing:
www.qandm.co.uk; (moss sedum)
S&P Roofing: www.sp-roofing.co.uk

MVHR (supply) Airflow: www.airflow.com;
(install) RSSAC: www.rssac.co.uk

GROUND SOURCE HEAT PUMP
(supply) NIBE: www.nibe.eu; (install)
Retherm: www.retherm2050.com

COSTS

PRELIMINARIES £90,000

EXCAVATIONS, FOUNDATIONS & SUBSTRUCTURE £115,000

BASEMENT & GROUND FLOOR CONSTRUCTION £85,000

STRUCTURAL TIMBER FRAME
£150,000

CELLULOSE WALL & ROOF PANELS £155,000

ADDITIONAL WALL CONSTRUCTION & FINISHES
£60,000

ADDITIONAL ROOF CONSTRUCTION & FINISHES
£135,000

FIRST FLOOR CONSTRUCTION
£20,000

INTERNAL WALLS/PARTITIONS
£30,000

EXTERNAL WINDOWS, DOORS & ROOFLIGHTS £125,000

FLOOR, WALL & CEILING FINISHES £75,000

SPACE HEATING & PLUMBING (INC. MVHR) £95,000

KITCHEN & UTILITY £55,000

SANITARYWARE £40,000

STAIRCASES £20,000

ELECTRICS £100,000

DRAINAGE (ABOVE & BELOW GROUND) £65,000

UTILITY CONNECTIONS £20,000

FITTED FURNITURE £20,000

EXTERNAL WORKS £45,000

TOTAL £1,500,000