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# Perfect SETTING

When **Mark and Alisha Lyndon** decided to self-build, a breathtaking Cornish coastal site with planning permission in place for an innovative design offered the ideal opportunity

WORDS **JANE BOWLES** PHOTOS **LAYTON BENNETT**

**A**fter constructing their first self-build home in 2008, Mark and Alisha Lyndon were keen to repeat the experience. "We liked the idea of being able to tailor our living spaces to our lifestyle and had succeeded in creating a high-spec property that we'd never have managed to afford otherwise," says Mark. "I suppose we'd definitely been bitten by the self-build bug." So when the couple began to discuss the idea



*“It was love at first sight when we saw the location”*

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## THE LYNDON FILE

**NAMES** Mark & Alisha Lyndon  
**OCCUPATIONS** IT architect & marketing and comms specialist  
**LOCATION** Portwrinkle, Cornwall  
**TYPE OF PROJECT** Self-build  
**STYLE** Contemporary  
**CONSTRUCTION METHOD** Hybrid timber frame  
**LAND COST** £500,000  
**HOUSE SIZE** 289m<sup>2</sup>  
**PROJECT COST** £736,025  
**PROJECT COST PER M<sup>2</sup>** £2,547  
**TOTAL COST** £1,236,023  
**BUILDING WORK COMMENCED** April 2015  
**BUILDING WORK TOOK** 60 weeks  
**CURRENT VALUE** £1,500,000

of buying a holiday home, taking on another project seemed like the logical choice.

"We wanted a second place for weekends and family getaways – ideally somewhere we could also retire to in 15 years' time, when our children (now aged seven and nine) have grown up," he says. "We anticipated building a property we could rent out for holiday lets when we weren't using it ourselves, in order to recoup some of the construction costs. We'd had many vacations in Cornwall and loved it, so decided it was the ideal location."

### Perfect opportunity

After an exhaustive online search, the couple found an ideal site at Portwrinkle, a stone's throw from Plymouth harbour. "It was love at first sight when we saw the location," says Mark. The land was basically a large overgrown garden, which had been designated as an open area of local significance (OALS) – a restriction intended to protect the essence of the setting.

The site directly overlooked the south-east Cornwall coast, with stunning sea views. It had never been built on, but fortunately the designation didn't preclude development. It was being sold with planning permission in place for an innovative and futuristic home, designed by local architect Ian Armstrong of Arco2 – an award-winning practice specialising in sustainable buildings.

"Ian had submitted plans for a structure that would considerably enhance the look of the site from the road above and also work to benefit the local community by including a new public footpath, thus improving access to the beach. The design looked unique and thankfully the local planners agreed," says Mark. "Although the land came with a £500,000 price tag, we'd already learnt that self-build plots are like gold dust in Cornwall, so we promptly sealed the deal."

### A few tweaks

Ian had also involved landscape architect Patrick Collins early on in the design stage. "By harnessing the gradient of the land via a split-level layout, the scheme blended into the setting in a really appealing way," says Mark. Although he and Alisha retained the footprint, they decided to tweak the internal floorplans to create a better fit for their lifestyle. "We wanted a completely open-plan kitchen-living-dining area and four ensuite bedrooms, all with panoramic sea views," says Mark. "Ian achieved this by siting the suites on the upper level, with steps leading up from the ground floor living zone and a garage underneath the property."

Since the couple would be spending long periods away from the house, low-maintenance was a must-have. "We also wanted



The whole edge of the property is glazed to allow panoramic views of the coastal scenery



The lower floor of the split-level design hosts an open-plan scheme, including a kitchen, living space and dining area

the building to have zero impact environmentally and liked the fact that so many of the suggested construction materials would be provided by local suppliers," says Mark. One of the core eco-friendly features is the intelligent use of thermally-efficient glazing. "The roof has a specially designed overhang to prevent solar overheating," says Mark. All the windows, except for the large sliding doors, are triple glazed to minimise heat loss in winter. "The timber frame is insulated with locally sourced reclaimed sheep's wool – an environmentally-friendly material that is also naturally fire-retardant," he adds.

Despite living a three-and-a-half hour drive away from the site, Mark and Alisha decided to manage the project themselves. "We'd gone through quite a steep learning curve with our first self-build, so we were pleased to find that Arco2 had their own in-house contractors, ADD Construction, headed up by Matt and Nathan Davis," says Mark. "Following our preliminary meetings, we felt confident that we could leave Ian and Matt in charge; so we agreed to drive down to Cornwall if any major issues arose. We set a total budget of £500,000 for the build and work began in April 2015."

### Complications

Problems occurred right from the start, due to the geological profile of the site. "We ran into issues when digging the foundations because the plot is in a valley with heavy deposits of clay," says Mark. "The structure was designed to be built on concrete raft foundations, but our initial surveys showed that the land was far too soft to support the raft. Extra-deep piles had to be driven into the ground to prop up the front of the property, which not only meant that costs increased

## WE LEARNED...

**STREAMLINE DESIGN AND CONSTRUCTION.** Engage an architect with in-house contractors if possible, especially if you are planning to manage the project yourself. A key factor in the smooth progress of our Cornish self-build was that our architect worked in close conjunction with their own build team.

**USE LOCAL BUILDING MATERIALS.** Buying regional stone and timber assisted in keeping our costs down. This approach also helped our home to blend in with architecture in the area, as well as giving it a much more authentic look. Check if you can use natural, recycled and reclaimed materials too; for example, the sheep's wool we used for insulation is a by-product of a local Cornish industry.

**PAY IT FORWARD.** It's nice to give something back to the community where you're planning to self-build. We improved public access to the beach by building a new path, which benefited the locals as well as ourselves. It also had a positive knock-on effect, as both we and our self-build project felt warmly welcomed.

**IMPROVE AND ENHANCE.** The wildflower green roof is a vast upgrade on the old piece of waste land that was previously on the site; it looks great from the streetscene. Incorporating improvements such as this to existing sites can be a big help in securing an easier passage through the planning stage.

**HAVE A FALL-BACK PLAN** if costs spiral beyond budget. Unforeseen factors can cost tens of thousands of pounds, so do have a contingency strategy in place for dealing with a worst case scenario. We opted to rent out our home to recover the cost of piled foundations, which were not included in our initial financial plan.

**BE FLEXIBLE WITH TIMESCALES.** Building your own home often takes longer than anticipated as well as ending up costing more than you thought, so be prepared to be flexible. If you're renting temporary accommodation during your build, for example, make sure you can extend the lease if you need to.

but also delayed the project by several weeks. It was all rather stressful, especially as the build was only just beginning."

The preliminary surveys also revealed major problems with water – another unforeseen complication. "Not only did we find an old well, but we also discovered the site was riddled with natural springs, which all had to be diverted before building work could commence," says Mark. The team ingeniously overcame the issue by building a series of land drains using perforated pipes. These allow the excess water to soak into the channels and drain away safely via the natural watercourse that runs in front of the site.

Access to the mains water supply also proved problematic as conduits needed to be sunk across land belonging to a neighbour, lining up additional costs and further delays. The issue was creatively resolved by taking advantage of the abundance of natural springs on the site; a borehole was sunk to create an off-grid supply and special sanitaryware was installed to minimise water usage.

"Although the unforeseen problems added extra costs and delays to the build, Alisha and I were really impressed by the way Ian and Matt quickly sorted any issues as they arose," says Mark. "All major hiccups essentially happened in the early stages, so we got them out of the way at the beginning. Happily, once we'd successfully resolved the issues around the foundations, water supply and natural springs, the build progressed very much on schedule and on budget."

### Design triumph

Mark and Alisha believe that research and forward planning were key to the success of their project and many potential issues were avoided at the outset by Ian's skillful design and use of materials.



Left: Each bedroom has an ensuite, with the master suite featuring a curved partition wall between the spaces. Below: The site's development features a property with a green roof (visible on the left of this image) and a new public path down to the beach



"The focal point of the scheme was really the wildflower topping," says Mark. "Seen from the road above, you would hardly think there was a house there at all, thanks to the clever design. The roof not only looks attractive, but also helps to attenuate the rate of water run-off, thus minimising drainage problems."

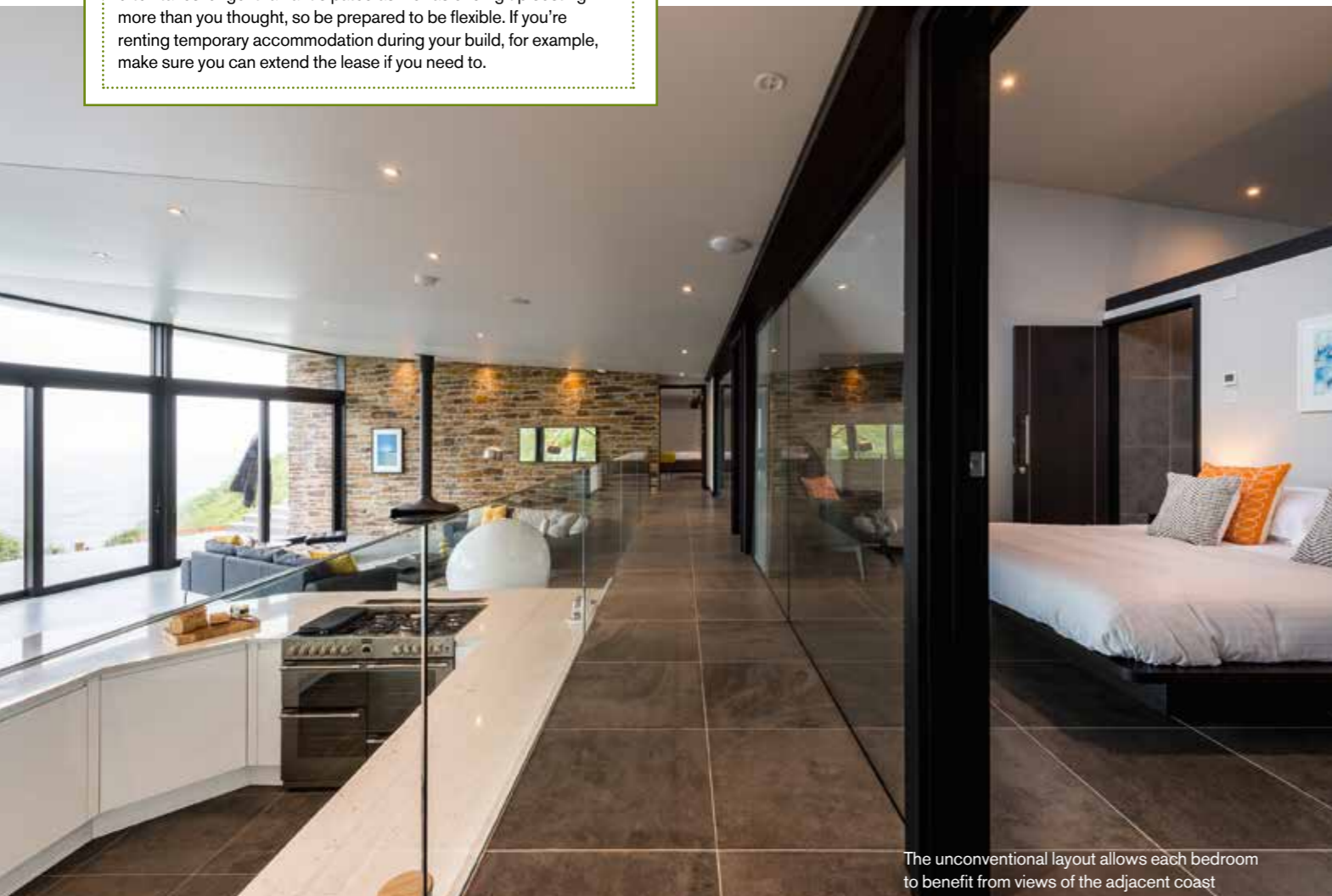
The location is a key feature of the property. The coastal position means the house is very exposed to the elements, which helped to determine the materials used. For instance, hardwearing local stone from Lantoom Quarry was chosen for its ability to withstand bad weather, along with low-maintenance copper fascias that will age rapidly into attractive shades of green.

Different ceiling structures were chosen for the living areas and bedrooms, which in itself reflects the highly individual requirements of the design. A special stretch ceiling was installed in the open-plan living-kitchen-dining zone, since using standard plasterboard over such a large surface area would almost certainly have led to cracking. On the higher level, conventional ceilings were applied. A large glazed panel linking the two different roof tiers was fitted in order to allow more light to reach the bedrooms.

Being able to create good connections with the local community was also a cornerstone of the build. "People living in the village were

interested in the project right from the start and we had lots of visitors coming over to see how we were getting on," says Mark. "Everyone is fascinated by the wildflower garden, which is very much a miniature nature reserve. They say it's a huge improvement." In line with the planning stipulations, the site was enhanced by building an accessible pathway down to the public beach. "We're delighted that this has benefited the whole village," Mark adds. "Ian went out of his way to get the local community on board with the build, which has really helped us settle into the area."

Now that the house is finished, Mark and Alisha are full of praise for Ian, Matt and the team. "Building this property has been an amazing journey, and it's exceeded all our expectations on every level," says Mark. "Working with Ian and Matt was the most incredibly satisfying experience, and a fabulous exercise in three-way cooperation. Alisha and I can't commend them enough and we wouldn't hesitate to work with them again."



The unconventional layout allows each bedroom to benefit from views of the adjacent coast

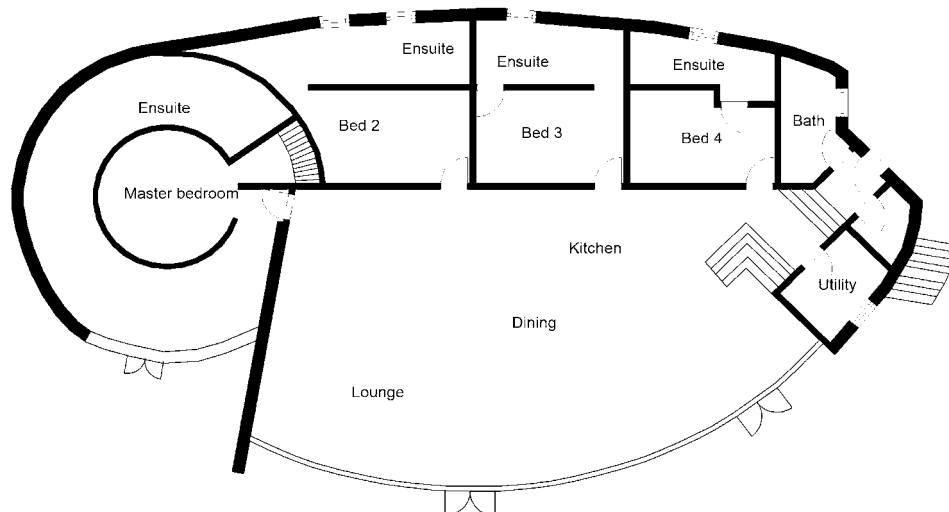
### Useful contacts

**ARCHITECT & CONTRACTOR** Arco2 Architecture (Ian Armstrong), ADD Sustainable Construction (Matt David) 01208 72100 www.arco2.co.uk  
**STRUCTURAL ENGINEER** CDEC (Matt Crompton) 01208 78655 www.cdec-ltd.com **BOREHOLE & FILTRATION** Amos Pumps 01326 573341 www.amospumps.com  
**STEELWORK** Mid-Cornwall Metal Fabrications 01637 879392 **GLULAM BEAMS** Glulam 023 8045 7236 www.glulambeams.co.uk **WINDOWS** Livingwood Windows 01284 764045 www.livingwoodwindows.co.uk **STRETCH CEILING** Stretch Ceilings 0207 138 1050 www.stretchceilings.co.uk **TIMBER CLADDING** Duchy Timber 01208 872338 www.duchytimber.co.uk **PLUMBING & HEATING** Russell Bentley 07976 906701 **ELECTRICIANS** PC Doney Electrics 01752 841089 www.pcdoneyelectrics.co.uk **WOODBURNER** Firemaker 01387 376765 www.firemaker.co.uk **SANITARYWARE** Geberit 01926 516800 www.geberit.co.uk **CROSSWATER** 0345 873 8840 www.crosswater.co.uk **VITRA** 01235 750990 www.vitra.co.uk **KITCHEN** Charles Gray Kitchens 01822 617240 www.charlesgraykitchens.co.uk **LIGHTING** Aurora 01727 836611 www.auroralighting.com **GLASS BALUSTRADES & SHOWER SCREENS** St Austell Glass 01726 64406 www.staustellglass.co.uk **FLOORING** Porcelanosa 01923 815200 www.porcelanosa.com **STONEWORK** Lantoom Quarry 01579 308234 www.lantoom.co.uk **LANDSCAPE ARCHITECT** Patrick Collins Design 07792 930303 www.patrickcollins-design.co.uk **WILDFLOWER ROOF** Contec Landscaping 01726 71198 www.conteclandscape.com





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### closer look

## Stretch ceiling...

Architect Ian Armstrong opted to install a custom-made stretch ceiling for the open-plan kitchen-dining-living zone. This was because using a standard method over such a large area could have led to cracking.

The suspended stretch ceiling has two major components; a perimeter track and a lightweight fabric membrane, which clips directly onto the track with an ultrasonically welded harpoon edge. The ceiling came ready-painted in brilliant white and also has the advantages of being completely waterproof, washable and impermeable to vapour ingress.



Strong covering



## TOTAL BUILD COST BREAKDOWN

Elements	Cost m <sup>2</sup>	Cost %	Total cost
Site welfare & security	£9	<1%	£2,598
Site preparation & clearance	£11	<1%	£2,959
Excavations (site set out, reduce level strip & temp hardcore)	£46	2%	£13,147
Mains services	£29	1%	£8,475
Drainage (underground & foul and surface)	£47	2%	£13,749
Substructure	£183	7%	£52,953
Superstructure	£313	12%	£90,352
Linings	£65	3%	£18,724
Insulation	£61	2%	£17,478
Roof	£191	7%	£55,177
External finishes	£124	5%	£35,769
External joinery	£143	6%	£41,418
Rainwater goods	£4	<1%	£1,101
Heating	£107	4%	£30,913
Electrics	£42	2%	£12,230
Internal joinery (doors & stretch ceiling)	£148	6%	£42,886
Kitchen & bathrooms	£103	4%	£29,684
Decoration	£21	<1%	£6,050
Surfacing & flooring	£98	4%	£28,216
External works (walls, path, drive, decking & stairs)	£330	13%	£95,386
Soft landscaping	£2	<1%	£708
Garage	£95	4%	£27,484
Variations	£143	6%	£41,393
Preliminaries	£232	9%	£67,175
<b>Grand total</b>			<b>£736,025</b>