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FROM THE EDITOR



Norman Foster has extended an invitation to the newly-crowned, but famously traditionalist King Charles III, to discuss the “benefits of change” when it comes to designing buildings. This could be a fascinating meeting if it actually takes place, given the history of Charles’ relationship with the architecture industry, some of which has been pretty bloody.

They probably share much in common when it comes to sustainability and building efficiency, but the means of how to get there might see them differing hugely. They fought head to head when RSHP was attempting to redevelop the Chelsea Barracks, and the wounds may still be raw. In 2009, having taken the scheme through significant amounts of local consultation, the then Prince of Wales is believed to have pulled the project.

This move saw big names (along with Foster, David Adjaye, Zaha Hadid, Renzo Piano and Frank Gehry) joining forces to directly ask the Prince to change his mind, to no avail. But Lord Foster now wants to speak to the King about how to produce “healthier architecture and architecture which is more sustainable.” Foster will want to talk directly about how cities respond to climate change, and that may include new forms of planning and buildings which the King might need to take a deep breath before responding to.

Perhaps there is a happy medium between the tradition of Poundbury and Foster’s hi-tech? As I mentioned last month, maybe the growth in renovating, adapting and reusing older properties could be where a balance is found between the devotees of engineering-led, high performance structures, and the historically-inclined conservationists for whom the decoration is everything.

I feel that ‘fit for the future’ will increasingly mean retrofitting appropriate properties, not building new. Many commercial clients are already embracing this, partly as adaptive reuse means buildings are faster to market, but they can also provide more interesting as well as harmonious fabric in their context. As well as of course, being by far the more sustainable option.

Tim Downes, development director at British Land, recently said there’s a palpable shift to reusing existing buildings, and this extremely influential client could be a bellwether for what’s to come. He said: “Carbon saving has undoubtedly gone up the agenda for, I hope, all developers but certainly all of the publicly listed developers, particularly on the commercial side.”

Initiatives such as ‘material passporting’ – stamping specifications and adding barcodes to steel and other materials, are becoming more common, showing the value being attached to secondhand materials. Things are changing in a big way, to bring the future closer to the past.

James Parker, Editor

**ON THE COVER...**

MVRDV redesigned an entire mixed use urban block in Montparnasse, Paris, retaining much of the original structure but adding social housing

Cover image © Ossip van Duivenbode
For the full report on this project, go to page 38



RIBA GOLD MEDAL

RIBA awards Gold Medal to Pakistan's first female architect Yasmeen Lari

RIBA has announced that Pakistan's first female architect, Professor Yasmeen Lari, will be awarded the 2023 Royal Gold Medal for architecture.

The award is the first to be personally approved by King Charles III, and "acknowledges Lari's work championing zero-carbon self-build concepts for displaced populations," said RIBA.

The Royal Gold Medal is one of the world's highest accolades for architecture, and is awarded to a person or group of people who "have had a significant influence on the advancement of architecture." Presented since 1848, past Royal Gold Medallists include Balkrishna Doshi (2022), Sir David Adjaye OBE (2021), Dame Zaha Hadid (2016), Frank Gehry (2000), Lord Norman Foster (1983), Frank Lloyd Wright (1941) and Sir George Gilbert Scott (1859).

Born in 1941 in Pakistan, Lari moved to London with her family aged 15. After finishing school, she studied art for two years before being accepted into the School of Architecture at Oxford Brookes

University, then attending Oxford Polytechnic. After graduating in 1964, Lari returned to Pakistan at age 23 with her husband, Suhail Zaheer Lari, to establish her own architecture firm Lari Associates, going on to work for major government, business, and financial institutions.

With a long and illustrious career, Lari "has been a revolutionary force in Pakistan," commented RIBA. "She has had immeasurable influence on the trajectory of the architecture and humanitarian work in the country." After officially retiring in 2000, "she transferred her attention to creating accessible, environmentally friendly construction techniques to help people below the poverty line and communities displaced by natural disasters and the impact of climate change."

In 1980 she co-founded the Heritage Foundation of Pakistan with her husband Suhail, pioneering the design of self-build sustainable shelters and housing, creating 50,000 dwellings. Lari is also known for the design of the Chulah Cookstove, of which there are now over 80,000 across the

world. An eco-alternative to a traditional stove, it significantly reduces emissions, tackling unfavourable environmental and health issues associated with cooking on an open fire.

On hearing the news, professor Yasmeen Lari said: "I was so surprised to hear the announcement, and of course totally delighted! RIBA has heralded a new direction for the profession, encouraging all architects to focus not only on the privileged but also humanity at large that suffers from disparities, conflicts and climate change."

The 2023 Royal Gold Medal selection committee was chaired by architect and RIBA president Simon Allford, and comprised of Ivan Harbour, architect and senior partner at RSHP; Cornelia Parker CBE RA; Neal Shasore, chief executive and head of school at the London School of Architecture, and Cindy Walters, architect and partner at Walters & Cohen.

RIBA's Royal Gold Medal – sponsored by Arper – will be officially presented to Yasmeen Lari in June.

EDUCATION

BDP medical teaching building opens at University of Worcester

A teaching centre for health and medical students designed by BDP has opened its doors at the University of Worcester.

Named after Elizabeth Garrett Anderson, the first woman to qualify as a physician and surgeon in the UK, the building “provides outstanding facilities for the university’s health students,” said the architects, as well as becoming the home of the university’s new Three Counties Medical School, which will welcome its first cohort of students this September.

Formerly home to the Worcester News and Berrows Journal, the building has undergone a “complete transformation over the past 12 months,” said BDP.

Inside, the space has a new atrium, simulated GP consultation rooms, and light and spacious social learning spaces as well as a cafe. The space, which once housed the giant printing press, is now home to a new anatomy suite with high-tech equipment for students to learn about the human body and perform procedures in a controlled



environment. The new facilities complement the existing clinical simulation suite at St John’s Campus.

In keeping with the university’s commitment to sustainability, the refurbishment has been completed to “outstanding environmental specifications,” said the architects, achieving a Gold SKA

environmental rating from the Royal Institution of Chartered Surveyors. The gold-coloured inert copper alloy cladding the exterior provides an “efficient, long lasting solution, providing a weathertight covering to a thick layer of insulation making the building inexpensive to heat or cool,” said the architects.

The building forms part of the university’s new Severn Campus for Health, Wellbeing and Inclusive Sport, which has seen the regeneration of a largely derelict riverside industrial estate.

Further “exciting developments” on the new campus are planned, including the world’s first “inclusive cricket centre” in partnership with the England and Wales Cricket Board, while a further building for teaching the ever-expanding number of health students at the university is also planned for construction in 2024. BDP added: “The whole campus is being opened up with new cycle and pedestrian facilities, car parking and 100 EV points.”

BOOK

Monograph published compiling Norman Foster’s complete works

Norman Foster has worked closely with art book publisher TASCHEN to publish a monograph that comprehensively covers his life and work at his practice, Foster + Partners, as well as the Norman Foster Foundation.

The publishers commented: “This is the first time Foster’s complete body of work has been published in one edition on such a grand scale, giving a rare insight into the inner workings of his creative practice.” It details “his personal approach to his work, his inspirations, the link between art and architecture, and the correlation between his passions, such as being an aviator, and his work.”

The ‘XXL’ monograph, priced £350, comes in two volumes. In the first, author Philip Jodidio “presents Foster’s worldwide architectural oeuvre.” The book is filled with numerous previously unpublished images and sketches, handpicked by Foster from the archives. Containing 1,000 illustrations, the second volume also includes eight essays written by Foster that explain his sources of inspiration.

A limited Art Edition of 300 copies is also available, including a 1 metre-wide signed print of a drawing by Foster of InnHub La Punt, a new centre for innovation in Switzerland. The two



volumes of this limited edition are collected in a custom-designed slipcase, which folds into a book stand.

Norman Foster is founder and executive chairman of Foster + Partners and president of Norman Foster Foundation. He commented: “Marking my 60th year as an architect, I am delighted to announce this project. The monograph traces our pioneering sustainable agenda, which emerged in the 1960s, coupled with a design approach that anticipates future change.”



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MIXED USE

Grimshaw masterplan for multi-village scheme in East Hertfordshire approved

Led by Places for People, plans have been given outline permission for Gilston Park Estate, a development of six new villages to the north of Harlow, on the Hertfordshire and Essex border, designed by Grimshaw.

The masterplan is being led by the international architecture practice, working together with urban design specialists MICA and landscape architects Grants Associates – is designed to “support a sustainable, diverse, and connected community linked to new infrastructure and extensive facilities,” said Grimshaw.

The “landscape-centred” design “has wellbeing at its core,” said the practice, encompassing large areas of green space, including country parks and community gardens – protecting and enhancing local habitats to promote biodiversity across the 1,000 ha site. Set into heathland and surrounded by woodland, the landscape connects the six villages.

The project is hoped to create 1,500 permanent jobs for Hertfordshire, and is supported by nearly £1bn of investment in new infrastructure and social facilities by Places for People. The proposal includes 2,000 affordable homes, and a new community centre, secondary and primary schools, healthcare and sport facilities, plus 29,200 m² of commercial space and 25,100 m² of retail and leisure space.



Kirsten Lees, partner at Grimshaw commented: “This large-scale strategic site allowed us to prepare a holistic approach embedding social, spatial and ecological thinking to provide a much-needed solution to today’s housing challenges in a resilient and sustainable way.”

The site forms part of the wider Harlow and Gilston Garden Town (HGGT)

scheme, which has been earmarked by the Government for the delivery of 23,000 new homes. Following the resolution by East Herts District Council to grant outline planning permission, Places for People will work in close collaboration with HGGT partners to finalise the section 106 agreement to “secure the infrastructure provision for the site.”



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EDUCATION

Work to begin on FCBStudios' 'world class' campus at University of Bristol

Designed by Feilden Clegg Bradley Studios (FCBStudios), Temple Quarter Enterprise Campus is the most significant development in the recent history of the University of Bristol. Work on the total £500m scheme will get underway this month after the university signed contracts with construction company Sir Robert McAlpine.

The project represents “a major engagement in the city,” said the practice, redeveloping a prominent, but long-derelect, brownfield site adjacent to Bristol Temple Meads train station. “Through ecologically sensitive public realm, community engagement, and new city connections, the campus will become an integral part of Bristol and the significant regeneration to the east of the city,” said FCBStudios.

Opening in 2026, the campus at Cattle Market Road, next to the rail station, will “enhance the University of Bristol’s reputation as a global destination for world-leading research, education and innovation.”

The site will be home to 4,600 students and 650 university staff, with residential accommodation on Temple Island providing living space for around 900 students.



At the heart of the campus – on the site of the former Royal Mail sorting office – a 38,000 m² academic building will be home to the University’s Business School, digital engineering research groups, Centre for Entrepreneurship and Innovation, the Quantum Technologies Innovation Centre, and provide dedicated facilities for enterprise and community partners.

Sited on a “car-free campus” and designed for long life and future adaptability, the scheme is designed to BREEAM ‘Excellent’. The demolition spoil has been reused to raise



the ground level above flooding, while 50% of the building’s materials will be sourced from a 30 mile radius. Sensitive planting and habitat will support and nurture the ecology of the Floating Harbour. Approximately 22% of the building’s regulated energy consumption will be generated on-site from renewable sources, and a further 1,400 MWh will be exported annually to a new district heating network.

More news from the Education Sector can be found in our 2023 Education & Student Accommodation Supplement.

APPOINTMENTS

HOK names Hoisington and Williams as co-CEOs replacing Bill Hellmuth

Global architecture practice HOK has appointed Eli Hoisington and Susan Klumpp Williams as its new co-chief executive officers, succeeding Bill Hellmuth who passed away on 6 April, shortly after his scheduled retirement.

Hoisington and Klumpp Williams, who have served as interim co-CEOs since Hellmuth went on medical leave in May 2022, bring a “fresh yet familiar perspective to HOK’s leadership,” said

the practice. They have previously led two of the firm’s largest offices and are long standing executive committee members.

Hoisington, the design principal in St. Louis, USA, and Klumpp Williams, the managing principal in Washington, D.C., have collaborated closely with Hellmuth in the past. “They will work with HOK’s board to steer the firm’s design vision, business strategy and operations.”



HOK president Carl Galioto praised their appointment, stating: “Combining Eli’s design expertise and Susan’s business acumen in this new co-CEO leadership structure will drive HOK’s evolution as a more diverse, collaborative and international design firm.”

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COMMENT

National savings

Andrew Mellor from PRP Architects wonders whether a real energy saving strategy would be more relevant than the Government's new Powering Up Britain idea

The new Department for Energy Security and Net Zero recently published its Powering Up Britain report which sets out the Department's approach to achieving energy security and net zero. It is an introductory report to the two accompanying, and much longer, reports; 'Powering Up Britain: Energy Security Plan,' and 'Powering Up Britain: Net Zero Growth Plan.'

Powering Up Britain is a very interesting title. It suggests a need for more energy when we should be reducing our energy use and transitioning to cleaner sources of energy. Perhaps it should be called "Saving Britain" instead, as if we don't take the steps set out in the strategy, the consequences for society could be huge.

The intent of the strategy is of course welcome and much-needed; however, in some areas, the proposal simply does not go far enough, and we need greater steps to ensure we meet the 2035 and 250 legally binding carbon targets. Policy is one thing, implementation is another, as the latter involves industry and the public, and both often need incentives or legislation to change.

Carbon Capture & Storage (CCS)

Carbon Capture and Storage (CCS) is proposed at an estimated cost in the order of many billions of pounds to prevent emissions entering the atmosphere where fossil fuels are burnt at power stations. This seems to support continued fossil fuel use for too long a period into the future. Will storing carbon in the sea bed simply create problems for future generations; are we simply sweeping the problem under the carpet? Fossil fuel use should be reduced to such an extent that the CCS plants are not required for this purpose at the time of their planned introduction.

If the CCS plants are to be constructed, many would question the benefit of spending so much money on such technology, they should be used to remove existing carbon emissions from the atmosphere to help reduce the impacts of climate change. Reforesting parts of Britain may be a better way of absorbing carbon, especially with the added benefits they bring including reducing flood risk through rainfall interception and reducing rapid run-off. Restoring peatlands would also contribute in the same way. The challenge is not just building design and performance, but the regeneration of our natural environment.



The not so 'great' British insulation scheme

The Great British Insulation Scheme proposes to install loft insulation and cavity wall insulation, but these relatively simple measures should have been implemented across the housing stock at least a decade ago. There is nothing 'great' about it. We have been talking about loft and cavity insulation for a long time –

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very simple thermal measures which should have been completed by now. The ambition to install those measures in only 300,000 homes is not ambitious. The measures, if installed properly, will provide some financial and comfort benefit to the householders but there are many more homes that need retrofitting. Any insulation programme must be delivered without risk to the building fabric and the building occupants' health and safety.

Previous similar programmes such as CERT, CESP and ECO have resulted in cavity wall insulation being removed due to moisture retention, thermal bridging leaving cold spots that created locations for black mould growth and large scale installation of EPS render systems on apartment blocks that is now being removed as it is deemed a fire risk, post-Grenfell. The wider impacts and risks associated with insulation measures therefore need to be carefully considered and mitigated to ensure there are only benefits

Any insulation programme must be delivered without risk to the building fabric and the building occupants' health and safety

for building occupants and not health and safety risks. Subsequent removal of defective insulation and associated building fabric has an environmental impact in itself.

Transition to electric heating systems

The planned decoupling of electricity prices from gas prices is a step in the right direction, and it will hopefully aid in the transition to electric heating systems as well as cooking – the latter has a much smaller impact than heating but it is often never included in formal decarbonisation plans. Homeowners and landlords need incentives to remove gas systems from homes. The plan for consultation with homeowners on how to decarbonise homes will require the Government to be courageous and introduce financial incentives, along with some level of penalties to expedite the necessary transition.

One option may be to establish a minimum EPC rating at the point of sale of a home, accompanied by short-term financial support for energy retrofit works. The buyer would then receive a mortgage that allows for the additional cost of the retrofitted house. Some homeowners may not like such a proposal, but action is non-negotiable given what we need to do as a nation.

Air source heat pumps have become the default technology for new houses and the purchaser has no choice of the installed heat pump appearance. Many existing homeowners will not only need financial incentives to install heat pumps but will need awareness of how they operate and the benefits. Some will care about the appearance and the impact it has on the exterior of the home, heat pump manufacturers will need to look to the electric car industry to see how the contemporary appearance can drive sales. Vitruvius may have been referring to well-designed buildings with his words 'commodity, firmness and delight,' yet they could equally apply today to heat pumps. Heat pump manufacturers – we need more delight please!

In conclusion

It does seem that if the UK is to hit its net zero targets, then the Government will need to do more than is set out in the Powering Up Britain reports, especially when it comes to building performance. More will undoubtedly include policy and legislation and will likely affect political votes, but these are consequences that will have to be accepted as there is no time to stall further – we have been stalling for too long, and it is getting frustrating.

Minimum EPC ratings for commercial buildings are driving change and will continue to do so over the next five years. Similar legislation will be needed for the residential sector with financial incentives to support the required retrofitting programme. All of this is possible, and the Government will have to accept the very likely political and financial impacts. It seemingly has no choice but to do so, and to do so very soon.

Andrew Mellor is a partner at PRP Architects



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VIEW POINT

Ivanova Konstanca from Stride Treglown outlines the benefits and features of a circular economy – one where waste and pollution are eliminated, products and materials are recirculated ‘at their highest value,’ and natural systems are regenerated



King's Cross Sports Hall, London (2020) © Hufton + Crow

Circular economy goes beyond reducing carbon, instead providing positive impacts for the environment and nature in general; it is integral to addressing the current climate and biodiversity crises that we find ourselves in.

The built environment is one of the biggest CO₂ emission producers, contributing 45% of the UK's material footprint and roughly 38% of the country's emissions, alongside agrifood, manufacturing and processing, and services (Circle Economy, UK Gap Report). Apart from assisting with whole life carbon reduction, circular principles provide environmental and financial value (as shown in the UKGBC report 'Insights on how circular economy principles can

impact carbon and value'). Not only is circular economy a shift in the process in which we design and construct buildings, it's primarily a shift in thinking about the environment and the availability, impact and reliance on finite resources.

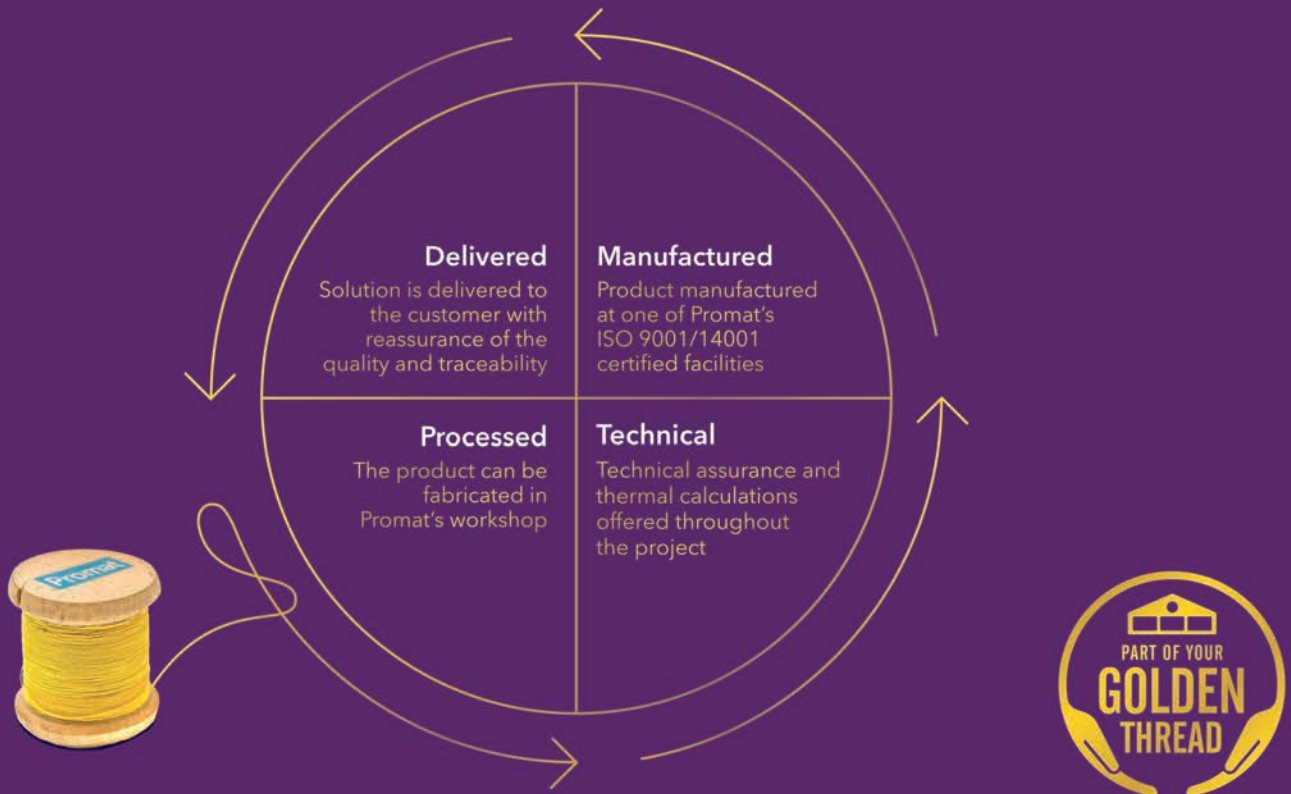
Challenges with adopting a circular economy

The topic most lagging behind at present is regarding the measurement of circularity and therefore benchmarking of projects – despite it being researched and having several assessment tools already produced by stakeholder, such as Regenerate and the Circular Buildings Toolkit. Though there is a considerable amount of research – and several proposals for circularity

The topic most lagging behind at present is regarding the measurement of circularity and therefore benchmarking of projects – despite several assessment tools having already been produced by stakeholders

metrics – a consistent methodology is absent, leaving a gap in the ability to compare project performance and making the establishment of performance targets very difficult.

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The Horizon Terminal, Port of Southampton

The concept of material passports can provide a document for each material which can hold all the important related to it that you need throughout its life

Currently, demolition and new build is cheaper than deconstruction and refurbishment. Due to the unknowns of what might be found at an existing building and how long this might impact the programme, many clients prefer to demolish and build anew. Similarly with regards to materials, it is cheaper to buy new materials than to salvage and utilise reused ones. The uncertainty of this process, the re-certification of the materials, the fact that this procedure is still new and unfamiliar, makes it “unsustainable for a single client to bear the cost” (Elliot Wood, ‘Full Circle to Reuse’).

To lower carbon emissions of a project, one must be aware of what routes are available to addressing carbon reduction in buildings, and understand the impacts of each route. Similarly, understanding circularity and how its principles work is key. There is a vast array

of organisations which identify the principles of circularity differently – and there are some misalignments. It’s important to understand what they are and how they work together, since circular economy is a holistic way of thinking about waste prevention, recirculation of materials and regenerating systems. Clearly establishing the value that circularity would bring to a project and the purpose of the principles applied would also assist in their successful implementation.

The identification of buildings (both existing and new build) as material banks or material stores, ready to be mined at the end of their life, is a concept widely researched by the BAMB 2020 Horizon programme. Successful reuse of a material and its deconstruction relies to a large extent on the information available for this material and its existence and upkeep. The concept of

‘material passports’ is an example of how this could be done – a document for each material which holds all the important information related to that material, which you need throughout the various stages of its life, including deconstruction or reuse. While several years ago this concept was largely conceptual, working platforms already exist and are used in pilot schemes both in the European Union and within the United Kingdom.

The gathering and storage of this information could also mean changing the way consultants such as architects and engineers produce their working information and building models. 3D modelling software is becoming increasingly more capable of storing such large amounts of information and extracting it via different platform plug-ins for various tasks, i.e. to populate bills of quantities.

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'Building for deconstruction'

One end of life principle of circularity is Designing for Deconstruction (DfD). To enable deconstruction and the effective recovery of materials for reuse, the building can be seen as an 'onion', and each layer – i.e. Stuart Brand's 'Building in Layers' – should be considered separately and then in unison with the others. This would mean each layer is designed with its respective life expectancy in mind and steps to mitigate its replacement/disassembly are taken into account in the design stage; this could be applicable for a separate layer or for the building as a whole.

While deconstruction is not yet widely accepted and practical examples of building case studies are limited and more concentrated on separate materials or systems, a similar process – Designing for Manufacture and Assembly (DfMA) – has become widely utilised for specific typologies of buildings via working frameworks, i.e. Department for Education and School Buildings. While the DfMA route only addresses the design and construction of a building and not its end of life or reuse possibilities, it relies on the same strategy as DfD does – standardisation – due to the nature of modular construction. While both are in the same family, the fact that the DfMA process has become so commonplace and especially preferable for certain building sectors is favourable for the next logical step – design for deconstruction.

The Boiler House, a resi scheme in Hayes, west London



A commercial project at Manvers Street, Bath (2017)

Challenging permanence, procurement & performance

Some circular principles will require the involvement of a demolition contractor very early on in the design process – for example when working with existing buildings – taking the last step of the RIBA Stages and putting it before RIBA Stage 0. Involvement of second-hand material merchants and companies with 'take-back' schemes means that there will be new players in the supply chain that are engaged much earlier in the process than the industry is used to.

Client objectives are becoming more and more focused on sustainability, and increasingly circularity is one of these objectives. For the successful implementation of circularity on projects, these client briefs need to capture the extent to which aspirations extend for the whole team to address them.

One of the most important things is to make sure that these sustainability targets are captured in the brief early on and then work towards making them happen and avoid them being value-engineered out. The recent exhibition 'Long Life, Low Energy: Designing for a Circular Economy' at the RIBA in London showcased an excellent selection of example projects incorporating a variety of circular principles, including the Manvers Street project in Bath designed by Stride Treglown, which refurbished an existing centrally-located building into a bright and welcoming office space.

Contracts are likely to reflect these shifts

in key project figure involvements and move more towards a focus on collaborative procurement types, where the 'blame culture' is absent. With deconstruction especially, it will be important to pursue better demolition contracts which provide more incentive for the contractors to be involved in the deconstruction process, and involved early on in the project.

Apart from the usual time/cost/quality priorities, contracts are more likely to move towards the inclusion of other factors becoming more and more important to the clients and incentives, such as for carbon and/or reuse percentages.

Conclusion

Circular economy provides the built environment sector with an opportunity for a wholesale reset of the ways of thinking, designing, building and perceiving the urban grain. The state of the world now increasingly requires every stakeholder to reconsider their role in the value chain, and the actions they can take to address the climate and biodiversity emergencies and consider the planetary boundaries.

Circular principles offer a wide array of actions for stakeholders to take at different stages of a project to develop a built environment asset that is healthier for the users, sensitive to its environmental context, and futureproofed for the next generations.

Ivanova Konstanca is an architect at Stride Treglown

Exterior 2.3

- Balcony and facade panels
- Large variety of colours and formats
- Aesthetic surfaces



For you to create



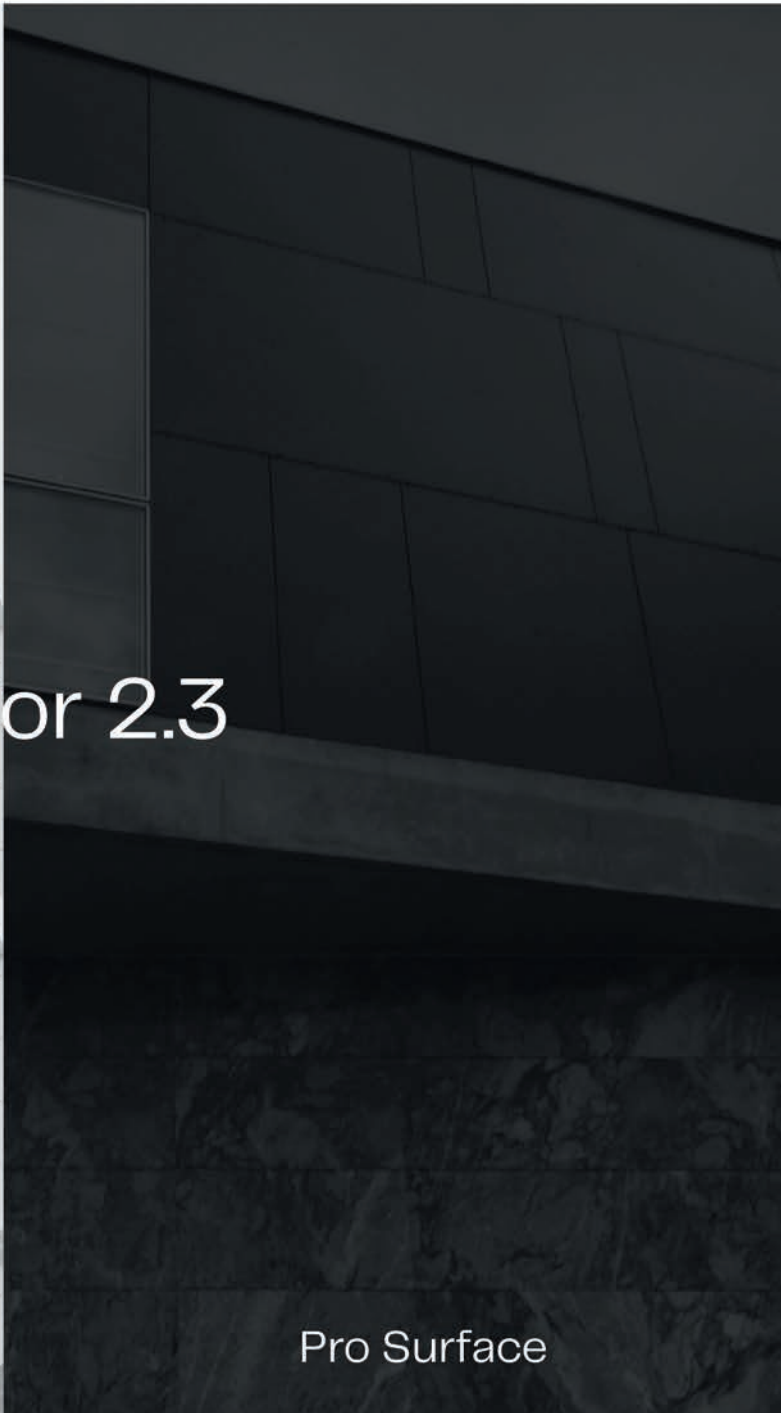
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Essential



Pro Surface

Exterior 2.3



PRACTICE PROFILE

PRP Architects

As PRP marks its 60th anniversary, senior partners Manisha Patel and Brendan Kilpatrick reveal to *ADF* how a strong ethos around community-led design and collaborative culture has been instrumental to achieving enduring success

In the 1960s, the UK was grappling with a severe housing shortage, prompting the Government to put building new homes at the top of its agenda. As a result, this era saw an unprecedented surge in housebuilding, with the country experiencing a higher rate of residential development than ever before.

Against this backdrop, three architectural graduates with a shared passion for community-led housing design (Peter Phippen, Peter Randall and David Parkes), pooled their resources and founded PRP in 1963. The initial principles of the firm, instigated by its founders were centred around placing the end user at the heart of every design decision, an ethos that continues to be a “core value of the practice to this day,” asserts Brendan Kilpatrick, senior partner at PRP.

In the practice’s early stages, designing and constructing affordable housing was a significant challenge, community-based housing organisations having to work with extremely small

budgets. Despite this, after a few years of ups and downs, PRP completed its first project in 1969 – a celebrated housing scheme called the Ryde in Hatfield. This unique project featured a diverse range of two, three, and four bed single-storey houses designed around courtyards, and benefitting from bright, free-flowing spaces. The success of the scheme led to a string of residential commissions in various then-emerging ‘New Towns’ such as Bracknell, Basildon, and Crawley.

Today the practice boasts a dedicated team of 300, with offices in London, Surrey and Manchester. The practice ventured overseas in a strategic move, opening two offices in Poland – Wroclaw in 2017, and Sopot in 2020. The offices each have “different specialisms and semi-autonomous groups,” however the move has also proven highly important for the firm’s sustainability post-Brexit.

Kilpatrick explains that facing the potential loss of some of its international talent following the UK’s exit from the EU, the opening of their branch in Wroclaw in particular has allowed PRP



Canal Quarter, Brewery Lane © PRP

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to retain its “multicultural” workforce. This office has since evolved into a multinational hub in its own right, serving as “an extension of the London studio.”

According to Manisha Patel, senior partner at PRP, the different offices have made considerable progress in strengthening connections between the studios, including the new additions. Encouraging the cross-fertilisation of ideas and knowledge sharing is beneficial both for the staff and its clients, she says, adding that “it ensures we are delivering the highest quality of design.”

While housing remains a key focus, PRP has evolved from its roots to become an interdisciplinary practice that is attuned to the changing demands of the industry and the built environment. With a keen eye on the shifting landscape of the housing market and society as a whole, the firm has developed a range of specialisms that span key sectors; estate regeneration, later living, town centre regeneration, Build-to-Rent, and landscape-led masterplanning.

Culture & diversity

A key focus of the firm, and an “ongoing process,” as Kilpatrick explains, is its aim to improve the equality, diversity and inclusion of their workforce.

Patel, who hails from a family that lives in a working-class neighbourhood of London, says that at university she felt like “a fish out of water.” Not only was she one of few women on her course, she also felt different from peers due to her “lack of connections, ethnic background and comprehensive school education.” Therefore for her, creating a workforce at PRP that “represents and embraces the rich diversity and different cultures of communities” has personal resonance.

As part of a recent effort to provide greater accessibility to people from less advantaged backgrounds, the practice has focused on developing its apprenticeship programmes. With the cost of living crisis making it difficult for practices to recruit and retain staff, the team are “constantly reviewing staff pay and exploring ways to encourage people to join – and stay in – the built environment sector.”

The practice also has another policy to both support female staff who are experiencing the menopause, and also break down the stigma surrounding it. Recently, PRP’s Equality, Diversity and Inclusion (ED&I) Working Group hosted a live webinar and Q&A on the subject, which saw a healthy attendance by male and female staff. “If women can talk about it, we can share and receive advice based on our experiences, and feel less isolated,” says Patel.

As a practice of putting great stores in collaboration, PRP has doubled down on creating a welcoming and friendly workplace atmosphere post-pandemic, seeing the office as a hub for social interaction and wider staff benefits. “The pandemic taught us a lot about the value of the office in combating loneliness and isolation,” asserts Patel. Celebrating a wide range of festivals such as Diwali and Lunar New Year to holiday festivities like Christmas and St Patrick’s Day, the practice aims to be friendly and inclusive.

Contextual reintegration

Ensuring a context-specific design response forms the bedrock of PRP’s approach. The practice describes its strategy as “contextual reintegration,” a means to avoid “generic” architecture. It ensures the practice collaborates with communities, councillors and stakeholders to gather a nuanced understanding of the complexities of an area.

An example of where they’ve applied this is their recent commission to design a masterplan to revitalise the Canal Quarter in Lancaster. The area boasts some of the city’s most significant cultural assets, but these have been underutilised and disconnected from the rest of the city. PRP recognised that an in-depth understanding of the site’s history was crucial in creating a “context-informed vision,” explains Kilpatrick.

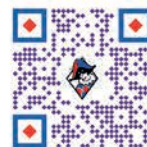
While community-driven projects remain a core value of the firm, the way in which they implement these principles has undergone “drastic” change, says Patel. In the early days, community consultation was not always an integral part of the design process. Today PRP has a dedicated in-house team specifically focused on community engagement. This allows for an “ongoing dialogue that

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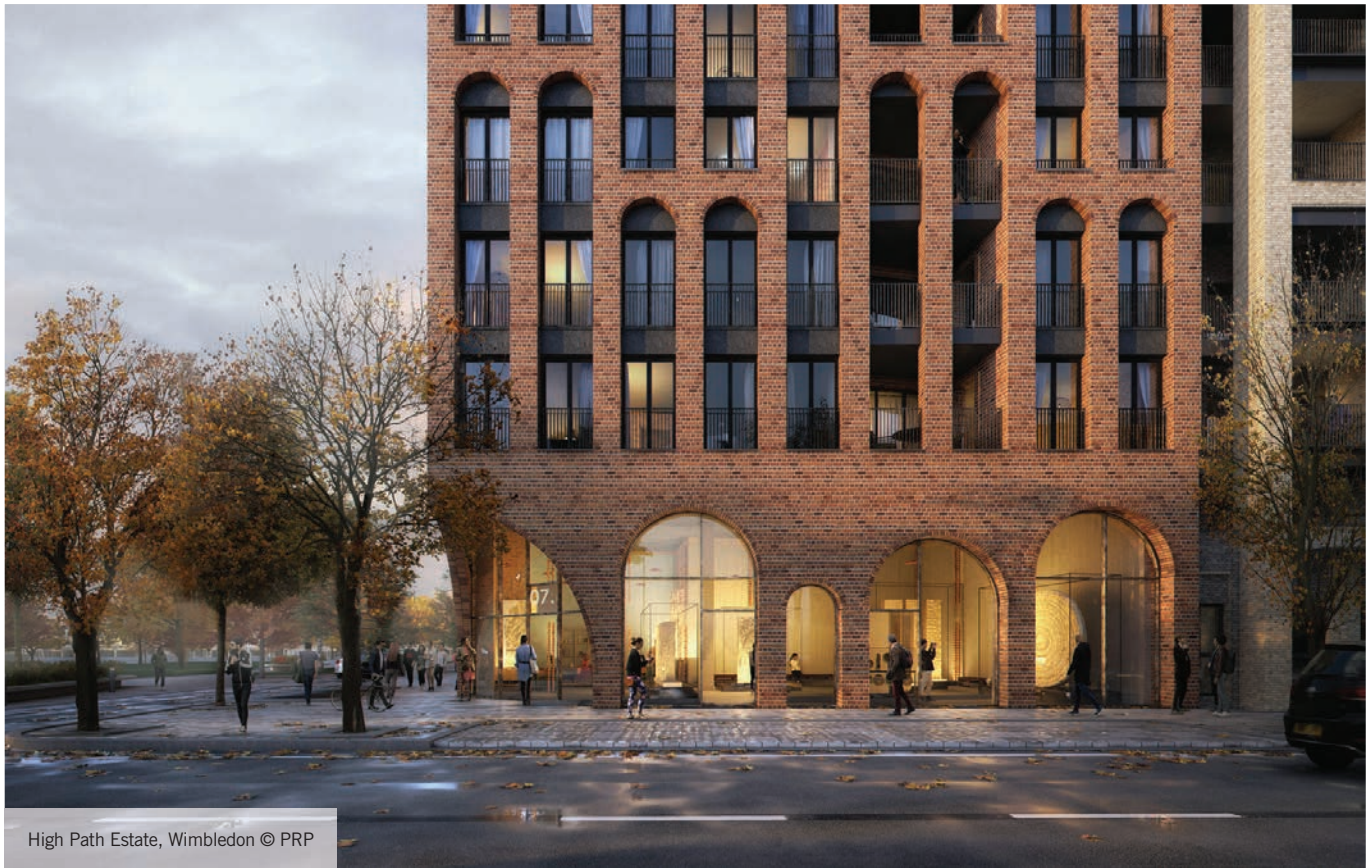
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High Path Estate, Wimbledon © PRP

gives a voice to everyone and co-producing practical, achievable solutions” that fulfil the needs of local communities.

One of the key differences in PRP’s approach is their emphasis on designing “with existing communities” rather than “for” them. This allows the team to achieve shared goals, rather than imposing top-down decisions. High Path Estate in Wimbledon a key example that Kilpatrick picks out. The project to “transform” the estate has involved a carefully curated series of interactive events (public exhibitions, coffee mornings, and one-to-one sessions with “hard-to-reach” groups). And ‘Regen Week’ had been introduced to educate local school children on the concepts of sustainability and regeneration.

“Our approach to design,” insists Patel, “is human-centred,” not focusing on “quantitative monetary values tallied up on social value calculators.” PRP’s overarching ambition is about “fostering health, wellbeing and creating accessible environments.”

Looking good at 60

As the practice celebrates its significant birthday, Kilpatrick credits their success and longevity to “good succession planning” and provision of “genuine” opportunities for staff advancement. In addition, its emphasis on a clear career path encourages long-term commitment and dedication from staff.

The firm has also cultivated a culture that promotes collaboration and open communication between all members, regardless of seniority. Patel and Kilpatrick, upon joining the board, took immediate steps to remove the glass partitions in the office that previously separated senior management

from other employees, which “quite literally” broke down the hierarchical structures.

To commemorate the 60th anniversary, PRP has launched a brand-new mentoring initiative open to all disciplines, levels and studios – from architects and urban designers through to site inspectors and document controllers. It will aim to empower all staff to optimise their professional development, and ultimately improve diversity at senior levels of the practice.

“As we mark 60 years of PRP, we are celebrating our commitment to designing buildings that enhance the lives of communities,” says Patel.

Challenges & future

In terms of how the practice is tackling climate change specifically, an in-house team of environmental sustainability experts produce robust environmental strategies and provide advice on all their development projects. The firm has invested heavily in design knowledge on Passivhaus to strengthen its capacity in this area. Not only this but they are developing a series of masterclasses for staff on climate change resilience and seminars for clients. “We have always been focused on environmentally led design and combating the climate crisis; we were one of the first practices to sign up to the RIBA 2030 Climate Challenge.”

Moving forward, PRP intends to take on more projects related to placemaking, masterplanning, and town centre revitalisation, while continuing to expand into new areas like film studio design. Patel emphasises that the firm will grow while maintaining its “people-oriented, context-driven, and sustainability-led design approach.” ■

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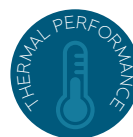
Working with their local installer, a quote was raised in a matter of minutes via Origin's online quoting and ordering system, OSS, allowing quick and efficient communications to be achieved. The sale was backed by the team at Origin who offered support from the first point of contact through to completion.



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Making a big splash: The home products to help attract buyers

The Origin Home Range has helped housebuilders catch the attention of potential buyers since the company's founding in 2002. Created by cousins, Neil Ginger and Victoria Brocklesby, Origin was founded with a mission to produce the UK's best quality doors. It started with the original Origin Bi-fold Door (OB-72) and throughout the years, has expanded to include products for the whole home. Whether your project is a single build or a multi-plot site, there are Origin products that will help you make a statement.

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The Origin Bi-fold Door

The Origin Bi-fold Door is available in two sightline options – the original 72mm (OB-72) and the slimline 49mm (OB-49). The design features a unique free-glide running system, offers two threshold options, can achieve U-Values as low as 1.1 W/(m²K), and boasts a collection of unique security features such as an ultra-secure 8-point locking system.



The Origin Window



In 2014, 12 years after launching its first Bi-fold Door, Origin launched its first window. Thermally efficient and with ultra-high levels of security, the OW-80 (the Premium Window) is the first of its kind to feature an internal and external flush casement. The bespoke window can be specified in fixed or sashed casement configurations, bays, gables, and French windows. Plus, it can be manufactured to fit almost any size and configuration. The slimline window – the OW-70 – is now also available and meets the growing trend for even slimmer sightlines and bigger expanses of glazing.



LEADING THERMAL EFFICIENCY

Origin has designed its products to meet and exceed thermal efficiency standards in current building regulations using a combination of sophisticated weathertight seals and thermal breaks, which helps keep bills to a minimum for house buyers. Its windows can even make use of space-age technology. The OW-80 is the first window to be able to include Aerogel as an optional upgrade; a super-insulating material originally developed for use in space shuttles and astronauts' space suits.

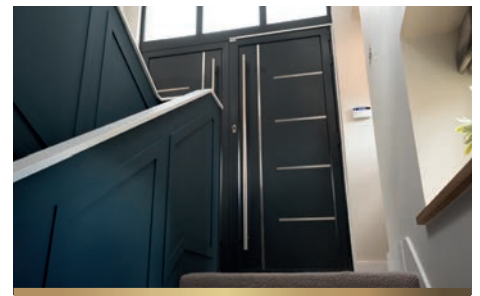
Using it significantly boosts thermal performance. The OW-80 Premium Window with Aerogel has a certified U-value of just 0.8 W/(m²K).

The Origin Residential Door

Keen to offer a whole-house solution, Origin designed its Residential Door in 2016 using high-grade aluminium. Like all Origin products, the door is made completely bespoke. There are 10-panel choices available and can be specified in over 150 colours. The Residential Door has been created with heightened security, strong kerb appeal, and thermal efficiency in mind. It is available as a single door, French door, or can even be used as a garage door.

SUPERB SECURITY

Origin products are engineered to include a combination of secure locking systems and a collection of safety features, all of which have been designed to keep homes safe and secure. Additionally, Origin Bi-fold Doors, Windows, Residential Doors, and Sliding Doors (OS-29 and OS-77) also comply to PAS:24 2016. For ultimate peace of mind, Origin Bi-fold Doors, Windows, and Residential Doors achieve the police-approved Secured by Design accreditation.



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With four different sightline options available – ranging from 20mm through to 77mm – the Origin Sliding Door Collection is sure to offer an aesthetic to suit your development's style and character. Offering a modern and architecturally striking take on the traditional door system, our products have large panel sizes to maximise light entering the home.

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OS-44



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The Origin Sliding Door

There has always been a big debate about which is best to go for — bi-fold doors or sliding doors. To ensure that Origin is able to cater for every taste, it created its stellar line-up of sliding doors – the Artisan Slider and the Patio Slider. Across these two systems, there are four different sightline options available. The Artisan Slider (OS-20) has the slimmest sightlines of just 20mm, to offer panoramic views. The Patio Slider offers a modern, architecturally striking variation on the traditional patio door system and is available in three sightline options; 77mm (OS-77), 44mm (OS-44), and 29mm (OS-29).



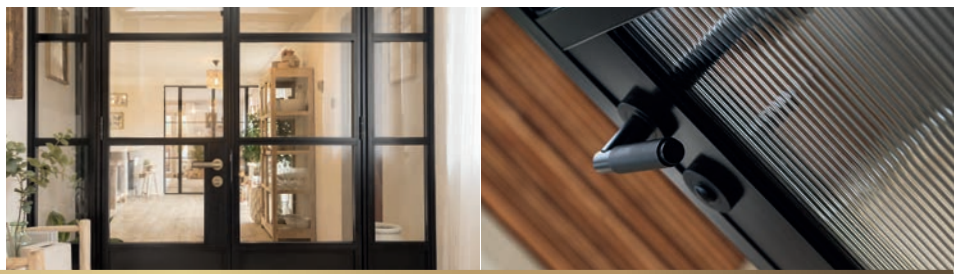
The Origin Internal Door

ASSURED QUALITY AND SERVICE

Origin's latest innovation is its internal door and wall system – the OI-30. Made bespoke from premium-grade aluminium, the OI-30 is completely customisable, with the option to add as many horizontal or vertical bars as desired. Its flexibility allows housebuilders to achieve the broken plan layout that's become so popular with modern homeowners who need functional rooms to accommodate living, working, and socialising, that don't compromise on natural light.

It's available as either a single door, a French door, or a fixed screen. It can even be used to create entire rooms by coupling a combination of doors and screens with a corner post.

High-quality finishings are becoming increasingly important for potential house buyers looking at new build properties. Origin's products are manufactured in the UK from premium grade aluminium to not only offer a sleek aesthetic, but also to guarantee quality. As a British manufacturer, Origin has complete control over its operations, from sourcing materials, to design, manufacture, and delivery. Rigorous quality testing at every stage of the manufacturing process means that everything that leaves its state-of-the-art factory in Buckinghamshire is at a consistently high standard. Having its own factory in the UK also means that the company can offer unbeatable lead times which is important for anyone co-ordinating dozens of trades on a project site to ensure timelines remain on track.



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SOUNDPROOFING SOLUTIONS CPD



Collecta's 'new edition' of their popular 'Soundproofing Solutions' CPD has been approved by RIBA. The previous edition has seen over 500 Architects and Specifiers attend online seminars within the last two years, with glowing testimonials. This update covers the seven fundamental 'Specification Essentials' set by RIBA. Topics covered include Fire Safety, the theory of acoustics covering sound proofing and compliance with Part E/ Section 5 Building Regulations, methods of compliance, pre-completion testing, robust details, new build, refurbishment, and conversion projects.

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IMPROVE YOUR GREEN ROOF KNOWLEDGE WITH OPTIGRUN



We are all aware of the importance of keeping industry knowledge up to date. Optigrun wants to use its 50 years of expertise to help improve your understanding of the green roof market. Their RIBA approved CPD 'Green Roofs in Practice' provides practical insight into green roof technology. The seminar covers important topics such as environmental benefits, specification considerations, types of green roof solutions available, maintenance, and aftercare. For more specialised roofing requirements, the 'Understanding Blue Roofs' CPD provides insights into effective water storage and attenuation on roofs.

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Maintaining and improving professional competence, skills, abilities and knowledge

GRAF UK LAUNCHES RAINWATER HARVESTING CPD



A CPD that explains the issues around rainwater harvesting and advises on the options available for specifiers and users has been launched by water management specialists Graf UK. The 55-minute presentation delivers a range of 'Rainwater research', extending from the fundamentals (what is rainwater harvesting and why is it required) to key regulations and issues, via a user-friendly mix of "live" presentation and videos. Graf UK's new CPD shows just how little of the earth's water is available for use by the global population and forecasts a global rainwater crisis in the next 25 years.

bit.ly/GRAFRWHCPD www.grafuk.co.uk

SPIRAL AND HELICAL STAIRCASE CPD WEBINARS



Staircase experts, Spiral UK, offer architects a live bespoke staircase CPD presentation on Microsoft Teams or Zoom free of charge at a time that suits them. The session covers: staircase design, stair regulations ADK, ADB, ADM and specifically BS5395 Part II (which relates to spiral and helical staircases), the design, manufacture and install process, materials and finishes and case study examples. The session is 30-40 minutes depending on questions and can be tailored to the interests of the practice. Certificates of attendance can also be issued.

0330 123 2447 www.spiral.uk.com

BRICK: CIRCULARITY, SUSTAINABILITY & INNOVATION



Brick manufacturer Vandersanden has announced that its new RIBA certified CPD #7 'Brick: Circularity, Sustainability & Innovation' is now available to architects and all construction professionals. This new seminar is the first RIBA CPD certified seminar in the industry to explore the subject of brick and sustainability in detail. This CPD is the latest addition to Vandersanden's portfolio of learning and development tools, aimed at architects and specifiers, helping to enhance their expertise and keep them updated on new trends, techniques and innovations in brick manufacturing.

www.vandersanden.com/en-uk/cpd-continuing-professional-development

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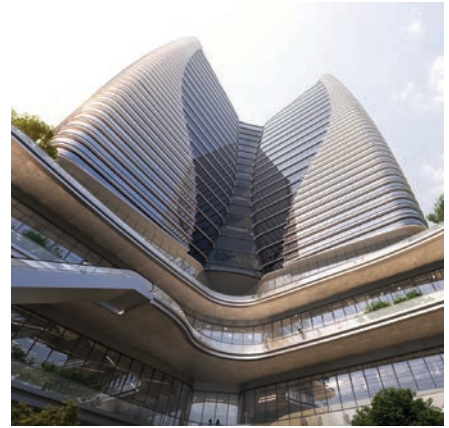
Within the world of waterproofing, professional development is an ongoing process, and Newton Waterproofing places high importance on education. The company offers a comprehensive range of training initiatives that will develop knowledge and skills in waterproofing practices, as well as deliver long-term value to attendees and continually raise the standard of work. Whether you're interested in receiving a RIBA-approved double-points CPD presentation or taking one of the company's Newton Training Courses, they can offer useful information and training that will be hugely beneficial.

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INTERNATIONAL FOCUS

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DESMAN HANGZHOU HEADQUARTERS PROJECT, CHINA AEDAS

Aedas has designed a headquarters for DESMAN in the Binjiang IoT (Internet of Things) Town, Hangzhou – the capital of China's Zhejiang province. The headquarters will connect the major public green axis, overlooking the 'Smart Gate' to the north, and the landscaped park to the south.

The concept is set to create a hybrid of "smart architecture" and ecological landmarks. The U-shaped podium faces the nearby green axis, creating a landscape courtyard for social gatherings. Strategically placed in the northeastern plot, the symmetrical L-shaped towers front the ecological park and forms a "unique spatial experience" together with the cascading terraces.

The design derives from "flapping butterflies, which embraces nature to integrate green, culture and technology," said the architects. The efficient layout creates various sky gardens on the stacked podiums, optimising the space with leisure amenities and forming a flexible outdoor-indoor circulation. The outdoor platforms in the courtyard provide a communal space "filled with greenery, delivering a vibrant atmosphere as well as a landscape view."

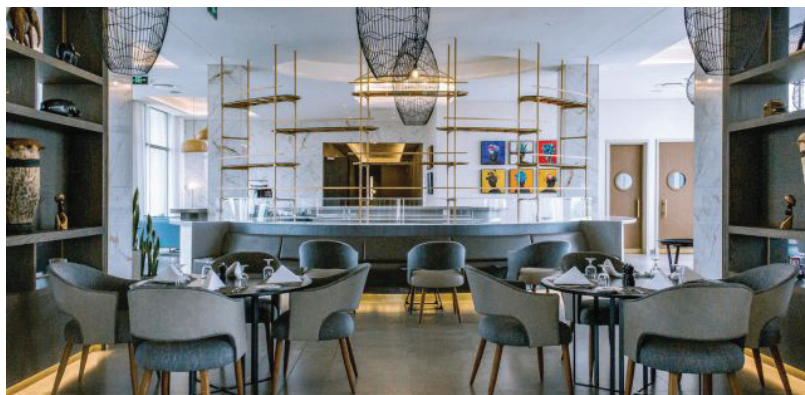
'KONoz' ('BOX OF JEWELS'), SAUDI ARABIA BENOY

Global architecture firm Benoy has been appointed to design the \$1.8bn "cutting edge" entertainment city in the heart of Riyadh, Saudi Arabia. The architects unveiled their design concept for the mixed use development named KonoZ, meaning 'Box of Jewels,' which will be developed by Abdullah Al Othaim Investment Company.

Benoy said that its design "brings together old and new parts of the city," and will include a 20,000 m² entertainment city, plus a luxury hotel containing 250 rooms, and 120 serviced residential apartments. There will also be an additional apartment complex that includes 700 apartments, as well as a 120,000 m² commercial centre, 15,000 m² of green areas, and parking for 5,500 vehicles.

The 'Box of Jewels' name was inspired by the diverse array of buildings, and will "embody the architectural representations of glittering treasure – including through visual cues employing gemstones in its various zones," said the architects.

The design concept centres around creating an "attractive walkable district and neighbourhood," with a variety of culture and leisure activities. Benoy partnered with its sister businesses as part of the scheme development: Uncommon Land (landscape architecture), Pragma (commercial consulting) and Holmes Wood ("experiential design").



INTERCONTINENTAL HOTEL, ZAMBIA STUDIO MOREN

Designed by Studio Moren, the InterContinental Hotel – located in the Zambian capital of Lusaka – has opened, marking the completion of the final phase of this refurbishment project.

The existing InterContinental Hotel – an important landmark in Lusaka's Government District – is now two separate and distinct hotels under the same roof: a new 162-room Holiday Inn which opened in 2020 and the new 106-room luxury InterContinental.

Studio Moren's design for the InterContinental includes a ballroom, a large pre-function area, a business centre, a bar, a restaurant with a terrace and improved reception facilities. A new club room on the top floor offers views across the city.

Joel Iseli, associate at Studio Moren, said: "Our design avoided clichés and created a vibrant, urban venue that appeals to a modern, cosmopolitan young Africa. While construction and opening during the global pandemic were challenging, we are honoured to have played a role in the ongoing story of this important and much-loved Lusaka landmark."

InterContinental Lusaka is an important part of the city's history. Designed by William B Tabler and constructed in time for Zambia's independence in 1968, InterContinental Lusaka has been the backdrop for significant international political events, as well as the venue for important personal celebrations.



BUILDING
EXCLUSIVES

GAÎTÉ MONTPARNASSE PARIS

New social value on the block

James Parker reports on MVRDV's scheme to transform a Paris city block, which produced a scheme that visually celebrates its intertwined mix of office, library and hotel spaces, and added further value with social housing

Montparnasse sits in the south of central Paris, and is renowned as the scene of many artistic gatherings which have helped to cement the city's reputation. Although in the 14th arrondissement, it is counted as being part of the famous Rive Gauche (left bank) of the Seine, a major hub for artists in the early 20th century. It contains historic sites such as the Catacombs, but also the 210 metres-high Tour Montparnasse, the tallest skyscraper in France on its completion in 1973.

A couple of blocks south of the tower, on the west side of the major Avenue du Maine arterial route, is a collection of buildings sitting opposite the Gaîté Metro station, another 1970s composition originally titled Îlot Vandamme, by architect Pierre Dufau. Its chief landmark is a tower which is now a Pullman Hotel, possessing what MVRDV – the architects of a project to 'transform' the site – praised as "strong vertical lines," creating an "unmissable presence in Montparnasse." Despite its prominence, the site had some major issues including a lack of connection

with the city, and being hampered by the local road infrastructure.

As well as greatly enhancing and improving the existing 1970s facades and improving the internal arrangement, the mixed-use project, called Gaîté Montparnasse, adds the important amenities of social housing and a kindergarten to its various uses. The resulting complex is more welcoming and accessible to pedestrians, while reusing significant parts of the previous structure, and thereby achieving sustainability gains from a circular economy perspective.

Procurement

This is the second 'transformation' project completed by MVRDV for the client, Paris-based retail group Unibail-Rodamco-Westfield, in 2022, following La Part-Dieu shopping centre in the centre of Lyon, which saw the practice turning another 1970s design into a more vibrant piece of the city centre.

This scheme was initiated during a period in Montparnasse which saw the "whole neighbourhood evolving," explains



A VARIED MIX

The scheme contains a variety of uses, located closely together – retail, hotel, and office space, plus a new kindergarten and added social housing
Drawings © MVRDV

Pierre des Courtis, a senior project leader at MVRDV. It presents something of a departure for Westfield from its larger models of international retail and mixed-use schemes, to something more locally-based, and scaled, and which retains existing structures.

The client asked the architects to do a “small study” in 2008 he says, and this mushroomed into a full proposal, and the client then commissioned a highly moderated version of their original scheme. In its first iteration, the tower was removed, and they “started from scratch.” He adds: “Quite quickly we realised that maybe it’s smarter to keep a lot of the existing, for economic as well as ecological reasons.” Also, he says that removing a tower in this area of Paris would mean it would be impossible to replace it on this site due to building regulations.

The project has progressed slowly when compared with similar schemes in other territories such as Asian countries, says des Courtis, joking that “things go slower in France compared with elsewhere

MVRDV’s design for the block reuses as much of the concrete structure of the plinth as possible

in the world!” He adds that with the inception of the scheme being several years ago, predating the opening of MVRDV’s Paris office in 2018, it’s “been interesting to see how the office has evolved with the project.”

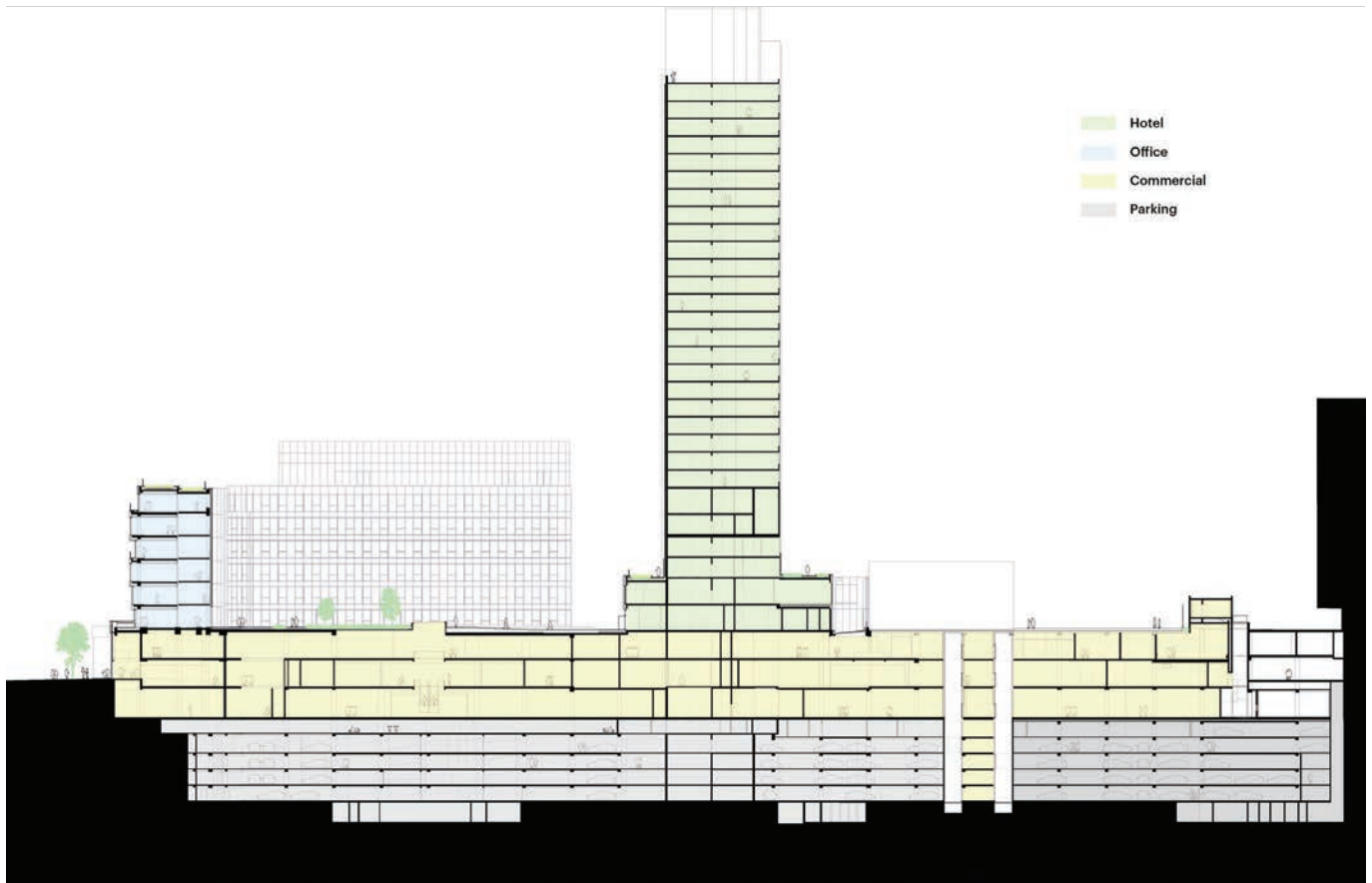
The brief did evolve – there were two initial aspects, to bring the hotel’s convention centre above the retail spaces, which would be on the ground floor and “grow around the south part of the tower,” which “implied a lot of reshuffling of the programme.” The second aspect was to bring the office space up to date with modern working methods, as the existing building had very deep floor plates. In the end, a co-working client took the whole space and now offers users special deals for meals in the retail area’s ground floor restaurant, which has meant less pressure on space elsewhere.

The fact that there was a single client for all of the building’s functions was helpful in making decisions, particularly with an evolving set of requirements. “The big decisions were always made with a view to strike the right balance between the needs of one programme and the other,” des Courtis tells me, with the aim of being coherent across the piece.

The problem

The existing building was built “in a time when the car was the main driver,” des Courtis tells me, and this scheme was intended as a final destination for cars driving into the city centre from the south along a planned highway which, in the event, “never happened.” The scheme was hemmed in by wide boulevards, and the overall development, when viewed from the street looked “introverted and unwelcoming,” commented MVRDV.

Practice founder Winy Maas commented: “This piece of the city was like an island of ‘70s nostalgia – a tower with no visible entrance, and a plinth where you could get lost between the pedestrian slabs and automobile boulevards.” There were also large unused areas, such a large hall which had been used as an ice rink and a bowling alley.



With receiving car traffic being a fundamental part of the overall function of the original building, the neighbourhood was designed with a ‘two-level’ approach separating cars and pedestrians – the former entering at street level and the latter one level up. The new scheme retains this overall separation, but makes the ground level more inviting to the pedestrian.

The dominating presence of the Pullman Hotel tower is a centrepiece of the masterplan, but it was offset by a plinth of “rough textured concrete,” as well as “boxy reflective glass and red steel lattices which epitomised the foibles of its era,” said the architects, and which needed addressing.

While lacking natural light, the tower had architectural strengths, says des Courtis, possessing a “strong character,” with its vertical black and white-striped facade. However, he adds that it “somehow blends surprisingly well in the neighbourhood.” Yet in addition to the main road running north-south, the current block itself “created a division in the neighbourhood,” cutting off access from the streets to the north from those to the south.

It also had an “inefficient” three floors of office space spanning the entire width of the shopping centre, with “super wide” floor plans, says des Courtis. And the final challenge was the existing mix of uses, most of which – such as the hotel and retail – would be retained, but in fundamentally altered forms.

Design approach

The design phase went through many iterations over the project, which is MVRDV’s modus operandi, says des Courtis, but was very necessary given the complexity of this project. However, he adds that “it was funny that even if you look at the very early phases, the idea was the same.” By this he means the idea of revealing the interior functions and spaces in the facades, but this expanded from being just the commercial areas to all of the various uses.

MVRDV’s design reuses as much of the concrete structure of the plinth as possible, while “dramatically altering the building’s relationship to its surroundings,” say the architects. Everything below the second

LEVEL CHANGES

The architects decided to move the hotel lobby from the ground floor to above the retail zone podium, sitting at second floor level

Drawings © MVRDV





floor of the existing structure has been retained – thanks to the robust 7.6 m structural concrete grid, the designers were able to place new multi-storey buildings at two locations of the plinth for the offices and social housing.

As des Courtis says, the “slab-like” grid of the existing offices on the second to fourth floors “did not make sense” for its function, or for the new social housing, so these levels were removed, while the retail areas below could be retained. The new ‘commercial centre’ providing retail and F&B functions occupies the basement, ground, and first floor levels. The office levels are located in the upper storeys of a new space-efficient and flexible seven-storey block on the east of the site, which makes up part of the building’s main facade.

Over the west side of the plinth is the new, relatively lightweight CLT social housing block offering 62 tenure-blind designed apartments and a kindergarten. Meanwhile the library, previously “relegated” to obscurity underground, now occupies a two-storey space on the other

side of the hotel, and is thus more visible and accessible.

Facade

The building now has a consistent street frontage along its main glazed facades, and more visual connection to the city around it, with large openings that frame sections of the activities within. More importantly, the aim with the facade design was to “make a statement about the diversity of functions, while also maintaining a consistency to the architecture,” says Pierre des Courtis.

The substantial facade along the Rue du Commandant René Mouchotte, containing retail, social housing, the library, and parts of the hotel, has been broken up in a very playful and lively way using a variety of different cladding tones, setbacks and overhangs, and balconies and windows. The eye-catching and sculptural arrangement of oversized frames breaking the horizontal lines of storeys affords the overall composition a successful combination of verticality and connection to the exterior, and even a

CONNECTING TO THE CITY

The building now has a consistent street frontage along its main glazed facades, and large openings that frame sections of the activities within
Images © Ossip van Duivenbode



REUSE

The architects reused the existing concrete super-structure wherever possible, “stitching the new floorplates into the old plans”

sense of ‘gaiety.’ Des Courtis says that the architects were enthused by the interlocking mix of functions present in the building, and wanted to celebrate the ‘mixed-ness’ of the scheme by making it more visible externally.

The different scales, such as the single rooms and the double-height lobbies housing the offices’ main stair, are all communicated through respectively different scales of glazing in the fragmented exterior, however the architects have been careful to maintain a sense of visual coherence. In addition, using the

creative facade design to draw attention to the non-retail elements, such as the office floors, helps to ensure these spaces are just as attractive to potential tenants as the retail spaces.

Des Courtis adds: “It has an energy, but we are making it more dense in a nice way, with things relating to each other, and keeping a human scale.” He says that once the architects had decided that “we weren’t going to touch the tower, we accepted this very vertical aspect” when it came to creating the new volumes and the look of the new facade.



He adds however, “it’s a different language to the tower somehow.” With the local planning requirements being strict, a series of shades of grey were the final approach for the facade colour palette, with lighter versions for the ‘bay window’ frames, as well as copper surrounds to the retail entrances. Another reason to break up the facade using various techniques was to give a subtle echo of the Haussmann 19th century facades that characterise much of central Paris. Rather than present a flush edifice, the building’s facades have multiple depths, and the

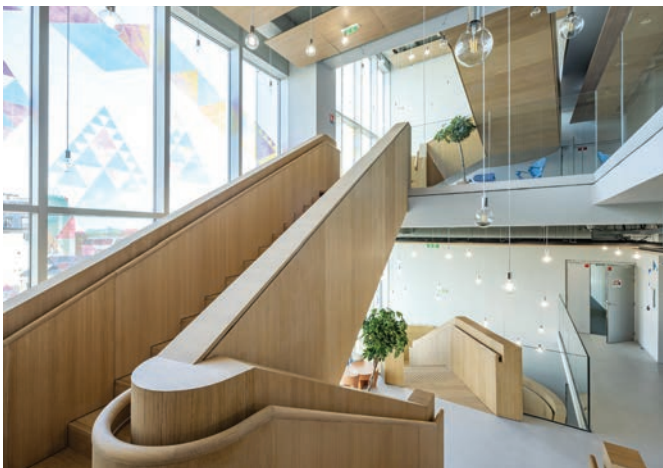
volumes step back overall at upper storeys (in darker grey cladding).

Internal programme

Internally, the design “rethinks the arrangement of the programme within the block from first principles,” say the architects. However, des Courtis explains to *ADF* how it retains the two-level approach of the original, while adding significant amounts of density to the site, with the shopping centre topped by various blocks to maximise this key, but irregularly-shaped location.

The city required further social value to be added in, which resulted in the housing and kindergarten being included





Re-engineering the site meant breaking down the internal arrangement to enable new spaces to be inserted, and “hidden ones” like the formerly below-ground library to be revealed. Winy Maas describes the resulting composition: “It created a kind of explosion of buildings that combines large and small scale, existing and new programmes, where everything mixes and opens up to the city with lobbies and windows of varying scales.”

The new design somewhat reinvents the layout and floorplates of the original 1970s design, however the architects have staged a valiant attempt to reuse the concrete superstructure wherever possible, “stitching the old floor plates into the new plans.” And to build the new social housing block the architects chose the most sustainable new build solution possible; CLT timber frame. It is located at the heart of the plan, between the hotel tower and the office block of Le Héron to the north.

The social housing element of the brief was added once the client approached the

city with its final proposal, which doubled the size of the office and retail space. The city required further social value to be added in, which resulted in housing and a kindergarten. “It was beneficial to the project, making it more diverse,” says des Courtis. The apartments are enhanced by having their interiors in exposed timber, giving them a distinctive appearance.

The hotel part to the side of the site includes a 12-metre-high ballroom/events space which is intended to be very flexible to include functions such as car showcases; it can be divided into five smaller spaces.

In terms of the 12,000 m² of office spaces, they were also made to be highly flexible so that a single tenant could take a whole floor, or each floor could have several tenants. “The organisation functions well on different scales,” adds des Courtis, explaining that the building needs to support both fixed office spaces and highly flexible open floor plates.

The architects decided to move the hotel lobby from the ground to the second floor,

FACING PAGE

A huge curtain tackles shading in one of the office portion's meeting spaces



The substantial facade has been broken up in a playful way using different cladding tones, setbacks and overhangs

which is “quite striking” for users, says des Courtis, as well as making “as much room as possible on the ground floor.” He adds that for hotel guests, “there’s nothing at the ground floor, apart from a hostess greeting you, then you take an escalator or a lift to the lobby.” This was partly done to avoid the base of the hotel tower from dividing the commercial centre in two, and to create a lighter space, while the lobby on the second floor is more compact.

One of the most unusual and refreshing things about this building is how the programme is revealed by the facade, as des Courtis explains. “There are different geometries unique to each programme, and each is revealed just by its shape and size, and the shape and size of its openings.” He adds: “This is due to a conscious choice to make it visible – and everybody can understand that there is something special happening in certain spaces.”

The main facade is also enlivened by the open stair running up the interior, which is fully visible through the glazing, but clearly connecting retail and office functions in an unusual way. Many of the spaces have blinds to mitigate solar gains, but the main double-height office meeting spaces have a huge fabric curtain.

Sustainable benefits of the scheme,

beyond reusing much of the concrete structure, include a district heating approach, whereby heat recovered from cooling the commercial spaces is used for the hotels’ showers.

Conclusion

Pierre des Courtis notes that the project being a success is especially gratifying given that the son of the original architect who designed the site in the 1970s lives next door! He believes this high-profile scheme has some distinct characteristics; in particular taking a ‘third way’ approach to retaining a lot of the structure, while also making a series of key design moves. “Most refurbishments either destroy a lot more than we did, or a lot less.”

Winy Maas concludes on the scheme that such an in-depth, complex scheme cannot really have an end point, although it may now be more about the fine details: “The process of transforming an urban block on such a large scale, and yet is never finished.”

“To know which piece of concrete to keep and which to cut, how to occupy, redevelop, then reoccupy spaces, is a continuous conversation.” Maas adds however that this may now be a “DIY process” for the client, one which is “in permanent evolution.” ■

Breathing new life into historic building



The Grade II* listed India Buildings in the heart of Liverpool has undergone a major refurbishment, to transform the 100 years old, 12-storey mixed use structure into state-of-the-art office, residential and retail accommodation. Being redeveloped for owner Legal & General by refurbishment specialist Overbury, the rejuvenation sees the eight floors of Category A office space delivering a BREEAM and WELL-compliant environment, through grilles and diffusers from air movement specialist **Gilberts (Blackpool)**. The 350,000 ft² of commercial space is served by four-pipe heating and cooling services connected to fan coil units behind bespoke bulkheads. Consulting engineers Crookes Walker Consulting designed the ventilation strategy, installed by Ameen Building Services Engineering. Crookes Walker specified a combination of Gilberts' JSL and L Series linear bar grilles in the bulkheads, GECA eggcrate grilles and GTD concealed swirl diffusers across the field area of the perforated ceilings to handle both the supply and extract of fresh air throughout the open plan commercial areas. Gilberts GX air valves ventilate the WCs.

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INDUSTRY VIEWFINDER

Design for SuDS

Stormwater Management & Green Infrastructure

Executive Summary

The Government has finally announced that it will be mandatory to include Sustainable Drainage Systems (SuDS) in virtually all new housing developments from 2024. The Flood and Water Management Act was brought into law in 2010 but at the time it was decided not to implement the Act's Schedule 3 which would have made SuDS compulsory for new developments.

SuDS approaches encompass a range of established green infrastructure as well as 'grey' or man-made/engineered solutions to attenuate stormwater, i.e. hold it on site for slow release back into the drainage network, via making sites more 'permeable.' But for the past 12 years, taking such action (which can mean significant amounts of below-ground work), has only been compulsory on schemes containing more than 10 homes.

On Schedule 3's implementation, which is due at the start of 2024, all developments in England of more than one home or with an area over 100 m² will have to include SuDS measures to protect local drainage against the effects of stormwater. This move will bring England in line with Wales – where SuDS has been mandatory since 2019.

Rising urbanisation, a growing population, and more intense weather patterns driven by climate change are causing our traditional and often aged combined sewer systems to be overwhelmed. Without a more effective, holistic water management approach, flooding events from surface water and sewers will continue to cause adverse effects, with more frequency and severity, not to mention hazardous discharges from storm overflows.

By its very nature, SuDS is about designing networks, and integrating systems together, both man-made and natural. This requires design co-ordination and forethought. Bringing natural and man-made systems together is not necessarily complex

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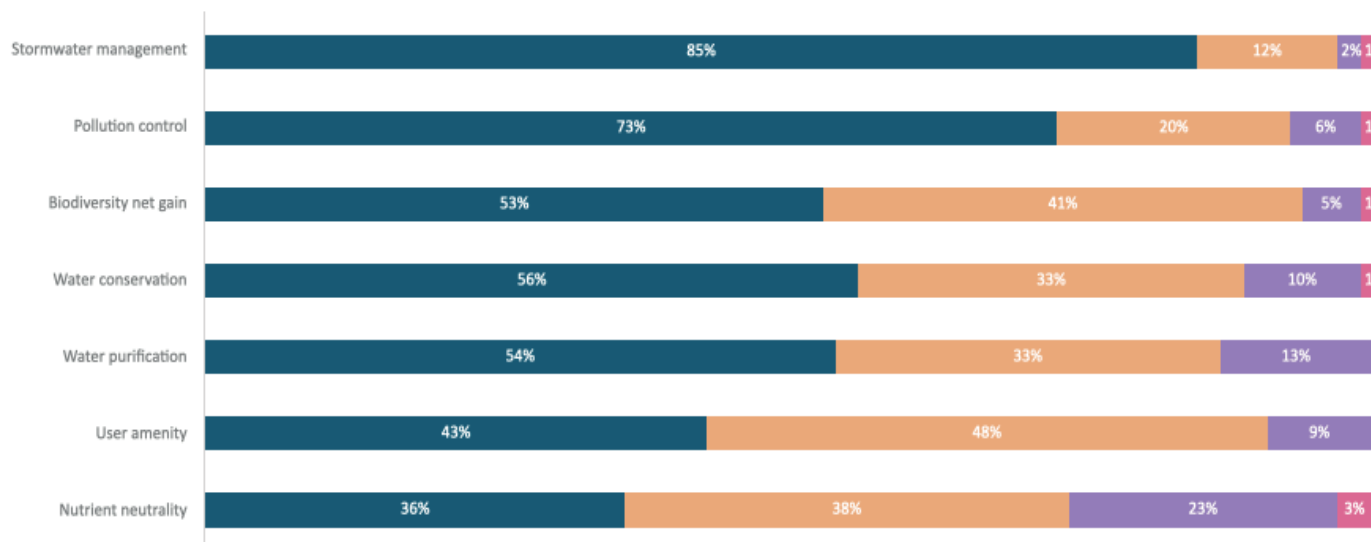
in itself, but it does require design teams, engineers and municipal bodies to work together in perhaps unfamiliar ways to make sure projects are truly futureproofed. As the survey we undertook shows, architects can and should be bringing their skills to bear at the centre of this process.

Our survey was conducted to find out and understand architects' experience in this area and gauge their opinion on the problems but also the solutions available, and how realistic they are. Among its key findings was that architects are highly engaged with the issues but also closely involved with specifying the solutions to manage stormwater across a range of projects.

Other factors we explored included respondents' key drivers for including green infrastructure in developments, and which solutions they currently believe are realistic, such as combining 'green' with engineered 'grey' solutions. We asked further key questions such as whether developer clients understood the importance of comprehensive stormwater management, and whether robust SuDS solutions require fully 'holistic' design – achieved via collaborative approaches.

We asked respondents which were their favoured green stormwater management methods, but also which 'grey' methods they were specifying instead, and importantly, which they were





"Please rate the following as drivers for including green infrastructure in developments:"

Very Important Moderately Important Not Very Important Not At All Important

specifying alongside natural methods. We also canvassed them on the challenges experienced in achieving SuDS projects that put landscape and amenity for users first in schemes, and their views on whether leaving leadership on projects to engineers could endanger this. Lastly, we looked at the information sources they were using to specify SuDS schemes, and what they needed in terms of advice in achieving the accepted criteria of a strong 'management train of interconnected features' which make SuDS systems effective.

Introduction – Sustainable Drainage Systems (SuDS)

What is the SuDS approach?

The use of Sustainable Drainage Systems (SuDS) is intended to control both flood and pollution risks from urban surface water run-off by managing rainwater as close to where it falls as possible. Systems attempt to mimic natural drainage processes and encourage infiltration, attenuation (retaining water), and passive treatment, breaking down pollutants. SuDS should also provide natural habitats, improve biodiversity and create recreational areas, as it also helps local authorities, planners, architects and developers deliver greener infrastructure in projects.

The elements available that can be chosen for a SuDS system are summarised by industry website Susdrain.org as including some or all of the following:

- Source control (green roofs, rainwater harvesting, permeable surfaces)
- Swales & channels
- Filtration (strips, trenches and bioretention)
- Infiltration (soakaways/tanks, infiltration basis, rain gardens)
- Retention & detention
- Wetlands
- Inlets, outlets and controls (including vortex controls)

Both green and grey infrastructure can be integrated effectively, including with traditional stormwater infrastructure such as gutters, drains, pipes, and retention basins. However, employing the right

The use of Sustainable Drainage Systems (SuDS) is intended to control both flood and pollution risks from urban surface water run-off by managing rainwater as close to where it falls as possible

expertise is key in order to ensure this is done right for each site. And the role of architects, according to our research, is a prominent one in designing SuDS schemes. Among our 101 respondents, 69% had recently been involved in specifying 'green stormwater management' in projects, and 61% had been involved in specifying 'engineered/proprietary SuDS.' A further 53% said that they have recently specified systems that were a hybrid of the two.

The SuDS philosophy has four key 'pillars,' as outlined in the SuDS Manual published by CIRIA (the Construction Industry Research and Information Association):

- Water quality; the quality of surface water runoff needs to be managed to prevent pollution
- Water quantity; supporting the management of flood risk, and maintaining and protecting the natural water cycle
- Amenity; creating and sustain better places for people
- Biodiversity; creating and sustaining better places for wildlife.

SuDS come in various forms which control water runoff in different ways. Natural approaches include linear wetlands, swales and retention ponds, detention basins and vegetative filtration. Grey solutions include stormwater attenuation tanks. Our survey respondents ranked the 'macro' drivers for including green infrastructure in developments. As well as stormwater management, unsurprisingly the most important factor, pollution control was a strong second, with 93% saying it was a 'very' or 'moderately' important factor driving projects for their clients.

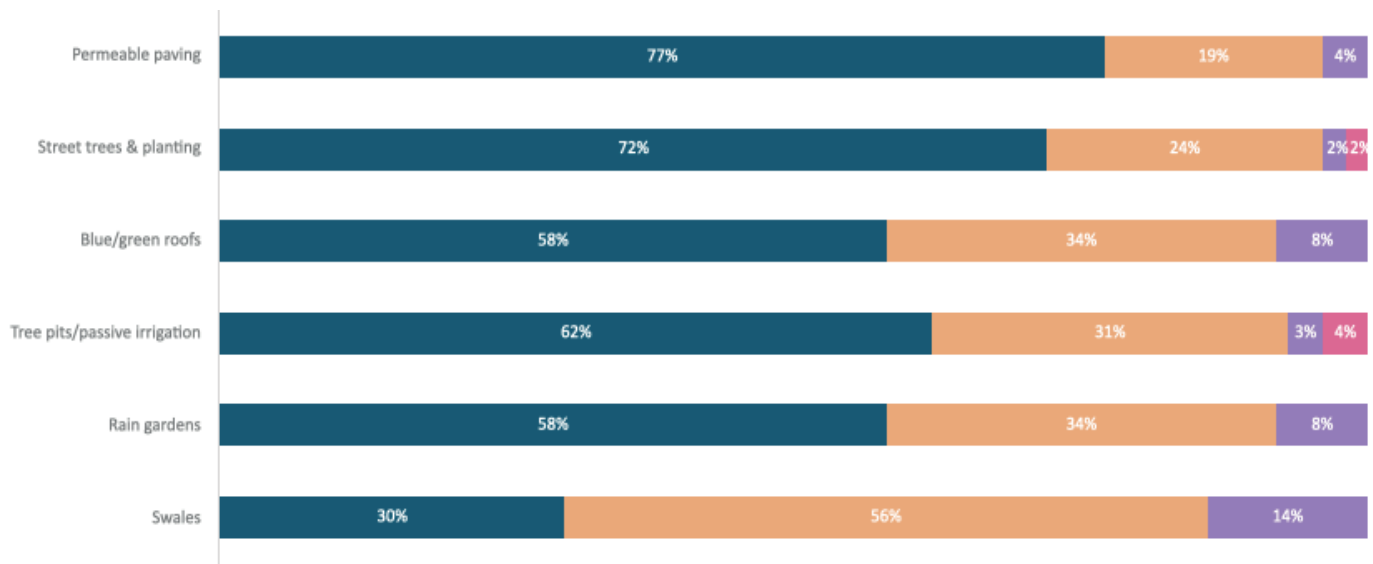
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“How realistic do you think it is to use the following green infrastructure solutions to meet stormwater management needs in UK projects currently?”

Very Realistic Slightly Realistic Not Very Realistic Very Unrealistic

Planning process & maintenance issues

The network of responsibilities overseeing SuDS and green/grey infrastructure installations is as complex as the projects themselves can be. A total of seven sets of bodies can be involved in managing project risk, from the Environment Agency, to Lead Local Flood Authorities and District and Borough Councils, as well as coastal protection bodies, water companies, ‘Internal Drainage Boards’ managing local water levels, and lastly, Highways. The Flood Act requires them to work together and exchange information.

One of the most notable developments in the oversight part of the picture is the introduction of SuDS approval bodies (SABs) who as part of the Schedule 3 of the Act implemented in 2024 will ‘adopt’ the new drainage systems as an asset and therefore be responsible for their maintenance, based on the systems meeting certain criteria. If the pattern in Wales is replicated in England, SABs will also provide a pre-application advice service to design teams to discuss their proposals, and evaluate and approve applications for new developments where construction work has an impact on drainage.

Assessing the challenges

The challenges faced by architects as well as civil engineers, landscape designers and specialist consultants – and the local authorities that commission them to provide effective SuDS for developments, are multi-faceted.

Availability of land

The scarcity of land for projects is one major factor which is cited (including by our survey respondents) as something which can make nature-based SuDS schemes very hard to pull off effectively. It’s believed by experts that this may be one further aspect which drives the hybrid approach of green and grey systems working together, namely that by adding engineered approaches, the space requirements to install a natural system are mitigated. However, there has been a long-standing ‘5 metre rule’ in Building Regulations which says that water attenuation systems like tanks

and soakaways cannot be constructed within 5 metres of buildings, due to the risk to foundations.

Developer resistance

One of the key stumbling blocks for introducing SuDS to housing developments has been the reluctance of developers to invest in something which is not mandatory, and from which the commercial benefits could be seen as intangible. However, are developers beginning to understand, and put money behind, tackling the challenges of changing weather patterns, before it becomes compulsory to do so in 2024?

We asked whether respondents’ developer clients understand the ‘importance, and design ramifications of, comprehensive and fit-for-purpose stormwater management?’ Disappointingly, 62% thought that developers currently didn’t.

Landscape-led approaches

We looked at what the challenges were for architects in achieving the ‘landscape-led’ SuDS projects that can add the maximum amenity and desirability for customers.

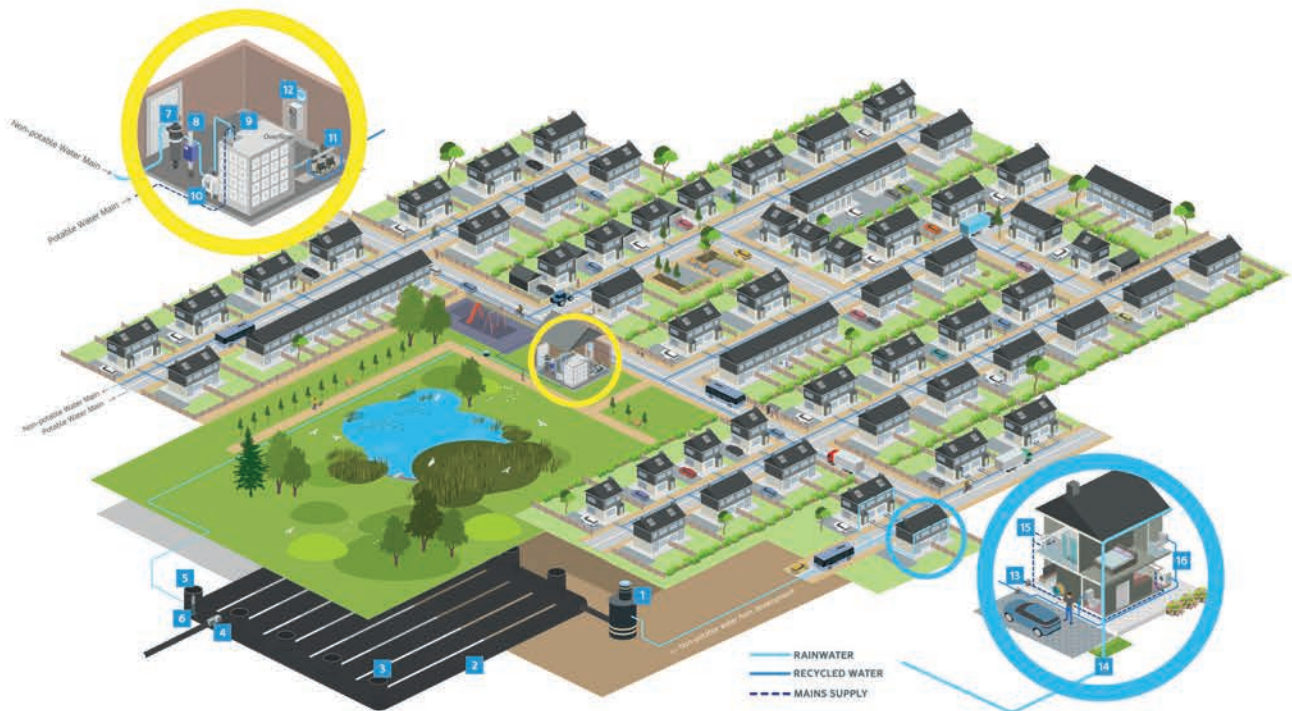
Land availability, questions around adoption (who will maintain the asset), as well as understanding, planning issues, lack of information and design tools and ground conditions. These were all factors cited by our survey respondents which were causing difficulties in specifying nature-based solutions.



EXPERT VIEW

Chris Hodson is an architect and consultant to trade body Interpave, which champions concrete block permeable paving as a ‘nature-based’ SuDS technique. He comments that this survey finding may reflect an issue of lack of education within the industry on SuDS: “Many developers do not appear to have been made aware of the multifunctional benefits of SuDS and green infrastructure.”

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From 2024 it will be mandatory in England for all new developments to be equipped with sustainable drainage systems (SuDS) with rainwater harvesting as the priority runoff destination*.

* Defra: Sustainable Drainage Systems Review published 10 January 2023



EXPERT VIEW

Chris Hodson commented: "It has been clearly demonstrated that multifunctional SuDS and green infrastructure do not add to capital or maintenance costs, or land-take. Unjustified resistance is still experienced from developers, local (NB highways) authorities, civil engineers and other consultants. The January 2023 Defra report recommending mandatory SuDS recognises the need for education and development of skills, together with adaptation of other guidelines (for example for street design) to suit SuDS and GI."

Information gap

Although the manual is cited in the industry as an extremely useful guide for specifiers, when it comes to 'proprietary' (engineered) SuDS solutions, it is questionable whether enough useful CPD content and other technical support is made available to architects on the solutions. There is clearly a job to do here from the supplier side, but it's also up to architects to ask the questions. Further areas where there are gaps in information include advice on maintenance, data on sustainability, and digital tools including on how to integrate nature-based with proprietary features.

Engineer-led design

Our survey found that (civil) engineers were the most likely discipline to be specifying SuDS in the projects the respondents were working on. This category was picked by half of the architects we asked, followed by architects themselves at 40%, and 'specialist engineers' at 26%. Then came landscape designers (19%), closely

followed by structural engineers (17%), local authorities (15%), and with contractors lagging behind at 10% (another discipline mentioned being environmental engineers).

We asked whether there was risk to maximising the amenity for users of nature-based approaches if SuDS design is left to engineers and did not closely involve architects and landscape designers in the process? Perhaps unsurprisingly, our respondents largely said conclusively that there was such a risk, making comments such as "these things need to consider form as well as function," and "engineer-only designed systems as less likely to put nature and ecological criteria at the top of the design elements," and even "it needs to be led by architects and landscape designers." Other, more trenchant comments included "sometimes engineers do not value the input of landscape specialists," "landscaping is always an afterthought," and "generally engineers will tend to oversize the drainage." However, these were balanced with qualified views such as "a lot of the engineered-based approaches will lack the amenity qualities, but that seems to improve year on year."



EXPERT VIEW

Chris Hodson agreed with the respondents, stating: "SuDS should be multifunctional (therefore multi-disciplinary), and an integral part of urban planning and design."

Solutions

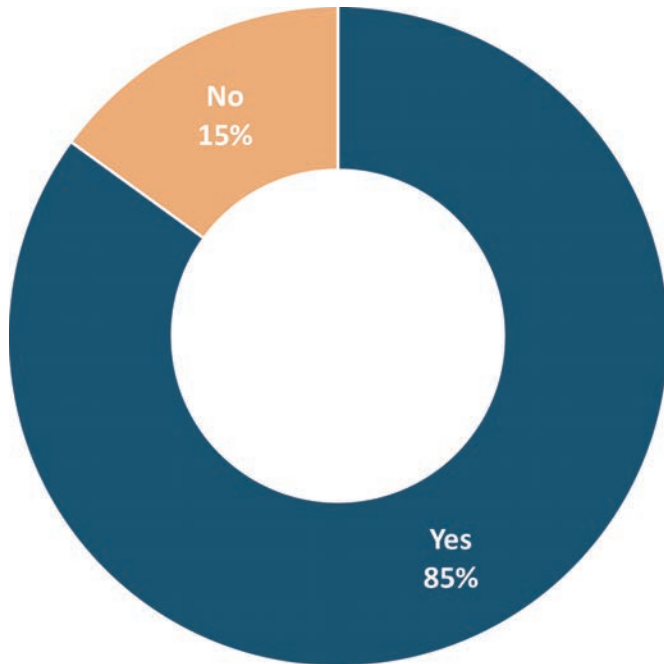
We asked architects whether they believed that a combination of natural 'green' with engineered 'grey' stormwater management was the most realistic solution for housing developments. 85% said this was the case, giving a strong endorsement to hybrid solutions, potentially highlighting how such measures can alleviate space problems in housing schemes.

Among the questions we asked around preferred solutions were the 'grey' infrastructure stormwater management solutions that readers they were specifying to work in conjunction with natural solutions? The result was closely split between permeable paving (229 points) and attenuation tanks/soakaways (228 points), but rainwater harvesting was close behind with 211 points, and plastic SuDS generally was preferred over concrete (69 points to 53 points).

Before specification is the focus however, what sources of information were architects using to identify best practice in scheme design? The most popular answer was the local planning authority (41%), followed by the Environment Agency, Institute of Consulting Engineers, RIBA, and the SuDS Manual in fifth place. After that came Defra, the Flood Act itself, then SuDS modelling software, and CIRIA. 6% picked 'none of the above' – or 'other' sources.

Need for collaboration & information

SuDS and stormwater management projects don't just cut across various professional disciplines, they also run across local administrative boundaries. So there is a clear need for organisations to work together collaboratively and openly like many will have never experienced previously.



"Do you believe that a combination of natural 'green' with engineered 'grey' stormwater management (e.g. swales connected to stormwater attenuation tanks) is the most realistic solution for housing developments?"



Water Management
StormBrixx

STORMBRIXX

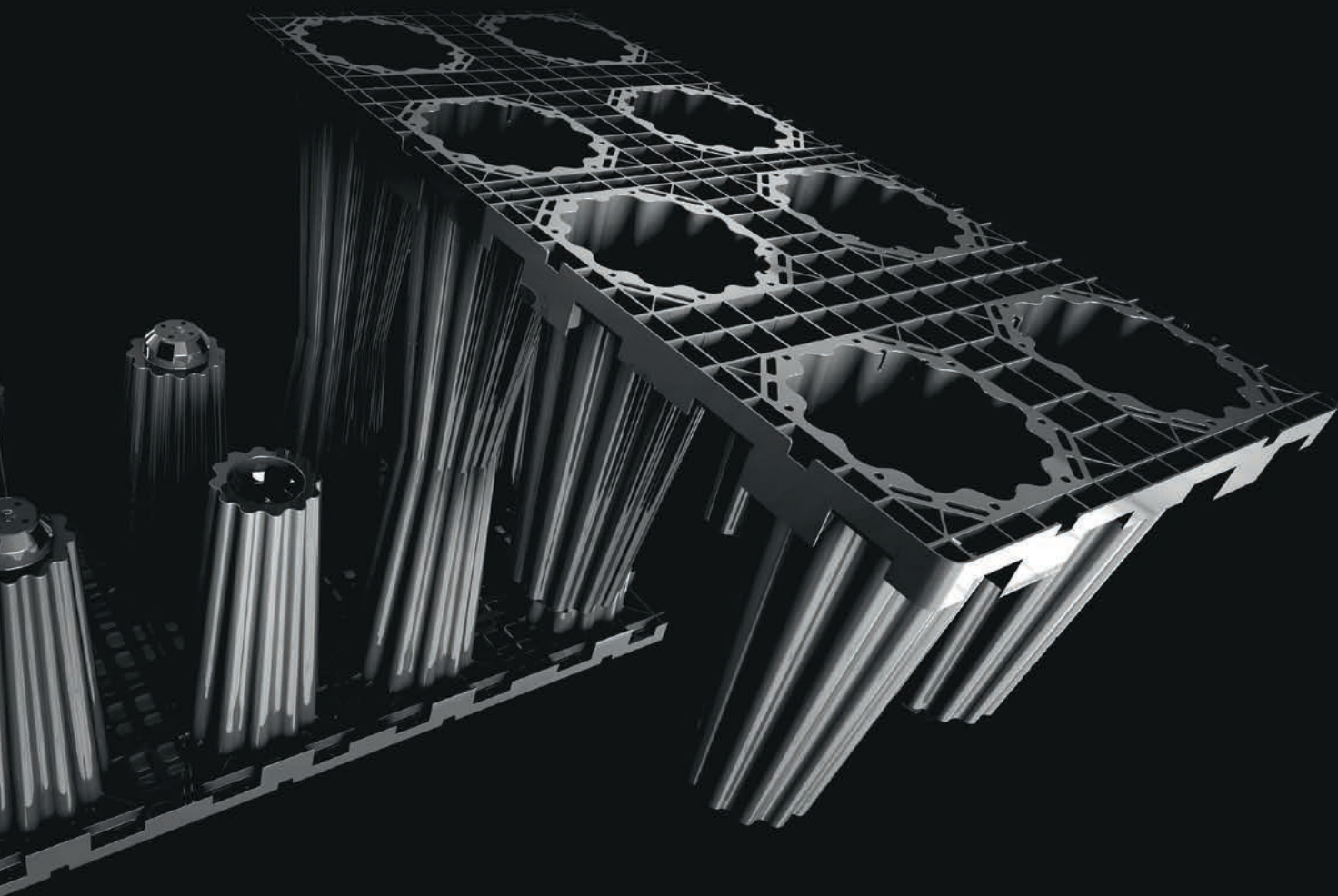
Storm water must be managed effectively to mitigate flood risk in rural and urban environments.

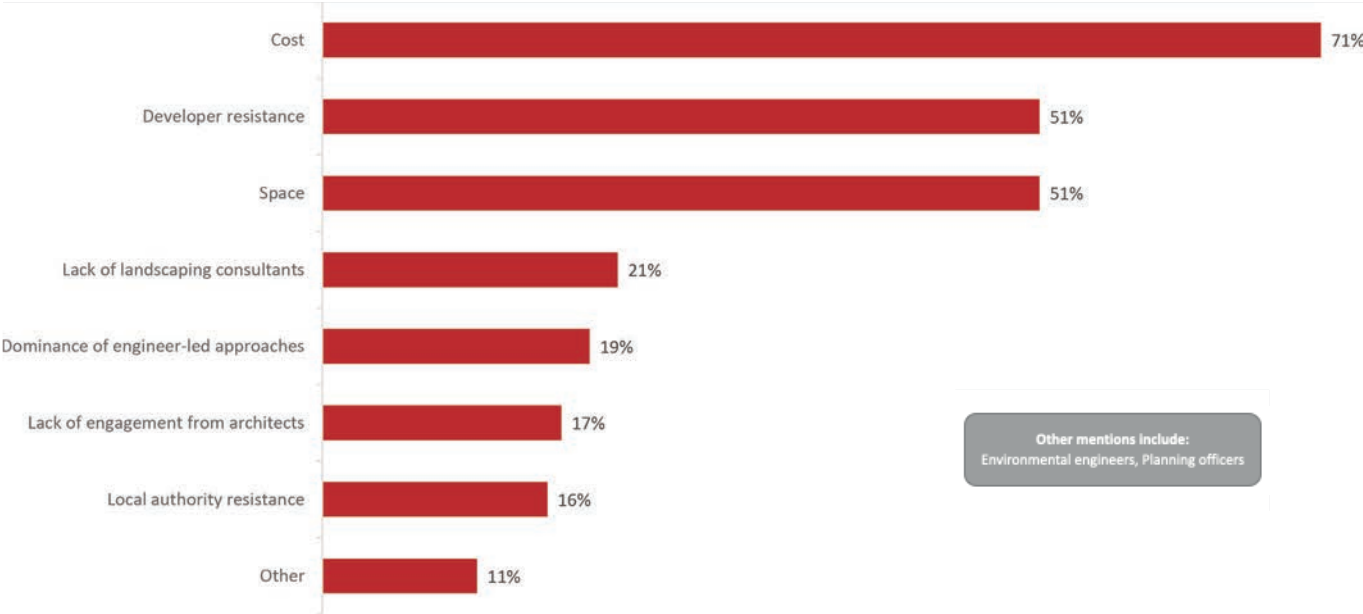
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“What are the challenges to achieving ‘landscape led’ SuDS projects that add amenity and desirability for customers?”



EXPERT VIEW

Chris Hodson said that info was being expanded: “Various information sources are being prepared/ updated now in readiness for 2024 implementation, including Mandatory National Standards for England and the SuDS Manual. Other sources include Interpave guidance on permeable paving (including synergy with street trees).”

The established SuDS ‘management train’ approach looks to divide an area to be covered by an overall project into individual local sub-catchments, further increasing the need for collaboration to properly integrate the various physical features involved. This means ironing out sometimes conflicting priorities between engineers (such as systems efficiency and water quality), landscape architects (biodiversity and amenity), and local authorities (local plans for development).

The four pillars of SuDS have to be the goal in every scheme; we asked respondents if they could only be achieved if the schemes “are designed on a fully holistic basis by using collaborative approaches.” Only a couple of people surveyed disagreed, with the vast majority saying that collaboration was essential. One comment given summed the key reasoning up: “I agree, for the simple reason that the four pillars have interfaces so are effectively linked.” Another concurred because “conflict causes delay, which frustrates implementation of suitable solutions.”



EXPERT VIEW

Chris Hodson of Interpave was among those in agreement on the importance of a collaborative approach to design: “This has been demonstrated by 20 years experience in the UK.”

Defra is to finally take action in 2024 to ensure that SuDS are introduced on the majority of new housing developments

Conclusion

As one of our survey respondents put it, in a simple and yet deceptively challenging phrase: “We have to manage our water far better than we are at the moment.” Architects are well placed to take their place with engineers and they have a range of key skills, as well as the interest, to take their rightful place in the SuDS design team. This will ensure that their knowledge is applied to real situations and achieve holistic solutions, particularly in housebuilding, to help address the challenges.

Defra is to finally take action in 2024 to ensure that SuDS are introduced on the majority of new housing developments. This a major, demanding shift for the industry, but learning from the experts in the field, and from experience in Wales where SuDS has been mandatory in developments since 2018, will prove to be essential for success. With all of the complexities that our survey has shed further light on, it is key to try and learn from the experts and those who have been through the process now, to ensure that the most value for money, as well as most environmentally beneficial stormwater management solutions can be found.



EXPERT VIEW

Chris Hodson concluded: “Since the 2010 Act, substantial experience has been gained of SuDS, including in Wales, and demonstration project case studies. These show that SuDS can cost less than conventional piped drainage and offer multifunctional benefits to developers, housing providers and residents/users.”

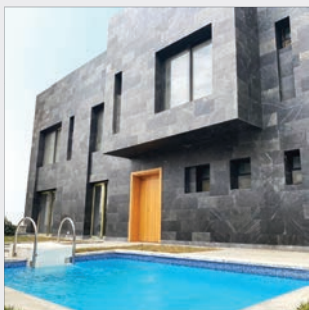


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 **Marshalls**

Marmox Slicedstone Veneer sheets on display at the natural stone show



Marmox will be displaying its range of new Slicedstone Veneers at the Natural Stone Show, held at the ExCeL, London on the 6-8 June on stand G48. For architects and interior designers looking for reliability coupled with visual appeal, the Marmox Slicedstone Veneers range is the perfect solution in areas that need dependable and durable performance. Ideal for bathrooms, wetrooms and any other room in the building or as an external cladding. Slicedstone Veneers are also ideal for coating doors & furniture, including garden furniture. The Sales and Marketing team will be on hand throughout the three days at ExCeL, showcasing all 13 flavours that are currently in the range. Displaying the beautiful colour variations of natural Indian stone, the new Slicedstone Large Format Veneer Sheets are available in three sizes – 1,220 x 610 mm, 2,100 x 1,050 mm & 2,400 x 1,050 mm. The product's slimline form – at just 4 (±1.5) mm thick and supplied on a specially formulated decoupling layer – means they can still be applied to curved surfaces, both indoors and out.

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Happiness in interiors at CDW

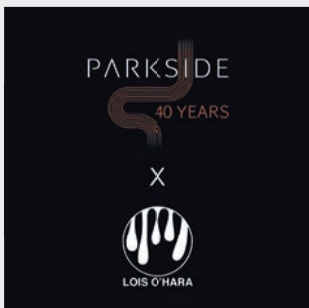


Unilin Panels is unlocking the key to happiness with workshops and events at The Gallery Clerkenwell during this year's Clerkenwell Design Week, 23-25 May. Visit Unilin Panels during Clerkenwell Design Week and discover a programme of hands-on workshops exploring the

notions of your own happy place and what it takes to make interior experiences that support happiness and wellbeing. Throughout, you'll also be able to explore Unilin Panel's 2022-2026 collection, including the award-winning Master Oak HPL.

info.panels@unilin.com www.unilinpanels.com

Parkside 40 Years x Lois O'Hara Launches at Clerkenwell Design Week



2023 marks four decades of Parkside's involvement in tile specification. Since its inception, the business has been providing contemporary porcelain, ceramic and natural stone tiles to commercial interiors. Providing design-led and sustainable tiles, including exclusive ranges such as the new Principle mass-produced 91% recycled content tile, Parkside has built a reputation for technical excellence and innovation. To celebrate 40-years of business, Parkside is collaborating with Brighton-based visual artist Lois O'Hara, launching Parkside 40 Years x Lois O'Hara at Clerkenwell Design Week, 23-25 May 2023. Lois's unmistakably playful patterns and positive visual narratives have graced Wembley Park, Grand Designs Live, Brighton's seafront and Westfield Stratford. Her work also includes brand partnerships with Adidas and Pantone, as well as the cover of OnOffice magazine. Parkside 40 Years x Lois O'Hara will see the artist adorn the exterior and interior of the company's Clerkenwell Sustainability and Design Studio with a one-off design. Parkside will also be celebrating with the Parkside 40 Years x Lois O'Hara Party on Thursday evening.

0116 276 2532 www.parkside.co.uk

ROCKWOOL appoints Nick Wilson as new UK Managing Director



ROCKWOOL has welcomed Nick Wilson as managing director to lead the insulation manufacturer across the UK and Irish markets. Wilson brings over 20 years of experience across the industrial, appliance and heating sectors, having held senior positions across commercial, marketing and operations functions. He joins at a critical moment for energy efficiency, with the cost-of-living crisis having tipped an estimated 3.1 million households in England into fuel poverty. Meanwhile the Climate Change Committee's most recent Progress Report to Parliament called for a "sustained push" on energy efficiency, bringing pressure on the government to accelerate retrofitting rates to reduce bills and carbon emissions. Rafael Rodriguez, senior vice president at ROCKWOOL Group, said: "Nick is a proven leader with exceptional commercial and operational acumen. We are delighted that he will drive the company's efforts through a period of heightened need for both energy efficiency and fire safety solutions in the UK and Ireland, whilst also championing our own sustainability goals".

01656 868 490 www.rockwool.co.uk

06 – 08 June
ExCeL, London

the Natural
StoneShow 2023

Showing how to build with stone

Many homeowners dream of including natural stone somewhere in the home. Whether it is limestone floors, granite worktops, marble in the bathroom, a sandstone patio or a slate roof, the chances are there will be natural stone somewhere.

Simply put, aesthetically there is nothing that compares to natural stone. The fact that it is resilient and improves with age as it develops a natural patina is part of its attraction.

But stone can also help reduce a house's carbon footprint! And now more than ever this is becoming increasingly important, with the Future Homes Standard (FHS) now only two years away.

The Future Homes Standard requires all new homes to be designed and built without gas central heating and to deliver a 75-80% reduction in carbon emissions compared with the current standards. Stone can help.

Natural Stone is simply dug out of the ground as a product ready to be sawn, shaped and polished. There is none of the high energy heating required for the production of materials such as steel and cement, where the heat is still usually produced by burning fuels that put a lot of CO₂ into the atmosphere.

It is true the machines for cutting and shaping stone use electricity, but the electricity is increasingly likely to be renewable, much of it already being produced by photovoltaic cells on the roofs of the stone industry's factories. And although stone does come to the UK from all over the world, it is transported by huge container ships, so the CO₂ per tonne of freight delivered is low.

In use, the thermal mass of stone makes an ideal accompaniment to underfloor or behind tiling heating to make the most of energy from heat pumps. Underfloor heating radiates heat into a room in the same way the sun does, so a

comfortable temperature can be achieved with half the heating temperature of wall mounted radiators.

With global warming, as much of a problem in the future will be cooling a building, and here again, the thermal mass of stone has its benefits by helping to keep spaces cool.

Not all stones are the same, though, and choosing the right stone for any particular use is as important as choosing the right product for any other part of your build. To get a handle on stone, there is no quicker or easier way than by visiting the Natural Stone Show at ExCeL London, 6-8 June.

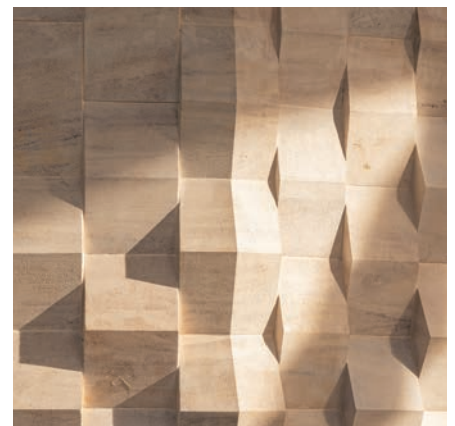
There you will be able to talk to producers and suppliers of natural stone and if you want to dig a bit deeper, the associated seminar programme will offer more in-depth discussions.

You can plan your visit to the show and see which seminar sessions might be of interest to you by scanning the QR Code, where the exhibitors are listed and the seminar programme will be posted shortly.

If you prefer man-made quartz, sintered stone or porcelains, you can visit the Hard Surfaces exhibition that is also at ExCeL in conjunction with the Stone Show.

Producers of these products are also working towards net zero to reduce their carbon footprints by using renewable electricity and incorporating recycled materials in their surfaces. The show even includes some incredible new surfaces from unlikely materials, some still in experimental stages, in its Material District feature that you'll find fascinating to explore.

*Article
supplied by
the Natural
Stone Show*



Column casing specification and application

Gavin Byram, technical project manager with decorative casing and enclosure specialist, Pendock, provides an insight into the specification of one of the company's key product brands within its range – Radius column casings – while also exploring their application and key areas that should be considered during selection.

Column casings are a widely used and highly versatile method of concealing interior and exterior structural elements and building services to improve a project's aesthetics and, in many cases, provide protection.

Over the years, the demand for new solutions and designs to meet equally demanding project specifications, has had a significant influence on the range of options currently available.

Today, the Pendock Radius brand comprises six individual column casing types, which are manufactured in a range of standard shapes and materials, as well as bespoke options. They are:

- **MDF-CL:** Circular MDF casings, which can be left plain for on-site finishing, but are usually specified with a durable and decorative high pressure laminate (HPL) finish.
- **PLY-SQ:** Pre-formed plywood, usually specified with a decorative HPL finish, with the option of square or rectangular shapes.
- **MET-CL and MET-SQ:** Circular or square casings manufactured from aluminium of stainless steel. Typically specified with a PPC finish although brushed; polished; textured; patterned and perforated options are also available. Bespoke manufactured for individual projects.
- **GRG-CL:** Circular glass reinforced gypsum (GRG) casings produced from moulds in standard or bespoke sizes and shapes. Typically left plain for on-site decoration.



11 metre high pre-formed casings at EPAC, Didcot

- **GRP-CL:** Glass reinforced plastic (GRP) casings that are produced from moulds in standard circular shapes and can be specified with bespoke dimensions or forms for individual projects.

Although aesthetics are important, as column casings are primarily decorative items, specifiers should also carefully consider issues of practicality, as this will directly affect material selection, and in some cases, the choice of finish.

At the other end of the scale, glass reinforced gypsum (GRG) casings are more suited to the performance and aesthetic needs of lighter traffic interior spaces, such as smaller retail units, offices or car showrooms.

Casings manufactured from MDF, plywood and GRG should only be specified for interior projects, while for external applications, casings should always be manufactured from metal or GRP due to their inherent weather resistance and high durability. GRP is also an ideal choice for indoor swimming



Metal column casings – Northumbria University



Porsche Centre Preston metal casings

Design and durability

Buildings with high footfall, such as conference venues, shopping centres, retail outlets, and airports, usually require the greatest level of durability. This is best afforded by pre-finished products using durable high-pressure laminate (HPL), alongside stainless steel and aluminium with polyester powder-coated finishes.

pools and larger aquatics centres as they are unaffected by water and high humidity levels, or chlorine's corrosive properties.

Elevation is another key design consideration. As a guide, where column casings are stacked to reach extended heights, they should generally be specified in a pre-finished material rather than site finished options, as it can help simplify installation.

If site-finished materials are specified, such as GRG or plain MDF and plywood, it's likely that scaffolding will need to be erected, then dismantled, relocated and rebuilt, so that each column can be finished in turn. This clearly, adds avoidable time and cost to the building programme and is an issue than can be removed at the specification stage.

Casing shape is not only a matter of personal preference but is also driven by the elements that need to be concealed. In many applications, the column casing will be enclosing a single column or structural support, which usually results in circular sections being favoured for aesthetic and ergonomic reasons, given the wide choice of diameters and finishes available.

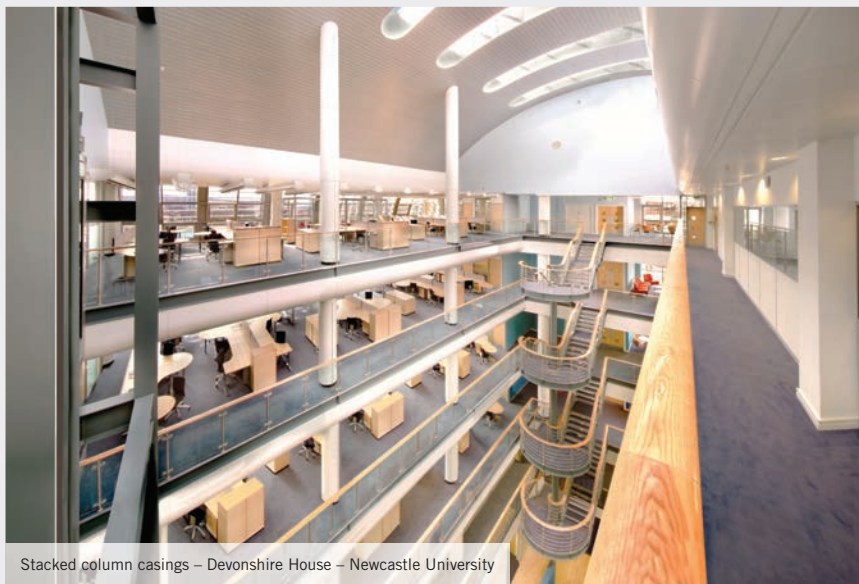
Form and function

However, where building utilities, such as electrical cabling, air conditioning system components or pipework are secured to structural supports, a circular shape could prove impractical, as the diameter may need to be over-sized, purely to accommodate the additional services.

An alternative solution would be to use, rectangular, elliptical or extended circle designs, allowing the elements to be concealed effectively while minimising the casing's footprint and maximising floor space.

Specifiers can also utilise the external surfaces of column casing to locate electrical sockets, lighting, signage, security cameras and television screens among other items. This can help provide additional benefits for shops, schools and other buildings, where space is generally at a premium, but may also have an influence on the casing shape and material.

For example, where electrical sockets are fixed to the column casing, it might be more practical to specify a square or rectangular casing solution with a flat surface, rather than curved. Also, if the casing is to support lighting, cameras or mirrors, shape becomes less of an issue, but the casing itself



Stacked column casings – Devonshire House – Newcastle University

needs to be robust enough to support the weight and allow the fixing of the necessary support brackets.

It's also worth noting that with very few exceptions, all column casings will need to incorporate adjustable recessed head and skirting collars as part of the specification.



NEC Piazza – Birmingham

In almost all cases, price tends to be driven by several factors, in addition to material choice. The size, shape and finish should be considered, as well as whether the casings are a 'standard' or a bespoke manufactured items.

Typically, MDF and plywood casings can be specified from a standard range while GRG and GRP moulded casings allow a high degree of versatility for bespoke solutions. As metal casings are bespoke manufactured, this usually attracts a price premium, as they are specified to meet unique dimensions, forms, finishes and other dedicated project criteria.

For assistance with specifying any Radius column casing, please call Pendock, visit the website, or e-mail technical@pendock.co.uk



01952 580 590
www.pendock.co.uk

These provide a level of dimensional flexibility, at both design and installation stages, allowing any variation in the floor to ceiling height to be accommodated.

This is particularly helpful in multiple column installations where the casing heights can be kept the same and any gaps, top or bottom, are filled by the sliding collars.

Comparative cost

As a general guide, in terms of budget, laminated-faced plywood products are the most cost effective, followed by aluminium and GRP options, with stainless steel being the most expensive material.



Virgin Active gym – London



Rectangular plywood casings – Waltham Forest Library

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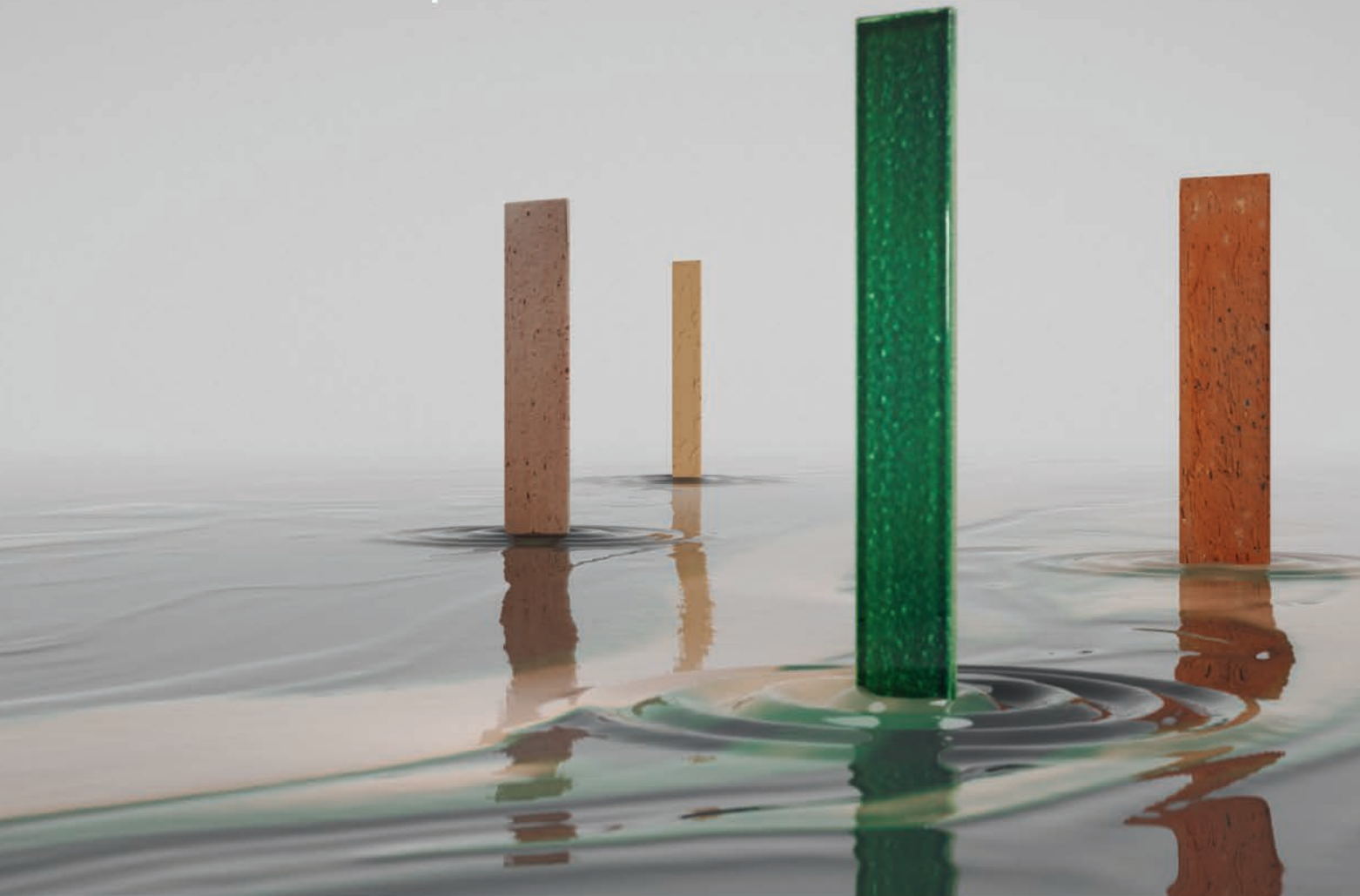


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Boxing clever with spray foam insulation

High performance spray foam insulation has been used in an innovative shipping container repurposing project in central Manchester.

The project – The OGS Container Scheme – has been built at the Old Granada TV Studios site and uses an array of 20 ft long metal shipping containers to create low cost office space for start-up's and other small businesses.

The £3m development uses 42 containers to form a four-story integrated block comprising three rows of 14 containers over a ground floor podium of steelwork. A blockwork core houses lifts to all floors and each level has WC and kitchen facilities and a floating walkway with staircases at both ends.

Main contractors for the project were Artez Interiors LTD of Bolton. Artez QS, Jeff Greenwood explains: "Overall construction was straightforward with each container being craned into position and locked in place. We used brand new containers rather than recycled so we knew everything would fit together perfectly."

He continued: "One of our biggest challenges however, was thermal insulation. Metal boxes are notoriously difficult to insulate effectively and reaching the required thermal values meant we had to think out of the box."

High performance closed cell insulation

To solve this issue, Artez brought in Stockport based insulation specialists Green Horizon Energy Solutions Ltd, who recommended a high-performance



Containers were craned into position and locked in place

closed cell insulation system from Huntsman Building Solutions (HBS).

Matt Lawford of Green Horizon specified HBS Heatlok HFO, a polyurethane-based product which is spray applied directly to the internal walls of each container.

Heatlok HFO is a premium closed-cell foam that expands 100-fold on application, completely filling difficult to reach construction voids and creating a continuous, uninterrupted thermal barrier.

Steel studwork lining

Before spraying, each container was lined with 75 mm deep galvanised steel studwork to the walls and ceiling and electrical and related services installed. After application, a vapour barrier and conventional plasterboard were applied creating an effective self-contained fire compartment and at the same time, providing a decorative internal finish.

The spray foam insulation completely encapsulates the studwork and adheres to the contours of the metal container shell, eliminating the risk of condensation.

HBS Heatlok HFO is one of a new breed of high-performance, polyurethane spray foam insulation systems, developed in

Canada to cope with their notoriously harsh winter condition.

Zero ozone depletion

According to Huntsman, Heatlok HFO uses recycled plastic materials and renewable soy oils in its composition. Its hydrofluorolefin (HFO) blowing agent is the most environmentally conscious blowing agent produced to date, with zero ozone depleting potential (ODP) and a global warming



Heatlok spray foam insulation completely encapsulates the studwork and adheres to the contours of the metal container shell, eliminating the risk of condensation



Heatlok expands 100-fold on application, completely filling difficult to reach construction voids and creating a continuous, uninterrupted thermal barrier



Nearing completion. The OGS container scheme provides low cost office space for start-ups and other small businesses in Manchester

potential (GWP) of 1, making Heatlok HFO one of the most durable and environmentally friendly insulation.

Huntsman also confirm that HFO PRO complies with the intent of the International Code Council's residential and commercial building codes and is commonly used as a thermal insulation, air barrier, vapor retarder and water resistive barrier in above ground, below ground, interior and exterior applications.

The Old Granada Studios redevelopment area is rapidly establishing itself as a vibrant urban creative hub and events centre for Manchester and the OGS Container Scheme will form an integral part of the new cluster.

Quick to install and excellent thermal values

Construction work on the OGS scheme began in August 2022 and was scheduled for completion in February 2023. According

to Jeff Greenwood of contractors Artez Interiors: "Insulating the container units with Heatlok spray foam was the most logical solution. It was extremely quick to install, it gave us the thermal values we needed and it maximised internal work-space – a great solution all around."

www.huntsmanbuildingsolutions.co.uk

www.artezinteriors.co.uk

www.greenhorizonenergy.co.uk



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Streamlined methods

As the construction industry continues to face increased pressures amidst a global skills shortage, Martin Harvey from McAvoy discusses how offsite plus digital innovation remains a key means to streamline the industry's methods



Modern methods of construction (MMC) are disrupting the construction industry, creating a new set of design expectations, and pushing boundaries with the use of new technologies and systems.

There is no doubt the construction industry has recognised and embraced the benefits of the volumetric offsite industry. The offsite sector has improved dramatically in recent years, creating a totally immersive process that streamlines construction efficiencies with clever design possibilities.

Innovations in technology have pushed the envelope of design capabilities and presented manufacturers with fresh opportunities to create and implement new and innovative ideas to significantly improve speed, quality, and accuracy of the offsite product.

The construction industry as a whole is facing unprecedented pressures as the

well-publicised shortage of both people and skills continues to cause concern for firms across the globe.

With an increased demand for schools, hospitals, and houses – coupled with the Government's ambitious CO₂ emission targets – the industry is standing at a crossroads with firms being forced to rethink how they deliver.

The argument for offsite manufacturing providing the solution to this crisis is now stronger than ever, with its reduced reliance on a diminished trade-based skills pool, its versatility and its undeniable eco-credentials.

Digitally-led innovation

New technological capabilities have revolutionised the process of design, manufacturing, and construction: they can also eliminate risky (and often expensive) inaccuracies when constructing onsite.

The industry is facing increased pressure to be more sustainable. Offsite is crucial in enabling the success of the Government's Construction 2025 strategy



With digital technology ever-evolving, offsite manufacturing will continue to be better, smarter, and more efficient, transforming the way we design and create

An example of this would be the Seismic project – a new platform-based approach to construction designed to work towards the Government's Construction 2025 targets.

At the centre of the platform is a standardised frame and connector which allows a number of repeatable components to be held in stock and built offline. Designed with the latest in digital and manufacturing technologies, the results demonstrate that projects can be delivered up to 33% faster than typical modular construction, 32% lower in carbon and 47% better value, when compared with typical modular construction.

McAvoy is also one of several contractors who worked with Balfour Beatty on an 'Education sandpit' project that has been established by the Construction Innovation Hub. Through the creation of three structural frame systems (steel, precast concrete and engineered timber) the sandpit will enable the demonstration of interoperability between the systems and different suppliers. The Education sandpit has been developed with input from the Department for Education and, in addition to a 'Health sandpit,' is located at the Manufacturing & Technology Centre in Coventry. The objective is that this will provide a safe place to test, learn and develop, thereby benefiting the schools and hospitals of the future.

The construction industry is renowned for its 'find and fix' model which has seen firms face expensive delays. However, by

harnessing digital technology to access project data and identify and rectify any potential issues before they even become a problem, offsite manufacturers can improve processes, incorporate added-value and reduce build time.

The next step for digital construction is a drive towards digital twins with realised real-time projects modelled and monitored in a digital environment. This has its advantages, particularly for complex projects, with smart sensors and analytics successfully enabling stakeholders to access real-time information management at all stages of the build.

Augmented Reality (AR) has been introduced into processes by some firms, driven by demand such as for a solution that could verify the design data from 3D BIM models in the context of the physical built project.

AR has been a revolutionary shift from the previous process of printing 2D drawings. Following the introduction of AR into its design process, a number of significant benefits can be delivered for customers, including better communication between all parties involved in the manufacturing and build process. In addition, significant cost savings, increased efficiencies within the design and build process – and increased collaboration throughout the supply chain – are allied to significant improvements within their golden thread of information; and an improved client experience.

Environment & Efficiency

The industry is facing increased pressure to be more sustainable too. Offsite is crucial in enabling the success of the government's Construction 2025 strategy.

For many years we have been employing circular construction techniques, with core components capable of being reused and recycled. Modules, for example, are designed to have the ability to be stripped back to the shell and re-purposed as part of a different building, thereby saving money, time and CO₂ emissions.

With digital technology ever-evolving, offsite manufacturing will continue to be better, smarter, and more efficient, transforming the way we design and create, and it will remain an integral part in the evolution of the construction industry.

Martin Harvey is head of design and technical services at McAvoy

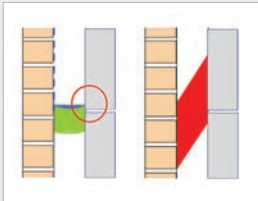


Tanking old school basement using Triton

A damp-proofing and timber treatment specialist, whose business has expanded and developed in parallel to that of Triton Systems over the past 40 years, is currently employing two of the manufacturer's well proven products for the tanking of a large basement beneath an old school in Ovingdean, Sussex. Bensleys was established in the mid-eighties and immediately struck up a beneficial working relationship with Triton as an emerging force in the development of drainage membranes, waterproofing systems, additives and other products suited to the challenges of working below ground. Lee Browne is supervising the site in Ovingdean. He said: "In the case of this school, where three walls of the basement are below ground due to the sloping site, the capillary damp was quite bad, but I was confident it could be treated using the TT55 tanking slurry and Triton's Tri-Cream DPC treatment which we inject. Triton has always been brilliant with us and any time a technical issue arises, I will always get in touch with Steve West at Triton or one of his colleagues, for advice or the supply or a special detail."

01322 318830 www.tritonsystems.co.uk

When it's all downhill to comply



Rectangular cavity barriers can introduce a bridge over which water tracks to the inside skin. An alternative approach is to use a cavity barrier that is shaped. The sloping top ensures water is always directed forward – away from the inner skin. No top surface transference can take place. Cavi 60 Type SAF = 60

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The BDA welcomes Sussex Handmade Brick



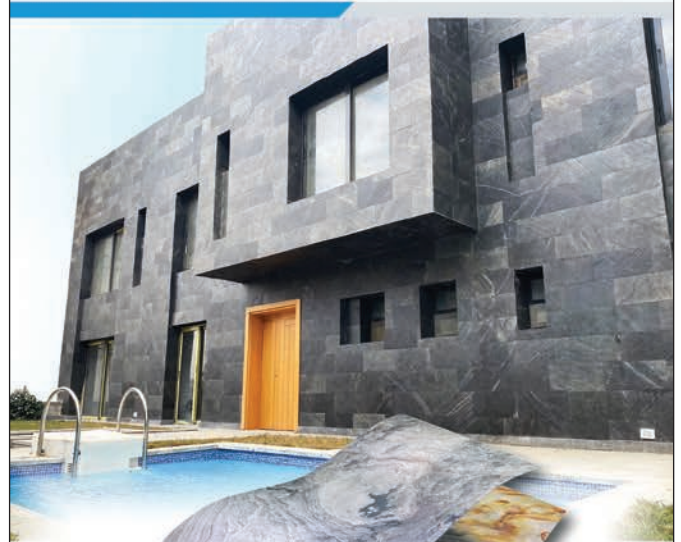
The Brick Development Association (BDA) welcomes Sussex Handmade Brick, a leading independent brickmaker in southern England, as it's latest member.

With over 125 years of experience, Sussex Handmade Brick produces 2.25 million handmade bricks a year in 14 distinct styles as well as offering bespoke brick options to cater to the specific requirements of their customers.

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Brick's net zero future

In today's construction industry, brick forms part of the sustainability argument and the drive towards net zero carbon emissions. Keith Aldis of the Brick Development Association (BDA) explains how manufacturing has evolved

Brick is not only one of the most attractive building materials, it is also one of the most sustainable. It is a natural, quality and maintenance-friendly product which is durable during all phases of its life cycle – from its construction phase with the use of raw materials through to the production process, and packaging. Meanwhile the porous structure of bricks offers a huge advantage: the ability to accumulate heat.

In winter, during sunny days, bricks can store heat from the sun and radiate the energy back when necessary. During the summer they can combat the heat and thus avoid overheating a building.

Bricks are created using abundant natural materials, sourced locally and through a domestic supply chain, the UK brickmaking

sector is a magnificent example of a sustainable industry.

However, the sustainable nature of brick most emphatically does not mean that the UK's leading brickmakers are complacent about the challenges posed by carbon emissions and climate change. All the members of the Brick Development Association (BDA) are committed to a programme of genuine sustainability and a drive towards net zero targets.

Example case studies

For example, Forterra PLC, one of the UK's largest brick manufacturers, has invested £95m in a new super plant at its Desford site in Leicestershire. The new plant will be capable of producing 180 million bricks per year and will be the largest and

The BDA is committed to implementing five overarching policies aimed to reduce waste and increase sustainability



Brick is a natural, quality and maintenance-friendly product which is durable during all phases of its life cycle



most efficient in Europe – significantly reducing the carbon impact of each brick manufactured on the site compared with its current factory. The new factory features state-of-the-art automated processes that will minimise the plant's environmental impact. Meanwhile, as part of its mission to achieve net zero business practices, Forterra has teamed up with textiles disposal company Avena to develop a workwear recycling programme across its UK sites.

Like Forterra, brickmaker Ibstock is determined to cut carbon emissions and is aiming to create the world's first net zero brick factory for 'Scope 1 and 2' emissions. It is hoped that a combination of reduced process emissions and greater thermal efficiency will cut the carbon intensity of bricks produced at the site by 50%. The remaining emissions will be offset using high quality emission reduction projects.

Ibstock has been on a journey to reduce the carbon emissions from its production facilities for more than a decade, with investment projects in new production capacity at its Throckley, Chesterton, Eclipse and Lodge Lane plants all reducing the carbon intensity of the process. Its new Atlas factory in Walsall is the next step in this ongoing programme and the company is proud that its "net zero journey is one it shares with the UK Government's net zero ambition."

The company has seen what can only be described as a transformational shift in attitudes from its key stakeholders regarding global climate emissions. It believes passionately that the construction products sector has a responsibility to play its part in helping the world meet its emission reduction targets by reducing the carbon intensity of the manufacturing process.

Meanwhile, York Handmade Brick Company, who provided the bricks for Magdalene College Library in Cambridge – the winner of last year's RIBA Stirling Prize – has just invested £1.5m in brand-new machinery which is transforming how the company makes bricks and helping its sustainability and net zero objectives. At the same time, the company has been awarded a grant to improve its energy efficiency and reduce carbon emissions, having successfully applied for the "game-changing" Industrial Energy Transformation Fund (IETF) for £38,800 to pursue its sustainability agenda.

This project aims to improve the energy

efficiency of the site by capturing the high-grade (high temperature) waste heat from the kilns; by utilising it in the dryers, it will potentially replace the need for gas-firing in the dryers and lead to significant energy, carbon and cost reductions. The kilns operate at high temperatures (up to about 1,100°C) and the exhaust gases from the kilns carry substantial amounts of heat which is currently being wasted.

The solution involves installing a heat exchanger in the exhaust stack of each kiln to capture this heat into high pressure hot water or thermal oil. This hot water/oil will then be stored in a thermal battery. The thermal battery can then provide heat to the brick dryers using a radiator system on demand and allow the operations of the kilns and dryers independent of each other.

BDA's policies for brick manufacturers

All but the most hardened climate change sceptics believe that the planet faces an existential threat because of global warming. It is the duty of the brick manufacturing industry to respond positively to this challenge and that is why the BDA is committed to implementing five overarching policies aimed to reduce waste and increase sustainability.

These are as follows:

- develop better understanding of wastes generated in clay brick and paver industry;
- minimise wastes produced, and single-use plastic packaging consumed;
- develop partnerships to cultivate a high level of awareness of waste minimisation and management throughout the industry, and a desire to reuse and recycle materials where practicable;
- establish the contribution that the clay brick and paver industry can make to the circular economy;
- protect the environment by ensuring we are good stewards of the materials we use.

These aims are fully espoused by all BDA members. Ultimately, responsible brickmakers are passionate about consumers being able to make informed choices about the credentials and provenance of their products. They are relentless in looking for more sustainable ways of working so they can look after the planet for future generations, and they are proud to do so.

Keith Aldis is chief executive of the Brick Development Association (BDA)

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Recently completed is the refurbishment of a substantial mixed-use building in the plush Fitzrovia/Marylebone area of central London. **Crittall Windows** made a significant contribution to both the aesthetic and sustainability of the seven-storey Devonshire House that commands the corner of Devonshire and Great Portland Streets. The refurbishment, designed by architects Robson Warren, upgraded the building's green credentials by the installation of T60 thermally broken steel windows. The high-performance steel fenestration comfortably surpasses the requirements of current legislation while satisfying the designer's desire to maintain heritage characteristics. The area around Great Portland Street was developed in the 18th century with fine Georgian houses and, although these were replaced in the 19th and early 20th centuries, the newer office blocks that took their place often sought to retain the period features. The black powder-coated T60 windows in Devonshire House, provided in both inward and outward opening configurations, have been fitted with glazing bars to mimic the Georgian-style panes that were a prominent feature in the period facade of the building.

01376 530800 www.crittall-windows.co.uk

Combined fireproofing and waterproofing



Newton Waterproofing has recently partnered with Oldroyd, Scandinavia's leading supplier of tunnel membrane systems, and as a result, is able to design and install Oldroyd Xtf membrane as a cavity drain waterproofing system during tunnel waterproofing projects.

Oldroyd Xtf is one of the best membranes available in the UK for a combined fireproof and waterproof solution for below ground projects. It is a waterproof, fire resistant membrane designed specifically to protect tunnels from the detrimental effects of water.

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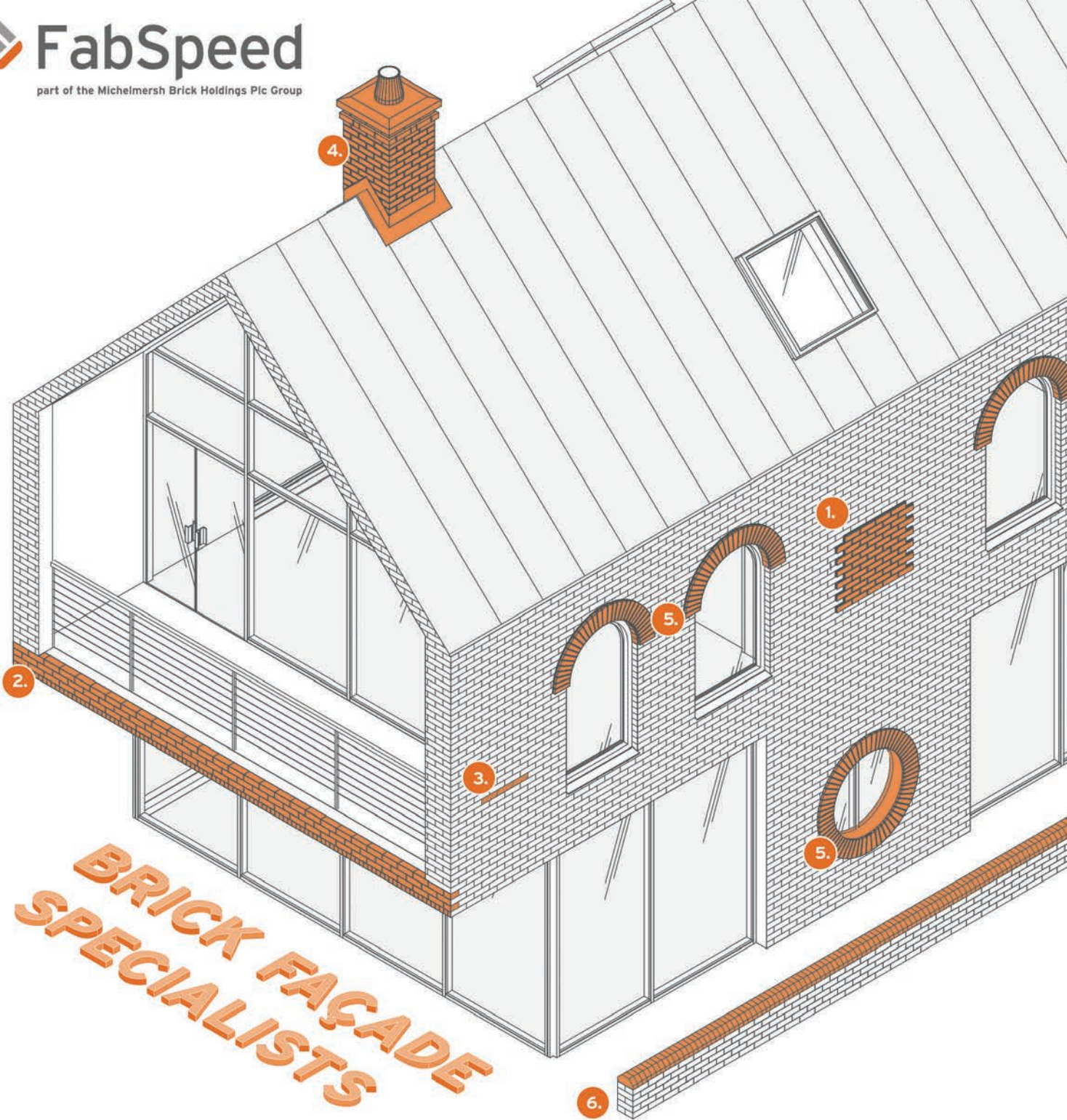
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6.

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FabSpeed specialises in the latest cutting and bonding techniques to offer the full range of standard and non-standard brick specials. The team offers in-depth technical and structural calculations to provide a cost-effective solution to beautiful brickwork detailing.

A. Proctor Group introduces new U-value calculator and members area

The A. Proctor Group, synonymous with technically advanced thermal, airtightness and condensation control membrane solutions for the construction industry, has introduced a new online U-value calculator, Condensation Risk Analysis and members area with an impressive range of technical support available to architects, contractors, and customers.

The changes to 'Conservation of fuel and power: Approved Document L', which came into effect in June 2022, are intended to increase further the standards for the energy performance of new and existing buildings. In addition to the focus on the target of reducing carbon emissions, further performance improvements impact the approach to airtightness, thermal bridging, and insulation.

New U-Value Assessment Tool

To assist architects, designers, developers, and contractors to accurately carry out



assessments to ensure compliance with the latest requirements of the Part L building regulations the A. Proctor Group has introduced dedicated U-value and Condensation Risk Analysis software that will help. The software is an essential online tool for meeting the new standards and

improving the energy performance of new and existing buildings.

U-value calculations are carried out in accordance with BRE443:Conventions for U-value Calculations and can be submitted with your building control applications to demonstrate compliance.

New Members Area

In addition to this new assessment tool, a new Members Area has been introduced to the A. Proctor Group website that enables architects, designers, contractors, and clients to access a comprehensive range of technical resources. Registered members will have access to high quality webinars on critical topics, with personalised CPD certification for each. A full suite of brochures and product documents including technical properties and characteristics is available for download from the Members Area.

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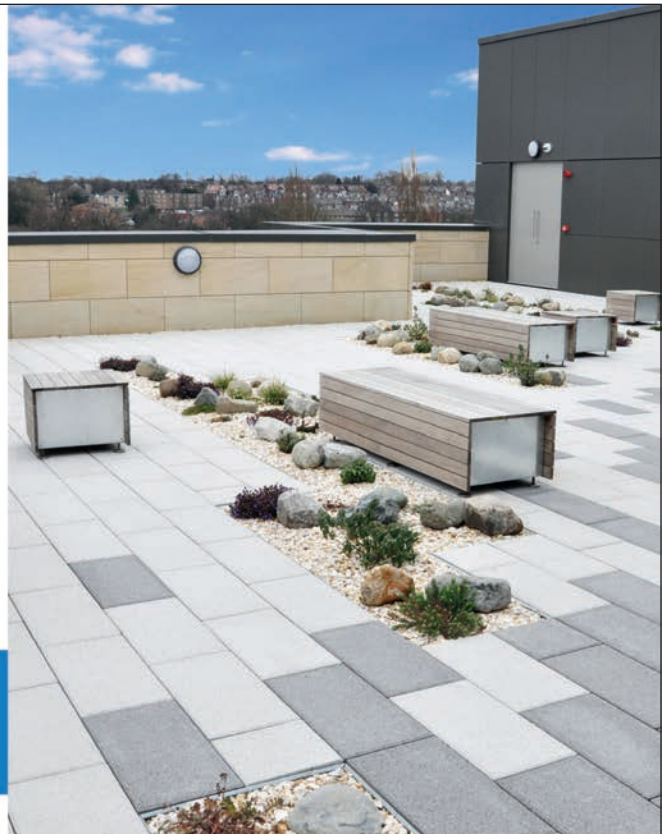
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Roofshield® aids the restoration of the Boleskine House Estate



The world-renowned Roofshield membrane from the A. Proctor Group has been installed as part of a multi-year restoration project that aims to restore and preserve the historic legacy and heritage of the Boleskine House Estate, located on the shores of Loch Ness. The manor in the Scottish Highlands was once home to Led Zeppelin guitarist Jimmy Page. The Roofshield roofing membrane has long been recognised as one of the highest performing roofing membrane solutions, providing a pitched roof underlay that is air and vapour permeable. Its characteristics allow even very complex pitched roofs to breathe without the need for air gaps or secondary venting. A unique performance characteristic of Roofshield is its patented SMS (Spunbond Meltblown Spunbond) structure, which allows high levels of airflow and the transport of moisture vapour, making the formation of condensation in the roof space virtually impossible. The inclusion of Roofshield provides significant protection for the roof and the house, preserving yet another essential part of the great Scottish heritage.

01250 872261 www.proctorgroup.com

Double Magply deck supports sedum roof in Bishop's Stortford



Goodyard is a brownfield site in the South Side Locks area of the popular Hertfordshire market town, offering buyers paying from £257,500 up to £400K, excellent access to local amenities and a convenient 40-minute commute into London Liverpool Street. With sustainability and the environment being a central theme to the design along with high build standards, the specification for the sedum roofs which cover three of the buildings includes a layer of 18 mm Magply boards to provide a resilient and fire-resistant deck. Bellway Homes is leading the build of the four to five storey properties using a mix of direct labour and specialist package contractors, with LJ Carpentry being the joinery company responsible for installing the high performance Magply boards over a 300 mm depth of fire resisting rigid insulation as part of a low energy roof construction. The final covering of sedum and well graded soil over a single layer waterproofing membrane has been formulated to encourage local wildlife and also assist in attenuating rainwater run-off.

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Marley Alutec ensures fire safe specification with new Elite balcony rainwater outlets



Marley Alutec has launched updated versions of two of its popular Elite aluminium balcony rainwater outlets, which can be adapted on site to meet different requirements. The new Elite balcony outlets, based on the Alutec DR360 and DR460 outlets, now include a longer 750 mm spigot as standard, which can easily be cut to the required length on site. This means it is no longer necessary for installers to order outlets with bespoke spigot lengths – therefore avoiding longer lead times. The new DR360EX and DR460EX outlets are also directly compatible with Marley Alutec 76 mm and 102 mm circular downpipes respectively. These aluminium downpipes carry the same A2-S1,d0 fire-rating that is essential on buildings over 11 metres. This makes it simple to design a rainwater drainage system that is fully compliant with the fire regulations. Tim Streeton, senior technical services engineer at Marley Alutec commented: “Our Elite aluminium balcony outlets are a popular choice for many projects, especially high-rise residential projects where the use of non-combustible materials is essential.”

01234 359438 www.marleyalutec.co.uk/aluminium-balcony-outlets

Garador leads the way with its BlueSecur app



Garador leads the automated garage door market with its range of innovative electric operators, controllable through a smartphone app. Its exciting Series 4 GaraMatic electric operators work in conjunction with the BlueSecur app, developed specifically by Garador so that garage doors can be fully controlled through a smartphone. The integrated Bluetooth receiver, for the GaraMatic 10 and GaraMatic 20 models, enables homeowners to control the operator using the Garador BlueSecur app on their smartphone. The HCP-bus connection also allows you to connect the operator to external smart home systems such as Amazon Alexa or Google Home Hub. Garador has ensured that its latest smart systems offer more than just the fast and smooth opening and closing of a garage door. Additional functions that can be controlled remotely include partially opening the door for ventilation and turning on the lighting system. “After 75 years leading the way in garage doors, we are delighted to still be at the forefront in exciting new technology,” said Garador’s Marketing Manager Paul Eddleston.

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EnviroVent expands its ventilation range



EnviroVent has launched a new MVHR range, which is Passivhaus certified. The Sabik 350 & 500 series has been designed to provide balanced and sustainable ventilation for new and refurbished homes, incorporating modular features, with user-friendly controllability. The Sabik 350 and 500 systems have significant airflow capacity of up to 414 m³hr and 601 m³hr respectively, and are suitable for handling airflow directions and drain on site to offer flexibility when it comes to ducting configurations. These modular units incorporate a range of features as standard, including integrated relative humidity sensor, touchscreen controller and frost protection.

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dMEV range added to ventilation offering



National Ventilation has extended its range of ventilation products for new build residential with the launch of its Monsoon decentralised Mechanical Extract Ventilation (dMEV) 100 range. Designed to be a perfect fit for kitchens, utility rooms and bathrooms, the Monsoon dMEV 100 range of fans offers a sleek design and near silent operation as low as 13 sdB(A), making them the ideal choice for self-builders and small developers. For electricians install is made easy. Suitable for wall, ceiling and window mounting, and IPX5 rated for Zone 1, installations make siting the Monsoon dMEV 100 range flexible.

01823 690 290 www.nationalventilation.co.uk

Panasonic centre receives ministerial visit



Panasonic Heating & Cooling Solutions was pleased to receive a visit from Rt Hon Grant Shapps, MP for Welwyn Hatfield and Secretary of State for the Department of Energy Security and Net Zero, to its Welwyn headquarters to see first-hand the new fully equipped training centre for heating and cooling systems. Grant Shapps commented: "I want to thank the team at Panasonic for making the time to see me and thank them for helping Britain decarbonise. I wish them all the best for the future."

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The rise of underfloor venting

Karl Stauss at AET Flexible Space discusses the changing face of commercial ventilation

Heating, ventilation, and air conditioning (HVAC) may seem almost incidental when designing commercial spaces. But with changing working trends and new regulations now in force, it is a background provision that is increasingly ‘front of mind.’

The changing landscape

Developers want buildings that will let quickly, with a low churn rate. Tenants want spaces that can adapt to today’s flexible working in which two to four days a week are spent in the office, spaces that help them deliver on their ESG (environmental, social and corporate governance) policy, and office spaces that are sustainable and cost-efficient to run. Grade B space is becoming less attractive.

Grade A – especially offices with new HVAC systems – are increasingly popular.

Further, as of April 2023, commercial property has to have an EPC certificate, with an E rating being the lowest acceptable; consultations are in hand for that to increase to a B rating by 2030.

By nature, architects look beyond the conventional, and embrace new technologies.

Instead of using the accepted overhead space to provide the air conditioning/ventilation, underfloor air conditioning (UfAC) uses the floor void. In this simple way it delivers the ultimate design freedom for architects, developers and tenants.

The concept is not new in the global scheme of things. Indeed, in other temperate climates – Australia, the Far East and



Once architects have ventured from the norm, and specified underfloor air conditioning (UfAC), it becomes their 'go to' option for commercial environments



Europe – it has been widely used for 30 years, so is proven technology. The drive towards sustainable, low carbon, energy-efficient solutions alongside our changing weather is seeing the concept being more widely adopted in the UK.

UfAC focuses around a conditioned air module (CAM) unit, that handles the air supply and exhaust. Air is drawn into the unit from outside the space and uses the floor void as a plenum to reach strategically located 'plug and play' floor grilles to ventilate the space above. The used air is directed back to the CAM unit at low or high level for reconditioning.

Design freedom

From a design perspective, it eliminates the space required for the ceiling-mounted building services.

In new builds, that can reduce overall build height by up to 10% with all its benefits in easing the planning approval process and savings on construction costs, while maintaining the compliant headroom within. The reduction in overall height also accelerates the build process; we know of schemes whereby the building is complete and let three months earlier than a block with the same floor space using conventional high level building services. It overcomes the constraints of unusual layouts and configurations, and enables the full potential of historic architectural features to be exposed in renovation projects.

The 'plug and play' design of UfAC also means that as needs change, the air conditioning can easily evolve alongside. The floor grilles can be moved as required, giving complete freedom as to how the occupant utilises the space. Tenants are not constrained by the positioning of ceiling grilles with their potential for draughts, nor of radiators around the walls.

UfAC's relocatability also ensures happy workers – no-one is subjected to cold 'dumping' or draughts. Even as the workspace is reconfigured, the floor grilles can be moved across the floor plate to maintain occupant comfort. A happy workforce is 15% more productive, and employees are also more likely to take fewer days sick leave.

The floor grilles can also play a part of the design with the option to have them powder coated to complement and enhance the design palette.

Sustainable by design

Because it is prefabricated and modular in design with no ductwork, each UfAC zone operates independently, at very low pressure. Air temperature sensors monitoring the office temperature and underfloor temperature adjust airflow to modulate dampers to operate at optimum efficiency.

The combination can achieve up to 30% savings on energy and almost the same on CO₂ emissions compared with conventional, ceiling-based systems. The temperature for each zone can be individually set, thereby ensuring energy wastage is minimised.

What's more, its design and construction – with its utilisation of aluminium and lack of ductwork – has a positive impact on embodied carbon too, building in circularity and resilience. UfAC systems have been proven to contribute towards BREEAM, LEED and WELL accreditation; UfAC has been employed at the Sky Central Campus, which achieved the highest possible BREEAM rating of Outstanding.

The changing office environment requires a change in thinking. The building services can play a pivotal role in creating a flexible, quality and sustainable environment. Certainly our experience is that once architects have ventured from the norm, and specified UfAC, it becomes their 'go to' option for commercial environments.

Karl Stauss is UK head of sales at AET Flexible Space

Panasonic scores at the Kia Oval



England's legendary cricket ground, The Kia Oval in London, has recently undergone a refurbishment and is now benefiting from an upgraded heating and cooling system with a mix of 14 Panasonic ECOi 2 and 3 pipe units. The new highly energy efficient Panasonic system consists

of two Panasonic ECOi 3 pipe and 12 Panasonic ECOi 2 pipe systems to replace the existing 28 Sanyo units (originally installed back in 2006). Panasonic's product range met all these requirements and offered the required energy efficient performance.

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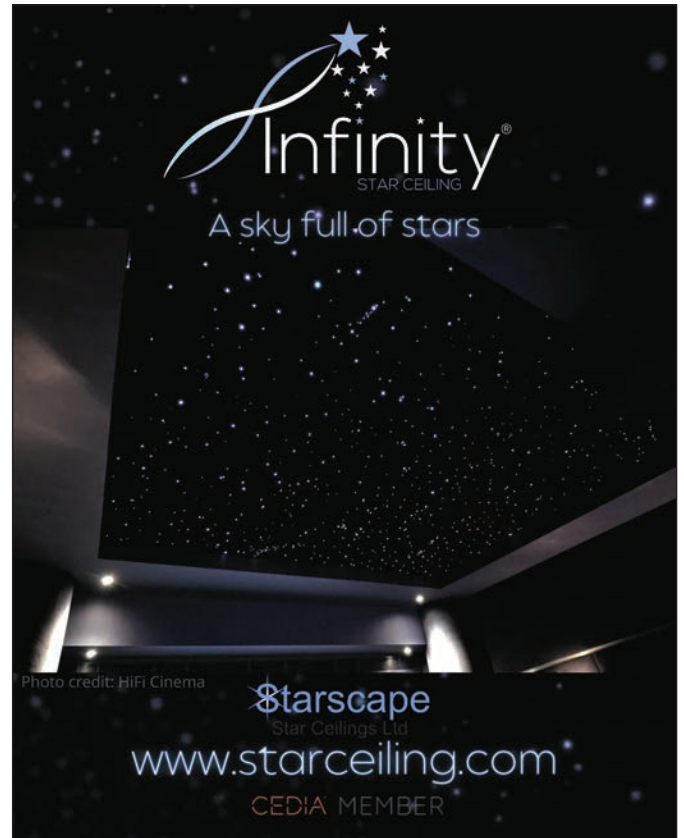
Expansion calls for sustainable approach



Forbo Flooring Systems' Marmoleum was the product of choice for a creative breakout space at investment management firm, Triple Point. Triple Point appointed AW Spaces to create an environment that could accommodate the company's hybrid

working strategy, while developing a light and warm aesthetic. Lisa McLeod, design director at AW Spaces spoke on this, saying: "Not only did Marmoleum fit the sustainability requirements, but it's also available in a variety of contemporary designs that match in tone with each other, which allowed us to create a very dynamic space."

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Stunning Bjelin products at CDW!

Bjelin will participate in the UK's leading design festival, Clerkenwell Design Week, on the 23-25 May, where they will show several new flooring products featuring Välinge Innovation technologies.

The world's leading design brands come together during CDW to showcase thousands of cutting-edge products. Bjelin will display Scandinavian-designed hardened wood floors that are three times stronger than traditional wood floors due to the patented Woodura® technology. Utilising this technology, ten times more flooring can be produced from the same amount of timber, creating a more sustainable process.



"Bjelin is excited to meet with creative businesses and architects at CDW," said Simon Darbyshire, general manager of UK & Ireland at Bjelin. "We will demonstrate the innovative technologies incorporated into our Bjelin floors and display our latest flooring range, with fresh designs and formats."

Bjelin's hardened wood floors are easy and quick to install with the ground-breaking floor locking technology, 5G® Dry™. Developed in-house by Bjelin's sister company Välinge Innovation, this leakproof

installation system has watertight joints that prevent liquids from seeping through the seams and damaging the sub-floor.

The wall-friendly product, 5G® Climb™, will also be shown. Using simple but innovative 5G Climb clips, it's possible to make the floor climb up the wall, ensuring a perfect match between wall and floor.

Meet Bjelin in the Project Pavilion, Stand PC9.

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A sense of renewal

Rohit Sharma from Bona discusses how sustainable, high-performance flooring solutions can be achieved by renewing resilient floors in a variety of sectors

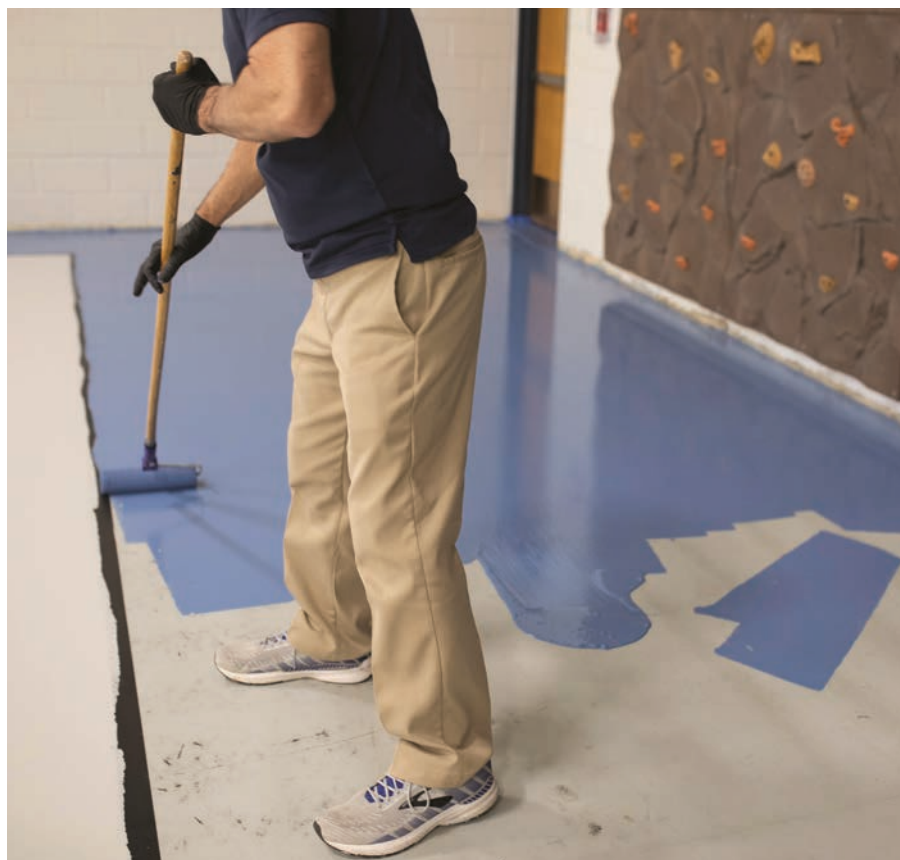
Popular due to its low-cost, hard-wearing properties, as well as the ergonomic and acoustic factors, resilient surfaces are the go-to flooring choice across many sectors. PVC, vinyl, linoleum, LVT, and rubber are commonplace, particularly in environments that are subject to high footfall such as education, health and social care, and retail.

Longevity is one of the key attributes, yet when a floor reaches the 'end' of its product lifecycle, it is often immediately written off for the scrap heap. Resilient surfaces that exhibit severe wear and tear, or even surfaces that perhaps no longer match the interior aesthetics, are removed and replaced with a brand-new surface. However, recent developments in the flooring industry are driving change.

The emergence of resilient floor renewal is a significant turning point which aligns with drivers for sustainability and cost-efficiency, and enables architects to pursue a different pathway to the traditional brand-new flooring replacement. With millions of square feet of resilient flooring replaced every year, it's time for a more sustainable option that renews surfaces without compromising look, design, or function. Renewal enables architects to rethink approaches and introduce more sustainable, cost-effective developments into designs.

Refurbishment projects typically overlook the possibilities of renewing existing flooring, yet for commercial projects, this is a development that architects can use to their advantage. The renewal of surfaces has progressed enormously in recent years and innovative product development has seen specialist floor solutions enter the market, drawing the attention of architects and their clients. It's a simple flooring technique, and one that can set architecture apart from competitors. This is because resilient floor renewal enables architects to meet a range of design, performance, maintenance, and budget needs.

For example, if an existing resilient surface is heavily damaged with deep holes,



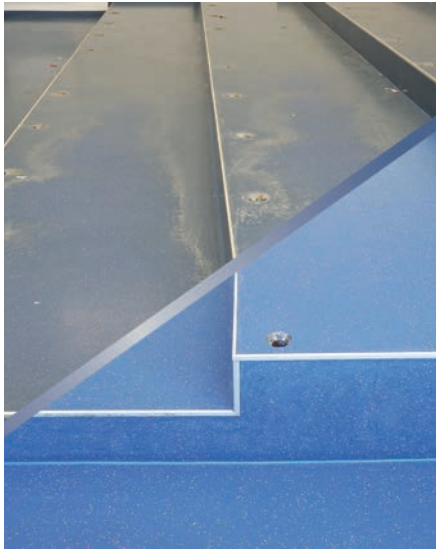
cracks, bubbles or fading, renewing that surface is a viable option; a safe, quick, cost-effective and environmentally better choice. The material can be renewed to change the colour, add design elements, and even mimic the appearance of stone or terrazzo.

Key benefits

There are also sizeable savings to achieve, as resilient floor renewal is approximately 50% cheaper compared to a brand-new installation. Equally, the results look 'as new,' and even the most trained eye cannot easily spot the difference between a brand-new installation and a renewed surface.

A recent study by the IVL Swedish Environmental Research Institute offered

Refurbishment projects typically overlook the possibilities of renewing existing flooring, yet for commercial projects, this is a development that architects can use to their advantage



New doesn't necessarily mean better when it comes to resilient floors



a cradle-to-grave assessment quantifying and verifying the positive effects of floor renewal, the first-of-its-kind. The results are compelling and identify that renewing a surface reduces the carbon footprint by 92% compared to replacement, as well as providing a 90% savings in resources including transport, electricity, consumables, and materials. Lengthening the lifetime of products before being disposed of is an effective way to reduce impact on climate change and improve resource utilisation, and floor renewal supports the journey towards a more resource-efficient and circular future.

There is also less disruption during the renewal process compared to a new installation. Replacing an entire surface in a building can easily take several days or even weeks, causing upheaval. However, the renewal process is quick and easy, reducing downtime by up to 50%. The first step is to strip and remove any old polish from the floor's surface. Next, the floor is abraded and cleaned to prepare it to receive its new look. Finally, the surface is coated using a roller with either a new colour or chip combination, or a protective clear coat to bring back its original look. Once the final layer has been applied, flooring can be used the same day.

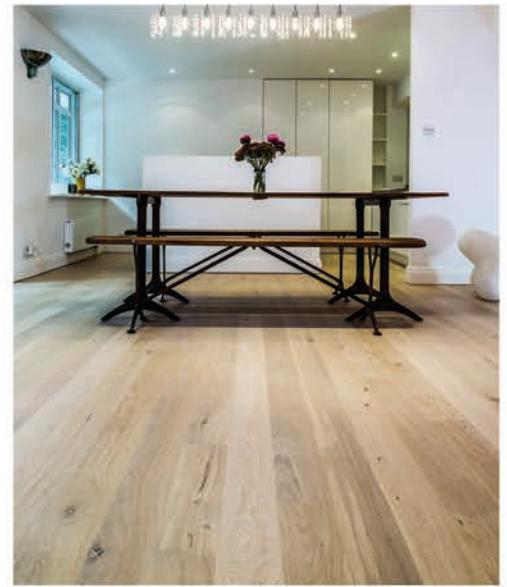
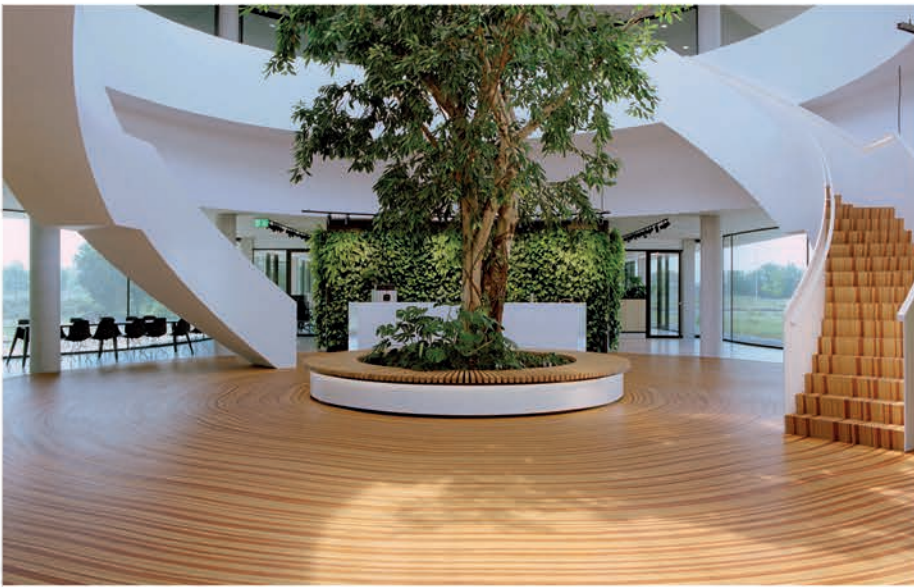
There are additional, post-renewal benefits that architects can give their

clients too. For instance, renewal is low maintenance. The time, effort, and amount of cleaning products necessary to maintain an old, worn floor can be significant. Not only does this impact budgets, it creates inconvenience for clients when areas of the building are closed off to facilitate work. However, the flat surfaces created during renewal require significantly less time to clean and maintain as well as fewer cleaning products.

Likewise, the creation of a monolithic, flat surface removes any cracks, seams, or creases in which bacteria thrive. This is a highly effective way to improve both floor hygiene and maintenance to help prevent the spread of bacteria and viruses, which today is more important than ever especially in sectors such as education and health and social care.

This is a relatively new concept which is gaining acceptance in the architectural industry, architects are increasingly recognising the benefits of resilient flooring in a new light. There is a clear shift in approach that new doesn't necessarily mean better; instead there is an appetite to renew, rethink and upgrade; an alternative way to restore resilient floors to their original beauty while also prolonging their life.

Robit Sharma is resilient sales manager at Bona



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Combining large, glazed panels with high quality slim steel profiles, industrial loft style doors from **Hörmann UK** offer specifiers and consumers endless opportunities to create modern doors and room screening for a feeling of space and light. The loft door range is an internal glazed door system which has been developed in response to the growing trend for slimline, heritage-style doors and screening in the interior design market. The loft doors can be designed as single or double leaf options and can be either hinged or sliding. The addition of side elements and transoms means that large opening spaces can be created to provide an unobstructive view between living areas. Two slim glazing bead options are available. An angled version with exposed screw heads creates a traditional industrial look, while a narrow, angled 15 mm bead without exposed screw heads provides a more modern, sleek and elegant appearance. Glazing is available in either Clear or Clear white, with the steel profiles supplied in RAL 9005 Jet black matt as standard, five preferred colours including Traffic white and Anthracite grey or RAL colours of choice.

01530 516868 www.hormann.co.uk

Steel screens for stylish interior spaces



Steel doors and windows are synonymous with rugged performance and slim sightlines; and these same distinctive frames and profiles are now being specified for inside a building too. Members of the **Steel Window Association (SWA)** are helping to create stylish interior spaces for locations such as restaurants, hotels and residential properties which are demanding the industrial, fashionable steel

look. All doors and most partitions will be glazed with toughened or laminated glass for safety, while enhanced locking can be fitted to offer the same security as for exterior applications.

www.steel-window-association.co.uk

Zentia lends charity a Helping Hand



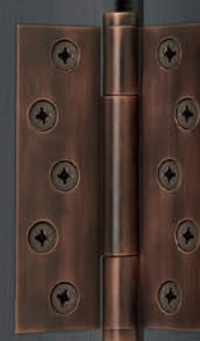
Ceilings manufacturer **Zentia** has helped a mental health charity with a facelift for its offices. Zentia supplied ceiling systems through specialist sub-contractor Glasgow Ceilings, who provided a team of two for a total of two weeks, installing the 600 mm x 600 mm tiles on a Prelude 24 TLS grid in the medical rooms and corridors. Zentia sales and marketing director Graham Taylor said: "We were delighted to be able to provide some tangible assistance to our sub-contractor and main contractor partners in all of our efforts to help people who need mental health support."

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“Sustainable developments start with design and the choice of materials – at this point it is decided how recyclable a product will be at the end of its life cycle,” says Franz Kaldewei, CEO of Kaldewei. For more than 100 years, Kaldewei has been making high-quality bathroom objects from sophisticated steel enamel. As steel enamel is 100% circular it makes it one of the most recyclable materials in the bathroom. The fusion of glass and steel creates a stunning high gloss enamel finish that is both durable and hygienic. As part of their commitment to the environment Kaldewei has started to manufacture their products using Bluemint® steel, which reduces their carbon output by 70%.

Their latest free-standing bathtub to emerge from Kaldewei's LUXSTAINABILITY® world is the OYO DUO, a MEISTERSTÜCK bathtub has been specifically created for small and large bathrooms and designed by Stefan Diez. Demonstrating how luxury and sustainability can go hand in hand, even in smaller bathrooms the OYO DUO can turn a bathroom into a private spa.



The elegant double-walled bathtub has been inspired by Japanese porcelain and is comprised of 100% recyclable and sustainable steel enamel. It has been created to look as if it is almost floating across the bathroom floor. The MEISTERSTÜCK OYO DUO has been designed to hold less water, further benefiting the environment, it is also extremely comfortable, the perfect size to immerse your body and relax. It is available in two sizes in addition to alpine white the bathtub is available in a range of colours from



Kaldewei's Coordinated Colours Collection. The OYO DUO joins other stylish Kaldewei designer series including the bold and beautiful coloured Miena washbowls and the super flat Superplan zero shower surface, and as all these products are recyclable at some distant point in their circular life, they will be helping to forge the next generation of Kaldewei bathrooms.

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Introducing the new Pressalit MATRIX height and sideways adjustable washbasin



In any accessible bathroom, space is key, and with Pressalit's new height and sideways adjustable MATRIX washbasin, creating space quickly and hygienically has just got easier. Pressalit has introduced the MATRIX washbasin bracket with a choice of integrated basin styles, the MATRIX MEDIUM, or MATRIX ANGLE DEEP, featuring a new, simple to use adjustment for both height and sideways movement. The ultimate in functionality and hygiene, the MATRIX washbasin makes the best use of space in the bathroom whilst accommodating the changing needs of both users and caregivers. The new adjustable washbasin has been designed for use in a wide variety of installations, from a private home, care setting, institution or a hospital. The washbasin can be adjusted sideways by means of a discreet handle to a range of 500 mm; the rise and fall allows for a variation of 300 mm, with options available for either a manual handle or electric power button. Whether for a seated or standing user, the new MATRIX washbasin offers a flexible solution and safe working environment, offering the commitment to quality, practicality and design that Pressalit makes its priority.

0118 923 2696 pressalit.com/en-uk/products/matrix-adjustable-washbasin-solution

Luceco's attractive return on investment at Qatar Central Bank – Doha



Luceco has recently supplied luminaires to the Qatar Central Bank located in Westbay, Doha. The 30 storey building required a completely new energy efficient and cost effective lighting solution. The refurbishment of the entire building was tendered under the supervision of the Arab Engineering Bureau Consultancy. Luceco provided a complete lighting design solution demonstrating attractive return on investment calculations and offering energy efficient luminaires that would also enhance the lit environment of the building. Over 3,800 recessed LuxPanel luminaires were supplied to replace the existing 4X18W conventional 600 x 600 fixtures along with Platinum, F Type and Element downlighters also installed throughout the building. Externally, linear IP65 Climate weatherproof luminaires were used in the service areas. A well designed LED lighting scheme can offer substantial energy savings and cost effective operation and allow the end client to build in Return on Investment (ROI) calculations to the business plan. Luceco's team of qualified lighting engineers can provide detailed project ROI calculations along with its complimentary Lighting Design Service.

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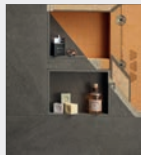
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BOARD panels have a waterproof, cement-free reinforcement layer, which offers an ideal surface for standard tile adhesive, either fully embedded or using the dot and dab method. Printed lines aid accurate cutting using a utility knife or power tools.

www.schluter.co.uk

Knightsbridge shines on in worst of weathers



The new collection of outdoor lights from Knightsbridge is warranted to stand the harshest of weathers thanks to its robust, corrosion-resistant and low-maintenance polycarbonate construction. Four ranges are included in the polycarbonate collection: Eamon, Alana, Toro and Dura. They are ideal for residential and light commercial applications where the environment

demands that fitting material is as important as any IP rating, the new outdoor lights are warranted for three years and come in a range of contemporary styles and finishes to suit most requirements.

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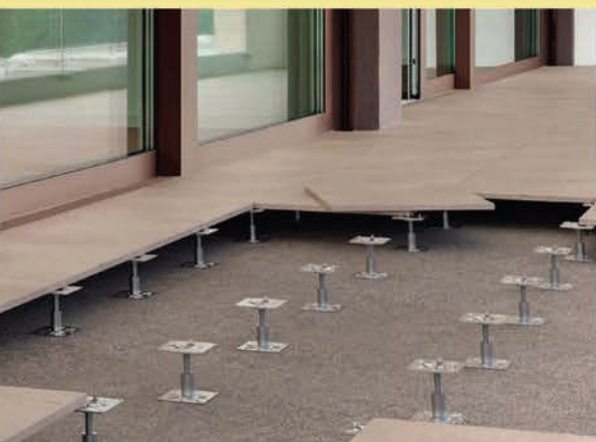
With a vast choice of finishes available for any Design scheme, including larger formats and co-ordinating internal tiling, Levato Mono porcelain paver system is perfect for balconies, roof terraces, garden decks and piazzas. Key benefits include; high slip resistance & load bearing, fade & wear resistance – so low cost ongoing maintenance.

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FRSL New Class A1 Pedestals



JB Kind launches innovative new PAS 24 compliant door leaf

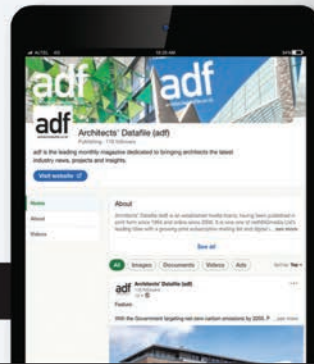


Derbyshire-based door distributor **JB Kind** is launching its new PAS 24 door leaf to doorset manufacturers, and its PAS 24 fire resistant security doorsets service to developers, architects and specifiers, after investing in an innovative new door core which has met the stringent set of standards required to be awarded the PAS 24 accreditation. Forming the basis of the company's new PAS 24 fire resistant, security doorsets, the new PAS 24 door leaf enables manufacturers to use it within their current offering, or for residential developers to purchase fully assembled PAS 24 compliant entrance doorsets. Doorset fabricators are able to integrate JB Kind's innovative new door leaf into their current product ranges whereas developers are able to specify PAS 24 compliant doorsets, in both standard and bespoke sizes, and in a wide range of alternative finishes. Architects and specifiers now have the option to request the new JB Kind fire resistant PAS 24 doorsets, as well as its matching internal doorset counterparts. For more technical details about the PAS 24 security doorsets, JB Kind has produced a factsheet, which can be downloaded at www.jbkind.com

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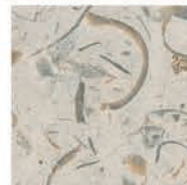
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