

Keyhouse

Issue #4

House Builder Newsletter



04 Bovis Spreads its Wings

With

Christopher Evans
Bovis Homes



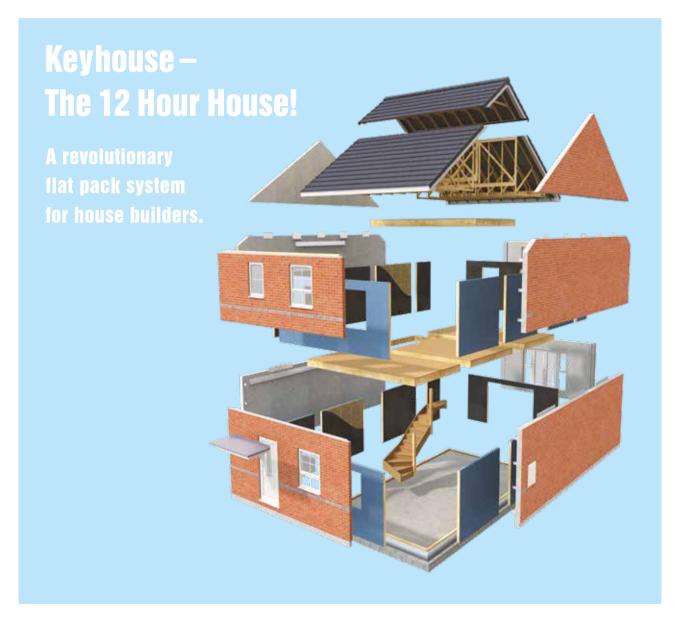
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with **Paul Jackson**Keepmoat Homes



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with **Lynsey Allen**Inland Homes















WELCOME

While I wouldn't claim to be able to predict the outcome of the current political uncertainty I can give you my assurance that the Keystone Group is continuing to prioritise increased investment in innovation for the house building market.



Sean Coyle Chairman The Keystone Group

> Over the past few years we have invested millions of pounds into the development of innovative offsite products in response to demand from our house builder partners. This Autumn we took a bold step forward with the launch of our Keyhouse home. bringing the reality of a factory built home to those house builders wanting to take the next move in offsite.

> Kevhouse is as an exciting new Kevstone product that draws on our vast manufacturing and technical expertise, offering tremendous potential for clients who value the opportunity to fast track completion of homes with the minimum of onsite labour.

The same ground-breaking innovation can be seen across the Keystone Group, with product solutions which simplify the build process and address the key resource and performance issues facing house builders today.

Finally, please remember our inspiration comes from you, so please feel free to share your challenges with us, we're ready to listen.

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VOX POPS

How do we Encourage Young People to Join the Construction Industry?



Lynsey Allen

Group Procurement Assistant Manager Inland Homes



This one is simple, we need to educate and invest in young people and increase their awareness of the wide range of roles available. Personally, I only became aware of the opportunities in housebuilding because of the existing involvement by my family, not through any information at school.

Many individual companies have launched apprentice schemes with entry from school which can be a great starting point for a lifelong career. I think as an industry we need to present these sort of opportunities in a more joined up way.

At Inland we have set up a formal partnership with Bucks UTC. Through this partnership we can offer young people the opportunity to visit live projects and provide them with classroom talks to give them a real flavour of who we are and what we do



Paul Jackson

Supply Chain Director Keepmoat Homes



As an industry, we need to really improve how we engage with the community, starting with schools, colleges and universities. We have a great story to tell, it's a big industry, it's sustainable and enjoyable.

I'm pleased to say that as a business we try to regularly engage with our schools across the regions in a variety of ways. We explain the range of trades involved in the build process - it's not just bricklayers but joiners, plumbers and plasterers. We also try to highlight the roles available within the industry that people perhaps might not consider in fields such as architecture, marketing, finance, IT and explain how it all fits together.

We also champion apprenticeships and continuous development, providing people the opportunity to move around within the business, enabling them to work out where they want to go from a career perspective.



Peter Caplehorn

CEO Construction Products Association



I think we need to advise students to look carefully at the details and make sure they understand whatever part of the industry they wish to go into. So helping young people understand all the opportunities

It's a great industry, I've certainly had a fabulous time so far. We need to ensure we communicate an up-to-date message so people wouldn't be put off by some of the old perceptions, such as an industry that's dirty, stressful and has a lot of challenges. I think it is reforming and improving.

HOUSE BUILDER FOCUS

Bovis Spreads its Wings



Christopher Evans
Associate

Buying Director



With record profits and growth in both sales and margins announced in its half year report this September, the future of house building at Bovis Homes has never looked better. Keyhouse caught up with Christopher Evans, Associate Buying Director with Bovis, to find out what's happening.



What's driving the positive results at Bovis Homes?

I have certainly seen a lot of changes since I joined the business in 2013 but the big move driving efficiency has been made over the past two years and there are still more improvements to come.

The first major change impacting performance has been the redesign of our house types. This came through research carried out with customers and launched last year under the 'Phoenix' banner. These new house types are not only more attractive to home buyers, but they have also been designed to optimise the build process, so we are experiencing real efficiency benefits onsite.

The Phoenix range includes 28 houses from 2 beds up to 6 beds and has been introduced to all our sites, including a number of existing sites on which we reapplied for planning.

Is new technology making an impact?

We have made some significant internal process changes with the adoption of the Coins ERP package which is delivering excellent efficiency to us. The key benefit is keeping information up to date so people can make the right decisions for the business at the right time.

On the customer facing side we are investing in an interactive home buyer portal which will really enhance the buyers' experience once they have reserved a house. This brings us bang up to date with the latest technology, giving customers the sort of control they are used to in apps that they use daily for all sorts of things. So when Mr and Mrs Smith log into the new portal they will be able to see which options they can choose or upgrade to.

The system will also have the ability to show the live progress of the house onsite.

How does Bovis differ from the other house builders?

I would sum it up by saying we have the scale and impact of a PLC but with the mindset more like that of a family firm. Our CEO Greg Fitzgerald has been spearheading major changes, utilising the latest technology, which has had a really positive impact over the past two years.

We are now totally focused on improvement in every part of the business, right down to a new app based internal system which cuts out paperwork and streamlines all types of staff admin.







How did you connect with the Keystone Group?

Our connection with Smartroof is relatively recent and currently we are working on two sites. The relationship has got off to a great start and I have to say; from a builder's point of view, from a commercial point of view and from a technical point of view it's gone fantastically well. On the back of this positive experience we are currently looking at new opportunities to engage further with the Keystone Group across the whole range of group products. The potential for building a strong partnership is certainly there.

Is new technology improving the house building industry?

I think the housing industry is still a bit of a dinosaur when it comes to implementing new technology compared even to other parts of construction. >

Our approach to the future skills shortage is to develop our own skilled trades through apprentices in partnership with our contracted trades.



The good news is that Bovis is on track to implement more digital technology and obviously our new portal for home buyers is a big leap forward. We also see partnering with companies like Keystone, who are already advanced down the technology route, as a positive step. On the supplier side, we are impressed by the way Keystone is using technology to enhance the quality and performance of the products they offer us as a house builder. We are now building smart homes where you can control things like heating, lighting and blinds from a phone, so that is a good example of how technology is benefiting the home buyer.

What is your approach to new product development?

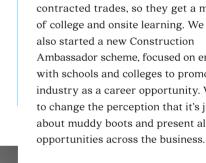
Fundamentally, the first question we ask when confronted with a new product from a supplier is 'show us the benefit'. > It doesn't necessarily have to be a cost benefit, it could be a benefit for us from a health and safety point of view or in terms of the speed of build. We look at the big picture and may spend a little bit more in one area if we can save in another. For example, savings on prelims and the safety of everybody on the building site are things we really value.

We are following the developments in new offsite methods closely because the range of options is growing every month, I think the first 3D printed house has just been built in London. At the moment we build either timber frame or with traditional brick and block.

Is the skills shortage in the industry real?

I would say it all depends on the trade and the location, in certain trades there is no skills shortage. For us, in the Midlands for example we are pretty well supplied, however I would say we suffer the same shortage of bricklayers as everywhere else. Our approach to the future skills shortage is to develop our own skilled trades through apprentices.

66 As a business we look at the big picture and may spend a little bit more in one area if we can save in another.



What's next for Bovis Homes?

We have ambitious plans based around acquisitions and growth in our regional businesses, regardless of the outcome of the dreaded B word! Our new Phoenix home designs and the customer portal will be central to our plans and our Customer Experience Director, Debbie Hugh, is leading the process on how we can maximise its impact on the customer journey. We have already completed the hard yards in getting the portal up and running, so over the next couple of years we will refine it to become the best home buying experience in the industry.



We work in partnership with our contracted trades, so they get a mix of college and onsite learning. We have Ambassador scheme, focused on engaging with schools and colleges to promote the industry as a career opportunity. We need to change the perception that it's just about muddy boots and present all the



Hi-therm + a Hit with House Builders



with

David Grace

Sales Director

Keystone / IG Lintels

Keystone's award-winning lintels offer an innovative solution to improving SAP calculations, meeting Part L regulations and reducing thermal bridging by up to 80 per cent.





A low-cost route to improving SAP ratings

The Hi-therm+ Lintel provides a low-cost solution for reduced carbon emissions and is up to five times more thermally efficient than a standard steel lintel.

Every house builder is now facing the challenge of enhanced energy efficiency within SAP which forces the designer to address thermal bridging in all its forms. While there are a number of design options available to boost efficiency, none offer the impact and cost efficiency within SAP of the Hi-therm+ Lintel. Depending on the application, house builders have the potential to save up to $\mathfrak{L}200$ per house by using Hi-therm+ to optimise their SAP calculation.

Keystone has won multiple industry awards for this remarkable BBA certified innovation however the most compelling reason for investigating Hi-therm+ comes in the form of customer testimonials.

Here's what these house builders have to say:

By including low psi value Hi-therm+ Lintels into our group specification, the improved performance within SAP calculations allowed us to achieve overall significant cost savings by reviewing the ground floor insulation specification whilst still meeting the requirements of Part L Regulations.

The Hi-therm+ Lintel has proven to be a cost effective solution to tackle concentrated areas of heat loss and contribute to the energy performance of our group house type range.

"

Jonathan Moss

Group Technical Manager



Every Barwood home is constructed and insulated to standards that exceed current regulation requirements thus giving significant energy savings and reduced running costs for home owners. After trialling Hi-therm+ Lintels on several sites we decided to specify them on all house type designs due to their improved performance and simple installation.

"

James PrattSenior Buyer

BARWOOD

Hi-therm+ Lintels significantly reduced the thermal bridging above window and door openings in SAP which helped us achieve compliance with Part L Building Regulations through a fabric first approach. As a result Legal & General Homes include Hi-therm+ Lintels in all of our house type designs as part of a cost effective solution to building energy efficient houses.

66

Andrew Dicker
Technical Director



We recently decided to specify Hi-therm+ Lintels across the board on our complete house type range alongside a combination of other fabric improvements. The Hi-therm+ Lintel has proven to be a low cost solution for reducing carbon emissions and helped us to achieve significant reductions in overall build costs whilst ensuring the houses we build are highly efficient at retaining heat and use less energy.

66

Chris Burton

Group Commercial Director

BLOOR HOMES

MKeystone

Telephone 01283 200 150

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HOUSE BUILDER FOCUS First time **buyers** account for 70% of the homes we sell on the open market. 10 keystonegroup.co.uk

HOUSE BUILDER FOCUS

Right First Time



Paul Jackson

Supply Chain Director



Keepmoat Homes is forging a unique position in the first time buyer market. Supply Chain Director, Paul Jackson gives us an insight to their success.

How would you define Keepmoat's market?

We are one of the UK's top ten house builders with a reputation for providing high quality affordable homes. We are committed to a strategy of building for mixed tenure, for sale, affordable rent and Private Rented Sector (PRS).

First time buyers account for 70% of the homes we sell on the open market with an average selling price of £156,000, we're helping more people to enjoy home ownership. Alongside the homes we sell on the open market, we're proud of our partnerships with registered providers.



How has your business developed in recent years?

The sale of Keepmoat Regeneration to ENGIE in 2017 was an important part of shaping the business today both financially and operationally, allowing us to focus on building homes. We have invested significantly in modern methods of construction through our partnership with ilke Homes, helping us to meet our market's demand, faster.

How does Keepmoat differ from other house builders?

We are the UK's largest and only dedicated 'partnership home builder', which means we work with Homes England, local authorities and registered providers. Together we are delivering much needed new homes across the country. Our continuous membership of Home England's Delivery Partner Panel since 2009 has resulted in us building more than 12,000 homes, making us its largest partner.

How would you describe your relationship with the Keystone Group?

Back in 2000 we became Keystone's first house builder partner and we have

maintained the relationship now for almost twenty years. That says a lot about the relationship and reflects the way Keystone has continually developed new solutions such as the Hi-therm Lintel. The relationship has developed to include Smartroof, IG Elements, Crendon and Keylite, working together closely as we engage more in offsite housing. On the lintel front, we now partner with IG, including their brick feature lintels. Support from the group's management at director level has been excellent and adds to the success of our relationship.

How do you approach new product development with suppliers?

We're always looking at new ideas, new methods of construction, new materials and ideas to improve things. It's all about our supply chain being willing to engage with the manufacturers and share that information in a transparent way with the right people in our team.

We remain open minded to looking at and trialling new ideas because development is not really about what we do today, it's about what we do tomorrow and how we enhance the experience for our customers.

Is new technology improving the industry?

Technology is transforming our industry as it does many others, from advances in modelling software such as BIM to the use of drone and GPS technology in mapping and surveying sites. These advances impact the planning stage, saving not only time but also money.

Alongside these, the change in build process, using modern methods of construction is changing the way developers approach sites and impacts the time taken to complete them.

What is your involvement with MMC?

We've been engaged with MMC for some time, in particular working with ilke Homes to shape its house designs to meet the needs of our customers. We've delivered modular homes alongside traditionally built homes on sites in Nottingham, Doncaster and Liverpool however earlier this year we launched our first full development to be delivered by MMC. The site in Swanley, Kent is using both timber frame and modular construction techniques to complete 56 new homes.





Is the skill shortage in the industry impacting you?

We definitely have challenges recruiting for some roles, much like the wider house building industry. However, we have some great leaders in our business and that certainly helps to attract more talent as people want to work with and learn from them.

Utilising offsite construction and our partnership with ilke Homes and additional timber frame contractors is helping us to dilute the skills issue. Our policy on apprentices and trainees has also played a positive role in tackling the challenge.

We also recently launched Keepmoat Homes Future Leaders Programme which is focused on supporting our staff to develop the skills we need as the business grows. This yearlong programme, which will take its first cohort in November, is aimed at our high performers who have the potential to reach Director level and will offer them training and mentoring to support their personal development.

Are you forecasting growth in 2020?

Yes, we are focused on delivering more high quality new homes with greater speed and continuing to be a leading home builder for the first time buyer.

We have been securing land for more private development work and are currently enjoying growth further south and also in the north of the country as we strengthen our reach nationwide.



What's next for Keepmoat?

We are on a really good journey with the consistent delivery of high quality homes while still maintaining our position in the market as a leading developer for first time buyers.

Our plan is to continue delivering high quality affordable homes in locations where people want to live. However, being specific, we have some large scale developments including NorthBridge in Glasgow which is part of the Sighthill Transformational Area. This is the largest project of its kind outside of London and will feature 824 new homes when completed.





Keyhouse – The 12 Hour House!

A revolutionary flat pack system for house builders.

Keyhouse is a new concept in factory built homes putting the house builder firmly in control.

Some modular or volumetric residential solutions are offering the house builder the promise of a turnkey home, delivered complete, with even the kitchen fitted. The concept sounds great but the cost and lack of design flexibility can leave the house builder feeling a little squeezed when it comes to margins.

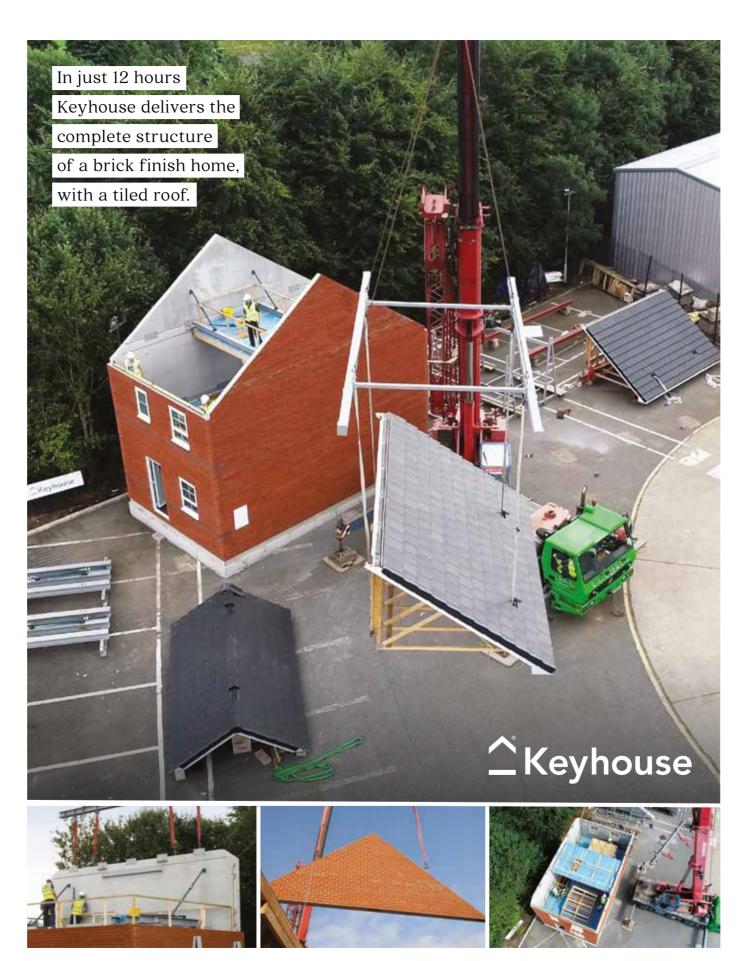
Keyhouse however, offers the best of both worlds to the house builder. In just 12 hours the flat pack assembly of Keyhouse delivers the complete structure of a brick finish on a robust concrete outer leaf with an internal insulated timber frame, along with floor cassettes, staircase and a pre-tiled roof. This enables the house builder to add additional value and offer home buyers personal choice of finishes.

The Keyhouse flat pack system has inherent design flexibility and can be adapted to suit most house types and can also accommodate 'stepped' and 'staggered' site layouts.



No requirement for scaffolding or working at height.

The Keyhouse solution can also be adapted to a three storey build with a room in roof house type.



How it works

Design Engagement

The Keyhouse team will work with your designers to convert an existing house type design to the Keyhouse system.

Factory Built

The complete fabric of the house; including the robust walls, floors, partition studs, stairs and pre-tiled roof module will be built in the Keyhouse production facilities. All exterior doors and windows are pre-fitted in the factory.

3 Delivery

The house builder will prepare the sites foundations and ground works in advance of the Keyhouse delivery. A call off plan will schedule the delivery plot by plot to maximise crane efficiency. Each house is delivered in component form.

4 Assembly

Just 4 people can assemble the Keyhouse in 12 hours. Keyhouse is now watertight, airtight, insulated and ready for first fix.

•

See us on YouTube.

Watch the video, it is simply amazing!!!

Search: Keyhouse - Keystone Group



15



On Another Level



Introducing

Debbie Philips

National Business Development Manager Keylite Roof Windows

Not content with winning more
UK industry awards than any other
roof window producer, Keylite
is now investing further in customer
support for house builders.

> It comes as the business is enjoying significant growth in the new build sector as more of the UK's leading house builders buy into the benefits of Keylite's innovative roof window range.

The appointment of Debbie Phillips as Keylite's new National Business Development Manager represents an additional sales support, reflecting the company's commitment to both new and existing customers. Debbie has spent more than 20 years building relationships and supplying products to the new build and social housing markets. During this time she developed a strong understanding of trends affecting the housing market and the challenges these present to builders.

This extra support comes at a point when more live plots must comply with the latest Part L building regulations and face the associated increase in thermal performance targets. >



Looking further ahead, the Government has made its objectives clear with a commitment to introduce its Future Homes Standard which will see the inclusion of 'world leading levels of energy efficiency' and low carbon heating in all new build homes.

In response, Keylite's policy of continuous improvement is already leading to the development of roof windows with enhanced energy performance. Keylite's patented integrated expanding thermal collar is a perfect example of how the company's innovative window design is setting new standards. In addition to significantly improving thermal performance, independent research conducted by BRE shows that a thermal collar is necessary to prevent condensation and mould growth. The results in this report indicate that the addition of an expanding thermal collar limits the risk of internal surface condensation and mould growth on the area of interest in accordance with BRE IP 1/06.

While regulations are an important factor in the industry it is important not to lose sight of the fact that people buy new homes to enhance their lifestyle. The phrase 'bright and airy' will feature in most positive reviews of a new home and Keylite are developing new options to create bright, airy spaces for installation in both pitched and flat roofs.

Independent research conducted by BRE shows that a thermal collar is necessary to prevent condensation and mould growth.

BRE report number: Pl02557 Issue: 2.2



House builders can choose to create brighter interiors with Keylite's white roof windows in timber or PVC, with the option to enhance the experience further by opting for electric operation compatible with smart home features. Naturally the starter home will require a different solution to the executive pad, however, in every case there will be a Keylite solution which adds value to the project while meeting the aspirational and financial needs of the project.



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*****Keystone

WOMEN IN CONSTRUCTION

Making a Mark



Lynsey Allen
Group Procurement

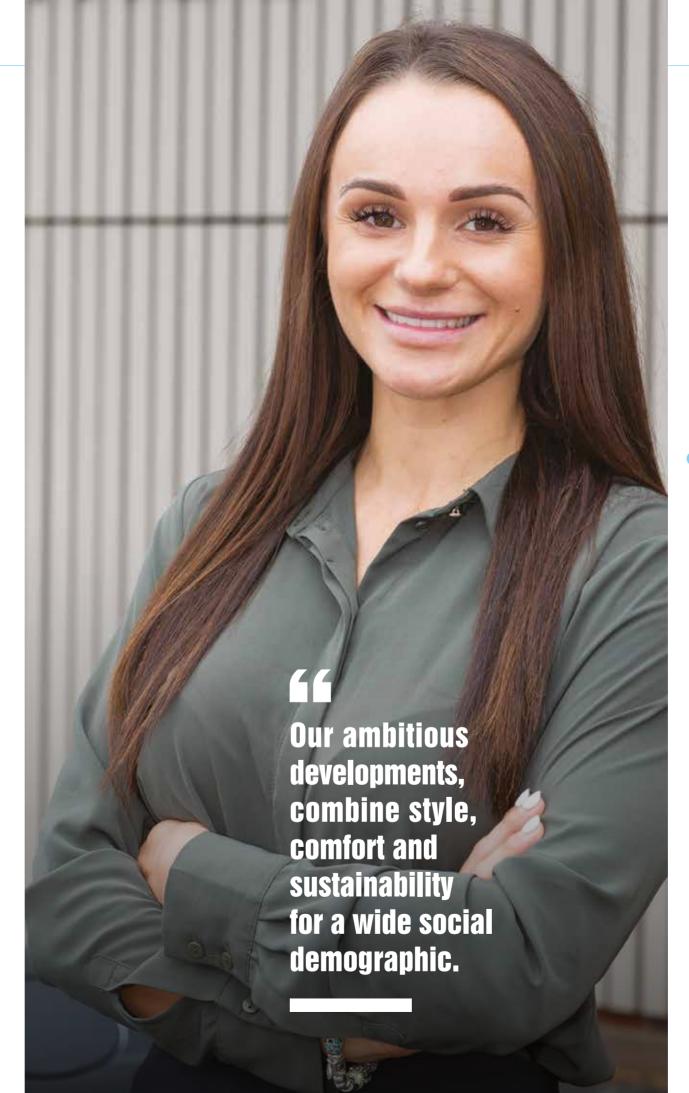
Assistant Manager



An increasing number of women are making a mark in the house building industry, playing a key role across a range of disciplines. Keyhouse met Lynsey Allen, a young professional working with Inland Homes in Buckinghamshire, to hear about her experience.

Inland Homes is an established land regeneration business, focused on developing sites in the South and South East of England for residential and mixed-use projects.







Tell us about Inland Homes

Since our beginnings in 2005, we have built our business on our ability to identify opportunities for brownfield regeneration - on sites where we can add value by using our expertise to navigate the complex planning system to secure approvals.

Over time, we have evolved our strategy to maximise market opportunities. This has meant expanding into house building, and developing sites, both for direct sale and on behalf of affordable housing providers.

Our versatile structure, local insight and opportunistic approach gives us a competitive advantage, ensuring we can react fast to secure the sites we want at a price that provides healthy returns. Once secured, our knowledge of and relationships with local authorities, and the wealth of experience in our land and planning teams, means that we are able to secure a valuable planning consent for the sites we own and manage.

Our ambitious developments, combining style, comfort and sustainability for a wide social demographic, deliver appropriate rewards for our business, our shareholders and stakeholders and the local community. Increasingly, we are utilising our own land bank to grow our house building operations and this growth will continue.

What attracted you to a career in construction?

I have been exposed to the industry since a young girl as my mother was an architect and my father has worked in house building for over 40 years. So the decision to explore career opportunities in the construction industry seemed like a natural choice for me.

Despite being very academic at school I favoured a direct route into a career rather than going to university full time. This option allowed me to gain experience and progress learning on a part-time basis. I am grateful that my first employer gave me the opportunity to work and study at the same time, Inland also offers the same progressive opportunities!

Starting a career straight from school was challenging as I was a shy person, but that was something I soon overcame and now I jump at opportunities I used to shy away from.

Being part
of the process
that delights
people with
a quality new
home is very
rewarding.
No two days
are the same.





How has your career developed?

I am really pleased with how my career has progressed over the past 5 years, having started originally as an assistant buyer in a national house builder team. In a short space of time, I have been able to progress to assistant management level and am now working in a group procurement role for an excellent company, Inland Homes. My career highlight to date must be the point that I have started to manage other people.

I consider myself extremely lucky to have a manager who has taken the time to teach me a lot when it comes to product knowledge and management skills. I can now pass that knowledge onto my junior staff which demonstrates the long-term value of investing in apprentices because the work put in now will pay off in years to come.





What about iob satisfaction?

Being part of the process that delights people with a quality new home is very rewarding.

No two days are the same and a typical working week could involve any of the following: writing project specifications, negotiating group deals, dealing with site queries, attending meetings onsite and visiting supplier facilities.

On a daily basis I am dealing with people within and outside the organisation in addition to communicating with external suppliers and manufacturers. In summary, it's a demanding role that keeps me on my toes but the rewards are there if you are prepared to work hard.

What advice would you give to women considering a career in construction?

My advice would be if they have any hesitations at all, then put them to one side and just go for it! Your initial perceptions about it all being hard hats and muddy boots are not correct and need to be brought up to date! Construction is a great career choice for women, very rewarding financially and gives great job satisfaction.

Construction
is a great
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"

How can we encourage more women to get a career in house building?

Things are changing quickly, our employee split is around 30% women employees at this office but there's still room for improvement. There are more women moving into senior management positions, however, it is still not equal. Companies should champion schemes that change perceptions of the industry or champion women role models within their businesses. There are plenty of opportunities for women to progress in a wide range of roles, but they need to feel they can do so in a company that can demonstrate how they are committed to equality and diversity. I have found that at Inland Homes!







Partnering for Success

Richard Dolben, Managing Director at IG Elements looks ahead to 2020.



with

Richard Dolben

Managing Director
IG Elements

A new programme of investment in customer service will support the continuous growth at IG Elements. Going the extra mile for customers is a key value for the business which is targeting enhanced levels of service and support in 2020.

To meet the challenge of 'on time in full' delivery, IG has invested in the senior management teams, reflecting ambitious plans to strengthen its reputation as a leading manufacturing of UK offsite building products.

We now have probably the largest technical team in the industry and lead the market with a bespoke design service which applies to a range extending to much more than standard GRP products.

Facing the industry challenges

In an increasingly unpredictable world, we believe the best response is to focus on innovation which enhances the way we build houses and meets the regulatory challenges faced by the industry today.

The challenge of closing the gap between the designed and built performance is on the agenda of every building material manufacturer. It is important that the construction industry delivers both the design quality and build quality of the architect's vision, unhindered by an onsite shortage of skills or labour.

Partnership works

Our objective is to work in the closest possible partnership with house builders. This is best achieved when we gain early engagement on projects. By involving us at the design stage we can provide the most efficient solutions and incorporate them into the project's drawing package. It also ensures the products are developed to meet the specific site requirements cost effectively, in a way that won't threaten the original design.

At IG Elements, we take time to understand our customers and their build process and how best we can ensure the smooth running of the supply process. We liaise with the build teams at every stage of the process, from the pre-start meetings right through to after sales support.

Some of the feedback we have received from customers has resulted in enhancement to our service including Site Support Packs and Minor Repair Kits which negate the need for call-out charges for minor onsite issues.

We are addressing these challenges through a process of continuous improvement and always welcome feedback from house builders, helping us to understand their views and priorities.

2020 and beyond

The task is clear, the industry needs more innovative ideas to streamline installation, making it safer and simpler in a market where skilled labour is a scarce resource.

To achieve this, we will seek to engage further and deeper with house builders who are hungry for new solutions to their everyday needs. Ease of installation will remain vital as the labour market tightens and skills shortages mount. Our job is to innovate for easier installation, reducing the number of tasks to be completed onsite.

We now have probably the largest technical team in the industry and lead the market with a bespoke design service.



Geared for service

Our seamless customer service process takes your enquiry through to completion, managed by a team who will ensure that your order arrives onsite, on target.



We use 3D modelling for fast accurate design.

2 Estimating

We typically respond with estimates within 1 week.

Quality

We manufacture in a controlled environment for optimum offsite quality.

Delivery

Our central location facilitates the delivery of the right product at the right time.

After Care

Our dedicated site support team are in place for all aftercare queries.





Telephone **01283 552 205**

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igelements.com



Topping the Offsite Revolution

Offsite is the quiet revolution currently sweeping across the housing market as builders increasingly take a proactive stance on dealing with the skills issue, in the drive for construction efficiency.



Progressive companies are finding that their adoption of new digital technologies and focused management of house types is opening the door to effective use of new offsite solutions.

This trend is now seen as a win win situation as it benefits the builder and satisfies the government's desire to remove the barriers to accelerated house building in the context of their 300,000 homes annual target.

House builders reap the benefits of offsite

Smartroof's factory manufactured panelised roof system offers a viable alternative to traditional roofing methods. This award winning system provides house builders with a solution that saves time and streamlines the build process. The roof which is produced offsite can be installed in hours, not days, unlike traditional room in roof construction. >

This award winning
Room In Roof system
provides house builders
with a solution that
saves time and streamlines
the build process.



2019 has seen continued growth in demand for Smartroof's 'room in roof' system with more house builders switching each month, across the UK. Major customers already include, Redrow, Bellway, Barratt, Countryside, Bovis, Crest, Taylor Wimpey and Keepmoat who are now reaping the benefits of using Smartroof's 'room in roof' system.

The system is tailored to meet each customer's house types and delivers major benefits in terms of site safety as the process limits working at height and eliminates the risk of falling gable peaks. The factory installed insulation provides the required quality assured levels of thermal performance, in full compliance with building regulations.

The difference is in the detail

The factory build process pushes the quality of detailing to levels seldom achieved onsite which is increasingly important as the pressure on house builders to meet regulations increases. A good example of this is Smartroof's approach to fire safety. As standard, the system includes the supply and install of a fire sock at this critical area, ensuring the roof system achieves a I hour fire rating. Trying to co-ordinate multiple trades and suppliers onsite can run the risk of missing this critical component.

Smartroof takes the lead on industry training

Industry-wide training is an essential element in the move to offsite, so Smartroof has partnered with the Construction Industry Training Board (CITB) on a new NVQ. This provides timber frame installers with the essential practical skills and underpinning knowledge to carry out pre-assembled roof structure installations.

This new qualification is a first for the building industry and is another milestone for Smartroof, an innovative, customer-focused and progressive company that strives to improve the service it provides to the house builder.



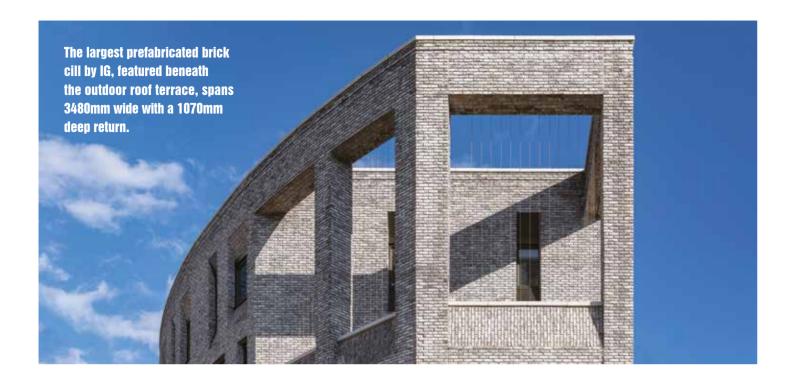


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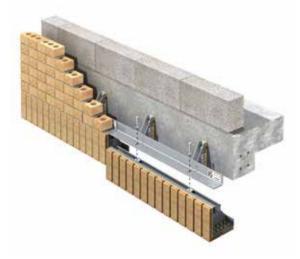




CASE STUDY

A Civic Gateway

IG Masonry Support brought efficient offsite solutions to this stunning development in Brighton. The project features the best in contemporary brick detailing.



Overview

Located at the entrance to the trendy city of Brighton, Lewis Road is a 5 storey student apartment block. The curved design of this £3.8 million project allows it to optimise its tight 350 metre footprint on the triangular shaped island on which it is situated.

The architectural design of this project balances between the historic Regency architectural style that prevails in the centre of the city and the modern style of the university campus in the north of the city. Carefully sculpted brick returns feature above and below the window openings in an impressive alternating pattern around the perimeter of the building, animating the façade. The stylish accommodation also features a communal south facing terrace with elegant flying beams and views towards the coast.

Challenge

Complex brick features played an important part in Waugh Thistleton Architects' vision for this contemporary residential unit.

The impressive design provided IG Masonry Support's technical team with an exciting challenge to create bespoke solutions to accommodate the varying curvature of the north elevation, creating single piece prefabricated components for a range of brick cill and head returns.

To achieve this level of brick detailing traditionally, onsite, would have presented difficulties in relation to securing skilled labour and would have resulted in extended construction time due to the extensive brick cutting required.

Solution

IG Masonry Support's prefabricated bolt-up brick slip components were capable of accommodating the façades gradual variation in curvature, proving a versatile method of achieving the complex brick detail within this unique design. Each prefabricated brick slip cill was also designed to support the reveal brickwork of the main façade, ensuring full structural support throughout each elevation.

The largest prefabricated brick cill by IG, featured beneath the outdoor roof terrace, spans 3480mm wide with a 1070mm deep return.

IG Masonry Support supplied two of these units to enable the contractor to achieve the large brick detail in a single lift. The continuous stretcher bond pattern on the soffits, running along the main façade, was achieved through the supply of standard stretcher-bond brick slip lintels.

These easy to install solutions enabled JSP Construction to make the architect's concept a reality. All cill and head units were manufactured offsite and delivered to site as a single component with bricks bonded, saving time and reducing the requirement for specialist trades onsite. The prefabricated components were simply lifted into position and bedded into the mortar via four welded steel angles. The cill details were inclined at an 80° angle and the head detail to 160°. IG received a consignment of the handmade Belgian brick, BEA Clay, used onsite to ensure that the finished brick slip solutions blended seamlessly with the surrounding brickwork.

The brick building fabric contributes to the aesthetic attributes of this bespoke residential development, with elements of textural contrast achieved through material selection. The carefully sculpted brick returns create an alternating pattern throughout the facade, demonstrating Waugh Thistleton Architects' experimentation with scale, form and texture. Designed to exploit natural light, the inclined brick detail directs sunlight through the window openings and into the building.

Residential Development

Lewes Road, Brighton

Architect

Waugh Thistleton Architects

Product Used

Brick Slip Cills & Heads

Contractor

JSP Construction





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