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## SHREWSBURY FLAXMILL MALTINGS, SHROPSHIRE

FCBStudios' mammoth restoration of Shrewsbury's iron-framed 'grandfather of the skyscraper' for a sustainable mix of workplace and museum

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FCBStudios worked tirelessly with Historic England to bring forward a major 'creative reuse' project to restore the iron-framed ancestor of the skyscraper, a former flaxmill in Shrewsbury which is reborn as a workspace and museum

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Physical security systems are nothing new in themselves, but they need to be seen as equal in importance to cyber security measures for protecting people and assets, says Roger Humphreys of Charter Global

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**Managing Editor**

James Parker  
jparker@netmagmedia.co.uk

**Publisher**

Anthony Parker  
aparker@netmagmedia.co.uk

**Content & Research**

**Coordinator**  
Shelley Collyer

**Editorial Assistant &**

**Events Coordinator**  
Laura Shadwell

**Studio Manager**

Mikey Pooley

**Production Assistants**

Georgia Musson  
Kim Musson

**Senior Account Manager**

Sheehan Edmonds

**Account Manager**

Steve Smith

**PR Executive**

Suzanne Easter

**Publishing Assistant**

Kim Neville

**Managing Director**

Simon Reed

**Advertising &****Administration**

t 01435 863500  
info@netmagmedia.co.uk  
www.architectsdatafile.co.uk

**Press Releases**

editorial@netmagmedia.co.uk

**Registration &****Circulation Enquiries**

info@netmagmedia.co.uk

netMAGmedia Ltd  
Cointronic House  
Station Road, Heathfield  
East Sussex, TN21 8DF



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# FROM THE EDITOR



It's hard not to be completely crestfallen to see the Labour Party bailing on its sustainability investment pledges, not only because of how it points towards us underperforming yet again on net zero. Also, because it shows that the commercial benefits of pushing through investment on insulating homes and green energy comes second to the possibility of limiting tax rises in a General Election campaign.

Keir Starmer has done untold damage not only to the green agenda, but also to his own credibility, having said two days before the confirmation of the Party's dropping the pledge to put £28bn a year into these crucial endeavours, that he was 'unwavering' on the party's eco aims. He now looks to be a completely watered down shade of green, having given into Shadow Chancellor Rachel Reeves' agenda to make Labour the palatable option for people still in the grip of a cost of living crisis.

With Government coffers now looking increasingly pressured thanks to a range of factors, the £28bn has been halved to less than £15bn, and only a third of that will be new Government investment. Labour's proposed insulation scheme, which would have seen a national retrofit initiative like no other, has been diluted from £6bn for 19 million homes in a decade, to a fairly paltry 5 million by 2030.

No surprises that UKGBC has gone ballistic – calling Labour's climb-down a “colossally short-sighted political manoeuvre.” The organisation said that investing in net zero was the “consensus recommendation of the vast majority of industry, business, and society, but also “central to Labour's promise to bring down household energy bills.”

This had been reported as the one policy pledge that distinguished Labour from the Tories for voters, but now the decision-making process based on actual policy commitments have become muddier, and it's certainly hard to see the genuine commitment to take the tough steps to get to net zero from Labour based on this announcement. But that's a short-term concern – the long-term view is that while the UK is on a path to much lower carbon, it is unlikely to ever see net zero if the Government doesn't take investment seriously, and take voters with them. Trying to blame all of this on Liz Truss' disastrous budget won't wash with many people.

Young voters are Labour's bread and butter; what they have done with this massive U-turn on the green agenda is make many of them wonder whether this is truly the party for them in 2024. Those voters really do care about this stuff. The question is, how turned off by sustainability are the majority – the older voting contingent – and is pandering to green-scepticism a price worth paying?

## James Parker, Editor

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**ON THE COVER...**

Shrewsbury Flaxmill Maltings, the 'grandfather of the skyscraper,' was the world's first iron-framed building. Feilden Clegg Bradley worked with Historic England to renew it for a sustained mixed use future.

Cover image © Daniel Hopkinson  
For the full report on this project, go to page 32





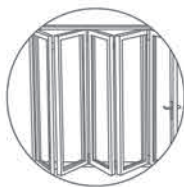
## Designed to maximise natural light

Commonly thought of as a commercial product, curtain walling is becoming increasingly specified for homes to create a light and airy living space. The architect specified the Kestrel Aluminium 100mm box and plate curtain walling system incorporating Kestrel 60mm windows to maximise natural light and give a dramatic frontage to this prestigious development on the Coton House Estate, near Rugby.

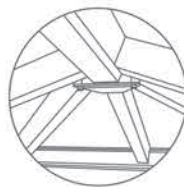
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## CONSERVATION &amp; EDUCATION

# Green light for Bristol Zoo Project's African forest habitat by FCBStudios



© Blackpoint Design

Feilden Clegg Bradley Studios and landscape architects Grant Associates, working with conservation and education charity Bristol Zoological Society, have secured planning approval for the Central African Forest habitat at its Bristol Zoo Project site, home to some of the world's most critically endangered species.

Located near Junction 17 of the M5, work on the Bristol Zoo Project is planned to begin this spring. The architects have designed the buildings to blend seamlessly into the landscape and provide "rich educational spaces" for visitors.

The development is a major step forward in the Society's plan to create a "cutting-edge conservation zoo," where at least 80% of species will be "connected to its conservation work in the UK and around the world." The zoo will see lowland gorillas and mangabeys living together for the first time in a UK zoo, in an area four and a half times the size of the gorilla troop's current home at the former Bristol Zoo Gardens.

Central African Forest will make the most of the wooded area of the zoo's 136-acre site in South Gloucestershire. It has been

designed to evoke a sense of the dense forest and landscape of Equatorial Guinea, where the Society runs one of its largest conservation projects on gorillas and other threatened forest species.

The new habitat will have integrated learning spaces, enabling students and visitors to see animals in a natural and immersive landscape, thereby "connecting people to threatened wildlife and animals."



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## AWARDS

# ‘Fierce champion of equity’ Lesley Lokko to receive RIBA Gold Medal

The Royal Institute of British Architects (RIBA) has announced that Professor Lesley Lokko, the celebrated Dundee-born Ghanaian-Scottish architect, educator, author and curator – is to receive the Royal Gold Medal 2024 for architecture.

Recognising Lokko’s commitment to “championing diverse approaches to architectural practice and education,” said RIBA, the medal will be formally presented in London on 2 May.

For over two decades, Lokko has been “a fierce champion of equity and inclusion in all aspects of life,” said RIBA President, Muyiwa Oki. He added that Lokko’s progressive approach to architecture education offers was one that offered “hope for the future – as a profession that welcomes those from all walks of life, considers the needs of our environment, and acknowledges a broad range of cultures and perspectives.”

Lokko’s work to “democratise architecture” has been hailed by the RIBA Honours Committee 2024 as a “clarion call for equitable representation in policies, planning, and design that shape our spaces.”



© Debra Hurford-Brown

In 2021, she founded the African Futures Institute (AFI) in Accra, Ghana, aiming to be a new model of education, research and public dialogue that unites the arts, humanities and sciences. Prior to establishing the AFI, Lokko taught in

a variety of locations around the world, and “reframed architecture courses to democratise, decolonise and progress” architectural education, said RIBA. Notable roles she took up included founder and director of the Graduate School of Architecture at the University of Johannesburg, and dean of The Bernard and Anne Spitzer School of Architecture at The City College of New York.

In 2023, Lokko was awarded an OBE for services to architecture and education and was appointed curator of the 18th International Architecture Biennale in Venice. Titled ‘The Laboratory of the Future,’ the exhibition placed Africa at its centre, and included its first ever educational component.

The 2024 Royal Gold Medal selection committee was chaired by RIBA President Muiywa Oki, and comprised Royal Gold Medal 2023 recipient Yasmeen Lari, architect and senior partner at RSHP Ivan Harbour, head of school and chief executive at the London School of Architecture Neal Shasore, and Cindy Walters, architect and partner at Walters & Cohen.

## STAKEHOLDER ENGAGEMENT

## RIBA issues stakeholder engagement guidance

RIBA has published guidance for projects to help ensure that stakeholder engagement is “considered at every stage of planning, designing and constructing buildings and places.”

The Engagement Overlay to the RIBA Plan of Work is a free guide for built environment professionals that has been developed in collaboration with the Association of Collaborative Design (ACD) and Sustrans, and is supported by the Landscape Institute.

The RIBA commented: “Engagement is about actively involving stakeholders – individuals, organisations, special interest groups and communities – in

decision-making processes that affect them.” The organisation continued, saying engagement should take place during the lead-up to planning applications, throughout the design process and in progress updates during the build. Engagement is also “essential during the management and stewardship of completed buildings and places.”

Research led by the ACD has revealed the “pressing need for engagement to be integrated into the design process, rather than treated as an afterthought.”

RIBA’s guide outlines best practice to integrate engagement into every stage of the design and construction

process. Advocating a “democratic and collaborative approach,” the Engagement Overlay will “help professionals bring everyone to the table at the right time to make projects inclusive, sustainable, and responsive to the diverse needs and strengths of neighbourhoods.” RIBA concluded: “Using this approach, engagement can be a key driver of positive change.”

RIBA president Muiywa Oki said: “Engagement isn’t just about ticking boxes – when done properly, it is a powerful tool for making our society better for everyone. Local knowledge and participation are vital.”





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## SCIENCE &amp; TECHNOLOGY

# Planning secured for Scott Brownrigg Life Sciences building in Cambridge

Scott Brownrigg's design for a life sciences campus on a 15 acre site on the outer edge of Cambridge has received planning approval. Designed for BioMed Realty, the new park provides over 500,000 ft<sup>2</sup> flexible laboratory and office space, aimed at life sciences, biotechnology and traditional office occupiers.

Located next to Peterhouse Technology Park – home to the Scott Brownrigg-designed headquarters for technology company Arm – the park is intended to be an “exemplar science hub” in Southern Cambridge; helping to meet local demand for quality life science space, and bolstering the region's status as a world-leading centre for research and development.

Buildings on the park will be designed for energy efficiency, and to suit the diverse range of end user needs within the Cambridge market, with potential for multi or single occupation. Occupants will enjoy access to an onsite gym, cafe and an array of outdoor amenities and open space.



A series of fully accessible landscaped terraces, platforms and gardens include covered outdoor workspaces, providing flexibility in where tenants work.

Ed Hayden, head of life sciences at Scott Brownrigg, said: “Creating this new park

is an exciting opportunity to build upon the successful history of the technology in Cambridge, and we are really thrilled to be designing the next generation of state of the art workplaces to support the growth of world leading creativity in Cambridge.”

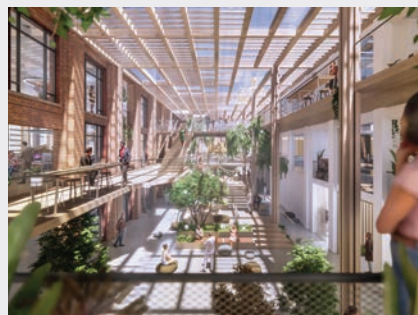
## EDUCATION

## NBBJ and Purcell to design sustainable home for University of Oxford Institute of Digital Health

Following an invited design competition, the University of Oxford has tasked architecture practices NBBJ and Purcell to design a base for the Oxford Institute of Digital Health (OIDH) within the Nuffield Department of Primary Care Health Sciences.

The OIDH will be positioned on the site of the existing Gibson and Harkness buildings, which are to be retained and reused as part of the proposals, creating “high quality and sustainable space.”

The two architectural firms said they are “carefully working within the existing context, improving the setting of the Grade 1 listed Radcliffe Observatory.”



The design unifies the Harkness and Gibson buildings into a single “identifiable entity,” continued the architects, while also enclosing the

courtyard to maximise the usable area.

The courtyard will become a “green heart” with multiple uses, said NBBJ/Purcell, bringing in diffused natural light to help create a pleasant and calm atmosphere.

The project is targeting Passivhaus EnerPHit Standard for refurbishment with design features such as a compact form factor, highly insulation levels, an airtight envelope, and optimum solar shading. The sustainability strategies are aligned with the ambitions of the Oxford Local Plan NZC 2040.

The scheme is due to be submitted for planning early 2024.



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# ASK THE ARCHITECT

Greg Blee, founder of Blee Halligan, tells *ADF* how he found himself working in architecture almost by accident, and why he now focuses on creating projects overseas which blend into their landscapes



Greg Blee, co-founder, Blee Halligan

## WHAT MADE YOU WANT TO BECOME AN ARCHITECT?

It sort of happened by accident. My father, my grandfather, and two of my brother-in-laws are all architects. I wanted to become a race mechanic for a Formula One team as I had a kart racing career when I was a teenager and was entirely hooked and wanted to make a life out of it, but my mum thought I should go to do one year of university first to see whether I liked it or not. I picked architecture and went to the University of Bath, but it wasn't until my Erasmus year in the Netherlands that I really started to 'get it' – and my post graduate diploma at the Bartlett cemented my love for architecture. But it all took a while...

## WHAT DO YOU LIKE MOST ABOUT IT NOW?

I love a few aspects. The knock-on-the-door from a new client is always thrilling – that feeling of opportunity. I enjoy the concept stage when you have freedom to dream of a solution that you think might work for the client, and the excitement of showing them what your idea is for them. I also enjoy the technical aspects of design and being involved in critiquing the studio's construction documents with a view to longevity, robustness and resilience. The middle bit, with planning, I could definitely leave to someone else!

## WHAT WAS THE BIGGEST CHALLENGE IN CO-FOUNDING A PRACTICE IN TWO CONTINENTS?

Well, one came after the other – naturally – but I remember very distinctly having no money and a lot of stress, with the phone ringing either late at night or very early in the morning from clients in our other location! It was really stressful, but I sensed the opportunity abroad which kept me going.

## HOW HARD HAVE YOU FOUND GETTING THE RIGHT UK PROJECTS TO ESTABLISH YOURSELVES HERE?

To be honest, we have stopped working in the UK for the time being. The planning process is nonsense and takes far too long for no reason in my opinion. It feels like it's only there to dilute ambition and free thinking. The opportunity for exciting work is just not in the UK at the moment for us. So we are looking elsewhere abroad to find opportunities where there might be like minded clients.

## WHAT DO YOU MEAN BY PURSUING 'THE CONVERGENCE OF NATURE, EXPERIENCE AND MATERIALITY' IN RESIDENTIAL PROJECTS & HAVE YOU ALWAYS ACHIEVED IT?

The honest answer is no. More generally, I don't feel that we have ever really succeeded in making a brilliant project just yet – it's an endless search! Architecture is



Bay House, Turks and Caicos Islands © Henry Woide



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really hard, with all the factors involved in trying to find common ground with clients, planning complexities, and the obvious financial constraints.

What we imagine by the statement “the convergence of nature, experience and materiality” is some kind of vision of a symbiotic, low impact harmonious relationship of inhabiting landscape in a way that connects you fundamentally to it. This would be via a vessel (building) which would sit elegantly in that landscape, one that offers the inhabitants comfort and enjoyment whilst using materials that soften into the site conditions over time, so it becomes one with its environment.

#### WHAT INDIVIDUAL PIECE OF DESIGN ARE YOU MOST PROUD OF?

Our smallest one; Mountain Rescue in France, it's just 15 m². It was designed to be inserted into an old ruin and was entirely made offsite, and we transported it to its remote location in a van down a three mile dirt track. Lee and I spent a year and a half building it by hand, and it's a little jewel.

#### HOW DOES WORKING IN TWO VERY DIFFERENT CONTEXTS (THE WEST INDIES AND THE UK) HELP TO INFORM DESIGNS IN EACH CASE?

I would love to design a proper villa in the UK which is informed by our work in the West Indies, which is based on openness, and resilience (as we have to work in hurricane and earthquake zones) as well as using low energy strategies.

We haven't had the opportunity yet to do this yet. I suppose working in the UK was



Derwent Valley Villa © Henry Woide

more of a foundation of professionalism (such as dealing with planning and technical design), as opposed to anything formally design related for us. It has been a brilliant foundation, but our eyes are set on opportunities abroad.

#### WHAT WOULD YOU PICK – A HANDFUL OF WELL-REGARDED PROJECTS OR A CONTINUOUS STREAM OF FINANCIALLY LUCRATIVE ONES?

For now, as a growing young practice, I would say a continuous stream of financially lucrative ones. Client-led projects are hard because you inevitably have to fit their vision in some way, and there are inevitably compromises. Financial stability

allows the office to take some risks and to seek out new opportunities. We are looking for adventure and varied experience in our careers, which can only really be achieved with some financial security. The well regarded projects will come in the end.

#### WHAT'S YOUR BIG GOAL FOR BLEE HALLIGAN GOING FORWARD – DO YOU INTEND TO STAY IN THE RESIDENTIAL SECTOR?

We want to expand into the hospitality sector as we see residential and hospitality as great partners with some kind of duality between them. We see this to offer us interesting opportunities in the future.

Our wider goal is to expand our studio to new countries.

#### WHAT IS YOUR BIG PERSONAL GOAL?

Personally, I want new experiences and new adventures, so I would love to have a life of working between a few different countries that are culturally, climatically and geographically different.

#### HOW DO YOU ATTRACT ARCHITECTS TO WORK IN THE UK OFFICE?

At Blee Halligan we try not to dilute our vision of what we want to do with the business – and we do try to be very straightforward about our ambitions. If we can describe that in simple and optimistic terms, we will find like-minded people that want to develop themselves, alongside our shared development of the studio. It's obviously a form of relationship so it can only work if there is common ground, common goals and shared ambitions.



Mountain Rescue timber cabin, Languedoc  
Images © Sarah Blee





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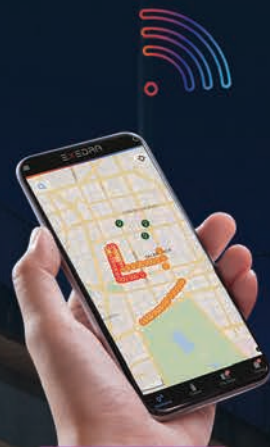
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## TIANFU SOFTWARE PARK, CHENGDU, CHINA MVRDV

MVRDV has won the competition to design two buildings in the Tianfu Software Park in Chengdu, China including a 150-metre-tall tower that provides the centrepiece of the campus. One corner of the tower is dedicated to a full-height atrium that serves as a key functional element of the building's climate and ventilation system. Also designed by MVRDV for the campus is a four-storey cultural centre containing an art museum, conference hall, library, and exhibition space.

The project is being developed by Chengdu High-Tech Investment Group, and will be home to companies focused on the development of 5G, AI, big data, Satellite Internet, and other high-tech interests. Located in the southeast of Chengdu, it lies on the boundary between Chengdu's urban areas and a hilly rural area, which influenced the design. In the office tower, a "finger of greenery" extends upwards to form the atrium, while in the cultural centre, greenery covers the roof.

The office tower is shaped to optimise the efficiency of the floor plates and maximise views of the mountains to the east. The atrium forms a "semi-outdoor space," said the architect; "it's open at its base, where "swooping lines gradually merge with a shopping podium," and is enclosed by a mesh facade, which allows passive cross-ventilation through the mesh and via openable panels in the opposite facades, while reducing solar gain within the office spaces. By shading the terraces, it will help to reduce the cooling requirements of the office spaces, reducing the building's energy use.

The shape of the Culture Centre follows the triangular outline of its site. The different programmes are stacked in a stepped arrangement to form terraces that are oriented towards the park. A green roof of faceted triangular panels cover the terraced interior to create a semi-outdoor atrium space that wraps up and over the interior spaces. At various points on the edges of the roof, the panels are lifted up to form glazed clerestory windows, allowing daylight into the interior. The roof is a small park in itself, equipped with public plazas, a continuous pathway, and green planters that extend the landscape on top of the sloping building.



## PEACE PARK WHEEL, SOUTH KOREA UNSTUDIO, ARUP AND HEERIM ARCHITECTS

UNStudio recently teamed up with Arup and local firm Heerim Architects to create a vision proposal for the new Peace Park Wheel, a landmark project initiated by the Seoul Metropolitan Government for Sangam World Cup Park in Seoul. Nicknamed 'Seoul Twin Eye,' UNStudio's spokeless Ferris wheel is a central feature of the Mayor of Seoul's vision, 'Han River with a Thousand Sunsets.'

The 180 metre high structure is to be built on the edge of the Han River next to the World Cup Stadium. It will be the first ever of its kind, operating as a spokeless Ferris wheel with two intersecting rings. Each ring carries pods that seamlessly revolve around inside and outside tracks.

The Seoul Twin Eye will accommodate 64 capsules, each carrying 20-25 people. In total, it can provide rides to more than 1,400 people simultaneously, almost doubling the capacity of the London Eye.

With a diameter of 180 metres, the wheel will be built upon a 40 metre high cultural complex that is expected to house an exhibition space, a performance hall, retail, and food and beverage outlets. Reaching a height of 220 metres, it will be the world's tallest spokeless Ferris wheel.

The proposal also included plans to build a monorail connecting the subway station to the Ferris wheel, as well as a zip line. Completion is planned by 2028.



## GREENVILLE COUNTY ADMINISTRATION BUILDING, SOUTH CAROLINA FOSTER + PARTNERS

Foster + Partners has completed the Greenville County Administration Building, which is the focal point of the Greenville County Square redevelopment in South Carolina. The wider masterplan, developed by RocaPoint Partners, "draws the urban grain from downtown through the site," creating a "natural link" between Falls Park and the Cancer Survivor's Park and the Swamp Rabbit Trail.

The new home for Greenville County is located at the corner of Church Street and University Ridge – the core of the community. The four-storey building is designed to maximise transparency, with an optimised perimeter and glass curtain wall that symbolically removes the boundary between the public and government officials. Occupants look out over their natural surroundings from light-filled offices and expansive communal lobby spaces. The two office blocks are connected by a shaded public plaza and a footbridge at level three.

The building is clad in warm-coloured metal, reflecting the earthy tones and historic use of brick masonry throughout Greenville County. The perimeter profile has defined edges that accentuate the linearity of the facade system.

The project features a large public area with a planned plaza fountain, landscaping and the relocation of the Veterans Memorial Wall. Corten steel is incorporated within the memorial, mirroring the warm tone of the building's facade. Cafes and restaurants will activate the plaza, serving both office workers and visitors alike.

# CPD FOCUS

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ROCKWOOL, one of the UK's leading stone wool insulation manufacturers, has launched an 'Introduction to BS 5422', a new CPD (Continuing Professional Development) module to support specifiers and engineers with advice on how to plan and implement the insulation of building services systems following a recent update to the standard. The CPD coincides with the recent publication of ROCKWOOL's *Guide to BS 5422:2023*.

BS 5422 provides a method for specifying thermal insulating materials needed on pipes, tanks, vessels, ductwork and equipment for certain defined applications and conditions within the temperature range – 40°C to +700°C in domestic, non-domestic and commercial buildings.

The standard works as guidance for consultants, engineers, contractors and manufacturers of thermal insulation in the building services sector. It supports Approved Document L as the reference point to determine the minimum thickness of insulation required to limit heat losses and gains from building services.

ROCKWOOL's new CPD module explores the factors that need to be considered when deciding on the insulation of building services systems according to BS 5422. It also demonstrates how the standard aims to improve the living and working environment of the building as well as make it safer and more energy efficient.

"With BS5422:2023, the insulation requirements for building services and HVAC systems have been aligned closely with current thermal Building Regulations," comments Will Wigfield, Product Manager – Fire Protection & HVAC at ROCKWOOL UK. "The new CPD will explain how the standard makes it easier for designers and specifiers to choose the most appropriate material for each project and allow them to exceed the minimum requirements if they wish."

Please visit the website to learn more about BS 5422 or to register to attend the ROCKWOOL CPD session.

01656 862 621

[www.rockwool.com/uk/advice-and-inspiration/learning](http://www.rockwool.com/uk/advice-and-inspiration/learning)

## Maintaining and improving professional competence, skills, abilities and knowledge

### QUANTUM FLOORING'S STAIRWAY SAFETY CPD

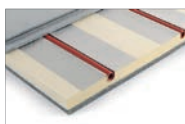


Quantum Flooring's Stairway Safety CPD looks at the guidelines for the correct specification of stair nosings, and other aspects of steps and staircases. This CPD deals with the subject of how to make commercial, public, or shared stairways safe, and meet all current Building Regulations, British Standards and Equality Act guidelines. The seminar explores key selection requirements such as slip resistance, LRVs in terms

of both safety and design, step shape, protection of floorcoverings, and other important issues with regard to specifying stair nosings. It also looks at current best practice guidelines, with examples of specifications and projects which meet these standards. The Stairway Safety CPD covers four of the ten mandatory RIBA core curriculum syllabus topics: Health, safety and wellbeing; Legal, regulatory and statutory compliance; Design, construction and technology; Inclusive environments. A Q&A is included at the end of the seminar, to answer any specific queries you may have about the subject matter. This CPD is available both online and in person, at a time to suit your practice.

[info@quantumflooring.co.uk](mailto:info@quantumflooring.co.uk) [quantumprofilesystems.com/en](http://quantumprofilesystems.com/en)

### LATEST EDITION OF POPULAR SOUNDPROOFING SOLUTIONS CPD

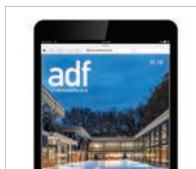


As an Architect or Specifier, staying current with the latest trends in soundproofing solutions is a must. Collecta's latest edition of its popular Soundproofing Solutions CPD covers the seven fundamental 'Specification Essentials' set by the RIBA and covers topics such as fire

safety, acoustics, building regulations, and robust details. With the rapid advancement of technology and construction industry developments, acoustics is an area to pay close attention to. In particular, understanding the different regulations of Part E of Building Regulations can be crucial.

01634 296677 [www.collecta.co.uk/cpdwebinars](http://www.collecta.co.uk/cpdwebinars)

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Ease of  
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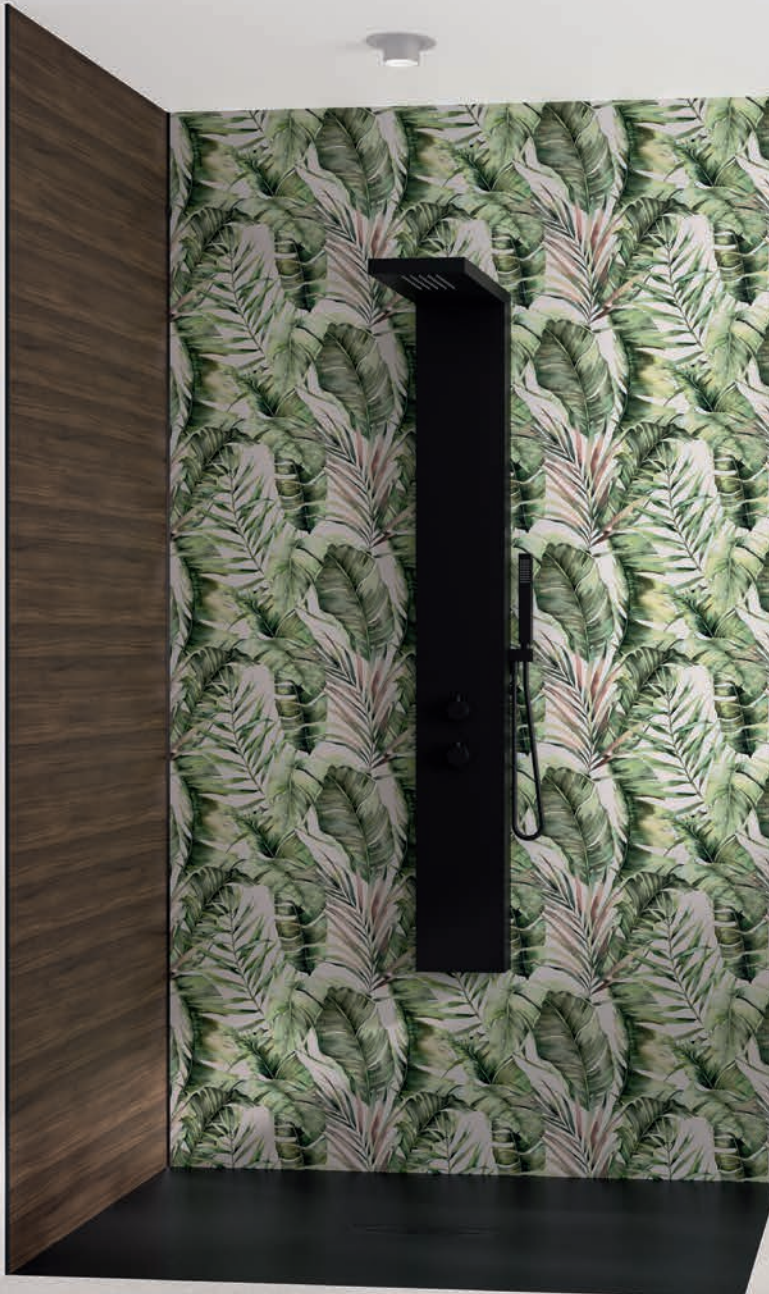
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10 year  
warranty



Easy  
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Minimal  
preparation  
needed



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& durable



More than  
70 designs



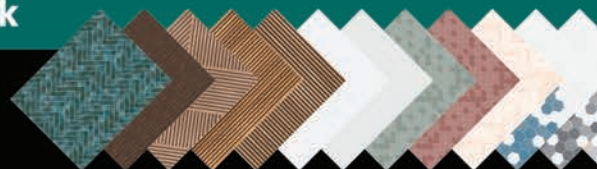
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# CPD FOCUS

## MARMOX PRESENTATIONS TO FOCUS ON FIREBOARD PERFORMANCE



Marmox has organised two online presentations outlining the use of its recently launched Fireboard insulation.

Marmox's A1 rated Fireboard has been developed to tackle fire hazards as well as to provide thermal and acoustic insulation in a variety of situations, all in one lightweight, easy-to-handle board. Led by Mark Bowman, Marmox's Technical Manager, the two presentations will explain Marmox Fireboard's technical benefits and discuss the properties needed to comply with fire regulation and best practice.

The first presentation entitled '*Floors, Walls & Ceilings*' is to be held on Wednesday 28th February at 11.30, where Mark will lead participants through the subtle differences in insulation for each element and explain how Marmox Fireboard functions as an effective solution for acoustic insulation. Then on Wednesday 7th March, again at 11.30, Mark explores the '*Building Envelope*', highlighting the best ways of incorporating external and internal wall insulation, in both new-build and retrofit situations.

Marmox Fireboard can be installed across timber and steel frame constructions or direct onto masonry. Available in thicknesses of 20mm, 50mm and 100mm, Fireboards are rigid enough to be fitted directly onto timber batons, while being easy to cut with a hand saw.

Marmox Marketing Manager, Grant Terry, comments: "We have already had a lot of interest from the market in Fireboard, which utilises stone-wool for its core and the same waterproof honeycomb facing as Multiboard and hope that these presentations will help reach a wider audience. A key message is that when specifying any sort of insulation, it should be able absorb sound as well as offer fire protection and our new Fireboard successfully does both."

**Wednesday 28th Feb – Floors, Walls & Ceilings:**

[www.directcontactexhibitions.com/online-cpd-events/floors\\_walls\\_ceilings\\_1083/](http://www.directcontactexhibitions.com/online-cpd-events/floors_walls_ceilings_1083/)

**Wednesday 7th Mar – Building Envelope:**

[www.directcontactexhibitions.com/online-cpd-events/building\\_envelope\\_1087/](http://www.directcontactexhibitions.com/online-cpd-events/building_envelope_1087/)

[sales@marmox.co.uk](mailto:sales@marmox.co.uk) [www.marmox.co.uk](http://www.marmox.co.uk)

## Maintaining and improving professional competence, skills, abilities and knowledge

### BRAND NEW CPD FROM LEVIAT



Leviat's latest CPD seminar, '*Considered Facade Solutions for Complex Applications*' helps specifiers and building professionals understand the complex issues that can arise when designing masonry facades – crucial in order to keep control over the design process and to keep within budgeted construction costs.

On 21 November, Sara Dawes, one of the Regional Technical Sales Managers at Leviat, delves deeper into wall ties, damp proof coursing, large cavities, pier arrangements, as well as other slab zone components, and how they can impact the design of masonry support systems.

0114 275 5224 [cpd.uk@leviat.com](mailto:cpd.uk@leviat.com)

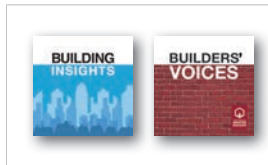
### BOOST YOUR UNDERSTANDING OF WOOD CEILINGS AND WALL SYSTEMS



Hunter Douglas has launched a new CPD seminar, focusing on wood ceilings and wall systems. Approved by RIBA, '*Why Wood? Advantages of Timber Ceilings & Walls*', is an interactive presentation that covers a host of project-specific solutions, including service integration and exterior applications. Among the subjects covered are: solid and veneer wood systems as part of the sustainability agenda in the workplace; how a real or veneer wood system can have a positive impact on the environment; and how wood keeps CO<sub>2</sub> out of the atmosphere and contributes to a healthy indoor climate.

[cpd@hunterdouglas.co.uk](mailto:cpd@hunterdouglas.co.uk) [www.hunterdouglas.co.uk](http://www.hunterdouglas.co.uk)

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## SECTOR SPOTLIGHT: HEALTHCARE

# Taking a forensic approach to secure mental health provision

A new medium secure unit at Northgate Park Hospital in Northumberland by Medical Architecture offers a fresh approach to the treatment of people with mental health issues who are going through the justice system

Developed around the concept of a 'village campus,' a new medium secure hospital at the heart of the £60m redevelopment of Northgate Park Hospital in Northumberland, provides a variety of indoor and outdoor settings for relaxation and activity, relieving boredom and addressing the risk of challenging behaviours and poor physical health.

Designed by Medical Architecture and built by Sir Robert McAlpine for NTW Solutions (Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust), the unit is vital to the future delivery of modern and effective forensic mental health services for alleged or convicted offenders in the north east of England.

### Consolidation catalyst

The new facility is the catalyst to allow all secure services across the trust to be brought together from previously dispersed sites, consolidated in a single, integrated secure centre. The entire redevelopment provides a total of 116 male inpatient beds, located in a combination of new and reconfigured existing buildings. The new-build element, named Sycamore, provides inpatient accommodation for 72 male patients with a range of forensic mental health needs, including patients with complex personality disorders and/or learning disabilities.

The project, which was delivered through Cohort 1 of the NHS New Hospital Programme, fulfils one of the trust's key strategic priorities, forming part of their £72.6m Care Environment Development and Re-provision programme (CEDAR).



### Using the woodland setting

The existing hospital site is a large open campus, containing a mix of buildings and facilities. Much of the eastern portion, which was earmarked for development, is neighboured by a broad area of mature woodland. Proposals set out to develop a portion of the land for the new building, with the remaining allocated for housing development. Early work demonstrated benefits to siting the new hospital where it would be flanked by an aspect of trees on three sides: the natural setting enhancing the therapeutic nature of the accommodation.

It is well recognised that in secure mental health inpatient units, boredom leads to challenging behaviours and poor physical health. Therefore, a key driver for the design was to ensure a meaningful day for all patients,

### SYCAMORE

The unit consolidates secure services onto one site surrounded by trees; the facility is devised as a 'village campus' focusing on the individual patient





Images © Richard Chivers

promoting recovery through activity. As a result, the facility is devised as a 'village campus' focusing on the individual patient and staff experience, with as many spaces as possible, both inside and out, offering opportunities for mitigating boredom. This is achieved in a range of settings that can be accessed autonomously, from bedrooms to living spaces, and sheltered gardens to open courtyards, with opportunities for both structured and unstructured sports and activities.

### Outdoor spaces for communal wellbeing

The six patient wards are paired together and arranged around a large recreation courtyard. Each building is adjoined, creating a secure boundary without the need for fences, minimising the feeling of confinement. With landscaping and integrated security measures, this shared space does not feel like a typical forensic mental health facility.

The courtyard is separated into two distinct zones – designated 'Passive' and 'Active' – to ensure that all patients and staff are able to benefit from its therapeutic qualities. The 'Passive' zone provides opportunities for refuge, with restful places to sit. These smaller-scale spaces offer a sense of enclosure, combined

with views out to the wider recreation area to provide gentle enticement into the activities offered. The 'Active' zone includes a 200 metre jogging/walking loop, activity spaces and a fitness 'trim trail,' to promote physical activity and wellbeing. Within the main reception building – which provides the public frontage to the facility – a covered sports barn allows activities to continue in all weather conditions.

### Personal spaces for individual wellbeing

While use of the common spaces is actively encouraged at Sycamore, it was acknowledged that this patient group may choose to spend time in their own room, particularly in the morning and evening. To maximise the opportunity for activity, the design of the bedrooms stemmed from a detailed re-imagining of how these spaces could work.

In an evolution of previous designs for the trust, the bespoke fitted furniture is devised to assist with a personal workout outside of scheduled recreation time. Adequate floor space for exercise, and a television which can be easily viewed from the bed or floor, enables a patient to either be active or to rest.

The transition from private bedrooms to shared circulation and day spaces has been considered to provide a reassuring path into more stimulating environments. The bedroom corridors are single-sided, with views to the courtyards from each bedroom door, providing orientation, good observation and balancing circadian rhythms.

### Challenging the stigma around mental healthcare

The exterior appearance of the new facility is extremely important and has a major role to play in reducing the stigma surrounding mental illness, as well as engendering pride for staff in the building as a workplace. The front reception building provides a secure boundary to a large section of the internal plan, reducing the need for high fencing. A publicly accessible cafe provides a welcoming space for visitors and staff working across the site.

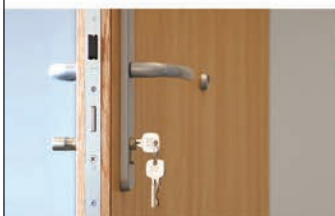
A consistent and controlled palette of materials and architectural styles has been developed to integrate the building with the most recent additions to the hospital site and to present a positive image for visitors and new arrivals.



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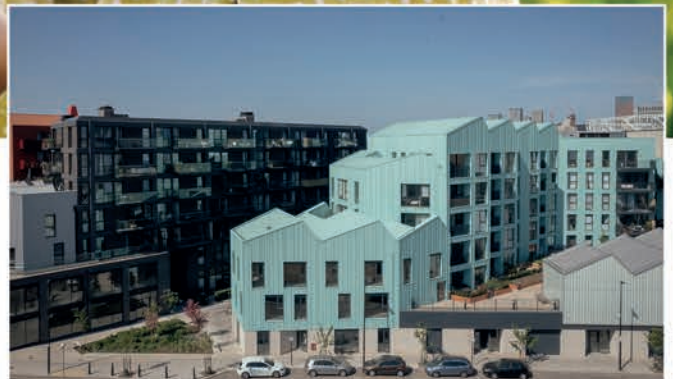
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# futurebuild

the future of the built environment

## Futurebuild brings together the best in innovation & collaboration



**F**uturebuild, the built environment's most influential event for innovation and collaboration, is back for 2024, taking place 5-7 March at London's ExCeL. Promising to be the most transformative yet, it will continue its mission of taking a stand for a better built environment with this year's key theme as 'take a stand for change.'

### Increasing the inspiration

For the first time, Futurebuild is partnering with The Retrofit Academy to co-locate its National Retrofit Conference alongside the Futurebuild conference.

The Futurebuild conference, curated by The Edge and sponsored by Soprema and One Click LCA, is a highly respected gathering of influential innovators and collaborators tackling the industry's problems head on. The three daily themes are: Pathways to change, Levers for change and Sharing visions for change.

The full programme can be found at [www.futurebuild.co.uk](http://www.futurebuild.co.uk).

### Scaling up high-quality retrofit

Sponsored by Sustainable Building Services UK, the National Retrofit Conference will bring together visionaries and industry

**Futurebuild will continue its mission of taking a stand for a better built environment with this year's key theme as 'take a stand for change'**



leaders to focus on a crucial mission – decarbonising our existing housing stock.

The three day conference will focus on Skills, Innovation and Policy, and provide the practical solutions that attendees can take away to drive their retrofit programmes forward, with a line-up of speakers that includes thought leaders from inside and outside of the sector.

### More than just a conference

As well as the two conferences, Futurebuild is the industry's largest exhibition, featuring over 400 innovative brands and six stages that will host 500+ industry-leading speakers across show sections FutureX, Buildings, Energy, Materials, Sustainable Infrastructure and Digital.

The knowledge programme has been made possible with the help and support of our event sponsors and 80 partners. The full list of sponsors can be found on the website.

### Embracing innovation

As the industry platform for innovation, Futurebuild has continued to partner with game-changing brands.

The Future X section, sponsored by

the Department for Energy Security and Net Zero, The Carbon Trust and Innovate UK is an exciting zone that showcases start-ups and SMEs innovative ideas and technologies that will 'make net zero possible.'

The Big Innovation Pitch also returns for 2024, and will highlight the newest and brightest solutions to built environment challenges in an exciting presentation battle, taking place in front of a live audience.

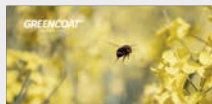
Futurebuild 2024 invites industry leaders, visionaries, and enthusiasts alike to join us, share ideas and embrace innovation. Don't miss out – visitor registration is now open, please scan the QR to register today!

And, for a Building Insights podcast with Futurebuild event director Martin Hurn discussing the event's key focus on the critical retrofit agenda, go to [www.insights.netmagmedia.co.uk](http://www.insights.netmagmedia.co.uk)

Article submitted by  
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01484 850098 [www.structherm.co.uk](http://www.structherm.co.uk)

FUTUREBUILD STAND M22

## Soprema explores the pathways to change



Leading waterproofing and insulation business Soprema is pleased to be co-sponsoring the conference programme at Futurebuild 2024. Opening proceedings on the very first day of the conference, Soprema's Managing Director Laurent Verheyden will take to the stage at 10:30am, to explore the pathways to transformative change within the industry. Laurent will take to the stage again as part of a panel discussion within the 'Buildings' seminar programme. The session is curated by the sustainable Energy Association (SEA) and will consider a fabric first approach to improving energy performance in homes.

0330 058 0668 [www.soprema.co.uk](http://www.soprema.co.uk)

FUTUREBUILD STAND F42

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# Storm protection for 19<sup>th</sup> century hotel with Vortex Shutter

Only a walk away from Tynemouth Castle, the Grand Hotel has long been a remarkable landmark. Built in the early 1870s as a summer residence, the property was converted into a magnificent hotel in 1877. Since then, it has survived 2 world wars, the 1930s depression and a constant change of ownership.

Rather unconventionally, a bespoke Vortex Bolt-On roller shutter from CGT Security now contributes to preserving a portion of the hotel's architecture!

As the hotel is located at the top of a cliff and faces the sea, it would often experience extreme winds. Whilst in an ideal location for tourists, bad weather did lead to a very draughty reception and entrance area.

Vortex offered the ideal protection against extreme winds for this luxury seafront hotel by safeguarding the entrance and lobby from harsh weather effects.

A certified solution against storm impact and capable of resisting wind loads of up

to 114 MPH, the Vortex Shutter by CGT Security was an ideal solution for protecting this luxury hotel from frequent storms.

Vortex's small rolling feature and radically reduced installation space maximises the overall opening size but minimises the visual impact of the shutter on the hotel's elegant facade. A Vortex shutter has a patented lath design resulting in up to a 50% smaller roll zone when compared to standard shutters. It was installed with a perforated lath to allow outside guests to see through the entrance and know that the hotel is open.

Not only that, but Vortex shutters can also be finished in any RAL colour, in this case, ensuring that the colour is sympathetic to the historic stone of the building. Vortex now protects the main entrance from being forced open and prevents the weather from being let into the lobby, whilst preserving the aesthetics of this remarkable building.

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## Rising to the challenge of making historic building future-proof



A "once in a generation" opportunity to reconceive the concept of a museum is entering a new phase of realisation with the completion of crucial enabling works, supported by leading air movement specialist Gilberts. The iconic, historic Smithfield Market is being redeveloped as a new Museum of London, due to open in 2026. Principal contractor PAYE Conservation has carried out detailed repairs and refurbishment to stabilise and weatherproof the 150 years old building fabric. PAYE approached Gilberts to design and manufacture bespoke louvred lantern lights to replace the existing eight glazed louvred lights along all four sides of the main building which had failed beyond economic repair. Gilberts' technical experts designed and engineered the 288 louvres based around its WHF high performance louvre with 50 mm blades in RAL7022 ombra grey to integrate with the specific existing centres and align with the roof rafter above for the exterior. Gilberts' VN75 natural ventilation damper with modulating motor behind each WHF50 louvre will control the airflow when connected to the BMS. Gilberts is one of the UK's leading manufacturers of louvre screening.

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## Green walls that thrive



Incorporating nature into our urban landscapes is essential if we are to create sustainable liveable cities that are fit for the future. When space is literally and financially at a premium, living walls are a space saving solution for boosting biodiversity, meeting urban greening targets and creating stunning botanical backdrops. There are many factors that go into creating a successful green wall, but it starts with the growing medium. Biotechure's Hydroponic living cladding system; BioPanel™ uses Grodan which unlike traditional soil offers dimensional stability, predictable performance, and a perfect chemical balance for living walls to thrive long term. BioPanel is also the only living wall system to have met the Centre for Window and Cladding Technology (CWCT) requirements. It has also achieved a B rating with regards to reaction to fire, and is the most resilient and lowest water usage fully comprehensive living wall system in the world. Biotechure have over 15 years' experience designing, installing, and maintaining living walls. Meet the Biotechure team and see their living walls close up at Futurebuild 2024, March 5-7 London ExCeL, Stand F20.

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FUTUREBUILD STAND F20



BUILDING  
PIONEERS

SHREWSBURY FLAXMILL MALTINGS  
SHROPSHIRE

# Industrial revelation

Dubbed the ‘grandparent of the skyscraper,’ the iron-framed former flaxmill in Shrewsbury has been brought back to life as a workplace and museum by architects Feilden Clegg Bradley Studios. James Parker reports on how they worked with Historic England to rescue a major piece of the Industrial Revolution – with a light touch





Heritage restoration projects rarely have a more architecturally resonant backstory. Feilden Clegg Bradley Studios' mammoth 'creative reuse' scheme brings Shrewsbury's Grade 1 listed former flaxmill a vibrant new identity, as high-quality co-working spaces, plus a museum detailing its rich history. More importantly, working with client Historic England they ensured an enduring life for the building by repairing and supporting its pioneering but increasingly precarious 225-year old iron structure, harnessing its qualities for new uses.

It is another great example of architects celebrating existing structures and giving them a new context, and celebrating both. It's also unusual, as an example of a national organisation

working in partnership with a local community as joint custodians of a major architectural landmark.

The first phase of the refurbishment is the main building, which was converted into a maltings in the mid-20th century, and is known as the 'grandparent of the skyscraper,' despite only standing five storeys high, due to its cast iron frame. Flax milling carried a near-constant fire risk due to the combination of the steam-powered machinery, the airborne dust from the flax itself, and exposed flames, and the timber-framed buildings in which it took place were often destroyed by fire.

In 1796 a surveyor and wine merchant, Charles Bage, was commissioned to design a fireproof mill, having already been exploring the possibility of using cast iron



#### STILL IN THE FRAME

The late 18th century structure was iron-framed to drastically reduce fire risk from the flax milling process, and it has been left exposed in the new workspaces



#### MIXED PROGRAMME

The restored building has four floors of cross-ventilated workspace, and a museum on the ground floor



for structural frames. He designed a grid of iron columns and beams, with 3 x 17 rows of columns on each floor, plus masonry jack arches completing the structural frame.

The beams holding the floors were built in two bolted-together sections. When the mill opened the following year, it was heralded as the world's first iron-framed building, as well as the first purpose-built fire-proof structure, brick clad and creating the blueprint that would be adopted for much taller metal-framed buildings in coming decades.

The adjacent canal also opened in 1797, bringing in coal and taking away finished flax for the next 100 years, but the linen industry declined at the turn of the 20th century, and the mill fell into disuse. It was repurposed as a maltings, because the slim columns afforded the new owners the large floor areas needed to dry barley (its net internal area is 4181 m<sup>2</sup>). Malting required humidity, light and ventilation to be controlled, so most of the windows were bricked up.

The final addition was the Jubilee

Tower, ironically built in timber and holding machinery to move barley from floor to floor. It was clad with an ornate iron coronet to celebrate Queen Victoria's Golden Jubilee.

The building was also used as a barracks during the Second World War, and by the mid 1980s, it again fell into disuse, as modern malting processes took over. It was Grade 1 listed in the 1950s, having been regularly visited as a design landmark, but as project architect Tim Greensmith explains, it became "largely forgotten" as the century progressed – "it sat there with people not knowing what to do next."

#### The case for development

FCBStudios were instrumental in advocating for and driving forward this complex restoration project, working with Historic England from the project's inception in around 2010. "Report after report identified this site as key to any regeneration of the northern corridor of Shrewsbury," explains Greensmith. "However, it was a difficult





one to tackle locally, so the council had to reach out to Historic England, the Lottery Heritage Fund and others, to help them crack the problem of the last brownfield site in Shrewsbury.”

He says that Historic England “realised right from the start this was not an artefact, not a museum, and needed to be put back to work.” It needed to be a “catalyst for heritage-led regeneration,” as well as an exemplar of sustainable refurbishment, including renewable technologies. He adds however that Shrewsbury Flaxmill Maltings was a “one-off, so the solutions might not be applicable to all mill conversions.” Another unusual aspect was Historic England working as both client and advising the local statutory authority scrutinising the planned interventions, albeit “totally separately,” says Tim.

Being a 9000 m<sup>2</sup> building in an out of the way ‘sub-urban’ site, it was recognised from the outset that it would need to offer a mix of uses, to minimise its commercial risk, rather than being a speculative office scheme. The 2008 credit crunch was the

end of hopes for a developer to grasp the nettle, but Historic England and their architects maintained the momentum, entreating the local authority to pursue the project.

However after local authority cuts, Historic England was the only organisation capable of taking it forward, and fortunately had a “great, and very experienced” project manager embedded in the project, says Greensmith, to help make it a viable proposition. “They understood historic buildings, but they also understood risk and how to manage it.” The contractor Croft Building Conservation (based in Cannock) was added as the third of a triumvirate that could deliver a cost-effective, pragmatic project that “wasn’t glorified preservation for the sake of it.”

The mix of uses soaked up design skills from various specialisms in FCBStudios’ architectural workforce, including conservation and other areas of client advice. They acted as strategic advisors to Historic England, writing the Conservation Management Plan, and developing the

**“Historic England realised right from the start this was not an artefact, not a museum, and needed to be put back to work”**

Tim Greensmith, architect, FCBStudios



#### COOL KILN

The pyramid-roofed former malt kiln was perfectly placed to provide a striking unheated circulation and entrance space  
© Daniel Hopkinson

architectural vision for combining food and beverage, education and workplace elements. “We were able to bring in various people from our various sectors,” says Greensmith. He says the practice badges projects of this type as “creative reuse,” as “we love their history, but we are so focused on what they are going to be,” designing with an emphasis on future adaptability as well as sustainability.

#### Restoration approach

This painstaking and comprehensive £28m (fixed budget) restoration was driven by a ‘light touch’ approach to repair the fabric, doing what was required to retain and safeguard the structure and avoiding overengineering, with lean design and sustainability as the overall drivers. The practical goal was twofold; to repair metal elements of the structure which were in a sorry state after years of corrosion, and secondly, to bring the building up to modern thermal performance standards as a high-quality 20th century workplace, enhancing and harnessing its original features to that end.

FCBStudios has its own carbon calculation tool, which they used to demonstrate how a ‘light touch’ refurb would be the sustainable answer to the challenge. They used this to compare the

embodied energy of the 600 tonnes of steel needed for a full facade retention scheme with the lighter ‘safety net’ approach, which would require 60 tonnes. They were also able to offset this with the improvements to the fabric, in the form of new high-performance metal windows, sheep wool insulation in the roofs, and wood fibre insulation for all compartmentalised spaces, allied to the major sustainability plus of a ground source heat pump installation.

The key structural drivers for the design of the refurbishment were to keep the ground floor open and free of columns where possible. This meant making most structural interventions on the first floor – which was the first of four levels devoted to tenanted workplace. There were fewer issues in terms of structural loadings on the upper workplace levels, thanks to the relatively lightweight planned office uses.

#### Designing a new future

Tim Greensmith says Historic England’s approach to such projects is holistic, looking at the whole building “and every possible aspect of energy conservation before jumping to renewables or triple glazing.” He explains that the architects applied Historic England’s national guidance here at Shrewsbury Flaxmill Maltings, and in turn FCBStudios







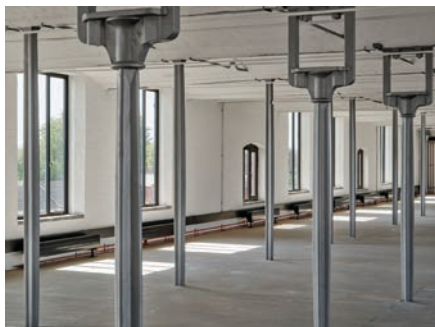


#### LEARNING FROM THE PAST

Exposed elements of the iron frame enhance and educate museum visitors; facing page: generous breakout spaces in the FCBStudios fitted-out workplace floor



© Historic England



“encouraged them to do research and innovation projects, looking at thermal enhancement of solid masonry, which is a really thorny issue in environmental upgrades.” The risk was over-insulating and thereby introducing other problems such as moisture into the fabric.

Historic England was nervous about potential outcomes of interventions, so with time not being a critical factor, and having a client with a rigorous technical team, FCBStudios suggested doing a trial run on product solutions for the refurbishment. This included sending materials for third party testing, setting up a weather monitoring station on site, and testing different insulation materials onsite, using probes mounted in the walls. These data were then analysed using FCBStudios’ modelling software, and the design and specification adjusted as needed, before presenting the findings to clients and other organisations such as academic bodies.

“We had a client that was interested in the real answers to these questions, not just getting what was required for Regs approval, and they were interested in learning lessons and disseminating them.” Historic England invested in a training

programme for various strands of the industry, as well as apprentices in the heritage field, seeing this 10-year project as a crucial test bed for knowledge sharing on refurbishing major old buildings. The client for its part opened a visitor’s centre, and held open days when the public could visit and learn about some of the refurbishment skills being employed, such as lime mortar.

#### Rescue mission

Being the world’s oldest iron framed building – designed before building codes and full understanding of iron’s elasticity – most structural elements were understandably in a poor state. Cast iron performs well under compression but not under tension, and the weak points emerged over time, with significant cracks appearing where the columns meet the floors above, replicated across the whole frame. “The first engineer we spoke to said ‘you have to take it all down and rebuild it,’” Greensmith recalls, “but we said ‘nobody wants the world’s newest cast-iron framed building.’”

With the first floor being a generous floor-to-ceiling height, the architects were able to hide a lot of the structural strengthening members they introduced,





in a steel grill raised floor, supported by six new steel columns placed along the central axis of the ground floor. A structural ‘failsafe’ was introduced in the form of steel stirrups which connect the grill to the ends of the original cast iron beams below; if one of the original columns or junctions between them and the beams fail, the stirrups will transfer the load to the wall and new columns.

A further measure was including a significant number of tie-rods which will (in the event of a cast iron element failing), take loads back through the masonry arches to the external walls. This bespoke solution was a result of the structural engineers AKT II taking a deep, investigative approach and “going back to first principles,” says Greensmith, not being driven by standard office loadings – instead they aimed for more moderate floor loads of 2.5 kN/m<sup>2</sup>, reflecting modern office requirements.

The restored facades saw the project triumph in several categories of the 2023 Brick Awards (including the Supreme Winner), but this aspect of the scheme was far from straightforward. Timber elements such as lintels, beams or pads under beam ends were all rotting to varying degrees, and

had to be replaced with either concrete or grouting, and the leaves had to be tied back. In total, 112 new windows were added (in the apertures that had been bricked up in the conversion to a maltings). This results in one line semi-obscuring the building’s painted sign in an unusual way on the main facade. In total, 40,000 new handmade bricks from Northcot in Gloucestershire were used, and a large number were cleaned and reused, “but we had a real challenge on our hands to maintain the wobbles in the walls, to keep it looking a 225-year old building, not a half new-build.”

### Interiors

There was, amazingly, only one stair in the original building, but the architects exploited a vast redundant brick-built malt kiln in the centre of the masterplan as a striking circulation and reception befitting the new use. The retained kiln has a capacious pyramidal roof and extends the full height of the building, interconnected with the different levels, so “in terms of access, it ticked all the boxes.” It was a major operation to repair and clean the interiors of the kiln but it delivers an imposing entrance, enhanced by the dark

**In the tenanted workplace areas, walls are limewashed, but their original character remains strongly**



**This re-use of the structure shows the flexible qualities which are inherent to the building, and which have been harnessed by the architects to provide a commercial boost for Shrewsbury in future decades**

steel stair and lift core, an original iron column, and some large pieces of factory machinery on display. It is an airy space (partly from the fact that only the enclosed reception area is heated), and a timber-lined ceiling, low lighting and unfinished walls increase the sense of theatre, while tying into the lean approach taken elsewhere in the design.

In the tenanted workplace areas, walls are limewashed, but their original character strongly remains. Comfort is increased, alongside the natural ventilation and largely natural lighting, but the fabric is insulated reflecting the fact that tenants are paying for the space. In the first floor, which the architects fitted out, there are a row of enclosed glazed offices, but there is the possibility for cross-ventilation across the whole space. Greensmith says: "We enjoyed this opportunity to challenge the brief and look at whether we could avoid generic new build solutions, this was the opportunity to 'zoom out' and take a pragmatic and logical view on where to spend the money."

### Programme & build

On the ground floor is the museum, which tells the story of the mill's role in the Industrial Revolution as well as in

subsequent world architecture, including an original iron truss on display, along with a cafe open to the public. Above are four floors of flexible office space that will provide accommodation for around 360 people. There is also circulation and meeting space within the kiln for commercial tenants, as well as access for visitor tours to the restored Jubilee Tower.

"We pushed for public access to all the ground floor buildings," says Greensmith, as part of meeting the client's goal of increasing engagement. The open circulation space provides routes through the buildings, and views in: "It's wonderful, the kids coming home from school take a short cut through the site." In addition to using the ground floor cafe and museum to bring in people and revenue, guided tours are held to the top of the timber tower to survey the whole site and far beyond.

He says that the challenge of navigating between heritage and commercial considerations in terms of the workplace floors focused around potential subdivision of floors, as "post-Covid, people don't want to work in big open plan floors." He says that the designers "always knew we needed a mix; including smaller units for SME and innovative start-up businesses."

### PROJECT FACTFILE

**Architect:** Feilden Clegg  
Bradley Studios

**Client:** Historic England

**Contractor:** Croft Building Conservation

**Structural engineer:** AKT II

**GIA:** 9000 m<sup>2</sup>





He says that with the third floor having a central line of beautiful forked iron columns (the fork originally held the mill drive shaft), the architects were trying hard to retain it as open plan. Where more structural strengthening was needed, a more compartmentalised approach was used.

The contractor did a lot of the work themselves rather than subbing it out, with individual staff a regular sight on the project over several years. Many of the materials and trades were sourced locally; the roof slates came from Wales, and many of the replacement bricks from Gloucestershire-based Northcot Brick. A lot of the joinery and metalwork repair was done by local firm Heritage Project Works, and the goal was “about leaving a building which could be maintained by the local industry, rather than importing things that would need to be rethought in 10 years,” says Greensmith.

The first floor of workspace was fully fitted out by the architects, to set the standard for subsequent floors above, showing “how to keep views open, and how to create communal and breakout space.”

## Conclusion

The workplace levels of the project are now potentially around 75% let (the fully let first

floor is being followed by the second which is currently being fitted out, and the fourth floor negotiations were close to conclusion). Tim Greensmith says that “you hope it now has the critical mass that people will be fighting over the last areas.”

There are other buildings available on the site which can be converted if required, part of the adaptability of this historical antecedent of 20th century construction. This re-use of the structure shows the flexible qualities which are inherent to the building, and which have been harnessed by the architects to provide a commercial boost for Shrewsbury in future decades. Doubtless in planning a mill 225 years ago which would make work less of a threat to life, Charles Bage could not have envisaged that his functional frame of slender iron columns, built for workers’ safety, would be preserved for a much less intense long-term use, as a home for small businesses.

Beyond the retention and protection of an important architectural monument with an uncompromising attention to quality however, perhaps the real importance of this project is as a vivid demonstration of why and how an entire high-profile building of this scale and nature can be saved, and given a sustainable new life. ■

20 – 21 March  
The Truman Brewery, London

**ARCHITECT  
@WORK**  
UNITED KINGDOM

# ARCHITECT@WORK 2024



The architecture and design community in and around London will once again gather together in March at The Truman Brewery to explore the latest innovations available within the built environment at ARCHITECT@WORK London. Over 200 cutting-edge and vetted products and services will be showcased across two floors at the Truman Brewery.

## First speakers announced

One of the big draws to the show is the highly anticipated talks program, which is made up of three talks each afternoon. Within the two-day event guests will have unprecedented access to some of the country's top experts in design and architecture.

This year's theme 'People + Planet: designing from the ground up' invites discussions around the latest in biophilia, neurodiversity, wellness and embodied carbon, as well as innovative applications in

materials like timber and natural stone.

A special focus on the future of London will be examined through a guest speaking talk curated by The London Society. All talks will be chaired by editors, journalists and/or curators specialising in each topic, and the speakers are multi-award-winning innovators including founders and senior members of Studio Weave, Sebastian Cox, White Arkitekter, Hawkins\Brown, Nulty, Artefact and many more.

The full talks programme can be found on the website.

## Inspiration & Innovation

Every single innovation which is showcased during ARCHITECT@WORK London has been thoroughly assessed by a judging panel consisting of architects and interior designers to ensure a worthwhile visit.

A stellar line-up of internationally renowned brands means that with a minimum of time and effort, you can easily expand your technical knowledge – each stand has experts present to give you insights on how to best use the innovations. The full exhibitor list can be viewed at the event website.

Complementary catering in the event's unique setting are included during this two-day trade show aimed at architects, interior designers, project developers and other specifiers.

ARCHITECT@WORK encourages networking and downtime as well as deal making opportunities!

Attend the London edition of this internationally renowned event and register online at [www.architect-at-work.co.uk](http://www.architect-at-work.co.uk) using code ARCHDAT999.

Admission is free for all trade visitors.

*Article supplied by ARCHITECT@WORK*







## SIMONSWERK exhibits at ARCHITECT@WORK

Hinge manufacturer SIMONSWERK will be exhibiting at the ARCHITECT@WORK exhibition held at the Truman Brewery on 20-21 March. SIMONSWERK will be showcasing the latest developments to its comprehensive hinge portfolio. The focus of the exhibition will be the new self-closing BILOBA hinge systems for single swing or double-action glass doors. The screw-on hinge system has an automatic self closing function thanks to integrated hydraulic damping. It is internationally patented and tested to over one million opening cycles. The adjustable closing speed enables ideal adaptability to user needs. Also on display will be the new BW 1 mounting bracket. In harmonious interaction with the TECTUS TE 640 3D A8 and TE 626 3D A8 for unrebated commercial and functional doors, this detail allows for cladding for up to 20 mm on both sides. The new concept gives the designer more scope when integrating the door element into the overall interior design concept.

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ARCHITECT@WORK STAND 43

## Forbo launches brand new awards for 2024



Forbo Flooring Systems is excited to launch its brand new Forbo Awards, replacing its previous Forbo Escapes competition. This new iteration of Forbo's industry-renowned architectural design competition includes three categories, with a special focus on sustainability, and a bumper prize package for the lucky winning practices. Since 2012, Forbo has ran a competition

to recognise the crème de la crème of commercial projects utilising Forbo's flooring solutions. However, 2024 sees Forbo launch a new Awards style competition to recognise a wider variety of projects from the architectural, interior design and flooring industry.

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## Steel Window Association Awards 2024



The Steel Window Association, and members, are thrilled to announce the launch of the very first Steel Window Association Awards. The awards have been created to highlight impressive projects as well as detailing the experience and knowledge that goes into creating beautiful steel windows and doors. Members have two categories to choose from –

Best Domestic Project and Best Commercial Project – and have been provided with a list of criteria and a specification form. Winners will be announced on the 7th June at the association's AGM in London.

[www.steel-window-association.co.uk](http://www.steel-window-association.co.uk)

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ARCHITECT@WORK STAND 43

## Get the latest information with GEZE's latest Product Guide



GEZE UK's latest Product Guide and Price List has been completely revised and updated to make it even easier for architects, architectural ironmongers and specifiers to select the most effective product for their needs. The detailed, illustrated technical guide provides specifiers with essential information about GEZE's extensive range of door closers, window control systems, sliding door fittings, glass door fittings, and smoke and heat extraction systems and now lists all door closers according to type: with guide rail, link arms, integrated or transom mounted. It also includes the latest editions to the product range. Created to be completely user-friendly, the guide is divided into five easy-to-use sections so that the comprehensive range of products can be found quickly and efficiently, whilst also providing users with a handy reference guide to the applications of all GEZE products. It includes technical drawings, application descriptions and finishes as well as glass preparation information and technical information on a wide variety of solutions for toughened glass. The Product Guide is available electronically or as hard copy. Please email GEZE to order a copy.

info.uk@geze.com [www.geze.co.uk](http://www.geze.co.uk)

## Mapei Purtop Easy awarded BBA Certification



Mapei has received BBA Certification for its liquid waterproofing system – Purtop Easy. A single-component, cold liquid-applied polyurethane roof waterproofing membrane, Purtop Easy is used to protect roofs, balconies and terraces, making substrates completely waterproof even at low temperatures. The BBA Certificate 23/7057 confirms that Purtop Easy achieves a classification of BROOF(t4) under BS EN 13501-5 : 2005 and it has a service life of at least 25 years. During the BBA assessment process, the system was assessed as a waterproofing layer on pitched and flat roofs, with pedestrian and limited access, including green roofs and roof gardens, fulfilling all requirements. Key factors tested included safety in case of fire, hygiene, health and the environment – including watertightness, resistance to mechanical damage, root penetration and slip resistance – and durability. It was also assessed for design, installation, workmanship maintenance and repair, as well as manufacture, delivery and site handling. Highly elastic and durable, Purtop Easy is quick and easy to apply. The versatile membrane is resistant to standing water, root penetration, foot traffic, low and high temperatures (-40°C to +80°C) and UV rays.

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## Titon wins Domestic Ventilation Product of the Year at Energy Saving Awards



Titon is thrilled to announce that its newest MVHR unit, the HRV4.25 Q Plus, has won the Domestic Ventilation Product of the Year category at the Energy Saving Awards 2023. The Energy Saving Awards celebrate the very best professionals, products and projects across the Plumbing, HVAC and Energy Management sectors. The awards were created to acknowledge the important work that has been achieved by manufacturers, installers, contractors, suppliers and organisations to reduce carbon emissions and become more energy efficient. The HRV4.25 MVHR unit is part of the new HRV4 Q Plus Range and boasts cutting-edge technology and exceptional energy efficiency capabilities, making it an industry leader in sustainable ventilation solutions. One of the standout features of the HRV4 Q Plus Range is its highly efficient heat exchanger, achieving up to 91% heat recovery. This outstanding recovery not only ensures superior ventilation but also aids in reducing energy consumption and associated costs. The Energy Saving Awards panel acknowledged the HRV4.25 MVHR unit for its outstanding contribution to energy efficiency and environmental sustainability.

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# Vecta building linings – where form meets function

The Vecta building linings range from Encasement is a comprehensive bespoke finishing system for interior and exterior applications on a broad range of project specifications.

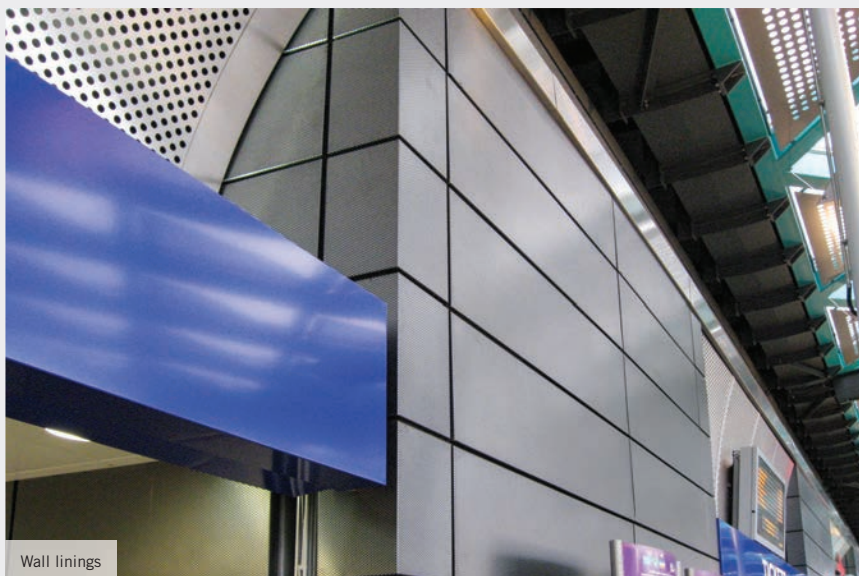
Building linings can typically be specified to perform several functions but are usually centred on their ability to improve aesthetics or provide a practical solution to a specific requirement. These can often include protecting interior walls in high traffic areas, concealing building services and structural elements, or to indicate separation between interior zones by using different materials or finishes.

To meet these diverse requirements, the Vecta range covers several different product groups, incorporating wall linings and lift lobby linings, as well as reveals, soffit linings and bulkheads. In addition, as the product specification will depend on factors, such as the intended use of the space, aesthetics, and the performance requirements the building, a choice of materials is available within the range.

Vecta metal wall linings are available in natural, brushed, anodised and PPC coated aluminium, plus stainless steel, and textured materials, including Rimex. Further versatility is provided by compact laminate options, which can be specified in a wide palette of colours or even incorporate custom images and graphics for unique interior designs.

As a result, both metal and compact laminate wall linings are widely used on projects in the education, health, commercial, hotel & leisure sectors, as well as transport, retail and public buildings.

While usually specified for interior applications, some Vecta metal solutions, such as soffit linings and external bulkheads, are also designed for use on external projects, as they are inherently weather



Wall linings

resistant. As they can also incorporate PPC finishes, selected from a wide range of RAL colours, this can help add interest to a building's exterior.

All Vecta building lining solutions are bespoke manufactured to meet individual project requirements, but to assist with specification and selection for different applications, Encasement has segmented them into three product groups.

## Wall linings

Suitable for use in both interior and exterior applications where decorative or protective solutions are required, Vecta wall linings are ideal for environments where there are high levels of pedestrian traffic, such as transport hubs, retail or commercial buildings, to resist damage to internal walls.

Aluminium and stainless steel are commonly specified, although compact laminates are also widely used, as the almost limitless choice of laminate colours and textured finishes provides an extensive range of specification options. However, the material specification is highly dependent on each application and whether it is an interior or exterior location.

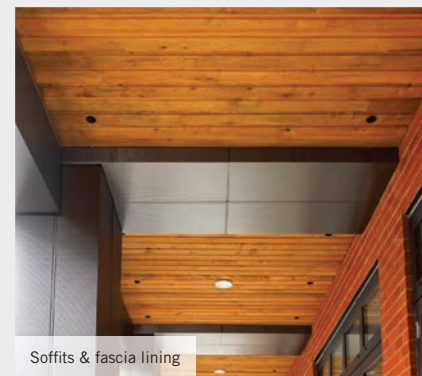
## Lift lobby linings

A fundamental part of many commercial interiors, lift lobby linings help convey the character and style of a building by integrating with its overall design scheme. Similar to wall linings, a wide range of materials and finishes

can be specified to provide increased design versatility for projects where aesthetics are a primary consideration.

## Bulkheads, soffits & reveals

Whether the requirement is for extensive services bulkheads, practical and decorative soffits or stylish lift reveals, Vecta provides a range of versatile and adaptable solutions.



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Lift lobby linings

## Marmox Thermoblocks specified on Wigan PassivHaus development



The final phase of a PassivHaus development is just getting under way in Wigan with high performance Thermoblocks from the range of **Marmox** being used to counter cold bridging beneath a highly insulated timber frame construction. The St. Mary's project is being undertaken for Wigan Metropolitan Borough Council by principal contractor, Tyson Construction with Pozzoni Architecture being the lead architectural consultant and BTP Architects gilling the roll of specialist PassivHaus assessor. All of the Thermoblocks in 100 mm and 140 mm widths, along with boxes of the special Marmox 360 adhesive are being supplied by Travis Perkin's Blackpool branch. The scheme to provide much needed affordable and easy to heat new homes has been part-funded by the Government's Department for Levelling Up, Housing & Communities. When complete the development will provide eight one-bed apartments, nine two bed houses and ten three bed houses, plus a further four with four bedrooms. There will also be 16 one and two bedroom bungalows.

sales@marmox.co.uk [www.marmox.co.uk](http://www.marmox.co.uk)

## Wraptite® is the solution for Dundee young persons' home



The Wraptite external air barrier system from the **A. Proctor Group** has been chosen for its high performance airtight insulation for a new home for young people in Dundee, Scotland. The new £3m single-storey building will be a home for some of the most vulnerable young people in the city where they can grow up in a supportive and caring setting. The project design includes en-suite bedrooms, shared living space, dining, kitchen, and activities facilities, and accommodation for staff. Robertson Construction Tayside appointed Robertson Timber Engineering as the timber frame manufacturer and supplier for the project. Nicola Jackson, Net Zero Projects Lead at Robertson Group explained: "We fitted the Wraptite membrane in our factory in Elgin. A very helpful toolbox talk and practical demonstration was delivered by the A. Proctor Group representative to operatives and the design team prior to developing detailed design information. We are happy with the performance of Wraptite and would certainly consider it on future projects." The Wraptite air barrier system provides a fully self-adhered vapour permeable air barrier certified by the BBA.

01250 872261 [www.proctorgroup.com](http://www.proctorgroup.com)



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## Newton Waterproofing helps repair tunnel



Newton Waterproofing teamed up with specialist contractor ASF Waterproofing to successfully repair leaks inside the Limehouse Link Tunnel in East London. ASF Waterproofing worked alongside Newton Waterproofing Systems to swiftly find a suitable solution, and following a thorough investigation, they opted for

Newton's PC Leakinject Uni 6816 E resin, specifically designed for sealing gaps, cracks or leaks in structures experiencing high levels of water ingress.

01732 360 095 [www.newtonwaterproofing.co.uk](http://www.newtonwaterproofing.co.uk)

## Renton Hall extension



An award-winning contemporary Douglas fir extension to a classic Georgian house created a stunning new living space to an impressive home. WT Architecture had a clear vision of what they wanted for the extension and came to **Carpenter Oak** to help refine it – as specialists in timber they provided advice on material, connection and finish options. The extension also helped to reimagine the home's connection to its landscape and provided the owners with easier access to their restored rear walled garden. The attention to detail in the building is impressive.

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on products, services, events, and learning opportunities available from a wide variety of manufacturers and suppliers.

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## BBA Certification for Mapei Purtop 1000 N



Mapei PURTOP 1000 N liquid roof waterproofing system has been awarded BBA Certification. A two-component solvent-free, fast curing pure polyurea membrane, Purtop 1000 N forms a waterproof coating for roofs and podium decks, as well as waterproofing and protecting storage tanks. During the BBA assessment process, Purtop 1000 N was assessed as a waterproofing layer on pitched and flat roofs, with pedestrian and limited access, including green roofs and roof gardens, fulfilling all requirements. Key factors tested included safety in the event of fire, hygiene, health and the environment – including watertightness, resistance to mechanical damage, root penetration and slip resistance – and durability. It was also assessed for design, installation, workmanship maintenance and repair, as well manufacture, delivery and site handling. The BBA Certificate 23/7057 confirms that Purtop 1000 N achieves a classification of BROOF(t4) under BS EN 13501-5 : 2005 and has a service life of at least 25 years. Purtop 1000 N also has WRAS approval, making it suitable for use in contact with potable water.

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## Triton Systems used in underpinning old Kent water mill



One of Triton Systems most experienced installers has employed a package of its waterproofing products, while carrying technically challenging improvements to the basement and substructure of a 19th century watermill in Kent. Archer Specialist Treatments was called in by the South African based owner of the scenic residential property near Ashford, owing to it suffering continuing problems of water ingress as the floor level lies nearly two metres below the surface of the old mill pond. Paul Halliwell said: "Archer Treatments is a family run business which has been trading successfully for 35 years – working from Chichester on the South Coast across to Canterbury and taking in much of London. In the two decades or more we've been using Triton, we have come to depend on the product range's quality and reliability for all types of residential projects in different ground conditions. On a regular basis we employ their cavity drain systems – the TM3, CM8 and CM20 – the injection chemicals for damp-proofing and the TT55 cementitious waterproofing additive as well as the fungal and dry rot chemicals. It is a very good relationship we have with the company."

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# Absorb the 'sponge city' theory

With recent flooding reminding everyone of the results of climate change and sealing up urban areas, Chris Hodson from trade body MPA Precast (Interpave) explains how taking collective responsibility for the issue is leading to a new 'sponge city' concept



Permeable paving and swales helping maintain street trees as part of the Lamb Drove SuDS scheme in Cambridgeshire  
Photo: Chris Hodson

**W**e all need to become involved with the flood resilience of our communities, and consider the wider implications of our designs within rainwater catchment areas, as highlighted by the recent flooding across the UK. A change of approach is needed.

By moving towards a 'sponge city' paradigm, we can reverse the addition of impermeable surfaces due to urbanisation. With examples internationally, sponge cities essentially soak up rainwater and retain excess stormwater, then filter and release the water gradually – much like a sponge. This approach is recognised in government proposals for mandatory sustainable drainage systems (SuDS) on developments in England, action on surface water flooding from existing impermeable surfaces, and enforcement of planning permitted

development rules for 'unplanned paving.'

SuDS are nature-based, and manage surface water by attenuation and filtration with the aim of replicating, as closely as possible, greenfield (pre-development) conditions with natural losses and reduced discharge rates. As well as reducing flooding, they must also improve water quality and provide amenity and biodiversity through multifunctionality. SuDS are based on a design philosophy, using a range of techniques in a sequence known as a 'management train.'

## Mandatory SuDS

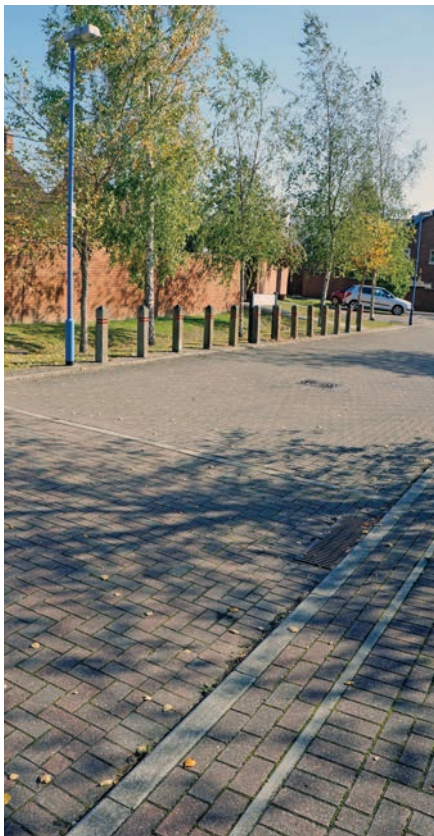
Although the 2010 'Flood and Water Management Act' included provisions for mandatory SuDS on developments, these provisions were not implemented at the time in England under Schedule 3 of the Act – although they were in Wales – relying

**We should now see a growing application of permeable surfaces, reversing the sealing-up of urban areas**





Concrete block permeable paving helps deliver SuDS on high-density schemes. Photo: Chris Hodson



instead on planning policies for flood protection. It is clear that the planning-based system has not worked and the Government is now, at last, moving towards implementing Schedule 3 – announced in a 2023 review from Defra – with implementation expected this year.

To demonstrate the Government's 'SuDS approach', Defra's report cited one particular project as an exemplar: Lamb Drove in Cambourne, Cambridgeshire, a monitored SuDS demonstration project. Completed in 2006, Lamb Drove is a 35-homes development on a 1-hectare site, with a conventional layout but still delivering SuDS. It was compared with a similar density, neighbouring development using piped drainage.

Lamb Drove is an integrated SuDS system with predictable performance and is still operating successfully today. It demonstrates various techniques to collect, clean, convey and infiltrate, or store and release water at 'greenfield runoff' rates (2 l/s/hectare) from developments to watercourses or sewers. These techniques include green SuDS such as swales, basins and blue/green roofs, and concrete block permeable paving – also recognised as a nature-based SuDS solution.

The Lamb Drove monitoring report highlights lower capital costs – saving £314 per property at the time – and lower maintenance costs, with potential for further improvements and savings. It identifies that the scheme successfully attenuates surface water flows and significantly reduces peak flows, with reductions in concentrations of pollutants and other water quality indicators, and with an increase in wildlife species and diversity.

### Action on renewal & replacement

Moving towards wider use of permeable surfaces will also help to reverse the sealing-up of our towns and cities, highlighted in a November 2022 National Infrastructure Commission (NIC) report on reducing flooding from surface water. This recommends urgent action to move away from impermeable surfaces, both for new developments and in existing settings.

The NIC report highlights that, currently, around 325,000 properties in England are in areas at the highest risk (with more than 60% chance of surface water flooding) in the next 30 years and that, without action, up to 295,000 more properties could also be put at risk. It also recognises that, by 2055, some 50,000 – 65,000 properties may be

put in areas at high risk due to 'unplanned' increases in impermeable surfaces, such as paving over front gardens, which increase the volumes of water entering drainage.

Although planning permitted development rights for replacement or new paving around existing homes and some other properties have been removed for impermeable surfaces for some time, enforcement and compliance have been limited. A review of options for managing unplanned increases in impermeable surfaces and potential policy changes to prevent it adding to the problem is recommended. Most recently, a number of other agencies are exploring a national strategy for retrofit SuDS, highlighting a catchment-based approach to rainwater management.

### Key SuDS technique

We should now see a growing application of permeable surfaces, reversing the sealing-up of urban areas. Recognised in The SuDS Manual as the most commonly used 'Pervious Pavement' typology, concrete block permeable paving has proven to be a robust, resilient and adaptable technology for all types of paving over 25 years in use in the UK. It is unique as a SuDS technique in combining proven engineering design solutions with nature-based water management near the surface.

Of course, safe and attractive hard surfaces are needed in any development. Concrete block permeable paving's multifunctionality and integration with SuDS can be done without additional land-take. It offers gradual supply of clean, treated water for safe, open SuDS features, landscapes and amenity, and real opportunities for designers to innovate.

It can also meet the latest planning requirements for street trees with long-term maintenance, providing diffuse rainwater infiltration and retention, plus free air movement to roots without surface disruption. A new edition of the guide 'Understanding Permeable Paving' is available via the website, which offers a comprehensive review of all aspects of concrete block permeable paving.

*Chris Hodson is consultant to the trade body MPA Precast (Interpave)*

*NB for a report on netMAGmedia's recent round table on SuDS, visit netMAGinsights [www.insights.netmagmedia.co.uk](http://www.insights.netmagmedia.co.uk)*



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# Senior specified for UK's first carbon-neutral built community arena

The new Canon Medical Arena in Sheffield has been designed by architects Bond Bryan and features a duo of sustainable aluminium fenestration solutions from Senior Architectural Systems.

Senior's SF52 curtain wall system was the ideal choice for the arena's modern facade, offering attractive slim sightlines and design flexibility without compromising on exceptional thermal performance.



The use of this system, which offers full cradle to cradle recyclability, complements the Canon Medical Arena's sustainable credentials as the UK's first carbon-neutral built community arena.

Senior's SD aluminium commercial doors were selected to complement the use of the SF52 curtain wall system and provide a robust solution for such a high traffic application. Both Senior products were expertly fabricated and installed by specialist contractor MIS Architectural Aluminium Rotherham on behalf of main contractor Beboys.

The Canon Medical Arena has been designed to address inequality in Sheffield, providing significant employment opportunities in the city as well as offering a 'one-stop-shop' preventative healthcare service. The centre will be home to cutting-edge diagnostic imaging systems which will help to relieve post-Covid waiting lists and allow residents to receive early intervention

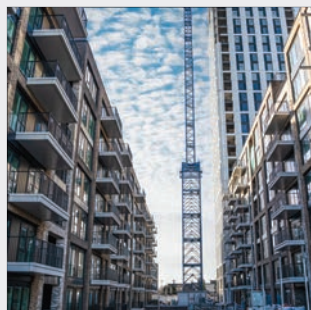


where needed. It is also the new permanent home of the Sheffield Sharks and Sheffield Hatters, as well as the RESPECT programme, which aims to provide young people with better access to sports and health education.

For more, search for Senior Architectural Systems on Twitter, LinkedIn and Facebook.

01709 772600  
[www.seniorarchitectural.co.uk](http://www.seniorarchitectural.co.uk)

## Sapphire delivers balcony innovation to Berkley Homes Chelsea Creek project



Chelsea Homes, a stunning St George, Berkley Homes project in Central London offers European-style urban lifestyle with tree-lined avenues and meandering waterways. The facade of the building had different exteriors using brick, metal and GRC panels and a total of 183 balconies of 43 different types. Sapphire worked closely with Berkley Homes and architects Scott Brownrigg to design and manufacture balconies for the various facade conditions. The new glass-fibre reinforced concrete (GRC) fascia supplied to the balconies had wide tolerance, and it was crucial to design fixings to fix the precision-made balconies. The team at Sapphire Balconies designed innovative stainless-steel brackets to fix wide tolerance in the new GRC fascia, which had movement tolerance in all directions. Due to the different style of structural posts included in this phase of the Chelsea Creek project, a new post & rail system was included, comprising a package of prefinished extruded aluminium profiles, easily assembled to provide a robust and attractive balustrade on the project.

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# Sustainable Retrofit with Nordic Copper

**A**daptive reuse of existing buildings is an essential strategy to reduce embodied carbon, while regenerating our urban environments. An exemplar of this approach – 72 Broadwick Street – is crowned by a profiled roofscape clad in Nordic Brown Light copper from Aurubis.

Set within the Soho Conservation Area, 72 Broadwick Street is a half-acre island site fronting London's iconic Carnaby Street. Originally built in the 1970s as a 'brutalist' concrete, seven-storey headquarters building, its recent extensive mixed-use redevelopment now provides a range of uses including offices, restaurants, a gym, retail and residential units. Designed by architects Buckley Gray Yeoman (BGY) for developer Shaftesbury Carnaby, the regeneration project demonstrates how a diverse range of uses can be accommodated within one urban block in the heart of London.

72 Broadwick Street was recognised as the 'Best Mixed-Use Scheme' by the 2023 Building London Planning Awards. As well as requiring major structural alterations and remodelling, the project also presented various challenges for architects BGY, planning consultant Rolfe Judd and main contractor Blenheim House Construction. They included working around the West End's largest electrical substation, keeping existing ground floor units operational and minimising impact upon a major retail destination. The building's exterior has been transformed with new fenestration throughout, new feature brickwork and existing brickwork treated to give the complete development a contemporary feel.



## Reduced Structural Demands

The original fifth and sixth storeys were demolished and replaced with extensive, lightweight rooftop additions wrapped in an external skin of Nordic Brown Light copper, creating residential apartments around a central courtyard. Eleven of the fifteen apartments have distinctive pitched roofs that rise and fall to create a dynamic roof profile. Ben Oram, BGY's Head of Technical, said: "In one of inner London's densest districts, the profiled roofscape of this re-purposed urban block helps to embed it among the varied age, materiality and massing of its neighbours." Conceived as the 'crown' of the building, the copper roof eaves sit above terraces enjoying panoramic views across Soho, with their deep overhang contributing to solar shading.

Copper is also used extensively for vertical cladding in the form of cassette panels, some perforated to provide ventilation. Rachael Owens, BGY's Head of Sustainability, explained: "Copper cladding was chosen due to its lightweight nature, as the structure at the top of the building needed to be as light as possible to prevent the need to strengthen the existing structure below. When compared with alternative metal cladding products, the copper could be specified with a reduced thickness, due to its strength, which reduced overall material use and embodied carbon emissions".

The Nordic Brown Light roofing and cladding, supplied by Aurubis stockist Metra Non Ferrous Metals and carefully installed and crafted by Roles Broderick, defines the regeneration of this landmark building. Nordic Brown copper is pre-oxidised in the Aurubis factory to provide straightaway the same oxidised surface that develops naturally over time externally. The lighter or darker shades of brown – determined by the thickness of the oxide layer – will continue to change in the environment and Nordic Brown Light gradually develops a stable dark chocolate brown colour.

NordicCopper@aurubis.com  
www.nordiccopper.com



Photos © Dirk Lindner

## Wraptite® protection chosen for Isle of Man seafront property



The Wraptite external air barrier system from **A. Proctor Group**, selected as part of the facade upgrade to a sea-facing property in Douglas, Isle of Man, will ensure energy efficiency and protection from the elements. The Peveril Buildings is situated in the centre of the Isle of Man's Business District, opposite Douglas Sea Terminal. Excel Construction Group was appointed to upgrade the facade and improve the building's structure, aesthetics, and energy efficiency. Andrew Burley, Quantity Surveyor at the Excel Group, explains why Wraptite, the only self-adhering vapour permeable air barrier certified by the BBA, was selected: "We chose Wraptite for the breather membrane because of its effectiveness as a vapour barrier and durability. In addition, the nature of Wraptite, being a self adhesive fix rather than the traditional use of staples and mechanical fixing, assisted with the durability in the high wind conditions prevalent on the seafront location. Wraptite provided the building fabric with excellent protection from the coastal elements prior to installing the Gebrik panels. We will definitely be using Wraptite on future projects."

01250 872261 [www.proctorgroup.com](http://www.proctorgroup.com)

## ASWS addresses lead paint issues



ASWS has carried out a detailed contract on 35 Dover Street in London. ASWS's team of highly trained operatives was involved across four of the five storeys, stripping and restoring a total of 36 large steel windows and screens. ASWS can provide a full range of services for the repair or replica replacement of metal windows – from the early wrought iron and traditional Medium Universal section, through to mid and late century

aluminium curtain walling. Options include the addition of draught-stripping and a switch from single to double-glazing for improved energy performance, as well as the replacement or polishing of all ironmongery.

[asws.co.uk](http://asws.co.uk)

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# Product highlight: ME055 FR Breather Membrane (WHITE)

Illbruck, a brand of Tremco CPG UK Ltd, is proud to announce the launch of the newest addition to their building facade protection range; ME055 FR Breather Membrane (WHITE).

The latest addition to the range is a non-combustible and highly vapour permeable breather membrane that is A1 in accordance with EN 13501-1 and water resistance to Class W2 in accordance with EN 13859-2.

Designed to be used as a full facade breather membrane on new build and refurbishment projects; this solution offered to the marketplace is highly breathable, water resistant, and easy to install. It is important to note that Illbruck's FR Breather Membrane (WHITE) meets the fire performance for membranes installed on "relevant and higher risk" building types as defined in Approved Document B of the Building Regulations for England and Wales.



## Features and Benefits of ME055 FR Breather Membrane (WHITE):

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- W2 water resistance
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This new product offers specifiers, architects, and main contractors confidence in product performance and suitability of product selection in a variety of applications. Suitable for use within high-rise buildings, timber

frames, lightweight steel frame constructions, and off-site construction. One can rest assured that this product boosting an A1 fire classification will perform if ever called upon.

## How can Illbruck support?

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 Aluplast HST 85



## Sto rainscreen cladding system streamlines construction at Blar Mor



A Sto rainscreen cladding system has provided an alternative construction method for a new housing development, generating time and cost efficiencies. Located in Fort William in the Scottish Highlands, Blar Mor comprises 117 one-to-four-bedroom affordable homes, which have been built by TSL Contractors. The main contractor partnered with AFS (Scotland), a leading provider of external facade solutions, to deliver a durable cladding system for timber frame homes, removing the requirement for traditional construction. "Given the location of the development, TSL Contractors was seeking a new facade solution which would enable them to build the homes more efficiently without compromising on quality," explained Steve Avery, director of AFS. "Having used Sto's products for numerous new-build projects, we recommended the StoVentec rainscreen cladding system." Steve continued: "StoVentec is very quick and simple to install which made it ideal for Blar Mor and the inevitable wet weather conditions. The system has also provided a thermally-efficient solution with facades that will be resistant to cracking and the elements, ensuring they retain their attractive appearance."

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## Building a better workplace

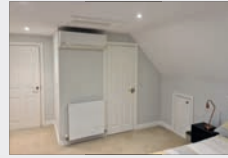


Project: The Gilbert

The work environment significantly influences productivity and wellbeing. Companies globally now prioritise operational efficiency and healthy workplace practices. By investing in employee wellbeing, companies not only boost productivity but also cultivate a culture of care and support that contributes to long-term success and sustainability. As businesses recognise the link between a healthy work environment and organisational performance, the pursuit of wellbeing will remain a foundation of modern workplace practices. Please visit **Flexible Space's** website for more information.

sales@flexiblespace.com [www.flexiblespace.com](http://www.flexiblespace.com)

## Panasonic enhances home extension



An extended three-storey family home in Northamptonshire has undergone a transformation of its climate control capabilities. Utilising **Panasonic's** highly efficient three-way Ethea Multi-split system with nanoe™ X technology, the new solution provides both heating and cooling, with the added benefit of better Indoor Air Quality to the extended areas, allowing the family to maintain a comfortable living environment all year round. Since the installation of the Panasonic Ethea units, the family has seen a significant improvement.

0808 2082115 [www.aircon.panasonic.eu](http://www.aircon.panasonic.eu)

## Luxury vinyl tiles from the tile specification experts



**Parkside Architectural Tiles** has launched Pronto, a collection of luxury vinyl tiles (LVT) giving projects a complementary, high-quality option alongside its range of commercial tiles. The Pronto Luxury Vinyl Tiles flooring range from Parkside Architectural Tiles features authentic wood and stone designs, including herringbone, terrazzo, concrete and marble. The range is designed to offer fast installation with integrated underlay and proven click systems, including DreamClick for multiple laying combinations, and is available in commercial specifications, including 36+ PTV, and residential use specifications. Pronto's 100% waterproof Tough Core Technology gives this LVT floor a rigid construction that combines with the integrated underlay to accommodate different subfloor conditions. Negating the need for perfectly smooth and level subfloors, the combination greatly speeds up installation, while the underlay itself also adds comfort, sound and heat insulation. The floor's stain, scratch and spill resistant layer is further protected by a UV coating that cuts down on maintenance and makes it easy for Pronto to stay looking good in all kinds of projects.

0116 276 2532 [www.parkside.co.uk](http://www.parkside.co.uk)

## First ever 'green steel' radiator series



**Stelrad Radiators** is going green with another UK powerhouse **Tata Steel** to offer the first 90% green steel radiator range. **Tata Steel** is supplying UK made 90% Carbon Lite steel exclusively to **Stelrad** within the radiator market, so that **Stelrad** customers can choose a Green Compact radiator range that contributes directly to a reduction in atmospheric

CO<sub>2</sub> today. The process for producing the steel is called Optemis Carbon Lite. Customers purchasing a green radiator from the new **Stelrad Green Series** will be saving the equivalent expenditure of driving a small car over 250 miles per radiator purchased.

0800 876 6813 [www.stelrad.com](http://www.stelrad.com)

## DF2E downflow fan heater launched



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

01646 692172 [www.consortepl.com](http://www.consortepl.com)

### DF2E DOWNFLOW FAN HEATER WITH 7-DAY TIMER

- Adjustable heat output (1kW or 2kW)**
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- Open window detection**

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For more info on DF2E heater

# Bjelin unveils striking Contrast Collection

**B**jelin has launched a new range for the UK market within its revolutionary hardened wood flooring portfolio.

The new Contrast Collection comprises a palette of five different colourways – Desert, Vapor, Silver, Ivory and Granite. These leverage the existing hues and tones within the wood to create stunning contrasts, while blending with the existing hardened wood 3.0 range. The new range is available in the XL size in Spačva oak. This type of oak, which is sustainably sourced from Croatia with FSC certification, is renowned for its stunning beauty and distinctive grain.

This vibrant new range was created through the fusion of technology and ageless craftsmanship and suits both residential and heavy-traffic commercial environments.

Utilising its access to the state-of-the-art R&D department belonging to sister company Välinge Innovation, Bjelin has pioneered a cutting-edge approach to enhancing the wood's natural structure. The ground-breaking Woodura™ surface technology brings hardened wood floors to life, making it possible to use a sophisticated



array of nine precision-engineered brushes to seamlessly integrate contrasting pigments into the surface, highlighting the natural grain of the oak.

Woodura™ surface technology makes hardened wood floors three times stronger than traditional engineered wood options, giving enhanced resistance to water and

dents. When it is combined with the leakproof 5G Dry™ floor locking system, the Contrast Collection ensures lasting durability and boasts a superior class 33 pro matt lacquer – Bjelin's toughest to date.

"This striking collection gives both commercial and residential users a new and exciting option," says Simon Darbyshire, Managing Director of Välinge Innovation UK Ltd. "Our hardened wood flooring products are already generating widespread interest. The new Contrast range redefines the game in residential and commercial design, injecting a sleek, tech-savvy edge that screams innovation."

uk-sales@bjelin.com [www.bjelin.com](http://www.bjelin.com)

# BJELIN

## Altro awarded NHS P23 approval



Altro has been appointed as a recommended supplier on ProCure23 (P23), the fourth generation of the ProCure framework for the design and construction of NHS capital projects. With extensive Altro product ranges approved within the scheme, NHS partners

can access a comprehensive offering encompassing smooth and safety floors with adhesive-free options, hygienic walls, wall protection, doors, wash stations and resin floors. The P23 framework builds on the successes of three previous iterations of the ProCure framework that have delivered over £10 billion of projects for the NHS.

01462 489 516 [www.altro.com](http://www.altro.com)

## A fresh and welcoming appearance



The School of Geography and the Environment at the University of Oxford sought to update its flooring. With the existing floor coverings having become worn and dirty, the university department turned to Forbo Flooring Systems' integrated portfolio of barrier matting solutions, Nuway and Coral, to create a better first impression for students, staff and visitors. Alex Black, Facilities Manager at the School of Geography and the Environment, concluded: "We're very pleased with the final result. The new flooring has given the reception area a much-needed lift and we're delighted to now have a more welcoming and vibrant entrance to the building for students, staff and visitors."

01773 744 121 [www.forbo.com/flooring/en-uk](http://www.forbo.com/flooring/en-uk)

## Connecting communities through football

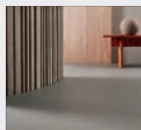


F. Ball has continued its support of grassroots and lower league football clubs that aim to have a positive impact on local communities by donating products to be used to enhance facilities at Ramsgate F.C. Club sponsor Avenue Flooring, based in Surrey, used F. Ball's Stopgap 1200 smoothing compound

and Styccobond adhesives to install floorcoverings as part of the refurbishment of the main changing rooms at the WW Martin Community Stadium, undertaking the work for free. Fast-track products meant that this could be completed between fixtures.

01538 361 633 [www.f-ball.co.uk](http://www.f-ball.co.uk)

## Forbo's new Marmoleum Solid collection



Forbo Flooring Systems continues to push forward, updating the Marmoleum Solid collection to support the enduring trend for contemporary interiors that connect with modern nature. Refreshed and contemporary, the new colour palette features muted and neutral tones, providing architects and designers with a high-end flooring option made using 98% natural raw materials – independently certified Climate Positive cradle to gate and importantly, without offsetting. Arranged intuitively in four go-to collections, the plastic-free Marmoleum Solid collection comprises 72 colourways, 26 of which are new – all future orientated and modern in character.

01773 744 121 [www.forbo-flooring.co.uk/marmoleumsolid](http://www.forbo-flooring.co.uk/marmoleumsolid)



# Vicaima opens the door to fresh inspirations for construction in the AI era

It's a common exercise in any sector of activity – to foresee macro-trends, understand phenomena and draw up plans to respond to those same expectations of a future that is always more innovative, challenging and non-linear. The complementary worlds of architecture, construction and design are no exception and are the forerunners of boldness and disruption of norms, an attitude that brings them closer to the frontier between the beauty of evolution and the power of change.

As one of Europe's major players in the design and production of cutting-edge solutions for interior doors, technical doors, frames, wardrobes, panels and furniture pieces, Vicaima identifies some of the focal priorities that are already being followed by professionals in the field and whose relevance is expected to increase this year.

One point will be common to all sectors – the transformative power of artificial intelligence (AI). Whether for interior design and decoration or in construction processes and software, disruptive technologies will have an influence on the efficiency within the different phases of a project, from the generation of 3D models, integrated project management or the selection of decorative elements, enhancing the creativity and uniqueness of spaces by combining the analytical capacity of digital tools with the aesthetic and functional sensitivity of the human insight.

How can we go even further and understand what lines will shape the future of these sectors? Let's go through, in detail, the features, concepts and movements that promise to make 2024 a transformative era.

## Sustainability factors will continue to play an essential role

This year, sustainability will play a role in more than the choice of a decorative product, through elements that reflect the appreciation of local culture, proximity to communities and consideration for future generations.

In the construction sector, the inclusion of products with FSC® (Forest Stewardship Council®) certification, the organization that promotes responsible forest management, is almost a prerequisite, as specifiers seek to look beyond, sourcing and specifying products from organisations who take a more wholistic

approach to their ESG (Environment, Social and Corporate Governance) obligations.

In addition, the rehabilitation of existing buildings will become even more important, adding to the value that restoring historical heritage can bring. In the interiors, thermal insulation will be one of the key factors in reducing energy consumption, while guaranteeing comfort for users.

At the same time, acoustic insulation will also be relevant, an important factor when silence is the most audible response to today's demand for tranquility and comfort. Among several growing sectors, 2024 foresees an increase in university residences, which are increasingly necessary in urban centers, where soundproofing is essential for the comfort of young people who use these places to study and work.

## Doors as a fundamental element of personalization

The selection of styles, tones and surfaces has risen to an archetype that promises to become the next design revolution. Today, there is a growing demand for doors with customized designs and finishes adapted to specific needs and aesthetics, a factor leveraged by AI when it comes to analyzing data, lifestyles and preferences.

In this panorama, the authenticity of the choices promises to be revealed in the choice of door finishes, developing surfaces in which texture can be the differentiating factor. Among Vicaima's wide range of options, this creative wave is already reflected in the Dekordor® 3D range of door finishes, which stand out for their modern look and pronounced texture. In total, it offers an exquisite palette of fifteen on-trend designs, in light and dark tones.

In fact, it's precisely the effect of tone and colour that reigns in highly customized projects, as Pantone's choice for 2024, Peach Fuzz, translates in all its essence, which can stand out as a differentiator in any décor. A true invitation to the smooth and profound assimilation of welcoming spaces, symptomatic of the contemporary dynamism that embraces historical tradition with vibrant brushstrokes for a perfect canvas of what tomorrow might look like.

In 2024, spaces will be increasingly "ours", mirroring the personality of those who use

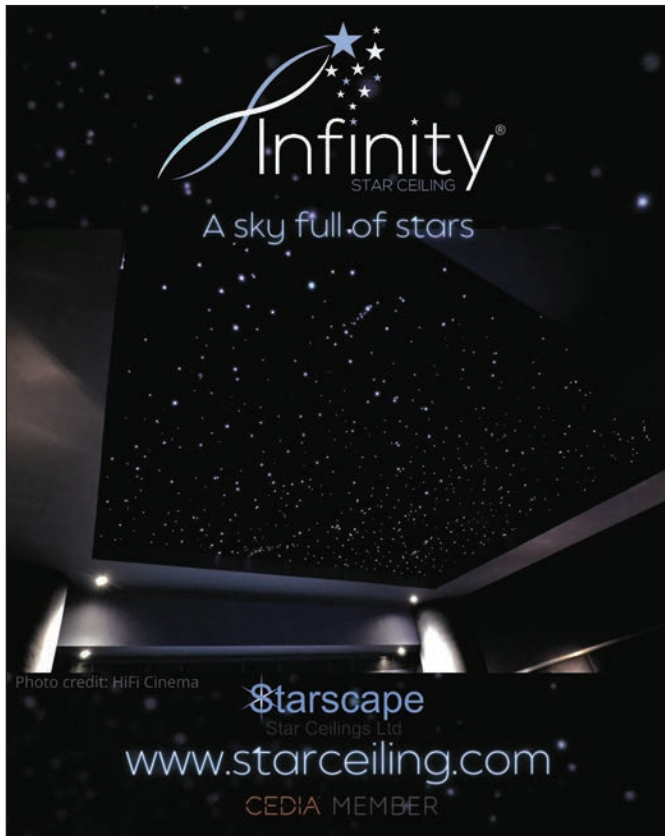


them. In buildings designed for housing, hotels, commercial services, healthcare or schools, the details that emanate a familiar and welcoming feeling will be highlighted. For projects looking to develop settings with a tailor-made concept, one of Vicaima's many solutions can be found in the Wardrobe Transform range - a highly personalized offer that appeals to the senses and imagination of customers looking for a touch of exclusivity.

## New themed projects emerging, from hotels to homes

Rooms associated with an iconic character from a movie or an animated element from a TV series are a throwback to a nostalgic childhood, but they are freeing themselves up as inspiration for themed projects, a growing trend in which physical spaces are also a feeling. Not only in housing, but also in the hotel sector, designs evocative of literature, elements of nature or cities will be less and less uncommon. Creativity will continue to blur boundaries, driving disruption in a new dimension of interior design that is very much present in the Vicaima Infinity line.

info@vicaima.com  
www.vicaima.com/en-gb/new-ideas

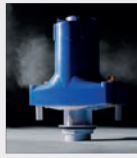


**Infinity**  
STAR CEILING  
A sky full of stars

Photo credit: HiFi Cinema

**Starscape**  
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[www.starceiling.com](http://www.starceiling.com)  
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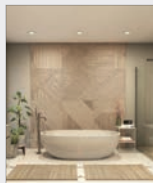
## The end of the leaky toilet valve



Thomas Dudley, one of the UK's leading innovators in plumbing solutions, proudly announces the launch of Quantum, its groundbreaking all new Pushbutton Operated Leak-Free Syphonic Toilet Flush Valve. This state-of-the-art product represents a significant leap forward in toilet flushing technology, offering unparalleled efficiency, reliability, and water conservation. Chris Slezakowski Thomas Dudley Plumbing Products Business Unit Director said: "We believe in providing solutions that make a positive impact, and Quantum is a prime example of our dedication to excellence."

[info@tyde.co.uk](mailto:info@tyde.co.uk) [www.thomasdudley.co.uk/tyde](http://www.thomasdudley.co.uk/tyde)

## Next generation CCT fire-rated downlight



With the choice of three colour temperatures and five bezel finishes, the CFR5CCT fire-rated downlight from **Knightsbridge** is able to adapt lighting to fit the demands of every location. Providing a versatile three-in-one lighting solution, the CFR5CCT features tri-CCT that provides three colour temperatures: 3000K, Warm White; 4000K, Cool White; and 5500K, daylight. Supplied with a white bezel as standard, the CFR5CCT can be accessorised with interchangeable bezels in five finishes – brushed chrome, matt black, polished chrome, white and brass.

01582 887760 [www.mlaccessories.co.uk](http://www.mlaccessories.co.uk)



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## RETHINK RESILIENT FLOOR REPLACEMENT

### Bona Resilient Solution

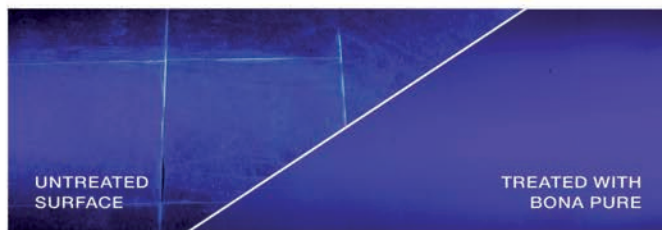
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**Bona®**

# Luceco's complete lighting solutions package at Springpack!

Luceco has supplied a comprehensive lighting solution to Springpack, an eco-friendly packaging provider who has recently completed a state-of-the-art warehouse relocation.

Such an environmentally focused business required cost effective energy efficient lighting. Luceco supplied a host of luminaires including over 250 Elara Bays illuminating the warehouse alongside recessed modular LuxPanels on mezzanine floors where ceiling grids were available and linear IP65 rated Climate Extra luminaires. Elara is an LED low bay with a fastfix gear tray and an IK10 high-impact resistant steel body. With polycarbonate lenses, Elara Bay is suitable for surface, trunking, or suspended mount installation, offering a truly flexible solution for warehousing and industrial settings.

Contemporary runs of Contour suspended linear luminaires along with Platinum Mini, Element and Platinum Surface downlights were also installed creating beautifully lit



environments whilst offering occupant friendly and practical lighting in office and circulation spaces. The Contour lighting system consists of connectable modules that can be surface mounted, suspended or recessed forming contemporary, decorative, and highly effective illumination.

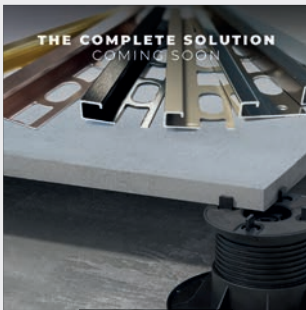
With the emphasis on Springpack's workplace well-being ethics, Luceco's Leren

lighting system was installed in the state of the art gym facility offering a modern, flexible environment for employees to work out as well as relax in breakout spaces. Leren offers both upward and downward light distribution, particularly where there are high or open ceiling voids to illuminate. Supplied complete with adjustable wire suspensions, Leren benefits from through-wiring, including electrical connectors as standard, to assist with both standalone and continuous run installations. Accessories available include ceiling mount electrical connection rose and blanking modules in 600, 900, 1,200 and 1,500 mm lengths.

Circulation areas were illuminated with a range of luminaires including Celeste, a circular decorative bulkhead style fitting, with a direct/indirect light distribution offering up to 100,000 hours working life, and Contour Wall was installed in stairwells.

01952 238100 [www.luceco.com/uk](http://www.luceco.com/uk)

## Profilpas & Mapei – the perfect profile for a complete solution



Italian manufacturer, Profilpas' range of profiles and systems will be launched as part of Mapei UK's portfolio. The accessories will complement floor and tiling projects, and will include design-led skirting boards, LED light profiles and shower systems. Part of the Mapei Group since September 2022, Profilpas is renowned for its high-quality products, innovative designs and commitment to sustainability; core qualities which both manufacturers share. The new partnership will help Profilpas to grow its business in the UK and will provide access to Mapei's global distribution network, marketing expertise and resources. Mapei's commitment to sustainability is reflected by its long history of developing solvent-free and low VOC emission products and solutions that reduce the environmental impact of construction, products made with recycled materials and renewable energy, and its new 'Zero Line' of CO<sub>2</sub> off-set. Many of Profilpas' popular ranges are also manufactured with recycled materials and together, the two manufacturers are well-positioned to create a more sustainable future for the building industry.

[info@mapei.co.uk](mailto:info@mapei.co.uk) [www.mapei.co.uk](http://www.mapei.co.uk)

## Mapei provides eco-focused solution for surfaces at new Stephenson Building



A Mapei resilient floor system has been used to complete a floor installation in Newcastle University's Stephenson Building. The Mapei specification provided a fast, safe installation and featured solvent-free, low odour formulations designed for high traffic environments. Prior to the flooring installations, the subfloor was prepared with Mapei Latexplan Trade – a low odour, protein-free levelling and smoothing compound with high compressive strength. Mapeproof ESM solvent-free and low-odour two-component pure epoxy resin, which provides a moisture barrier on cement-based substrates, was then applied along with ECO Prim T Plus universal acrylic primer – an EMICODE EC1 Plus and Blauer Engle certified formulation with very low VOC. Flooring was then installed using two Mapei products: All-in-one universal adhesive, Ultrabond ECO V4 Evolution was used to install Altro Orchestra and Forbo Surestep. The ready-to-use adhesive provides benefits including strong, rapid initial tack, a long open time and also has EMICODE EC1 Plus and Blauer Engle certification. Ultrabond ECO Tack TX+ was specified for the installation of the Desso carpet tiles.

[info@mapei.co.uk](mailto:info@mapei.co.uk) [www.mapei.co.uk](http://www.mapei.co.uk)





# Truly sustainable style in the bathroom

Tom Reynolds of the Bathroom Manufacturers Association, urges specifiers to adopt accredited wood products to provide a genuinely sustainable bathroom solution for customers and the environment

**B**ritish consumers are increasingly attuned to the environmental impact of their choices, from packaging and renewable energy to fashion preferences. The spotlight is also firmly on interior design, particularly within the domain of bathroom projects. With the mounting global concern over deforestation, climate change, biodiversity loss and water supply, architects and designers in the UK should be exploring avenues to create sustainable bathroom sanctuaries, without compromising style and functionality.

Regarding bathroom furnishings and decor, the conscientious choice of materials

can significantly mitigate environmental impact. For products made from wood or board, such as vanity units, fitted furniture, and the increasingly popular wall panels, designers or architects are advised to opt for products crafted from Forest Stewardship Council (FSC) certified timber and board.

## Deforestation principles in the supply chain

At the recent COP28, the European Commission continued to work with partner countries to ensure a successful transition to deforestation-free supply

**Architects and designers in the UK have the capacity to reshape bathroom projects with a commitment to sustainability**



**Documented poor logging practices in South America and Southeast Asia and rampant deforestation contribute to climate change, harm biodiversity and accelerate soil erosion**



chains, introducing a new deforestation law, starting in December 2024.

Their global 'Team Europe Initiative on Deforestation-Free Value Chains' aims to support partner countries in transitioning to sustainable, deforestation-free, and legal agricultural value chains. Here in the UK, the Government has confirmed 'supermarket essentials' will no longer be linked to illegal deforestation. It's a welcome move; however, it is modest compared to the EU's efforts to mitigate our use of questionable timber resources and products such as palm oil and soy.

The illegal timber trade paints a horrifying picture. An area of forest equivalent to a football field is cut down every two seconds worldwide, and generates around \$7bn for organised criminal groups. The timber can be sold, and the land is turned over for agriculture. Primarily driven by land-use change, the scale of this loss is immense, with the planet losing around two-thirds of its wildlife over the past four decades.

By sourcing FSC-certified products, specifiers can be assured of an independent seal of approval, signifying ethical and sustainable sourcing practices for forest-based products, including paper, timber, cork, bamboo and natural rubber. This certification ensures consumers' purchases align with responsible and ethical production practices, demonstrating consideration for people, wildlife, and the environment.

### **Why FSC-certified products for bathrooms?**

Without FSC certification, verifying timber's ethical and sustainable origins becomes nearly impossible. Documented poor logging practices in South America and Southeast Asia and rampant deforestation contribute to climate change, devastate communities, harm biodiversity, and accelerate soil erosion. Opting for FSC-certified goods also minimises our carbon footprint and supports companies prioritising ethical sourcing and high-quality production processes.

The benefits of choosing FSC-certified materials extend beyond environmental responsibility. Companies committed to sustainable sourcing often exhibit the same care in their production processes, resulting in higher-quality final products

with enhanced durability. This longevity can help ensure that bathroom furniture, an increasingly popular addition to smaller spaces, maintains its allure and functionality over time.

Bespoke cabinetry, reflecting the trend to declutter bathrooms, has gained traction, with homeowners expressing a preference for natural materials like wood. Finding bathroom furniture crafted from certified materials has become more accessible, with numerous brands and retailers offering diverse styles and finishes, often accompanied by a lifetime guarantee. Caution should be exercised if a product doesn't have FSC certification; this could be a red flag regarding its environmental and ethical credentials.

### **Wall panels: an alternative to ceramic tiles**

Another notable trend in bathroom design involves the growing use of wall panels and coverings as an alternative to traditional ceramic tiles. The appeal lies in their varied waterproof finishes, rapid and straightforward installation, and recyclability at the end of their life. Recycling also contributes to reduced landfill waste, contributing to circular economy principles. Wall panels, lacking grouting, also offer easier maintenance and are incredibly simple to install. For those seeking the timeless elegance of natural marble tiles, there are options available that are also exclusively manufactured using FSC-certified materials.

Architects and designers in the UK have the capacity to reshape bathroom projects with a commitment to sustainability. Professionals can champion environmentally responsible choices without compromising style and quality by opting for sustainably sourced and certified bathroom products, including wall panels. Subsequently, their clients can rest easy, knowing that their functional and stylish bathroom has not contributed to environmental degradation and biodiversity loss.

As the nation becomes increasingly eco-conscious, embracing sustainable practices is the responsible decision and a testament to the industry's dedication to a greener, more harmonious future for our planet.

*Tom Reynolds is chief executive of the Bathroom Manufacturers Association*





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# Zentia introduces the Oplia product family: A bright horizon for ceiling tile solutions



**Z**entia, one of the UK's market leaders in complete ceiling solutions, proudly announces the launch of 'Oplia,' the latest family addition to its product portfolio. Formerly recognised as Perla, the renaming reflects Zentia's commitment to pushing the boundaries of design and functionality in ceiling tiles.

The range, launched on the 10th January, offers a diverse set of visual and acoustic solutions for interior spaces. All tiles within the range have a smooth, laminated finish for a sleek aesthetic. Oplia hA dB, Oplia hA and Oplia hA+ offer excellent sound absorption, Oplia hA dB and Oplia dB offer impressive sound attenuation properties, and alongside Oplia Triangles the range provides the ideal solution for a wide spectrum of communal interiors such as offices and classrooms.

Alongside white, 34 new exciting colours have been added to the range to experiment with design, create defined zones and assist

with wayfinding. Each tile has a high light reflectance of 86% and extremely low Volatile Organic Compound (VOC) content, offering overall enhanced health, wellbeing and productivity for the end user.

The Oplia dB tile delivers an enhanced sound attenuation performance of 41dB, reducing the sound between adjacent spaces, and making it a great addition for private offices and boardrooms, or multi-let buildings. Alternatively, the Oplia hA dB is an ideal solution for flexible working spaces, with excellent levels of sound absorption and sound attenuation in one tile.

Also, within the new product family, the Oplia hA tile provides a Class A sound absorption rating and performs best in open-plan areas such as libraries and cafeterias. The Oplia hA+ tile has the highest possible  $\alpha_w$  coefficient of 1.00 and has been designed for areas that require enhanced focus and concentration, with the light

reflectance improving interior light levels, diminishing artificial light reflectance and enhancing user wellbeing.

Lastly, the Oplia Triangle tile system offers additional design freedom, formed with interlocking isosceles triangles, which when combined with our choice of 34 additional standard colours, can add a very striking and impactful visual element to any project's interior.

Graham Taylor, Director, Sales & Marketing at Zentia commented on the launch: "The introduction of Oplia signifies our ongoing commitment to redefining the possibilities within ceiling tile solutions. With a renewed focus on amazing aesthetics and acoustic excellence, the new Oplia family offers a great canvas for architects and designers to innovate and create inspiring spaces."

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# ROCKWOOL® launches guide to BS 5422:2023

To support HVAC and building services professionals in meeting the latest thermal performance guidance, stone wool insulation manufacturer ROCKWOOL has released its Guide to BS 5422:2023. The new brochure clarifies recent changes to BS 5422, the technical guidance document covering thermal insulation of building services, and is available to download.

BS 5422:2023 presents updated specification recommendations for effective thermal insulation of pipework, ductwork and other building services equipment, covering a range of applications throughout commercial and domestic buildings. Changes to the guidance includes the removal of thermal performance for legacy materials, adjustments to the heating tables, and the change from 'National Class' reaction to fire to 'Euroclass' classifications.

The changes presented in BS 5422:2023, effective since 30 June 2023, give designers more stringent thermal performance targets in line with energy efficiency commitments and the route to net zero. The ROCKWOOL Guide to BS5422:2023 puts these changes



into context, with a clear breakdown of what each means to the designer, on top of providing application-specific advice and best practice. Specifically, the ROCKWOOL Guide to BS 5422:2023 explores:

- Changes to BS 5422 – an accessible breakdown of each change presented in the latest edition of BS 5422, and how the transitional arrangements are to be managed.
- Insulation guidance and best practice – an overview of how effective insulation can simultaneously provide thermal

performance, acoustic absorption and fire resistance in building services applications.

- Up-to-date thermal tables – putting all the new thermal tables in one place, enabling specifiers to review them in the context of the 2023 changes.
- Relevant ROCKWOOL solutions – the guide presents a series of relevant ROCKWOOL solutions which support designers in meeting the new standards for common building services applications.

While following BS 5422 guidance will not guarantee statutory compliance in every construction scenario, following the latest methodology will support building services professionals in effectively insulating their projects – and the new ROCKWOOL guide makes it easier to do so, while remaining mindful of wider specification guidance including Approved Document L. Visit the website to download the guide today.

01656 868 490 [rockwool.link/bs5422](https://rockwool.link/bs5422)

## SuperPhon panels provide reverberation control at new school

CMS Danskin Acoustics' SuperPhon panels are contributing to reverberation control at a newly built school in East Hertfordshire, helping to ensure standards for acoustics in new school buildings are met.

Buntingford First School is a school for around 330 children between the ages of three and nine, which opened for the 2023 autumn term. Built to Passivhaus standards by Morgan Sindall Construction for Hertfordshire County Council, the 1,643 sqm school includes a nursery and ten classrooms.

During construction 175 SuperPhon panels of varying sizes and colours were installed by SCL Interiors, mainly on classroom walls, to absorb sound and provide reverberation control.

SuperPhon provides up to Class 'A' acoustic performance and has a Noise Reduction Coefficient from 0.80 to 1.15 – an NRC of 0 indicating perfect reflection and an NRC of 1 indicating perfect absorption. The sound



absorption coefficient is tested to BS EN ISO 354:2003.

New school buildings must satisfy the requirements of Section 1 of Building Bulletin 93 (BB93) – setting out the constructional standard for acoustics in new school buildings.

SuperPhon is available in standard sizes, thicknesses and finishes, including wipe clean and art panels, but also as bespoke panels in terms of size, thickness, shape or fabric facing. Designed for use in applications, including recording/rehearsal studios, audiology



rooms, cinemas and theatres, schools, call centres and conference rooms, SuperPhon has been installed at the Liverpool Academy, Edinburgh Observatory, Jodrell Bank and the Hydro Arena in Glasgow.

CMS Danskin Acoustics, part of SIG plc, provides a free reverberation calculation service as well as full technical and on-site support. The panels are manufactured at their Warrington site.

01925 577711  
[www.cmsdanskin.co.uk](https://www.cmsdanskin.co.uk)

A bear with a light brown fur coat is standing on a city street, looking towards the right. The bear is wearing a brown suit jacket over a white shirt and a brown vest. The background shows a row of brick houses with white window frames and a black metal fence.

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# Foiling the doubters

Daniel McKane from YBS Insulation explains the thermal and practical qualities which reflective multi-foil insulation solutions are developed to provide, and why these make them well suited for domestic applications in particular

For contractors and architects on a domestic housing project, the practicalities of an insulation solution are just as important as the thermal qualities. Using multi-foil insulation for domestic applications such as internal wall applications or loft wall installations has many benefits for both the specifier, as well as the end user.

Multi-foil insulation is extremely flexible and easy to install. It has zero fibres which removes the need for PPE, as well as minimal waste compared to traditional insulation products. Specifiers should look for products with third-party Agrément approval, as well as Building Control compliance and NHBC acceptance for new build projects.

Multi-foil insulation works by reflecting radiant heat back into the living space, retaining warmth, saving money and providing a warmer environment. It is often very thin and flexible which makes it easy to install using a staple gun and aluminium foil tape.

The reflective outer layers of the product increase the overall thermal performance once installed, with an R-Value of up to  $2.10 \text{ m}^2\text{K/W}$  – equivalent to 90 mm of mineral wool. Once taped and sealed, it also works as a vapour control layer to reduce the risk of condensation.

## The benefits of internal wall insulation (IWI)

The fundamentals of IWI primarily revolve around enhancing the energy efficiency of buildings. IWI often emerges as the default choice due to its simple specification and installation process. IWI proves especially effective in solid wall construction scenarios, where external wall insulation (EWI) isn't feasible due to external constraints like historic building status or planning restrictions.

There can be unintended consequences if the inappropriate IWI material is selected and installed – so it is vital that installers



liaise with a trusted manufacturer and develop the appropriate design for each project. Vigilance and careful material selection is paramount in ensuring correct specification to ensure the wellbeing of occupants.

## Specification considerations

Multifoil insulation is often used in older properties to upgrade the thermal performance of most commonly the roof, but also walls. It can also be used in new builds such as house extensions or new homes.

**IWI often emerges as the default choice due to its simple specification and installation process**



The cost of living continues to have a ripple effect on our economy – and explaining the cost and energy benefits to a client or end-user can be an important decision-making factor when it comes to insulation specification. Multi-foil insulation solutions are very effective at preventing heat loss and condensation in homes, and therefore reducing energy consumption and bills.

Some products offer a thermally efficient two-in-one insulating multi-foil and vapour control layer. As mentioned above, it works by reflecting heat back into the living space, saving money and providing a warmer environment for the homeowner. One example is made up of nine flexible layers at 32 mm thick, offering a cost-effective solution with an equivalent thermal performance of up to 90 mm of mineral wool, offering the homeowner up to 76% reduction in heat loss.

### Trusted manufacturers

Specifiers should be wary of where they purchase multi-foil insulation products, and buy from a trusted distribution centre, trade counter or through the specification route. There may be some cheaper alternatives

## Multi-foil insulation has zero fibres which removes the need for PPE when installing

on the market which can be bought online, but these may not have the required safety testing certificates or perform to UK Building Regulations.

Check to make sure the product has the latest industry-standard certifications, such as BDA Kiwa Certificate of Agrément or BBA (British Board of Agrément) certifications. Products are available which have been BDA Kiwa certified and which are also accepted by NHBC (National House Building Council) – offering increased assurance and warranty for new build customers.

Selecting an insulation product manufactured in the UK further reduces costs and potentially long lead times compared with waiting for products from overseas.

*Daniel McKane is managing director at YBS Insulation*

## Knauf Insulation launches first online condensation risk tool

Knauf Insulation has launched the industry's first online condensation risk analysis tool. It will save architects and specifiers time by enabling them to evaluate the risk of interstitial condensation and generate U-value calculations in less than five minutes.

"Interstitial condensation can result in rot or corrosion within the structure," explained Bradley Hirst, Technical Services Manager at Knauf Insulation. "So calculations evaluating this risk give architects and specifiers peace of mind that their design will not cause unintended damage to the building's fabric."

"The problem is they take time. We know architects and specifiers often do multiple U-value calculations for housing developments, but if they wanted to assess the risk of condensation, they needed to contact our technical team or enter the same data into previously downloaded third-party software. Then if they change the U-value they have to start the whole process again."

"By integrating a free condensation risk analysis calculator into our online U-value calculator, we have reduced a process that could take up to 24 hours to just a few minutes."

The condensation risk analysis tool is quick and easy to use. First, users need to generate the U-value by choosing from a range of typical build-ups and tweaking the data using drop-down menus to match their exact specification. They then have the option to analyse the risk of condensation.

Opening this function pre-populates the tool with the build-up and U-value data. Users then need to enter the postcode for the building location, which automatically identifies the country and the nearest available region for climatic data. Next, they select the property type from the dropdown menu. Once the risk of condensation has been calculated, users can view the boundary conditions (data used) and download the calculation, including the temperature data and dewpoint graphs.



When they close the tool, the condensation risk is automatically displayed alongside the U-value. If they then alter the build-up information within the U-value calculator, the risk of condensation will automatically be updated without needing to go back into the tool.

All calculations are performed in line with BS EN ISO13788 and follow the guidance in BS 5250: 2021 Code of Practice for the Management of Moisture in Buildings.

To try Knauf Insulation's free online condensation risk analysis calculator, visit [www.knaufinsulation.co.uk/uvalue-calculator](http://www.knaufinsulation.co.uk/uvalue-calculator).

01744 766 666  
[technical.uk@knaufinsulation.com](mailto:technical.uk@knaufinsulation.com)



# Advanced provides fire protection to 5 Aldermanbury Square in London

Fire protection solutions manufacturer, Advanced, has supplied intelligent fire panels to 5 Aldermanbury Square, London, as part of a major refurbishment. Advanced's high-performance, fault-tolerant MxPro 5 analogue addressable fire panels are providing industry-leading protection to all areas of the 22-storey building.

5 Aldermanbury Square is located in the City of London with the Eric Parry designed landmark delivering exceptional views across the London skyline. Fire safety and security specialists, Pacific Security Systems Ltd, was contracted to undertake the upgrade of the building's current Advanced fire panel network. The existing system was an Advanced MX4000 so migrating the system over to new MxPro 5 panels was the obvious solution due to the useful backward compatibility. Since all works had to be

completed overnight to ensure the system was fully operational during the day, this compatibility proved essential.

Pacific Security Systems was involved in the design, installation and commissioning of the fire system. 12 MxPro 5 panels were installed along with an Advanced graphics system and a two-stage staff alarm for false alarm management. Advanced's special build service was also able to design and build a bespoke floor-standing double annunciator that sits on the network via the PEN network device and provides: zonal indication; sounder control; damper status and control; fire phone control; and sprinkler and wet riser indication. The Advanced system is linked to over 3,000 devices including access control systems, dampers, BMS and plant shutdowns. The system uses Apollo protocol and Discovery optical smoke detectors are



installed throughout. Kirk Short, Director of Pacific Security Systems Ltd, said: "Advanced's ability to provide a full package of panels, graphics and special-build service is why we have been specifying and installing their equipment for over 10 years. The MxPro 5 panels provide a powerful platform, comprehensive cause and effect functions, fast network and user-friendly controls and were the ideal solution for 5 Aldermanbury Square. Their backwards compatibility enabled us to upgrade the system overnight while maintaining essential fire protection throughout the refurbishment – no easy feat!"

0345 894 7000 [www.advancedco.com](http://www.advancedco.com)

## Making acoustics work at the office



International Danish food company Danish Crown's new headquarters has just been completed in Randers, Denmark. The 13,000 square metre complex comprises offices, meeting rooms, fitness centre, show kitchen, canteen and break-out areas. Designed by CEBRA Architecture, the interior maximises natural daylight and focuses on a healthy indoor climate and healthy materials. As part of the scheme for materials in natural tones and hard surfaces, Trolldtekt acoustic panels were also specified for all the ceilings to ensure good acoustics and a comfortable sound environment for the many employees throughout the building. There are different variants of Trolldtekt acoustic panels throughout the building. The award-winning 'Trolldtekt® line' from the design solutions range, in a natural finish, blends harmoniously with the brickwork in the many open areas, walkways and offices. Mikkel Frost, architect and partner at CEBRA Architecture, commented: "Trolldtekt line was a perfect match for the broken bond brickwork, while at the same time creating a good acoustic environment. The natural colour also matches the brick, so it was a bit of a no-brainer for us".

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# Maintain a physical presence

Physical security systems are not a new concept, but they are equal in importance to cyber security measures when it comes to protecting people, property, and assets, as Roger Humphreys of Charter Global explains



**H**istorically, perimeter security mostly referred to the protection of high-risk sites such as military facilities and critical national infrastructure as a response to serious threats like violent assaults, targeted threats and in the worst cases, terrorist attacks. However, advancements in technology and manufacturing capabilities have broadened the applications of perimeter and building security, expanding into more common sectors like commercial, retail, transportation, and even residential applications.

Security has become a top priority across almost every industry, and as companies now depend on IT infrastructure to carry

out day-to-day operations, securing the digital network makes practical sense. Naturally businesses invest heavily in cyber-security, but in today's economic climate, this is not sufficient.

## Let's get physical

Physical security components such as keypads, ID badges, biometric logins and security guards will limit access for unauthorised individuals, but the more elemental line of defence is the building itself. Considering the fabric, such as doors, windows, and other access points is key to establishing best practice when it comes to the design of physical security.

Designers, architects, and security

**Security has become a top priority across almost every industry, and as companies now depend on IT infrastructure to carry out day-to-day operations, securing the digital network makes practical sense**



professionals alike are responsible for risk control. This task encompasses elements such as cost, security, and aesthetics. Different physical security threats such as vandalism, sabotage, terrorism, and natural disasters can be addressed within every stage of the design, implementation, and, importantly, maintenance of the property.

It is important to have a holistic approach when dealing with physical security because one measure alone will never be enough.

Within the industry there is a common understanding; the best method of security is based on a layered model of various security measures that serve to deter, detect, and delay intrusions.

The Loss Prevention Certification Board (LPCB) describe this approach as follows:

“It is always important to ensure suitable physical security measures are in place and that those measures provide sufficient delay to enable the intruder to be detected and a suitable response mounted to apprehend the intruder.”

The LPS 1175 standard is one of many physical security standards by the Loss Prevention Certification Board (LPCB).

It can be used in a range of applications, from residential right through to critical infrastructure projects. The ratings are a way of grading how effective a product is at delaying an attack.

The LPS 1175 standard comprises a number of security ratings with test requirements of ascending intensity. These are measured in terms of attack tools and time available to the attacker, and enables specifiers to select products according to the risks that they and their property face. The basis of issue 7 of the standard was that if an attacker is likely to use more severe tools, then they'll also be more committed to the attack, so will spend longer trying to defeat the product before abandoning the attempt. However, the more recent issue of LPS 1175 (issue 8), separates out the attack time from the attacking tools, effectively allowing you to layer the security more effectively.

LPCB approval ensures that the security products offered in the marketplace are the best available for the job. To retain certification, manufacturers must undergo ongoing auditing to ensure that they have thorough and effective quality control procedures in place in their manufacturing processes; not only does the mark guarantee

a security resistance, but it also guarantees an effective quality control process.

## The impact of physical security on property insurance

For buildings that house items of high value, such as artworks and cultural exhibitions, insurance is a necessity. The Government Indemnity Scheme (GIS) supports cultural buildings to exhibit art by offering an alternative to insurance. However, one of the stipulations is high performance physical security.

This isn't always as straightforward as it sounds. Museums, galleries, and cultural centres are often housed in historic buildings or those with protection orders. Attaching high security doors and shutters into existing infrastructure is at best not easy and often, not permitted at all without specialist building work.

By being involved from the initial stages of a project, shutter designers are able to work closely with architects to offer solutions that overcome the structural limitations of the building while maintaining the aesthetics.

For example, using an intelligent security shutter system, hood boxes, shutter barrels and guide rails can be totally recessed into ceilings and wall cavities, keeping the roller shutters completely hidden from sight when not in use. Not only that, small roll sizes and encrypted external keypad controllers to eliminate the need for less attractive manual locks, can all be incorporated within a scheme.

Using specialist manufacturers of security rated products ensures that the result is an extremely sleek finish that complements a building's elegant architecture, while also protecting it to the highest level of security.

Physical security can cover a wide range of aspects, but the most overriding aspect is to plan a strategy that has a layered approach and to consider products that meet the accreditations and standards for the physical security industry. Assess the risks, look at the threats and take a holistic view to ensure that the products implemented are the most suitable for the business or dwelling as well as the type of property. The cost to property, hardware, critical business data, employees or even family if you do not have the optimum measures in place is far greater.

*Roger Humphreys is managing director at Charter Global*



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## dormakaba launches escape route system

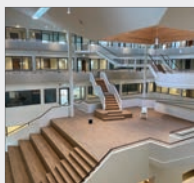


dormakaba has launched a new escape route system, SafeRoute. Designed to keep buildings and doors secure while allowing a safe means for evacuation in an emergency situation, the solution is compliant with BS EN 13637 and is ideal for a wide range of applications.

By installing dormakaba's SafeRoute emergency exit and escape route system, the functionality and security of a building is increased while also ensuring swift evacuation in the event of an emergency. Whether it be for a single door or multiple doors connected over a network throughout a building, with SafeRoute, escape doors can be electronically controlled with a robust, safe exit system.

01884 256464 [www.dormakaba.co.uk/saferoutesystems](http://www.dormakaba.co.uk/saferoutesystems)

## Combining safety and aesthetics



The new Academy Tien in The Netherlands perfectly strikes the balance of aesthetic design with building safety, with Pyroguard's fire safe solutions playing a pivotal role throughout. Ruud van Dal, Sales and Operations Manager at JM Van Delft & zn, said: "Pyroguard Protect EW60 was installed within the doors, sidelights and

designated escape routes. While Pyroguard Protect EI60, offering the highest level of protection, was installed between classrooms and the central atrium, creating a series of fire safe compartments."

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## Gilberts ups the standard in smoke and fire protection



With growing emphasis on managing the risk of smoke and fire within building safety, one of Britain's leading air movement engineers **Gilberts** is leading the way to optimise control. To address increasing demand and to exceed criteria laid down in the latest Building Regulations, Gilberts is launching a new, fully tested range of insulated smoke and fire dampers. The insulated dampers compliment Gilberts' established Ductgard units for HVAC ductwork. The insulation element of the new dampers helps minimise the risk of heat transfer and thus the risk of fire spreading beyond the compartment. Its performance exceeds the two relevant layers of fire safety in buildings: integrity of compartmentation and structural safety. Spring and thermal fuse activated, the insulated dampers offer fire resistance of EI30, EI60, EI90 and EI120 for general ventilation systems with walls and partitions of various ratings. Thus, they deliver effective cut-off partitioning between the fire-engulfed zone and the remaining part of the building, helping maintain the building integrity. The range is fully tested and certified to EN15650, EN13501-3 and EN1366-2.

01253 766911 [info@gilbertsblackpool.com](mailto:info@gilbertsblackpool.com)

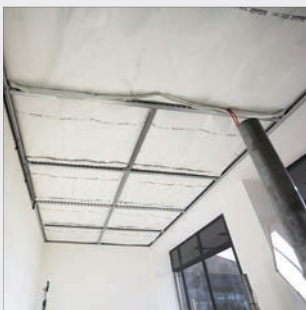
## Oxford College's facility fire protected using 9 mm Magply



The alterations and refurbishment of the SCR, Dining Hall and Kitchen at Trinity College Oxford are nearing completion with 9 mm and 12 mm **Magply** boards from the range of IPP Ltd, having been specified to provide the necessary fire compartmentation, as well as other performance benefits. The work to fit out the kitchen, bar, offices, fully accessible toilets and ancillary areas is being undertaken by Savvy Construction, from nearby Horspath, while Original Field of Architecture is the architectural practice responsible for the design work. This has included using two layers of the A1 rated, non-combustible Magply to clad either side of timber studwork in order to create a half hour separation and provide compartmentation for a single storey staff sitting room. Independently tested to demonstrate they offer A1 non-combustible performance, Magply boards are routinely specified in place of OSB and plywood as a sheathing for steel framed high-rise properties, as well as in flat and pitched roof construction. With an ultra-low 0.01% chloride content, the stability and durability of Magply sees it recommended as a backer board for proprietary render systems.

01621 776252 [www.magply.co.uk](http://www.magply.co.uk)

## FIREFLY® Zeus Horizontal Barriers protect East Midlands office's stair cores



High performance but lightweight fire barriers from the range of **FIREFLY®** have been specified by one of the manufacturer's Preferred Installers, to upgrade the fire protection within the stair cores to a large office property in the East Midlands continuing a burgeoning business relationship between the two specialists. The work on the two-storey commercial property, which dates from the 1990s, has been carried out by Coventry based KRASI Fire Protection using the FIREFLY® Zeus Horizontal 60:30 barrier, with FIREFLY's Technical Manager for the region attending site to offer design guidance, as well as during the contract period. The improvements were confined to the first-floor ceiling voids above each of the building's four staircases, but will help ensure escape routes are maintained in the event of any future emergency. FIREFLY® Zeus Horizontal is a lightweight flexible fire barrier designed to provide fire compartmentation of larger concealed spaces and voids within buildings, offering 60 minutes integrity and 30 minutes insulation. It has been specifically developed and tested for horizontal installation, including fitting around service penetrations.

01706 758817 [www.tbafirefly.com](http://www.tbafirefly.com)



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