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AUTUMN 2016

THIS AUTUMN WE BRING YOU plenty of inspiration to get that home building or home improvement project started, along with a cartload of tips from seasoned self-builders about what to expect – for instance, some homeowners featured in this edition have complained of their stoves getting too hot because their house is so good at keeping the heat in!

Another much more serious matter when it comes to airtight homes (you don't need to load the stove fully, after all) is that of indoor air quality – it's vitally important to think about how your house will get fresh air. Opening windows and vents can cause draughts, which is why it's a good idea to invest in a ventilation system that will prevent these all the while keeping your home fresh.

Getting to grips with your legal obligations is another important aspect to investigate, and this includes health and safety – in fact in NI the Construction Design and Management regulations are changing in August, aligning themselves to the ROI/European guidelines which require that you appoint dedicated supervisors. Learn more on page 84.

Another topic in this issue is one that

self-builders commonly face: knock down or build new? In NI starting from scratch is attractive because such work is eligible for the zero VAT rate (see page 76) but the decision to renovate can still be strong enough to warrant that extra investment, as was the case for Linda and Steve of Co Antrim on page 100.

In fact keeping on top of your budget is the key to a successful and enjoyable experience; see page 72 for more. And don't forget to turn your sights on the garden, whether it's there to bring some magic (step into the night garden on page 90), to provide shelter (read all about building underground on page 94), or to cure your aches and pains (p11).

Happy building and improving!

Astrid

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Our panel of experts for autumn 2016

CIARAN HEGARTY

Ciaran is a woodwork and construction studies teacher in Moyle Park College, Clondalkin, Dublin. He qualified from the University of Limerick in 2005 with an Honours Degree in Materials and Construction with Concurrent teacher education. He resides in Leixlip, Co Kildare, email ciaranhegarty2005@hotmail.com



GAVIN MCGUIRE

Gavin has over 20 years' experience in the construction trade and has recently been appointed Director of the Federation of Master Builders Northern Ireland. Federation of Master Builders Northern Ireland, Unit 10 Kilbegs Business Park, Plasketts Close, Antrim BT41 4LY, tel. 9446 0416, em: fmbni@fmb.org.uk, www.fmb.org.uk



STEPHEN MUSIOL

Stephen Musiol runs the architectural practice small spaces, helping home-owners find the best ways to increase their space, and the best ways to improve what they've got. He focuses on designing changes to houses that make them livable, lovable and lasting. Dublin, Tel: 01 454 7287 www.smallspaces.ie



FIANN Ó NUALLÁIN

Award winning garden designer, author and broadcaster, Fiann has a background in fine art, sculpture, horticulture, ethnobotany and complementary medicine. He currently is a co-presenter on RTE 1's Dermot's Secret Garden programme and is a regular *SelfBuild & Improve Your Home* writer. Check out Fiann's blog on www.theholisticgardener.com or send him a tweet @HolisticG



ANDREW STANWAY

Andrew Stanway is a project manager with over 30 years' experience. He is also a writer and the author of *Managing Your Build* published by Stobart Davies.



MARK STEPHENS

Following architectural training in the UK and working for several high-profile architectural practices, Mark set up his practice in Co Mayo to create well designed and functional buildings that are sustainable and eco-friendly. He is a member of RIBA and the RIAI, a Grade III conservation architect, and a certified passive house designer. Mark Stephens Architects, Bridge Street, Swinford, F12 PX21, Co Mayo, tel. 094 92 52514, mobile 085 159 4084, email: info@markstephensarchitects.com, www.markstephensarchitects.com



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**Magazines
Ireland**





Stop Press

The latest happenings and products of special interest to self-builders and home improvers.

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All fun and games

Andrew and Cathy Bryce built this Co Wexford holiday home with the Irish weather in mind; a lot of thought was therefore given to the indoor games room and covered barbeque area.

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Nature and nurture

Mixing business with pleasure is what Matthew and Muiread Kelly did by combining stables, a photography studio and a family home in this self-build.

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Living in style, for happiness

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Paint magic

Get acquainted with the product that can transform a room with the sweep of a brush.

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Self-build & see the world!

Instead of renting, why not swap your home when going on holiday? Irish home exchangers guide you through the process.

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Selfbuild & Improve Your Home Show Dublin 2016

We will be at Citywest from the 9-11 September. Come and join us! Bring your plans for copying and leaving with suppliers for pricing, gain some facts and figures for your project or just pick up ideas to make your home brighter and better.

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**SelfBuild
& Improve**
YOUR HOME SHOW

Irish designers' homes

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Grant Engineering ROI, Crinkle, Birr, Co Offaly, R42 D788, tel. 057 9120 089; Grant Engineering NI, Unit 117, 21 Botanic Avenue, Belfast BT7 1JJ, freephone 0800 2794 796.



Getting a whiff

THE DEPARTMENT OF THE ENVIRONMENT, Community and Local Government has confirmed to SelfBuild that the ROI septic tank rules are currently under review.

During a Dáil debate last year the then Minister for the Environment had endorsed a proposal to allow self-builders to ask for their septic tank to be inspected, as grants are only available to those who have failed an inspection. The review was meant to have taken place this year.

However these plans have not yet materialised: "There are currently no plans to introduce a self-referral system under legislation," a spokesperson for the Department told SelfBuild. The Environmental Protection Agency also said they were unaware of any changes.

What is currently being looked at is the requirement to re-register your septic tank after five years (registration costs €50); however whether this period is to be extended or made shorter remains unclear.

Any changes to this procedure would require an amendment to the Water Services Amendment Act of 2012, so watch this space.



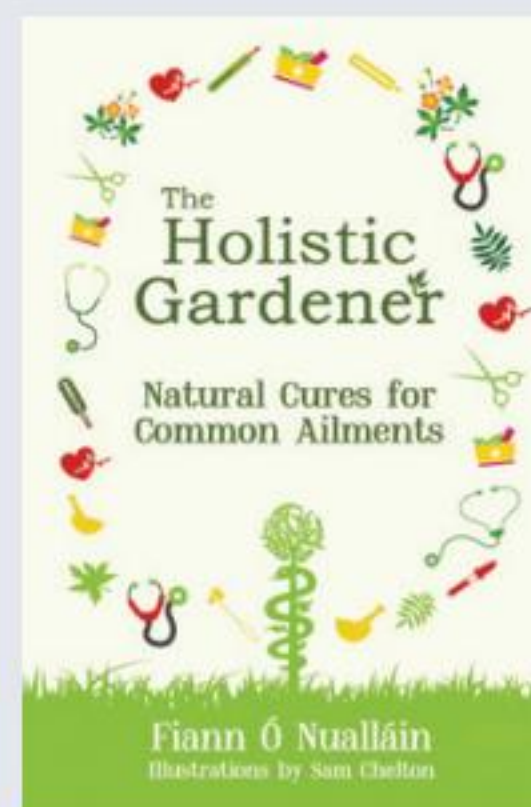
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Best in class

Here's a look at who won the RIAI (Royal Institute of the Architects of Ireland) Awards for Best House and Best Extension. The results were announced just as we went to print...

Folding House, Co Cork

Architectural practice: A2 Architects, www.a2.ie

This new 180 sqm house benefits from elevated views and rests on a light glazed curtain wall. The house stretches its way into its deep plot and sits within a densely planted garden designed in collaboration with ThirtyThreeTrees.



Photography: Marie Louise Halpenny, www.marielouisehalpenny.com

Hidden Garden, Co Dublin

Architectural practice: McCullough Mulvin Architects, www.mcculloughmulvin.com

A 40sqm extension with sunken garden room and a hidden courtyard linking old and new. This project was commended at the AAI awards earlier this year; to see the winners of that competition turn to page 126.



Photography: Ros Kavanagh, www.roskavanagh.com

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All fun & play

Functionality was the driving force behind this modern-day take on the holiday home

"We'd spent enough holidays in Ireland under lashing rain to know that we needed a good design to make our trips to our second home enjoyable," says Andrew Bryce, who with his wife Cathy and two children had been holidaying in Co Wexford for years.

"We liked this area of Wexford but it was too expensive for us to buy, until the boom disappeared and prices became more affordable," he says. "We got very lucky, we purchased the house at auction in 2011."

Renovate or knock down?

Renovate or knock down to build new? This conundrum is one that self-builders often face and for Andrew and Cathy the decision to let go of the original bungalow wasn't a hard one to take. This, despite the original house having been well located, elevated to get view across the inlet and at an angle from the road.

"We wouldn't have been able to achieve as much within the existing footprint and even though we didn't move the house by a lot we did angle it better to improve the aspect. Also, the original bungalow really would have had to be gutted and extended to make it work as a practical holiday home," explains Andrew.

"We also wanted to achieve a good energy ►



More photographs available at
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One of the few changes made to the original design was to hide the rainwater outlets behind the overhang and pillars, and use chains instead of pipes.

rating and retrofitting all of that insulation would have been costly and troublesome.”

It was in 2012 when they were toying with the idea of an extension. “At the preplanning stage we explained our line of thinking to the planners and they felt it was a good idea to start from scratch; on that basis we discussed what we could do.”

Their architect was already on board at this stage as he’d advised them during their house hunt. “We’d received very good local recommendations and Zeno helped us with estimating how much it would cost to convert the houses we were looking at,” says Andrew.

“It was a natural progression to keep him on board as we had a very good understanding, we had a solid relationship and communication was

excellent.”

As far as wish lists go, Andrew and Cathy’s wasn’t prescriptive in terms of design. “It was more of a functionality list,” reflects Andrew. “We wanted everything to flow off the kitchen – inside but also outside with a patio area – I like to barbeque in all weather conditions!”

“We didn’t define if we wanted a bungalow, modern or anything specific,” continues Andrew. “What our architect came back with was essentially what we built, with a few minor tweaks here and there.”

The two storey height takes in the views, the overhang at the front of the house protects from overheating on sunny days and (in Andrew’s view, more importantly) from rain for the barbecue. ►



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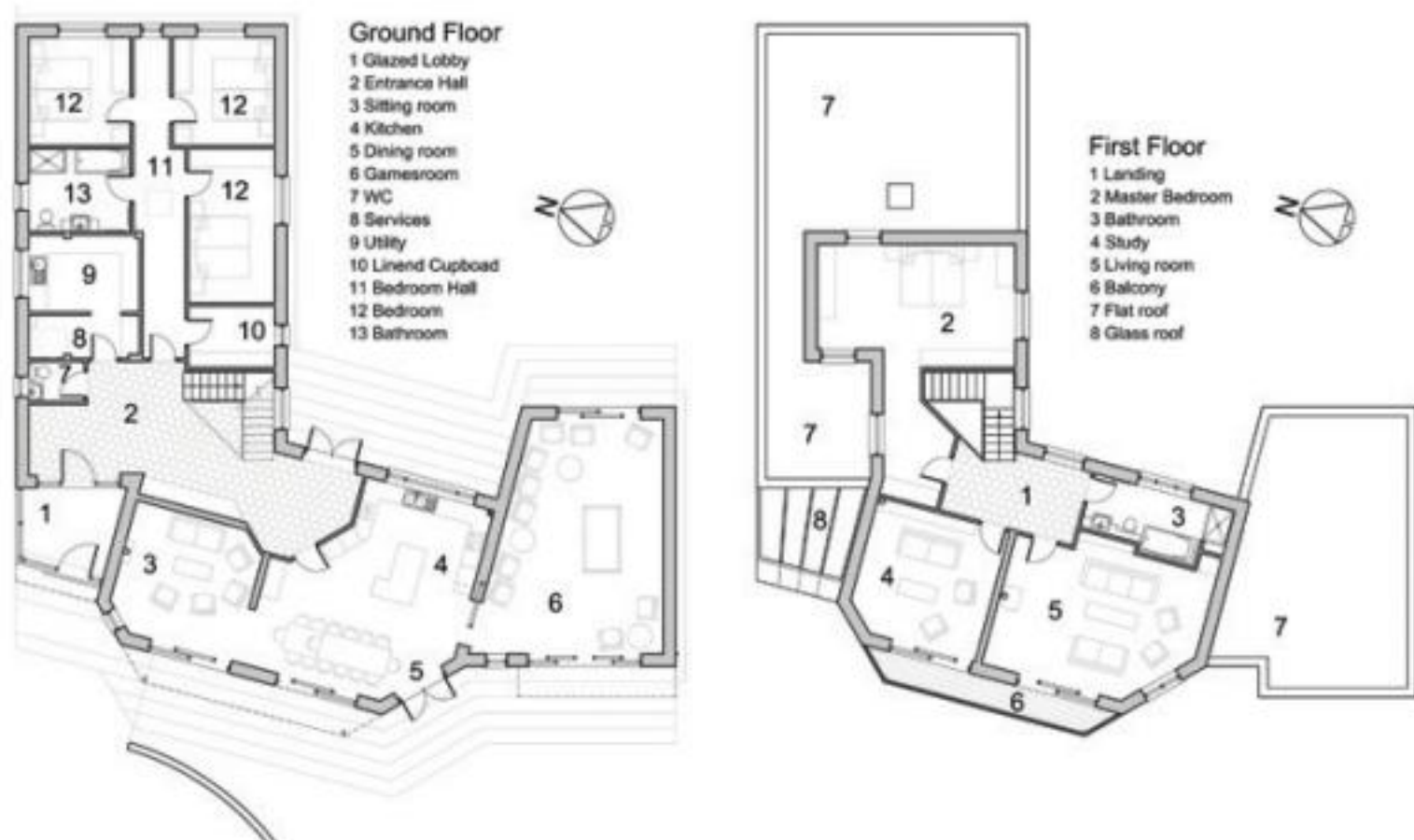
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The games room, meanwhile, occupies the children on those wet days.

An integral part of the solution was to create one living space that could be closed off in sections, which includes the kitchen, living, dining and games room.

“We’re all together without being on top of each other,” says Andrew. “It’s the ideal holiday set up. Our children are now 13 to 15 years old, they were 10 to 12 when we started this building project, and the long term plan is to allow them to have their own space with their friends, simply by sliding the games’ room 8ft door shut.”

Furthermore the new low level wall provides a line along which to plant trees; the layout now also provides more privacy from the roadside.

“I think it can work better not have preconceived idea, not to be fixated on an aspect of design,” says Andrew. “We loved what Zeno came up with, and I think if we’d tried influencing the design it might have gotten a bit muddled. We trusted our architect’s design capabilities and he ►

Andrew and Cathy gave their architect carte blanche on the design.



The living areas flow onto each other and onto the outside.



Right: The overhang allows Andrew to barbecue on those wet summer days

really surpassed all our expectations”

Planning permission was secured without any conditions and they went to tender for the construction phase. “Five builders came back and we chose ours based on price and reputation, and we really couldn’t praise him highly enough. He’d already come with a good reputation but I felt he outdid himself, going way beyond what was expected of him,” gushes Andrew.

“The finish was excellent and he was always prepared to go the extra mile. This was a build that was entirely driven by the architect, who acted as the project manager, and builder. In terms of

our involvement the house was built largely by internet with digital photos and by email for the first 80 per cent of the house, they simply called if they came across any problems. It was that easy!”

Low cost and eco

“We wanted a low cost, environmentally friendly house. We always said it would be built on a 30-year plan – we had to get as much right as possible from the start.”

They therefore spent time on the design phase, in order to not have to change anything during construction, and got on site in 2013. ►



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The games room provides a sanctuary for the children.

“During the build any issues were flagged quickly,” says Andrew. “For instance we felt the downpipes at the front of the house would have been unsightly so we chose to use rain chains instead, hidden behind the overhang and pillars. They work really well.”

Andrew and Cathy wanted underfloor heating and chose to install an air to water heat pump for heating along with a gas boiler for backup and for hot water.



“We also wanted a stove, installing a solid fuel one upstairs and a gas fired one downstairs,” recounts Andrew.

“The first time we lit the wood burning stove we set off the heat alarm! It gets very hot if you load the stove fully. It’s a good thing we can control it as the house does get warm very quickly.”

Heat pumps take a while to crank up the heat in the underfloor heating so the couple installed a system that gives them remote access to the controls.

“We turn on the heat a few days before visiting from our mobile phone; the way it works is the slab heats up at night on the cheaper night electricity tariff, and it slowly heats up the house during the day. We’ve tiled downstairs and upstairs we have three bedrooms which are all carpeted; there the underfloor heating is encased in polystyrene board instead of screed.”

Their architect recommended they visit the SelfBuild show in Citywest for insights and inspiration. “We got loads of ideas and got quotes, it helped us to find what we needed at the right price,” says Andrew. “It was our responsibility to source the finishes and the kitchen. We already had ideas of what we wanted in terms of functionality, our 650sqft urban townhouse has a galley kitchen and I have to say it’s still one of the best we’ve ever had – you get something out of the oven and straight onto the countertop, it’s as easy as that. So we replicated that ease of use.”

Andrew says the builder was especially



helpful in recommending local suppliers, which was important as they felt very strongly about supporting the local economy. “If we had to pick out a door or a finish, wherever possible we went local,” he says.

“On a cost basis, it’s important to keep searching but also trust going local – I found them to go the extra mile, they made sure the products got to us on time too.”

All I want for Christmas...

What didn’t arrive on time were the windows, which were delayed by four months, a relatively common issue with self-builds and in this case totally the fault of the supplier.

“That first year all we wanted for Christmas were our two front doors! Thankfully the windows arrived on the 21st of December and the doors five weeks later.” ▶

The design makes the most of the views





A lot of thought was given to the functional use of this holiday home.

The porch roof couldn't be supplied by the company they'd initially ordered it from so they had to find another supplier. "We spent part of our first summer without a porch as a result," comments Andrew.

Bifold doors were too expensive so they chose the sliding door option, which they make great use of. "At Easter and in the summer we have all of the sliding doors wide open, it really makes the inside of the house feel like it's part of the outside. We live at the back in the morning and then move on to the front in the evening," adds Andrew.

The influence of this build extended to the children who became engrossed in construction blocks during the design. "One of our girls even went through a phase of using a free online modelling tool, designing all sorts of houses and structures."

A budding architect, perhaps? "Our only hope is that if she does, then she ends up as good as Zeno!" ■

Astrid Madsen

House size: 350 sqm

Site size: 2/3rds acre

Total cost: €400,000

Airtightness test result: 3.0 m3/hr.m2

BER: A3

BUILD SPEC

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Architect

Zeno Winkens MRIAI, Winkens Architecture, Wexford, Ireland, tel. 053 9126605, www.winkens.ie

Heating system

RVR, Kenmare, Co Kerry tel. 064 664 1344, www.rvr.ie
Hybrid system consisting of Dimplex Air to water heat pump with 1,000 litre storage tank, Immergas Zeus gas condensing boiler and two evacuated tube solar panels.

Kitchen

Michael Farrell Furniture, Wexford, tel. 053 916 8333, www.michaelfarrell.ie

Garden

David Colley, email littlegreenmenlandscapes@gmail.com

Insulation

Floor: Kingspan, walls: Certainfil Graphite 27 Plus, roof: Kingspan Thermarof TR27 LPC/FM

Internal leaf thermal block

Quinn Lite B5

Photography

Ger Lawlor, Kilcarraig House, Park, Wexford, Y35 X9YT, Ireland, tel. 087 646 0748 www.gerlawlor.com

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“

We wanted to push things out a bit more, and specify above and beyond what was needed in terms of renewables and energy efficiency...”



Nature and nurture

Matthew and Muiread Kelly's connection to the land made this self-build project a very instinctive one, helped along by Matthew's engineering background. But there were still plenty of surprises in store...

Lavender. This is how Matthew and Muiread started their self-build project, by planting this fragrant and calming plant around what was to be their building site.

"We wanted to achieve an English cottage feel, with rosemary tiles, red bricks and the plants that go with it," explains Matthew. "Due to their location, the small lavender bushes were protected from the machinery we had on site."

But the couple wasn't exclusively tied to this particular style. "We'd seen a television programme that showcased an oak frame; we really liked that look so we put some in the conservatory," adds Matthew.

Thick, well insulated walls and a roughcast finish complement the style. "When the sun sets on the red brick chimney, I just get that feeling we did it right."

Horses for courses

Finding the right spot was a very natural process – they were able to build on a site provided by Matthew's father.

"We went for planning and got permission to build a house with stables beside it," he continues. ►



More photographs available at
www.facebook.com/selfbuild







The planners were mostly concerned about the location of the house, not being near enough the stables, so they moved it closer.

"There's a real connection to the land here," says Matthew. The build started in October 2012 and took a full year to complete.

While he approached architects he felt they all suggested styles that were too traditional for his and Muiread's taste.

"We wanted to push things out a bit more, and specify above and beyond what was needed in terms of renewables and energy efficiency," comments Matthew. "I come from a civil engineering background so from the beginning I took a keen interest in the design and any eco-friendly attributes we could give it."

He spent time working out what to install and how. "I did a lot of back of the envelope calculations, for U-values and sorting out what was required in terms of insulation and heating. It was my hobby at the time and I really enjoyed it, it's very satisfying to get to have such an input in your

The couple went for an English cottage feel.



house design.”

He and Muiread altered some of the basic design features they were working with to ensure their heating needs would be kept to a minimum. “We went with a rectangular shape with sunroom, south facing glazing, the compromise was that we built the house to be symmetrical to prevent heat

loss. We fine-tuned it all ourselves to achieve a U-value below 0.1 W/sqmK on the entire building envelope.”

Matthew had previous building experience as he’d helped his dad build his house five years earlier. “My father actually helped out a lot on our house even though he was a proponent of the traditional methods and I was more of a view of getting the house airtight! He was flexible enough to take on board modern building methods and lend a hand with things like scaffolding and insulation.”

Matthew oversaw the entire project, from the groundworks which he did himself with a man in a digger, to organising tradesmen – he got a local joiner to install the roof and hired an electrician who was really helpful with the lighting schedule and design.

“I put down the ground slabs myself, also insulated and criss-crossed all of the vapour permeable membranes with airtightness tape to ensure a tight fit. Building control came on site maybe three or four times, they even checked the timber staircase,” he comments.

Bespoke designs often mean more leg work to find the right materials; for instance Matthew still remembers how expensive the thermal wall ties were at 62p each to span the eight inch walls ▶



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and how they had to order the rosemary tiles from France as they didn't want concrete but clay. "They have indentations in the middle for a worn effect, which we really like," he adds.

Also thicker walls meant heavier foundations so more concrete and steel. "We'd factored this into our budget but it's something to keep an eye out for – every decision has a knock-on effect," warns Matthew.

Powered by nature

But then came the hard choices – what type of heating system exactly, combined with insulation levels and ventilation? "We originally thought of going fully passive, to have a zero energy requirement, but we were too nervous to go all the way," he confides.

"We wanted to use renewables and ended up choosing a heat pump along with two solid fuel stoves, each with their own airtight, external air

supply."

"As we installed a heat recovery ventilation system and made the house airtight everywhere else we had to make sure we didn't add any uncontrolled ventilation via poorly sealed holes in the wall. For this reason the cooker's hood uses recycled air, to minimise the number of openings we had to make in the external walls."

The ground source heat pump provides heat and hot water and is controlled by thermostats outside which are linked to the local weather station to achieve the desired range of temperatures throughout the day.

In a move to achieve minimal heat loss they even chose to install quadruple glazed windows. "They were very heavy!" exclaims Matthew. "It made installation a bit trickier than I expected but thankfully I didn't have to do it myself."

The underfloor heating screed is six inches thick covered by 10mm stone to ensure the heat ►

Making a house a home is all about mixing personal styles; above the parquet flooring in the sitting room.



gets stored in the concrete mass. "The floor doesn't feel warm but the house temperature stays constant, and we achieve this at a low cost," says Matthew, whose only energy bill stands at £80 per month which includes not only the heat pump but cooking, lighting and other electrical requirements. "The house is always warm but you don't get that 21deg C feeling you might in a house that uses radiators."

While the stoves weren't required to heat the house, Muiread and Matthew wanted to have the naked flame look. "It's a great addition in winter although they do get too hot so we have to load them very lightly to avoid getting scorched!" To further his green agenda, Matthew recently installed photovoltaic (PV) panels on the stables roof to generate electricity from the sun.

A canny investor, he availed of grants for his eco choices; he got £3,500 towards the heat pump installation and he estimates he will be getting roughly £1,000 for the next eight years (this scheme is no longer available).

Every year the PV installation should roughly provide £600 in renewable obligation certificates (ROCs), save him £300 off his electricity bill and offer approximately £100 in income from selling the surplus to the grid. Which means his energy needs are covered by the panels.

Picture perfect

For inspiration on finishes Matthew and Muiread turned to magazines and foraged around salvage yards. "We found our oak beams for the sun room and porch from a local manufacturer," adds Matthew. ►





*Above: Muiread in her purpose-built photo studio.
Right: Matthew at the stables.*



“For the kitchen we went for a funky slash country slash old farmhouse style. I wanted to go with paving slabs but Muiread said ‘no’ so we went with large format tiles made of natural stone and opted for parquet in the sunroom.”

The house has been designed to have the look of the old traditional English home but with all of the modern features hidden. You cannot see their fridge or dishwasher, nor can you see the music system built into the ceilings of most of the rooms.

Among the priorities for this build was to incorporate a photography studio for Muiread, which means some elements fell by the wayside. “We haven’t put any floor finishes in the bedrooms yet,” adds Matthew.

The studio, which was built behind the house, was originally intended to be a double garage. As Muiread decided to set up her business during the build, they amended the plans and created a purpose built studio with plenty of space to capture portraits. This has worked really well for Muiread, allowing her to balance work and home life, which, with the stove lit in winter is a very warm and welcoming ‘office’.

Considering how smoothly this self-build went, what advice do they have to share? “The most important thing is to have a clear picture in your

head, know what you want from the start and prepare everything in advance to get exactly that," says Matthew.

Part of their dream was to cultivate an orchard; they now have 15 fruit trees, five of which are apple, and raised beds at the back garden. Life is good! ■

Astrid Madsen

Site size: ¼ acre + 10 acres for horses

House size: 2,500 sqft

BUILD SPEC

Walls: 8 inch cavity walls, outside blocks on flat edge full filled EPS beads

Roof: 150mm sprayfoam wall to roof insulation to avoid thermal bridge, 500mm fibreglass on floor

Floor: 200mm PIR board, ufh on top with 6 inches of concrete

Windows: quadruple glazed, U-value of units 0.6 W/sqmk

PV Panels: 4 kW

info

The companies listed below provide products & services relating to this article.

Heatpump

6.5 kW Danfoss, DHP-H Opti Pro, from Daly Renewables, Lisburn, Co Antrim, tel. 92667745, www.dalyrenewables.com

Windows and doors

Baskil Windows, Crumlin, Co Antrim, tel. 90774885, www.baskilwindowsystems.co.uk

Heat recovery ventilation system

Homecare Systems, Donaghmore, Co Tyrone, tel. 87769111, www.homecaresystems.biz

Kitchen cupboards and worktops

Blackthorn Kitchens, Newry, Co Down, tel. 3025 1628, www.blackthornkitchens.com

Stairs

Bemac Joinery, Castlewellan, Co Down, mobile 07706 861 704, www.bemacjoinery.com

Bathrooms

AJ Plumbing, Newry, Banbridge and Ballynahinch, Co Down, www.ajplumbing.co.uk

Oak beams (interior) and oak porch (exterior)

Clarke Cunningham, Ballytrim Sawmill, Downpatrick, Co Down, tel. 4482 1800, www.clarkecunningham.com

Electrical contractor

Patrick Smyth, Downpatrick, Co Down, tel. 4481 1951

Parquet flooring

Superior Flooring, Crossgar, Co Down, mobile 077696 56891, www.superior-flooring.co.uk

Studio

Lecale Contracts, Downpatrick, Co Down, mobile 07962 064 870, www.lecalecontracts.com

Photographer

Paul Lindsay at Christopher Hill Photographic, Clarence Street, Belfast, BT2 8DY, tel. 9024 5038 www.scenicireland.com

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The ubiquitous can become unique in context

Living in style, for happiness

Designing your home is like writing your autobiography in three dimensions; the perfect interior should reflect your vision, creativity, lifestyle and personality.

As with fashion an interior look is developed by combining different elements to create a style that defines you. Minimal, modern, contemporary or classic, whether we realise it or not we all have a preferred interior design style as evidenced by the images we gravitate towards when leafing through the 'glossies'.

But what exactly is it that defines these styles and how are they achieved? Finding and refining a style of your own can be challenging and sometimes it's hard to know where to start.

Your home may already have the perfect interior layout, but generally speaking, the decision to decorate or remodel is motivated by a change in circumstances: moving house, relatives and friends coming to stay, a growing business, or simply the desire for a makeover.

Design considerations

While decorating can be transformative, no matter how beautiful the décor, it won't compensate for a room that doesn't function. So, before choosing colourways or selecting furniture fittings or fixtures, make a plan including the items on your wish list – you might be surprised by what you can fit in a well-planned space, even a very small one!

One point to remember is that many households contend with the comings and goings of people at different ages and stages: babies, teenagers, grandparents, nannies and their friends. Everyone needs their space and the provision of quiet zones away from this hubbub is essential.

Also, the user experience is core to the design process: when furnishing a room be guided by comfort before style; have you ever purchased a

piece of furniture simply because it was pretty, only to discover that it's painfully uncomfortable (or useless)? Of course comfort and style aren't mutually exclusive but comfort is essential - nothing is worse than going to a friend's house and balancing awkwardly on their post-modern chair!

Equally, because a good percentage of the daily workload is performed in the kitchen, ergonomics, workflow and clearance requirements are essential considerations in successful kitchen design.

Remember, ergonomics and accessibility are particularly important when designing for the elderly.

Beyond function, it's good to always keep in mind that personality is an essential design feature as this is what will distinguish a home from a house. Be it a gallery wall, a painting of your favourite holiday destination or another piece that tells your story, these items will bring individuality and cosiness. A perfect interior will be one that you love and live comfortably with, not one that comes out of design magazines.

And of course it is always important to remember that all interiors benefit from natural light. Good design will make the most of this invaluable resource as the advantages extend beyond architecture and energy to include psychological and physiological benefits: improved mood, reduced fatigue, increased productivity, reduced eyestrain; importantly daylighting meets a psychological need for contact with the outside living environment.

A point to note is that on protected structures,

despite the fact that the interior fabric must be preserved, clever design can combine a respect for the traditions of the past with a living environment built for now and the future.

"Fashion fades, only style remains the same."

COCO CHANEL

Inspiration

As with fashion, style is not about money, it's not about what label you wear or brand you buy, but how you put a 'look' together. Like the LBD (little black dress) there are interior design classics that are timeless which can be personalised and enhanced either by jewellery (in the case of fashion) or interior accessories and soft furnishings (in the case of interiors). Whether moving into a new home or remodelling a room in an existing property, there are interior design styles that appeal to most tastes and budgets.

Since the advent of IKEA in the 1940s and of course Habitat in the 1960s a wide range of well-designed, functional and affordable home furnishings have been available that benefit the daily lives (and pockets) of students, first time buyers and people at all ages and stages of life. Mass produced as they may be, the ubiquitous can become unique in context and with the help of a designer piece to create a personalised look.

When searching for your personal style, some of the best interior inspiration can be found online; sites such as Houzz, Pinterest and Apartment ▶

Style is about how you put a 'look' together



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"A great space need not be the most glamorous or luxurious - it is how personal and interesting you make it, how much it reflects you, your interests and your humour, that lends it a warm welcome."

KIT KEMP



Top two images: Black and white define the modern style
Above: Chair designed by Gerrit Rietveld

Therapy provide lots of ideas and sumptuous images for reference. Makeover TV design series, films, magazines, art galleries and trade fairs are all potential sources, but essentially inspiration can be found anywhere; the immediacy of smartphone technology allows you to capture an image of interest anytime, anywhere and use it for future reference.

Interior design types

There are many interior design types but considering the age we live in and the demands made on our homes, you will find two common stylistic influences are visible in most homes – modern and contemporary.

Modern

The term 'modern' with reference to design is really rather old. Starting in the late 19th and early 20th centuries modernism eschewed historical styles such as Gothic, Renaissance and Victorian and embraced a new way of looking at design



'without embellishment'. Synonymous with straight lines, open floor plans and lack of decorative detail, modernism reinvented itself in the first half of the 20th Century giving way to mid-century modernism, a term that describes developments in art, design and architecture from the end of The Great Depression to the mid 1960s. The style was informed by Frank Lloyd Wright and art movements such as De Stijl (Dutch) and Bauhaus (German).

Mid-century modern continues to influence interiors, architecture, furnishings and accessories today and is considered the most significant of modern design styles from the 20th century. The fusion of mid-century modern style with contemporary aesthetics is the ultimate definition of contemporary modern design.

Form: Geometric shapes, clean lines, open plan

Materials: Chrome, stainless steel, glass, wood (natural and painted), plastic

Colour: Generally homes decorated in modern styles use neutral colours, shades of black and white throughout. Bold primary colours are used in individual furniture pieces, cushions and throws which are used sparingly.

Liveability: Modernism is typified by a lack of adornment which means no knick-knacks, vases, pottery, collections or excessive use of throw pillows, rugs or blankets. Any necessary items, including books, electronics and keepsakes are kept either out of sight inside a cabinet or closet, or are stashed away within concealed shelving or hidden storage beneath benches or window seats. Clutter screams in a modern interior; you need to be well organised to live with this style.

People: Piet Mondrian (artist); Gerrit Rietveld (architect and furniture designer), Mies Van Der Rohe (architect), Marcel Breuer (architect, furniture designer), Charles and Ray Eames (architects and furniture designers).

Minimalism is one of the incarnations of modernism, with form (without ornamentation) being the unifying element. Influenced by classic ►

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Japanese design, minimalism seeks to instil a sense of calm, harmony and spirituality in its designs. Advocating a 'less is more' approach, it is one of the centrepieces of 20th century design.

The minimalist concept calls for clean lines, simple colour palettes and unadorned surfaces. Minimalism pares back shape and structure to its basic elements with an emphasis on negative space; the space surrounding an object being as important as the object itself.

With a focus on 'less', minimalist interiors run the risk of looking bare and feeling sterile if not designed properly. Furniture needs to be chosen with care.

Contemporary

Of our time, contemporary interior design refers to any design style that is current without necessarily referencing an historical period. On trend styles include transitional and eclectic though timeless themes also feature vintage, coastal, rural and classic, made current by the use of fashionable shapes, colours, fabrics and textures.

Eclectic This personal home style encompasses a variety of periods and styles brought together by the use of colour, shape, pattern, texture and finish. Done well, this style will broadcast your design confidence and is the perfect way to express your individuality. However, scale and proportion between contrasting elements must be maintained for the look to work as a whole. Put a mood board together using photographs of your favourite items. See what combination works best; items need to match in shape, size, colour, texture, etc.

Transitional Where both traditional and contemporary styles meet, halfway between decorative old world design and minimal new world contemporary. Lines are less ornate than those used in traditional designs but not as severe as those in modern designs. It is a simple sophisticated style with little embellishment by way of ornamentation or accessories. Texture is important and is used to

create a rich luxurious / comfortable feel. Furniture is generous without being ungainly. Colour is introduced by way of select art and accent pieces, the default colour being neutral or shades of black or white. Transitional designs are uncomplicated, comfortable and practical, well suited to modern lifestyle requirements.

Coastal Evocative of sandy toes, sunshine, sea breezes and far away horizons, the coastal style is both relaxed and sophisticated. It is at its best when it sets a mood. Rooms should feel breezy and spacious. The most important element is light; to make the most of it mix white walls with colours and textures evocative of the coast: sand dunes, sea grasses, drift wood and barely there blues that hint of sea and sky. Think of materials and patterns: painted shiplap or stripes for furnishing and accessories. However avoid crowding the space with kitch: oars, fishing nets, sea shells, anchors and the like. Materials should be practical, think cotton, linen, sisal and jute.

Wherever your inspiration takes you, above all remember that whatever your style, design should always be in the service of a better life. ■

Caroline Irvine MRAI

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www.irvine-nash.com

Mobile: 087 2987401

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Karen Hughes, Emerald Interior Design, Dublin,

www.emeraldinteriordesign.ie,

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Contemporary interior design refers to any design style that is current without necessarily referencing an historical period



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Paint magic

Due to its ability to instantly transform a room, paint is the interior designer's best friend. Find out how to make it yours...

By providing a first line of defence, paint can protect other materials and so extend their lifetime almost indefinitely. An obvious example is cast iron guttering but there are many others, such as elements that require protection from fire.

As with all building materials, you will need to use a product that's fit for purpose, and one that is of a high standard. The reason to invest in quality paint is that it ensures better, smoother coverage (you generally won't need as many coats), superior durability and protection of the underlying surface. It is easier to clean, offers long lasting colour, mildew resistance and won't pick up dirt.

Here are the different types to choose from:

Cellulose or lacquers synthetic resin e.g. acrylic resin or cellulose acetate dissolved in organic solvent which evaporates giving a quick-drying finish.

Clay and chalk these paints provide a matt finish and consist of said ingredients bound with organic compounds such as methylcellulose, small amounts of preservatives may also be included.

Emulsion often used as a catch-all term to denote any type of paint that is applied to walls and

ceilings, it technically refers to latex paints.

Enamels contain only a very little pigment and dry to a very hard, high gloss film.

Intumescent A single coating of a specialist intumescent paint can provide Class O fire protection for surface spread of flame, even if you cover it with an acrylic or latex paint for a more decorative finish later. If you are using steel beams in your house, it may be necessary to provide fire resistance to comply with Building Regulations for this part of the construction, but unlike other paints, you can put it on and leave it open to the elements on site without destroying the fire proofing, because it will resist moisture penetration. Special intumescent paints are available which can provide half hour, one hour or even two hours fire resistance on steel, preventing it from distorting or collapsing during a fire. If you are using timber linings and want to varnish them, there is also an intumescent varnish which can achieve Class O, the highest classification for protecting timber from flame spread.

Latex Pigments dispersed in a water based emulsion of a polymer such as pvc or acrylic resin. Low odour, quick drying, can be used on wood and metal surfaces. Use 'breathable' (to allow



www.littlegreene.com

water vapour to pass through) for exterior work. Thin with water. Clean brushes with soap and water.

Oil based uses a natural drying oil such as linseed as the vehicle and contains a basic pigment of either iron/lead/titanium/zinc oxide to which coloured pigments are added. The type of basic pigment determines the type of finish, that is whether gloss, semi-matt or matt. The hard smooth finish can tend to become brittle and crack over time. Not suitable for use on galvanised metals or fresh masonry. If required, thinning with oil, in particular linseed, enhances the durability of the timber base. Designed to let moisture already present in walls, out. Clean brushes with white spirit or turpentine.

Paints to cover metal must have aluminium or bronze added to them in order to cover effectively. Look for anti-rust properties on the can.

Primers or undercoat Lots of pigment so give very good cover. Use on bare surfaces. Use a tinted primer that is water based to allow for movement for wood, and remember to paint knots with a knotting compound to prevent resin seepage and discolouring. The rule of thumb is for the undercoat to be less porous than the final coats.

Interior Paints

Ceiling paint thicker than wall paint and so spatters and drips less, best applied with a roller.

Emulsion quick drying, low odour, easy clean up paints in matt, silk and satin finishes. Matt finishes tend to hide uneven surfaces better. Wipeable.

Textured paint for both walls and ceilings. Contains sand or beads, cover cracks and minor imperfections. Apply with a roller.

One coat paint easy for beginners, time saving, use on walls and ceilings (emulsions) and wood (gloss) and Satinwood. Sceptics argue these don't always work as well as they claim (second coat may be required).

Kitchen and bathroom paint Contain fungicide to deter mould growth. Wipeable.

Children's room paint often based upon acrylics (to withstand knocks and bumps), they are low odour, quick drying and durable. Wipeable but wait for two weeks after applying before you do. Also available are blackboard paint, glitter glazes and heat sensitive versions.

Satinwood and gloss paint decorative and protective, the finish is dirt and water resistant. Liquid gloss or non drip – never stir the latter before use.

Floor paint for wood and concrete, able to withstand heavy wear and tear. A low sheen finish.

Metallic and pearlescent paint for use on wood, wall, metal and fabric. Easy to use water based for a feature wall. Make sure wall is flat and dent free as the shimmer effect will show up the slightest imperfection! Apply on primed surfaces in thin coats, usually at least two.

Historical paint mainly water based and highly breathable, often used on lime walls. These include milk (casein) paints for a matt finish, limewash and distemper which are powdery and create an aged effect. Have a short shelf life.

Heat resistant paint for hearths, radiators and heating pipes, but are not fire resistant. Apply in thin layers, do not cover control valves as these will stick and always apply when the surface is cold.

Non porous surface paint for cork, ceramic tiles, melamine, plastics; often epoxy based. Roughen surface before applying primer to ensure a good 'fix'.

Exterior Paints

Emulsion wall areas of masonry and wood.

Acrylic high performance multisurface paints are suitable for previously unpainted wood and metal, if correctly prepared and primed. Available in matt or satin finish. Don't paint on a windy day because dust and dirt will stick to the surface.



Heat resistant paint is often used around hearths

Farrow & Ball
www.farrow-ball.com; walls in James White Estate, floor in Pavilion Gray and stripes in Cook's Blue

Masonry for masonry, render, pebbledash, concrete and brick. Smooth (resists dirt adhering), or textured (covers minor imperfections) finishes and contain fungicide. Scrub wall with a stiff brush first to remove loose material.

Gloss for exterior wood and metal in satin or gloss, tough and durable. Dirt and mould resistant, non yellowing. Some require a primer.

Metal paint ensure surface is rust free and fill pitting with epoxy based (rust inhibitor) filling. Degrease surface first with soap and water. Gloss or satin finish.

Waterproof paint bitumen based to create a waterproof ▶



It is always best to apply paint when the temperature is neither too hot nor too cold, in order to avoid blistering and peeling.

surface. Do not over paint with ordinary paint. Cover adjacent areas.

Protection products stabilise the surface before painting, e.g. a fungicidal wash or a stabilising solution to seal chalky or weathered surfaces and provide a good base for the topcoat.

Painting wood

Preservatives, coating materials and some sealers (if based on organic solvents) are not absorbed by the cell walls of the wood, unlike water, which is. This is because of their higher viscosity and pigment content. Even in timber with large pores, i.e. hardwoods, pigment particles cannot penetrate the wood, which is why we are able to strip it off relatively easily and paint it another colour.

If you want to coat a piece of weathered timber, you are best to remove the weathered surface by planing/sanding, otherwise you may find that the resin primer you apply will not bind with the wood fibres. Some hardwoods in contrast have large pores which absorb a lot of coating which results in an irregular finished appearance.

To get a smoother look, you can fill the pores with grain filler but this is only recommended for indoor areas.

Little Greene
www.littlegreene.com
Colours are Mandarin, Shirting
129, Pearl Colour 100, Light
Brunswick Green, Marine Blue 95



Environmental paints

Rather like organic food, organic paint is a label that is applied somewhat indiscriminately.

Even reading the ingredients on the side of the can is not much help because of all the acronyms. Further confusion arises in the case of acrylic paints classified by the 1997 EU "Eco Label" but yet are toxic. "Low gas" merely means that you can't smell it, but the air is still being polluted. A true organic paint is one that contains all naturally occurring ingredients organically produced, is non toxic and where the residue is recycled or bio-degradeable – a tall order indeed. In addition, the company may have a fair-trade aspect to its purchasing policy.

Whitewashed walls help to reflect strong sun and keep the interiors cool, whilst in more Northerly climates there is a much greater use of darker colours, warm ochres and reds to create the illusion of warmth.

Using paint or wood stains will not keep the moisture present in the atmosphere from being absorbed to some extent by the wood. Conversely, sometimes paint can stop the timber from drying out if it is wet.

Some woods, such as pine, have lots of knots which leach resin. Applying a knot sealant can help, as will painting the wood with a dark colour; fortunately the problem will decrease with time. Until then, if the wood is painted with a light colour, try to keep it out of direct sunlight because warmth makes the resin more mobile.

When it doesn't stick

If the paint fails sooner than it should, the root cause is probably bad preparation. Redecorating old surfaces which have not had flaking paint, dirt, grease or mould growth removed from them will all affect new paint. Again, new paint will also not adhere properly if it has a totally different physical characteristic to the paint you are covering, for example, using a latex based paint onto a weak water soluble paint surface.

If you are decorating a new surface, the most usual mistake is not leaving enough time for the underlying surface to dry out, particularly if it has been treated with preservative. The preservative will start to leach through the paint, especially if the atmosphere is heated after the paint has been applied. Leaching will also happen through knots, (see above), and thorough application of the primer is essential to achieve a good top coat. On porous surfaces the first coat should be thinned in order to achieve adhesion.

In older buildings it is very common to find an 18th Century reflective lead based paint over painted with a dark 19th Century layer, and finally a reflective modern application, all of which adds up to a recipe for disaster in direct sunlight conditions.

As a general guide, external paintwork should be inspected every three years and certainly not less than every five; prevention is better, and cheaper, than cure. Of course any failure of the paint may be caused by the base material onto which it is applied being faulty. Walls must be dry, all cracks and holes filled and sanded as well as any crumbling plaster replaced. Mould and rot will also cause havoc to any new paint, as will efflorescence, rusting etc.

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slate, but not as you know it!



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What it's made of...

Technically paint is a pigment (to provide colour and coverage) suspended in a vehicle (dries and hardens to provide film of colour) or binder (holds pigment together and provides tough finish that adheres to surface). As a general rule, the higher the amount of pigment and binder, the better quality the paint. Other ingredients include liquids which ensure the correct consistency, (solvents are commonly used), and additives to give specific paints their properties, preservatives for example keep the paint fresh.

dealing with these, but before you attack the offending area, ask the advice of the technical department of the manufacturer whose paint you intend to use. Above all, don't try to cover things up; you will only make the problem worse.

Stripping down existing paint

Where a paint film has failed, there really is no alternative to stripping back to a firm surface. Modern warm air strippers are good because they keep dust to a minimum and don't damage the underlying surface, but the best strippers are the ones designed to match the type of paint or varnish you are trying to remove (never use on lead, see above).

Caustic chemical strippers need to be used with care because they can remain on the surface of the timber or plaster and spoil newly applied paint. These most commonly come in liquid form (apply with a brush, wait for it to work and scrape off) but you can also get it in a paste (apply the putty on the wood surface with a scraper/trowel, add a strip of paper, wait for it to work and peel away the paint). The latter is especially useful for lead paint.

Another possibility is a heat gun, but this produces unpleasant and possibly noxious fumes, especially from older paint, and it's also very slow.

If all of this sounds very environmentally unfriendly, there are some "green" strippers available.

Doors are much easier as they can be removed and put in a tank of either caustic soda or potassium hydroxide which removes everything – including any glue or filler. But beware, the chemical can cause the wood to split. If you do choose this option as soon as your door comes out of the tank, rub it down well with linseed oil or you could be left holding pieces of firewood!

Tips when using paint

- Always check the manufacturer's instructions.
- Handle all products and mix with care, you might inhale, touch or swallow toxic materials.
- Work in a well ventilated area; keep pets and young children out.
- Do not eat, drink or smoke while working, or

store food and drink near the work area.

- If possible, keep windows open to assist drying.
- Oil based glazes are inflammable so dispose of them carefully (at your local recycling centre).
- After using liquid stripper wash the surface with water or white spirit and leave to dry.
- When using a heat gun, be careful not to scorch the wood; use a shave hook to scrape out the paint from awkward areas and vacuum off.
- Wash shiny surfaces well with soapy water, rinse and wipe clean with a cloth containing methylated spirit to remove any remaining grease.
- Clear out all loose plaster, using an old paint brush for the crumbs or vacuum. Dampen plaster around the area to be filled (with a water spray), so that the filler does not dry too quickly and create further cracks.
- If using a new brush for the first time, rub it vigorously across your hand to remove stray hairs.
- Tie a piece of wire or string across the top of the paint pot so that you can scrape off excess paint against it.

Proceed with caution! The case of heritage properties

In an old house or cottage, you could destroy hundreds of years of history by applying a modern paint remover. Keep a record of each layer, and remember that softwoods in Georgian and Victorian houses were intended to be painted. Prolonged soaking of doors, for example, in caustic baths, can cause lasting damage. For both interior and exterior paint finishes seek professional advice and possibly help; technique is more important than method.

Lead paint was used in the UK until 1992 so for anyone renovating a house older than this it might be worthwhile to invest in a lead testing kit. Removal by either burning or sanding poses a serious risk to young children or foetuses. If you want to get rid of it, bring in a professional wood stripper or hire a vacuum cleaner which will filter out the particles of lead. Lead paints have advantages of durability however, and can be permitted on certain Listed (NI) or Protected (ROI) buildings. Contact your local council heritage officer for advice and information.

If your walls are quite highly moisture saturated, such as in an older property, use only porous paints and on the exterior you will generally need lime which can be finished with silicate or other breathable paint. Cement and waterproofing agents will often trap moisture inside the wall, thus increasing your problem. ■

Gillian Corry

Additional information:

Voytek Lange, Perfect Home Painting & Decorating, 14 Penrose Wharf, Penrose Quay, Cork, tel. 021 4533372, info@perfecthome.ie, www.perfecthome.ie

The Colour Yard, Tanyard, Tullamore, Co Offaly, tel. 05793 21068, thecolouryard@gmail.com, www.thecolouryard.com

info The companies listed below provide products & services relating to this article.

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Self-build & see the world!

When going on holidays, rented accommodation can represent a big part of the budget; so instead of being out of pocket why not make the most of the home you've built or renovated? **Irish home exchangers** guide you through the process of swapping homes...





Photography: Barbara Corsico www.barbaracorsico.com

Jackie - Laois

When building your home, did you consider the possibility of home exchange or letting it?

No, we had not considered home exchange or letting our house during the build process but shortly after we moved in we started looking at different opportunities. We do not let our house; we feel home exchange works much better for us.

Which of your home's feature(s) do you think is/are most attractive to other home exchangers?

Our house is very much a family home with open plan living and this attracts families, as do the large windows and modern design.

Because you know so well the effort, physical and mental, that goes in to a self-build, do you find that it makes you more conscious of taking care of the property you are holidaying in? Have you found that self builders exchanging with you are more careful with your house than those who haven't built their home this way?

We have not exchanged with new home self-builders but we have exchanged with families that have extended old homes in city centre locations often with wonderful modern extensions. I think people appreciate the effort that goes into building a home, or extending a home and home exchangers definitely appreciate and respect each others' homes and designs.





Self-builds tend to feature the newer technologies such as heat pumps and solar panels. Do you find that you need to give extra help to familiarise people with using these?

No, we don't find this an issue at all, as we have exchanged with Europeans and these technologies are often in use in their homes too. Also as recommended by www.homeexchange.com we have a manual with detailed instructions about features in our house and all exchangers seem to have such a guide, showing you how to operate everything from the cooker to the heating system.

What advice would you give others considering a home exchange?

Absolutely do it, it is so wonderful to stay in a home, you really experience life as a local and if you are lucky you will make new friends. On a practical note have clear instructions on expectations regarding cleaning, keys exchange, laundry etc. We always try to meet the family we are exchanging with also to build up a rapport.

How often do you do a home exchange and for how many years have you been involved in this?

We have exchanged six times since 2013. We are now exchanging twice a year, mostly at Easter time and during the holidays. This is the only way we would consider going on holiday. ►





Photography: Neil Warner www.warnercorp.com/photography.com



Mary - Galway

When building your home, did you consider the possibility of home exchange or letting it?

No, not at all.

Which of your home's feature(s) do you think is/are most attractive to other home exchangers?

Our house was built by a company that specialises in passive builds so we live in a passive house and this seems to interest people. I think they are also drawn to how bright our home is, and to the large garden. The fact that we have hens and ducks is another plus point.

Because you know so well the effort, physical and mental, that goes in to a self-build, do you find that it makes you more conscious of taking care of the property you are holidaying in?

Not really, we respect and care for the property we are staying in because it is someone's home irrespective of the build type.

Have you found that self-builders exchanging with you are more careful with your house than those who haven't built their home this way?

We have never exchanged with self builders, the percentage of self-built homes on the website is probably quite low.



Self-builds tend to feature the newer technologies such as heat pumps and solar panels. Do you find that you need to give extra help to familiarise people with using these?

Yes, definitely. We have written a house manual, which explains how everything in our home works. There was a lot of work involved in writing it but now that it's done, it doesn't have to be rewritten for every new swap.

What advice would you give others considering a home exchange?

It's a great way to holiday but if you are a bit nervous the first time you do an exchange, it's good to remember that you will get to know the people you exchange with – online and most likely by phone too.

How often do you do a home exchange and for how many years have you been involved in this?

We love home exchanging and we are well and truly hooked. We did our first home exchange three years ago, when we went to San Francisco, and we do one every year. ►





Gillian - Dublin

When building your home, did you consider the possibility of home exchange or letting it?

We renovated an historic house; it was semi-derelict when we bought it and we did it up in stages. At the time we were mostly concerned with tailoring the house to our own needs.

Which of your home's feature(s) do you think is/are most attractive to other home exchangers?

The fact that we're by the sea and our Dublin city centre location. We often exchange with people who live in the south of France and I think they enjoy getting away from the heat!

We also have four bedrooms which is handy, and because we have children there are plenty of toys. When ours go to other people's homes I know they enjoy seeing new toys and I expect it's the same for the young ones that come to our house.

In general our children love seeing new things, discovering amazing areas, and being an interior designer I love home exchanging because I get to enjoy great architecture and design. It also saves a lot of money.

Because you know so well the effort, physical and mental, that goes in to a self-build, do you find that it makes you more conscious of taking care of the property you are holidaying in?

People are careful with our house and we are with theirs. When doing the research I do find



though that we are attracted to people who understand and appreciate old houses. For instance, because the house is nowhere near airtight, in the colder months we always advise people to bring extra clothing.

Have you found that self-builders exchanging with you are more careful with your house than those who haven't built their home this way?

We've never had any problems with the home exchangers we've come across, whether self-builders or not.

Self-builds tend to feature the newer technologies such as heat pumps and solar panels. Do you find that you need to give extra help to familiarise people with using these?

The renovation mostly consisted of replacing the existing heating and hot water system with a new equivalent, we also put in double glazing and did some insulation work. But while the house is easy to navigate it still requires some guidance to use.

This is why it's so important to take the time to put together a good House Book to set out how everything works from the washing to coffee machine, remembering to give all relevant passwords such as the wifi code. If everything is well explained there will be less need for communication.

What advice would you give others considering a home exchange?

It's so important to take the time to put together a good House Book to set out how everything works from the washing to coffee machine, remembering to give all relevant passwords such as the wifi code. If everything is well explained there will be less need for communication. I'd also advocate the use of a key fob; to open our house you only need a code, not a physical key which would require meeting at the airport to exchange keys. We like to research our holiday



destination quite thoroughly, and while I am aware that for some it doesn't take long at all to find a match, we found that our approach to swapping can take longer to find the right home for us and it also takes us time to organise our house before we leave, so if you are looking for certain things it can be helpful to start your search early.

How often do you do a home exchange and for how many years have you been involved in this?

It's been six years now. We used to home exchange twice a year but with life being so busy at present we now only go away once a year. ►



Photography: Karl Jordan www.karljordanphotography.com

Karl - Wexford



When building your home, did you consider the possibility of home exchange or letting it?

No, not really, our primary concern was to maximise the use of the site, which was unusual, but which had great potential, and to create a bright and airy space, with low maintenance and good insulation. We always envisioned sharing our house with family and friends, but not specifically swapping or renting.

Which of your home's feature(s) do you think is/are most attractive to other home exchangers?

I feel the secluded location, proximity to a very private beach, and indoor and outdoor living space are all attractive features.

Because you know so well the effort, physical and mental, that goes in to a self-build, do you find that it makes you more conscious of taking care of the property you are holidaying in?

Honestly, no. We have great respect for properties we holiday in anyway. We always feel that we should treat our exchange partner's property the same way we would hope and expect them to treat ours.

Have you found that self-builders exchanging with you are more careful with your house than those who haven't built their home this way?

We have had no problems with any of the people we have exchanged with. Any inadvertent minor damage or breakage was taken care of, so we



haven't seen any difference in the care taken with our house by any of our exchangers.

Self-builds tend to feature the newer technologies such as heat pumps and solar panels. Do you find that you need to give extra help to familiarise people with using these?

Not really, we have kept our technology very simple, so only have the standard appliances which most people are familiar with.

What advice would you give others considering a home exchange?

I would advise people not to think too much about it and just go and do it. Leave your house clean and tidy, put away your good stuff, and leave sufficient storage space for your guests. Don't go mad redecorating!

Also, people shouldn't assume their home is not suitable to be listed – there are all sorts of houses available for swapping, large and small, and people are generally more interested in the destination than in the house as long as it is close to where they want to go and has adequate sleeping and living space.

How often do you do a home exchange and for how many years have you been involved in this?

We have exchanged four times and have been exchanging for about 10 years. ■



All of the homes featured in this article are listed on **www.homeexchange.com**; the listing fee is €130 per year and you can swap an unlimited amount of times. If you don't do a home exchange in the first year you get the second year free.

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**THIS ISSUE:
NICOLA WADDINGTON RSUA &
KOSTAS WOOTIS MRIAI**

Photography: Kees Hageman, www.keeshageman.nl



Nicola Waddington RSUA/RIBA

A husband and wife team leads this architectural practice; it's therefore no wonder they built themselves a carbon neutral home – replete with photovoltaic roof slates – to reflect their contemporary style and countryside location...



Anything unusual?

The orientation of the house makes the most of sunlight and gives beautiful views of the valley. Liberal use of timber detailing in window seats and ceiling finishes and the unfinished natural plaster walls give the house warmth as a family home. Cheaper materials have been used to great effect such as birch faced ply paneling on the ceilings of the childrens' bedrooms.

Windows are varied and relate to their framed views, contrasting between oak framed and revealed window-seats set deep into the wall, and projecting frameless glazing sheeted externally in zinc.

Internally, groups of niches specifically designed for objects and fireplaces create focus points, becoming part of the furniture of the rooms.

Favourite design feature

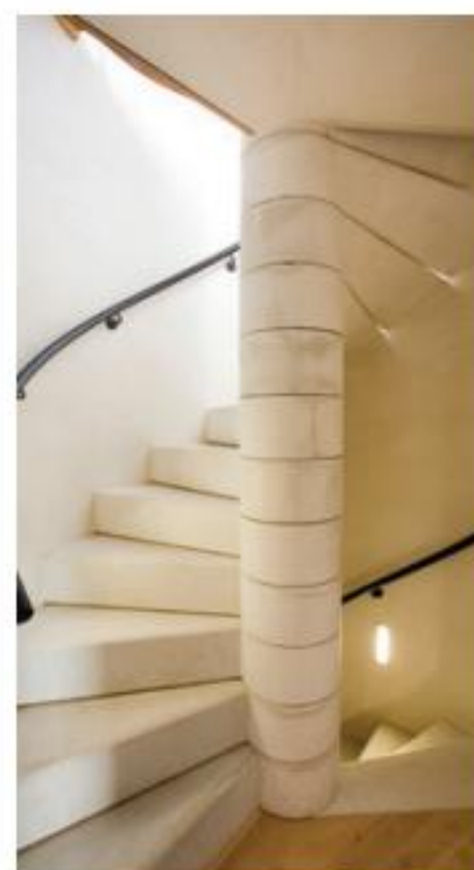
The house has been designed to create a series of surprises – curved oak barrel doors reveal a white concrete stair leading up to the lookout tower; the long gallery leads to a library overlooking the main



The circular tower catches the imagination of all young visitors.



Photography: Paul Lindsay of Christopher Hill Photography
www.scenelreland.com





Birch faced paneling was used on some of the ceilings.

living space; hiding places and peep-holes abound. These spaces give a sense of childlike joy as the house is explored -the circular tower really catches the imagination of all young visitors!

Favourite room

The whole open plan ground floor is a much used and loved family living space.

Cost

£400,000

Waddington McClure Architects.

56 Monree Road, Donaghcloney, BT66 7LZ

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Kostas Wootis MRIA

This hypermodern home still retains its cachet almost two decades after it was built



Photography: Kostas Wootis



This build came in under budget which allowed Kostas to spend more on the finishes.

Anything unusual?

An unusual design feature is the internal garden which is part of the entrance; although we live in the middle of the woods the idea of nature marching in, so to speak, was quite compelling. Also plants have a calming influence, they create a relaxing atmosphere.

I don't think there is anything unusual about the materials used as it was a straightforward construction: cavity walls, suspended timber floors and flat roof.

We invested in good insulation and high spec windows but as the aim was to keep costs to a minimum we extensively used MDF, e.g. for architraves, skirting boards, fireplace surrounds and the list goes on. The timber floors and the hallway's marble floor were also sourced second-hand to help with the budget.

As a result of our efforts the build cost turned

out to be lower than expected so we spent more money on the fit-out.

Favourite design feature?

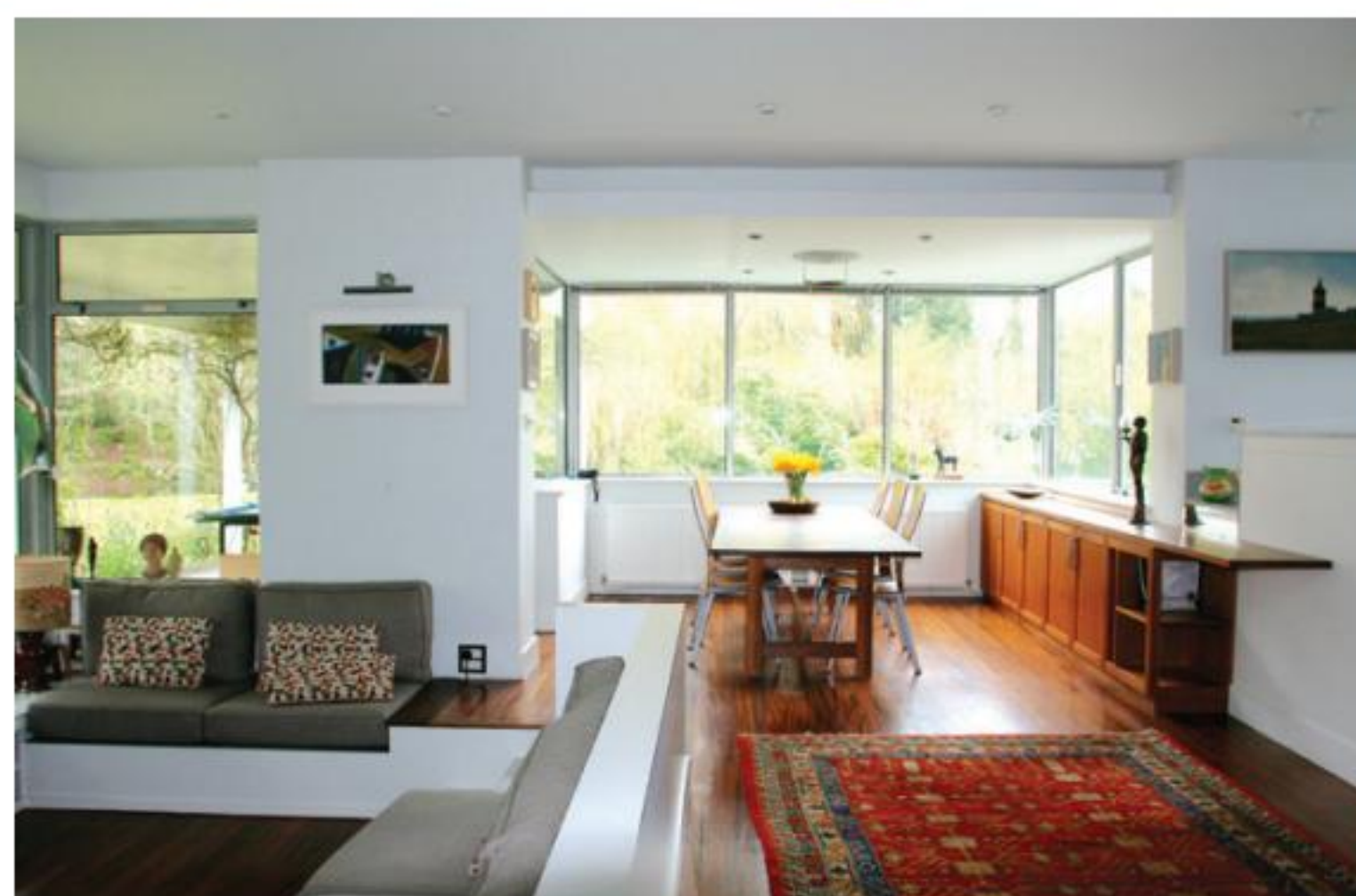
The living room is upstairs, which is unusual. This was because I wanted both the family living area (sitting, dining, kitchen) as well as the living room to face south (for the sun), west (so we could avail of the sun in the evening coming back from work) and east (because of the nice views). They ended up on top of each other. There are some other interesting features like the roof light that I especially enjoy.

Favourite room?

This has to be the family area downstairs, which consists of the sitting room, dining room and kitchen: all three separated, yet unified, by an empty space between them which also opens up ►



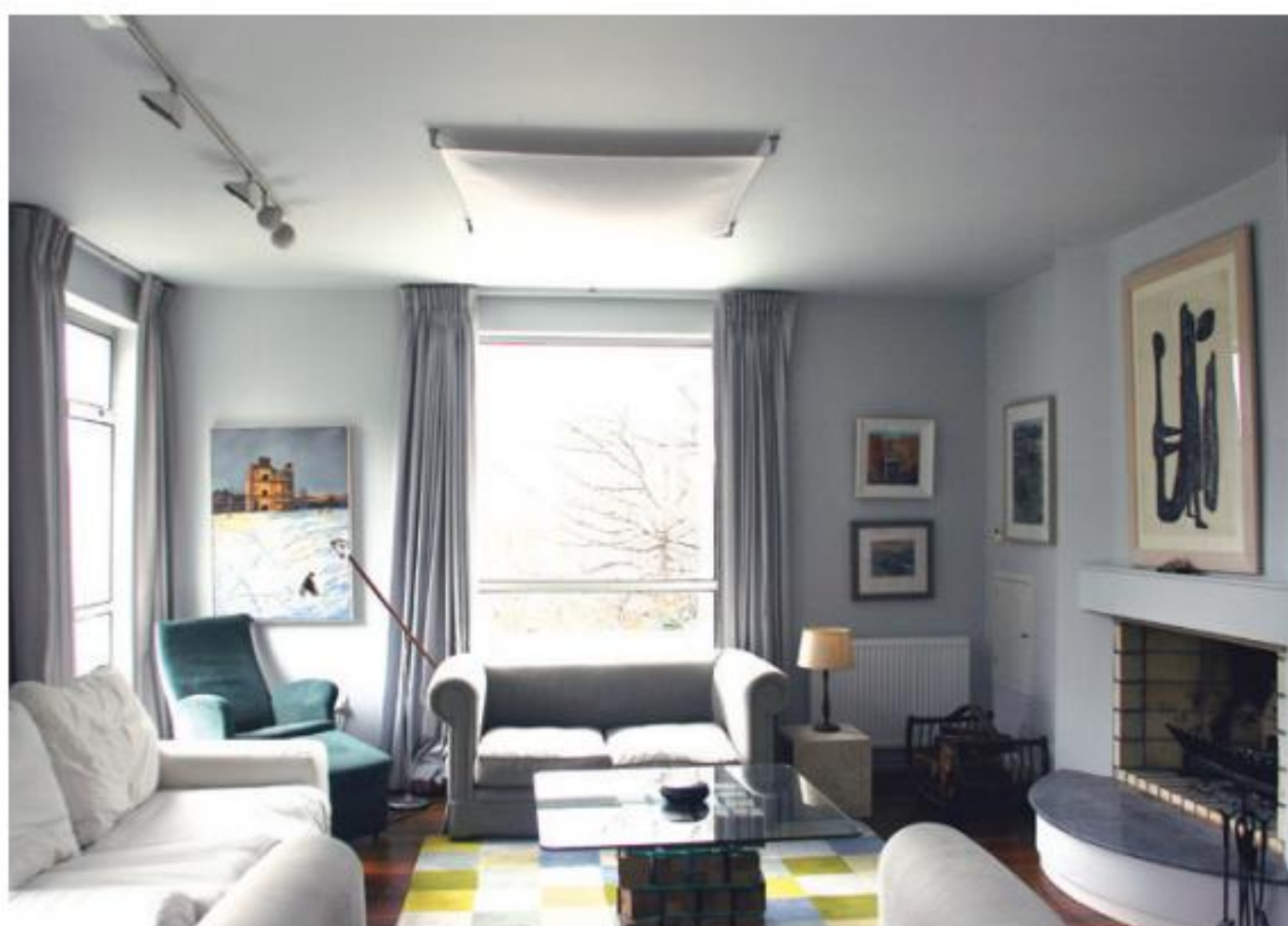
First Floor



Ground Floor



The open plan layouts are broken up with varying floor levels and low walls.



to the double-height hall with indoor garden.

The sitting area is defined by going down three steps, and by a low wall also serving as a back for the seating. The dining area, with its 3.2m long table, is in its own space but also projects into the garden.

The kitchen is separated by a low wall which is high enough to hide the clutter yet low enough

so as not to isolate the person cooking from the activities of everyday life.

Cost

280 sqm / 3,000 sqft in size, our home was built in the late 1990s at a cost of IR£170,000. The original kitchen had cost IR£7,000, but two years ago was replaced.

In total and since the beginning we may have spent around €250,000 to €270,000 to bring the house to its current state.

Despite large expanses of glazing the cost of heating is relatively low, at about €2,000 yearly, even though it runs 24/7. ■

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Working towards a greener planet



The leak detective

Armed with a few DIY tools you can conduct your own home energy survey to pinpoint problem areas – and test whether work you've carried out has paid off!

Public libraries in Dublin city are now offering you the possibility of hiring out not a book or a DVD, but a Home Energy Saving Kit, courtesy of Codema (City of Dublin Energy Management Agency).

The kit allows you to monitor energy use in your house; Caitriona Fisher, whose house you might remember from our Winter 2015 issue, agreed to take on the challenge and test her very own home which was beset by high humidity and poor insulation levels up until the time she renovated.

The burning question is whether all the hard work she invested in has really paid off.

The kit

Caitriona's two favourite devices were the leak detector and the temperature/humidity reader, which allowed her to gauge the effectiveness of her insulation and ventilation strategy.

Temperature and humidity meter: With this piece of kit you get to confirm what you already suspected: if the house feels damp it probably is. Reasons for high humidity include poor ventilation systems, insufficient heating, lack of insulation and low indoor air quality. Ideal humidity levels are between 40% and 60%. Low temperature can be due to insufficient insulation or heating system; draughts and poor window quality can also be at cause.

Thermal leak detector: A digital thermometer which shows you temperature differences within a room – this pinpoints where there may be thermal air leaks, e.g. around windows, and identify areas for further insulation and draught proofing. The difference between the temperature of a surface and your room should be no greater than 5 degC. When you turn on the device it sets the reference temperature automatically, and, depending on what you are pointing it at, the LED light on the device will change colour if it detects colder or warmer temperature changes.

The verdict

It was with some trepidation that Caitriona opened the kit; the last thing you want after investing a lot of money in a refurbishment is to be told it was all for nothing! Discouraging is too small a word.

But thankfully the readings, which were taken

in April, showed that the additional insulation that was installed in the internal walls paid dividends (calcium silicate boards on lime rendered walls) as temperature differences were not high.

In most rooms these came back at around 1 degC. Maximum temperature difference in a room was 2.6 degC, which, despite being a south facing room, had not been insulated as part of the renovation. The humidity level however was good at 50%.

The subfloor was also ventilated and insulated as part of the works undertaken two years ago; the humidity levels are much improved (50%) as compared to when dry rot was present (95%). The temperature differences (2.2 deg C) in these rooms, i.e. in the living and dining rooms, and humidity levels (54%) are the highest but still within acceptable bounds.

Caitriona is considering insulating her walls in these rooms but as the building has historic value this would mean having to insulate on the inside, as they did in the bedrooms, and this will lead to making the rooms smaller.

The back bedrooms, which are upstairs and east and south facing, were insulated and have the lowest difference in surface temperatures which is obvious in how comfortable they are.

Caitriona says she will repeat these readings to see if the good results are maintained after the summer and into the winter.

Other tools

Part of the kit is also a plug-in energy monitor to show you how much electricity appliances use, a radiator key to bleed your rads (should be done once a year; having to bleed often can be a sign of a leak), a stopwatch to test the flow rate of your taps and shower, and a fridge/freezer thermometer – did you know you should keep your fridge between 3 degC and 5 degC and your freezer between -15 degC and -18 degC? With this device you can set your food storage appliances correctly.

The Home Energy Saving Kit is currently available for the public to borrow free of charge from 10 Dublin City Public Library Branches.

To find out more about the kit and for a list of branches where they are available, visit www.codema.ie/thinkenergy ■

Astrid Madsen



Fridge freezer thermometer



Temperature & Humidity Reader



Plug-in energy monitor



Thermal Leak Detector

Called to account

When you set out to build yourself a home, the last thing on your mind is accounting. But keeping a watchful eye on the finances can make the difference between having a good experience and ending up with a nightmare.

Deciding what you want and what you need

Start off by deciding what it is you really need from your new build. Begin with the 'must haves' and then add the 'wish list'. Bounce this around the family so all your 'stakeholders' feel involved, but don't commit yourself until the financial plan is in place.

Next, sit down with your partner and work out your personal finances. How much money do you actually have? How much can you borrow against your income? What are your savings? What, realistically, will your current home, if you have one, sell for?

Right: It's way too dangerous for your finances, family and relationship to plough on with a project that was financially doomed from the start.



Above: Begin with the must-haves and then add the wish list but don't commit yourself until the financial plan is in place.

Lots of homework should follow this conversation. Get the house valued by three agents; start talking to lending institutions; meet with your bank manager and discuss your plans; talk to your accountant if you have one; make a realistic (and preferably, pessimistic) assessment of what your savings could be worth in the future, and so on. At this early stage we tend to fool ourselves that we'll

have more cash available than in fact is the case. It is here that money trouble starts.

Be brutally honest with all the sums you come up with and, if anything, underestimate your income and borrowing power.

Decide what you're going to do

Starting out starry eyed over a dream house you don't have the budget to fund causes many couples I've known to come to grief.

In my experience, the next stage is to see a professional designer. Talk through your list of wants and needs and start to get a handle on the build costs. A locally based person will know what builders in the area charge per square metre / what the professional costs are. This is a first, rough estimate. The result is often a wake-up call.

Now is the time to get real about what you can afford. If the answer is a lot less than you thought, do you still want to proceed? I think more couples should back out at this stage than actually do. It takes courage, but it's way too dangerous for your finances, your family and your relationship to plough on with a plan that is financially doomed from the start.

Getting the money

There are a range of institutions interested in lending for self-builds, most of whom will provide up to 75 per cent of the build cost. Some will lend towards the land, others won't. Who will lend you what will depend on your earnings and other security you can offer. If you are self-employed or building as a sell-on, then expect many more problems raising the cash.

Be prepared before you go to see your lender with a drawing of the proposed house, details of the site (with agent's brochure if there is one), a broad timetable of when you'll need the money (in stages over, say, one year from build start), a copy of the planning permission if you have it, and your building cost estimate from your architect or surveyor. If you can also detail the costs listed below, they'll be mega-impressed.

Defining Cost

It's easy to spend a third or more of your entire budget on the site, which is a good investment because you can always add to the house later as more funds become available. The land is unlikely to fall in value but tastes in housing change. ►



Whilst every self-builder hopes for an economic build done in double-quick time, to a high quality, the reality is that you may achieve only one of these, possibly two, but very rarely all three.

The cost of purchasing the site with attendant legal and registration fees is just the first of a huge number of other costs:

Additional reports for example, if anyone thinks the land could be contaminated, analysis of soil samples, a topographical survey.

Fees due to your lender, accountant, designer for obtaining planning permission and designing the house, structural engineer, a project manager if you're using one, Local Authority Planning and Building Control.

Fixed costs include structural warranties, site insurance and possibly personal cover for loss of earnings, the builder, removal and storage of furniture, buying new items, driveway and garden, garage (often omitted at the outset), contingency of 10 per cent minimum, selling your existing home.

Infrastructure charges including connection to mains water, electricity, sewerage.

Borrowing costs buying the site and bridging for rent and/or the build until you can move in.

Looking at the above you'll see that what you pay your builder is only one of a huge number of

other calls on your funds. Remember that if you make any changes during the build these will cost proportionally more; this is how many builders make their profit.

Now decide what you can afford. Professional help in the form of a Chartered Quantity Surveyor or purchasing a Prime Cost sum (PC) costing program is an investment that will pay dividends. In the overall scale of things it is a very small outlay, one which is almost always recouped through the savings resulting. Your architect can offer guidance also but sometimes they can be too close to the project and it helps to use a third party.

The Role of the Quantity Surveyor

In addition to acting as your financial manager, a QS can also act as a negotiator and arbitrator on your behalf.

At the **design stage** they will: advise on infrastructure costs, provide a budget estimate and steer the design to keep within that, consider future operating and maintenance costs, prepare a cash flow forecast to assist with borrowing, ensure tender and quotation requests are suitably prepared to allow for comparison, negotiate with contractors and suppliers.

During **construction** they will keep the budget on track by: monitoring progress and sequencing of works to avoid delays, ensure any changes to the specification are fairly costed, prepare correct interim payments to contractors, labourers and suppliers, safeguard contingency sums, produce regular financial updates, manage remedial plans to minimize the effect on the budget, finalise all accounts with contractors, suppliers, maintain all records and safeguard invoices and receipts and ensure that VAT is reclaimed in full (NI only).

The QS has many other functions during the build but the ones above cover those relating to managing the budget and are very comprehensive. Having the responsibility for this in the hands of a professional can be the difference between facing a financial crisis and having the time and energy to enjoy the 'fun' parts of self-building.

Saving Money

The things that will save money range from simple common sense to known financial black holes. This list below is thus wide ranging, not exclusive and some may be too great a restriction. You may be able to add a few of your own at the end!

- A level site with easy access to services (water, drainage, electricity, roadway, gas, telephone, cable).
- A building that is a simple square or rectangle on plan, external walls without internal angles (Ls or Ts), few breaks in the roof, concrete roof tiles and simple brickwork facings to external walls.
- Internally, straight stairs and minimum circulation areas, radiators, off the shelf windows, doors, kitchen and bathroom, simple lighting, no conservatory, avoid hardwood floors and expensive finishes.
- You can achieve a lot with thought and time on the internet searching for well priced finishing items

Having the responsibility for this in the hands of a **professional** (Quantity Surveyor) can be the difference between facing a financial crisis and having the time and energy to enjoy the 'fun' parts of self-building.



in sanitary ware and kitchens for example. Getting quotes from at least three suppliers will be time well spent.

Building costs

I hate it when people ask me to give them a ballpark building cost because it's impossible to know what they have in mind, and because everyone wants, instinctively, to take a basic sum per square metre and from that calculate a build cost. This is too general, there are so many variations that will affect it so the more detail you can supply to the builders quoting, the better the answer. Anything omitted leaves you vulnerable to having to accept the price the builder gives on the spot. Three or four quotes is usually plenty, ask for and check out references and then take a view, having met them all and seen their work, on which you'd rather collaborate with. Choosing a builder is an important decision and shouldn't be based solely on price. A highly-recommended person you can get on with and trust could be worth paying more for and should save money in the long term. Remember that the cheapest builder may well have priced low to get the work, only to make his real profits from extras you may not be able to control.

How you'll build

There are three major ways you could build. The method you choose will affect what it costs.

1 Main contractor. This is the simplest and the one most self-builders opt for. The contractor will, of course, expect to make a profit of 15 to 25 per cent normally. For this he'll manage the build, buy materials, hire the sub-contractors etc. However, you will still spend huge amounts of time and energy communicating with your contractor as the job progresses.

2 Project manager. There are many different levels of service ranging from appointing a builder and sub-contractors, and pricing, through to a turn-key finish requiring a permanent presence on site. It's therefore very important that both parties are quite clear on the terms of engagement. A project manager shares the workload and responsibility and can save you about 10 per cent compared with a main contractor, even allowing for fees of about 10 per cent of the build budget.

3 Manage the whole build yourself. There are very few who can afford to take a long time off work, are unemployed or work seasonally. It is certainly the most rewarding but, unless you've done it before, can be very harrowing and stressful as you will be learning on the job. In return you can expect to save about 25 per cent on what a main contractor would charge you. Of course your time doesn't come free. Nor do your nerves and energy. Unless you are really sure you can cope, I'd suggest keeping the day job and going routes 1 or 2 – bearing in mind that both of these will still make huge demands on your time and energy.

Managing cash flow

Below are the main stages to a simple house build, each costing about the same which helps planning the cash flow. Most lenders will not release money



until the stage is signed off by a professional.

- Groundworks: to include, site preparation, access road, foundations, drainage and main underground service supplies
- Ground floor walls
- Scaffolding the building, first floor walls and forming the roof structure
- Covering the roof, rainwater goods, chimneys
- Internal walls
- Plumbing and wiring, first fix
- Plastering/ screeding and 2nd fix carpentry
- 2nd fix electrics/fitting kitchen and cupboards
- 2nd fix plumbing and finishing/decorating
- Snagging and external works

Try to build as fast as you can as this minimises cash flow problems. People will be happy to wait a couple of weeks to be paid, but not a couple of months. In general, the building trade works best when accounts are settled promptly because they are carrying the financial risk.

Contrary to popular belief, builders are very often worried about money. When things are getting difficult between you, whatever the reason, try to think how you'd feel if you couldn't be sure you'd be paid at the end of each month in your job. Taking on a small client like you is a calculated risk; in the selection process before going to contract he'll be 'interviewing' you every bit as much as you are assessing him!

Contingencies

If anyone tells you not to worry about a contingency sum, ignore them. 10 to 15 per cent of the build cost must be set aside at the start; no job I have ever known has come in at the exact predicted price (unless it was ridiculously over-priced in the first place). No job I have ever dealt with has been built exactly as planned. Many things, some out of your control, such as the weather holding you up, ►

Choosing a builder shouldn't be based solely on price

can contribute to a larger spend than anticipated. Without a sum put aside, you'll be scrabbling around at the end worrying about how to pay the builder's final account. Even if you think you'll finish with cash in hand, don't spend it until you move in.

Keeping financial records

It's essential to monitor expenditure: there's little point making great financial plans if you don't keep to them. Keep a daily site diary of everything significant that happens and especially of all transactions that involve money. Never, ever, throw any piece of paper away! Keep all delivery dockets, invoices, cheque stubs, and bank statements so you can account for every penny spent, and especially cash payments. You will need these to reclaim VAT on the build (NI only). You get only one chance to do this and if you don't have everything correct

you'll simply lose loads of money unnecessarily.

One way of making financial control easier is to have an account with a local builder's merchant. Not only will you get a trade discount, their monthly statement is clear and there are a lot of billing odds and ends 'under one roof', so to speak. If you are computer literate, keep a spreadsheet up to date every week. There will always be changes to your planned build and thus to the budget. The earlier these come in the project the greater the effect as other parts need changed as a result. Above all, prior to sanctioning any changes, be sure you have full, agreed, prices in writing from the parties concerned.

All this financial watchfulness is crucial to keeping in control. It's all too easy to make small changes here and there which, at the time, appear trivial in the context of the whole budget but which come back to bite you at a later date.

VAT's that?

Value Added Tax is a tax on goods and services, paid at the time you buy or use them. VAT rates and rules are forever changing, so be sure to take advice before you actually start your build. Here's an overview of the current state of play.



VAT

CGT

The first good news is that when you sell what the Revenue office likes to call your 'principal residence', you don't pay Capital Gains Tax (CGT), unless it is clear that you built it as a business and didn't live in it for a reasonable length of time. Just how long this time is, is open to legal debate. Doing several self-builds at close intervals - as some serial self-builders do - causes the Revenue to, reasonably, assume you have become a 'trader' and tax you accordingly.

The only other situation where you might be liable is if you use part of the new house for a home office, and claim tax allowances against this part while living there. This is perfectly legal, but when you come to sell you'll have to pay CGT on that proportion of the house you used as an office and for which you claimed tax allowances. It can be sensible not to declare a proportion of your home as your workplace (and therefore not to make use of any allowances) so that when you come to sell, the whole value of your home remains untaxed if it is your principal residence. If you are intending to stay in your home for many years, then making the most of your tax allowances makes sense.

VAT in the Republic

Sites In the case of sites and one off housing, the VAT treatment is dependent on whether or not the site is developed, and whether or not it is supplied for consideration in the course of business. When you buy land to build on, the vendor cannot charge you VAT unless the site is a "developed" or serviced one. If it does have services added, such as electricity, sewerage, access road, fencing, and so on, the vendor can charge you VAT but you cannot, as a private person, reclaim it. For example, if a farmer sells you an undeveloped site, the sale of the site is not liable to VAT. If a developer sells you a developed site, the sale of the site is liable to VAT. Serviced sites can be attractive because a lot of the infrastructure work has been done by someone else, but bear in mind that the added VAT will mean this all comes at a price. You'll have to take a view on what this means to you.

The House It isn't possible to claim back any of the 13.5 per cent VAT you have paid when building your own home or having it built for you by a main Contractor. This Contractor should employ all of his own professionals and tradesmen. If he sub-contracts, you may end up paying more ►





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Extensions qualify for the
Home Renovation Incentive



ROI: VAT can be reclaimed on renovations

Until December 31, 2016 the Home Renovation Incentive (HRI) allows you to claim back VAT on your home renovation project, which includes everything from painting and decorating to septic tank repairs.

The work must cost a minimum of €4,405 before VAT is applied, which will attract a credit of €595 (maximum credit is €4,050 for work costing €30,000 or more). It must also be carried out by a tradesman (where the 13.5 per cent rate applies); goods you buy directly such as carpets or tiles will not qualify (the standard 23 per

cent rate will apply). Note that architect and other design fees do not qualify.

Other conditions include the need for this to be your main residence; full details are available from our article published in 2014 when the scheme was launched. More details on conditions and how to sign up from www.revenue.ie

because the individual trader will also add his profit margin (along with accompanying VAT).

If you use direct labour and act as a project manager, you pay VAT for labour provided by VAT-registered tradesmen, at 13.5 per cent. Building materials, with the exception of ready-to-pour concrete and concrete blocks (to which the 13.5 per cent rate applies), are all charged at 23 per cent. You cannot claim any of this back. If you were to build the entire property yourself, you still can't claim any VAT back on your materials. Specifically, there is no provision for the repayment of any excess of VAT charged at 23 per cent on building materials over the 13.5 per cent which would be chargeable if the work had been done by a VAT-registered Contractor.

The entitlement to reclaim VAT on the purchase of the site or on the house building is conditional on the intended use of the property. If you, as a private person, purchase a property or site for your own use as a private dwelling, you will not be entitled to reclaim VAT. However, if you purchase the site or build the property with the intention of selling it on, an entitlement to VAT refunds will arise but you will also be liable to VAT on the full selling price.

Partly constructed houses If a builder/developer sells you a partially constructed house, the sale is usually liable to VAT because the builder is selling it for business purposes. However, if a private individual was self-building a house and could not afford to finish it, and sells it on to you, this is not normally liable to VAT.

Where the subject of VAT becomes of interest to self-builders in a jurisdiction that doesn't allow any reclaims of VAT, is the amount that is payable in the first place. Certain items when installed into a new house qualify for the 13.5 per cent rate of VAT once they have been permanently installed as fixtures. Others, classified as fittings, are subject to VAT at 23 per cent. To qualify, a 'fitting' must be able to be taken from a building without causing substantial damage during removal. These rules also apply to the importation of materials for building, for example a log house. Here are a few examples of each.

'Fixtures' on which you pay VAT at 13.5 per cent

- Air conditioning
- Attic insulation
- Attic ladders
- Baths
- Built-in kitchen units
- Built-in wardrobes and presses
- Burglar alarms
- Central heating systems
- Double glazing
- Electrical wiring
- Fencing posts
- Fires escapes
- Fireplaces
- Floor coverings stuck down to the floor
- Gates
- Insulation in cavity walls
- Immersion heaters
- PABX telephone systems
- Sewage treatment plants
- Storage heaters/radiators
- Storage tanks for oil/water
- Wooden floors

'Fittings' on which you pay VAT at 23 per cent

- Blinds
- Curtains
- Stand-alone electric and gas fires
- Fitted carpet and lino
- Kitchen cookers
- Lighting (other than recessed lighting)
- Mirrors
- Shelving
- Refrigerators/deep freezers
- Washing machines/dishwashers etc
- 'Floating' wooden flooring

If you are registered for VAT and intend using part of your home for your business, for example as an office, craftwork room, for storing tools etc. you may be able to claim VAT back on that part, but, as I mentioned above, you'll have to pay CGT when you come to sell.

Almost all self-builders will be offered services for less money if they pay cash and thus save themselves VAT. This is, of course, illegal as it encourages tradesmen to avoid paying income tax that is due to the Revenue. Strictly speaking this tax avoidance is the legal responsibility of the tradesman, but it is still sensible to avoid in case you too become implicated.

VAT in Northern Ireland

The rules regarding VAT in Northern Ireland are very different to those in the Republic as NI is covered by the same legislation as the rest of the UK. Before I go into the details, a few words of caution.

- 1 Be sure to keep on the side of the Law throughout. Never pay cash without proper receipts for VAT made out to you. Ideally, never pay cash at all. Keep a very clear paper trail of all your expenditures on the build with credit/debit card statements and cheque book stubs that agree with bank statements.
- 2 Builders working on new buildings should be zero-rated to begin so they shouldn't charge you VAT on their services. Check your builder's credentials and that his VAT Registration number is real and up to date. You can do this by taking his name, trading details, address and VAT number and checking the details online.
- 3 Keep detailed records of everything you spend.
- 4 Talk to your accountant about your intentions well before you start the planning and design stages.
- 5 Make sure you are charged the correct amount of VAT as your claim will be invalid if it is not.
- 6 Get hold of the application form (VAT431B in the case of a new build, VAT431C in the case of a conversion) and VAT Notice 708 so you can see what's needed from Day One.
- 7 Beware when building on to, or re-furbishing, listed buildings. Take advice before you start as there is a VAT tax incentive to alter a Listed building but not to keep it in good repair. As lots of period building work involves 'repair' it's best to get this proportion clarified at the outset.

In essence, the good news is that on completion of your project you, as a self-builder, will be able to reclaim most of the VAT paid on materials purchased for your construction. As this can be as much as 5 to 20 per cent of the total build cost it's quite a few thousand pounds. You must make your claim within the appointed time and in the correct way, forward planning is therefore vital. This is one area of your project that cannot be fudged later.

Records and receipts

Rule one: keep every receipt for absolutely everything – even if it has nothing to do with VAT.

Every paid invoice will save you money in the end. Keep all credit notes, bills, invoices, a copy of the planning permission and a copy of the plans of the building. It may seem unnecessary extra effort at a time when you are sorely stretched, but sit down at the end of each day and enter things in your Day Book. For me, these have proved invaluable on countless occasions. Years later I have looked them up and found useful information about suppliers, prices, VAT etc. It's time well spent. Another added benefit is if you ever get into a dispute with someone your records of what was paid (or billed), by whom, to whom and when, can quickly come to your rescue! ►

In essence, the good news is that on completion of your project you, as a self-builder, will be able to **reclaim most of the VAT paid on materials** purchased for your construction.





If you were to lose your stack of receipts you'd be in **serious trouble**. Building sites can be messy places and it's easy to put down a receipt only to find it wet and illegible some hours later.

VAT records

VAT is charged as an additional percentage on most building materials. This is currently 17.5 per cent. In reality VAT is a type of purchase tax. For a VAT receipt to be of any value to you (including a hand-written one paid by cash) in your future claim it must show:

- The supplier's VAT Registration Number
- The amount of VAT that has been paid
- The quantity and nature of the goods supplied
- The price for each item
- Your name and address if the receipt has a value of more than £100
- Everything must be clearly readable, if not, ask for a better copy.

When making your claim at the end of the project, you'll need to supply originals, not photocopies. I suggest making copies of all receipts very soon after you get them and then keeping these separately from the originals somewhere safe. If you were to lose your stack of receipts you'd be in serious trouble. Building sites can be messy places and it's easy to put down a receipt only to find it wet and illegible some hours later.

Are all self-builders eligible?

No. The work must be carried out in the UK (but not the Channel Islands), and the building must not have a business use. The DIY VAT Refund Scheme is not for developers, landlords, a property that is to be rented out or a property that is built to be sold on immediately, B&B operators, residential home care operators or membership clubs and associations. If you work from home, though, you can still make a claim for that portion you'll use as an office.

Nearly all self-builders use tradesmen or even a single Contractor for the work. This is still all allowable under the Scheme. You can also claim for the fitting out of a 'shell' bought from a builder or developer. But you can't claim for work you do to complete a building that is already 'completed' by a ►

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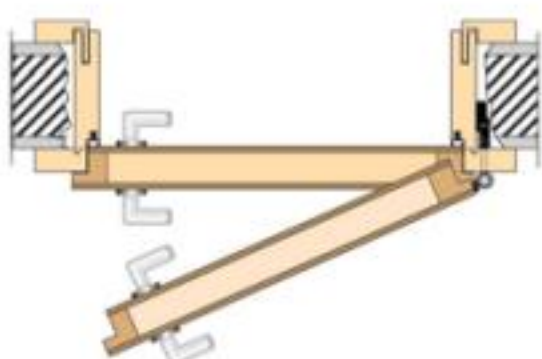
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developer (adding a garage, for example).

Don't forget that this refund system applies to conversions too, that is if a building was not originally used as a dwelling (such as an old dairy), the Refund is available if it has been unoccupied or unused for ten years or more. To prove a property has been empty for a suitable length of time before you start your work you may have to contact the empty property officer at your local authority. They will write a letter confirming the place has been unoccupied for the appropriate length of time and this will back up your VAT Claim.

Other zero and low rate cases

If a dwelling has been unoccupied for two years or more, and a builder does the work, then he may claim under the 5 per cent band for a renovation project. Also note that some building materials installed in the home are eligible for the lower 5 per cent rate, in particular energy saving items such as heat pumps, solar panels, insulation, draught proofing, etc.

Also know that if you are upgrading a bathroom for mobility purposes it will be zero rated. Builders can have different VAT ratings. As seen in the introduction a builder creating a new house for you will not charge VAT at all on his services. If he supplies goods that are intrinsic to the house he should not charge you VAT on these either; items such as plug-in appliances and free-standing furniture will be charged at the standard rate.

What building materials can I claim for?

Put simply, those that are 'incorporated' into the building itself or the site. They must be fixed and be a part of the structure such that their removal would damage the site or building.

Here's a short list of things you can claim for:

- Outside: drainage, paths, driveways, fencing, boundary walls
- Air conditioning
- Burglar alarms
- Fitted kitchen cupboards
- Indoor swimming pools
- TV aerials
- Ventilation
- Curtain poles and rails
- Windows
- Smoke alarms
- Solar panels
- Doors
- Wooden floors
- Fireplaces
- Lifts
- Wiring
- Power sockets
- Built-in vacuum systems
- Solid fuel cookers and oil-fired boilers
- Plumbing installations
- Decorating materials
- Heating systems
- Light fittings
- Turf, plants and trees (if detailed on your planning documents)

- Fitted wardrobes (if a part of the house rather than a demountable kit)

Building materials bought from any EU source qualify for the VAT refund. You have to be able to supply the details of the import and evidence that the VAT has been paid. You'll also be required to submit the amount of your claim in Sterling.

If you import items from non-EU countries you can still claim the VAT but you have to prove you've paid it and also show copies of transit and shipping documents.

You cannot claim for:

- The site. There should be no VAT charged on bare building land anyway. Tell the vendor you intend to build your own place. If the site has some services there could be a small amount of VAT due but it won't be on the whole value of the site.
- The full VAT refund on conversions. Contractors and builders can charge a reduced VAT rate of 5 per cent on conversions.
- Granny annexes that cannot be used or disposed of separate from the main house. This is because a granny annex is not 'designed as a dwelling' from the start.
- Detached workshops, playrooms or enclosed swimming pools; for the same reason as the above point.
- Fitted furniture.
- Garden ornaments, ponds, sheds and greenhouses.
- Carpets and other floor coverings that can be removed.
- Most electrical appliances.
- Consumables (sandpaper, paint brushes).
- Any services. For example the professional services of architects, surveyors, designers, planning consultants, project management etc. You also cannot claim for hiring or buying tools and plant, hiring services such as skips/ladders/access/scaffolding etc.
- Extensions. This makes it vital to incorporate that conservatory at the beginning rather than waiting a year or two after you've completed your build. If you do, you'll lose out on the VAT refund on the materials.

When to claim

This should be done at the completion of all the work on the project. This means finishing everything that you'll ever want to claim on. It makes sense therefore to do as much outside work as you can at the same time as the build, even if it does stretch the budget. Get a claim pack from the Revenue or print off the forms from the website.

It can be hard to know exactly when your build is complete, but it is usually common sense once everything is done according to the original planning documents. You may also get a Certificate of Completion from Building Control. If you are borrowing money this will be essential to get your final payment, or at the very least inform your lender that everything is complete. A letter from them or a Council Tax assessment are also acceptable to the Revenue.

From this completion date you now have three months to make your claim.

Send in:

- The Claim Form
- A description of the building goods and their quantities
- Other goods/materials and services claimed for
- Your claim calculations
- The VAT invoices and other documents that support your claim
- Evidence that the work has been completed
- A copy of the Planning Permission
- A copy of the plans

When making your calculations, don't forget to allow for credits or discounts given by your suppliers; returned goods or bulk purchases.

Keep a copy of everything you send just in case the Revenue needs clarification.

Your refund payment will usually come through approximately 30 days after your claim is lodged, provided the Revenue doesn't need more information on anything. ■

Note: No matter which way you intend to build, always take professional advice. Also keep abreast of changes in rates and allowances.

Andrew Stanway,
updated by **Astrid Madsen**

Additional information:

Check the validity of any EU VAT number (GB for NI and IE for ROI) on the European website VAT Information Exchange System: www.ec.europa.eu/taxation_customs/vies

NI: VAT helpline number: 03000 569 145 / 0300 200 3700 Monday to Friday 9am to 4pm (lines are apparently less busy in the morning).

www.gov.uk/vat-building-new-home

ROI: Revenue Property Guide

www.revenue.ie If you don't find answers here ring your local tax office to get clarification for your specific circumstances.

info

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“

Reports and inspections have to be carried out for excavations and scaffolding (for the latter, weekly and after bad weather)

...all work at height to be carried out safely – scaffolding is required both externally and internally for bricklayers, plasters etc.



Dealing with safety on site

Making sure the site is safe and the workers' health isn't affected will require constant awareness from you; here's what to expect and how to tackle the challenges on your self-build or home improvement project.

The law

European directives have made changes to the NI and ROI health and safety landscape.

In ROI, as of August 2013, the derogation from the duties of Clients under the Regulations for homeowners has been removed. While contractors have always had their own set of health and safety obligations, as a homeowner you weren't held responsible. But now you are. In simple terms, you will have to appoint 'competent persons' to the build. Designers, contractors and Project Supervisors will all have to demonstrate to you the client that they are competent to carry out the work, they're obliged under the legislation to supply all relevant details to you.

For projects that involve more than one contractor or are scheduled to last longer than 30 days or involve a particular risk, the homeowner will have to appoint Project Supervisors for the Design Process (PSDP) and for the Construction Stage (PSCS). These two roles can be fulfilled by the same person, or even the homeowner themselves, but only if they are competent to do so.

- 1 The client will also have to notify the Health and Safety Authority (HSA) when the project is scheduled to last longer than 30 days.
- 2 The PSDP must carry out a risk assessment and put together a design stage Safety & Health Plan. The PSCS also must further develop the Safety & Health Plan drawn up by the PSDP to identify appropriate controls for any particular risks on site and to layout a plan of the works will be completed in a safe manner.
- 3 By acting as PSCS on your project, (which you are most likely to do if you go down the direct labour route), your additional duties will mainly be focused on coordinating and organising the works of the different contractors involved. Certain safety documentation will need to be produced, e.g. Safe Pass, safety statements and training records.
- 4 A copy of the Safety & Health plan along with the above contractors' details, construction drawings and other relevant documents, will have to be filed on site for all parties involved to refer to and for inspection by the HSA.
- 5 The role of the PSCS is crucial as this is the person who controls key safety decisions on

site and failure to discharge this role could lead to serious, even fatal accidents. The roles of PSDP and PSCS have always existed but used to only really apply to commercial projects.

The HSA has produced guidance for homeowners and for contractors/project supervisors involved in small domestic projects.

In NI, the Construction (Design and Management) Regulations (Northern Ireland) 2015, also known as the CDM Regs (previous version was dated 2007), are coming into force in August 2016. The additional roles of Principal Designer and Principal Contractor have been introduced and these are similar to the PSDP and PSCS roles in ROI (see above).

Part 4 outlines your obligations as a homeowner that hires direct labour, which are the same as a contractor's. These are the same in NI and ROI and include not only making sure that you have facilities for your staff (toilets and running water) but also that:

- everyone wears hard hats and steel cap shoes;
- the site is tidy and appropriately fenced off to prevent dangers to others, including children;
- the structure is stable during construction and particularly at times of high wind;
- excavations are adequately supported or battered back so as to remove the risk of collapse.

You also need to make sure that the excavations are properly guarded to prevent people, equipment or building materials falling in;

- reports and inspections are carried out for excavations and scaffolding (for the latter, weekly and after bad weather);

- a survey is carried out on the building before any demolition or major refurbishment work takes place to determine if the building contains any asbestos and if so, to advise on how this should be dealt with. The detailed survey of the property is known as a Demolition / Refurbishment ▶



survey and it must be carried out by a competent person;

- all work at height is carried out safely – scaffolding is required both externally and internally for bricklayers, plasters etc. The gable ends as well as the front and back of a house require adequate edge protection before roofing work can start. If you are placing concrete floor slabs you will be required to provide perimeter edge protection along with a collective passive fall protection system (e.g. air bags);
- lifting operations, e.g. using cranes and telehandlers, are properly planned by a competent

One in five workers killed in construction accidents fell from a roof, while many other workers die, or get seriously injured, after falling through fragile materials.



person. You must also ensure the selection of appropriate equipment for the task in hand; that the lifting equipment and accessories have the appropriate examination reports and that the slinger is properly trained.

In ROI there is also a Construction Skills Certification Scheme that requires certain construction workers carrying out safety critical tasks to complete CSCS training. Having done so, they will be given a CSCS card. These tasks include basic scaffolding, site dumper operation, mini digger operation and more.

Still in ROI the Regulations (Safety, Health and Welfare at Work (General Application) Regulations 2007) apply to all work at height, e.g. using a work platform such as a scaffold or trestle, where there is a risk of a fall liable to cause personal injury. The duty is to prevent falls. There are almost as many low fall injuries as high-fall and these cause many serious injuries. Working practice procedures must be initiated and risk assessments brought into play at all times to ensure that no-one comes to any harm.

General safety precautions

Building sites are dangerous places so in all instances you should be mindful to take all precautions to:

- prevent slips, trips and falls not only to themselves but to others;
- provide safe access to and egress from places of work;
- take suitable and sufficient steps to prevent people falling and, where someone can fall a distance likely to cause injury, a hierarchy of fall prevention measures must be adhered to.

In addition, the following should be borne in mind:

- trade waste, dirt and refuse should be regularly cleared away;
- tripping hazards such as trailing wires, brick banding and protective coverings should be cleaned up;
- spilt liquids, whatever their nature, should be cleaned up immediately;
- gangways should be free of obstruction
- good drainage should be ensured, particularly in wet processes;
- ramps should be kept dry with non-skid surface.

Apart from the injurious angle of any falls or accidents, the litigious element should also be considered. If, for example, somebody should slip into an open manhole cracking a few ribs in the process, action could be taken against you under civil law for not ensuring it was covered. So, as well as covering up holes and guarding edges, you should always aim to keep your site as tidy as possible and keep an eye open for hazards such as discarded broken bricks, nails sticking out of timbers, untied ladders and faulty scaffolding.

Never let children play on a site and make it secure from pets and curious visitors. These are general tips for all building sites, but common sense and an awareness of safety regulations will ensure raised safety standards.

Falls

One in five workers killed in construction accidents fell from a roof, while many other workers die, or get seriously injured, after falling through fragile materials. Roof work is potentially very dangerous and roof workers need appropriate knowledge, skills and experience to work safely. With this in mind the following tips are essential to bear in mind:

- use a working platform such as scaffolding, mobile platform or trestle; the use of a non-integrated basket / cradle is not permitted except for in exceptional circumstances – see ROI relevant guidance to General Application Regulations
- use personal suspension equipment such as bo'sun's chair;
- use fall arrest equipment such as harnesses and nets;
- always be aware of overhead power lines;
- ensure safe access onto and off the roof by using a mobile elevated work platform or scaffold;
- assume roof coverings are fragile unless confirmed otherwise by a competent person. ►

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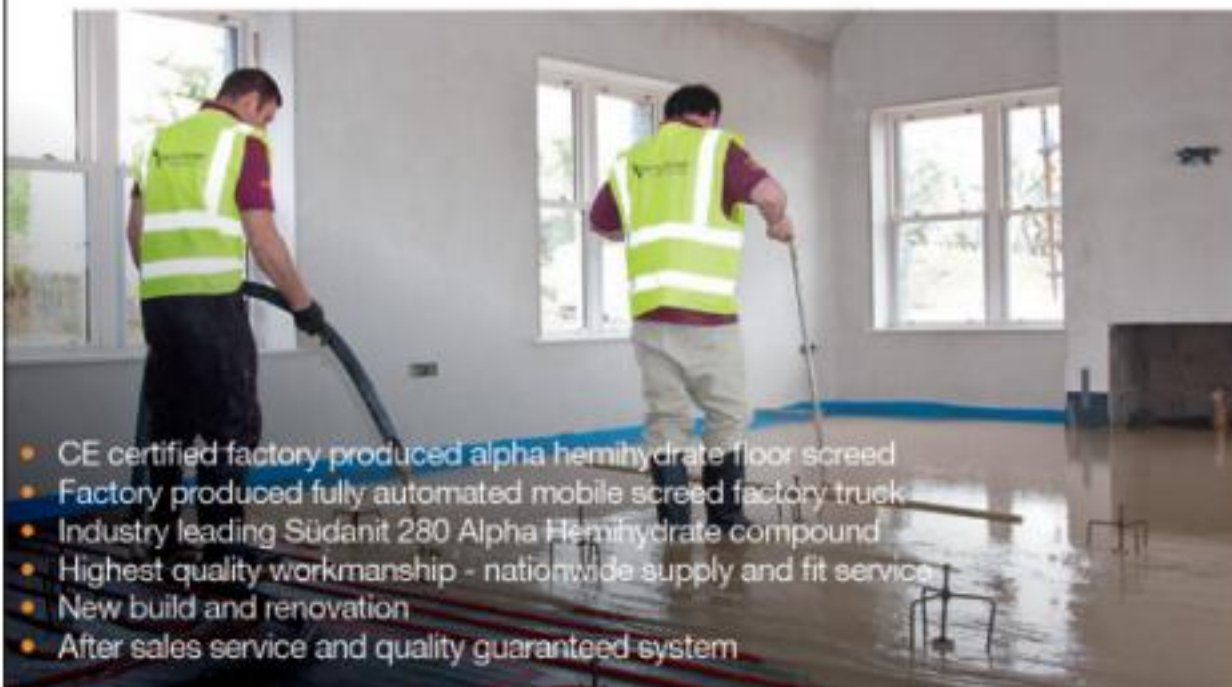
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Scaffolding

All scaffolding should be based on a firm, level foundation, which should be capable of supporting the weight of the scaffold and any loads placed on it. Watch out for overloading with pallets of slates, bricks or blocks. In addition, it should be tied into a permanent structure or otherwise stabilised.

Ideally, anyone working on scaffolding should take the added precaution of wearing a harness (this is not a requirement except for scaffolders erecting / dismantling scaffolding).

Working platforms should be fully boarded and provided with toe-boards and guard rails. Access ladders should be tied to the scaffolding.

Excavations

Before digging any trenches, decide what temporary support will be needed and plan the precautions that are going to be taken against collapse of the sides, people and vehicles falling in to it, materials falling onto people working in it and underground and overhead services.

Prior to digging liaise with service providers in relation to services location. Cable detection devices to be used to identify exact locations of services prior to digging.

If unidentified services are found, work should be stopped until further checks are made

A **fire extinguisher** is not always an obligation but it's a good idea to have several both inside and out.



to confirm that it is safe to proceed. All pipes and cables should be treated as 'live' unless the opposite is confirmed.

Machine excavators and hand-held power tools should not be used within 0.5m of the marked position of a known cable and pipe. When working near buried pipes and cables, spades and shovels should be used rather than picks and forks, which are more likely to pierce cables.

Electricity

Electrical equipment is used on virtually every site so it is imperative that electrical safety is practised by everyone. The key to electrical safety is to ensure that electrical systems and equipment are properly selected, used, installed and maintained. Electrical equipment used in construction work, particularly power tools and other portable equipment and their leads often face harsh conditions and rough use. Modern double insulated tools are well protected, but their leads are still vulnerable to damage and should be regularly checked. (Where possible, eliminate the risk of electric shock by using cordless tools).

If cordless tools can't be used, tools which operate from a 110 volt supply system centrally tapped to earth should be used. This ensures that the maximum voltage to earth won't exceed 55

volts and effectively eliminates the risk of death from an electric shock. Mains voltage equipment cannot be used, which means a transformer will be required.

Visual inspection can detect about 95% of faults or damage, so before any hand-held tool or lead is used, check that no bare wires are visible, the cable covering or sheath is not damaged, the plugs are in good condition, there are no taped or non-standard joins in the cable and there are no overheating or burn marks on the plug, cable or equipment.

Contact with overhead power lines is another possibility and any work carried out near electricity distribution cables or power lines must be carefully planned. Cranes, (particularly lorry mounted), and other lifting plant are particularly prone to coming into contact with lines, but long ladders or large metal roof sheets can also pose a danger.

Fire

Every year sees numerous fires on construction sites and most have serious consequences therefore you should:

- Avoid positioning flammable material close to sources of ignition;
- Limit the amount of combustible material to be used on site by restricting its presence to what is needed;
- If combustible materials have to be stored on site, separate them from the rest of the structure with a partition that provides 30 minutes fire resistance and has high and low ventilation points;
- Small quantities of up to 50 litres of flammable materials should be stored in lockable steel containers;
- Site rubbish skips outside and at least 3 metres from the structure and other buildings.

Assigning someone to be fire officer is considered good practice. In ROI fire procedures and emergency plans must be dealt with in the employers' safety statement. In all cases evacuation routes must be clearly indicated and staff must be made aware of them. A fire extinguisher is not always an obligation but it's a good idea to have several both inside and out. Seeing your dreams go up in smoke for want of this simple but potentially vital piece of equipment, is not the happy ending you envisaged.

Protective Equipment

Hard hats Obviously with the risk of injury from falling materials or hitting scaffolding or lintels, hard hats are a necessity. Everyone, anywhere on the site, even if not working, should be wearing a hard hat and, perhaps even more importantly, wearing it correctly! Size matters, so have a selection to hand. Hard hats now come with extra special features, such as a sweat band for the forehead and, although they are slightly more expensive, they are much more comfortable for the wearer.

Safety spectacles are another 'must'. Apart from the obvious hazard of flying objects, these glasses will also protect against such dangers as sparks, which may appear during disc-cutting of either

steel or concrete, chemical splashes, or, in the case of welding, protection from ultraviolet radiation (although specialist goggles are required in this case).

Ear muffs should be worn when using noisy equipment such as a masonry drill.

Clothing can be a safety feature in itself. Protection from the elements is a necessity, but many accidents happen when people in hazardous positions cannot be seen, so high visibility clothing is equally important. For example where vehicles are being driven around the site, or where they need to be clearly visible to those involved in lifting operations (crane drivers for example). Avoid loose clothing as this can get caught in machinery.

Warning beepers in reversing vehicles should never be disconnected, no matter how annoying! Auxiliary visual devices are in fact required on most plant machinery including reversing cameras, convex mirrors, etc.

Footwear should be tough and durable to prevent both the risk of materials being dropped on feet and of nails or other sharp objects penetrating the sole. Wellington boots should also be provided for anyone working in water or wet concrete. Remember also that cement is a strong alkali and can cause nasty burns.

After a safe site, you need a safe house.

Babies

The strong desire to renovate is known to be associated to pregnancy so a word of caution on doing works at this time. Volatile organic compounds (VOC's) contained in paints and varnishes have been associated with birth defects and whilst these products are being phased out you should still check the label carefully. Water-based paints are less hazardous than solvent-based ones but even they might contain metal-based pigments. If you're working on an older house, beware of sanding down the paint work as it might contain lead.

Even if the amounts of individual chemicals are below 'safe' limits, the cumulative effect of new paint, carpets, curtains, furniture and fittings could exceed what is known as the total toxic load. Never weld galvanised steel in an enclosed space as the gas produced is toxic.

Most new carpets and curtains will have been treated with insecticides and wallpaper pastes usually contain fungicides. Even the all purpose MDF contains formaldehyde which has been linked with lung disease and even 'untreated' timber has often been sprayed to prevent mould growth and insect damage, as has furniture.

To help avoid these, always work in a well ventilated area and that usually means windows open, whatever the time of year. There are now good colour ranges of "natural" low odour paints, and natural floor coverings, but do check that they are actually 100% natural and not mixed fibres. Ones with a latex backing will help prevent dust mites and asthmatic irritants from accumulating.

Best of all, vacuum regularly with a fine filter. Asbestos is another hazardous material to



look
out

for; it was

extensively used in the

past as insulation and fire proofing. The danger is in releasing the fibres and inhaling them so if you suspect its presence have it checked out before continuing with work.

And finally. Anticipate problems and remove risks quickly before they can cause injury or loss of life. Remember Murphy's Law: if it can go wrong then one day it will. ■

Gillian Corry & Astrid Madsen

Additional information:

Both the HSENI and HSA have very useful leaflets aimed at homeowners. Also know they are there to help and advise you.

Health & Safety Authority (Head office, branches countrywide) Dublin 1, tel. 01 6147000
www.hsa.ie

Health & Safety Executive NI Belfast, One-2-One
Helpline 0800 0320 121 www.hseni.gov.uk

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In the night garden

Bask in the nocturnal majesty of a moonlit garden



Rudolf Steiner believed that different crops should be planted during different phases of the moon

Gardeners like their grounds to be multi-seasonal. With spring comes colour, with summer much-loved exuberance. Autumnal leaf colour changes never fail to disappoint while winter brings with it a degree of structure that can only be admired.

We gardeners plan for all of that. We understand that a garden lives through the year, every day of the year. And yet the irony is that we enjoy the garden for only half of the day!

Barring the odd late summer party that drifts on, or a midnight stroll in a contemplative mood, most gardeners couldn't tell you what their garden looks like at night or how well it performs under cover of the stars.

One way of addressing that is to think of creating a moonlit garden or at least tweaking it so it does as well under the glimmer of the moon as it does under the glare of the sun. It could be a silver border along the garden path, it may just be white floral abundance in containers on the patio. You could even go howling and carve a crescent lawn or create an orb of white pebble.

However big or small the change, the challenge of crafting a moonlit garden is so easily met you'll soon wonder why you've been wasting time sleeping all these years!

Even if you're not a night owl you'll no doubt enjoy the wow factor these small changes will bring, for your next dinner party or late night romantic rendezvous.

Of gravity and potions

Of course there are also some esoteric matters, (the idea that moonlight is a potent energy source – a psychic activator if you will), that might drive you to invest in silver leaves and white flowers.

Now I don't mean that you will suddenly be reading palms and hearing voices but many writers and artists over the years have reported heightened focus and creative activity at full moons and via working nocturnally – of course the word lunacy is connected to the moon so maybe the voices are on the cards after all!

In all seriousness there is something captivating about moonlight so why not experience that every now and again?

The moon's gravitational pull (how it influences the tide and bodies of water) was one reason why in ancient lore, magic herbs (meaning herbs for divination or spells) and healing herbs were often gathered at night and especially on full moons as the energies of the plants were thought to have been pulled into a greater intensity.

The practice of gardening by the moon is a cultivar of that concept. The modern embracement of that in some quarters (forgive the pun) comes from the roots of biodynamic gardening and the works of the Austrian social philosopher Rudolf Steiner (1861–1925).

Steiner had some marvelous ideas and some unusual theories that he wove into his philosophy of gardening – mixing science, ancient crafts and a bit of channeling (there is that psychic thing again). He believed that different crops should be planted during different phases of the moon and according to their zodiac or astrological profile – quite a complex system.



And while modern moonlight gardeners will adhere to planting aerial crops by the waxing moon and root crops by the waning, mostly the idea that is embraced universally is that of gravitational pull – that seeds will absorb more water around a full moon and so germinate quicker. It makes intuitive sense but the jury is still out on whether it's a scientific fact.

I'll put my cards (tarot or playing) on the table: I do sometimes sow and plant by the moon phases and I have found germination success rates improved and sometimes yields too.

In three easy steps...

But back to the aesthetics of a moonlit garden which is all about cultivating an array of plants that catch and reflect moon light or which entice into your space an air of magic and nocturnal majesty.

We mentioned a reflective gravel orb but a bright gravel path will catch light too and a pool will shimmer and catch glimpses of the moon as well.

If you're not quite ready to hire the mini-digger just yet, there are three simple planting choices that will transform your garden so that every night offers a marvellous opportunity to moon dance.

1. Reflective plants (silvers & whites)

For foliage you can't beat the heart shaped, silvery leaved *Brunnera macrophylla*, try a cultivar like 'Looking Glass' or 'Jack Frost'. Their pale blue forget-me-not-like flowers are exquisite by day and night. A great ground cover for shade and moist fertile soil.



For full sun and well drained to near drought stricken soil, *Stachys byzantina* (lamb's ears) is your only man and it positively shimmers at night. Great with silvery lavenders for aroma and luminosity. Varieties such as 'Silver Carpet' 'Helen von Stein' or 'Fuzzy Wuzzy' are great. I must note that some years stachys may not bear a lot of flowers but the foliage more than makes up for this shortfall.

Lamium maculatum (dead nettle) has no sting but sings under moonlight. A ground cover that's a bit rampant but easily clipped to shape or let it run like a river of light at night.

If you want to go large Cardoon (*Cynara cardunculus*), an edible member of the sunflower family, has silver foliage that adds great structure to the moonlit garden. We are talking leaves up to 1m in length and a stalk and flowering head reaching around 2.5m. I love it in flower but you can cut down flower stems as they emerge in summer to maintain it as a foliage plant.

Astelia 'silver spear' is also fantastic foliage, spiky like an assemblage of shards and dramatic at night, it can tolerate shade and sun and even container gardening. ►



Above: *Stachys byzantina*
By Jean-Pol GRANDMONT via
Wikimedia Commons

Below: *Brunnera macrophylla*
MartinThoma via Wikimedia
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Left: *Cardoon (Cynara cardunculus)*
Lusitana via Wikimedia
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Above Top: Bleeding Hearts
(*Dicentra spectabilis* 'Alba')
By sarefo via Wikimedia
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Above: Lilacs
Arpingstone via Wikimedia
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Right: *Pyrus salicifolia* -
'Pendula' (Ornamental Pear)
Wikimedia



Athyrium niponicum pictum (the Japanese Painted Fern) is a must if you can provide shade. Silver and purples make it as attractive by day but on a full moon you might just howl.

Equally as dramatic is *Lychnis coronaria* (Rose campion) with its bright magenta-pink flowers, stunning silver stems and leaves that are felty in texture. A hardy perennial that flowers profusely unless the winter's been bad or the summer very wet.

Think of the drama too in *Eryngium* (sea hollies) and the silvery blue shimmer of *Festuca glauca*. Both great coastal plants. There are silvers and greys and whites for every aspect. You may even be spoiled for choice at the right garden centre.

Hosta (white variegation or not) bring a broad leaf reflective surface into play in shade and dapple. In sun and drier conditions, Artemesias and Russian Sage (*Perovskia* spp) bring not just silver but structural height while silver Helichrysums (*Helichrysum italicum* or *H. petiolare*), *Cerastium tomentosum*, *Centaurea* spp, *Senecio cineraria* and *Pulmonaria* varieties will extend your options.

Think of a silver leaved tree – perhaps *Pyrus salicifolia* - 'Pendula' (Ornamental Pear) or a Silver Birch (*Betula pendula*), or the evergreen option of a conifer such as a silver spruce (*Picea* spp) or Silver Fir (*Abies alba*). Consider a hedge of *Pittosporum tenuifolium* which also ticks a fragrant box.

There are plenty of White Showy Flowers in your local garden centre and seed catalogues. From shrubs such as Lilacs (*Syringia vulgaris*), Camellia, Hydrangeas (*Hydrangea macrophylla*) down to the tiny delights of Sweet Alyssum (*Lobularia maritima*) or Candytuft (*Iberis sempervirens*) for edging paths and defining areas.

Sweet alyssum is drought tolerant but not quite frost hardy; it is an annual but self-sows so liberally that you will have it year after year. Candytuft is more of a subshrub mounding into an evergreen

cushion that explodes white upon flowering – a true stalwart of any white or moon garden.

And for the herbaceous border there are delphiniums for the late season, Bleeding Hearts (*Dicentra spectabilis* 'Alba') a must for late spring whiteness and white Foxglove (*Digitalis purpurea* 'Alba') for the bridge. All can mix with hardy Calla lilies (*Zantedeschia aethiopica*) which are sheer elegance, regal lilies (*Lilium regale*) which bring heady perfume, Oriental Poppy (*Papaver orientale* – try 'Perry's White') for luxuriousness and *Campanula persicifolia* var. *alba* – the peach of all the peach-leaved bellflowers.

Daytime wonders that also work at night include *Leucanthemum* × *superbum* 'Wirral Supreme', *Echinacea purpurea* 'White Swan', *Penstemon* 'White Bedder' the Matillija Poppy (*Romneya coulteri*) and the fantastic *Anthriscus sylvestris* 'Ravenswing', *Gaura lindheimeri* 'Whirling Butterflies' or the frothy and fabulous greater sea kale (*Crambe cordifolia*).

2. Evocative plants

Mullein (*Verbascum thapsus*) is not only silver in foliage, it is statuesque in stalk, tall by day but towering towards the sky at night. Mulleins have been used to make candles since ancient Roman times and are emblematic of light bearing.

White lupins really glow too at night. A white foxglove brings reflective flowers that catch the moon light but as a fairy plant and a dangerous one (toxic) it adds an air of magic craft.

If a spellbound garden is your cup of tea then add some Angelica for healing and protection, rosemary and sage for smudging, yarrow (*Achillea millefolium*) for divination, mugwort (*Artemisia vulgaris*) to cleanse your crystals and amulets and of course for familiarity some white flowering, grey foliaged catnip (*Nepeta cataria*).

And do consider the nomenclature of your plant selection – Moonflower (*Ipomoea alba*) is a night-flowering cousin of the morning glory and equally as aromatic. Another plant symbolically lunar is *Lunaria annua* (honesty) with its translucent seedhead orbs.

In general terms consider selecting round headed flowers that happen to flower white and in so doing represent the moon.

3. Night-time fragrance

When we think of evening and nighttime aroma, surely evening primrose (*Oenothera spp.*) and night-scented stock (*Matthiola longipetala*) are top of the list.

But the list is long: Jasmine (*Jasminum officinale*) is heady and white-flowering, and positively glows under moonlight. *Buddleja davidii* 'White Profusion' is perfumed and incandescent.

Galium odoratum (sweet woodruff) lives up to its common name and does well in shade or sun. *Phlox paniculata* is pleasantly fragrant by day but that sweet scent intensifies at night. Nottingham Catchfly (*Silene nutans*) wafts a fragrance at night reminiscent of hyacinths.

Nicotianas emit a sweet almost jasmine-like fragrance all day that becomes stronger at night. Night Gladiolus (*Gladiolus tristis*) are intensely aromatic late night as are Fragrant Columbines (*Aquilegia fragrans*).

Plants like *Eryngium giganteum* 'Silver Ghost' have a scent but also silvery-grey bracts and a tree such as a white Lilac (*Syringia vulgaris*) will fill the air with strong aromas and shine with reflective white flowers beneath the moon. Lilly of the valley (*Convallaria majalis*) are also perfect additions.

So there you have it. A moonlit garden is not that hard to conjure up; a few choice plants and you are there. Structure, texture, perfume, multi-seasonality – it's the whole package. Plus the great thing about all these beguiling whites and silvery greys is that they look fantastic by day too.

It's not a compromise, what you are doing is adding more. A great garden by day and a wonderful experience by night. ■

Fiann Ó Nualláin

www.theholisticgardener.com

Below: A reflective garden orb, a bright gravel path and a pool are all ways to catch moonlight. By EdisonFord via Wikimedia Commons

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Underground house in Switzerland, Villa Vals
Architects SeARCH and Christian Müller Architects

Undercover

Mark Stephens reflects on the subterranean house he built seven years ago for him and his family.

Since we moved into our underground eco house, a lot has changed. There's been the Building Regulations, the rise in popularity of the Passivhaus methodology (for which I've become a qualified designer) and generally speaking a growing understanding of building methods and materials, especially with regards to underground construction.

What hasn't changed is the attractiveness of earth shelters. The US Department of Energy even encourages homeowners to embrace underground construction, in part due to its ability to temper outdoor air temperature swings but also because it provides better protection from tornadoes, hurricanes and earthquakes; thankfully we don't have to worry about the latter in Ireland but the principle is still relevant here.

And so the conclusion I came to in 2009 is still relevant today, that is with the right site and construction techniques there is no reason why building underground cannot provide a more ecologically aware and sustainable way of building and living.

The underground section of our own house is at a constant minimum temperature of 20 deg C and even in the darkest winter months the internal temperature in this area can reach 25 deg C. With no blinds, however, we sometimes feel like we're on show at night time.

When visitors ask why my house is partly built underground and has a grass roof my reply hasn't changed either. One reason was to satisfy the planners, but that was not the primary one, more importantly we did it for social and ecological reasons.

These reasons also explain why we do not have a tarmac driveway which as well as destroying nature, contributes to poor drainage and exacerbates flooding.

Small print

Although there are many benefits of underground construction there are several disadvantages; cost being the main one. The walls and roof over and around the underground construction need to be fully waterproofed and as well as constructing significantly stronger walls to withstand the pressures of the retained ground, the walls need to be tanked to ensure no water can ingress.

When you factor in the additional structure required for the walls to retain the earth and the roof to withstand the pressure of an intensive roof - the cost of building this way would be at least double



The underground section of our own house is at a constant minimum temperature of **20 deg C** and even in the darkest winter months the internal temperature in this area can reach **25 deg C**.

that of a more traditional construction in both materials and labour.

Another disadvantage is that the build could be considered 'non-standard' and you will need to obtain a specific home insurance policy to ensure the house is fully covered.

Standard insurance policies do not cover constructions where there are flat roofs greater than a certain percentage of the total roof area (this can vary between policies but it's generally somewhere between 20-30 per cent). It's essential that you check with your insurance provider whether a roof construction of this type is covered. Also note that torch on felt roofs appears to be particularly difficult to insure as the overlaps are deemed to be problematic.

It is important to understand that a grass roof is not just a 'standard' flat roof with soil and grass thrown on top; the structure has to be specifically designed for the imposed loadings - this includes the soil and grass which are significant loads on an intensive roof (see below) as well as snow and possibly people or other mammals. ►

Mark's house is partly built underground and partly above

Types

There are different types of underground houses, which are classified according to the fenestration (windows):

- 1 Chamber - entirely underground so no views to the outside from inside.
- 2 Atrium - light is provided via a 'well'.
- 3 Elevational - one side (ideally south) is opened to provide light (and ventilation); this is the most common type of layout to benefit from the insulating properties of the earth but still capture direct sunlight.
- 4 Penetrational - openings are created on the sides to provide the light and ventilation.



Future Systems underground house in Wales where the house emerges as a futuristic spaceship from the landscape.

Photo: Brian Booker

And to the ground/surface relationship:

- 1 Subgrade - the building is below the natural ground level with the roof over the 'cut' at the same level as the existing ground.
- 2 Bermed (earth covered) - the floor level is at existing ground level and the earth is mounded (bermed) to this new level. The building is then covered with a grass roof.
- 3 Bermed - as above but without the grass roof.
- 4 Hillside - the building is cut into the hillside and has one side open to provide light and ventilation.

Seeing is Believing

For most of us, our experience of underground living comes from dark, damp, cold basements, possibly underground car parks with poor lighting, worse ventilation and smelling of damp. Putting several tonnes of wet soil onto your roof seems not just perverse, but quite wrong.

On the contrary, underground houses are:

- Often flooded with light

- As long as they are detailed and built correctly, damp and moisture free
- With modern heat recovery systems any space can now be ventilated without windows. Alternatively, the large southerly glazed elevations frequently found in underground dwellings can also include adequate ventilation for the entire house. How have modern design and building technologies helped to achieve this?

Lack of Light

It is essential to take account of the site topography and orientation, including the climate of the region and more immediate micro-climate. It is created by the orientation, topography, trees and foliage and any other buildings nearby which will affect the wind pattern around the house.

A south facing slope is ideal with a change in level from ground to road. On our site this allowed us to use the hill to minimise cutting yet still have the grass roof of the underground section at the existing ground level. There was a 2-3 metre difference between road level and ground level which was used to house the lower section of the house.

It's also important to have good drainage with a low water table. In some parts of Ireland there can be problems with water directly up against the underground walls.

Damp or water penetration

This is probably the most important aspect of underground house design and construction as the house should be totally dry once completed and occupied. There are three key aspects to consider:

1. Structural walls

It is essential to use a qualified structural engineer to design and specify the walls as standard blockwork construction will not be strong enough to withstand the loads. There are two ways of building: poured, solid concrete walls using formwork and reinforcement, or hollow concrete blocks infilled with poured concrete and reinforcing bars.

Both create a mass concrete wall with substantial steel reinforcement providing restraint against the considerable forces that the wall retains. With the first method the formwork could be insulation as in ICF (insulated concrete formwork) construction.

2. Waterproofing

As these retaining walls are directly against wet, cold Irish soil it is essential that they are fully waterproof. The most commonly used are Voltex and Bituthene.

Bituthene was tragically in the news recently as it was the waterproofing material used on the balconies that collapsed and killed six Irish students in Berkley, California last year.

Experts who have analysed the photographs following the collapse noticed damage to the waterproofing membrane. The manufacturer said that the material has a formulation [similar to Voltex] that "allows healing of small punctures" but these punctures or damaged areas should be cleaned and patched with a new layer of material extending out 50mm from the damaged area.

In this case the membrane was significantly punctured at the connections of the joists to the

walls; no repairs were visible. In all likelihood water penetration at this point led to dry rot, a contributor to the collapse. The other critical factor was the lack of drainage or ventilation system underneath the balcony.

It's sometimes very difficult to locate the exact point of water penetration because the exit point is frequently in a different location to its entry point. When water finds a crack in the external fabric of a building it then travels through the construction in order to 'find' the largest volume of air.

In our own house we have Voltex waterproofing the walls and Bituthene protecting the roof; the rainwater was drained to a concealed drain in a concrete upstand and then away to a steel hopper and down-pipe. The Voltex was applied by our groundworks contractor whereas the Bituthene was applied by myself and my brother-in-law.

The resulting construction nine years later is still as dry as a bone with no water ingress through the main structure. The only location where we had difficulties was at the stainless steel flue penetration where we found that the custom flashing and seal we constructed required a further sealing to stop a small drip making its way down the pipe.

3. Cold

The theory behind orientating any house towards the south, (or, as some prefer, within +/- 15 degrees east or west of south), and with minimal or no glazing to north, is to harness the maximum amount of sun and use it to provide heat and light in your house. In an underground house the north aspect is usually against the earth and thus has no glazing. In our own house even the over-ground section has no windows facing north.

Known as the 'thermal flywheel' effect, the sun heats any heavy masonry construction causing it to perform like immense storage radiators, absorbing heat during the day and releasing it overnight. These 'thermal flywheel' cycles, in underground houses, are measured in months rather than the days or even hours as in more traditional dwellings. We also floored our underground section in slate to increase the heat retention.

Correctly balanced ventilation is also very important in creating a warm underground house. There is the opportunity to use 300mm+ of rigid insulation to protect the waterproofing prior to any backfilling of the retaining wall.

If anything, the problem can be too much heat as the large expanses of south facing glazing can create massive solar gains which need to be controlled. A heat recovery ventilation system which can redirect the heat into cooler parts of the building is ideal.

An alternative method of controlling solar gain in a house is by making a 'brise-soleil' or, to translate from the French, sun breaker, which is effectively a series of parallel horizontal members (timber, aluminium, stainless steel etc...) that extend from the building so that the sun's rays are 'broken' before entering the building. In summer when the sun is higher and solar gains are greater, the brise-soleil will cast shadows of the horizontal members on the floor inside, thus lowering the interior heat. When the sun is lower throughout the day in winter, it ►



Mark's intensive roof build up

The layers on top of my original concrete deck (which was left exposed internally and simply painted) are:

- Bituthene 4000 (this was chosen as the 1.5mm waterproofing membrane is more appropriate for high risk applications and can be applied to the primer at a wide range of temperatures (from -10 degC to +35 degC))
- 150mm high density, waterproof insulation
- 500g polyethylene sheet to give protection to the insulation and a root/weed barrier
- 50mm washed stones to provide drainage
- Filtration fabric to prevent soil mixing with stones
- 200mm top soil, and
- Natural grasses.



Mark's extensive roof build up

On the new shed, because of the reduced load of the sedum, the roof was constructed with straightforward timber rafters laid at a mono-pitch. On top of the rafters we fixed OSB sheets, which are an ideal substrate for the waterproofing and for use externally in structural roofing.

Then we fixed Bituthene GP (General Purpose) instead of the Bituthene 4000 as the situation was a lower risk (the thickness is only 1mm and the temperature application range is reduced).

We then used a 500g plastic sheet as a root barrier, a filtration fabric then a thin layer of growing medium (sedum doesn't require as much 'soil' as normal grass) and finally a sedum blanket which is 'rolled' onto the roof like carpet.



Renderings of a project to build underground cottages at Fallingwater, as inspired by the words of Frank Lloyd Wright: "No house should ever be on a hill or on anything. It should be of the hill. Belonging to it. Hill and house should live together each the happier for the other."

Patkau Architects,
www.patkau.ca

penetrates the building below the brise soleil level. In our own house, which has extensive glazing to the south, we constructed a Western red Cedar brise-soleil between the extending steel beams that support the grass roof; the cedar lengths are simple 4"x2" sections bolted together in a frame.

Passivhaus lesson

Having completed the Certified European Passivhaus Designer Course I've changed my opinion regarding the use of extensive glazing to the south.

In Passivhaus calculations overheating (which is defined as above 25degC internal temperature) is only permissible for short periods. A careful balance must be struck between light/solar gains/wow factor of glazing and overheating.

In our own house although we did add a brise-soleil to limit the solar gains the full height floor-to-ceiling glazing does sometimes overheat the space. This happens quite rarely, as there only a few very hot days in any given Irish summer so our solution is simply to open the doors for a while and let the air circulate.

Although it's gorgeous to look at, gives a great panoramic view of the countryside and is the envy of many – I wouldn't recommend so much glass if a client were intending to obtain a Certified Passive House.

The million dollar question is whether I would keep the amount of glass I have in my house, now that I am a Passive House Designer, and the answer is, I'm glad I don't have to make that decision! My head says yes but my heart says no.

Alternatively, we could have kept the same

amount of glazing and have investigated other methods to shade the building in addition to the brise-soleil such as:

- Deeper reveals on the windows;
- A greater overhang on the roof eaves;
- A canopy or verandah;
- Carefully specified and located deciduous trees to break up the high summer sun and so provide shade.

External window blinds are another option; they need to go externally as it's too late internally when the heat has entered the building. While common in other European countries they're not widely used in the UK and Ireland. These can be manually or electrically operated and can also be linked to a sensor. The blinds can fit inside a box that can be fitted in several locations:

- Externally on the wall over the window;
- Built into the wall and running within the window reveal;
- Within the window itself (the U-value of the window may be compromised slightly but this option provides a good aesthetic balance).

Roof

With any type of grass roof great care is needed with the waterproofing, making absolutely certain that any penetrations are correctly sealed. The clay chimney for our house has a custom made stainless steel flashing cone that covers the pot and is sealed at the edges with bituthene. Any minor gaps were then sealed with silicone (see waterproofing above for how this proved to be a weak spot in our grass roof). An alternative system is to have the entire unit manufactured in the factory and then sealed onto the roof.

Our intensive grass roof has beautifully flourished since 2009. The grass is still growing with the occasional wild flower (and weed!) and the only part we have to tend to on a regular basis is some moss growing around the edges.

Intensive roofs can include lawns, flowerbeds, shrubs and even trees; landscape variations are practically limitless for both design and use as it is possible to create an environment at roof level similar to that of any garden. The plants used make a heavy demand on the roof and will require maintenance, irrigation and management throughout the year to ensure the upkeep of the landscape and allow the vegetation to flourish so we decided to keep it simple to minimise upkeep.

An **extensive** roof, meanwhile, is a lighter weight option with self-sufficient grasses or succulents. Some systems use low maintenance sedum planting (a type of succulent plant) to provide excellent cover and increased protection of the waterproofing system. The plants are grown on a 'blanket' that is harvested like turf and installed by rolling out on top of the waterproofing and any other landscaping components required. The blankets are very lightweight, easy to maintain and provide instant greening to the roof.

Extensive green roof systems are not intended for general access or leisure and are primarily there for ecological benefit or aesthetic appearance.

There is a big difference in structural demand between these two roofing systems. Whilst it is



possible to construct a timber roof for small spans and lighter roof coverings, (as recommended by Rob Roy in his book), for an intensive roof you may require a concrete deck base. In our own house my brother-in-law and myself built an intensive grass roof beginning with a concrete roof (good for thermal mass and waterproofing), bituthene waterproofing, insulation, a layer of drainage stones, geotextile fabric and finally soil with a mixture of grasses and wild flowers.

The insulation on top of the concrete deck in a warm-roof construction gives a U-value practically at Passivhaus standards and the layers and the combination of materials we layered (listed below) give great drainage and a medium for the grass to thrive in.

Final thoughts

Just over a year ago we built a new shed and turf store which, not surprisingly we decided should match the house with a grass roof. This time however, as the roof is not accessible from ground level, we opted for an extensive green roof with a blanket of sedum.

It's great having both types of roof, both intensive and extensive on the same site and the similarities and differences are interesting to observe:

- The sedum grass when it arrived was green. It then went bright red and we thought it had died. Slowly we started to see small white patches coming out of the red buds – the sedum was actually flowering which is something that 'standard' grass doesn't do. It then went back to red in the colder months (when the sedum closes its buds) and it's only now going back to green as the weather is getting warmer. It's actually the exact opposite of what I thought would happen!
- Another difference between the two roofs is

that the extensive sedum roof doesn't require any maintenance or cutting. The height of the sedum grasses appears to be exactly the same as when we laid it. The intensive grass roof on the main house however requires strimming a few times a year. It could have been maintained as a lawn but it has been left to match in with the unruly fields that surround it. While this may sound like an excuse to avoid having to cut it regularly, I would like to point out it would have been difficult, (although not impossible...), to have got the lawn mower up there to cut it! ■

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Christian Muller Architects, Voorburgstraat 3-5, 3037 GV Rotterdam, The Netherlands, www.christian-muller.com

Underground Houses Rob Roy (details and practical advice) ISBN 0-8069-0728-2

The Earth-Sheltered House Malcolm Wells (very enthusiastic writer) ISBN 1-890132-19-5

British Earth Sheltering Association (good online information) www.besa-uk.org
www.bauder.co.uk (NI and UK) or
www.bauder.ie (ROI) good technical information on grass roof construction



Sedum is a type of succulent used on extensive roofs.

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www.tapcoslate.com

Ultimate Windows and Doors
(Doors, Windows)
Dublin 22 Tel: 01 685 3353
www.ultimatewindowsanddoors.ie

Sedum roof on new shed
greenroofsdirect.com: 'Shed Green Roof system' (£36 per square metre), other option would have the 'Sedum Blanket System' with a deeper growing medium and three-piece drainage layers (£46 per square metre).

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Never ending holiday

It's one thing to holiday in a seaside home, and quite another to live in one! Linda and Steve Mitchell were lucky to find a home in their ideal location of Co Antrim but to make this house their dream home, they had to both extend and renovate.

Linda and Steve moved back to Northern Ireland from England to retire, and, naturally, they had to find a place to live. Where better than the countryside village they'd been holidaying in – and where Linda was originally from.

“Coming back home to Northern Ireland really appealed to us and the natural choice was to return home to the village where I grew up as a child,” explains Linda.

The house they found had been a holiday home. “The house was structurally sound but it was in need of modernisation,” she says. “We had an apartment in the village, in which we stayed when

on holidays, and we lived there for the better part of two years while the renovation was underway.” ►



More photographs available at
www.facebook.com/selfbuild







Full throttle

The project started in 2011. “We hired a very energetic young architectural practice to help us renovate the house,” recalls Linda.

“When they came on site they marvelled at the views and discussed how to make the most of them. Then it was a question of how many rooms we wanted, there was a dynamic feel and I liked what they were doing.”

“We hadn’t a clue about regulations, or what to look out for, so we asked them to fully project manage the build. They gave the okay on stage payments also, and their involvement took a lot of the worry out of the process for us,” she continues. Linda and Steve wanted to keep as much as they could in the house, but also make a lot of changes to take advantage of the seaside location.

“We did consider knocking down and starting from scratch, especially as the job would then have been VAT exempt. But we felt it might be easier to gain planning permission to extend, and we did want to keep the house. It was structurally sound,

A lot of glass was added to make the most of the views.



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it fitted into the slope on the site and had been well built. It just needed a bit of work.”

“It’s the best decision we made, we love the house,” adds Steve. “We’ve added loads of light, it now has a very airy, spacious feeling to it.”

They secured planning permission in five months to make the house 50 per cent bigger and replace all of the windows, which were single glazed. The south facing rooms were given floor to ceiling glazing and the bedrooms French doors.

They also insulated the cavity walls and, as they replaced the roofs and re-roofed the existing one, they took the opportunity to add plenty of insulation to the loft too.

The kitchen was made bigger and an integrated garage was also added. “Getting out of your car with armfuls of groceries and not getting wet is lovely,” says Linda. A separate, standalone garage was also built to the side of the house with a workshop attached.

The couple added a bedroom and bathroom downstairs, and integrated all of the living quarters upstairs.

While the house had electricity, the installation was basic. “You’d be lucky to find two sockets in a room,” she says. “We had to put in a new distribution board to accommodate us adding more fittings.” ▶

Brenda decided not to put in curtains in the sunroom to keep the view intact.





Apart from the bedrooms and lounges, the house was entirely tiled.

The boiler was old and had to be replaced, and central heating pipes chased into the walls to add radiators. "There is no gas in the village so we went with oil," explains Linda.

"We didn't even look at our other options; it was quite a stressful time and the last thing we wanted to do was have to think about which heating system to choose!"

Finish line

They tendered out to four builders and the one they chose was especially good at helping them pick out finishes, as Linda and Steve didn't have the inclination to shop around.

"Instead of asking us to go have a look at doors he brought samples over. That really helped us decide, otherwise it would have been too mindboggling to have to choose from all that's available out there!"

For anything she had to source herself, such as the kitchen and bathrooms, Linda had her heart set on buying materials from the area, never travelling even as far as Belfast for any of the finishes or fittings.

"Despite staying local it required a lot of travelling still to find the right products," she

remembers. "To be honest I found it stressful and expensive because I knew we couldn't afford to change any of it, so it did make it that bit harder for us to choose."

For the kitchen they had a fairly good idea of what they wanted but were open to suggestions. "I hadn't thought of an island but the designer recommended it as we had plenty of space. I wanted a dining room table and was afraid there wouldn't be room for both, but it actually works really well."

Linda and Steve carpeted all of the bedrooms and their two lounges; the rest of the house is tiled. "When we'd gone on holidays in Spain it was great to zoom around with a mop so I decided to replicate that ease of upkeep for the hall, stairs and kitchen," explains Linda.

"I was afraid it might be cold or noisy in winter but not at all. As the bedrooms have carpets and the two lounges upstairs do as well (we watch different television programs!), the house retains a very relaxing feel."

Linda decided to use the same tile everywhere which made it especially hard to choose the one. "I went with a neutral cream with some colour, it's unobtrusive." ►

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Snowball effect

The problem with renovations, says Linda, is the amount of things on the to-do list that tend to pile up. "As you go along you realise you might as well do this and that. For instance we intended to keep the original roof but as we extended and put in new roofs we had to re-roof the whole house," she says.

"We planned to salvage the original roof covering, to use on the freestanding garage, but when the slates came down it was clear they weren't good enough; replacing them was an added cost." "Another example of the job getting bigger as we went along, was that by the time we'd added the extra sockets we realised we'd need to plaster it all up – and by that I don't just mean around the socket and chasing in the wall, but the entire room to make it look right."

"The more you do the more you have to do, and we've spent more than we intended as a result," she adds.

"But as we were very happy with the builder it was easy to turn to him to get those extra jobs done. He also did the driveway and fencing, and levelled off parts in the garden to have them ready for landscaping. I also got him to tile and paint the house, which wasn't part of the original tender."

As the build got more expensive they chose to only build a balcony to the one side of the house;

on the other side they put in a sun room instead. "It's right off the kitchen so that's very convenient," says Linda.

"But it is a conservatory, so it does get too hot in the summer. I still prefer not to have blinds as I'm afraid they'd distract from the wonderful views. We do use it most of the year though, it was well worth putting in."

House with a view

The house's connection with the outside makes it especially pleasing to live in, says Linda. "You just open up the doors and you're facing the sea. There are only two to three months of the year in which you wouldn't go out on the balcony, from December to February."

"We have breakfast and lunch on the terrace whenever the weather permits, I love being out there, the stainless steel and glass really protect from the wind, the only downside is that there's also a greenhouse effect and in the summer it can get too hot!"

In terms of upkeep, the glass around the balcony has stayed looking good without having to touch it in three years, despite it not being self-cleaning. "In the morning the glass can cloud over from the fog and mist but it clears up during the day. The conservatory has self-cleaning glass on the roof and that does work well too."





“Having to clean the stainless steel is what came as a shock,” continues Linda. “The reason we chose it was that we felt it would be low maintenance as compared to timber railing which you have to paint every four to five years.”

But upkeep is simply part of owning a home. “At the sight of the first speck my heart broke but that’s what happens – it won’t be new forever,” tempers Linda. “Now it’s no problem if it’s not pristine, I don’t even notice it anymore! It’s our home and we love it.”

Inside it is nice she says to have the heat come in from the floor to ceiling glass. “If we feel it’s starting to get a bit warm it’s easy to open up the windows and bring the room back to the right temperature.”

The one thing she would change is to put the balcony on the opposite side of the house. “I think there are better views on that side. Although that would mean the kitchen would be deprived of them, so it’s hard to tell what would have been best.”



BEFORE

Sound advice

“We thought we would get a grant but none were forthcoming,” recalls Linda. “We applied for everything yet didn’t get anything; the boiler for instance had been outside and was removed early on, it was one of the first thing to go, but in order to get the grant the authorities needed to see the old boiler.”

Linda advises prospective self-builders to look very carefully at the size of the rooms they intend to build. “Plans are one thing, seeing it for real is quite another,” she says, speaking from experience. ▶



In our wet and windy climate, the connected garage (top right) is often used for unloading groceries.



"Also as I'm more used to feet and inches than metres, so I had to convert all the plans in my mind which made things that big more confusing!"

"Just make sure the rooms are as big as you want them to be," she adds. "But even if you end up with something smaller than you expected, it's not the end of the world."

"In our case one of our bedrooms felt like a shoebox when it was built but now that I have added built-in wardrobes, and have given myself time to get used to that fact that it's not a huge room, it actually has a nice cosy feel to it. I admit it does help that you can step out to the terrace!"

She gives the example of the apartment they had in the town, in which the radiator was on the only wall they could have put a wardrobe on. "Interior design is really only easy to get right after you've moved in"

The positioning of items that can't be moved is another one of her watch points. "We had to decide on bathroom fixtures straightway due to drainage, I thought I'd have plenty of time to pick out the bath and so on but it was actually quite sudden," she recalls.

"The pipes had to go into a specific slot and couldn't be moved. As a result I'm not happy with where we put the wc, it would have been neater if it had been moved to one side, we also have a lovely oval shaped bath which I wanted to stand out from the wall, but it had to be put against it. It just doesn't have the same impact."

Outside too there are important elements to consider. The landscaping was especially important to get right as Steve has a keen interest in gardening. "We designed every square inch of that garden but we put it in gradually, as funds allowed," he says.

"Early on we brought a landscape gardener on board because of the steep, sloped bank," adds Linda. "We've got it all planted up with shrubs – the soil isn't great, it's mostly clay anyway and there's still quite a bit of subsoil from the build."

And that is where her last piece of advice comes in. "Whenever digging out foundations, think of setting aside the top soil otherwise you will end up with the rubble as the base on which to plant everything. Stuff just doesn't grow on subsoil and rubble!"

Some plants didn't survive and even though the



landscaper came to plant them again a year later many died again. "In fact none of my favourite plants, (I love hibiscus), grow here," laments Linda. "But considering the view it's a small price to pay!" ■

Astrid Madsen

House size before: 138 sqm

House size after: 222 sqm

Plot size: 3,575 sqm

BUILD SPEC

Walls: mainly existing 100mm cavity walls which were continued; all pumped with EPS insulation beads to achieve a U-value of 0.28W/sqmK

Roof: 500mm fibreglass quilt insulation, overall U-Value 0.08 W/sqmK

Floor: 100mm PIR insulation to subfloors; U-value 0.21 W/sqmK

Windows: 70mm white uPVC with 28mm glass all with low-e k glass and gas filled to give A rating

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Builder

Moyle Construction, Ballymoney, Co Antrim, tel. 20 751 115, www.moyleconstruction.co.uk

Kitchen

Woodland NI, Ballymena, Co Antrim, tel. 2957 2169, www.woodlandni.com

Worktops

Sinquastone (quartz) by Lamont Stone, from Coleraine Fireplaces, Coleraine, Co L'Derry, tel. 7035 6850, www.colerainefireplacesltd.com

Bathrooms

Beggs and Partners, Ballymena, Co Antrim, tel. 2564 5121, www.beggsandpartners.com

Floor tiles

Ballycastle Homecare, Ballycastle, Co Antrim, tel. 2076 2311, www.ballycastlehomecare.co.uk

Wall tiles

Just Tiles and Bathrooms, Ballymena, Co Antrim, tel. 2563 2343, www.justtilesandbathrooms.com

Light fittings

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Wall insulation

Springvale Eco Beads, www.springvale.com

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Going native

Edith and Hans Schroeder moved to Ireland during the height of the Celtic Tiger years, one decade ago, and, as they never planned to be here permanently, they opted for rental accommodation. But as the years wore on they realised they actually did want to stay forever, and that is when the house hunting began...

We started to look for a house in 2012 and it was very hard to find something we liked for the right price. We were also tired of paying rent and went to visit houses every Saturday but that still didn't progress anything. That's when we began to think about investing in a renovation project," explains Hans, whose search was taking place in Co Dublin within commuting distance to the capital.

"At the time I played golf with a builder who advised me to hire a design professional to help us choose the right house to buy. It can be hard to tell what has potential and what doesn't. He also gave me some insights into the cost of renovating which made me think it probably was the best way to go."

In June 2013 they finally found what they were looking for, a quiet site with plenty of garden space, and near public transport. "It was a semi-detached house built in the 1950s, located in a cul de sac. In addition to the location the shape of the house was very attractive, it's a parallelogram whose smaller side faces the street," adds Hans.

"This allowed us to build something which ►



Above: Front of house before, below: back of house before



More photographs available at www.facebook.com/selfbuild





would look, from the front, similar to all of the other houses but very different from the garden.”

As the original owners did almost no work on the house, their design professional advised them to strip it back to the bare walls and start from scratch. “The bathrooms were dated and there was very little insulation. And there was a damp problem in the garage, which had been unsuccessfully converted into a kitchen,” expounds Hans.

The build started end of April 2014 and lasted until Christmas of that year. The snag list included small items but also two issues that took a while to

sort out, namely the fitting out of the rainwater harvesting system (Hans says the plumber and the builder could not agree on who had to do what) and air leaks in the attic which led to a poor airtightness test result. “All of the issues were resolved but it took six months to sort out,” says Hans.

German touch

Once the first headache of finding a house was overcome, the second concerned planning issues, which took about two months. This design phase, says Hans, was the most enjoyable part of the process.

“It took us a long time to design the house, not only because of the suggestions made by the planners but also by our neighbours,” he says. “While our architectural technologist Mark believes the design had at least a dozen iterations, it seems to me there were only a handful! We wanted to get it right because we weren’t going to start changing things when we got on site.”

“Our main focus was to retain the lovely open plan layout we have in our house in Germany. To get that we’d knocked down a few walls, we also extended to build a conservatory,” he continues.

“We wanted as much light as possible so we put in as many windows as we could at the back of the house,” says Edith. “We introduced sliding units as well as a 3m high corner window.”

With a complete gutting out and extension, it’s no wonder it took a while to fine tune. Add to that the fact that the site is sloping and the design embraces it, and you’ve got some complexities to



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sort out.

“There are two steps to the lower living area, the ceiling is at the same level in the kitchen as the living room but overall the height is greater in the living space. We get all day light in here,” adds Hans.

In a residential area you are likely to get objections especially on a large building project such theirs, which involved a lot of construction. And so the couple had to reply to a few. “Due to the neighbourhood’s high water table, one comment was about the possibility that our house might contribute to flooding issues in the area, so we installed a rainwater harvesting system to take the pressure off the mains.”

“We also thought we were future proofing ourselves against water charges but that seems off the cards now. Still, it’s good to be flushing our toilets and watering our garden with this recycled water, otherwise we’d be using drinking water to do it which doesn’t really make sense,” continues Hans. ▶

There is underfloor heating both upstairs and down.



Mark also suggested building a house that was as efficient as possible to heat and run, and so they opted for high levels of insulation and an air to water heat pump for heating and hot water. While they considered generating electricity with PV panels it didn't make sense to them to do so as there is no feed-in tariff in ROI for small installations.

There is underfloor heating both upstairs and down. "As compared to our previous rental, and considering we only use electricity, our energy bills are about a quarter to a third less now," says Hans.

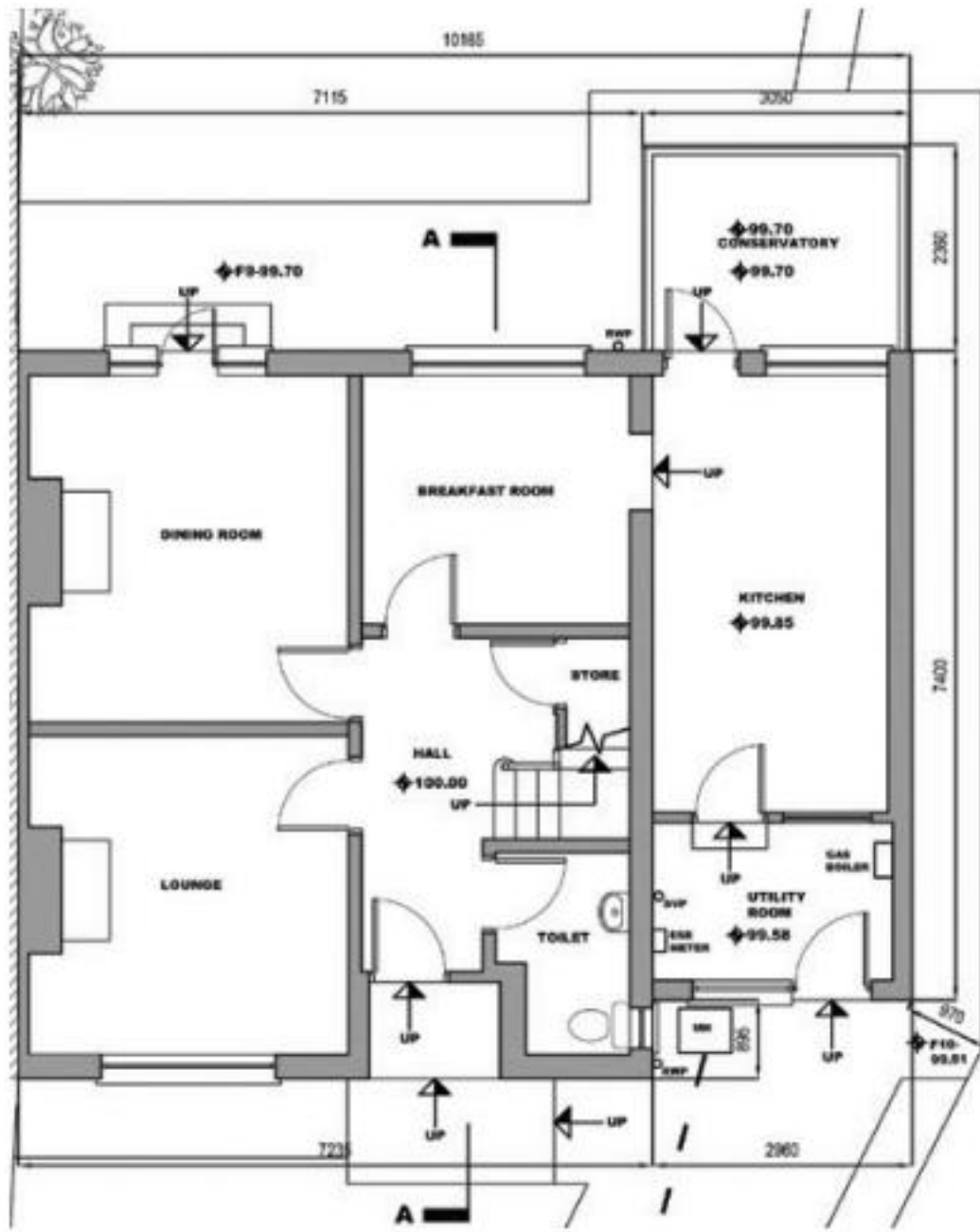
"In our case this equates to approximately €1,000 per year for all of our energy needs."

They do have a stove but it is gas fired, and this was one of the design features that took on a life of its own. "At first we were only going to put it in the living room, then we thought we should corner it into the dining area also and now it's also visible from the kitchen! It's a three-sided wonder," says Hans.

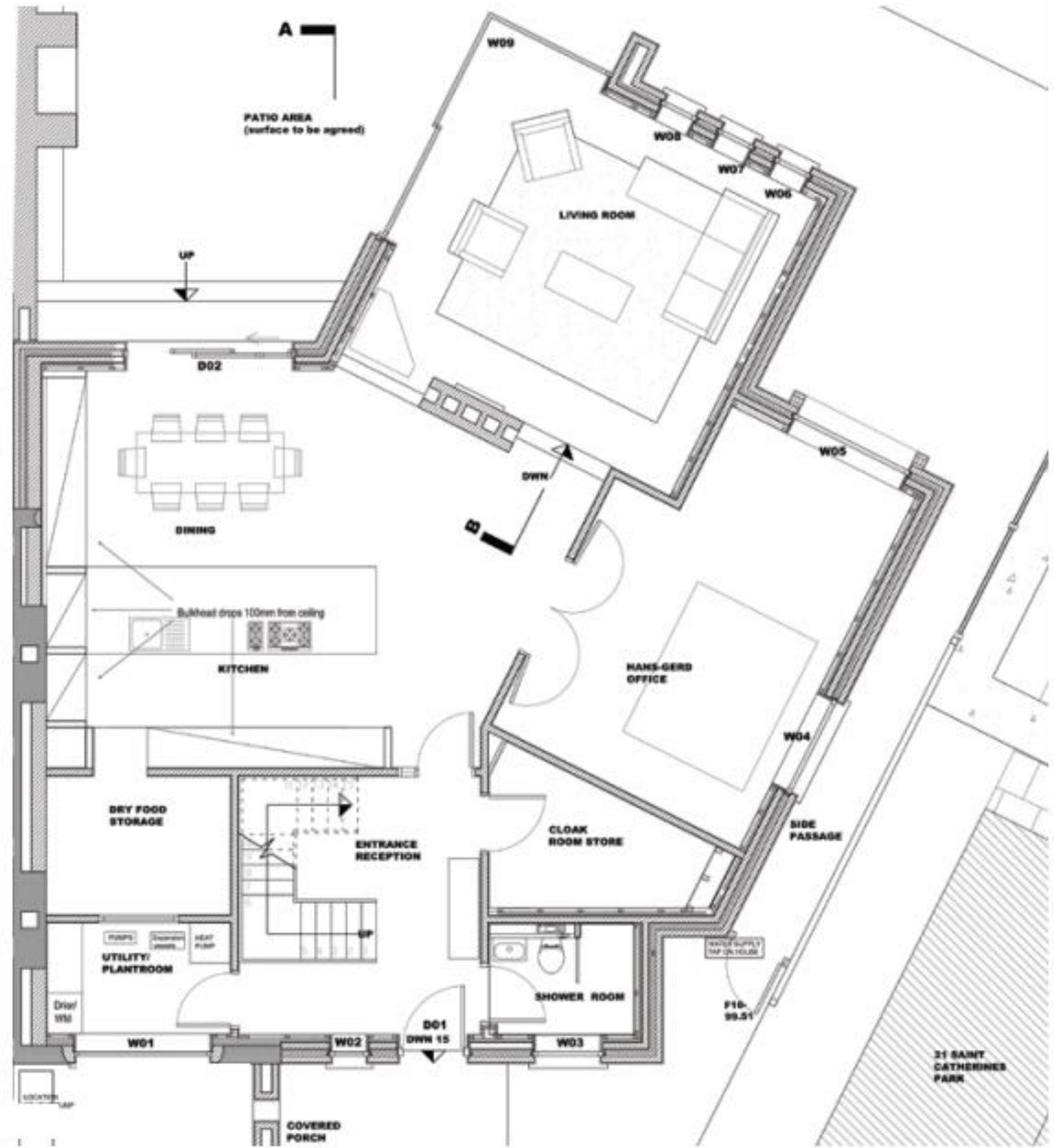
"We love to look at the fire in winter even if we don't need it for heat," adds Edith. ►

The fireplace was originally meant to only face the living area but now can be seen from three angles.

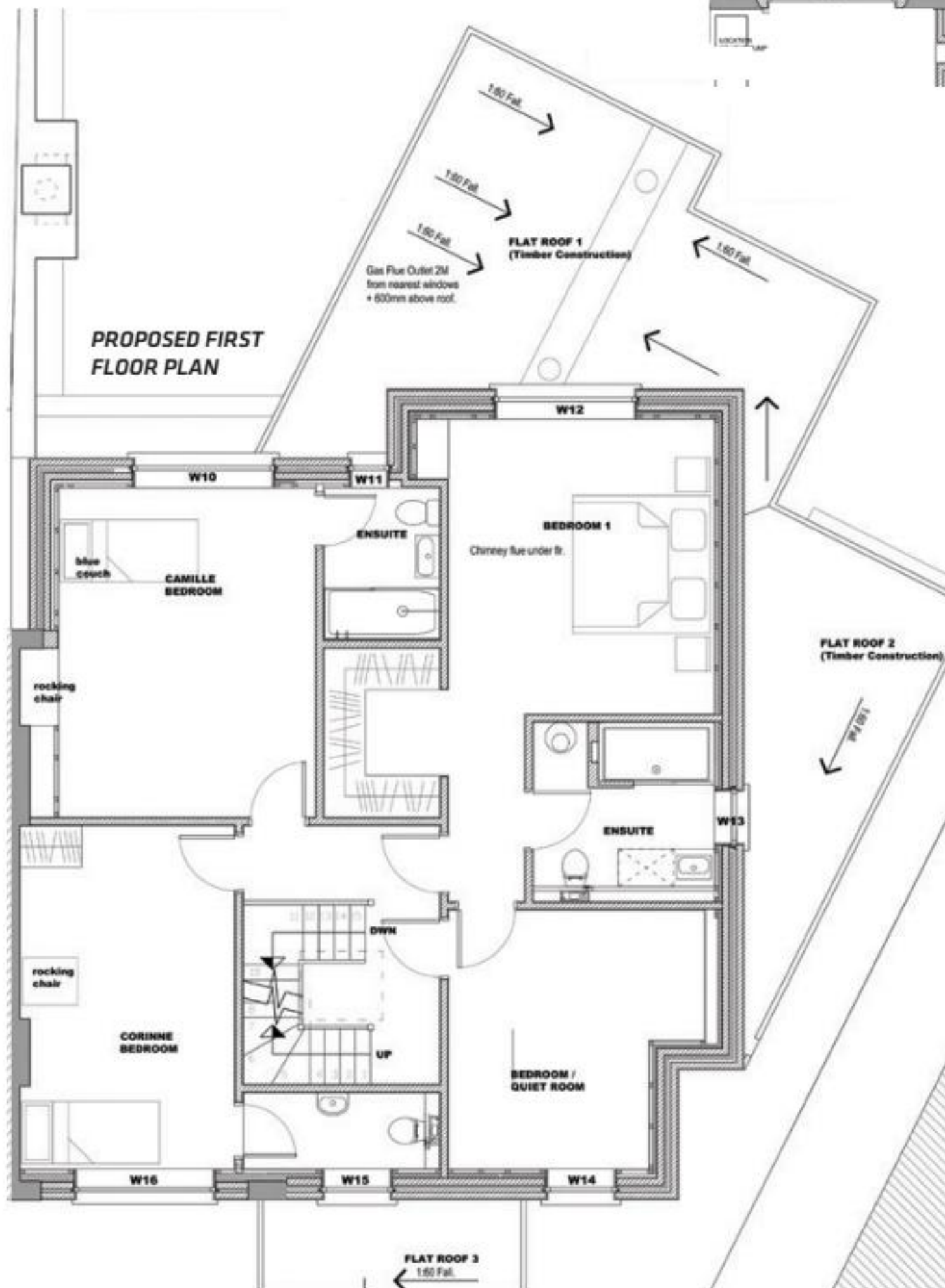




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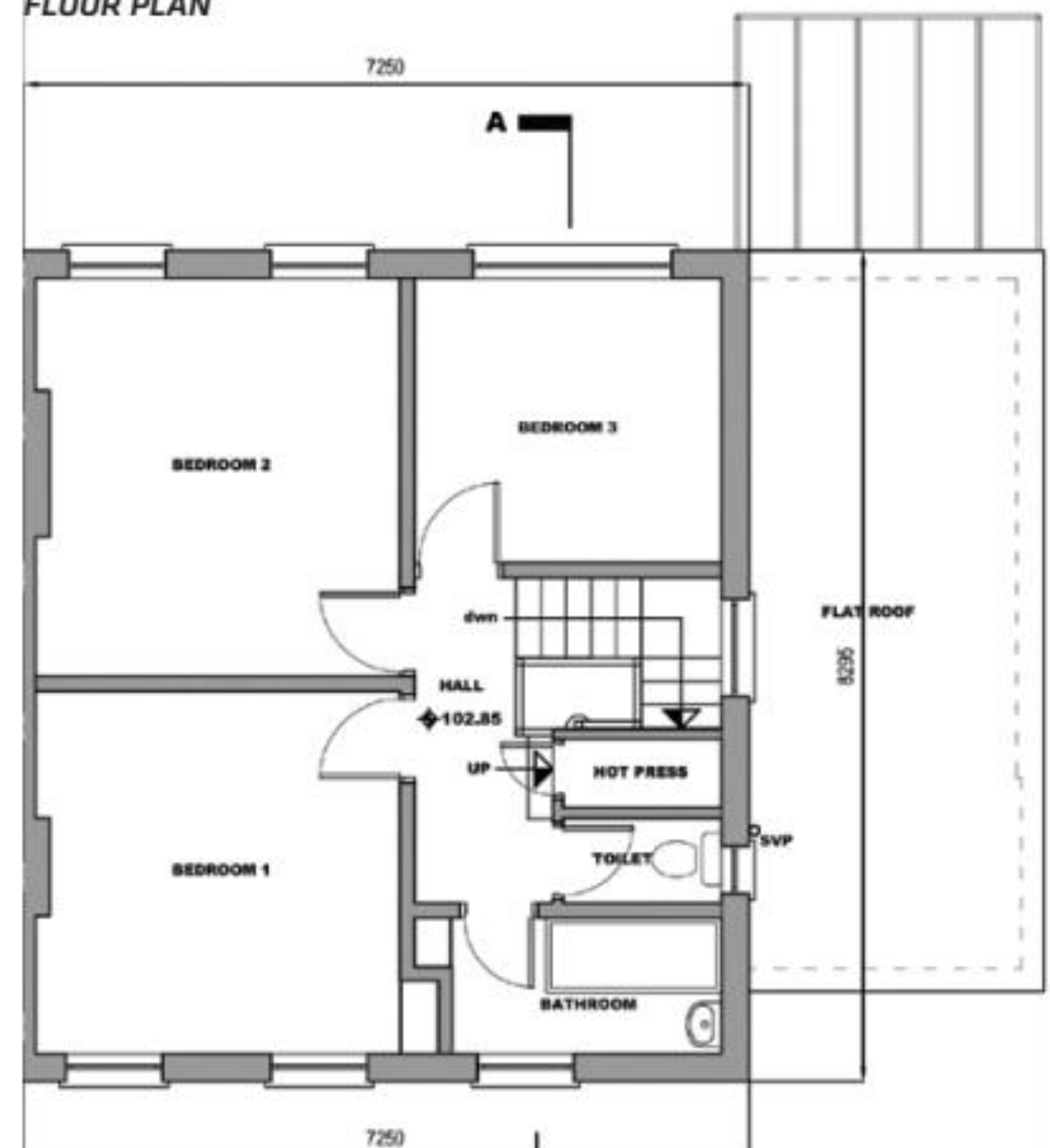


PROPOSED GROUND FLOOR PLAN



PROPOSED FIRST FLOOR PLAN

EXISTING FIRST FLOOR PLAN



There is underfloor heating upstairs and down; heat and hot water is supplied by the air to water heat pump. Below: the office.

Knowing when to delegate

Hans is well used to having to make decisions in his line of work, but he didn't relish having to take any during the building phase.

"It really worked very well for us to have our designer act as a project manager and the quantity surveyor oversee the budget to keep costs down," he confides. "We are not experienced enough ourselves and many decisions we had to take could have been very expensive if we hadn't been advised by the design team."

Still, Hans and Edith were very keen to be a part of the process and get involved, insofar as they could with their limited knowledge. "We chose a builder who didn't have a longstanding relationship with our design team, in large part because we didn't want to feel excluded," explains Hans. "I

could have felt like we'd lost control of the project if all of the team was working away on the house on their own understanding."

As they were very involved with the design, they wanted to see it through and so visited the site almost every day to observe progress and deal with any questions that cropped up. "It was very useful to only have the main contractor to deal with, as opposed to each individual trade, but this sometimes made us feel out of place when we were on site as Mark really was the only one who could answer the builder's questions!," says Hans.

Mark and his father run the architectural practice together, and Hans especially appreciated how much they listened to their wants and needs. "Edith and Mark especially worked well together on many of the finer details," says Hans. "For my office also they really took on board how I wanted it to feel. My desire was for it to flow into the main living area but also give it some privacy for conference calls." The solution was a glazed double door which he more often than not leaves open.

For family time they have incorporated a large screen with projector which they can easily put away when not in use; one of their daughters in fact took a particularly keen interest in the interior design process.

"Camille got some work practice experience on our house; she picked all the colours and the interior designer guided her," says Hans. "If I'd chosen them it would all have been white, this is better!"

Hans jokes that the painter actually found it hard to follow the colour patterns. "When there are a lot of different colours it's more difficult to apply," says Hans. "Especially when skirting boards don't match the wall colours. He got a bit desperate at the end but he did have some good advice, like avoiding a white door with a blue wall."



Settling in

Hans and Edith brought all of their furniture home from Germany to furnish their house, but they found they had more than they could fit. "We have cellars in Germany, in Ireland it's the roof space that's used to store items so we moved quite a bit from one to the other," says Hans.

"We spent seven years renting the same house, we'd bought a cabinet and accumulated belongings. This led to us having two sets of kitchen equipment so it was a good time to do a clear out," adds Edith.

The kitchen was in fact key to both the design and execution of this building project, being so central to family life. "The fitter was excellent, he delivered the bespoke kitchen we dreamt of," says Edith. "The work was carried out with much love for detail," adds Hans.

"The fitter took his time during the installation too, and when we asked for more shelves to be installed after the fit-out was completed, there was no problem in arranging this, and it was done quickly," enthuses Edith.

Despite the importance of the garden in buying the house, as so often happens with self-builds it's been left to last. Machinery will make a mess of it anyway so post-build is the best time to tackle it.

"The garden is good for the dog so we made sure we had plenty of grass and sturdy fencing to keep him in," explains Hans. "And we do enjoy the decking even though we haven't used it for eating much – considering the weather – but we do use it regularly to have a cup of coffee or a glass of wine."

"When we get to sit out more we'll come up with a plan for the garden, now that we're not thinking about the house all the time!," adds Edith. Looking back Hans says he believes they are now short one room. "We should have extended an extra metre at the back but as our bedroom is actually larger than we need we could give some of it up to help enlarge the main bathroom."

Edith says the utility room is also on the small side. "I'd advise people to give some thought to these perhaps uninspiring rooms – bathroom and utility. As you actually end up spending quite a bit of time in them, and often, it's a good idea to make them as airy as possible." ■

Astrid Madsen



House cost: €635,000

Total build cost: €465,000

Including total cost of bathrooms at €12,000, kitchen with appliances at €33,000, plumbing and heating at €26,000 and electrician at €13,000

Plot size: 650 sqm

House size: 240 sqm + 42 sqm attic for storage

BER: A3

Airtightness: 6.2ACH@50PA

BUILD SPEC

Walls from outside in: 20mm two coat sand cement render, 200mm cavity wall (thermal blocks) filled with 50mm PIR board, 10mm cement/sand render to provide airtight barrier, 150mm PIR insulation fixed to wall, 45mm void for services, 12.5mm insulated plasterboard with 3mm skim coat. U-value 0.12 W/sqmK

Ground floor from top to bottom: hardwood engineered flooring, 15mm liquid screed with underfloor heating, polythene sheet, 120mm PIR insulation, radon/dpm membrane, 200mm structural slab with 40mm cover, 50mm sand over hardcore compacted in 150mm layers. U-value 0.14 W/sqmK

Roof: 125mm PIR between rafters and 38mm below, U-value 0.16 W/sqmK

Windows: triple glazed argon filled, average U-value of units 1.65 W/sqmK

The couple went for a high end finish wherever possible.

info

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Windows

Reynaers windows for all sliding windows and the 3m high corner window, Enniscorthy. Co Wexford, tel. 053 92 35 600, www.reynaers.ie. All other windows Munster Joinery, Ballydesmond, Co. Cork, tel. 064 7751151, www.munsterjoinery.ie

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right: strip frame

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- Hammer
- Glue

The problem with digital photography is that, while we take more pictures than we ever have before we actually have a lot less of them on show. I have folders and folders of photos on my computer, phone and tablet, but very few on display around the house.

I am making a conscientious effort this year to sort through my repository and print out a chosen few. It's time to release them from their virtual cave!

But where do you put them? In this article I am going to show you several ways of making photo frames using different techniques and materials.

You can choose which frame best suits you depending on your ability, resources or taste. A lot of these can even be made from recycled materials.

Standard frame

The first frame I'm going to tackle is the standard, mitred rectangular frame. This is the most common type and the method can be used for a whole host of other ideas and projects.

If you prefer to skip the mitre you could cut the frame pieces straight, but you will have to work out how to arrange them. The gluing and rebating process is then the same as outlined



Chop saw

below.

A mitre is where two angles are cut at 45 degree so when they meet they produce a 90 degree angle. A fairly simple joint when you have access to a mitre saw, also known as a chop saw. As the name suggests, timber is placed on the bed of the



machine and pulled down to chop the timber. (The saw can be rotated and set at different angles depending on what you want.)

If a mitre saw is not in your tool kit, this joint can also be produced with a mitre box and handsaw. Place the material into the mitre box and slip the saw into the pre-cut angles. Use the handsaw as normal with the sides of the mitre box guiding the saw.

The size of the frame will all depend on the dimensions of the photo, print, picture, mirror or canvas that you are placing into it. Whatever it is, the method is the same.

Measure the photo: this will be the size of the inside of the frame. Take a strip of frame material and mark this length. Set a bevel by holding a set square between the blade and handle (above) and mark the 45deg angle line on the timber.

Use the mitre saw or mitre box to cut these angles off. Make sure to wear goggles and keep your fingers well away from the blade. Cut both pieces that will join up together to guarantee that they are the same size. If you have different size pieces, the angles will not line up and you will have gaps in your joints. Not a good look!



Mitre box to cut 45deg angles

If your pieces in fact do not line up quite well, instead of throwing them out you could cut a square piece of timber for each of the four corners to hide the mishap, pretending it was done on purpose!

When all the pieces are cut at the angle, they must be joined together. There are numerous ways to achieve this. The simplest and quickest way is to use an adhesive.



Create a recess by adding a strip of timber

You spray one side of the mitre with the aerosol and put a couple of dabs of adhesive on the other. Then hold the pieces together for approximately 30 seconds and the two sides will stick. It won't be the strongest of methods but it will work well on smaller projects.

Anything bigger than a small photo frame will need extra support along the adhesive. A couple of staples on the back or if it's a very heavy frame, a couple of dowels or pocket screws.

The next job is to recess the photo into the frame. Again, with most woodwork projects, there are several ways to achieve this. The first is to use a router and a rebate bit.

The alternative is to create the recess by gluing on another strip of timber to the inside of the frame. This timber will be thinner than the frame



The simplest and quickest way to join the pieces together is to use adhesive

Staples can be used to strengthen the joint





Finished standard frame

material and will provide a step or recess for the framed material to sit against. Use different colour timbers for contrast between frame and inside material.

To finish the frame, sand it all down. Work through the grits starting with the coarser paper and working down to the lightest. Brush all the dust away and choose your finish. You can paint, oil, varnish, stain or wax your creations. The choice is a personal one so get creative. I used a walnut stain as I prefer the grain of the timber to shine through.

Batten frame

The second frame couldn't be simpler. The real achievement here is turning old timber thrown on the scrap heap into something beautiful and giving it a new lease of life. This frame will encourage you to change the photos regularly as it is very easy to do.

Choose four pieces of timber or cut one length into four equal pieces. Decide the size of the photo you want to display and lay it out on the four pieces. Lay another two battens across the top and bottom of the photo and leave a bit of room for play.



Chamfer

To add detail, use a block plane to chamfer the pieces (cut an angle on the edge). This provides a nice finish.



Battens laid on top and bottom

To attach the battens to the four pieces, you can either glue, screw or nail them from the back. This will ensure that the screws or nails won't be seen from the front.

This frame doesn't use glass or a recess to hold the picture in place. It uses miniature pegs that are glued to the base board. Use either super glue or wood glue to attach them.

Follow the same finishing steps as for the mitered frame.



Superglue the pegs

Strip frame

This final frame is a great way of using any scrap timber pieces you may have around your home or shed. The more varieties the better or if not, stain a few to get a rainbow of different colours.

Start with a piece of manufactured board such as plywood or MDF, which will act as the base. Draw a square in the corner highlighting the position of the photo you want to display.

You will now fill the base board with the off cuts and strips of timber leaving the space for the picture empty – you will be inserting it later with double sided tape. The thickness of the strips should be between 6-12mm and they don't all



have to be even. A bit of variation in the thickness provides a nice effect so experiment and decide which looks best.

Cut the strips to length and position them on the base board. Remove each piece individually and apply adhesive (wood glue) to the back of the strip. Place it back on the base board and give it a slight rub up and down to remove any air bubbles in the glue. Repeat this process for the rest of the strips.



When the glue sets, give the frame a light sanding and finish it whatever way you chose. Stain it to fit into your existing decor or even use a spray on lacquer to give a nice protective finish.

There you have it, three photo frames that can be made to whatever size, whatever style and whatever design you please. You can experiment with variations of the above or come up with your own special frame.

There's nothing like a pictured family photo to adorn your house, so get out there and start printing photos again! ■

Ciaran Hegarty
Images courtesy of Ciaran Hegarty



Glass or acrylic?

To protect the photos from damage a piece of glass or plastic is often layered over them. It is possible to get bespoke glass cut to size from local glass companies or even online. This can be pricey however and you have to make sure that the glass is proper framing glass to prevent reflection.

An alternative is acrylic, also known as perspex or plexiglass. Again, this can be bought online in bespoke dimensions but at a much lower price than glass. It usually comes 2mm to 3mm thick and is tough and has an excellent surface finish.

Acrylic can also be purchased in sheets if you are planning on making a bunch of these frames. A 2mm thick sheet that measures 1000mm x 1000mm will cost less than €15/£12. This can be cut with a jig-saw or circular saw to size and the edges sanded to give a nice finish. You can also use a metal file; start by pushing the file along the edge of the plastic until all saw marks are removed. You can then wrap sandpaper around the file and repeat the process of pushing it along the edge. Work to a very fine grit to get a super smooth edge.



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In the bag

The Architectural Association of Ireland has crowned two stunning homes in their 2016 awards... take a peek!

House at Maghera, Co Down

Architectural practice: McGonigle McGrath, www.mcgoniclemcgrath.com

A collection of pitched forms, casually placed and derived from the positioning and spatial geometry of local masonry barns. New build 475 sqm, completed in 2014.



Bealalaw House, Co Carlow

Architectural practice: Ryan W. Kennihan Architects, www.rwka.com

The existing house was stripped back to the masonry walls/ timber roof and extended by taking into account the scale, form and pitch of the original building, orientating it at an angle to face the mountains. Extension 146 sqm, completed in 2015.



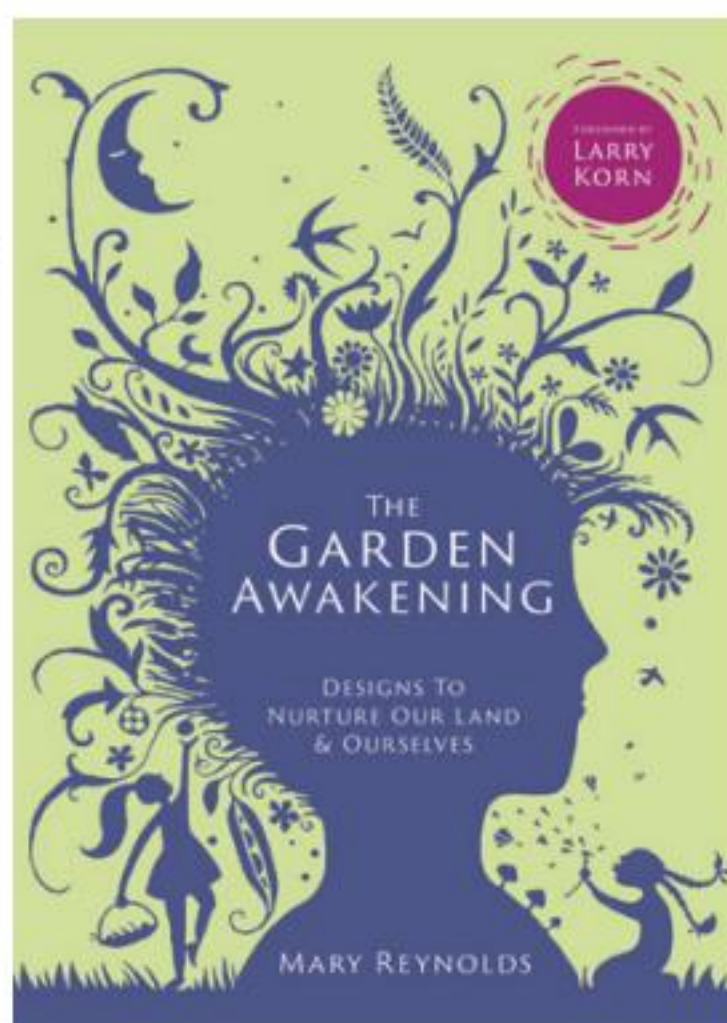
Architectural Association of Ireland, 26 N Great George St, Dublin 1,
contact@architecturalassociation.ie, www.architecturalassociation.ie

The garden awakening

Designs to nurture our land and ourselves

This book's mission statement is laid out in its title, and Mary Reynolds comprehensively delivers the goods. If you want to discover what you need to design gardens in partnership with nature the information is there on page 46, if you want to learn about growing your own - it's there on page 128, if you want to grasp the seven layers of a forest garden turn to page 160 or if the dream lawn is your goal try out her guide page 220.

Whatever your ambition, Mary's horticultural expertise will see you right with excellent illustrations and design plans, both



of which are inspirational and instructive.

Novice or pro, you can benefit from Mary's stimulus, energy and technical guidance to help you create a most beautiful environment. And while she is essentially offering a manual for your soul - gardeners are both participants and custodians - the gardening information she presents is more useful than many gardening writers can muster.

For me personally gardening is my true nature. Whether it's the weather chat, the agri-culture, the shamrock, our ogham

language heritage, our feast day celebrations of the land and lambs, our outdoor music festivals, the ploughing, Bloom or even our nature based proverbs - which provide the sturdy stepping stones through this magical book - we Irish are immersed in the land and nature about us. It is sacred, ancient, ever-renewed. This book celebrates that. It is joyous to read. It is nutritious to mind, body, spirit and garden.

Go get awakened - I dare you.

Fiann Ó Nualláin

www.theholisticgardener.com

Mary Reynolds with art work by Ruth Evans of the Hedgerow Gallery; artwork incorporated into the design by Glyn Bridgewater. Green Books www.greenbooks.co.uk, £19.99/€27, hardback, colour, 272 pages, ISBN 9780857843135, 234mm x 168mm

between the covers

Rooms

Create the home you want for your life

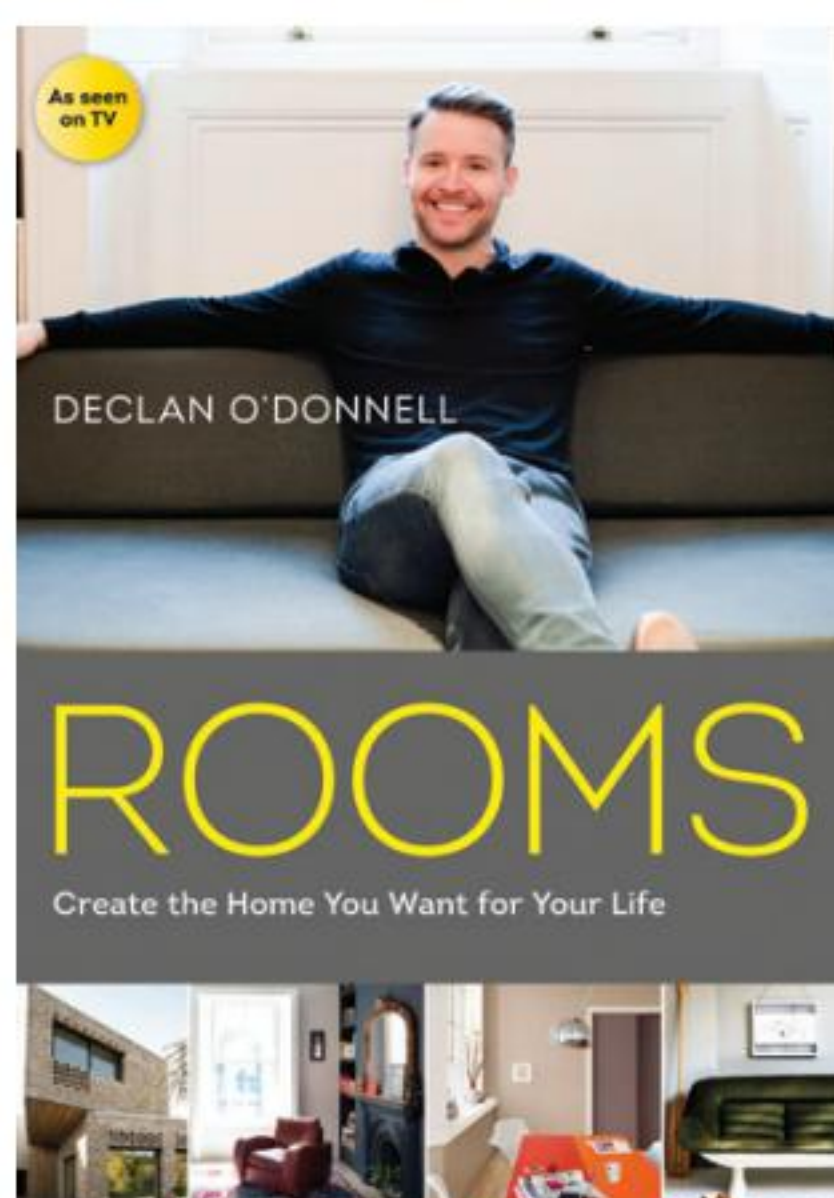
Architect Declan O'Donnell's new book aims to facilitate your home transformation project, and, with lots of photographs from his work and from others, there is plenty to chew on for a homeowner keen to make changes.

Guides of this type tend to be marketed as recipe books to let the reader dispense with a designer, but this is a tightrope the author has to walk.

O'Donnell is a working architect whose insights come from his design role on projects, and while the book has exhortations for the reader on how to think like a designer and find their own design confidence, the actual instructions on how to do so are unclear.

For good reason - the design process is notoriously difficult to set down. An example is O'Donnell's references to "the rules" - stick to them here, break them there, you'll know yourself when you find your confidence. Yes to the concept, but I'm not convinced how helpful this is to the layman.

While there are insights here on how to



approach the big picture for the self-designing homeowner, it is an effort to figure out what they are.

I also can't help but think this book has been heavily influenced by Naomi Cleaver's *The Joy of Home*, but without as much clarity on how the design process works.

That said, when O'Donnell is dealing with specific rooms he is on much firmer ground, and offers plenty of good tips, information and insight.

Also much clearer is where the book deals openly with the process of working with an architect. It's a good primer for a homeowner looking to hire one, although a case study would help.

Stephen Musiol

www.smallspaces.ie

Declan O'Donnell. Hachette Ireland www.hachette.ie, £19.99/€24.99, paperback, colour images, 248 pages, ISBN 978147362833588

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Are the days of cowboy builders gone?

It's not a shortage of good builders that's the problem, it's homeowners not doing their homework. The good news is, that's easy to fix.

In ROI the regulators have this year successfully prosecuted gas and electrical contractors working illegally. Hiring registered installers to do work in your home is not only the law, it could be a life saving measure.

And while general building work doesn't seem to pose such a direct threat, shoddy workmanship remains dangerous. Even though it's not mandatory, hiring registered and qualified tradesmen in every other arena of building is just as relevant as for gas and electrical installations.

According to a survey by the Federation of Master Builders UK*, it seems 20% of the people who need to get work done on their home are so anxious about finding a qualified builder that they delay it.

Reasons include a fear that it will cost much more than the quote (25%) and that the result won't be up to scratch (14%). A third of respondents said they'd had at least one bad experience with a tradesperson, citing issues such as poor quality of work, work not completed to the full specification and the tradesperson disappearing mid-job.

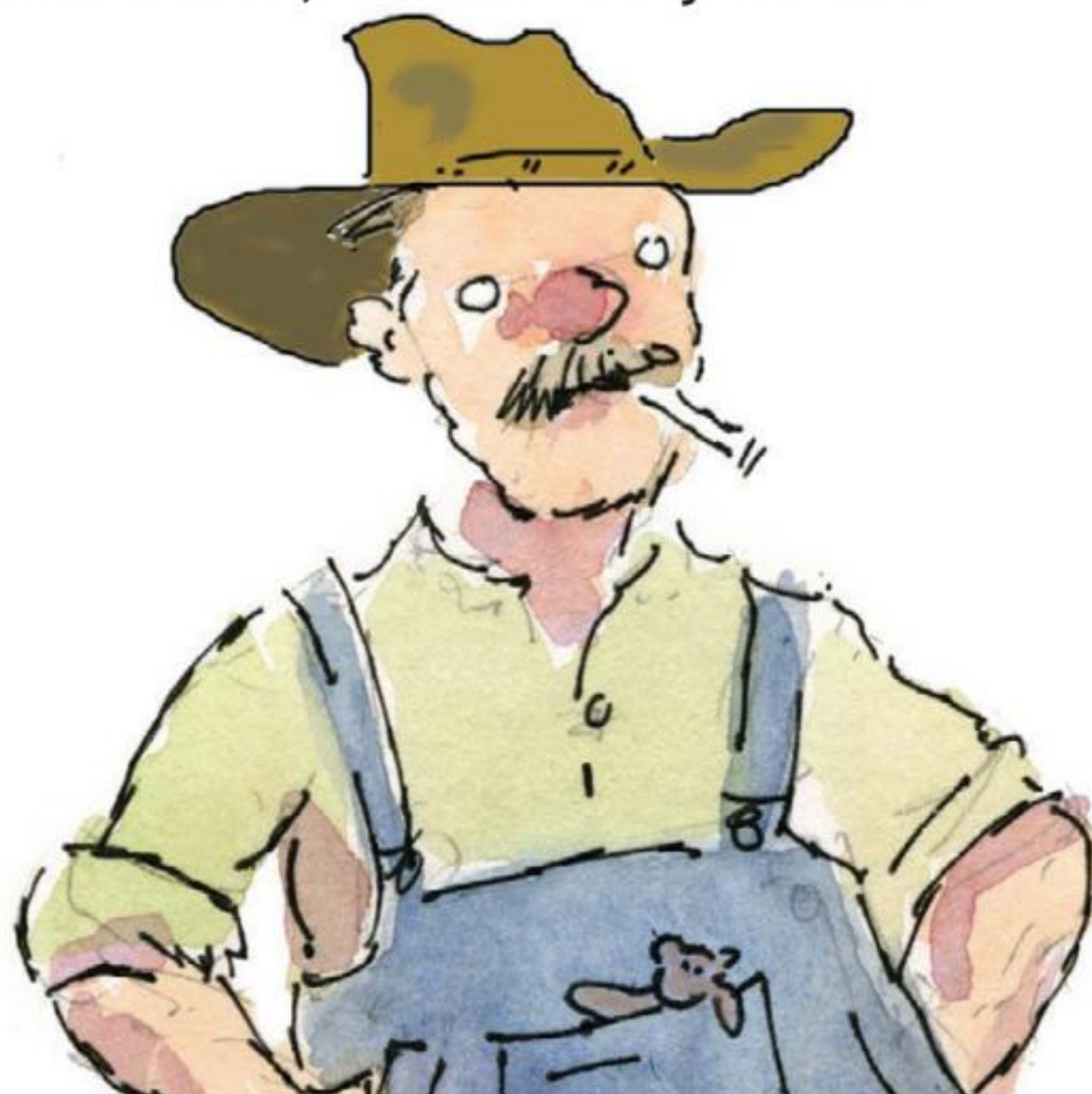
Despite these concerns, 25% of those surveyed by the FMB UK admitted that they do not ask their tradesperson about their building industry credentials when booking a job, while 10% said they don't know how to find a reputable builder.

While data specific to NI or ROI is not available, I believe this trend to be relevant to Ireland too. Sadly there is still a mindset here that "a cheap job from a friend of a friend is best". However the success of such projects are a roll of a dice. Why waste your savings on a risk you don't need to take?

We take calls from the public regularly after a problem has occurred looking then for a registered builder to sort out an issue. Following a simple process and using a trade body such as FMB saves heartache, time and needed capital. It leads to a better longer lasting job and a happier you! ■

Gavin McGuire

* October 2015



Marcus Patton

Top tips for self-builders

Finding a builder

The best starting point when searching for the right tradesperson is to ask someone you know for a recommendation. That way you'll have direct examples of their quality and professionalism. Failing that, go through a professional trade association that independently inspects and vets its members before allowing them to join.

Get written quotes

Ask at least three builders to provide a written quote for your job and don't just go for the cheapest. If one seems much cheaper than others ask how they will achieve it for the price without cutting corners. It's a good idea to set yourself a limit on how much you'd be willing to pay to ensure you don't stretch yourself.

Draft a contract

Make sure everything is agreed in writing beforehand. It's important to include everything you would like done, including supply of materials, safe removal and disposal of waste, snagging and 'making good' after all the work is finished.

Never pay upfront

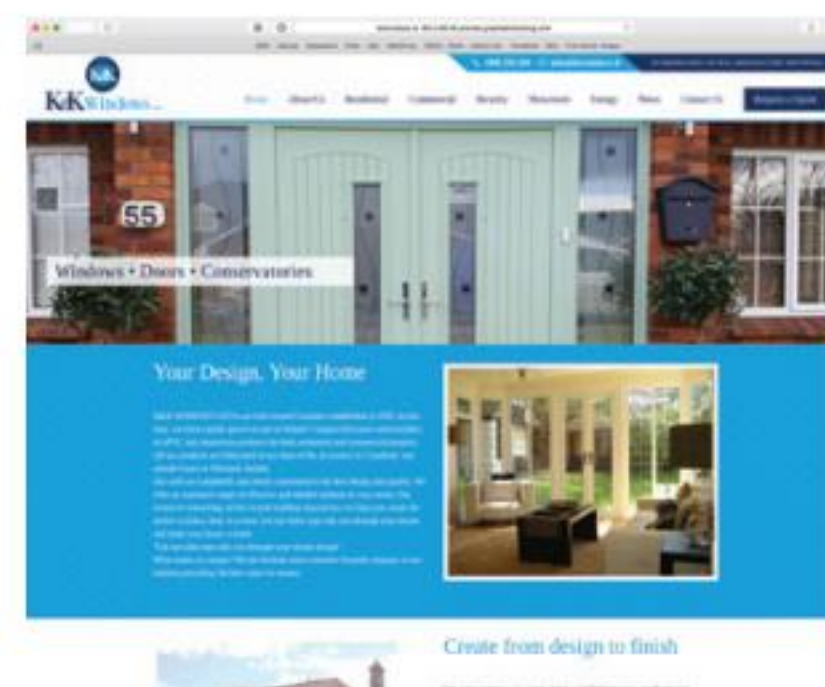
If a builder is asking for huge amounts of money up front, alarm bells should sound. Although some money might be required to cover the cost of materials, it should be proportionate and in line with that stage of the project. It's wise to agree a sensible payment schedule as part of the contract.

New look

Keep an eye out for **K&K Windows'** revamped website www.kkwindows.ie where you can get acquainted with their window and door products, including the Guardian Roof Conversion system, and virtually walk inside their new showroom with a 360 degree tour.

With a 10 year guarantee on all products, a maintenance and repair service with an aftercare support they pride themselves on, and a new fleet of vans, why not log on and request a quote? There's a 35% sale on until the end of August.

K&K Windows Ltd, Craanford, Gorey, Co Wexford, freephone (ROI) 1800 250 260, tel. 053 9383526, info@kkwindows.ie



Window into the future

Ultimate Window and Door Solutions have been busy of late; the company has not only doubled the size of its Dublin showroom, it's also launched a new product line by Polish manufacturing brand **EKO OKNA**. This new budget-friendly range features all aluminium, aluskin (uPVC clad in aluminium), and all uPVC triple-glazed windows and doors.

According to the company, the range can deliver passive level performance at much more affordable prices than many passive certified units. This extruded aluminium system in particular can reach

overall U-values of 0.57 W/sqmK, the company says, explaining that it's the first aluminium window system to employ silica aerogel as a thermal break. A welcome announcement knowing that new buildings will have to be 'passive' by 2020.

Outdoor screens are also available on the windows to shield you from overheating, something that's now factored into the design of all low energy houses. In addition, the screens protect from the weather, and from insects!

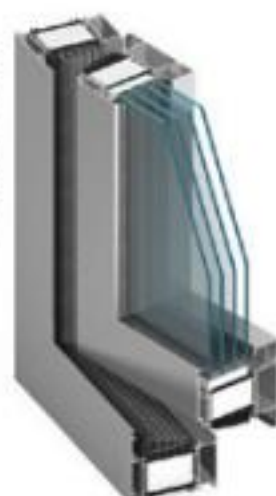
Ultimate Window and Door Solutions' revamped showroom also features

standard uPVC windows and a full range of composite doors which start at €1,350. The company also carries passive house certified windows and doors from leading Austrian manufacturer Internorm. That's over 40 windows and doors on display.

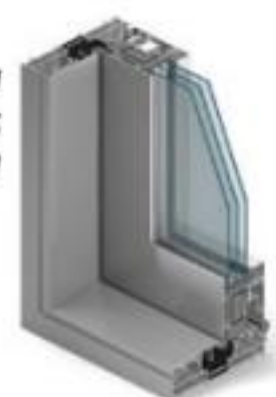
To see it all for yourself, visit the showroom Monday to Friday 9am to 5pm, and 10am to 2pm on Saturdays.

Upper Floor, Unit 22 Turnpike Road, Ballymount, Dublin 22, tel. 01 685 3353, www.ultimatejoinery.ie

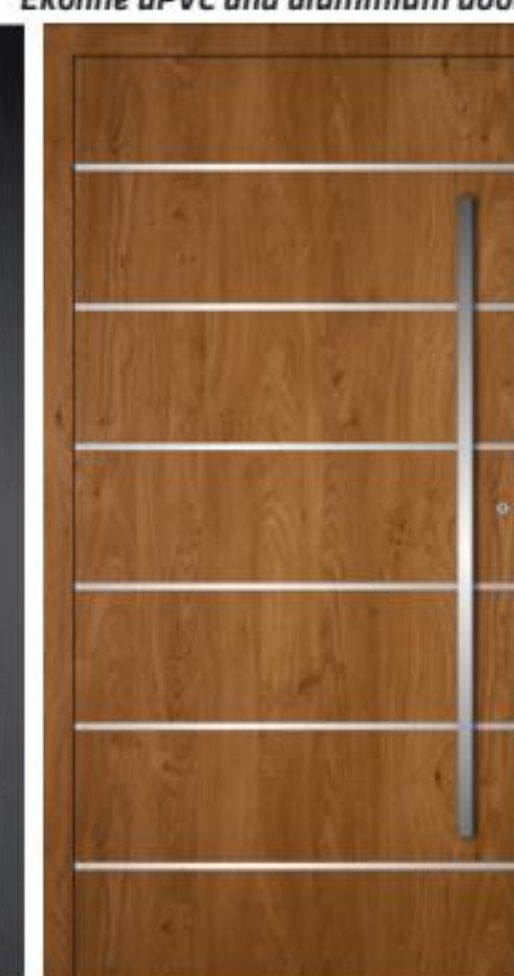
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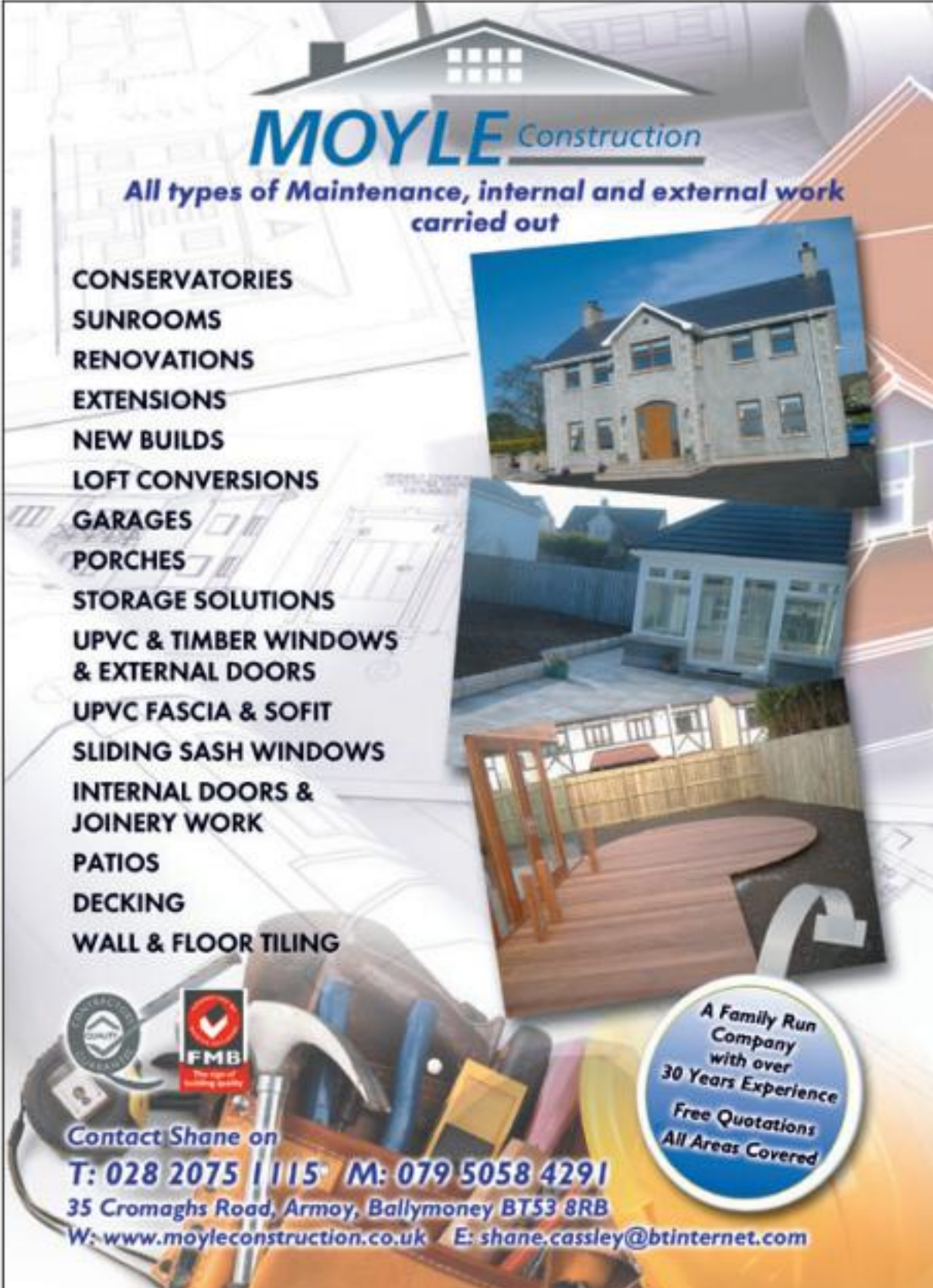
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