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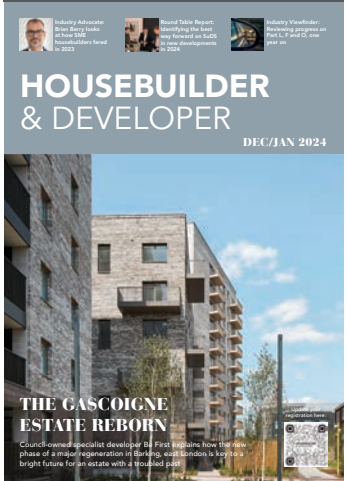

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FROM THE EDITOR

So the Competition and Markets Authority is refusing to turn its weaponry away from the issue of whether or not housebuilders are guilty of deliberate land banking. The CMA has producing its final two 'working papers' detailing its current, very thorough investigation before it reports early next year on the issue.

The organisation has a broad reach, and is looking at 5,800 individual sites "held in the land banks of 11 of the largest housebuilders." It revealed land in long-term land banks is equivalent to approximately 658,000 plots, while the "short-term land bank" equated to 522,000 plots.

The CMA will report in the New Year, but so far, it says it has found that "land equivalent to over a million plots is held in land banks, in most areas by several different builders." The CMA is "seeking feedback," and in particular, whether local competition is being negatively impacted in the small number of areas where large amounts of developable land are controlled by a small number of housebuilders.

The CMA says it recognises that housebuilders "need to hold a pipeline of land as sites pass through the planning system, but added that it was "concerned that competition may be being distorted if land is held for longer and in larger quantities than is necessary." The body is attempting to show that it recognises the logjams within the planning system, making recommendations on speeding the process, but is firmly focused on land banking at the same time as a perceived cause of slow supply of housing.

The CMA's Dan Turnbull commented that the organisation had "heard concerns that the way large housebuilders use land banks and complex planning rules may be harming competition and hold up the building of new homes."

However the very existence of land banking continues to be refuted by major players within the industry, who instead say that delays at the planning end are to blame for failure to quickly build out sites. The CMA is seeking feedback from "key people in the industry, be that council planning departments, builders or landowners," beore it publishes its final findings, and it will be intriguing to see how it counters objections.

Someone has to be right, either the large housebuilders are "sitting on land" they could be building on, or they're not. It's not an absolute though, if they are allowed to do so then some firms may, in these risk-averse times, be loath to build out sites they're not sure they can sell.

Another delay which is probably more welcome for some but concering for others is the Future Homes Standard consultation, which has secretly been pushed back to 2024. This will be less than a year before the standard is supposed to come into force. Given that it expects housebuilders to achieve 75+% carbon savings on new builds, and covers virtually every aspect of home construction, the industry needs the standard sooner rather than later if it's to have a chance of being implemented in 2025.

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Erris Homes secures funding for phase two of Halifax development

Yorkshire housebuilder Erris Homes has secured £5m funding for phase two of its £15.9m 37-home development off Rochdale Road in Greetland, Halifax.

Called Calder Mews, the development's second phase has been given funding by Paragon Bank's development finance division.

It will feature six of Erris Homes' house types across a mix of 14 four and five-bedroom detached homes. Phase two has a gross development value of £8.5m.

The scheme's second phase follows the success of phase one at Calder Mews, which comprises 23 three and four-bedroom semi-detached and detached homes. The gross development value of phase one is £7.4m.

Properties at Calder Mews have been designed to "entwine quality, style, and comfort" for the benefit of buyers. This includes features such as designer kitchens and bathrooms, integrated appliances and the "latest energy-efficient building methods."

Work on phase two of the development is now underway, with the first residents expected to move into their new homes in summer 2024.

As well as providing new homes for the area, Erris Homes is also contributing £95,000 to education and initiatives that will benefit the local community.

Erris Homes CEO Michael Howard, commented: "It's fantastic to have secured funding for the second phase of Calder Mews following the successes we have seen across the development's first phase. There is high demand across the Calderdale region for high quality new homes. Erris Homes is committed to helping satisfy this demand with the range of house types which will be available at the development. We now look forward to works progressing on the second phase to bring much-needed new homes to the locality."

Affordable completions signal Karbon Homes' growth in Yorkshire

Karbon Homes is celebrating the continued expansion of its development programme in Yorkshire with the completion of the first homes at its Saxty Way development in Thirsk.

The 32,000 home housing association has worked with contractor T. Manners & Sons to bring phase one of the 47-home scheme to fruition, a scheme designed to meet the needs of the local community with a mix of property types and sizes which provide options for residents at varying stages of life.

The development of the new homes is supported with grant funding from Homes England, through Karbon's Strategic Partnership with the Government's housing delivery agency.

Colleagues from Homes England joined Karbon for a first look at the new homes, which boast a range of enhanced energy efficiency measures, including air source heat pumps and solar PV panels.

Saxty Way is one of two Karbon developments in the Hambleton area supported by its Strategic Partnership with Homes England.

Just a mile away in the village of Sowerby, a second scheme off Back Lane is underway to deliver a further 64 new two, three and four-bed affordable homes.

The 111 new homes in the Hambleton district are part of Karbon's wider new homes programme in the region, which outlines ambitions to develop over 700 affordable homes across Yorkshire by March 2028.

All new homes developed by Karbon in Yorkshire will be managed by 54North Homes, a subsidiary of the Karbon Group with 3,000 homes across Yorkshire.

Sarah Robson, director of development and regeneration at Karbon Homes, said: "The growth of our development programme in Yorkshire is key in addressing the county's housing affordability issues and ensuring local people have access to good quality housing, either for rent or for affordable home ownership. The development at Saxty Way was designed with the needs of the local community in mind, providing a mix of bungalows, flats and family homes, options for a whole range of customers and properly integrated into local surroundings."

Newland Homes receives an industry oscar

Barnwood-based housebuilder Newland Homes was honoured in November with a WhatHouse? Award – widely recognised as the most prestigious industry accolade a housebuilder can receive.

Newland Homes was honoured for its approach to sustainability for Best Sustainable Development at St George's Mead in Semington, Wiltshire. The judges highlighted Newland Homes' 'climate considerate' methodology when delivering on its sustainability agenda, including zero carbon homes.

The 24 zero carbon homes at St George's Mead were also praised for achieving the highest energy efficiency and environmental impact rating, which helps empower buyers to reduce their personal carbon footprint and play their own part in combating climate change.

The WhatHouse? Awards are the biggest event in the housebuilding calendar. Now in their 43rd year, the annual celebration brings together over 1,500 senior figures from the housebuilding industry. This year's awards were hosted by comedian Ed Gamble.

Work has commenced on the second and final phase of development at St George's Mead in Semington, which will see the creation of 18 three and four bedroom detached and semi-detached zero carbon homes, as well as detached bungalows in this village setting, surrounded by open countryside.

Persimmon completes construction of second zero carbon home pilot in North Wiltshire

The latest initiative by Persimmon Homes at its Wessex regional site at Malmesbury, represents the second of its kind undertaken by the housebuilder within the UK. It marks a "significant stride in the company's sustainability efforts," said Persimmon, following its inaugural zero carbon home project in York last year.

The zero carbon home, situated on the housebuilder's Backbridge Farm development, incorporates a range of "advanced features" including solar panels, an air source heat pump system coupled with a hot water cylinder, and the integration of a waste water heat recovery system. The home is built using Persimmon's latest Space4 timber frame wall panel.

The house has achieved an Energy Performance Certificate rating of A and comes with additional loft insulation and thermally efficient walls and floors. An electric vehicle charging point is also installed at the property.

The initiative is part of a series of projects by Persimmon and forms a pivotal component of their Pathway to Net Zero, which includes two ambitious targets: the delivery of zero carbon homes in use by 2030 and to be zero carbon in operations by 2040.

The insights gathered from this project will be used by Persimmon to enhance its technological and construction methodologies, to ensure it can build homes to meet the housing need while supporting sustainable living in a cost-effective way for customers.

In crafting Persimmon's zero carbon home in Malmesbury, a number of local contractors were involved in a collaborative effort of skilled trades and companies.

The contractors included Conlon (groundworks), Stenner Bricklaying (exterior), H&B Carpenters (interior), Kennett (roof), Heatwise (plumbing), Clarkson Evans (electrical and PV solar), Fastglobe (mastic work), SMP (paintwork), JA Wicks (wall tiling), PE Board (dryling), GM Kitchens, TW Landscapes, while KMC Cleaners and Construction Site Scaffolding readied the home for occupancy which is due to take place shortly.

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*Leaving water temperature when the outdoor temperature is -10~35°C. **Domestic hot water (DHW) leaving the DHW tank is 70°C when the outdoor temperature is -10~43°C. Results may vary depending on the actual usage conditions. If the outdoor temperature is lower than -10°C, a booster heater is required. Results may vary depending on the actual usage conditions.

Clarendon Homes wins Property Award

Kent housebuilder Clarendon Homes has secured an industry award for its delivery of a residential development that "showcases its reputation for style and quality," said the firm.

The Harrietsham-based developer was anointed winner of the UK Property Awards' 'Residential Development of 10-19 Units' category.

The accolade is for the Miller's Meadow development in Sandhurst, Kent, which is composed of 15 two, three and four-bedroom properties.

The UK Property Awards are judged by an independent panel of senior representatives from a broad range of commercial property organisations. The contest commemorates the best commercial property projects built within the previous 12 months.

The firm comments on the winning project: "It's typical of our penchant for creating developments that stand comfortably within the existing surroundings; Miller's Meadow offers an aesthetic nod to the past while providing contemporary luxury living."

Each property includes an integrated technology system, zoned underfloor heating and integrated kitchen appliances. Designer kitchens and contemporary bathrooms add to the properties' stature.

Gareth Hill, sales and marketing manager at Clarendon Homes, said: "At Clarendon Homes, we pride ourselves on setting award winning standards with each development we build. To receive a UK Property Award for our delivery of Miller's Meadow is verification of those standards. Congratulations to everyone involved in this wonderful development's design and completion."

Clarendon Homes received their award at a presentation evening held at the London Marriott in Grosvenor Square on 10th November.

Approval granted for biodiverse scheme by Crest Nicholson

Housebuilder Crest Nicholson has secured planning approval for its new Windsor Gate development in Windsor.

The development will comprise 135 energy efficient new homes, with 54 affordable homes, across the 13-acre site, and has a focus on enhancing biodiversity and sustainability. 117 homes will incorporate air source heat pumps, while the 18 apartments will utilise hot water heat pumps and electric panel heaters.

Residents will benefit from landscaped open spaces, including a wildflower meadow, community allotments, three play areas and further informal play spaces. Additional features across the development include 50 bat bricks and 50 swift bricks in homes and apartment buildings, 10 bee homes, hedgehog highways, tree planting and nature-based drainage features. The drainage features double up as informal recreational spaces, while providing ecological benefits and managing water during high rainfall events.

With the build due to start in January 2024, the first completions are anticipated for July 2024.

Nicholas Daruwalla, land director at Crest Nicholson South, commented: "We are pleased to have been granted planning permission to deliver much needed new homes in Windsor. The planning approval will enable us to provide a collection of new homes that meet local demand, and to continue our delivery of high-quality homes in sought after locations across the region. As well as delivering much needed new homes and affordable housing, we are committed to creating sustainable communities, where residents benefit from access to greenspace and important amenities on their doorsteps, such as play areas."

Mark Kershaw, group head of sustainability at Crest Nicholson, added: "In line with our commitment to sustainability, we aim to make Windsor Gate a sustainable development for future generations. With a strong focus on community wellbeing, landscaped areas will provide recreational space while delivering a 14% biodiversity net gain. Carbon emissions from the use of the homes will be 76% lower than 2013 Building Regulations, supporting our customers to live a lower carbon lifestyle and contributing towards our target to be net zero across our value chain by 2045."

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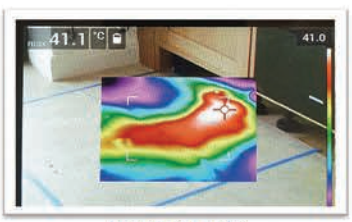

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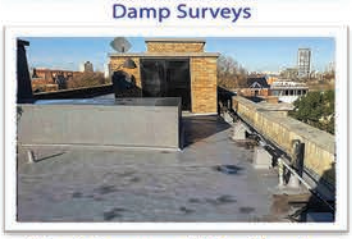
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Tilia Homes secures deal to bring new homes to Oxfordshire

Housebuilder Tilia Homes Eastern has acquired more than 10 acres of land in Didcot, Oxfordshire, in a deal that will bring more than 80 new homes to the area.

Full planning permission has been granted by South Oxfordshire District Council for the land off Abingdon Road, which will help to meet the housing shortfall within the region.

Figures in the draft Oxford Local Plan show the city needs 26,440 new properties to be built within the next 17 years. However, because of the city's boundaries, only 481 new homes are being built each year leaving a shortfall of 16,828 homes before 2040. Neighbouring districts have agreed to accommodate 14,300 of the new homes, which equates to 715 homes a year.

Tilia Homes Eastern has scheduled work to begin early next year on the site, which will be known as Foals Meadow, with a show home due to open in mid-2024.

The new development will provide 86 properties, of which around 40% will be designated affordable housing. The homes will include a mix of two, three and four bedroom properties plus one and two bedroom apartments.

Gareth Jacob, regional managing director for Tilia Homes Eastern said: "Our aim is to build vibrant, cohesive communities where residents can thrive. Therefore, we are delighted to be bringing new homes to Didcot, especially as it is the first time we have built in this area. We know there is a housing shortage, and we are keen to meet local needs, especially for first-time buyers, who are the key to a healthy housing market. The region remains quite buoyant compared with the broader property market, particularly due to it having a strong employment base with car, motor racing, logistic and tech jobs helping to create stability for a region which has a strong economic background."

As well as bringing social and economic benefits to the region, Tilia Homes will also contribute £2.5m to the area, including supporting leisure facilities, early years, primary and secondary education, public transport and local highways.

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Crest Nicholson acquires land for 88 homes in Kent

Housebuilder Crest Nicholson has recently announced they have acquired new land in Faversham. The 13-acre site will deliver 88 much needed, high quality new homes to the area, 35% of which will be affordable.

The development, which will be called Crown Meadows, follows the success of Crest Nicholson's nearby Kingsmead development. The new community will offer a range of two to five bedroom new homes to suit a range of buyers, as well as plenty of open space and recreational areas. More than £1m has been committed to fund vital local infrastructure and services, such as an NHS Healthcare centre and youth services.

Work is anticipated to start in December, with first residents expected in summer 2024.

Karen Coulson, sales and marketing director at Crest Nicholson Eastern, commented: "We're pleased to announce this acquisition in Kent, enabling us to respond to local demand for high quality new homes in the area. Crown Meadows joins an already thriving community and popular area thanks to the range of amenities that are easily accessible within the wider Kingsmead development, including a number of Ofsted-rated "outstanding" schools nearby."

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Barratt Homes champions sustainability with environmental consultancy

With the support of an environmental consultancy, Barratt Homes is embracing new Biodiversity Net Gain (BNG) requirements, and "maintaining its status as a UK sustainable housebuilder."

In collaboration with north east-based Biodiverse Consulting, Barratt Homes will "transform its new-build development sites by incorporating BNG into the early stages of planning, a transition which will have a positive impact on nature."

As part of the Environment Act 2021, legislation regarding mandatory BNG will pass into law in January 2024. BNG represents an approach to development by which the natural environment is left in a measurably better state than it was beforehand, a process which is widely perceived as nature's best chance of recovery.

Speaking on the company's progressive approach to sustainable development, John Aynsley, strategic land buyer at Barratt Developments North East, is similarly impressed by the consultant's expertise. He commented: said: "Introducing increased BNG into our newbuild development sites is a hugely positive step and one that affects multiple factors in the planning process. We knew it was crucial to work with a competent, responsive consultancy which clearly shares our vision, and we absolutely found that in Biodiverse Consulting. Through this partnership, we are evaluating numerous development sites and prioritising BNG from day one, identifying areas of high ecological value that must be avoided, and areas of low ecological value that we can improve upon. I am proud to say that with the help of Biodiverse Consulting, we are leading the way in sustainable housebuilding, and protecting the environment for future generations."

Vicki Mordue is the founder and director of Biodiverse Consulting, and a highly experienced environmental consultant. Speaking on the collaboration, she said: "In partnering with Barratt Homes, we are demonstrating that business and biodiversity truly can go hand in hand; while creating new homes for families across the region. Barratt Homes' environmentally sensitive approach places BNG at the heart of the development process, enabling them to add value to natural ecosystems on every site.

Mordue continued: "By considering the challenges and opportunities that BNG offers so early in the development process, we are securing realistic and meaningful gains for biodiversity over the long term. Our environmental policy will facilitate the creation of flourishing habitats that house an abundance of wildlife and are enjoyed by local communities. Its commitment to supporting nature's recovery sends a powerful message for sustainable change."

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Brian Berry

THE INDUSTRY ADVOCATE

COUNTING THE COST OF 2023

Brian Berry, CEO of the Federation of Master Builders (FMB), assesses the damage after what's been a turbulent year for housebuilders, and what the new year might bring.

SMALL, LOCAL BUILDERS HAVE BEEN PARTICULARLY HARD HIT, AS THEIR BUSINESS MODELS JUST CAN'T SUSTAIN LONG PERIODS OF LOW DELIVERY

Unfortunately for housebuilders big and small, housing output has been in a continuous decline for most of the year. Small, local builders have been particularly hard hit, as their business models just can't sustain long periods of low delivery. Survival for them means diversifying their business into other areas of construction.

The result of this diversification is that dedicated small housebuilders are becoming rarer and rarer. Builders that are part of their communities and deliver the great diversity of housing stock we see today, of which the UK has become famous for, need a helping hand if they are to survive and thrive.

THE PARTY CONFERENCE SEASON: WHAT DID THE GOVERNMENT HAVE TO SAY?

At the Conservative Party Conference, which took place in October, I was able to take part in a series of events, debating alongside Housing Minister Rachel Maclean about how we can unlock the UK's housing potential and deliver sustainable homes. While there are many challenges which both industry and the Government need to overcome, it became clear that there is appetite for progress, but the levers for this change have yet to be found.

It's plain to see that some MPs within the Conservative Party consider housing to be an existential issue, with many remembering that home ownership was once a core part of their political philosophy. It was certainly clear that they are keen to build, but will they sacrifice votes in their heartlands to do so?

AND WHAT ABOUT LABOUR?

At the Labour Party Conference, housing was top of the agenda, you couldn't go far without seeing a session or speech on the topic. I

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Sandtoft

took part in a panel discussion with the Metro Mayor for the West of England Dan Norris, where he spoke about the plans which Sir Keir Starmer announced to Get Britain Building Again – with a particularly interesting exploration of the potential 'grey belt.'

So, what is the so-called grey belt, in essence the poor-quality bits of land that have fallen under the protection of the green belt – bits of scrubland and brownfield sites that would be better served with houses built on them. These sites are far from the oak forests and lush fields that many imagine when someone mentions the green belt. I am keen to see how this plays out, as this very emotive issue has restricted sensible and sustainable development for too long. The early words from Sir Keir sound promising, but we will have to see more detail before we can feel confident that change is coming.

STATE OF THE MARKET

The latest State of Trade survey from the FMB provides a look into the market for micro and small builders. As with many other trackers, we have seen that workloads and enquiries have dropped in the third quarter of 2023, with workloads continuing their decline since earlier this year. In late November the FMB launched its annual House Builders' Survey, a comprehensive overview of micro and SME house builders. Planning was unsurprisingly identified as the biggest barrier holding back housing delivery. As noted many times before, a very ambitious and pragmatic political agenda will be the only solution to unblocking the byzantine planning system.

WHAT DOES A NEW YEAR BRING?

With a General Election somewhere on the horizon, the FMB will be publishing its own manifesto for the industry, setting out the key tasks that our members will want to see prioritised by the next government. We will be working hard between now and the election to champion the issues that matter most to the nation's small house builders. It promises to be an exciting, if not bumpy, year ahead.

Zaptec

Zaptec EV Chargers: Quick Installation, Quality Hardware, Cost-Efficient, Excellent Safety

With the public's swift uptake of electric vehicles (EVs) and governmental regulations making EV chargers mandatory for new builds in England and Scotland, developers and builders are having to navigate the rapidly growing electric car charger market. With a wide choice of manufacturers to choose from that have an attractive price tag, not all meet the required standards or offer support for development projects.

Of the legitimate options on the market, many tick some boxes, but not all. Sifting through products online, learning new terminology and technologies is hard and time consuming. So we have made your job easier buy introducing an AC home charger which has already been chosen as a favourite by 6 of the UK's biggest housing developers, because, well, it's a perfect fit!

Since launching to the UK market in 2021, Norwegian brand Zaptec has established itself as the go-to manufacturer of high-quality EV chargers that look the part without breaking the bank. Combining sleek Scandi design with state-of-the-art charging hardware, Looking for the highest-quality chargers at affordable prices that align with UK standards? Read on to learn more.

A compact range that meets all your customer's needs

Zaptec currently offer two charge points, the Zaptec Go and the Zaptec Pro. The Zaptec Go is perfect for fast and simple home installations while the Pro is oriented toward large site installations, specifically apartments and workplaces. Last year, the Zaptec Go was internationally recognised as the winner of the 2022 Red Dot Design Award for Best Product Design. It is available in 6 colours which customers can easily purchase from Amazon and is competitively priced based on volume. The Zaptec Pro on the other hand provides an excellent end user experience for apartments with parking, where government grants are available to help with the costs. It has patented technology to ensure the car receives the maximum available power.

Scandinavian simplicity & next-gen tech

Zaptec have been producing charging points since 2016 and have supplied over 250,000 units with a reliability rate of 99.7%. The AC home charger Go, weighs just 1.3kg while packing all the features you would expect from a next-generation charging solution. One being Wi-Fi and 4G SIM connectivity making them simple to commission and provide software updates even in unoccupied properties . All Zaptec chargers are designed, engineered and manufactured in Norway, so the company has total control over its quality while also being able to react and adapt its hardware and software to any UK-specific requirements. No need to worry about the cold though, the Zaptec Go has already been proven to work in the bitter chill of the Arctic Circle!

Fast install & lead times

The Zaptec Go was developed to be quick and easy to install, saving time and money – particularly in large developments making it a favourite amongst installers. This is one of the most important considerations for many developers and builders, who are seeking to streamline adherence to new legislation and meet their requirements without additional hassle. Zaptec UK hold substantial stock in the UK, minimising national lead times to help developers hit their deadlines.

5-year Guarantee

Zaptec is the only manufacturer to offer a 5 year guarantee on all of it's products rather than the standard 1-3 year warranty of its competitors. Our guarantee covers the hardware and the installation, giving our customers and installers total confidence.

In summary, Zaptec offer developers two high-quality, safe and cost effective solutions for both houses and apartments. The Zaptec Pro and Zaptec Go combine quick and easy installation with award winning design that customers and users will appreciate. To top it all off, Zaptec was voted the safest EV charger with the best technology in 2022 by the NAF (Norwegian Automobile Federation).

Patrick Mooney

IS THE BLUE FADING?

Patrick Mooney, housing consultant and news editor of Housing, Management & Maintenance magazine asks – could home ownership, one of the traditional strengths of Conservatives, be turning into a weakness?

WHEN ASKED WHICH PARTY WOULD BE BETTER AT HELPING PEOPLE BUY THEIR OWN HOMES, 36% SAID LABOUR AND ONLY 16% SAID THE CONSERVATIVES

In a sign of the times, the Conservative party is now trailling behind Labour as 'the party of homeownership' in the eyes of the public, with the opposition's policies on housing appearing to resonate with far more of the electorate.

When the polling and research organisation Opinium recently asked which party would be better at helping people buy their own homes, 36% said Labour and only 16% chose the Conservatives. This outcome would have been unthinkable in the previous 40 or 50 years.

Since 1980 when Margaret Thatcher brought in the Right To Buy (RTB) as a central plank of her property-owning democracy project, more than 2.5 million council homes have been sold to their tenants. The Scottish and Welsh governments both abolished the RTB before 2020, but in England the RTB was extended on a voluntary basis to include housing association tenants in 2019.

Mrs Thatcher also deregulated and liberalised the mortgage markets, and from 1980 to 1990 rates of home ownership rose from 55% to 67% of households. The Conservatives' place as a safe bet for promoting home ownership in the eyes of the electorate appeared to be secure. But since the mid-2000s, rates of home ownership have fallen back (down to about 64%) while the stock of council housing has declined markedly to approx 7%, as less than one in every 10 former council homes were replaced.

Many of the RTB properties have been re-sold at significant price hikes, making substantial profits for their owners and families. Meanwhile housing associations have continued to grow and they now account for about 10% of all properties, but they usually charge higher rents than councils and some of them appear more commercial in their actions and approach.

SAFETY NET LOST

In another bizarre twist, a significant number of ex-council homes have been bought by private landlords who have let them back to the original local authority owners (often for housing homeless families) at vastly inflated rents.

This equates to 40% of the ex RTB homes sold in many London boroughs and across large swathes of England. As a result, a vital safety net (in the shape of affordable and secure housing for those in need) can no longer be relied upon and instead the strain on the housing market has been taken up by the private rented sector, which has doubled

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in size since 2002 to almost 20% of all housing now.

Similarly large increases have taken place in the length of council house waiting lists and the numbers of people recorded as homeless and living in temporary accommodation, including bed and breakfast hotels and hostels. The housing charity Shelter has trawled through official Whitehall statistics to reveal that 3,000 people are sleeping rough on any given night, 131,000 children are growing up in temporary accommodation, over 250,000 people are homeless and 1.2 million households are stuck on social housing waiting lists. To add to these alarming figures, Shelter has found that one in three adults in Britain (equivalent to 17.5 million people) are impacted by the housing emergency – meaning they are living in overcrowded, dangerous, unstable or unaffordable housing.

On average, private renters spend 33% of their income on rent. This is higher than for social renters, who spend about 27%, and for mortgagors, who spend 22% of their income on mortgages. This means younger adults who want to buy a home but are living in privately rented accommodation, have less of their income available in order to save up for a deposit.

HIGH LEVELS OF DISSATISFACTION

Some 62% of private renters – about 2.8 million households – eventually plan to buy a home in the UK. 28% of these think they will be able to purchase in the next two years, although purchase periods of two to five years (37%) or five or more years (35%) are more common. Buying intention among private renters declines with age – renters in the 16-24 age band are more likely to say they would eventually buy (85%) than those aged 45-64 (42%), those aged 65 to 74 (16%) or those aged 75 or older (7%).

Private renters also happen to be among the most dissatisfied members of society at present and this may explain a large part of the shift in public support away from the Conservatives to Labour. The reasons for their unhappiness probably lays in the fact that conditions in the private rented sector are among the worst in the nation's housing stock, with the highest rates of unfitness, damp, overcrowding and hazards, as well as the worst energy efficiency levels, the lowest rate of central heating and the most insecure form of tenancy, with high numbers of evictions, many of them at just two months' notice (the so called Section 21 or no fault eviction).

Research from the property tax consultancy Cornerstone Tax has found that 19% of private renters have had to move home at least five times in the last five years, either because of unaffordable increases in their rent or their landlords selling the properties.

The Government has drawn up legislation to reform the private rented sector, introducing a series of safeguards for tenants and improving the quality of rental homes, while at the same time supporting good landlords. A key part of the legislation is the banning of Section 21 evictions. The Renters' Reform Bill is currently going through Parliament, where it faces a race to get onto the statute books before the next General Election is called.

DRIVERS AND BLOCKAGES

But facing a potential large-scale revolt from his backbench MPs, the Housing Secretary Michael Gove recently announced that the long awaited ban on no-fault evictions would have to be delayed (to an unspecified date in the future) until changes were made to the courts process. Separately private landlords are threatening to withdraw from the lettings market, with Cornerstone Tax finding that 15% are considering selling up, mainly for financial reasons.

Plans to force improvements in the energy efficiency of private rentals were recently the subject of a significant u-turn by the Prime Minister, as he watered down many of the 'green measures' designed to achieve our targets on reducing carbon emissions to net zero. This will have been a bitter blow, particularly to younger tenants facing a longer timescale paying out larger amounts on bigger energy bills, while their homes remain cool and damp.

Successive Chancellors of the Exchequer have introduced financial policies to incentivise housebuilding and encourage first time buyers onto the property owning ladder, but since the financial crash of 2008/09, the ensuing slump and recessions have made it harder to convince the British public that investing in bricks and mortar is always the best way to secure their future.

As house prices have continued to rise most years, the gap between average wages and house prices has got further and further stretched, affordability ratios and the size of deposits needed to buy have continued to grow, putting personal finances under extreme pressure.

FOCUS ON NEW RENTALS

The Government's commitment to build 300,000 new homes a year has faltered (in good years we are building no more than 230,000 new homes at best) and successive Housing Secretaries have tweaked planning policies in their efforts to eke out as much new housing as possible, while also pandering to the nimbyism displayed by their backbenchers. But fewer and fewer young people are currently buying, more of them are living with their parents (into their 30s and beyond) or in privately rented homes paying rents which continue to outstrip inflation and their wage increases. Indeed private rents are now at their highest level ever, up by 20% in some regions over the previous 12 months.

Rates of new housebuilding have shrunk in many parts of the country and simultaneously the numbers of people experiencing homelessness continues to rise and currently sits at record levels. Taking advantage of the Government's difficulties in delivering a coherent plan to increase the supply of new housing, at its recent conference Labour went big on its strategy to build 1.5 million new homes over the next Parliament facilitated by a fast-track planning system, and announced plans for two more new towns producing new communities with beautiful homes, green spaces, reliable transport links and bustling high streets. The response from large parts of the housing sector was very positive.

The obvious answer for the Government should be to build more homes – for social and private rent, as well as for all types of affordable ownership. But because of a very vocal group of backbench MPs, the Conservatives are instead waging an internal debate over the rights and wrongs of cutting stamp duty – a policy that will do nothing to alleviate the supply problems in the housing market, but which paradoxically might make affordability problems worse by delivering a short-term surge in house prices. If Messrs Gove, Hunt and Sunak do not pull a rabbit out of the hat and produce a credible and deliverable national housing framework which the public believe in and support, then the Government might well find itself in opposition come the next election.

A SIGNIFICANT NUMBER OF EX-COUNCIL HOMES HAVE BEEN BOUGHT BACK BY LANDLORDS WHO LET THEM BACK TO LOCAL AUTHORITIES

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Callum Whittall

ELECTRIC SOLUTIONS ARE PAVING THE WAY

Callum Whittall, technical and compliance lead at Green Lighting discusses how new regulations are changing the face of the housebuilding industry, and some of the electrical solutions developers should be considering.

The recent implementation of Part L and the forthcoming Future Homes Standard (FHS) has led the housebuilding industry to face some of its biggest challenges in decades; in adapting to these regulations, it has been proven that there really is no one size fits all solution.

With Part L aiming to improve the energy performance of new and existing buildings, it's unsurprising that the extent of the changes were vast. And, when it came into force, it still felt like the industry as a whole was behind, no matter how prepared we tried to be.

Theoretically housebuilders and developers should now be fully compliant, with Part L being released two years ago, but there are still some who are yet to make the necessary updates.

The one thing we can be certain of is that the future for new homes is one that's carbon zero. We've seen the gradual reduction of CO_2 emissions by 31% in 2022 and 75% in 2025 – quite a substantial jump in just three years.

Understandably then, in becoming compliant with Part L, many are also thinking ahead to the FHS, which will make things much more restrictive, with the removal of gas.

According to housing experts, delays to the Government's planned consultation on net zero regulations for housebuilding will result in heftier energy bills for more households.

The FHS stipulates that all new build properties are to be constructed to be low carbon. This was due to be opened for consultation in March, but was instead pushed back to a publication in the summer – however, during the recent Tory party conference, Martin Callanan, the Minister for Energy Efficiency and Green Finance, said this was delayed to the end of the year.

Yet despite these delays and setbacks, we are seeing more and more solutions being adopted by housebuilders and homeowners in order to lower their carbon footprint and save money.

Today, a total of 95% of UK homes are centrally heated, with the vast majority relying on gas or oil-fired boilers. Home heating currently accounts for 14% of the UK's carbon emissions. The Government wants to see 600,000 heat pumps installed each year to help meet its target of net zero by 2050.

As the UK looks to reduce its carbon footprint, heat pumps are becoming a popular option for housebuilders and homeowners looking for alternative energy solutions.

Heat pumps use electricity, which often comes from renewable sources to heat buildings; they're known to be incredibly efficient, cheap to run, are quiet and require relatively low maintenance.

About 1.5 million homes are estimated to have been built without low-carbon fittings since 2015, when the Conservative government scrapped the zero carbon homes standard. The cost of retrofitting these homes is likely to reach £30bn to £45bn – a cost which will now fall on homeowners or taxpayers.

But what about heat pumps – are they worth the hype? Earlier this year, a major survey of heat pump users by the innovation charity Nesta, found that more than 80% of households which have replaced their gas boilers with an electric heat pump are satisfied with the new heating system.

Yet, while the figures sound impressive, it's important to note that the survey was commissioned because many people are actually still unfamiliar with heat pumps, and less than 1% of people in the UK actually use one to heat their home.

Despite their pros, they are expensive, still relatively unknown, and there are other, possibly more accessible options available.

The one major issue with heat pumps is that they require qualified installers – demand for which will rocket, especially in line with the FHS. Does the UK have enough of these qualified installers? Currently, no.

At the moment, the UK is facing a major skills shortage in this area. There aren't enough qualified installers to meet the demand

IN ADAPTING TO THESE REGULATIONS IT HAS BEEN PROVEN THERE REALLY IS NO ONE-SIZE FITS-ALL SOLUTION

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of people wanting to swap over to heat pumps, let alone to meet the demand for 200,000 new build houses which will also need heat pumps to be installed.

If heat pumps are the preferred option, where are the tradespeople coming from? Every existing plumber should be thinking about retraining to install heat pumps. In line with demand, those tradespeople who are qualified are then in a position to ask for more to do it, resulting in increased installation costs.

Infrared heating is another highly efficient solution, which is both sustainable and affordable. Unlike heat pumps, infrared heating does not need specially qualified installers – any electrician can install infrared panels.

Infrared uses electricity to heat surfaces and objects (the 'thermal mass') and people, not the air around them. By absorbing the heat, infrared heated objects then re-emit warmth back into the room and, once the thermal mass is warm, the building retains heat for a period of time.

While the removal of gas under the FHS will undoubtedly place a strain on electricity and thereby, the grid, electric solutions – while seemingly contradictory – can have a huge impact on reducing this pressure.

With more and more homeowners also installing solutions such as solar panels and crucially, battery storage systems, unused power can be harnessed and used again or transferred back to the grid, thereby supporting overall energy outputs.

Alongside this, the introduction of the SAP 10 software means electricity now has a lower carbon factor than gas, so it's now much easier for electrically heated buildings to comply with the target emissions rate (TER) than before.

Ultimately, when it comes to reducing household carbon emissions, it's important to look at the options available. Suppliers need to be on-hand to offer the best advice they can and work with housebuilders to find the most effective, and indeed efficient, solutions.

The Future Homes Hub is going someway to help housebuilders and developers work out what needs to be said and done to meet this requirement and what they need to do. More work and research needs to be done not only into the best solutions for the job but also how we fit them all into modern homes to ensure not only reduced carbon emissions but a good living environment for homeowners.

While changes like Part L and the FHS mark a pivotal moment in the housebuilder and developer industry, electric solutions have long been paving the way as sustainable, energy-efficient alternatives.

With the market now bigger than ever, there really is no 'one-size-fits-all' option but the range of solutions is far-reaching, giving builders more options and making compliance with regulations more straightforward.

IF HEAT PUMPS ARE THE PREFERRED OPTION, WHERE ARE THE TRADESPEOPLE COMING FROM?

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PROJECT REPORT: MAJOR DEVELOPMENTS

Building a future for the Gascoigne Estate


© Paul Riddle

A London council estate with a history of problems is being transformed in phases, thanks to a complex, high-density and high-quality scheme by council regeneration specialist developer Be First. They speak to James Parker about the recently completed Gascoigne West Phase 1.

The Gascoigne Estate in Barking, east London was a neighbourhood which suffered from anti-social behaviour over the decades, but also has an established community who care about their neighbourhood.

A major regeneration of the estate by Be First (a development arm of client Barking and Dagenham Council) is reinventing the estate's reputation, with a multi-phase scheme which brings environmental quality to residents for the future, and a huge contrast with the past.

Completed in 2022, Phase 1 of the development's Gascoigne West section provides 201 homes (60% of which are affordable) on a 0.9-hectare parcel. Designed by Scandinavian architects White Arkitekter, this is just one part of the 16.3 hectare scheme. White also designed the first part of the scheme to start on site, the completed second phase of the three-phase Gascoigne East, and have designed Phase 2 of Gascoigne West.

Phase 1 had a constrained site, but the architects produced a range of cleverly articulated blocks to work with the site and offer efficiently planned indoor and outdoor spaces for residents. Similarly, Phase 2 provides high density as required by Be First but avoids the oppressive nature that characterised the previous Gascoigne Estate. The project team had a host of factors to balance – time was of the essence, with the client keen to deliver the apartments as quickly as possible, at the desired level of quality.

Be First was formed in 2017 as an offshoot of Barking and Dagenham

Council, which was progressing its own share of award-winning developments, but in the words of design lead at Be First, Jacob Willson, the new company was formed to "scale up delivery," and focus on important regeneration projects in the Borough. It now has one of the most ambitious local authority housing programmes in the country, with close to 500 units per year, and a target of 50,000 new homes by 2037.

As well as the public sector however, Willson says Be First are "active" in the private land market as well, with land agents and commercial agents seeking out opportunities.

Be First benefits from also providing the statutory planning function on its projects, giving it something of a 'poacher and gamekeeper' role as Wilson readily accepts. "It's not just a regen delivery team – we also brought in the planning team, similar to the LLDC (Olympic Park legacy) planning model."

The stigma attached to the estate previously contributed to it being a "fairly transient" population, says Willson, with many residents moving out much sooner than in other developments, normally into the huge Becontree Estate. He explains that the problems inherent to the original development, with its "typical low-rise blocks peppered with high rise" meant the answer was to demolish it and rebuild a sustainable community in phases which would attract and retain residents.

Ben Addison, assistant delivery director was the project lead for Be First, and he explains that Gascoigne West Phase 1 was previously "low-rise three-storey blocks containing 40 flats." He adds that as some of the homeowners were leaseholders from Right to Buy, "there were some buybacks," and with the new scheme having fewer such landlords, there's a hope that transient tenants will be further reduced.

CLIENT GOALS

Addison explains how the overall project emerged from "social inclusion programmes" in the early 1990s, which then led the council to "recommend a holistic regeneration of the area, and that was always involving full demolition, in the case of Phase 1." There are different approaches for different phases, and not all involve full demolition.

Architects Fraser Brown Mackenna were appointed to complete an outline masterplan for Gascoigne West in 2018, and Be First submitted an outline application in December 2018 which covered all three phases, with a maximum of 850 homes. White Arkitekter were subsequently commissioned by Be First in

Be First "worked really hard with the politicians and residents to think about how we make tenure blind developments," says Jacob Willson, design lead

2019 to design West Phase 1 and submit a reserved matters application detailing the size and scale of the blocks.

The Right to Buy receipts held by the council helped to fund the scheme, including 201 homes for the first phase (providing much higher density than the original 40 on the site). The majority of the funding came from the GLA's Housing Zone and Affordable Homes Programme.

Willson points out that the density was already increasing significantly on the west side of Abbey Road, one of the site's perimeters, "and there are a lot of regeneration initiatives in Barking town centre to support that." He said that with the context firmly in mind, "we worked really hard with the architects on how we distributed the massing, where we put the tall buildings." Phase 2 is denser, "because it's closer to the town centre, and public transport nodes."

Willson explains that Barking and Dagenham has "huge waiting lists, huge housing need," including homelessness issues. But building more densely has various benefits, including sustainable land use, although Be First are still incorporating terraces of townhouses, integrated with the higher density blocks on Phases 1 and 2. Phase 2 (completing in March 2024) goes up to 20 stories, whereas the tallest block on Phase 1 is 13 stories. And not despite the mix of medium and high-rise blocks, but assisted by it, the developer asserts that they are "pushing the boundaries on design quality, placemaking and sustainability."

Within Phase 1, the 201 homes are roughly a fairly typical 60/40 split of affordable to private rented sector (122 affordable, 79 private rented). The private market rents turn out for the one bed at £1400 per month, and £1700 per month for the two beds, and the affordable homes are at a set scale of discounted rates. The big story is that in Phase 1 alone, the number of affordable homes has increased from 40 units to 122.

There were many of the usual constraints of similar schemes, from the red line boundaries of the perimeter of this narrow site, to the fact that in order to make the high number of affordable homes viable, the density had to be pushed up. "There were a lot of very close residents," says Jacob Willson, "this is an existing neighbourhood" – this

RETAINING THE EXISTING TWO-STOREY HIGH TREES IS AN OBVIOUS EXAMPLE OF A SUSTAINABILITY WIN

was the key driver of what was a rigorous and careful approach taken by the architect and client.

TENURE-BLIND FACADES

Jacob Wilson asserts that from a design point of view, Be First has "worked really hard with the politicians and residents to think about how we make tenure blind developments. So when you look at Phase 1, you can't tell which are the affordable blocks and which are the private blocks." This is now industry best practice, and it's crucial to avoid creating an aesthetic division between tenures' build quality. Willson says there has been a problem with private landlords in London and elsewhere, creating a dichotomy between council and private tenants by underspecifying the former and leading to the widely reported 'poor doors' stigma.

Phase 1 has a variety of blocks, from three to 13 storeys, and the overall scale is broken down by the taller blocks having a "stepped lower shoulder," in the words of project architect Linda Thiel. This reduces the overall impact and helps the scheme relate to the scale of the surrounding buildings. The resulting volumes are six and 11 storeys for Block A, eight and five storeys for the skinnier Block B (which has a block of seven townhouses sitting in front of it), and six and 13 storeys in the case of Block C. The six-level portion of the latter, which is allocated to the private rental market, has a roof garden, located adjacent to the townhouses. The higher levels offer great views into central London.

Blocks A and B are 'kinked,' both following the line of retained mature trees, creating a streetscape that has a much more amenable urban presence than totally perpendicular facades would offer, and angling the forms back from the street edge. The result is a series of "strong frontages" broken up by "entrance squares," explain the architects.

The scheme is designed as a car free development with limited parking, and a "pedestrian-friendly public realm." The trees along Abbey Road provide natural shading to the west facade, soften the overall look, and have also been used to locate small, sheltered play areas. The external spaces have been designed to be highly usable, and a Places for Girls workshop held by the architects

All images © Paul Riddle

A Places for Girls workshop held with a local school established what safe outdoor spaces would look like

with a local school established what safe outdoor spaces would look like. External spaces in the finished scheme are now being used much more by residents, when formerly they had become a source of fear.

Jacob Willson praises the architects' work, which aligned with Be First's aspirations in terms of both sustainability and spatial quality. "There's a lot of really positive design aspects of this scheme in terms of having very clear front and back doors, private and public spaces." He says that people were previously fearful of going through certain spaces, and struggled to navigate the estate, "but a lot of those issues were addressed by White Arkitekter in having very active street-based architecture."

The various buildings in Phase 1 all have reinforced concrete frames but a mix of facades, however the majority have a brick facade to tie in with the local residential buildings. A light colour brick mix was chosen for Phase 1, softening the blocks' presence along Abbey Road. Brick in a darker hue was specified on ground floors, and adjacent parts of the elevations (either side of the 'kinks' in facades) have subtle differences in the look of their brickwork. This is thanks to altering the mortar colour, to break down the mass of the facades, but still give an overall coherence.

CONSTRUCTION

In Phase 1 some offsite/MMC construction methods were used to aid fast and accurate construction, such as fully tiled pod bathrooms, utility cupboards, and balconies, supplied by Sapphire. Ben Addison explains that the logistics were tricky for bringing in vehicles to site, however "we were

fortunate that a neighbouring site became vacant that was part of Gascoigne West Phase 3. We were able to demolish that and actually set up a larger site compound for the main contractor." This was especially helpful given that the main work started in March 2020, roughly when the Covid lockdowns started.

The project completed on time in March 2022, with no help from some final commissioning delays to the district heating network connection, although it adds serious sustainability credentials. Retaining the existing, two-storey high trees is the other obvious example of a sustainability win, which as Jacob Willson rightly says, "add so much value for residents, and the light brick offsets them really well." Their roots may have provided challenges to the contractor Wates, but it was well worth it.

This project is a very successful, significant step in the rebirth of the Gascoigne Estate, and one which in the case of Phase 1 of its West flank at least, provides a far higher number of affordable homes. Thanks to the diligent work of the council, and its development arm and architect, a sustainable community has the chance to flourish on what was a pocket of east London with a lot of problems. As one of the early schemes in this massive endeavour, it has provided many lessons to Be First as they progress the later phases, which include the performance data on buildings that they are receiving from sensors peppered across Gascoigne West Phase 1.

The biggest proof of the success is starting to be seen from residents of this former troubled estate, who are reporting the start of a "real community feeling," says Jacob Willson with obvious pride, a pride shared by those residents. ■

ROUND TABLE REPORT

Exploring solutions for stormwater management

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Our second round table event, held in London in October, saw housebuilders, landscape architects, engineers and product suppliers come together to discuss the imminent legal requirement for sustainable drainage in developments, and bust some myths in the process.

ATTENDEES:

Sue Illman, Illman Young
Chris Carr, FMB national president
Steve Wilson, Environmental Protection Group
Matt Clutton, Cameron Homes
Martin Shaw, Meadfleet
Ruth Clarke, Innovyze (sponsors)
Jamie Gledhill, Brett Landscaping (sponsors)
Charlotte Markey, Polypipe Civils and Green Urbanisation (sponsors)

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Our second Building Insights LIVE round table event, held at the Building Centre in London, focused on solutions for the soon-to-be-statutory requirement to provide sustainable management of stormwater on projects, essentially by making them permeable. The key goal is to mitigate the effects of development on drainage as we experience more and more extreme weather due to climate change, but also to ensure that the water running off those sites is better quality. However, a further major benefit is the potential for greening our future housing developments using natural features, and thereby creating new standards of amenity for residents.

The round table, sponsored by Innovyze, Brett Landscaping and Polypipe Civils & Green Urbanisation, was a unique opportunity for specifiers to exchange views on how to deliver SuDS (Sustainable Urban Drainage Systems) with key suppliers in an informal setting. It produced a range of constructive pointers, as well as a set of recommendations for the industry (captured at the end of this report).

SuDS is the principal, and established method for achieving such schemes, and there are a range of approaches to achieving it. However, time is of the essence, as with Schedule 3 of the Flood and Water Management Act 2010 about to finally be implemented, housebuilders and developers are confronting a legally binding SuDS requirement in all projects. While they buy into the concepts and the solutions (whether natural, or engineered, or most likely a combination), the practicalities of doing SuDS on many sites are going to be tricky for many.

That's why our round table event was so timely; as well as bringing together SuDS experts, housebuilders, and product suppliers to exchange ideas and real-life knowledge from practice on the ground, it was also staged just before the new legal requirement came in. Some of the highlights presented here and on our websites (including a new site collating all of our industry insight at **insights.netmagmedia.co.uk/round-tables**) are certain to be useful to housebuilders as they solve practical issues from how to combine SuDS with public space, to how steep is safe, when it comes to natural features like swales within schemes.

The changes that can be brought about in developments via stormwater management using thoughtful SuDS approaches is an exciting evolution of how future housing developments could look. Far from the tarmac and car-dominated sprawl of the past, driven by the practical need to deal with stormwater but also aiding biodiversity goals, SuDS can lead to natural features in the heart of developments that ultimately provide a level of unprecedented 'greening.' While there are major challenges, as explored by our round table, there are also many reasons to be enthusiastic in pursuing these new approaches.

We were fortunate to be joined by a highly engaged group of people to discuss this important but specialist area – landscape architect Sue Illman is well known in the industry as a SuDS champion, and for engaging with construction sectors in her role as the Construction Industry Council's Champion for Flood Mitigation and Resilience. She was also co-author of CIRIA's SuDS Manual which is regarded as the 'bible' for designing such schemes. The Environmental Protection Group (EPG) is a firm of 'geo-environmental'

engineers, and its technical director, Steve Wilson, is, like Sue, a long-standing purveyor of practical SuDS solutions in a host of developments; they both train construction industry professionals including housebuilders on SuDS design.

From the housebuilder side, we were delighted to have Chris Carr return from our previous round table on Part L; in the meantime he had been elevated to FMB National President! He was forthright in advocating for SME builders grappling with several acute business challenges currently, of which SuDS is just one. Our other housebuilder in attendance was Matt Clutton from Cameron Homes, a medium-sized firm building quality developments across the Midlands and north; Matt combines engineering expertise with a housebuilder's business outlook, and so offered crucial insights.

Martin Shaw is senior operations manager from Meadfleet, an open space management firm which acts as 'landscape partner' for housebuilders across the UK. He views SuDS from the operational side and helps residents engage with and understand what are potentially unfamiliar features in their developments.

From our sponsors we were pleased to welcome Ruth Clarke, innovation manager at Innovyze, which provides design modelling software to engineers and consultants working on SuDS schemes. Jamie Gledhill, technical engineering manager from Brett Landscaping advocates strongly for permeable paving, and Charlotte Markey, green urbanisation innovation manager at Polypipe, donated her expertise as PhD researcher and promoted a wide-ranging 'systems' approach.

THE DEBATE

The Government's 'Plan for Water' has a stated aim to see "nature-based solutions used, where appropriate." But what are the best SuDS strategies for housebuilders to take, in order to create the most appropriate schemes in each setting? Collaboration between architects, landscape architects, engineers, housebuilders and planning authorities is the key, but is achieving this an obstacle in itself?

The round table focused on the general objectives and benefits of SuDS, but quickly saw delegates delving into some of the obstacles (some of which may be imaginary!) for achieving holistic schemes. The attendees began by looking at the Four Pillars of SuDS, CIRIA's core benefits as well as the must-haves for installations to be deemed a success. Firstly, water quantity – tackling stormwater via slowing its progress as close to the source as possible, rather than removing water quickly from site using pipes. As SuDS expert, landscape architect Sue Illman told the group, "the whole point about SuDS is to have a multiplicity of features, and that each one, particularly where they're on the surface and involve planting, slows that flow because the water will be intercepted as soon as it hits the ground."

The second pillar is water quality – natural SuDS can in themselves clean the water coming off a site. "For example," Sue explained, "a swale is a wet-dry system, the water goes through it, then it dries out, and this process metabolises the hydrocarbons from roads." This is augmented by planted systems whose roots help to control silts and sediments, further cleaning the water supply. Those chemicals which cannot be filtered by planting remain trapped in the soil, rather than entering groundwater reserves.

The final two pillars are Amenity and Biodiversity – two inter-related benefits of SuDS, firstly the ability of SuDS to provide a whole new public area within developments for residents to see, and use. Nature-based SuDS schemes are a proven way to produce species biodiversity on sites, and thereby help meet the January 2024 requirement for a 10% uplift in Biodiversity Net Gain.

AMENITY & RESIDENT BUY-IN

We asked all of our attendees to provide a question or comment for the group to tackle. Steve Wilson of EPG suggested that how SuDS contributes to biodiversity was a key issue to assess. Martin Shaw from Meadfleet made the case for including SuDS as not just a functional necessity, but as an amenity in housebuilding schemes, and how features such as swales, filter strips and of course trees add value to residents' lives.

He told the delegates: "As the SuDS systems mature, the visual amenity is far greater than having a concrete basin or channel; we get our ecologists involved to improve the site's biodiversity, in one example in Epping we have linked a balancing pond with a woodland, with native trees planted around it." He continues: "It's matured into a lovely place where families spend a day out. SuDS can become a massively valuable part of the development." Martin added that wetland margins around such a feature further slow the water, soaking into the ground rather than running straight into the pond.

Developments can look different to what has traditionally been expected by residents, with longer, wilder grasses which can suggest a lack of maintenance, and lead to a stigma against them. Delegates asserted that education was essential to combat pushback against

"PLANNERS REQUIRE AN AMOUNT OF PUBLIC SPACE IN SCHEMES, BUT THEY DON'T INCLUDE THE SUDS FEATURE IN THAT AREA,"
MATT CLUTTON, CAMERON HOMES

schemes which is driven by lack of knowledge. Martin from Meadfleet said that getting maintenance right is also key to helping residents become more accepting of these new features – he said that regular planting, such as poppies in one recent Meadfleet case study, "shows people that the area is being looked after."

Steve Wilson of EPG said that "from international experience, wherever there have been large-scale SuDS schemes are successful is where there have been massive public awareness campaigns so people are educated about them," and warned that currently in the UK this was "non-existent," so education is in severe need of improvement. "The Government really need to get to grips with it and make people aware of why it's there."

Is SuDS genuinely a 'win win' for small developers and their customers, and could the Four Pillars be potentially easier to achieve on some smaller semi-rural schemes, than their more space-compromised urban counterparts?). Perhaps more importantly, who is driving SuDS adoption in residential schemes, are customers so unaware of the benefits that developers have to sell it to them, whether or not there's any commercial advantages for the housebuilder per se?

Chris Carr posed the question as to whether developers should include SuDS as part of marketing to customers, given that his firm "embraces it as a positive." Sue Illman gave the view that it should be included in the booklets which housebuilders tend to provide their customers when they get the keys, explaining features of their new home.

Chris responded that while "education could sometimes be seen as lecturing, in this case it's really positive," due to the host of benefits that SuDS can bring developments. He added: "We have to have a USP as a small builder against the volume housebuilders, but it needs to be"layered with things like open space, biodiversity and the Future Homes Standard, it can't be just an engineer designing for SuDS."

Charlotte Markey questioned whether homeowners were "pushing from the bottom up to get SuDS implemented; there are loads of case studies of beautiful schemes, but have people aesthetically got used to such a poor baseline that they're not actually demanding it from housebuilders?" Chris Carr commented: "We have to sell it to them," and Matt Clutton from Cameron Homes agreed that there is a long way to go with consumer buy-in, given that "a lot of people are moving towards astroturf for gardens."

"EDUCATION [OF CUSTOMERS] COULD SOMETIMES BE SEEN AS LECTURING, IN THIS CASE IT'S REALLY POSITIVE,"
CHRIS CARR, FMB NATIONAL PRESIDENT

HOUSEBUILDERS' CHALLENGES

When it came to how the volume housebuilders were approaching SuDS, Steve Wilson recounted to the group his experience of being called in to train volume housebuilders' planning and buying teams on SuDS design, as "they recognised the commercial advantage, and that it would be a lot cheaper if you get it right from the start." He added: "They also recognised that land take isn't an issue if you design it right, conversely, if you put appalling SuDS in that are 'bomb craters,' it is going to take a lot more land, and probably cost more to build, and people aren't going to like it."

What are the key issues for housebuilders in complying with SuDS in the current context? Procurement is riven with problems, and some planning authorities may be more amenable than others when it comes to creating comprehensive SuDS schemes as part of new developments. Our panel discussed the issues around the hierarchy of decision-making in projects, and the organisational and bureaucratic obstacles that overcomplicate things.

Steve Wilson of EPG told the group there were "a lot of artificial organisational boundaries that make SuDS difficult – technically it's straightforward," adding: "What we really need is a wholesale rewriting of surface water legislation." Jamie Gledhill of Brett Landscaping pointed out that a major nut to crack in the procurement process was Highways departments, who "do tend to be the main blockers" when it comes specifying SuDS projects.

Chris Carr admitted there were issues with SuDS features in highways, although it may seem like one of the best locations to introduce them. For example, swales are seen as incompatible with highways services connections such as street lighting, meaning that two rows of streetlights may not be possible. However he said that this is feasible "because of the issue with energy costs now, local authorities are happy to reduce street lighting." He admitted that while some maintenance was straightforward, such as ponds, when it came to long stretches of swales for example next to highways, this was much more challenging. "We might have two or three thousand metres of swale," Carr commented.

Is it a myth that SuDS costs more than a traditionally landscaped and road network-oriented scheme? A 2013 Defra study even found that well-designed, landscape-based SuDS should be cheaper than traditional drainage with underground storage, with less pipework. Ruth Clarke from Innovyze asked whether housebuilders "were able to charge more for properties based on the increased amenity, or are SuDS still just seen as a necessity to get planning?"

Land take is the key issue in terms

of affordability, as developers have to sacrifice land they could build on to include SuDS, but in theory their developments are more desirable as a result, so there's a balance. But, as Matt Clutton of Cameron Homes pointed out, there's a key problem which planners bring into the picture, by "requiring a certain amount of public space in schemes, but not including the SuDS feature in that area." Therefore, SuDS places a further burden on the land equation, when it could be integrated into the calculation of public space. Steve Wilson agreed it was "a real problem, it makes SuDS expensive – we've got to look at multi-functional use of open space."

COLLABORATION & INTEGRATION

Sue Illman posed the key question of how to ensure all the professional disciplines "fully understand SuDS and the multiplicity of ways that they can be designed into projects." While this might not have been answered, there was consensus that collaboration between architects, engineers and other professions was possibly more essential for these schemes than others. Chris Carr candidly admitted that for his firm, "there is a hierarchy, and landscaping comes at the bottom, they have to deliver the best they can with the engineered design, SuDS, highways and everything else; you can't lead with landscaping, it would never work."

He advised: "When the engineer's finished, then look at how to incorporate landscaping into it." He added that "my first priority as a developer is to build a home I can sell, and everything else has to work around that." However, Sue Illman and Charlotte Markey defended the importance of prioritising landscape architecture in the process, Sue asserting in response to Chris: "We do it the other way around," questioning why engineering would be given the chief priority. Charlotte adding that it was "hugely frightening that you can't have a landscape-led approach." She warned that "we are getting used to such a terrible baseline in this country where infrastructure just becomes dominant."

Charlotte cited how Polypipe's Civils and Green Urbanisation division is working with EPG, as one example of collaboration, "because we want to encourage a wider raft of solutions." She added that "Hopefully with Schedule 3 being implemented, green solutions will be adoptable, but that doesn't mean you have to take a purist perspective." She admitted that using plastic underground for the engineered element of a project "was a legitimate concern," but that greater awareness was needed of the fact that "a lot of companies now don't use virgin plastics, or are looking at alternative solutions." She added: "In some instances there might be a necessity to combine approaches when you have a lack of space."

Steve Wilson of EPG continued the theme, counselling housebuilders: "Your aim starting out should be for a fully natural system on the surface, but the constraints you come across will push you to put some plastic structures in there." He also described how the Environment Agency had precipitated an exponential rise in requirements for storage on projects to account for future climate change-driven flooding, which has climbed to 40%, "a massive amount of storage, and that can make it unviable." However, Charlotte Markey added that "there could be so many instances where shallow tree pit solutions and rain gardens with playscapes could be incorporated to reduce the land take, because people want more for less now."

ENGINEERING OUT MYTHS

Our delegates discussed some of the perceived myths, and received wisdom around SuDS engineering, such as the so-called 5 metre setback rule in SuDS schemes. This states (inherited from old guidance, that no SuDS feature can be placed closer than 5 metres from any building, however Steve Wilson for one was here to debunk this myth: "It's not going to affect the foundations; a lot of them these days are piled, and it's not going to make an iota of difference."

One comment was submitted by Dick Longdin, of Randall Thorp landscape architects (who was unable to attend the event): "There's often a lack of creative input from landscape architects at the initial design stage which can result in very engineered solutions, such as 1:3 slopes." The round table discussed whether overly engineer-led solutions could mean that simple 'pipe to pond' approaches can lead to a 'pipe to a crater at the end of the site.'

There was general consensus that SuDS can be much simpler to get right than many believe, given early collaboration between landscape experts and engineers on schemes. Alternatively if left to engineers, the result can be steep-sided SuDS features schemes which work practically but present an eyesore and even a danger for residents. As delegate Matt Clutton from Cameron Homes phrased it in his question to the group, when designing swales for example, "how steep is too steep?"

Sue Illman offered some insight from experience: "1:3 is steeper than you think when you actually see it on the ground." Steve Wilson added: "I think you should keep it as shallow

"THE WHOLE POINT ABOUT SUDS IS TO HAVE A MULTIPLICITY OF FEATURES,"
SUE ILLMAN, ILLMAN YOUNG LANDSCAPE ARCHITECTS

as possible, then you can steepen it up if needed, but when you stand at the bottom of something that's 2.5 metres deep and look at a 1:3 slope it's really steep, it's horrendous." He continued: "So, the deeper you go, the shallower the sides' slopes need to be, which is an incentive to keep the depth shallow."

Matt Clutton offered the developer's perspective: "It needs a lot of input and collaboration, the ground might be sloping, and one side of the pond might be 2 metres higher than the other, so you need the engineers to model it, and then introduce the landscape architects."

CONCLUSION

The Government appears to be sticking to 300,000 homes per year as an 'aspiration,' at least, and Labour is pledging to build 1.5 million homes. The pressure is on for new developments across the UK, and on developers, to design sustainable drainage solutions that reduce the impact of those developments on their local area and beyond.

The case for SuDS is clear, they deal with stormwater, clean our water supplies and mitigate the impact of our developments in urban sites. They can also, space permitting, help meet Biodiversity Net Gain requirements and greatly enhance projects for residents. Bringing in the full range of possible solutions (for the full benefits) may be a challenge for many, such as SMEs, as the SuDS becomes mandatory in 2024. However, our round table and its recommendations (below) help support the argument for diving fully into the potential to use SuDS to green developments for everyone's benefit, caveated with key practical suggestions.

Our event also highlighted some remaining gaps in knowledge, including between SuDS aficionados, and housebuilders tackling a raft of difficult problems. However, we think that the event was one valuable effort in the battle to plug those gaps. We didn't have time to delve further into issues like whether permeable paving should be considered as a 'natural' SuDS solution, and the quirks of water companies demanding certain unnecessary engineering solutions causing more complexity than is needed, but we hope to return to this key issue for the industry in future events.

We would like to thank our sponsors, Innovyze, Brett Landscaping and Polypipe Civils and Green Urbanisation for supporting Building Insights LIVE. ■

"WHEREVER THERE HAVE BEEN SUCCESSFUL LARGE-SCALE SUDS SCHEMES GLOBALLY IS WHERE THERE HAVE BEEN MASSIVE PUBLIC AWARENESS CAMPAIGNS,"
STEVE WILSON, ENVIRONMENTAL PROTECTION GROUP

INDUSTRY RECOMMENDATIONS

Sue Illman, Illman Young landscape architects – I want to make a plea for using wetlands – they are incredibly diverse and people don't use them enough. People should use them much much more because they fit your Biodiversity Net Gain, along with your SuDS and attractive landscapes and lots of other things, so you get big bang for your buck.

Chris Carr, Federation of Master Builders – At the moment we are trying to appease everybody, whether it's the Highways department, water company or anybody else – just have one policy that covers it all, from rain to sea. There's too much conflict between external bodies, you've got to be a bit more holistic.

Steve Wilson, Environmental Protection Group – We need proper multi-disciplinary design, where it's a partnership, not one discipline being more important than another.

Matt Clutton, Cameron Homes – Education of both customers and planners, where they are segregating out the area that's public open space from the SuDS – they need to be combined, which will help with the education because residents will be going into the feature to use it, and will see the benefits.

Martin Shaw, Meadfleet – The main thing to consider when designing and developing these systems is the lifetime management of them, because they're a legacy for everyone.

Ruth Clarke, Innovyze – Everyone being involved at the right time in a project – everyone is involved, but whether that gets fed in at the right time, and the bigger picture needs to be looked at – and the adoption by any water company is really key.

Jamie Gledhill, Brett Landscaping – Multifunctional design, and incorporating engineering with landscape design – stop calling it 'engineering SuDS,' it's 'designing SuDS.' Like Clive Woodward's approach in England's rugby world cup win in 2003, it's 'every one percent that you can add in,' whatever you can add in, it's going to be better in the long term.

Charlotte Markey, Polypipe Civils and Green Urbanisation – It's about how you manage an entire system, it's helping people transform their practice through managing those complex systems, but they're not as difficult as we think. It's just having that system approach – if you change something early on, it's going to have a knock-on effect on something else, and we just need to know where we make the changes and how we challenge them.

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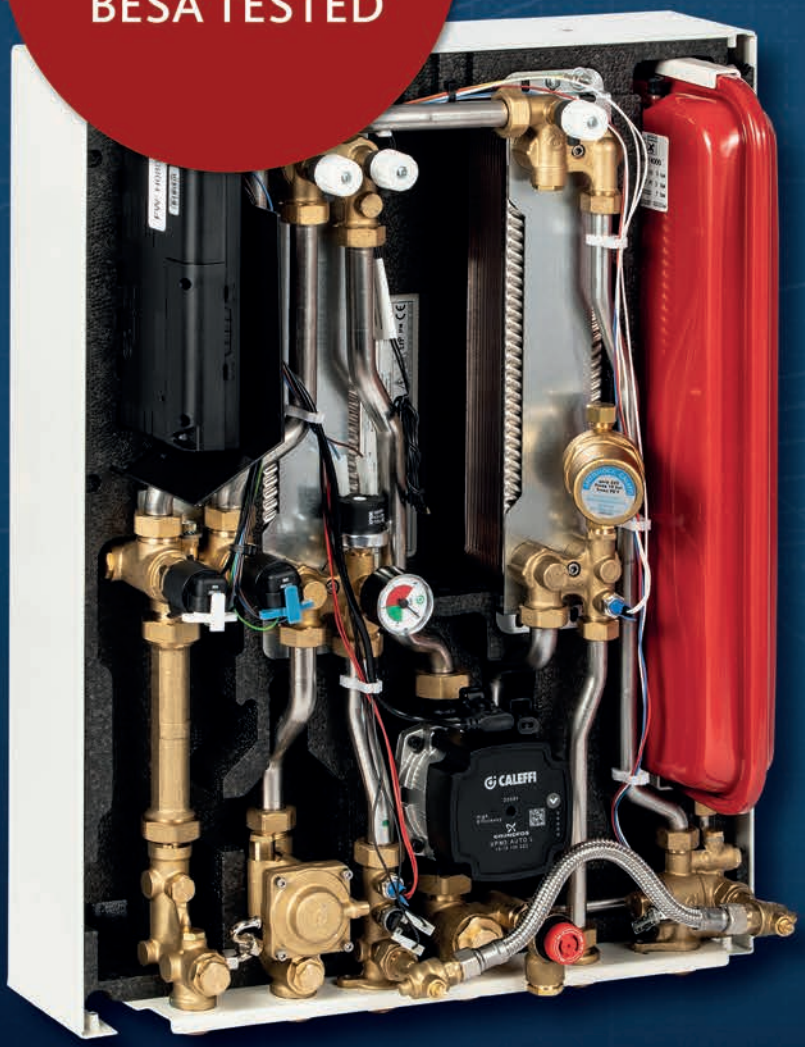

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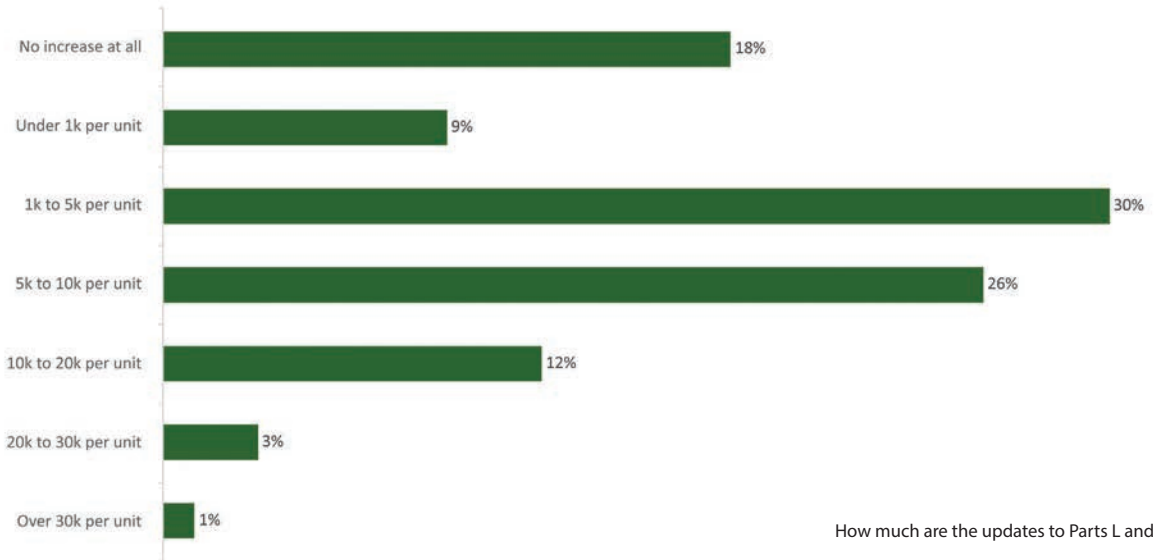
A YEAR ON: REVISITING CHANGES TO PART F & PART L



How much are the updates to Parts L and F adding to your build costs?

EXECUTIVE SUMMARY

The Future Buildings Standard, due to be introduced in 2025, will require all new homes to produce 75-80% fewer emissions than current levels. To assist the industry in getting to that target, in 2022 an interim 'stepping-stone' to the standard was introduced. This took the form of a tightening of Parts L and F of the Building Regulations, and the introduction of Part O, to prevent consequent overheating.

The new Regulations will bring significant improvements to the performance of homes (and non-residential buildings in the Future Buildings Standard, which encompasses the Future Homes Standard), but also come with serious challenges for the industry, in particular for some housebuilders. After the grace period since the launch of the new Part L, F and O last year, to allow buildings currently in the planning process to continue to the old Regs, as of June this year, all buildings must now conform.

In October 2023, *Housebuilder & Developer* undertook an Industry Viewfinder survey to discover their views on the important changes brought to housebuilding by the 2021 updates to the Building Regulations Part L (Conservation of Fuel & Power) and Part F (Ventilation) as well as the new Part O (Overheating). Revised to provide more energy-efficient new homes as a stepping stone to the upcoming Future Homes Standard, the newly tightened Regs present a range of challenges to housebuilders, highlighted in our 2022 study.

A year on from the original study, we canvassed housebuilders and developers to find out whether things have improved in terms of how they are tackling the changes brought by the updated Building Regs.

We spoke to a similar number of housebuilders and developers (111 versus 119 in 2002). Most of the respondents were at director level within their firms (53%), or manager level 15%, and 7% were buyers, and 5% contracts managers. The largest segment were housebuilding companies (61%, of which 29% classed themselves as developers). 11% were sole traders, and 8% described themselves as 'small partnerships.'

INTRODUCTION

As part of the Government's progress towards its legal commitment to achieving net zero by 2050, following consultation with industry and legislation introduced in 2022, new homes in England must produce 31% fewer carbon emissions. At the same time as these tightened provisions within Part L of the Building Regulations, Part F has also been strengthened to ensure that new homes are well ventilated. Part O is the third of the trio of new legal measures in terms of building performance, but this is a brand new regulation designed to ensure that more air-tight homes do not only not suffer from poor indoor air quality, but that they also do not disproportionately overheat.

Broadly speaking, Part L 2021 is largely about improvements to the building fabric, in particular, insulation, but some developers have already taken the route of using green energy to help meet the 31% fewer emissions target, as our survey shows. Therefore, alongside the use of solar PV and other renewables, comes the advent of air source heat pumps as the 'hot new solution' for providing low carbon heating to homes with much improved fabric standards. While heat pumps are not the panacea (i.e. their efficiency will be drastically hampered if the building isn't designed and constructed to optimise energy efficiency), they are acknowledged as the most realistic way forward for housebuilders to achieve the carbon reductions that will be required by the Future Homes Standard.

In our 2022 study the vast majority of our respondents were smaller firms building under 50 homes a year (78%). In our 2023 sample this was a slightly lower figure (52%), however it still demonstrates a high cohort of SME builders (a quarter were building between 50 and 1000 homes a year, and just 2% over 1000). With the SME sector having been decimated since the 2008 credit crunch, they face a very different set of challenges to the volume housebuilders the new Regs.

THE PROBLEM WITH PARTS L, F & O

The newly updated Regulations (Parts L, F and the new Part O), bring a host of specific challenges to housebuilders. These range from new reporting methods which require housebuilders to take photos of each part of a house's construction to attempt to close the gap between design and built performance, to the new Fabric Energy Efficiency Standard (FEES). We also investigated a range of solutions approaches such as respondents' choice of building technologies and materials.

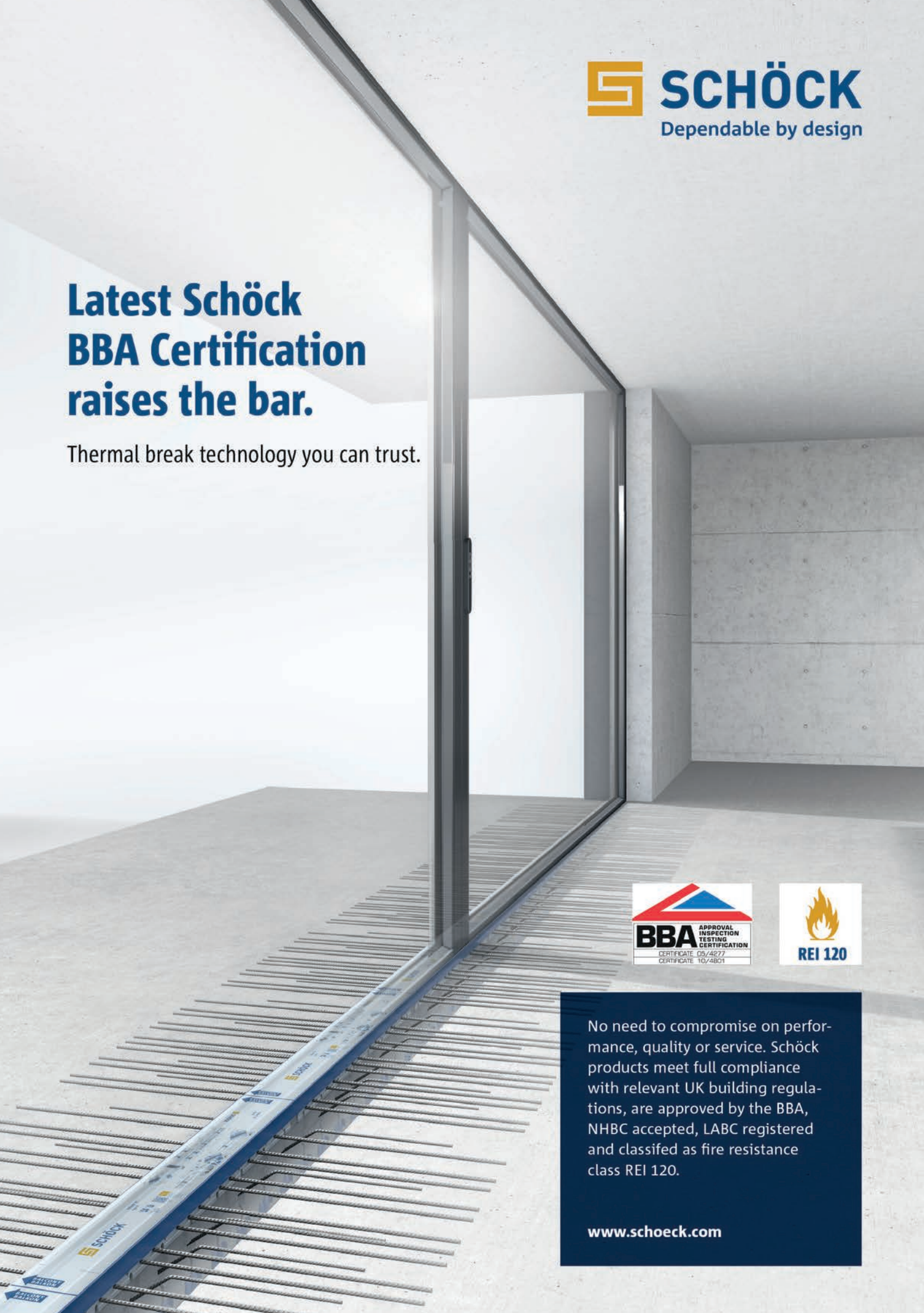
YEAR-ON-YEAR COMPARISON

We asked a series of questions which replicated those asked in our 2022 survey in order to produce comparative figures. These included the extent of the increases in construction costs they were facing, and whether they were able to pass those costs on to their customers. Whereas in 2022 we asked people a general question about which building technologies they were using in order to meet Part L, F and O (with options ranging from fabric measures to low carbon heating and renewables), and the associated cost increases, this year we applied a bit more detail to add value to the study. We looked at the issue of which technologies our respondents were specifying, which fabric measures they were prioritising, which were their preferred eco heating and ventilation and renewables measures, and which specification aspects were requiring more staff training, or had skills shortages.

The questions also looked at more specific issues such as homeowner education/awareness, lack of financial incentives for builders, and the potential need to change suppliers. We also asked them about the particular challenges of having to measure carbon reductions across development sites, and how they were addressing this.

COMPARING BARRIERS

In both this year's survey and the previous year's, we looked at the key issues around specification for housebuilders raised by the new Part L and Part F, and how they rated those barriers relative to each other. This meant that as well as rating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those barriers in each survey, there was an opportunity to see if things had improved since 2022 and the emergence of the revised standards.

Increased costs were the top barrier by housebuilders responding to our survey in 2022, and they were again in the top spot this year, however with an even higher figure (71% versus 65%), suggesting that as the Part L and F changes had bedded in, the true cost has become more apparent in practice.

Lack of homeowner education and awareness, in terms of being a barrier to successfully complying with the new changes, was a more frequently picked category this year than in 2022, moving up the rankings from number four to number two (a big jump, from 30% to 53%). This means that more of our respondents believed that homeowners being informed and thereby buying into the changes needed is critical to enabling the changes to be progressed on new homes. Their education being lacking in this area, highlighted by our study, suggests a challenge for both the Government as well as housebuilders to tackle.

The other barriers cited were lack of experience with low carbon technologies, and workers with required skills, lack of financial incentives for builders, having to measure carbon across the whole site, having to change suppliers, and the slowed pace of building/inability to meet housing demand. Most of the results remained similar to the 2022 figures. The number of respondents citing lack of skills was particularly disappointing, having dropped slightly since 2022 with 45% of respondents saying it remains a barrier (from 41% in 2022), despite repeated proclamations of prioritising skills coming from Government.

One notably different finding was another cost issue – namely the 'inability to price the construction costs of complying with the new Regs into the finished product. Worded another way, this means being able to up the price of a finished home to include the additional costs. Presumably, the jump in picks of this as a barrier to number four in the list (up four places from number eight in 2022; chosen by 38% of respondents this year versus 24% in 2022), is not only the result of greater awareness of the impact of the standards 'in action' since they became mandatory in June 2022. It's also likely to result from the fact that house prices have been on a steady decline this year, meaning that housebuilders would struggle to add to premiums and must instead absorb the costs of energy efficiency improvements.

The problem of having to change suppliers due to the increased performance requirements of the new standards, or inability of previous suppliers to provide compliant systems, was causing an issue once more for our surveyed cohort in 2023. Only 28% were picking this as a remaining barrier to compliance, however, albeit slightly higher than the 2022 figure of 25%.

GENERAL EXPERIENCE & UNDERSTANDING OF THE CHANGES

Two of the survey questions which we repeated this year to enable a comparison covered the respondents' general experience of compliance with the new Parts L, F and O, and replicated the 2022 survey questions, which enabled us to track progress over the year since the new Regs came into force (in June 2022). We again asked housebuilders 'how hard have you found compliance with the new regulations,' and 'how well do you understand the changes to Parts L, F and O?

For the first question, the results in 2022 were relatively moderate, with 21% saying they had found compliance (with 31% carbon reductions on builds, but also Part F ventilation and Part O overheating provisions), 'extremely hard,' whereas 28% said 'it's been no different.' This year, we split the question to establish views on Parts L, F and O compliance, and the responses were somewhat reassuring, with a similar number (24%) saying 'it's been no different,' (on Part L, 24% and 23% on Parts F and O respectively). This did however mean that 77% reported they had found compliance 'challenging' to some degree.

On Parts F and O, this year 77% said compliance had been slightly to extremely challenging (11% extremely challenging). However, a relatively large contingent said that they had found it no more challenging than before to adapt to the newly revised, or brand new, standards (24% for Part L and F, and 23% said that Part O had been 'no different' in terms of presenting a challenge for compliance).

The findings on Part O were somewhat counter-intuitive, given that you'd expect more people to find this standard challenging to some degree, being a new Approved Document. Part O requires more house-specific calculation, given the different shading and orientation across a development affecting each property's potential overheating levels, whereas Parts L and F models and estimated performance can more readily be applied across a range of homes and sites from a single model.

BREL REPORTS

Perhaps the biggest change for housebuilders from the upgraded Part L is the requirement to provide a full set of photo evidence at each stage of a build that demonstrates that they have achieved the necessary quality of construction onsite. This is an onerous and admin-heavy process for contractors which will hold things up, but is regarded as necessary to drive the construction rigour that will close the Performance Gap that exists currently between as-designed and as-built construction.

The resulting 'BREL' (Building Regulations Part L) reports which are now to be provided by housebuilders to Building Control as part of SAP are in-depth, requiring prescribed sets of photos, for example of constructed junctions. They comprise a 'design stage' report and a subsequent 'as-built' report signed by both the SAP assessor and developer.

COST INCREASES PROVE A GREATER CONCERN

In 2022's Industry Viewfinder we reported that some in the industry were hopeful that the changes to Part L and F will help to 'level the playing field' for housebuilders who were already constructing homes in a more energy-efficiency focused way.

With inflation having steadily risen since the pandemic, housebuilders (and particularly SME housebuilders), have confronted seemingly endless cost rises however, and in 2022 by far the most common concern among our respondents, 65% believe increased construction costs are the biggest challenge to the adoption of the standard, on average expecting building costs to rise by an average of £10k per unit – with the majority (77%) set to pass these costs onto their customers.

Increasing insulation levels to reach the U-values required by the new Part L – the key method for achieving the carbon reductions required over technologies like underfloor heating, solar PV, heat pumps and thermal breaks – is naturally increasing

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build costs for all developers.

In this year's study, we asked how much they had actually spent to bring new builds up to the new standards. The realities were slightly different to their predecessors' estimates in 2022. Having had more experience of Part L and F in actual builds, the verdict actually showed the 2022 estimates to be slightly pessimistic, with the largest segment (30% of responses) saying that 1K to 5K increase was the actual cost uplift to reach Parts L and F. However, people saying they had spent 5K to 10K was not far behind at 26%, showing that this is a likely cost for many going forward, until the Future Homes Standard raises the bar considerably higher.

We also asked our survey respondents this year whether they were going to be able to pass the cost increases on to customers, in an identical question to 2022's survey which enabled a direct comparison between the two survey samples.

While the uplift in cost per unit had turned out to be better news in reality than last year's estimates, the ambitions of 77% of our sample in 2022, namely that they would be able to increase house prices to offset the extra build cost, had foundered somewhat on the house price slump of early 2023. In the event, this year only 60% said that they were going to be able to raise house prices in order to absorb the extra costs.

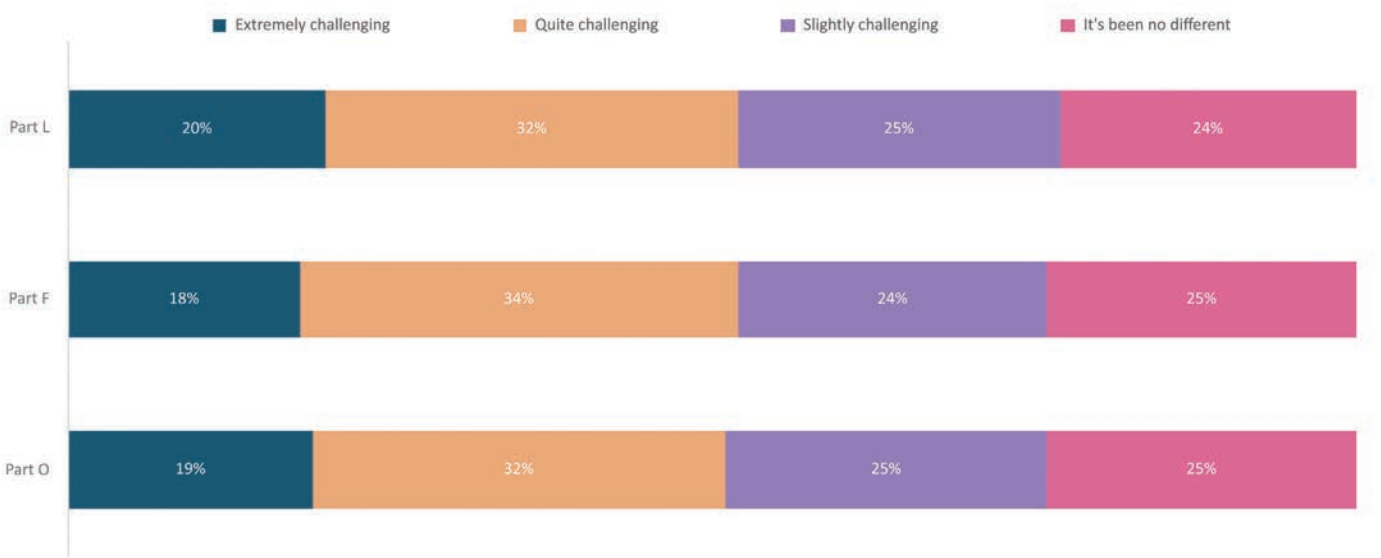
CUSTOMER ENGAGEMENT

We asked respondents how they rated the Government's performance on engaging with project stakeholders, such as consumers and homebuyers, on the ramifications of the changes to the Regs. Performance on this area remained lacking, according to our cohort, and suggests a correlation with the earlier finding that homeowner education remained a problem for compliance. A substantial 67% of respondents said that homebuyers had experienced a 'poor' level of engagement by Government on the changes and what they mean. Builders themselves were next worst, with 62%, followed by planners and developers (at 54% and 53% respectively).

Manufacturers had fared slightly better, according to our respondents (who were however from the development sector in general), with 61% saying the Government had performed 'quite well' or 'very well' on engaging with suppliers on these fundamental changes to Building Regs. The pattern of results on this question was similar to that of 2022.

NEW INSIGHTS

How hard has it been to measure your carbon reductions and overheating issues across the whole site?



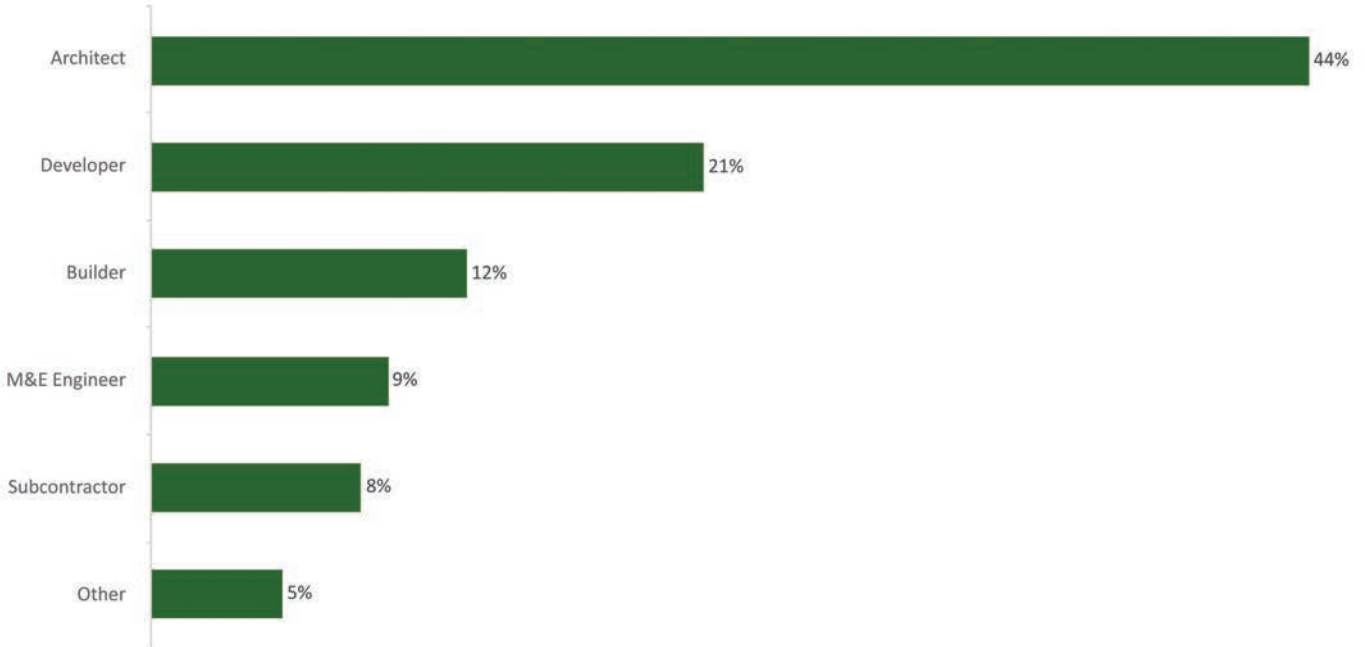
We asked a range of additional and reworked questions in this year's survey. Questions we added in 2023 to add further depth to the study, and cover areas we didn't have room for in 2022.

CARBON REDUCTIONS

In order to calculate your carbon emissions on a project, you are required to undertake a series of carbon calculations across the whole development site, which is an evolving art and often requires outsourced expertise in order to achieve credible and usable data.

We asked respondents how hard they had found the task of measuring their carbon reductions, but also modelling their overheating potential (in accordance with Part O), across their whole sites (which may vary from single homes to multi-unit developments). The results showed a similar level of 'extremely challenging,' 'quite challenging,' 'slightly challenging' and 'it's been no different' apportioned by respondents across Part L, Part F and Part O, which was again somewhat confusing given that Part O was a brand new standard, and we were asking about measuring overheating as well as carbon emissions.

Who is generally responsible for compliance with Part F in your projects?



Our survey found that 20% of housebuilders and developers we surveyed were finding it 'extremely challenging' to measure carbon reductions for Part L across their whole site, while 24% said 'it's been no different.' A slightly lower number were finding it extremely challenging for Part F (18%), although 34% said it was 'quite challenging.' Lastly for Part O, 19% said that measuring overheating was 'extremely challenging,' but 25% believed it was 'no different.'

SKILLS SHORTAGES

We also asked respondents of what particular skills and training they have had to address in order to comply with the new standards (with options including insulation, on and offsite timber frame, SIPs, ICF, thermal breaks, membranes, triple glazing, air-tightness tapes, low carbon heating, MVHR and waste water heat recovery, solar PV & battery storage, electric and radiant heating, underfloor heating, rainwater harvesting and greywater recycling).

Housebuilders possess a wide range of skills in-house, including at the smaller end of the market, but the new Regs are challenging those existing skills. The attention to detail is being ramped up, the reporting on as-built construction becoming more onerous, and new skills such as applying air tightness tapes and installing heat pumps are becoming more commonly required. Bridging this skills gap may be a particular concern for some smaller firms, but also some volume housebuilders may struggle to deliver on certain skill sets.

Installing insulation, whether PIR, PUR or mineral wool, to a much tighter tolerance in order to achieve the new U-values in Part L may require a skill level which tests many housebuilders. Similarly, skills around fabric approaches such as on and offsite timber frame construction, SIPs panels and ICF (Insulated Concrete Formwork) all require new skills, if they are being tackled in-house to a high level of energy efficiency, and not by subcontractors.

Other areas where there may be skill gaps to bridge for housebuilders include installing thermal breaks and membranes, sourcing and installing triple glazing, and applying air-tightness tapes. More likely to be taken care of by specialist installers include heating and electric systems like low carbon heating (e.g. heat pumps), MVHR and waste water heat recovery, solar PV & battery storage, electric heating, underfloor heating, and rainwater harvesting and greywater recycling.

With 45% of our surveyed professionals saying that skill shortages remained a serious barrier to compliance with the standards, we asked them which areas in particular they have had to address in terms of workers' skills, including training.

Insulation was on top, probably demonstrating its ubiquity as a solution to the Part L requirements. 62% said they have had to address skills issues for installing the new levels of insulation to meet Part L U-values in walls and roofs. This was followed by thermal breaks (a relatively new methodology), at 52%, then solar PV and battery storage, which continues to evolve and therefore was no surprise at 47%. Eco heating methods are similarly constantly evolving, and in themselves are a new area for many developers, and placed at number four with 43%.

Further down the list, yet also relatively new methodologies requiring skills uplift and training were MVHR and waste water heat recovery (40%), triple glazing (38%), and membranes, air-tightness tapes and underfloor heating (all at 37%). Other more established approaches like timber frame, including offsite timber frame, SIPs panels, electric and radiant heating, rainwater and greywater harvesting, and Insulated Concrete Formwork, came in at between 32% and 22% of our respondents' choices.

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PROFESSIONAL RESPONSIBILITIES

With Parts F and O relating to ventilation and overheating respectively, rather than regulating the actual building fabric itself, we wondered whether housebuilders were 'insourcing' the planning and design of their builds to comply with these uplifted, and, in the case of Part O, brand new standards.

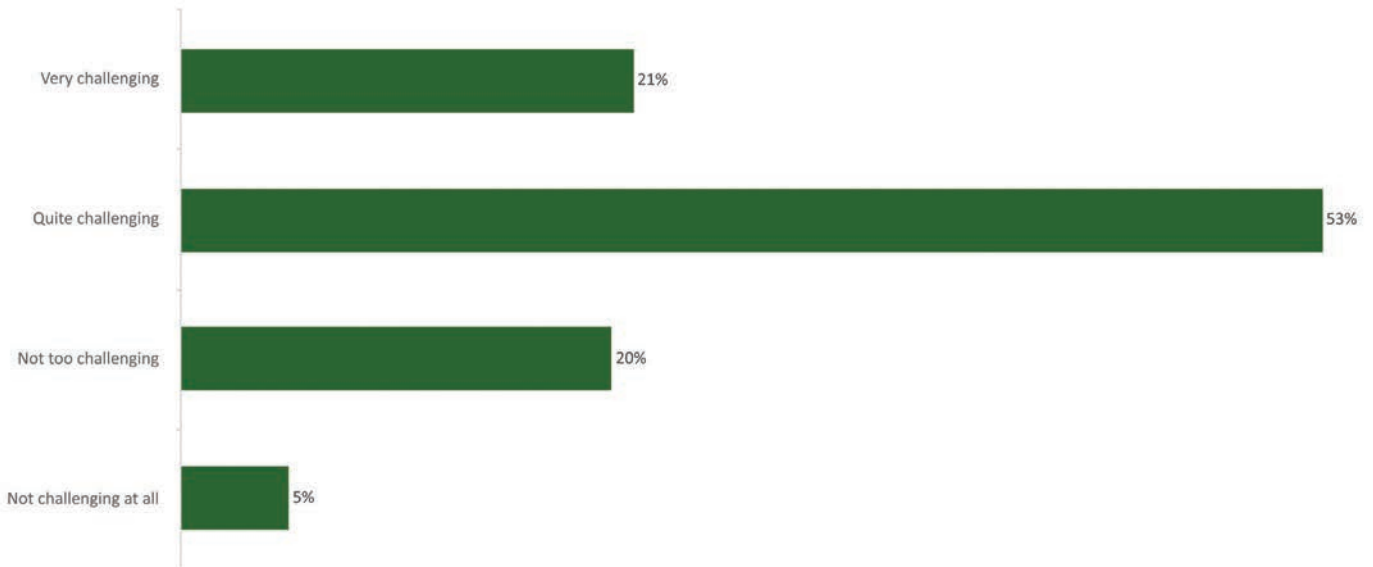
As might be expected, most of our respondents were outsourcing the decisions that would ensure that adequate ventilation was provided to dwellings in order to comply with Part F, to their architect (44%). However, perhaps surprisingly, 21% were dealing with this inhouse (plus 12% choosing 'builder'), and only 9% were leaving compliance on ventilation to an M&E engineer, and 8% to a subcontractor.

BUILDING DESIGN CHANGES

Many housebuilders are grappling with a seemingly intractable problem in complying with Part L, which requires an increase in air-tightness and fabric efficiency, and also meeting Part O, which won't allow excessive levels of overheating of a dwelling. In some cases this has led design teams to have to confront clients with plans for smaller windows than they would be prepared to accept, to mitigate overheating.

We asked our survey sample how challenging it has been so far to retain their existing building design (in terms of the aesthetic look of the external facade), while at the same time complying with Part O as well as Part L? The answers showed that this was a problem even for smaller builders, who made up the majority of our survey. In total, 74% said it was challenging to some degree, and 21% admitted it was 'very challenging,' which means this is a major problem to solve in coming months if homes and apartment buildings are not to look dramatically different in coming years.

How challenging is retaining your existing window sizes and overall design look, in meeting Part O on overheating while meeting Part L?



CONCLUSION

There remain a host of issues to address in order to ensure that the new Part L is practical to achieve for the broadest range of housebuilders, with conflicts existing between the regulation's aims of air-tight construction, and both ventilation and overheating concerns.

Virtually all of the barriers cited in our 2022 Industry Viewfinder survey had become more acute in this year's study, from skills, to costs, to homeowner awareness. The only factor that was unchanged was carbon reduction measurements.

Part L has been a legal requirement for all developments for a year and a half, and alongside Parts F and the new Part O, represents one of the biggest jumps in quality for housebuilding in many years, driven by the UK's general, but urgent, need to cut carbon.

Our survey shows that while the new standards may be achievable without many housebuilders having to make drastic changes or invest inordinate sums, it's a difficult task to introduce much higher levels of insulation, fabric design rigour, and renewables to existing designs. For SME builders, virtually everything is a challenge currently, and this is just another one. Moreover, the jump in build performance, new tech and change of housebuilding approaches generally that will be needed to meet the Future Homes Standard (75-80% fewer emissions) in just over a year's time, is going to be a huge leap.

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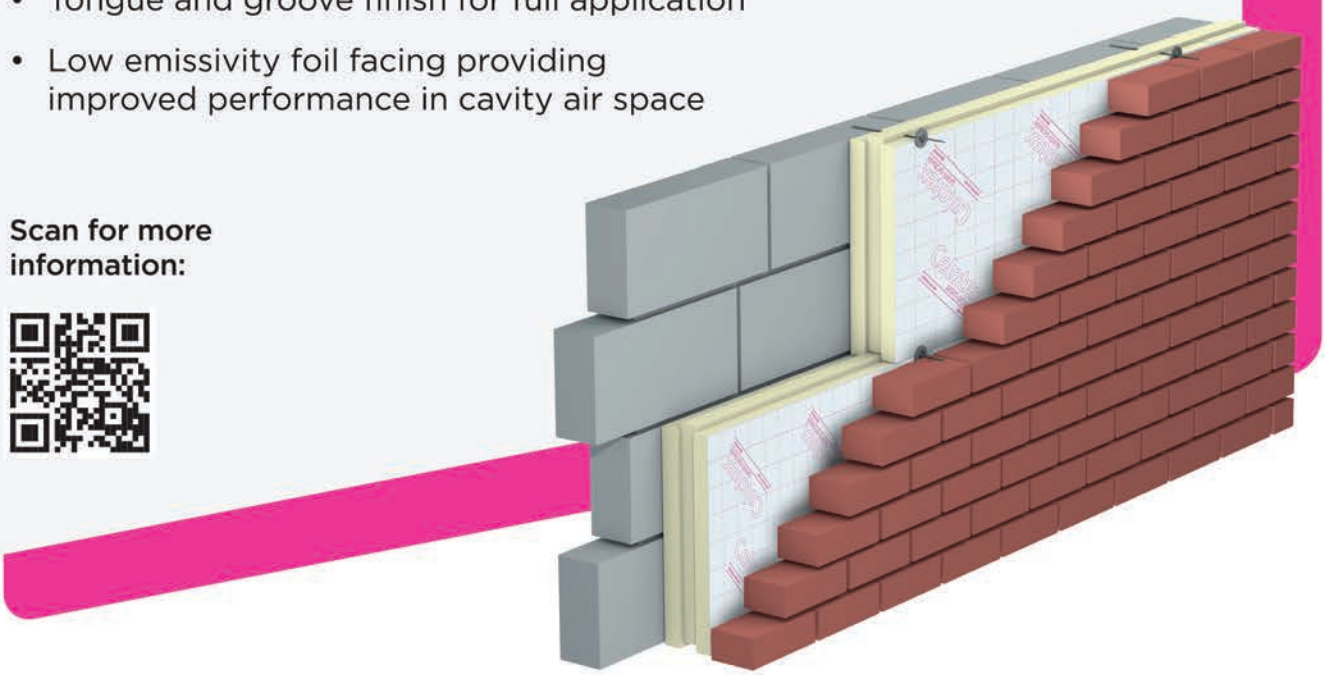

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High thermal performance

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Reduces heat flow

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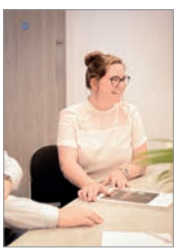
Samsung Climate Solutions to revolutionise home heating

Samsung Electronics Air Conditioner Europe B.V. announces the official UK launch of the EHS Mono R290 heat pump. The EHS Mono R290 offers cutting-edge technology that enhances comfort and has a low Global Warming Potential (GWP). Several key features make the EHS Mono R290 a future-proof choice for homeowners. It has a remarkably low Global Warming Potential (GWP) of 3. It provides a consistent supply of high hot water temperature, reaching up to 75 °C, making the range ideal for renovations and retrofits. Moreover, the EHS Mono R290 boasts an enlarged integral plate heat exchanger capable of transferring more heat at once compared to a conventional outdoor unit, thanks to a heat transfer area of up to 39% larger. It boasts a reliable heating performance, enabling it to deliver a 100% heating performance in temperatures as low as -10°C. It also enables the production of Domestic Hot Water (DHW) at 70°C when the outdoor temperature is -10 to 43°C ambient temperature without using the booster heater, thus saving energy while producing DHW on hot summer days. The EHS Mono outdoor unit is designed for simple installation, service and maintenance. The new range of heat pumps can also be connected to SmartThings Energy to maximize savings and optimize energy usage.

www.samsung.com/uk

Reginox UK announces senior promotion



Sinks, taps and accessories manufacturer, **Reginox UK**, has announced the promotion of Rebekah Tomkinson as the new UK Sales Manager. Rebekah, from Sandbach, who is celebrating her tenth year working for Reginox UK, has been promoted to UK Sales Manager following a restructure of the sales team. As part of her new role, Rebekah will have overall responsibility for the nationwide sales force, supporting the team to grow and develop Reginox UK's client base across each of the regions both through existing and new customers, as well as maintaining the highest level of customer service and client liaison.

01260 280033 www.reginox.co.uk

Homes England launches campaign

Homes England supports SMEs to build more homes, and is focusing its "We Fund It. You Build It" campaign on raising awareness of the help available through the government's Levelling Up Home Building Fund. The fund has helped hundreds of small and medium sized housebuilders to kickstart their projects by providing development loans from £250,000 to £10million+. Administered by Homes England, the government's housing and regeneration agency, the fund is designed for housebuilders based in England who are struggling to access finance from traditional lenders.

fundingenquiries@homesengland.gov.uk www.gov.uk/homes-england

CCF underpins the 'golden thread' with launch of its new product traceability trial

In an industry first, leading insulation, drywall, and ceiling products distributor CCF has taken the first steps towards offering its customers greater visibility on the journey products take from manufacture to site by trialling a new product traceability initiative.

CCF has developed a process to provide a detailed 'end to end' report that tracks products from the manufacturer, at manufacturing batch level, through the distribution process and delivery to the goods-in location on a site. After months of in-house testing, CCF is currently trialling its product traceability programme on a live project working with its supply chain partners Kingspan and Berkeley Group.

Within this first phase, CCF is focusing on batch-level traceability of full pallets containing three Kingspan products for use at two of Berkeley Group's sites. Utilising the unique GTIN (Global Trade Item Number), linking up with the manufacturer's batch code, CCF is able to pull together a bespoke report showing which batch was delivered and where it was delivered to. The results of this first phase will help shape the next stage of this initiative, with CCF aiming to launch phase two which will expand the scope of the trials in the early part of 2024.

Managing Director of CCF, Catherine Gibson, said: "In a world where we expect sustainability and product safety to be verifiable, the traceability of building materials

from the supply chain is becoming increasingly important. We know this is an issue that really matters to our customers, and that the majority of traceability checks currently are done manually. CCF, with its extensive and trusted supply chain, will play a key role in developing a more accurate, data driven solution that will provide the detailed information customers require in a much smarter way.

"Our suppliers have expressed a desire for us to develop a system for batch traceability, and our customers are searching for a first-step to batch level identification on site. In order to explore this, we created a working group with a manufacturer – Kingspan Insulation – and a customer – Berkeley Group; both of whom share our determination to create solutions for our customers that are innovative by design, practical to implement and above all, drive positive change."

"We are extremely proud of the work our teams have done so far and we are excited to be commencing this trial and eagerly await the outcomes that will enable us to take this initiative to the next level."

The details of CCF's new product traceability initiative were first announced at the recent UK Construction Week event, where CCF's Managing Director Catherine Gibson spoke about the importance 'getting product information right' alongside Amanda Long, formerly CEO of Considerate Constructors and founder of the Building a Safer Future Charter, who now leads CPI, the body that administers the Code for Construction Product Information.

For the latest updates on CCF's product traceability initiative, please follow CCF on social media or visit their website.

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futurebuild
the future of the built environment

EVENT PREVIEW

5-7 MARCH 2024
EXCEL, LONDON

SHAPING A SUSTAINABLE FUTURE FOR HOUSEBUILDERS

Futurebuild, the built environment's most influential event for innovation and collaboration is back for its 18th year, at London's ExCeL from 5-7 March 2024. The event, which is set to be the most impactful yet, will bring together more than 20,000 professionals including architects, planners, urban designers and housebuilders. It will continue its mission in taking a stand for a better built environment, showcasing groundbreaking ideas, creative and inspirational innovations, and crucial collaboration to help us set the stage for a greener, more resilient future.

Martin Hurn, event director at Futurebuild emphasises the event's objective of creating real, lasting and tangible change within the housebuilding sector: "Futurebuild is more than an event; it's a catalyst for action. It's a platform for engagement, debate, and education where industry leaders and professionals passionate about improving the built environment unite to shape a future that demands significant change and real courage."

THE EVENT, WHICH IS SET TO BE THE MOST IMPACTFUL YET, WILL BRING TOGETHER MORE THAN 20,000 PROFESSIONALS

COLLABORATION AT THE CORE

Futurebuild collaborates with over 70 partners and more than 500 speakers to make sure it can continue to spearhead innovation through collaboration in the built environment. Partners this year include UK Green Building Council, the Royal Institute of British Architects (RIBA), the Passivhaus Trust, the Institution of Civil Engineers (ICE) and many more.

WHAT'S IN STORE FOR 2024: MORE COLLABORATION, MORE INNOVATION

- 'Share your vision, show your stripes, and embrace the change' is a key message that underscores the conference's focus on climate change action and collaboration for a better built environment.
- New exhibitors for 2024 include Danosa, Saint-Gobain Ecophon, FRAMECAD®, O'Reilly Precast, and among those returning this year are Aico, Viessmann, Bosch and Aco technologies.
- The National Retrofit Conference, curated by the Retrofit Academy, is a three-day programme that will delve into the retrofit challenge across the UK, from policy to practical implementation.
- The FutureX Innovation Area returns for start-ups and SMEs to showcase scalable innovations for housebuilders, and features a 'Dragon's Den' style Big Ideas Pitch to recognise the best innovative idea or solution for 2024.
- Innovation Gallery, Big Innovation Pitch, and Innovation Trail will be platforms for partners to present groundbreaking products, solutions, and materials to excel the housebuilding industry, with live announcements of winners.

KNOWLEDGE SHARING FOR HOUSEBUILDERS

Futurebuild 2024 promises seven zones, including The FutureX Innovation Area, each with dedicated exhibitors and targeted seminar programs. Specific show sections cater to Materials, Retrofit, Sustainable Infrastructure, Energy, Buildings, and Digital – delivering a tailored experience for housebuilders eager to shape a more sustainable future.

Join us in taking a stand and be a part of the solution for shaping the future of the built environment. Register today by scanning the QR code on this page.

EXHIBIT AT FUTUREBUILD 2024

Futurebuild 2024 is where collaboration leads to innovation, and action transforms the built environment. For more information and exhibitor inquiries, please visit www.futurebuild.co.uk

Article submitted by Futurebuild

2024: Opening the door to INNOVATiON

As the new build market continues to pave the way in futureproofed housing, the sector relies heavily on suppliers who can match the required level of innovation needed to create homes that are both secure and thermally efficient. **DoorCo** are the innovators behind a huge volume of the UK's new build doors thanks to their network of partnerships with some of the nation's best fabricators and installers. Their ORiGINAL foam-filled composite door has been a revolutionary product in the market since its conception, thanks to its unrivalled security, thermal performance and style options.

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Advanced membrane chosen

Building membrane specialist, **ITP Ltd**, has supplied the UK's most advanced breather membrane for a development of supported living apartments in Gateshead by Home Group. Stamisol Safe One was installed within the external wall to maintain the long-term condition of the building envelope. Winner of Product of the Year in the Facade 2022 Design Awards, Stamisol Safe One is the first breather membrane in the UK to combine a W1 rating for water tightness, breathability to BS5250 standards, waterproofing of 7,000mm, UV resistance of 5,000 hours and a Euroclass A2 fire rating.

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Wraptite® airtightness for new self-build house

A new self-build house has been built incorporating the high-performing Wraptite air-barrier from the **A. Proctor Group**. The project consists of a 250 m^2 detached private residence developed by Mark Skinnader. The client, Mark Skinnader, explains: "In the early stages of the project, the A. Proctor Group technical representative visited the site to identify a suitable airtight system. As there is no cavity in the proposed wall build-up, we chose the Wraptite breather membrane to act as a vapour permeable and airtight barrier at the sheathing board layer." On the performance of Wraptite on the project, Mark Skinnader commented: "The experience with Wraptite has been excellent. The material is extremely high quality and has provided an excellent weathertight seal to the building envelope. In addition, the self adhesive nature of Wraptite makes the installation much quicker and more efficient. Waste was minimal, and offcuts could be re-used. The A. Proctor Group also provided Wraptite Liquid Flashing for sealing around windows, another excellent product. I am now actively looking at Wraptite on several large scale projects." The Wraptite system is the only self-adhering vapour permeable air barrier certified by the BBA. It combines the critical properties of vapour permeability and airtightness in one self-adhering membrane.

01250 872261 www.proctorgroup.com

MASTERING COMPLIANCE: HOW SUPPLIERS CAN HELP WITH PARTS L & F

To create a 'stepping-stone' towards the mandatory Future Homes Standard in 2025, changes to Part L & F of the Building Regs came into effect in 2022. Colin Wells of Keylite Roof Windows discusses how window manufacturers can help housebuilders produce the required uplift in energy efficiency.

With several changes made to the Building Regulations in England and Wales last year, including additions to 'Conservation of Fuel and Power: Approved Document L' and 'Ventilation: Approved Document F', housebuilders have been looking for products that take the headache out of compliance by ensuring they meet current requirements.

The purpose of Part L is to ensure energy efficiency in buildings, with new and existing homes in England now being subject to higher building performance targets in an interim step towards the Future Homes Standard – which is due to arrive in 2025.

When it comes to heat loss, one of the biggest issues for housebuilders is thermal bridging, meaning an area of a building construction which has a significantly higher heat transfer (loss) than the surrounding materials. One example of where this would occur is with junctions around windows, including roof windows.

If this area is not insulated it can lead to cold bridging on roof windows; this is where the gap between the roof and window is left exposed to the temperature differentiation between the outside and inside, which can eventually lead to condensation and mould.

Some manufacturers have designed features that reduce the possibility of this occurring, ensuring products are designed in such a way that housebuilders don't have to consider the 'gap.' These features help eliminate thermal bridging, which reduces the risk of non-compliance,

IT IS VITAL THAT HOUSEBUILDERS SPECIFY PRODUCTS THAT HELP MITIGATE THE GAP BETWEEN PERFORMANCE ON PAPER, AND THE ACTUAL PERFORMANCE OF A BUILD

and delivers a build that is closer to the expected energy performance.

However, while a product may say it meets Part L or has a certain U-value, this may not be the case once it is installed. Therefore, it is vital that housebuilders specify products that help mitigate the gap between performance on paper, and actual performance of a finished build.

A patented Integrated Expanding Thermal Collar has been developed to ensure the thermal integrity of the window and roof is as designed, thus removing the reliance on an additional collar and helping achieve Part L requirements. It also improves airtightness and psi-values for SAP, further helping housebuilders.

In another move towards the Future Homes Standard, last year's update to Approved Document F relates to improving ventilation in homes. With a drive towards more energy efficiency, homes are now designed to be insulated and as airtight as possible to reduce draughts and avoid heat loss. The result of this is an increase in the retention of moisture in the home with a lack of air circulation and a need to maintain healthy air quality.

To balance any lack of natural ventilation, mechanical ventilation and/or background ventilation are made requirements for new homes under the updated Building Regulations. Now, when housebuilders specify new windows in their new developments, trickle vents must be installed, or sufficient background ventilation must be provided by other means.

Once again, Part F requirements for background ventilation are supported thanks to innovations such as a window top handle which allows for controlled trickle ventilation when the window is fully closed and securely locked. The National House Building Council (NHBC) will not accept other window types that provide background ventilation by being latched in the partially opened position.

This year also saw an update to 'Overheating: Approved Document O', specifically paragraphs 3.8 to 3.10 'Protection of Falling,' which states that openings which are intended to be open for long periods to reduce overheating risk might pose a higher risk of falls from height.

Again, some window manufacturers have taken the initiative, design product features that help support housebuilders who urgently need to find answers to meet this latest update to Building Regulations.

Colin Wells is head of technical at Keylite Roof Windows

Introducing the brand new Rio flush fit door range.

The latest addition to REHAU's Rio Flush fit range comes the introduction of the Rio flush fit door system. This new door innovatively uses Rehau's deep bottom rail section, which was developed to complement the original window system, as a flush door sash. Available as a single open-out door and French doors. Both designed to provide a consistent aesthetic to homeowners wanting matching window and doors.

Flush fit doors...

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This brand new door range with its appealing bespoke look, also provides the durability, outstanding energy efficiency and security benefits which is already associated with the Rio flush fit window frames. Get in touch today to find out more.

Kinder, Kinder & Kinder: Sapphire's Next Generation Balcony is revealed

Balcony manufacturer Sapphire Balconies has unveiled their most sustainable balcony product yet, quickly gaining a reputation as a 'kinder' next generation of Balconies.

Sapphire Balconies unveiled the Next Generation, their most sustainable suite of balcony innovations to date, at the Resibuild Vision Construct event in Wembley. Included amongst their developments are a reduced weight frame, a more sustainable framework, increased aesthetic possibilities and developments that make the Next Generation Balcony safer for installers thanks to multiple-award-winning technology, such as their patented Remote Locker Device (RLD) and Passport® digital traceability and quality control app.

Expected to be a game-changer for the external envelope space, Sapphire's Next Generation Balcony is touted as being lighter, safer, having more possibilities and being kinder. The Next Generation balcony is lighter due to new Cassette® engineering. This allows for less structural load back to the building and less raw material. The Next Generation is safer thanks to new forms of installation equipment including Sapphire's patented Remote Locker Device (RLD), ensuring that installers can fit the balcony from within the building. More possibilities than ever before are available, with new connection methods like the Clip-On™ connection, new Cassette® options like the Crescent Corner™ and new balustrading choices such as the customisable Identité Balustrade, patterned vertical bars and more. Finally, the Next Generation balcony is kinder – thanks to Sapphire's brand-new G60 anchor, the Clip-On® connection and a reduced carbon Cassette, the embodied carbon present in Sapphire's Next Generation range has been reduced significantly. LCA EPDs indicate the Next Generation suite is likely to be the most sustainable aluminium balcony on the market.

Sapphire's Head of ESG, Nick Haughton, spoke on the benefits of the Next Generation suite, elaborating on his excitement. "It's really exciting to be launching a new product that has EPDs demonstrating such a reduction in embodied carbon. At the core of this reduction is smart engineering and, for me, the fact that it's safer and gives more possibilities is a triple win for designers.".

Ger Hayes, Managing Director of Sapphire installer John Sisk & Son's, spoke on the reveal of the Next Generation suite upon its reveal, saying: "Sapphire are probably one of the most innovative companies we work with" and that working with Sapphire's Next Generation suite on the NE02/03 development in Wembley has helped them to deliver "the most sustainable, low-embodied-carbon and

efficient residential development [they] have ever delivered". Mr Hayes went on to describe how proud he is of the relationship between Sisk & Sapphire and that the Next Generation balcony was "revolutionary" for the residential construction market.

Sapphire's Next Generation balcony features a significant 19% reduction in CO2 across stages A1-A5, making it the lowest-carbon and most sustainable balcony in Sapphire's 31-year history. In early stage project analysis the balcony has been found to reduce over 6,000 tonnes of weight from 50-storey towers. The new Clip-On anchors have been optimized by Sapphire's engineering team to allow the reduction of moment forces back to the building to as low as 4kNm.

0344 88 00 553 www.balconies.global

THE WHOLE PACKAGE

As sustainability becomes a key priority in anticipation of 2025's Future Homes Standard, product specification becomes more challenging, not least for roofs. Stuart Nicholson of Marley explains how providing a single point of contact can help housebuilders produce energy-efficient, low carbon housing

The news that installations of solar PV panels on UK property roofs has risen by 40% over the past five years and by 15% in the last year alone, according to government data released by the Office for National Statistics (ONS), is further evidence of a shift towards a more sustainable approach driven by the net zero challenge and consumer demand. Indeed, solar PV is now the second largest renewable energy generator after wind.

For housebuilders, as they create new homes, or undertake refurbishment projects, the policy changes to Part L and Part S of the Building Regulations are driving the uptake of system-led renewable solutions that contribute to the building of energy efficient and low carbon homes.

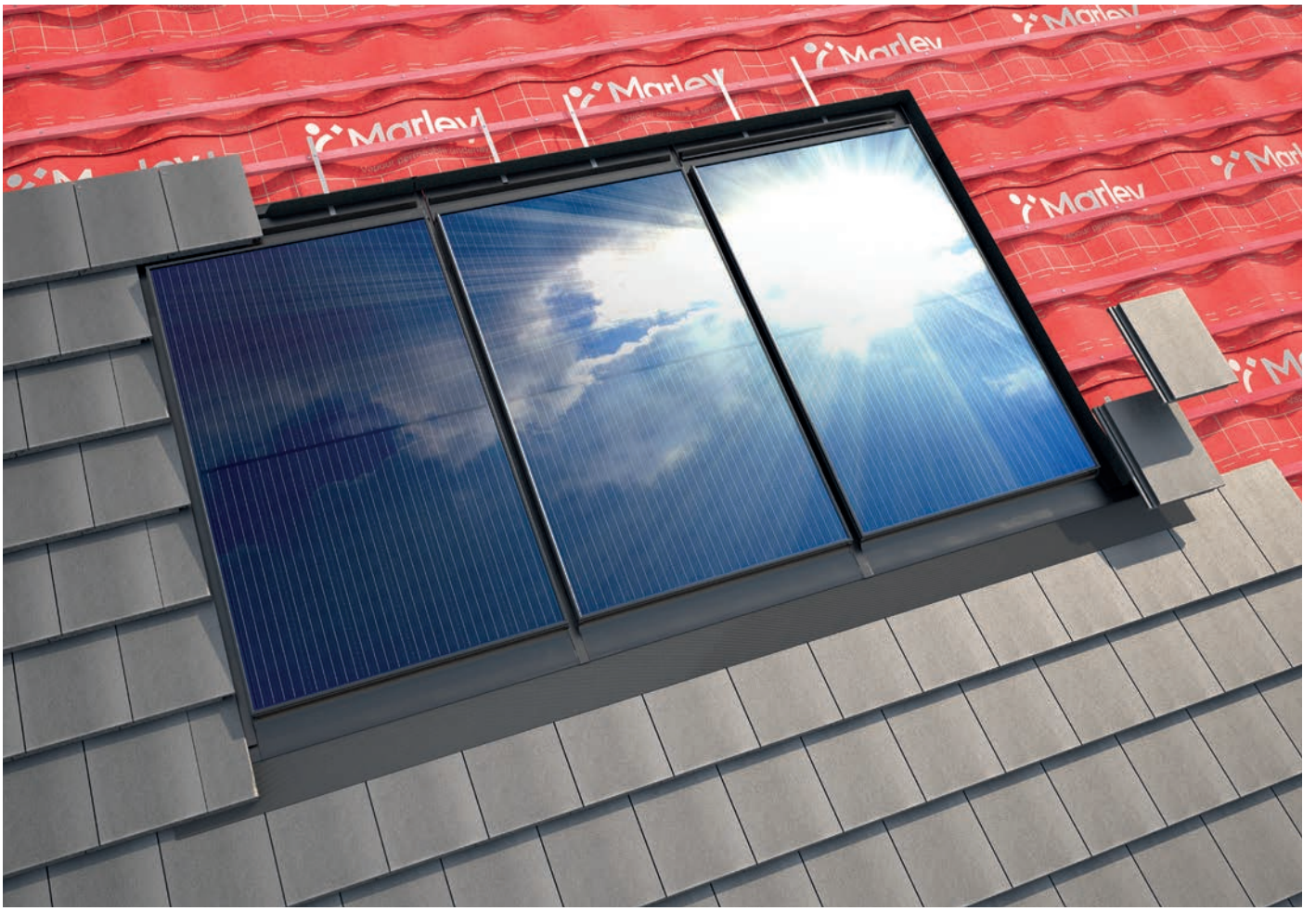
And there are increasing indications that homeowners are opting to purchase homes that can offer a full package of renewable solutions to underpin a more sustainable approach and do their bit to help tackle the climate emergency.

The inclusion of renewable systems that include solar on the roof, heat pumps to provide low carbon heating and charging points for electric vehicles, are now not just 'nice to have' options, they are deemed by many would-be house purchasers to be essential.

The focus on renewables is also reinforced during a time of escalating energy bills. The source and cost of energy generation in the home is now a subject of widespread interest and concern for many consumers. As a result, potential buyers want to see housebuilders help them address future energy-related costs, and this presents a real opportunity for companies to differentiate themselves in the market.

And it is easy to see why the built environment has such an influence on how the UK is responding to the net zero challenge. According to The Climate Change Committee, it accounts for around 40% of UK greenhouse gas emissions, with approximately 14% coming from 28 million UK homes. As a major contributor to carbon emissions, the need to make the nation's housing stock more energy efficient is pivotal to net zero success.

Such market drivers are also seen in the context of preparation for the introduction of the Future Homes Standard in 2025. At that point, all housebuilders and developers will be required to ensure



new homes are specified and constructed to be highly energy efficient, use low carbon heating solutions, and be zero carbon ready.

Solar PV is expected to play a central role when the finalised specification templates are released, and the housebuilding sector will have to respond accordingly. The ONS figures perhaps underline that a rooftop revolution is already underway.

In addition (according to Zap-Map), there are now around 850,000 full electric and a further 530,000 plug-in hybrid vehicles on UK roads, and the adoption of electric powered transportation is well underway. For such drivers, the convenience and cost saving benefits of home charging facilities are important. EV charger solutions can also be the answer for housebuilders looking to comply with the requirement of Part S of the Building Regulations, which requires all new homes with parking to have EV charging capability.

As housebuilders take strategic decisions to ensure they comply with new building standards, and try to satisfy consumer sentiment for sustainable solutions, it is important they are fully aware of the array of roof-related, system led renewable technology solutions as part of a full system, which are now available to deliver real energy efficiency and long-term sustainability gains.

Meeting sustainability objectives will be an area of growing focus for the housebuilding sector through 2024 and in the lead up to 2025 industry responses that include single source packages of renewable technology system support will be valuable.

This means 'one stop shop' solution availability to help housebuilders, many of whom will not have the time available to source from a multitude of suppliers for the varied components that make up a high performing and sustainable roof and other associated renewable technologies.

Specifying products like solar roof tiles means housebuilders can select the entire pitched roof system, with integrated solar, from a single source, making it easier to incorporate solar into any house type and helping to navigate a cost-effective route along the road to net zero. Some EV chargers also have the ability to be connected to solar panels on the roofscape so households can access clean, renewable, and cheaper energy in the home and power up their electric vehicles at the same time.

Integrated solar PV as part of a full roofing system to aesthetically pleasing and high performing EV home charging capability, are just two of the sustainable product solutions that can support the housebuilding sector as it transitions to a low carbon future.

Accessing such answers via a single source strategy based on a partnership with proven experts can be a smart business move as sustainable specification pressures and regulatory obligations mount for the housebuilder sector.

Stuart Nicholson is roof systems director at Marley

RENEWABLE SYSTEMS THAT INCLUDE SOLAR ON THE ROOF, HEAT PUMPS TO PROVIDE LOW CARBON HEATING AND CHARGING POINTS FOR ELECTRIC VEHICLES, ARE NOW NOT 'NICE TO HAVE' OPTIONS

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PLUG SUBBIE LIABILITY GAPS

Daniel Sunley at Clear Insurance Management discusses insurance best practices when engaging subcontractors, and addresses common misconceptions around liability to help developers ensure that their agreements protect their interests.

It's no secret that UK housebuilders are battling a shortage of skilled workers, and that the use of subcontractors is mitigating this to some extent, as main contractors turn to this flexible labour pool to boost their resources on construction projects. However, while this approach has gone some way to bridging the workforce deficit, it has also given rise to some confusion about insurance liabilities and with whom they ultimately rest.

The primary liabilities that insurance covers in this context are:

- Employer's liability for employees and for any persons for whom the subcontractor may act as 'labour master'
- Public and product liability for injury or damage to third parties or their property
- Professional indemnity insurance to cover financial loss to third parties because of an error or omission in executing the subcontractor's professional activities.

Legally, the main contractor is responsible to their client for completing the housebuilding project. To guarantee that this happens, all subcontractors must ensure that they have suitable liability insurance to undertake work on the latter's behalf. Additionally, the main contractor must ensure they have cover in place for any work done by the subcontractor. Both parties' policies must provide adequate cover for any work that is carried out, in all respects of a particular project.

THE GOLDEN RULE

On the face of it, this may seem like a duplication of costs and effort, but it makes sense. Should a relevant event occur concerning the subcontracted works, the claim will likely be brought against the main contractor in the first instance since they have a legal agreement with the client to carry out the work.

This point is critical, because if the main contractor fails to take out cover for the subcontracted activities, there is, effectively, no insurance cover. And without adequate cover, there can be no provision for legal defence costs or

IF THE MAIN CONTRACTOR FAILS TO TAKE OUT COVER FOR THE SUBCONTRACTED ACTIVITIES, THERE IS EFFECTIVELY NO INSURANCE COVER

for the costs of passing on the claim (subrogating) to the subcontractor and their insurer. So, the main contractor's and the subcontractor's insurance policies must be checked to ensure parity of insurance coverage before any work begins.

Too often, the main contractor only checks the subcontractor's insurance to confirm that it provides a public liability limit that corresponds with the main contractor's requirements. However, the subcontractor's policy must also cover all types of work and activity they carry out on behalf of the main contractor. The cover must also be in place for the duration of the work, and the insurance premium must be paid in full. Implementing a robust vetting process for subcontractor insurance is, therefore, of the utmost importance. Failure to do so could invalidate the main contractor's insurance policy and result in the non-payment of a claim.

In principle, the contractual terms under which the main contractor engages with their client should be replicated in the legal agreement with any subcontractors. Observing this golden rule can flush out detrimental clauses and waivers. To give an example, this preparatory due diligence could determine whether an agreement contains a waiver of subrogation. In practice,

such a waiver would prevent the main contractor from passing on a claim to a subcontractor presumed solely or partly responsible for a loss. Worse still, unwittingly agreeing to such a waiver could breach the main contractor's policy conditions.

A COMMON MISCONCEPTION

There is also a common misconception that liability ultimately lies with the subcontractor responsible for any work they undertake and not with the main contractor. However, If the subcontractor is not liable under the terms of an agreement, then the main contractor may have to shoulder the full cost of any claim. Bear in mind, too, that at the start of a housebuilding project, the main contractor will set parameters and provide direction to subcontractors regarding the allocation of work. They will communicate specifications, provide input and feedback to the client, and, in some circumstances, be charged with overall site safety and other responsibilities.

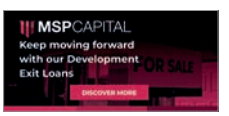
In these circumstances, it is unlikely that total liability for a given incident can be passed on to the subcontractor when it comes to the settlement of a claim – even if, at first sight, they should bear sole responsibility. In short, subcontracting work does not absolve the main contractor of liability should a relevant event occur.

CONSTRUCTION INSURANCE SPECIALISTS CAN OFFER ADVICE

Given the complexities, misunderstandings and potential pitfalls involved in insuring subcontractors, the main contractor should seek guidance from a construction insurance specialist from the outset. The main contractor's insurance requirements will, after all, depend on the specific circumstances of a housebuilding project and the workforce mix that it entails.

Daniel Sunley is account executive at Clear Insurance Management

The rise of property finance specialist MSP Capital



Established over 40 years ago, specialist lender **MSP Capital**, is recognised for its stability in the industry and ability to tailor bridging and development loans to fit the developer. In 2023 it expanded its team to meet rising demand and maintain the personalised, relationship-led service it's known for – increasing their workforce by 26%. The firm's success, including winning Non-Bank Lender of the Year two years in a row, stems from its ability to provide certainty and support to developers directly. Associate Director of Underwriting, Chris Sheppard states: "At our core we are a relationship-led business. That's why we have so much repeat and referral business. That's what makes the good specialist lender stand out from the regular lender."

info@mspcapital.co.uk **www.mspcapital.co.uk**

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Ultra high pressure jetting a concrete removal 'gamechanger'

A specialist team from drainage and wastewater specialist Lanes Group plc has prevented the need to partially demolish three houses by using a water jet to remove concrete from a sewer pipe.

The ultra-high pressure (UHP) jetting system, which powers the water jet to over the speed of sound, was deployed after the foundation concrete in the pipe proved too tough for conventional robotic cutting.

The only practical alternative would have been to excavate and replace the pipe, buried three metres beneath extensions built behind the row of nine terraces homes in Ilford, north east London.

That would have involved the extensions for three of the homes being all but demolished, then reinstated, with the occupants placed in temporary accommodation while the work was done.

Lanes carried out the UHP jetting project on behalf of Thames Water and has now used the technique to complete other challenging concrete removal projects for the water company.

Lanes Operations Manager Calvin May said: "This was one of the toughest concrete removal projects we've ever tackled, and involved contamination of a 150mm-diameter sewer.

"We believe the concrete may have been linked to a nearby building project. Foundation concrete is particularly hard and, in this case, had time to set solid, completely filling the pipe for 11 metres.

"We didn't make very fast headway with a robotic cutter, which works by grinding down the concrete, so we needed a different approach.

"UHP jetting turned out to be a gamechanger. It was over 20 times as fast as using robotic cutting and prevented the need for an alternative solution that would've been much more costly and disruptive."

It meant the concrete could be removed in 15 shifts, equivalent to three weeks' work.

Lanes, Thames Water's wastewater network services maintenance partner, developed a business case for using UHP jetting to ensure it would work and be cost-effective.

This led to the initial hiring of a UHP jetting system to ensure the concrete removal process was effective - not least because a tanker was having to visit the site every day to remove sewage building up behind the blockage.

Lanes selected a Falch UHP pump combined with an IMS Robotics jetting system, capable of delivering a water jet at 2,500 bar (over 36,000 pounds per square inch).

Six Lanes wastewater operatives underwent Water Jetting Association hydrodemolition training and equipment supplier instruction to give them the knowledge and skills needed to

operate the system.

The UHP jetting system has a jetting nozzle on the end of a hose encased in a flexible steel coil sheath. Once guided into the pipe, a packer is inflated with compressed air to hold the nozzle firmly in place inside the pipe.

A mini camera and powerful LED lights allowed the Lanes operative to then view the jetting operation, while controlling the nozzle with a joystick to direct it most effectively at the concrete.

The concrete was removed in one-metre sections, with the exposed pipe strengthened by installing a cured in place pipe (CIPP) point liner made from fiberglass matting, impregnated with resin.

Once the resin had cured, the liner created a durable new concrete-free pipe within a pipe, with a design life of at least 50 years.

0800 526 488 www.lanesfordrains.co.uk

Nuaire tackles residential overheating

Nuaire's Hybrid Cooling System is a cooling extension for its boxed-ventilation range designed to tackle residential overheating and provide a solution that meets Building Regulations. The system is an ancillary cooling module that works with the existing Nuaire MRXBOX MVHR products to provide a hybrid MVHR and cooling system – delivering clean indoor air, while combatting overheating – a modern day issue in many high-rise new builds. The new system is an energy efficient, space-saving solution that can be effortlessly integrated to newbuilds that face overheating problems; such as floor to ceiling glazed apartments where natural ventilation is impossible due to environmental and noise pollution outside, and dwellings which are without shade to protect them from the sun's heat.

02920 858500 www.nuaire.co.uk

A single source supplier, for maximum efficiency

Domus Ventilation is in the enviable position of providing customers with a single source for all their residential ventilation requirements. A new short video has been uploaded to its website that clearly explains the benefits of this approach for customers. Domus Ventilation manufactures high quality and solutions-based ventilation products that save energy and improve indoor air quality from its state-of-the-art production facilities in South Wales. A ventilation system designed and installed entirely from Domus Ventilation components makes for a highly efficient one, with smooth air flow and minimum energy usage.

03443 715523 domusventilation.co.uk

Panasonic leads the future of heat pumps

Panasonic Heating & Cooling Solutions is introducing its latest generation of Aquarea air-to-water heat pumps with the new M Series. Thanks to its new, modular concept, the M Series allows for more application choices offering different indoor units, available in All-in-One and Bi-Bloc, as well as full Control Box or Remote controller-only essential functionality options. The advanced new system utilises the natural refrigerant R290 for a more sustainable solution and includes Panasonic's first T-CAP R290 outdoor unit that features a new injection compressor. The M Series also has a hydraulic connection between indoor and outdoor units for simple and straightforward installation without the need for relevant refrigeration certification.

01707 378670 www.aircon.panasonic.eu

Vent-Axia launches Lo-Carbon Sentinel Econiq

Vent-Axia has launched its latest flagship Mechanical Ventilation with Heat Recovery (MVHR) system, the Lo-Carbon Sentinel Econiq. With the new Future Homes Standard on the horizon, which looks set to reduce carbon emissions for new build residential properties by a further 75-80% than current Building Regulations, the Sentinel Econiq is designed to provide low carbon heat recovery ventilation for air-tight thermally efficient new build homes. Helping housebuilders on their route to decarbonisation, the Sentinel Econiq offers exceptional efficiency, near silent operation and complete controllability, providing excellent indoor air quality (IAQ) and comfort for occupants.

0344 856 0590 www.vent-axia.com

HYDRONIC HEATING: A SOLUTION FOR NET ZERO BUILDINGS

Gary Perry of Altecnic explores the advantages of using hydronic-based systems for heating future homes that are targeted to achieve much lower energy use

There are many ways to provide space heating, cooling and domestic water heating in all-electric net zero buildings. They range from separate systems for each load, to integrated approaches that leverage energy recovery and energy management to minimise consumption and coordinate the needs of building occupants with the real time demand on the systems.

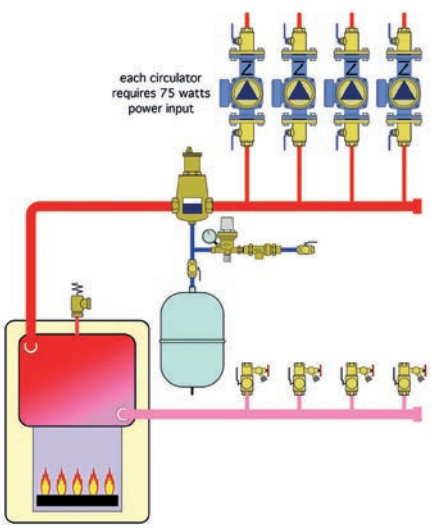
COMFORT FOR THE END USER

Firstly, looking at thermal comfort, history has shown that approaches to space heating and cooling that require sacrifices in comfort to achieve high energy-efficiency targets or absolute minimum energy use, usually fail to gain significant market share. The lesson is that end-user comfort continues to be one of the most important underlying factors in establishing and maintaining a market for building energy systems.

Comfort is established when the conditions surrounding the body allow metabolic heat production to be dissipated at the same rate it is generated. Some degree of discomfort is experienced when these two rates of heat transfer are not balanced.

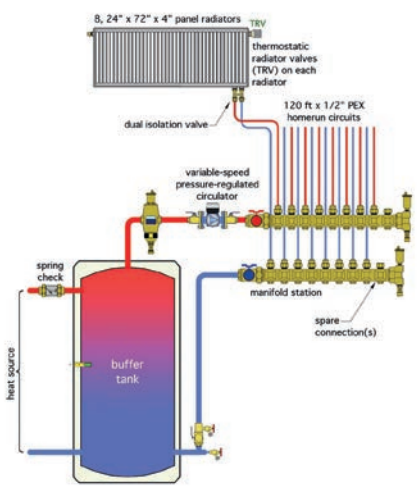
Several types of hydronic distribution systems simultaneously influence air temperature, temperature stratification and surface temperatures of rooms in ways that enhance human physiological comfort. Air-based delivery systems have less influence on interior surface temperatures and can create undesirable drafts or air temperature stratification. As such, they are not as well matched to human comfort needs.

Acoustic comfort is also increasingly important – people want their home to be a quiet refuge from the pace and noise of modern life. They don't want to hear sounds emanating from their heating and cooling systems. Properly designed and installed hydronic systems



Traditional hydronic heating system

using radiant panels or panel radiators can operate with virtually no detectable sound within occupied spaces. The sound produced by the source equipment, such as the compressor in a heat pump, is



A 'homerun' hydronic distribution system

either outside the building or it can be acoustically isolated within a designated plant room.

DISTRIBUTION EFFICIENCY

Professionals who design low energy and net zero buildings apply scrutiny when selecting the source equipment that supplies space heating, cooling and domestic hot water. They often limit selections to state-of-the-art devices with the highest available thermal efficiencies.

While this approach is certainly relevant and logical, it is also incomplete. The energy used by the source equipment, be it a boiler, heat pump or chiller, is only part of the total energy used by the system. Regardless of how heating energy or cooling effect is generated, additional energy is needed to distribute that thermal energy within a building. Treating this 'distribution energy' as insignificant or inconsequential is a serious oversight in the design process, especially when the objective is to create buildings that minimise energy use.

The energy required to distribute heat produced by any heat source, or the cooling effect generated by any cooling source, should always be considered when designing a heating or cooling system for a low energy or net zero building. Systems that use a significant amount of energy to move heat from where it is produced to where it is needed in the building are undesirable, even if the thermal energy is produced at high efficiency by the source equipment.

Distribution energy is an even more important consideration for cooling systems. Every watt of electrical energy used to move the cooling effect through a building is a watt added to the building's sensible cooling load.

Designers should also consider that air-to-air heat pumps typically require higher air flow rates per unit of heat delivery compared to fossil-fuel furnaces,

and thus their distribution power requirement is higher, assuming the same blower motor technology in each device.

The higher the distribution efficiency, the lower the operating cost of the distribution system per unit of heat delivered. For example, consider a 'traditional' hydronic heating system that uses four small circulators, each operating on 75 watts input power, and collectively delivering 100,000 Btu/hr to the building. Assuming that all circulators are operating under design load conditions, the distribution efficiency would be 333.3 (Btu/hr)/watts.

A contemporary 'homerun' hydronic distribution system is well-suited for use in low energy homes, as it uses a high-efficiency variable-speed pressure-regulated circulator to create flow between the buffer tank and eight individually regulated panel radiators. Under design load conditions, the water leaving the buffer tank is maintained at 120°F, well within the operating range of an air-to-water or water-to-water heat pump, giving flexibility for designers as well as ensuring efficiency is maintained.

The author, Gary Perry of Altecnic

A SYSTEM DESIGNED TO LAST

Many professionals who plan buildings or HVAC systems are being asked to incorporate 'resilience' into their designs. The objective is to create buildings and systems that are reliable, long-lasting, adaptable and easy to repair when necessary.

For example, most of the components used in a properly designed, installed and maintained hydronic distribution system will last for many decades. They will outlast the system's initial heat source or cooling source, and perhaps even its second or third heat source or cooling source. Put simply, properly executed hydronic systems are long-term investments rather than 'throw away' technology. Contrast this with the typical service life of many modern appliances, such as refrigerators, washing machines and microwaves, some of which will not even last 10 years under normal service. Portions of those discarded appliances will inevitably end up in landfills.

Professionals who plan low-energy and net-zero buildings, or place emphasis on decarbonisation, environmentally conscious design, and resiliency, should carefully consider these benefits associated with hydronic heating and cooling systems.

Gary Perry is managing director at Altecnic

THE OBJECTIVE OF 'RESILIENCE' IS TO CREATE BUILDINGS AND SYSTEMS THAT ARE RELIABLE, LONG-LASTING, ADAPTABLE AND EASY TO REPAIR

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DF2E downflow fan heater launched

Consort Claudgen's new DF2E downflow fan heater offers many features including a 7-day timer with six temperature settings daily, open window detection, a digital lock, a large LCD screen, a digital variable thermostat, and a reliable battery backup to keep the clock running, during power outages. The heater continues its heating programme after power is restored. The heater offers quick warmth and allows you to choose between 1kW or 2kW heat output during the installation. For safety, the DF2E has an automatic safety cut-out and will stop operating if the fan or temperature sensor malfunctions. The DF2E heater makes an excellent choice for bathrooms and kitchens.

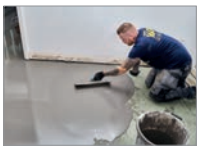
01646 692172 www.consortepl.com

Kinedo launches new Ekinox range

Kinedo has added another stunning range of walk-in shower enclosures to its shower portfolio in the shape of the stylish Ekinox+ range. The stand-out feature of the Ekinox+ range is the option of striking, coloured profiles such as the beautiful and unusual brushed cobalt blue aluminium profile and the vibrant copper or brushed stainless steel option. The Ekinox Solo is a simple glass panel option for an open showering area. It can be installed in a corner, in a recess or against the wall; the latter option requires 2 reinforcement bars. Ekinox Duo features a 180° pivot section to eliminate splash and can be installed with a choice of a chrome straight reinforcement bar or a floor-to-ceiling bar. The Ekinox Corner features a fixed panel for corner installations with the Ekinox Solo and Duo.

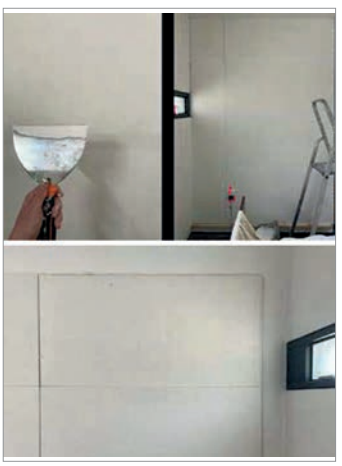
020 8842 0033 www.kinedo.co.uk

F. Ball smoothing compound raises the level



F. Ball's new Stopgap 1600 smoothing compound has provided a fast-track solution as part of the ground-floor refurbishment of a residential property. The surface was first primed with Stopgap P131, diluted with four parts water, before F. Ball's Stopgap 400 Repair was used to make minor repairs to the subfloor and raise the floor level. F. Ball's Stopgap 1600 fast-drying, fibre-reinforced smoothing compound was then applied. The product is formulated especially for use over underfloor heating systems and can be applied between 3 - 40mm thick to encapsulate electrical wired or water-fed systems installed over internal subfloors as part of new build or refurbishment projects in both domestic and commercial environments.

01538 361 633 www.f-ball.co.uk



Space saving insulation for 1970s building

Spacetherm® WL (Wall Liner) insulation from the **A. Proctor Group** is addressing the need for improving the thermal performance, and helping to reduce heating costs of a 1970s building with limited internal space. The original building, created by Benson and Forsyth, is a modestly sized one-bedroom flat. To make the space feel bigger, the architects created a split level, giving the majority of the space to the living areas and compromising on the size of the bedroom. The bedroom, essentially a little cube, juts out from the rest of the flat, meaning there are three external walls; it's also partially sunk into the ground. Additionally, above the ceiling is the pedestrian deck, so again, no insulation. All this amounts to a very cold room. Spacetherm WL is a high-performance laminate specifically designed to be fixed to the internal surfaces of existing walls without the need for mechanical fixings. Spacetherm WL consists of a Spacetherm aerogel insulation blanket bonded to a 3 mm Magnesium Board (MgO) for use in applications where improved thermal performance is required with limited space. At just 13 mm thick, Spacetherm WL has virtually no negative impact on floor space, there is no need to remove skirting boards and cornices, saving time and cost, and making it ideal for refurbishment projects where space is at a premium.

01250 872261 www.proctorgroup.com

HiB introduces the Rubin Mirror: The latest in mirror technology

HiB, a leading innovator in bathroom products, has unveiled the Rubin Mirror, a stunning combination of contemporary design and cutting-edge technology.

Setting itself apart with a distinctive design, Rubin blends style and practicality seamlessly. Equipped with state-of-the-art features, the mirror boasts the latest heat pad technology covering over 75% of the surface, reducing condensation for enhanced visibility.

The illuminated rectangular frame features colour-changing technology and three brightness levels, all controllable via touch-sensitive operations. This ensures the perfect ambiance for any task, making Rubin a versatile addition to modern bathrooms.

Available in two sizes (80cm x 50cm and 90cm x 60cm) and two finishes (black and brushed brass), Rubin can be hung in landscape or portrait, offering flexibility in bathroom design The mixture of curves and straight edges gives Rubin a distinctive, trendsetting pill shape.

Talking about the Rubin mirror, HiB Contracts Coordinator Sophie Watts said: "The Rubin mirror is ideal for a variety of bathrooms thanks to its size and finish options, but what really makes Rubin a showstopping mirror is its design. The use of negative space to create a layered design is really eye-catching and we hope our customers love it."

020 8441 0352
www.hib.co.uk/products/rubin-led-mirror-black

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Fibo wall panels in modular housing

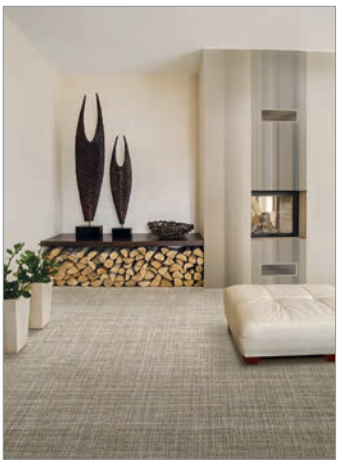
DMDmodular has recently achieved a significant milestone, successfully completing a fully energy-efficient housing project that tackles the industry's most pressing challenges, with **Fibo's** waterproof wall panels used throughout. Manufactured from layers of PEFC certified plywood and high-pressure laminate, Fibo's wall panels offer a sustainable alternative to tiles, with a carbon saving of 40%. The panels have been installed in a classic Denver White tile effect design, across areas where high-strength, durability and quick assembly were required, such as bathrooms and kitchens.

www.dmdmodular.com fibomodular.com

Keller embraces the rustic look

The New Country kitchen portfolio from **Keller** has been launched to reflect the ever-popular charm of the countryside in the home; natural textures, fresh green hues, and wooden elements, create a sense of comfort and calm. It's a style that blends traditional aesthetics with contemporary design and, as one of Europe's leading kitchen specialists, Keller provides the very best in terms of technical performance and durability. Keller is well known for offering the widest range of colours and finishes in the kitchen furniture market – along with a vast range of cabinet options, all produced by the most sustainable means possible.

www.kellerkitchens.com



A promise of conscious efforts from Riviera Home

For nearly four decades, **Riviera Home** has been making carpets in India's historic city of Panipat, known as 'the city of handcrafted weavers'. Using traditional techniques, its carpets are still made by hand using high quality natural yarns, including undyed wools, bamboo and Tencel, which is made with wood pulp from sustainable forests. Riviera Home produces every carpet ethically with a conscious effort to be responsible and is a GoodWeave® certified business. GoodWeave International is a non-profit organisation and the leading institution working to stop child labour in global supply chains. As a GoodWeave® business, every handmade carpet from Riviera Home is without child labour and supports education and decent work for communities. Riviera Home's by hand approach to making carpets is the anti-thesis of mass production, but the company still draws on modern environmental practices used to lower impact by large manufacturers. Using only non-toxic and safe chemicals approved by Oeko-Tex®, generating 20% of its electricity from its own solar field and conserving water through its own treatment and recycling plant; Riviera Home is leading ethical and sustainable handmade carpet production in its region. The Riviera Home collection is widely available through its Authorised Dealership network.

01299 871446 rivierahomeuk.co.uk

Glidevale Protect publishes Environmental Product Declarations for key ranges

Leading UK building products manufacturer Glidevale Protect has published third party, independently verified Environmental Product Declarations (EPDs) for three of its construction wall membranes to assist specifiers by providing clear sustainability and life cycle assessment data.

Created by One Click LCA and verified by the EPD Hub in accordance with EN 15804+A2 & ISO 14025 / ISO 21930, the product and factory specific EPDs do not contain average calculations and have been assessed cradle to gate with modules A1-A3, C1-C4 and D, with the life cycle analysis (LCA) published in accordance with the reference standards ISO 14040/14044. Detailing key environment impact data including global warming potential (GWP) calculations as well as total energy and water use, the EPDs form a transparent analysis of each product's carbon footprint to give full reassurance in specification.

The development of EPDs for Protect TF200 Thermo, Protect VC Foil Ultra and Protect TF200 demonstrates Glidevale Protect's continued commitment to and investment in sustainability. Protect TF200 Thermo is a reflective breather membrane for external walls which can enhance thermal performance and Protect VC Foil Ultra, a reflective air and vapour control layer (AVCL), offers low emissivity to enhance the thermal performance of internal walls, ceilings and floors. Both can be used together as a system to help maximise the energy efficiency rating of a building and control condensation risk. Protect TF200 is a high performance breather membrane, offering protection to external walls and minimising the risk of interstitial condensation.

Detailed EPDs help specifiers to understand a product's sustainability credentials when working to more stringent regulations such as Building Regulations Part L as well as whole building environmental assessment standards like BREEAM. EPDs quantifiably demonstrate the environmental impact of a product and data is independently verified and certified in line with internationally recognised standards, focused on the product's whole life cycle.

For more information, please email info@glidevale.com or follow Glidevale Protect on LinkedIn.

0161 905 5700 glidevaleprotect.com

THE TIME FOR MMC IS NOW!

Richard Smith of NHBC looks at lessons from the history of Modern Methods of Construction, and how the growth of offsite is being driven by the combined forces of housing shortages, the need for quality, and climate change

Modern Methods of Construction (MMC) have been considered the future of house building for some time. Yet, excluding Scotland, most new homes in the UK are still brick and block and factory-built housing remains uncommon.

The promised benefits of non-traditional and offsite construction are well documented: speed of onsite operations, fabrication quality, safer working conditions, material efficiency and reduced waste, and less noise and disruption for residents. However, enthusiasm for non-traditional construction methods has been anything but consistent.

Today, at a time of increased housing need and a country-wide skills shortage, the case for non-traditional housing is being made again. By looking back at the development of MMC we can learn lessons, make continuous improvement, and harness technological advances, such as digitally enabled design, to deliver high-quality, economical factory-made homes.

LOOKING BACK

There have been three previous periods of advancement in non-traditional house building techniques: after the First World War when there was a serious shortage of skilled labour, essential materials and industrial capacity the large-scale building campaigns seeking to provide homes after the Second World War combined with the Government programme to replace slum housing the shift towards industrialised building and high-rise construction during the house building boom of the 1960s and 1970s.

Interestingly each of these periods of development and Government-stimulated investment have been followed by a return to traditional techniques. There is no single reason for this, except the problem of mass production always applies – make a mistake once and you make it many times rapidly, so it becomes expensive to remedy.

However, there was extensive non-traditional housing output in the 1960s when government-promoted factory-built housing delivered in quantity, providing numerous homes. Unfortunately, much less emphasis was placed on quality and how housing at scale would integrate into the wider area and infrastructure, leading to a lasting negative perception.

LOOKING AHEAD

That is why, regardless of how homes are built, good practice principles of neighbourhood planning, housing design and construction detailing should be followed.

Promising systems made from various materials have been developed out of the early experiments, wider applications and specific innovations of the last century. But MMC alone does not guarantee fabrication quality.

Again, design underpins everything and investment at the early stages of a project can mitigate the risks of off-site construction. Detailed drawings and specification of all components, beyond that required in conventional construction, are also essential before manufacture begins.

Although prefabrication reduces time on site, care is still required for site operations that cannot be transferred to a factory. Indeed, where traditional construction interfaces with precise factory-assembled components, such as at the junction of the external walls and ground floor, it must be built to tighter tolerances.

Quality assurance checks by a third party are therefore key. Checks must take place throughout before products leave the factory, once they are installed on site and on the remaining site operations.

CONTINUOUS IMPROVEMENT

Anyone designing or commissioning off-site construction can work towards continuous improvement in MMC and should consider the implications of the need for investment in design, the choice and design of systems and site operations. And, of course, standards need to continue to adapt to meet the demand from industry. These areas are explored in the below paragraphs.

INVESTMENT IN DESIGN

Design should be based on established good practice principles regardless of how homes are constructed. Rigorous detailed design, resolving construction details and specifying all components is essential before manufacture can commence Lastly, a Quality Management System for MMC which is audited by a third party is essential to ensure good design.

CHOICE OF SYSTEM

When it comes to the difficult choice of which MMC system to opt for, the first priority is to choose the most appropriate construction solution for site constraints and planning requirements. You also need to understand and work with the characteristics and the limitations of different materials and technologies.

It's important to test material

assemblies as a complete system (for performance and durability as well as manufacturing operations). Also, prototype and test to investigate performance over wide ranging and seasonal variations (including extreme weather effects of climate change) and for the expected lifespan of products. Lastly, it's key to build in realistic tolerances to allow systems to be effectively and efficiently assembled.

SITE OPERATIONS

It's important to be aware here that manufacturer assurances and warranties do not remove the need for site supervision and checks. Consider sequence of assembly and allow for visual inspection of key construction details.

Other site-based factors that need bearing in mind are protecting the structure from changing weather conditions during assembly, and the need to build groundworks to tighter tolerances which will readily accept precisely engineered modules or panels.

CONSIDERING DIFFERENT APPROACHES

Sadly, there is no MMC method or material that is suitable for all sites and all building types.

Careful choices must be made between tried and tested traditional techniques and numerous innovative systems, considering both the general benefits of offsite construction and inherent characteristics depending on the material used. The suitability of different construction approaches or the combination of diverse technologies will depend on many factors. However, there are some recognisable affinities between the approaches and common site constraints as well as project types or tenures.

RIGOROUS DETAILED DESIGN, RESOLVING CONSTRUCTION DETAILS AND SPECIFYING ALL COMPONENTS, IS ESSENTIAL BEFORE MANUFACTURE CAN COMMENCE

With this in mind, there is no shortcut when commissioning and designing off-site construction systems. Early investment in design, appropriate choice of system and oversight of onsite operations is critical to deliver high-quality, long-lasting and stylish homes that meet the needs of their occupants.

If the lessons of the past are learned – basic good practice construction detailing is followed, a standard template is used but homes are responsive to their environment, and systems build upon and employ existing prefabricated building components – factory-built homes can benefit the industry, help address the housing crisis and contribute to tackling the climate emergency.

To find out more download the free NHBC Foundation report on 'Modern methods of construction: Building on experience' by scanning the QR Code.

Richard Smith is head of standards, innovation & research at NHBC

Introducing the new RJ007 slimline letterplate for FD30 & FD60

Lorient is delighted to offer a new slimline fire & security rated letterplate into its door hardware protection range. When letterplates are added to fire doors; elements of the fire-resistant door core are removed and replaced with ironmongery which has a higher thermal conductivity. This can create a weak point in the door, where fire can take hold and affect the integrity of the doorset. That's why fire-rated ironmongery must be used on timber doorsets and be tested to a relevant standard – often accompanied by an intumescent kit. The new slimline RJ007 letterplate from Lorient combines fire and security performance with functionality and aesthetics. Designed to meet the exacting security standards of TS008:2015, it is tested to withstand a series of physical tests based on the common methods of burglary. It features an innovative pivoting stay mechanism that reduces the opening to 37 degrees for protection against key 'fishing' and lock manipulation. The RJ007 can provide up to 30 and 60 minutes fire resistance and is tested in accordance BS 476-22:1987; and smoke tested in accordance with BS EN 1634-3:2004. It is CERTIFIRE (CF5688) approved from Warringtonfire Testing & Certification Limited; and is TS008: 2015 accredited and Document Q and PAS 24:2016 compliant.

01626 834252 www.lorientuk.com

Class 1 Magply boards withstand real life fire test

A potentially catastrophic blaze, which consumed the garage containing a parked vehicle adjoining a £1M house in rural Surrey, was stopped in its tracks thanks to the use of 12 mm A1 non combustible **Magply** being chosen as the render substrate board on the contract. The property was constructed using a Structurally Insulated Panel system construction (SIP) with A1 non-combustible Magply being used on the exterior of the building as the substrate panel for the proprietary render system. Magply is a multi-use A1 non-combustible board with an impressive library of testing for fire applications, in the offsite and timber frame sector the board is designed and specified to contain fire and support the emergency service with added crucial time!

The Contracts Manager for Fullers Plastering, James Corlett, commented: "The fire-resistant qualities of the Magply boards saved the day. We had utilised Magply as a render-backer on a number of projects before being awarded the contract to apply K-Rend to the half dozen homes here and have always been very pleased with the performance. It is an easy board to cut and fix, while we can now definitely confirm to clients that it fully complies with the fire requirements for domestic and commercial buildings."

01621 776252 www.magply.co.uk

New Marmox Fireboard offers ideal EWI and IWI substrate

Marmox has introduced the highly versatile Fireboard into its range for both internal and external wall insulation (IWI/EWI) applications. The Marmox Stone Wool based product shares the unique Marmox honeycomb surface structure with its XPS forerunner, Multiboard, to create an A1 non-combustible certified render-backer which is fully waterproof. It can further be used internally across walls or ceilings to take a plaster finish, while providing sound decoupling and acoustic absorption properties, as well as thermal insulation. The 600 x 1,200 mm Fireboards are available in thicknesses from 20 mm up to 200 mm and with the polymer modified mortar honeycomb coating on one or both faces. With a nominal density of 150 kg/m3 the boards' core material offers a compressive strength of 90 kNm2, making it three times stronger than standard mineral wool. The Marketing Manager for Marmox, Grant Terry, commented: "The introduction of Fireboard into our range significantly enhances our offer to the construction industry, meaning we have an A1 non-combustible backer board for internal or external use, which can safely be used across masonry as well as timber or steel framing systems. The Stone Wool the boards are made of is formed of molten rock, meaning it is impossible for the fibres to absorb moisture, so they will not degrade no matter what weather they are exposed to."

sales@marmox.co.uk www.marmox.co.uk

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THE 'THIRD' WAY TO PROVE BUILDING SAFETY IS BEING NEGLECTED

Helen Hewitt of the British Woodworking Federation's Fire Door Alliance warns that third-party certification of fire doors is lagging, despite the emergence of the Building Safety Act and greater awareness of the importance of specifing third-party certified fire doors.

Since the introduction of the Building Safety Act in 2022, those with responsibility for fire doors and other fire safety systems in a building are held to a far greater level of accountability. Higher standards are now demanded over the way buildings are designed, constructed, and maintained.

When it comes to fire doors, third-party certification – the process of testing and verifying a fire door's design, performance, manufacturing process and assurance of procedures – is a ready-made solution to ensuring compliance with the new legislation. It is the only way to be certain over a fire door or doorsets performance in the event of a fire.

So, what are the advantages of fire door third-party certification for housebuilders and developers, and how well are these advantages currently understood?

KEY BENEFITS

Not only does third-party certification provide crucial evidence that a fire door is fit for purpose, it helps organisations in complying with regulations. The key advantages of third-party certification are:

TRACEABILITY

Third-party certified door display labels or plugs offer traceability throughout the construction supply chain, including important information about the door's component parts.

TESTING

All fire door designs should be tested to BS 476 Part 22 or the European equivalent BS EN 1634 Part 1 by a UKAS-approved test facility. Each fire door design must be tested as a complete assembly at least every five years, and annually for high-volume products.

AUDITING

All members involved in the manufacture and conversion of fire doors, or their associated components are audited annually by their certification provider. The aim is to ensure that fire doors or components use the same materials identified in the original test for that specific design.

QUALITY MANAGEMENT

The order management, design and manufacturing processes are assessed. A quality management system following the principles of ISO 9001:2015 and a Factory Production Control System (FPCS) are requirements of the BWF Fire Door Alliance to ensure that standards are consistently maintained.

TRAINING

All staff involved in the manufacture and sale of fire doors or components are required to undertake regular training to ensure they understand the latest Building Regulations and can offer correct advice to their customers.

AWARENESS OF THIRD-PARTY CERTIFICATION

Recent research from the BWF Fire Door Alliance found that awareness of third-party certification among those with responsibility for fire doors has increased since 2022, when the new legislation was first introduced. The primary reason that third-party certified doors are specified is to provide robust proof of performance. This was only the third priority when

we last carried out research in 2022, highlighting a wider understanding of the role third party certification can play in achieving compliance.

Despite improved understanding over third certification and its benefits, other approaches – which don't offer the same traceability and reassurance over performance – are still being adopted. An increasing number of those with responsibility with fire doors also look to fire test certificates as proof of performance, but these are simply one-off test results. They don't offer the guarantee over repeatability or manufacturing consistency that third party certification does.

CHOOSING THIRD-PARTY CERTIFIED FIRE DOORS

Concerningly, growing awareness of third-party certification and greater intention to specify third-party certified doors hasn't yet translated into greater uptake.

So, what are the main reasons for this? With pressure on budgets, it's unsurprising that cost is the barrier cited by most. Rising inflation rates and other spending pressures are undoubtedly creating a challenging environment for the construction industry to work within. It's important however not to solely consider cost, and instead assess overall value of building products.

Third-party certified doors provide evidence that the responsible person has fulfilled their duties under the new regulations. The cost of failing to ensure these safeguards are in place can be significant for those responsible for a building's safety, and those involved in their design and construction.

THE PRIMARY REASON THAT THIRD-PARTY CERTIFIED DOORS ARE SPECIFIED IS TO PROVIDE ROBUST PROOF OF PERFORMANCE

THE IMPORTANCE OF CORRECT INSTALLATION

While third-party certified fire doors can offer many benefits, they will not perform as they are designed to in the event of a fire if they haven't been installed correctly. Installation of a fire door is as critical as the product specification and should only be carried out by a competent individual who's trained to install fire doors. A fire door should always be supplied with installation instructions from the manufacturer that are specific to the particular product.

There are several factors to consider when installing a fire door, including:

- Checking compatibility: The certification information needs to be checked to ensure that only compatible ironmongery and intumescent seals are used which are conformity marked when required.
- Glazing apertures: Ensure they are never cut on-site as this will invalidate the fire door's certified status, and to always ensure the gap between the edge of the door and the frame is not too large.
- Frame specification: It is important to ensure that the frame specification is correct for the door's fire rating and that the Building Regulations are strictly adhered to.
- Quality assured training sessions: For those new to fire door installation, it's vital to seek such quality assured training in order to be able to demonstrate competence.

The only way to be certain that fire doors and door sets will perform as they are intended is through third party certification, and we believe it should be a minimum requirement for all fire doors and doorsets. We would urge developers to fully explore its benefits in order to create a new benchmark for building safety in the UK.

Helen Hewitt is chief executive officer of the Fire Door Alliance (FDA) – part of the British Woodworking Federation

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ALLEGION

CCF ASFP passive fire experience

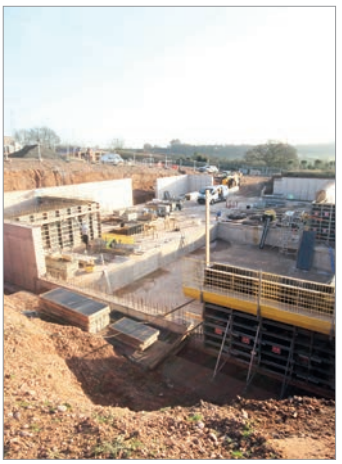
CCF is providing a series of ASFP passive fire protection product training sessions for its customers at CCF branches across the UK. The Association for Specialist Fire Protection (ASFP) mobile classroom is scheduled to visit five CCF branches in Harmondsworth, South Ruislip, Cardiff, Exeter and Southampton this autumn. With three sessions planned at each branch, CCF is aiming to bring this training opportunity to as many as 150 customers. ASFP is a leading trade association for the passive fire protection sector and its aim is to bring together passive fire protection manufacturers, contractors and certification bodies to encourage, develop and give guidance on essential standards in passive fire protection.

technicalteam@ccfltd.co.uk www.ccfltd.co.uk

West Fraser's new guide for builders

West Fraser UK has produced a guide which makes the selection process simple and speedy. With imports from Eastern Europe, China and South America muddying the water somewhat, the builder can be sure that West Fraser's products carry the necessary standards and quality marks for the UK and so comply with UK building specifications. In addition, the transport and environmental costs are minimised. The product portfolios comprise SterlingOSB Zero OSB3, SterlingOSB Zero T&G, CaberFloor P5, CaberDek, CaberShieldPlus, CaberMDF and the newest addition to the range, SterlingOSB Zero PrimedPlus, and all are net carbon negative while the SterlingOSB Zero range contains no formaldehyde.

uk.westfraser.com/housebuilders



Triton Systems tank waterproof behemoth basement

The creation of an extensive basement complex that has taken a year to construct and which extends beneath an access road to link the main property with a separate building, is making use of multiple waterproofing products from the range of **Triton Systems**. The 900 m^2 across main house tunnel and adjacent house reinforced concrete sub-structure to what will be a six-bedroom private residence, with amenities including a swimming pool and gym, has been excavated and formed by Beautiful Basements, in a contract valued at £800K. The contractor has had to deal with some difficult ground conditions and the sloping topography of the land which was once stables, and offers views towards the outskirts of Birmingham. As well as using Triton's formable rubber Adcor and CEMflex steel waterbar products to provide continuity between the multiple sections, all of the ready mixed concrete supplied to the site by Flomix Concrete also incorporates Triton's TT waterproofing admixture. The Managing Director of Beautiful Basements, Andy Parkes, commented: "This has been a long and complex contract but it is progressing well. We always use the Triton membranes and perimeter channels as our go-to solution for these sorts of contracts, as we have enjoyed an excellent working relationship with the company going back more than a decade."

info@tritonsystems.co.uk www.tritonsystems.co.uk

POWERING UP THE FUTURE OF EV CHARGING

As the UK prepares for a net zero future, and Part S of the Building Regulations homes in on electric vehicles (EVs), housebuilders are grappling with the various practical issues around providing charging for residents of all new homes. Electrical wholesaler Rolec EV discusses the finer points of EV charging.

Electric vehicles (EVs) are becoming more affordable and practical, and the UK Government has set ambitious targets to phase out the sale of new petrol and diesel cars by 2030. With increasing interest from consumers and businesses, the future of the EV industry is looking bright.

This shift towards electric transportation is expected to have a significant impact on the electrical installation industry in the UK however, as the demand for EV charging infrastructure increases. How can you take advantage of this increased public interest in installing EV charging points, and what do you need to know that can help you provide the best experience for your customers?

CHANGES TO REGULATIONS

It is not new to suggest that more needs to be done to tackle the current climate emergency. The push for rapid decarbonisation can be felt throughout the UK and expands even further into the world. It's something that many national leaders are tackling through legislative and regulatory changes.

One of the newest developments in the UK Government's road to net zero is the new Part S of the Building Regulations. This is a requirement for all new build commercial and residential properties to have access to an EV charge point, an ambitious plan that accompanies the Government's transition to 'full-EV' by 2030. Alongside these regulations, they outlined certain expectations for new EV technology, to maintain a level of quality.

Along with the recognised standard features of a charge point (a minimum output of 7 kW and a universal power socket) the Government has also introduced 'Smart Chargepoint Regulations'. Scheduled charging is one of the key things to look out for; introduced to reduce strain on the grid by encouraging users to charge during off-peak hours. Compliant units manage this via an online app, which also gives the user full control of their charger. Furthermore, in line with the December updates to these regulations, EV charge points now must have upgraded security measures, such as built-in tamper alerts.

EV CHARGING IN A COST OF LIVING CRISIS

Price is often the deciding factor between whether someone chooses to switch to an EV or not. It'll be no surprise then that the number one best thing about the EV experience for personal lease drivers was low running costs. If we relate this cost back to EV charging, we can see people are opting for more affordable units that offer them cost-saving potential.

This is not lost on the commercial side of the industry, where many have adopted public-facing EV charging as an additional revenue stream. Helped along by sophisticated chargepoint design and back-office management systems, generating passive income from EV has seen an increase. Tariffs can be personalised for public or staff charging.

Opportunities for revenue have only been amplified by the increased introduction of DC rapid chargers, at a time when electric car drivers have been showing increased interest in dedicated charging hubs with amenities like coffee shops and free Wi-Fi. These two factors combined have opened potential for massive infrastructure growth.

Making the decision to install a rapid charging unit is dependent also on the cost of the unit compared to site traffic.

Additionally, during the current cost of living crisis, solar panels have been crucial in empowering people to pursue energy independence. For this reason, solar compatible units are gaining popularity. Familiarising yourself with this type of install would be of benefit as the market shifts towards green energy sources and people seek further independence from the grid.

INSTALLATION CONSIDERATIONS

As the demand for EV charging infrastructure increases, it is essential that installation is made as simple and easy as possible. In the past, installing EV charging points was a complex and time-consuming process, requiring significant planning and co-ordination. However, more and more EV charging units have been designed with the installer in mind.

Convenience is the key. By incorporating PME fault detection technology, the installation process can be streamlined, the risk of faults can be reduced, and the overall reliability can be improved. In-built PME fault detection has been invaluable in achieving this, since it means the unit won't need an earth rod to be installed, which means less hassle for the installer and less disruption to the customer.

Another consideration is the use of smart charging technology, which allows for remote monitoring and control of

your charge point. This technology can be integrated with other smart devices, such as your phone, so that you can receive live updates and alerts. Smart Charging units also allow for dynamic load balancing, monitoring the property's overall electrical usage and adjusting the power to the EV charger accordingly, protecting the property's main fuse. Increased use of modular units that can be easily installed and expanded is likely as demand for charging infrastructure grows.

LOOKING TOWARDS THE FUTURE

Making EV charging available to everyone, although necessary, has its own unique challenges. Houses were not built with EV charging in mind and don't always have a standardised energy supply. However, there are ways to manage this challenge. For instance, opting for a unit with an internal Amp selector will give you the option to down-rate the charger to match the available supply.

In terms of longevity, universal socketed tends to be the unit of choice, as tethered cables, although convenient, may not be compatible with all EV s on the market. Meaning users would potentially have to replace their charger if they got a new car or if a new person moved in with an incompatible connection. This, however, will become less relevant as older connections are phased out, as it is only certain models that still use the CHAdeMO connection.

ELECTRIC VEHICLE CHARGE POINTS MUST ALSO HAVE SECURITY MEASURES SUCH AS ANTI-TAMPER ALERTS

As long as you have confirmation of which BEV or PHEV will be used at a property, tethered may be the right choice for that site. It's all about making an informed decision for your client based on the information you have.

GETTING THE BACK-OFFICE MANAGEMENT SOLUTION RIGHT

When it comes to EV charging, it doesn't just end with hardware. Apps have been created to specifically aid in the set-up of new charge points, giving you a step-by-step guide with easy-to-follow instructions. During the configuration, you will be prompted to input which back-office solution the customer has chosen for their charge point management, from a range of App suppliers with proven compatibility.

There are many back-office management solutions offering increased functionality to their users and these features can also be beneficial to contractors. By providing remote monitoring and management for example, you can receive live updates if a unit experiences a fault.

Back-office partners provide real-time status and analytics. This can be used to optimise the charge point, identify trends and patterns, and provide insight into user behaviour. It helps you to make data-driven decisions on how to improve infrastructure and meet the needs of customers.

Installers also get access to a lead generator with up-to-date information on charge point projects opening in your area, and the opportunity to bid for them with a trusted back-office system.

Avoid late night call outs by offering your customers access to the back-office partner's 24/7 support network. This will manage customer queries and concerns should something come up following your installation. This feature helps to manage charge point infrastructure more efficiently, resulting in improved customer satisfaction, increased revenue, and reduced maintenance costs.

Article supplied by Rolec EV

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