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# FROM THE EDITOR



Some good news to start 2023 with, which is a nice change – fuel prices are going back to where they were before Putin's invasion of Ukraine. Well, partly good news – as ever.

Of course, environmentalists (which should really be all of us), may not be delighted to hear that prices are returning to something 'normal,' as that helps consumers to feel less panicky about the need to drastically change their lives to reduce overall fossil fuel usage. Many of us continue to depend on cars and other vehicles, and until we can make steps to massively reduce their use – both from personal choice and measures like 'engineering' fewer car spaces in developments (and investing in public transport as well as trying to help everyone go 'EV'), combustion engines' contribution to CO<sub>2</sub> will remain hard to crack.

Ed Milliband (if you can't remember, he was the guy who was pilloried for not being able to eat a bacon sarnie attractively enough) brought in the 2008 Climate Change Act. It is thought to be responsible for most of the car use reduction seen since. After that, in 2013 the Energy Company Obligation was in the same spirit, but saw the Government showing it was prepared to order the affluent private sector to underwrite energy improvements to many thousands of houses.

If it is so inclined, the Government can take collective steps to intervene to ensure improvements and changes are made on a large scale for the benefit of our environment.

Natural gas prices fell across Europe at the end of 2022 as something called the Dutch Title Transfer Facility – the benchmark gas price – moved close to pre-Ukraine war levels. This has been achieved by importing liquid natural gas from markets other than Russia, such as the US. As yet, the European winter hasn't been overly harsh, a stroke of good fortune we may not see repeated when the weather gets colder again at the end of 2023.

Creating a boosted energy market like this isn't going to help the proponents of urgent action now to change energy use, and try to halt the changes that are causing our increasingly wayward and damaging climate. Our Government needs to intervene now to ensure that consumers – and therefore the construction industry – are still incentivised to make savings.

I don't want higher prices; I want ways of living and working which minimise energy use and make life affordable long term, and climate change less of a risk for the future. As well as more sustainable buildings, this means thinking more locally and in a less consumption-oriented way about a lot of things. It also means the Government taking the reins to make the big moves to achieve the goals, with sticks as well as carrots where it has to.

**James Parker, Editor**

**ON THE COVER...**

Cambridge University's West Hub, which was designed by Jestico + Whiles to be a unique meeting place for academics, researchers, students and the wider community to connect, socialise and enables new ways to share, learn and collaborate. Cover image © Ståle Eriksen

For the full report on this project, go to page 30



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## LEISURE

# Hollaway Studio designs ‘wave lagoon’ plus hotel on the Kent coast

Following planning approval in early 2023, Hollaway Studio has designed an ‘inland surfing space’ plus 120-bed luxury spa hotel at Betteshanger Country Park, near Deal, creating Kent’s first surfing “wave lagoon.” The combined £50m project, known as ‘The Seahive,’ is scheduled to open in April 2025.

With offices in London and Kent, Hollaway Studio has created the designs for the 15-acre site which will feature at its centre a surfing lagoon with ‘Wavegarden Cove’ technology – the second of its kind in England and the seventh in the world. The technology can be used by up to 80 people at a time, providing up to a thousand waves per hour, and creating more than 20 different wave types ranging from 50 cm to 2 m in height.

Overlooking the surfing lagoon is the ‘Lagoon Surf Hub’ with 15 accommodation pods; a wellness centre with yoga and fitness zones, cold water therapy, meditation pavilions and a splash pool; a clubhouse with a surf academy as well as a restaurant and bar, conference facility retail outlet, chill out spaces, dedicated work area, and an “immersive balcony.” A dedicated “learning hive” will run a full-time schedule of courses for children in ‘surf therapy’ and educational intervention programmes to “enhance and protect their mental health.”

The architects created a separate design for the five-star 120-bed hotel, spa and gym. The provision of the hotel will “work to readdress the lack of hotel rooms available in the surrounding area,” said the project’s

architects, Hollaway Studio.

The Seahive project will take up 15 acres of the 250 acre country park. To ensure there is no damage to the existing wildlife and plants the project team undertook in-depth research into enhancing sustainability and biodiversity in the area. On completion of the scheme, it is estimated that this will be improved by 11%, thereby offsetting the initial loss of habitat.

Hollaway Studio also designed F51, which opened in 2022 – the world’s first multi-storey skatepark – in nearby Folkestone, which was created to “give back to the local community by putting its youth first.” The Seahive has been developed to offer similar opportunities to the community and surrounding area.



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## COMMERCIAL

# FCBStudios completes ‘expressive flat-iron’ office building in Leeds

Globe Point is the first building to be completed within the CEG Temple Development in Leeds. The FCBStudios masterplan for the 3.52 ha Temple Development “respects its historic context and industrial past while enabling a new sustainable community to grow,” said the architects.

Globe Point is a ‘Grade A speculative office development’, with over 3,500 m<sup>2</sup> of workspace for over 400 people. Drawing on the heritage of the area, Globe Point takes the form of an “expressive flatiron building” to maximise the area of a challenging site boundary, and creates a gateway to the wider Temple development.

Designed to BREEAM Excellent, WiredScore Platinum floor plates maximise natural daylight to five floors of

flexible workspace. In collaboration with interior architects Ekho Design, the offices have been designed for “wellbeing and sustainability,” and smart technologies are used to “control and drive energy performance,” said FCBStudios. A ground floor café kitchen and business lounge offer a convenient meeting space close to Leeds City Station’s southern entrance.

“The development is strengthened by the intricacy of its detail,” said the architects, from the brickwork of the stepped window reveals, granite insets, and the curved arch head of the building marking the beginning of the Temple development.

FCBStudios added: “The colour and type of brick was carefully considered in relation to the surrounding historic context.” The design of Globe Point “draws on the

restrained composition of the nearby mill buildings but introduces contemporary detailing and construction methods to create a robust yet elegant building that sits comfortably in its surroundings.”

The nose – a concave ‘scallop’ element on the apex of the building – is repeated in the crown of the building and again at the entrance, and internally “using different scales to suit the location.” The ‘bird’s mouth’ brick corner detail are mimicked in the metal crown, creating a consistency and uniformity that “ties the building materials together,” said the architects.

Designed to deal with the demands of changing workplace strategies, the Globe Point project aims to raise the bar in terms of quality, occupant wellbeing and sustainability.



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## RESIDENTIAL

## Levitt Bernstein's zero carbon housing achieves planning

Levitt Bernstein has secured planning permission for a 'pilot' net zero carbon housing scheme for the London Borough of Islington, designed to deliver "exemplar homes and address the climate emergency."

Located on Vorley Road, the scheme comprises three buildings with a total of 72 homes, 51% of which will be for social rent, and all will be designed to Passivhaus standards.

All the homes are dual or triple aspect with views towards Girdlestone Park or the city. The full-width balconies serve multiple purposes, such as providing private amenity space and solar shading, which allows for larger areas of glazing than might otherwise be recommended for a Passivhaus scheme.

What's described as an "innovative" heating system, along with a fabric first approach, will help deliver cheaper heating for residents and improve energy efficiency. Other devices, such as brise soleil, have been implemented differently on each building depending on the angle of the sun.

Improvements will also be made to the local park, play areas and streetscape, with additional planting to enhance biodiversity



alongside sustainable urban drainage systems.

The scheme is on a narrow site and designed as 'car free'; it will also include new community facilities in a civic podium, consisting of a new home for Archway



Library and a new medical centre. "The three buildings help blend the 1960s massing of the town centre 'island' and the surrounding Girdlestone Estate," commented the architects.

Construction is set to start later this year.

## NEW APPOINTMENTS

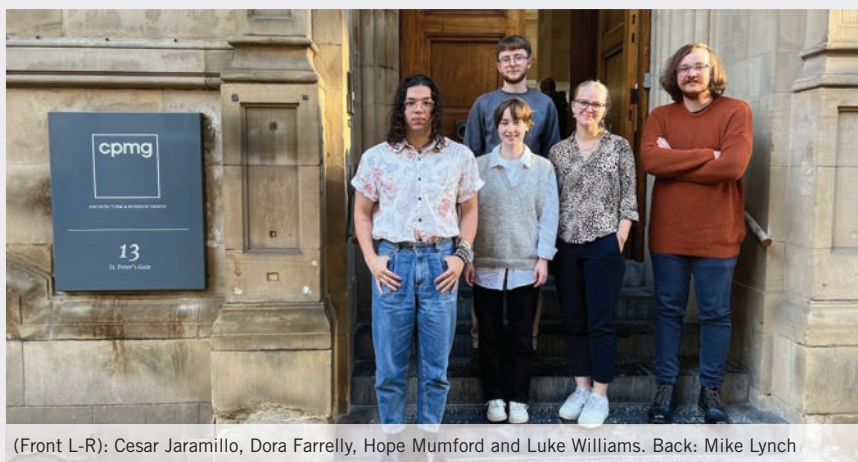
## CPMG Architects takes on eight staff in two offices

At the end of 2022, CPMG Architects announced eight new appointments across several disciplines in its Nottingham and London offices.

Architect Anna Luff and Part 1 architectural assistant Oliver Smith joined the team based in Farringdon, London, with both "set to support the firm's expanding portfolio," said the firm.

The practice's national headquarters in Nottingham welcomed architectural assistants Dora Farrelly, Cesar Jaramillo, Hope Mumford and Mike Lynch, alongside new BIM support technician Luke Williams, finance assistant Danute Walsh, and interior design graduate Aimée Mason.

Nick Gregory, director at CPMG, said: "We are pleased to see our offices growing in their respective regions with



(Front L-R): Cesar Jaramillo, Dora Farrelly, Hope Mumford and Luke Williams. Back: Mike Lynch

additions to our teams joining at different stages of their development and career in the industry. Our team and the ethos

of CPMG promote an environment that enables new staff to grow both personally and professionally."





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## HEALTHCARE

## Medical Architecture submits plans for 'non-institutional' community unit

A planning application has been submitted for a community hospital in Consett, designed by Medical Architecture for County Durham and Darlington NHS Foundation Trust. The project forms part of Cohort 2 of the New Hospitals Programme – a plan by NHS England & NHS Improvement hoped to see 40 new healthcare facilities built by 2030.

Employing a “holistic approach to health and wellbeing,” Shotley Bridge Community Hospital has been designed to create a “flexible and non-institutional healthcare environment, providing opportunities for patients and staff to connect with the outdoors and benefit from the therapeutic qualities of nature,” said Lianne Knotts, director at Medical Architecture.

Arranged around two large, landscaped courtyards – The ‘Serenity Garden’ and The ‘Healing Garden’ – the hospital will offer a range of facilities including outpatient services and diagnostics, an urgent care centre, a medical investigations unit for cancer services alongside a chemotherapy day unit, family health services, and a

16-bed rehabilitation inpatient ward.

Encouraging sustainable means of transport, a pedestrian and cycle link will be created to connect with the coast-to-coast cycle route that runs adjacent to the site, as well as a new footpath leading from the town centre.

The plan aims to bring natural daylight into the heart of the building, and offers the majority of rooms an outside view. The courtyard spaces, with landscape design by ONE Environments, feature planting “rich in texture, form and colour.”

A colonnaded canopy on either side of the building “breaks down its scale and mediates the transition from the car park and the new public footpath.” The architects added: “Carefully articulated thresholds act as welcoming intermediary spaces between outside and inside, and provide legible markers for entrances.” Combined with external seating between brick piers and generously proportioned windows, these elements “help reinforce the message that the hospital is part of, and for, the local community.”



© Eye Level Creative

The predominant external cladding material is a textured, ‘multi’ light buff brick that has similar visual qualities to the local sandstone architecture. In addition, bandings of profiled glass-reinforced concrete panels emulate the texture of stone. A perforated metal rainscreen is proposed as a crown to the top storey of the building, “paying homage to the historic significance of the site as part of the former Consett Steelworks.”

Working alongside MMC consultants – Akerlof – the hospital has been designed to achieve BREEAM ‘Excellent’ and adopts the NHS’ net zero carbon standards as a guiding principle, to minimise the hospital’s operational and whole life carbon footprint.

## NEW APPOINTMENT

## DMWR Architects makes Room its Manchester studio lead

DMWR Architects has appointed Marion Room as director to lead its expanding Manchester studio and “build upon the practice’s recent growth in the North West,” said the firm.

Room, who has over 20 years’ experience working across many sectors including commercial, mixed use, masterplanning, healthcare and higher education, has worked in both the London and Manchester markets for practices including BDP, Sheppard Robson, and TP Bennett.

Barry Harper-Smith, managing director of DMWR Architects commented: “Marion is an exciting addition to our Manchester studio. I look forward to

working closely with her to build on exciting and new opportunities going forward.”

Marion Room is an active member of Women in Property, and recently participated on the judging panel of the National Student Awards. She also strongly advocates mentoring programmes as a way of supporting the next generation of architects coming into the industry.

She commented: “I am really excited to be joining DMWR and working with this talented team.” Room added: “I have a wealth of experience across a range of sectors, which has enabled me to make strong connections in the industry.”







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# VIEW POINT

Architect Tom Dollard from Pollard Thomas Edwards looks at the likely impact of an AECOM-led research project into creating affordable low carbon housing at scale, highlighting the potential but also the serious barriers that remain

**B**uilding for 2050 is a major, five-year research project commissioned by the Department of Business, Energy and Industry in 2017, into the delivery of low cost, low carbon homes at scale. The Government has invested around £1.9m in the project, which has been led by AECOM, with the research team also consisting of architects Pollard Thomas Edwards, building consultants Four Walls, and energy consultancy LCP Delta.

The research, which includes quantitative study of real projects, focuses on the realities of delivering low carbon developments in England and Wales, but the key findings broadly apply to new housing throughout the UK. Including real-world examples, the 'Building for 2050' report provides a snapshot of the UK's construction industry and its ability to deliver low carbon homes now. It is a ground-breaking document which identifies how to minimise cost and improve energy efficiency in reducing carbon emissions, while increasing consumer demand, driving growth, and accelerate industry delivery of low carbon housing.

The project emerged as part of the Construction Sector Deal established by the Government in 2018 as "an ambitious partnership between Government and the construction to upskill the sector on innovative technologies. Five years on, launching the new Building for 2050 report, five years on, business and energy Minister Lord Callanan summed up the Government's view: "Making the UK's homes more energy efficient is the best way to cut household energy use and reduce energy bills." The Government is investing heavily in the challenge of cutting emissions from all UK buildings; Lord Callanan confirmed its goal of a 15% cut by 2030, against the backdrop of an overall 78% cut in UK emissions by 2035 (against 1990 levels).

The Future Homes and Buildings Standard will cut emissions in new homes



The Building for 2050 project team at the Tallack Road project in north east London (Tom Dollard second from left)

by 75-80% by 2025. Lord Callanan said that the research was important to "build our understanding on the best way to deliver low-carbon strategies for new homes as we continue reducing the country's contribution to climate change by 2050."

The report defines 'low cost low carbon' homes low carbon homes with a lifetime cost similar to, or lower than, standard new homes currently on the market. In terms of emissions, the homes studied in the report are equivalent to Code for Sustainable Homes 5 or 6 (or Code 4 with a fabric first approach) or Passivhaus.

The research examined the drivers, attitudes, barriers and challenges related to low cost, low carbon housing, and will be used to help shape policy on delivering low carbon homes in the UK. The resulting in-depth report explores the pros and cons of living in low carbon homes, and underlines the importance of local planning policy for catalysing their development. It benchmarks the British construction industry's ability to mitigate the impact of climate change.

Crucially, Building for 2050 makes clear that if all new homes are constructed to a low carbon standard, there should be

no need to retrofit these homes before the UK Government's net zero 2050 deadline. Yet the report also identifies significant skills gaps across the construction industry and makes clear that performance gaps – the difference between a building's predicted and actual energy use – are still commonplace in new-build developments.

## Research methods

The research included a detailed analysis of case studies – small-scale housing developments in Cambridge (Marmalade Lane Cohousing), Neath (Active Homes), Corby (Etopia Homes), and London's Waltham Forest (Tallack Road), as part of a rounded analysis of the whole process from inception to occupancy – developing, designing, constructing, and living in low cost, low carbon homes. The report identifies the barriers and opportunities to delivering such homes at scale, and quantifies the likely impact on energy demand and carbon emissions.

No major housebuilder is building low carbon homes at scale in the UK. This is why the case studies focus on low carbon projects by small and medium-sized



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Another of the case studies for the Building for 2050 research – Marmalade Lane Cohousing in Cambridge



Etopia Homes has developed 47 'Energy+' homes in Corby, Northamptonshire, which were monitored in the study

developers; each of whom had different funding models. The views of multiple stakeholders were incorporated, including the wider construction industry, and the energy services sector. A wide-ranging consumer survey plus a general industry survey added further depth to the findings.

The case studies include interviews with developers and residents, the latter sharing their expectations and experiences of living in their homes, for example energy bills, comfort, and the usability of low carbon technology. We undertook a design review of the homes as well as site observations during construction and post-completion on the buildability of the designs, and assessed cost impact of low carbon solutions.

Post-completion testing of thermal performance of building envelopes and mechanical ventilation systems was undertaken, and we compared SAP modelling undertaken by the development teams and by the project team. Energy and environmental performance in use was monitored, and the operational data was considered within the context of a changing energy system. Key findings included:

- The industry needs certainty on the scope and timing of regulatory requirements and clarity on the role of planning policy for low carbon homes.
- Local planning policy is a key driver for low carbon homes.
- The public sector can play a significant

role in promoting more low carbon homes by setting clear performance requirements.

- Capital cost uplift in well-planned, well-constructed low carbon developments is minimal, and not a deterrent to delivery, and wider uptake would likely reduce this further. Highly complex designs aiming to deliver zero carbon or energy positive homes are likely to have on-costs considerably greater than the market will pay for.
- The homes studied were no more costly to buy based on 'standard' homes, but easy-to-access information about them remains an issue.
- There would likely be increased demand if developers marketed low carbon homes with details of features and running costs, and provided post-occupancy support.
- The construction and energy services sectors need to engage better to support deliver while avoiding significant energy infrastructure costs.

As architects, we brought expertise in the design of housing including low carbon housing, plus modern methods of construction, research and guidance to the industry on low carbon homes. We undertook onsite audits including assessing the performance gap, and conducted interviews with building professionals.

AECOM project managed the research team, contributing expertise in housing design and construction, modern methods of construction, low carbon housing, and innovation, as well as delivering Government research projects. The report's technical lead, AECOM director Alison Crompton, commented on the research's critical importance for the industry: "By unpicking the barriers and challenges to at-scale low carbon housing delivery, we can support industry in making informed decisions, based on evidence and insight."

Four Walls are experts in building performance evaluation, and led on analysis of the dwellings' energy and comfort performance, including advising on and testing building fabric, and undertaking monitoring. LCP Delta (incorporating Delta-EE) specialises in 'new energy,' providing detailed insight on innovative energy solutions for housing.

*Tom Dollard is a partner at architects Pollard Thomas Edwards*



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Pictured: Renato Benedetti  
Photo © Jim Stephenson

## PRACTICE PROFILE

# Benedetti Architects

Although only established in 2016, London-based Benedetti Architects already has a clutch of high-profile projects under its belt. *ADF*'s Tom Boddy speaks to the practice's founder Renato Benedetti about the journey so far

Renato Benedetti's background is, he says, a "typical immigrant success story." His parents emigrated from Italy to Canada after World War Two, in the hope of a better life. Once Renato arrived, they were a "huge success," his dad owning his own business as a bricklayer and stonemason, and he had his first taste of the construction industry working with his dad.

Despite spending several years on sites, by the time Benedetti applied to study architecture at the University of Waterloo in Ontario, he had never met an architect – as he explained to the professors in his interview.

"When they asked me why I wanted to become an architect, I told them I wasn't exactly sure what an architect did," he explains. He added that he was interested in "the things that go into making good architecture; science and maths, cultural history, iconography, and arts." This candid approach won him a place – the professors said they'd never heard an answer like it; Benedetti adds that it taught him to "speak truth to power."

Between semesters, Benedetti gained experience working for YRM in London – which sparked a love affair with the city. He returned after graduating, and briefly worked at Munkenbeck and Marshall, then David Chipperfield, where he quickly rose to become associate. After seven years at the practice, he partnered with old friend Jonathan McDowell as McDowell+Benedetti Architects, in 1996, and the practice grew a portfolio of well-regarded projects, winning several awards in the process.

Upon approaching their 20th anniversary, and working on separate projects, the duo had "slightly deviated in terms of what we wanted to do next," says Benedetti. With a goal to "freshen things up," they went their separate ways, and in 2016, Renato founded Benedetti Architects.

The pair kept the previous office, continuing with some "major projects," so setting up the new firm "was relatively easy," asserts Benedetti. However it was still "jumping into the unknown." One of the biggest challenges, he says, was becoming the sole decision maker for a business: "Being responsible for people's jobs and livelihoods is always a commitment that I've taken very seriously."

Today, the practice comprises a "close team" of 10 – they all have

lunch together on a Monday which essentially functions as their "office meeting." He admits it's a "London-centric" practice – the majority of their work is in the city, which is a "real advantage," says Benedetti. For example, being onsite with contractors during the latter stages of the project can be "the difference in improving on that last 10 or 15% in quality."

Their range spans residential, public and cultural, and retail, as well as several important bridges; one of which saw them venturing out of London. The Terni Bridge in Umbria, Italy extends 180



### TERNI BRIDGE

The practice's landmark 180 m bridge facilitates Terni's urban expansion, improves links to Rome and acts as a "gateway marker" for Umbrian tourism

© Matteo Carnevali



# Eventim Apollo's stage refurbishment by Harlequin Floors



## Experts in stage building and performance floors

Last year one of the UK's largest original theatres, the Eventim Apollo in Hammersmith, went through a complete stage refurbishment carried out by the expert installation team at Harlequin Floors.

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#### RIBA HQ

Benedetti Architects has been appointed to modernise RIBA's Grade II\* listed headquarters in central London, improving its sustainability and accessibility  
© Andrew Hendry

metres, and along with a new station, facilitates the city's expansion with its 60 metre inverted 'tripod' tower and pair of rings.

### Being bold with high-profile heritage

While the practice takes a "very sensitive" approach to historical and heritage projects, Benedetti advocates they "should never shy away from being bold." He explains this means "analysing the problem and working out how we can improve something in a holistic way."

The practice will look to apply this ethos to a refurbishment that doesn't get more high-profile in terms of architects. It recently won the hotly-contested competition to redesign the RIBA's headquarters at 66 Portland Place, London. The 'House of Architecture' project is "an amazing responsibility," admits Benedetti, "on behalf of 50,000 architect members of RIBA; it's a real honour to be chosen."

While a "magnificent building" filled with "beautifully detailed materials," the 1934 building's heating, acoustics, lighting, accessibility have deteriorated, and desperately need updating. The goal is a carbon neutral building – a "hugely difficult, but great ambition for a listed building in the centre of London," comments Benedetti.

Alongside the sustainability aims, he says the brief focuses on improving the building's "physical and social accessibility" so it gives a greater welcome to a more representatively diverse group of users. Benedetti explains: "As an 18 year old who had never met an architect, I don't think it would have encouraged me to go inside and ask 'what is it like to be an architect?'"

He says the building is now "quite austere and offputting, especially to young people," adding that it "lacks the vitality I remember from 25 to 30 years ago." The practice's goal is to

## Being onsite with contractors during the latter stages of the project can be "the difference in improving on that last 10 or 15% in quality"

make "subtle and sensitive" interventions to the fabric that will "encourage anyone interested in architecture to enter."

### Context-specific

Benedetti says the practice doesn't have a consistent design signature that is used on each project – because "freshness isn't about a recognisable style." Instead, each project is tackled differently, in its own context. "If you constantly plough a certain furrow, and a certain design, it wouldn't interest us as much." However, while their Castleford Bridge and BAFTA Headquarters are two very different projects, the similarity is in how carefully considered the timber elements have been detailed. "If there's an identity, it's about the quality of detailing," explains Benedetti.

A strong emphasis is placed on ensuring the staff's workload varies day to day. "Changing things keeps things fresh," says Benedetti. One day he could be working on the detailing of a piece of furniture, and then the next, doing strategic masterplanning. "If you're always doing the same thing, it can feel a little bit stale."

### Collaboration

The practice is attracted by clients with ambition, and whose values and interests align with its vision. "Architecture is expensive and takes a long time. It's very difficult for an architect to generate really good architecture purely on their own. It needs to be collaborative, and that starts with the client!"

One of the areas of collaboration the practice prioritises is working with artists; Benedetti has worked with Richard Wentworth, Antony Gormley, and Hannah Collins for example. The practice's recently completed BAFTA Headquarters refurbishment in London (covered in *ADF* September 2022 issue) saw a successful partnership with young art student Maya Simms.

BAFTA took a "bold decision" to run a competition for a diverse array of young designers to create a concept for the 'donor wall,' which Benedetti himself helped judge. What he says was a "fantastic idea" by Simms was a play on the famous BAFTA mask, combining abstract figurative forms, stained glass and mirrors – reflecting the diversity of the people using the national institution's headquarters.

With it being "big and complicated to make," the design team mentored the artist through the whole process, helping to achieve her vision. The result is "an amazing piece – big, bright and bold, exactly how she wanted it." Benedetti adds: "We want to involve artists wherever possible."

Looking ahead, the RIBA refurbishment is going to absorb a lot of the practice's energy and attention, with construction due to take place in the fourth quarter of 2024. However the practice founder says that they are "really looking forward to the challenge."

The plan for this already high-flying practice's future is to work on more cultural buildings and cultural institutions, as well as to collaborate with more architects. In terms of growth, says Benedetti, the aim is "to grow the quality and grow the type of projects we're doing – but not necessarily grow physically." ■



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## MOL GROUP HEADQUARTERS, HUNGARY FOSTER + PARTNERS

The new headquarters for MOL Group in Southern Budapest has now opened, designed by Foster + Partners in collaboration with Finta Studio. The new building consolidates the company's Budapest operations in a single location, and is an "integral part of MOL Group's sustainable vision for 2030."

The 28-storey building's lower floors house restaurants, a gym, conference centre and other facilities for staff, while the flexible offices spaces are located on the upper levels. Greenery "travels through the heart of the building," from the central atrium to the rooftop. The offset service cores create large, flexible areas that encourage collaborative patterns of working. Using cutting edge technology to control light levels, temperature and views, these workspaces are "finely calibrated to create an ideal working environment," said Fosters. "Low and zero carbon technologies" include integrated rooftop photovoltaic panels, ground source heat pumps and a greywater recycling and rainwater harvesting system. The building is reportedly on track to achieving LEED Platinum and BREEAM Excellent certifications, "setting new benchmarks both for Budapest and Hungary."



## IQON, ECUADOR BJARKE INGELS GROUP (BIG)

Bjarke Ingels Group (BIG) has completed its first building in South America – IQON, the tallest building in the Ecuadorian capital of Quito. Traditionally a city of dense, low-rise buildings, the skyline of Quito was re-imagined following the relocation of the city-centre airport. Client Uribe Schwarzkopf employed BIG in 2017 to design a 390,000 ft<sup>2</sup> mixed-use residential building, including 215 residences, commercial units, office spaces, and a variety of amenities.

IQON has been designed as a vertical community, and an extension of the neighbouring La Carolina Park. The exposed concrete facade simultaneously functions as the building's structure, which features a curved corner, wrapped by terraces that continue around the building's perimeter. Individual 'pixels' are stacked 32 floors high and rotated to provide the "best possible views of the park, city and the Pichincha volcano." The ground floor plaza includes public spaces, retail units, and public art, and acts as a pathway connecting the park to the rest of the neighbourhood. Other amenities include an integrated "lap pool" and roof terrace, gym and squash court, spa, a bowling alley, entertainment rooms, and business centre.

Greenery has been integrated throughout the building "in order to take advantage of Ecuador's temperate climate and ecology." Quito's biophilia is carried from the public spaces below into the private domain of each home via the sculptural planters that are integrated into the architecture of the building. IQON is the first mixed-use building in Quito to have a preliminary EDGE certification, granted by GBCI (Green Business Certification Inc) and IFC (International Finance Corporation).





## FENDI FACTORY, ITALY PIUARCH

Piuarch has collaborated with fashion brand Fendi and landscape architect Antonio Perazzito to design a factory that “disappears into the landscape.” A complex of approximately 14,000 m<sup>2</sup> rising in the Tuscan countryside, the design seeks to combine the “excellence of Fendi’s products, with the creation of an architectural landmark having significant aesthetic and environmental value,” said the architects. The building stretches horizontally over a single level to create a “free form driven by the needs of the production process.” The practicality of the spaces takes into consideration the business’s different functions, merging them into “fluid pathways” with transparent walls, “uniting the different uses while encouraging people to move around and communicate.” A vast roof garden not only has an environmental impact, but also a social and community role, becoming a “user-friendly space” and a venue for employees to socialise. In addition to management and administrative offices, the building houses a restaurant, a production warehouse, workshops and education facility.

## SCIENCE CENTRE, SINGAPORE ZAHA HADID ARCHITECTS & ARCHITECTS 61

Singapore’s Science Centre Board has unveiled the design of the new Science Centre which will provide “unique facilities and programmes as a destination for Singaporeans to access science, technology, engineering and mathematics (STEM) education and experiences.” Informed by the natural landscape of Singapore’s Jurong Lake Gardens, the new Science Centre designed by Zaha Hadid Architects (ZHA) in collaboration with Architects 61, gives visitors the opportunity to interact with the surrounding gardens and lake. Large windows serve as “monocles” offering views of the lake, with the centre appearing to float above the surrounding parkland. The design comprises five interlocking rectangular volumes housing a variety of exhibition galleries, interactive labs and event spaces in addition to ancillary facilities for visitors, administrative offices, archives and service areas.

The new centre will feature a children’s gallery – including an interactive outdoor waterplay area and “discovery trails,” plus specialised labs and workshops that encourage hands-on learning, and an observatory. A new outdoor activity plaza will be a focal point of the centre and offer STEM programmes and community activities. In line with the Singapore Green Plan 2030, the new Science Centre incorporates sustainable design principles and energy performance strategies to reduce emissions. Working with Atelier Ten, ZHA and Architects 61 have designed the centre to attain the BCA Green Mark Platinum Super Low Energy certification. Located next to Chinese Garden MRT station, the new Science Centre is targeted to open in 2027, which also marks the 50th anniversary of the institution.



Render by Negativ



© Adif AV

## MADRID-CHAMARTÍN CLARA CAMPOAMOR STATION MASTERPLAN, SPAIN UNSTUDIO

Spanish government infrastructure body Adif AV has confirmed the proposal by UNStudio, b720 Arquitectura and Esteyco as the winner of an international competition to “transform” the Madrid-Chamartín Clara Campoamor railway hub. A key element that the team deemed essential in the proposed design was to “retain and respect the historical vaulted roofs of Chamartín station,” said Ben van Berkel, founder and principal architect at UNStudio. Stepped terraces and the addition of balconies with open views integrate the complex into its surroundings. Flanked by new towers and fronted by a public square, the proposed complex will be a “fully integrated hub” providing easy access to other modes of transport, such as walking, taxi, metro, bicycles and scooters. The Madrid-Chamartín Clara Campoamor masterplan, said UNStudio “builds on our 30 years of experience and accumulated expertise in station design.”

# CPD FOCUS

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## SPECIFYING THE CORRECT LOADING BAY – CPD FROM HÖRMANN



Hörmann have announced the launch of their RIBA accredited CPD training course which covers the best practice guidelines surrounding the specification of loading bays. The new course is part of a series of presentations and seminars offered by Hörmann created to help architects, specifiers and decision makers remain compliant and up to date with the latest industry developments. The concise, 45-minute presentation has been developed to explain the key aspects of loading bay solutions and to provide a clear technical understanding of how to specify the correct individual components. It also provides a comprehensive understanding of the latest safety requirements and standards to ensure that the needs of both builders and clients are met. The CPD presentation can be delivered at the Hörmann Training Academy in Coalville or via Webinar and is available for both individual and combined audiences. To find out more about the Loading Bay CPD course or to discuss a training course designed for your specific needs please contact Marizel Le Roux.

01530 516868 [m.leroux.lei@hormann.co.uk](mailto:m.leroux.lei@hormann.co.uk)

## SPIRAL AND HELICAL STAIRCASE CPD WEBINARS



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

0330 123 2447 [www.spiral.uk.com](http://www.spiral.uk.com)

## ROCKWOOL EXPANDS RANGE OF ON-DEMAND CPDS



Following the success of the ROCKWOOL CPD module to help roofing contractors and specifiers mitigate fire risk in flat roofs, and in response to customer feedback, the company is now making the seminar available online to be completed on demand. The CPD module has been developed to enhance industry understanding of regulations and provide guidance on determining relevant non-combustible classifications in flat roofing systems. It complements the whitepaper 'Flat roofs: Managing fire risk in the fifth facade' and other technical information about the insulation of flat roofs.

[rockwool.link/OCPD](http://rockwool.link/OCPD) [rockwool.link/fifth-facade-cpd](http://rockwool.link/fifth-facade-cpd)

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# Futurebuild: sustainable ideas & inspiration

Taking place from 7-9 March at London's ExCeL, Futurebuild's three day programme will educate and inform across the entire spectrum of sustainability issues

**“R**eaching net zero by 2050 is no simple task and no one person or company has all the answers. That's why it is essential to share our knowledge and learn from each other so we can effect real positive change in the built environment.”

So say the organisers of Futurebuild 2023, adding that in “handing over the reins of the seminar programme to the great thinkers and disruptors in our sector, Futurebuild is doing its part to share the knowledge, give a forum to ask questions and as a collective, start to bring to life some of the answers to help us deliver a better built environment.” Curated and delivered by 90+ industry partners and featuring a line-up of over 300 speakers, the seminar programme “brings the whole industry together to debate and learn from each other.”

## Seminar content

The programme features “practical and actionable” CPD accredited sessions – so visitors can gain numerous CPD points in one visit and at the same time acquire the knowledge and skills that will help them in their day-to-day role.

Expanded for 2023, 135 seminar sessions will offer “strength and breadth of content” and will be delivered across seven seminar stages: Materials, Interiors and Lighting, Buildings and Offsite, Retrofit, Sustainable Infrastructure, Energy and District Energy, and Digital.

Stand-out sessions from across

the impressive programme include masterclasses with Bill Dunster, architect and founder of ZedPower; Duncan Baker-Brown, co-founder of BBM Sustainable Design Ltd; Zerlina Hughes, founder and creative director of Studio ZNA; Dr Tom Woolley, architect and academic, and David Cheshire, sustainability director at AECOM. They will explore and tackle some of the industry's biggest and most critical topics, from ‘zero bills’ homes to material use, lighting design to bio-based materials, and building a circular future.

Martin Hurn, event director at Futurebuild, commented: “Our seminar programme will provide an opportunity for companies and professionals throughout the construction supply chain to take a stand and speak on issues they are passionate about.” Hurn continued: “These daily sessions on each of the stages will share the latest thinking and research to update, inform and inspire visitors to make a positive change. We've invited pioneers in sustainability to share their success stories, it's time for the industry to gather and take a stand too.”

Futurebuild 2023 will take place from 7-9 March at ExCeL – you can check out the full seminar programme and speaker line-up by visiting [www.futurebuild.co.uk](http://www.futurebuild.co.uk)

Visitor registration is open – scan the QR code now...



# Castell Allen High School protects extension with Yeoman Shield

Castell High School in Flintshire supplies co-education to 1300+ students promoting strong levels of well-being. The original school building was established in 1958 and as the student intake grew extensions were built in 1974 and 1992 to accommodate.

2021 saw the latest extension, Y Celtec building, completed. Problems soon became apparent with the walls within the new area being clean and damage free.

The school's Site supervisor, Paul Muncey explained: "Keeping the white painted walls clean was becoming a nightmare for our cleaning team and within 12 months of the building coming into use the walls along the corridors required repainting."

Business Manager Emma Manning had come across Yeoman Shield wall protection solutions in a previous position and got in touch with regards to protecting the new building's wall before the impact damage became too great.



Yeoman Shield directly employed fixing operatives installed Mid-Grey FalmouthEx, 2,500 x 1,250 mm wall protection panels along the corridor walls.

The panels once in place not only protect from damage but are easy to clean down and will prove over the years to reduce repair and maintenance costs. They also look good sustaining a bright, clean, and welcoming



environment for staff and pupils at all times. Paul Muncey concluded: "I was very pleased with the quality of work provided by the Yeoman Shield installers who showed consideration to the environment that they were working in."

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[www.yeomanshield.com](http://www.yeomanshield.com)

## "Nothing better" claims for new ventilation with heat recovery unit



In the drive towards reduced net zero, Gilberts Blackpool claims its new MFS-HR surpasses performance of anything comparable on the market for commercial and public sector applications. Building on Gilberts' pioneering MFS hybrid ventilation unit – the first of its kind to be developed in the UK – the combined hybrid unit can achieve up to 75% heat recovery. The market-leading heat recovery performance means that when employed as part of a sustainable strategy including photovoltaic arrays, MFS-HR could achieve energy negative status. As with the original MFS and other alternative hybrid ventilation systems, MFS-HR is a stand-alone unit installed through the facade to ventilate, cool and warm the interior. Initial tests indicate each MFS-HR will provide up to 4 kw heating and 2 kw cooling capacity while still delivering a airflow rate of up to 470 l/s. It could cost as little as £10/annum/zone to operate. Manufactured by Gilberts in the UK, the whole MFS range makes optimal use of recyclable materials making it low on embodied carbon, MFS attains air leakage better than legislative requirements – 3 m<sup>3</sup>/HR/m<sup>2</sup>, and a U value of less than 1 W/m<sup>2</sup>/°C.

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

## Brighton children's nursery adds adaptable space



Style was specified to install a new folding wall system to the ground floor of the Bloomsbury Street Day Nursery in Brighton, creating a flexible environment where children are encouraged to learn, play and explore at their own pace. Allowing nursery staff to separate the room into two, Style recommended a Stylefold acoustic glass folding wall with a 44 dB Rw rating, ensuring that activities either side of the wall can take place undisturbed. By choosing a glazed folding wall, staff can maintain a watchful eye on the children and the area continues to enjoy an airy and open feel, even when the wall is in place. This manually operated folding wall is light and simple to open and close, encouraging staff to change the room configuration to suit daily activities. The pass door means the wall can remain in place for longer periods if desired without hindering access between rooms. "For schools, day centres, and community halls the Stylefold folding wall is a really effective solution," said Michael Porter, Style's group sales director. "It can be opened and closed in seconds, the acoustics are superb – which means you can enjoy privacy either side, and this modestly priced folding wall solution is ideal for when budgets are tight."

[www.style-partitions.co.uk](http://www.style-partitions.co.uk)



# Why do the world's leading dance universities and schools choose Harlequin floors?

Dance students can spend hours working in a dance studio, it is their place of work and should offer a safe environment fit for purpose. The floor is a dancer's most important work tool and dancers need reassurance they are not going to slip and fall, that lifts can be performed safely and on landing from jumps the response of the floor consistently returns the right amount of energy absorption.

It is a common assumption that a well-designed sports floor will suit the needs of dancers, but this is not the case.

There are some critical factors that distinguish the requirements of dance from those of sports played on a sports floor. Unlike sportsmen who wear increasingly high-tech air-cushioned shoes to give grip and protect against impact injuries, the modest ballet shoe has barely changed in design since the mid-18th century. Made from soft leather, canvas or satin, the ballet shoe is very flexible, has a thin sole and offers little protection for the wearer.

But not all dance floors are the same, only a floor developed specifically for dance will do. There may be a temptation to specify floors for aesthetic or budget reasons, or to specify sports floors in the mistaken belief they will be suitable for dance but there have been some high-profile examples where floors have had to be replaced by a dance company after the building is complete and dancers have their first experience of dancing on the floors.

Harlequin is widely recognised as the world's leading authority on dance floors. As an enlightened manufacturer Harlequin has always worked closely with the dance community to develop floors that dancers



© The Royal Ballet School 2018. Photographed by Rachel Cherry

want to dance on. There is no doubt, the choice of flooring is critical. For over 40 years Harlequin has been the performance floor of choice for the world's most prestigious dance and performing arts companies, theatres, venues and schools.

Harlequin offer free advice to ensure dance companies, schools and venues install dance floors best suited to their particular use.

All Harlequin sprung and vinyl floor products and ballet barres are easily found and specified through RIBA Source.

Please visit [www.harlequinfloors.com](http://www.harlequinfloors.com) for more information, or contact Harlequin.

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BUILDING  
EXPERIENCESWEST HUB  
UNIVERSITY OF CAMBRIDGEOpen to  
new ideas

Breaking the mould as a highly flexible coworking space open to the whole of Cambridge University, Jestico + Whiles' socially-focused building helps present a more public face while supporting new collaborations

Although only a couple of miles from the heart of Cambridge and its historic colleges, the departments and faculties in the University's West Cambridge Site felt slightly out on a limb, and sorely lacking in social facilities. However a groundbreaking new building for the eminent educational body, purpose-designed as an open coworking and social space for anyone within the University, and the wider public, has changed that.

The West Cambridge Site, which has housed a variety of research-oriented science and engineering departments since the 1960s, is to see a "radical transformation," say architects Jestico + Whiles, which is hoped to turn it into a new "lively destination quarter" in the city – the West Cambridge Innovation District. The "home for research and enterprise," it will have buildings interspersed by pedestrianised plazas, central gardens, lakes and urban orchards.

The £40m West Hub, which was designed by the practice and opened in April 2022, is key to the district, with the client briefing it to be a "unique meeting place for people to connect and socialise." It marks a new approach by the university to learning spaces and shared-used resources. Open and accessible to anyone from 8am to 9pm Monday to Friday, the Hub "enables new ways for academics, researchers, students,

businesses and the wider community to share, learn and collaborate."

The site – including the soon to complete Ray Dolby Centre, also designed by Jestico + Whiles and which will be the centrepiece of the Cavendish Laboratory – is a focal point for research in technology and the physical sciences. The 'Cambridge Cluster' is the name given to over 5,300 firms centred around the university, which generate £18bn in turnover.

Signalling the three-storey development's important new social role in the community as well as the university, it includes the first bar on the West Cambridge Site, as well as a shop and cafeteria. Anna Steeden, operations manager at the West Hub, comments on the brief for this unusual scheme: "It was designed from the ground floor up with people in mind. Above all it is a place of collaboration and co-working, designed to foster connectivity and serendipitous 'collisions' that spark new ideas. Its flexibility means its spaces can be configured to meet the daily needs of all users – students, staff, and the wider community." She adds that its external amenities in particular "bring a new vibrancy to the site."

Much of the accommodation will be used for research collaborations between the university and industry, but will also provide additional learning space. The West

Photos © Ståle Eriksen

**TOP**

The building is “graduated vertically,” with each of its three stories becoming progressively lower in height and more intimate

**BOTTOM**

The ground floor houses a substantial canteen which also serves as a ‘low intensity study space’ and opens directly onto new green space and public realm  
Models and drawings © Jestico + Whiles

Hub accommodates the University’s new Foundation Year programme in the arts, humanities and social sciences for students who have experienced “educational disadvantage,” which welcomed its first students last October.

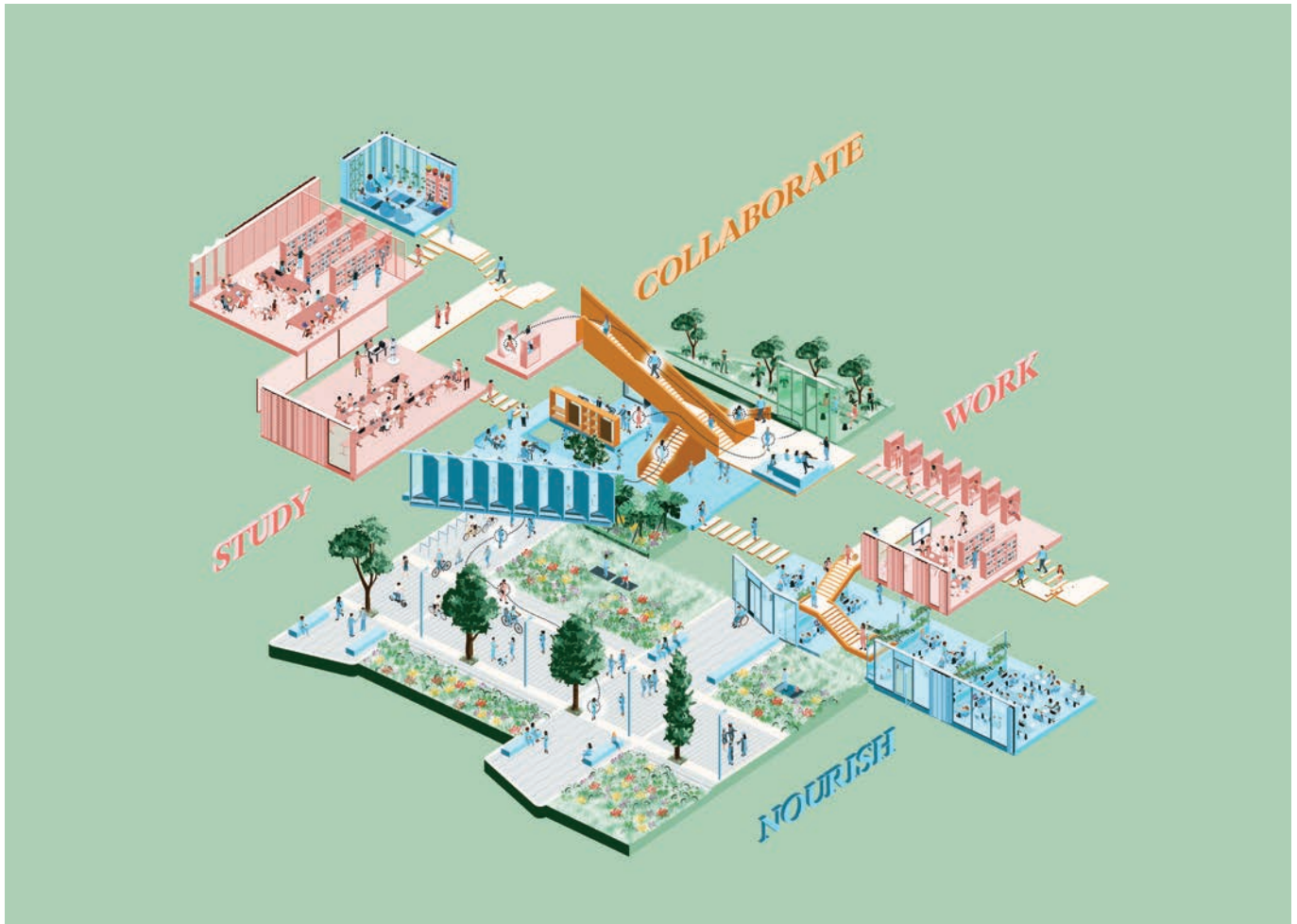
The scheme’s hybrid nature, part coworking office space, part academic space, part public and hospitality, meant that Jestico + Whiles were able to bring experience from different sectors such as workplace and coworking, and cafeteria and bar design, alongside its work in research and education sectors including for Cambridge. This led to a “truly holistic, blended use scheme that responds dynamically to changing needs, says director at the practice, James Tatham. The research projects that stand out in Jestico + Whiles’ portfolio include the Mountbatten Building for Southampton University and the Graphene Institute in Manchester, as well as the ongoing Ray Dolby Centre at the West Cambridge Site.

**Open brief**

Tatham tells *ADF* that the Hub and the Ray Dolby Centre (also known as Cavendish III), “essentially function as one project, but they are two very different buildings.” So while there is some shared parkland between them (and a shared ground source heat pump), the Cavendish Laboratory project is more complex, with a high level of servicing and research equipment. It is undergoing nearly a year of fit-out, and is due to finish later in 2023. However, with both projects running concurrently, it was seen as a prudent move to have a single contractor; Bouygues.

With Jestico + Whiles’ strong track record in education and research buildings, as well as their history working with the university, they were a natural fit. Tatham says that the briefing itself was “quite challenging,” with this being a world-renowned academic institution; the board interrogated the designers’ suggestions individually, requiring them to demonstrate





exactly why design decisions were made.

However, Tatham says that before that rigour was applied to their designs, while the client body wanted a “lively” building, the brief wasn’t clear at the outset. This meant a “prolonged” Stage 0 to establish its actual desires – during which the architects “did an awful lot of interviewing, in some cases one to one.” He says there was also a push from the planners as well as the university to increase the social spaces on the campus – “they felt there wasn’t any social infrastructure at all.” As a result of the loose brief – and budget – says Tatham, “we had to kind of go through a process of gleaning information from people who would use and work at the facility, and consolidated that into a scheme.

The architect said that the “completely open ended” brief – which was fitting for a flexible building with little precedent – was part of what made this a great project for the practice – “it almost felt like being back at university,” he tells *ADF*. “You could sort

of take it where you wanted,” he says. The practice created a number of “high level” schemes showing a variety of options.

This organic evolution of a programme and form for this unprecedented blend of typologies included the designers visiting a wide range of projects for inspiration. “We did a lot of work in terms of seeing buildings at other universities, but also looked at flexible working spaces, and some quite nice restaurants and cafeterias.” Tatham adds: “We were casting the net wide because the university didn’t want another generic kind of student hub building, they wanted something quite special, they wanted it to be somewhere that people naturally gravitated to, because it was a great place to be.”

### Design approach

Tatham says that to not be constrained by budget, initially at least, or building area, and to be able to “just kind of go with our gut instinct in terms of what was right”

**“It is a truly holistic blended use scheme that responds dynamically to changing needs”**

James Tatham, Jestico + Whiles



## The architects took inspiration for the study spaces from a University of Cambridge research paper



was very satisfying. “Connectivity and collaboration” were the designers’ guiding objectives, but inherent to that was a challenge to define certain spaces to create more intimate areas for study.

In addition to that instinctive approach to a new typology however, the architects took inspiration for the study spaces from a University of Cambridge research paper, ‘Protolib: Researching and Reimagining Library Environments.’ This looked at needs across the university’s facilities, and prototypes for groupings of users in future facilities. The architects used the document to develop a detailed brief for the Hub, resulting in a concept of “low, medium and high intensity” study spaces.

Each of these would be distributed fairly exclusively on each of the building’s three levels, with each requiring a different

approach to acoustics, furniture, space and flexibility. Tatham said it was “interesting to draw on a bit of real research done by the university on the sorts of spaces people liked; even plants, lighting, it added a bit of academic rigour.”

### Programme

The architects focused on addressing “both the needs of the community and the preferences of the individual.” In practice this meant a mix of “structured” educational spaces with generous circulation areas that function well as breakout and informal social or study areas.

The ground floor houses all of the food and beverage areas – as well as the substantial canteen and cafe/bar; it also contains a shop, and shower rooms to encourage users to travel by bike to the





Hub. There is an “oversized” kitchen, designed to eventually also serve other parts of the university. The cafeteria serves as ‘low intensity study’ space and opens directly into the new green space and public realm.

The upper two levels house different ‘medium intensity’ (first floor) and ‘high intensity’ (second floor) study spaces. They are arranged as a mix of traditional library space and a range of individual and small group study areas, in a variety of “semi-enclosed and open plan environments.” There are also lecture rooms ranging from a 20 person to a 100 person ‘theatre.’

In terms of its form, the building is “graduated vertically,” with each storey having a progressively lower floor-to-ceiling height and being more intimate. The ground floor is a lively set of spaces, the first floor is a calmer and more relaxed

environment, and the upper floor quieter, for focused study.

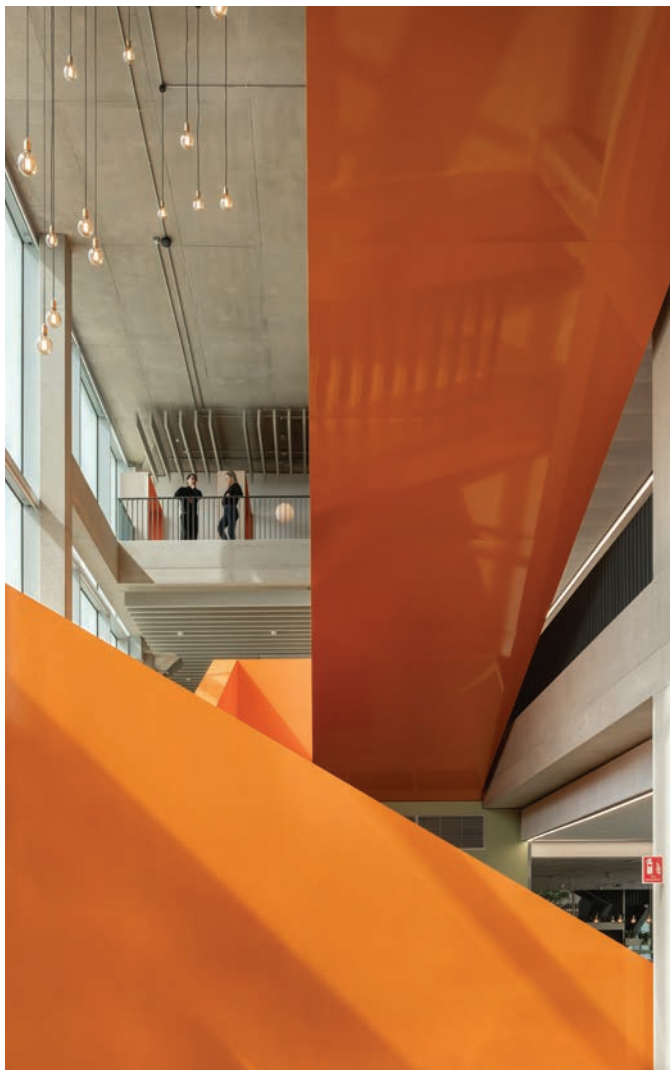
The ‘learning spine’ is a series of tangerine orange-covered bespoke fixed furniture that weaves horizontally throughout the open spaces of the upper floors, taking different forms as it does so. This is a space-efficient and sculptural way to combine space division and circulation, using colour to link the levels and aid wayfinding.

The ‘spine’ encloses private spaces, but also creates openings, frames views and subdivides larger rooms. Tatham sums up the practical benefit of the furniture for the spaces: “It helps contain space without sort of necessarily putting a wall and the door on it.”

It connects visually to the similarly coloured main stair, a striking steel-

#### PLANTING

The design maximises connection with nature, with planting and gardens including trees being significant elements internally, as well as on the external terrace



#### CODE ORANGE

The main stair is a striking, painted orange steel structure which extends through the atrium; the colour is continued through elements including seating

encased rectangular form extending through the atrium. It has been carefully detailed, including recessed handrails and wooden treads.

As well as lining the stairs, the orange colour has been used on elements like the planters on the first floor terrace, and some exterior facade panels, adding warmth, particularly at night when the facade is lit.

#### Social life

The rigour of the briefing process (which didn't permit anything "whimsical and arbitrary" says Tatham) came alongside a pragmatic consolidation of spaces across the site – previously each department had its own lecture theatres and seminar rooms but also cafeterias. This meant quite a light space utilisation of spaces compared with other parts of the university that shared more space.

However, the flexible Hub gives the facility for future buildings to avoid needing to have a large lecture theatre, numerous seminar rooms or cafeteria of their own, because its spaces offer all such functions. Giving academic experts from across the university the opportunity to mix and share knowledge informally as well as formally in the new building creates infinite future possibilities for sparking of ideas, which was something that fired Jestico + Whiles' imagination.

A large part of the building's function is social, and therefore a lot of focus was placed on the bar and cafeteria design. The clients wanted "a real commercial offer that would make it a destination, not a typical student dining hall." The idea was also to pull in customers from beyond the immediate campus as well – residents of north west Cambridge.





The canteen is run by the university, but the cafe bar – on the corner of the ground floor – is leased by a private firm. “The idea was to have something that was special, a bit higher end,” says Tatham. Until the new building’s arrival, staff wishing to take an overseas visitor for lunch, for example, were short of good options.

The cafeteria and bar at ground level will open directly into green landscaped to include rain gardens and recreational space, and external seating. This sits close to an east to west pedestrian and cycle path. Its upper floors incorporate a library service, media lab, multi-use spaces, learning resource areas, and workspaces ranging from informal open areas through to individual study booths. Learning spaces and meeting rooms are available to businesses and the wider community outside of core teaching

times, for activities including social and networking events, talks and art exhibitions.

Suiting its flexible, blended functions, the building itself is “very blended, in a way,” says Tatham, despite its different atmospheres created on each level. While the cafeteria space on the ground floor is designed as such, “we didn’t want it to be sitting there empty during the mornings and afternoons,” so it was designed to be multifunctional, and to be a pleasant space to work in at any time.

The building is clad in a ‘veil’ of folded and perforated aluminium, chosen to reflect the colours of the surrounding landscape. Being perforated, its appearance changes by the hour, and by the season. At dusk, integrated lighting between the aluminium veil and the rainscreen “brings the building to life,” say the architects, with

**The rigorous briefing process “didn’t permit anything whimsical or arbitrary” says Tatham**



## PROJECT FACTFILE

**Architects:** Jestico + Whiles

**Executive architects:** NBBJ

**Structural engineer:** Ramboll

**M&E consultant:** Hoare Lea

**QS:** AECOM

**Accessibility consultant:** David Bonnett Associates

**Landscape consultant:** Plincke

**Acoustic consultant:** Currie & Brown

**Principal designer:** Currie & Brown

**Main contractor:** Bouygues

orange facade panels contributing to it being a glowing beacon at the heart of the campus.

## Public access

As part of integrating the West Hub into the wider site, access for the local community “will be actively encouraged,” say the project team. The two main entrances have been located to provide a pedestrian route through the building that will encourage people to enter and use the facilities such as the cafeteria, and the gardens beyond. Jestico + Whiles says that its ‘biophilic’ design approach “reinforces the building’s link to the landscape.” As a key example, the external rainwater gardens immediately adjacent to the facade are “drawn into the building,” forming two lush internal gardens which are located in “light filled” atria.

## Sustainability & wellness

The West Hub is a low-energy building, having been awarded BREEAM ‘Excellent’ thanks to a range of measures including “high performance building fabric” and passive design approaches such as exposing the concrete frame to bring thermal mass benefits. The form has been optimised to ensure that “the natural movement of heat, air and light keep conditions comfortable, while reducing energy demand,” said the architects. Lighting sensors and heat recovery and the ground source heat pump shared with the adjacent Ray Dolby building have helped achieve a 10% reduction in carbon emissions – in accordance with planning requirements to move away from gas as the primary fuel.

The building, say the architects, “adopts many aspects of the WELL Standard,” including good quantities of natural light, promoting the use of stairs,





activity-based working and biophilia; connection with nature. Planting and internal gardens are significant elements both inside and on the external terrace. While there are a variety of spaces to accommodate different types of work and activities to contribute to users' wellness, a "strong connection with nature" is achieved by integrating plants and trees both internally and externally. Pale green seating areas and interior design elements play off the more vibrant orange stair and 'learning spine,' adding to the calm feel brought by the natural elements.

### Feedback

This high quality, innovative scheme demonstrates the importance that the university attaches to encouraging academics, students and the community to come together, in a desirable, exciting shared collaborative space.

Tatham says that the university is using this scheme as a reference point for future projects, adding that "the feedback (from the university) has been really positive." He says that "within two weeks of opening it was absolutely buzzing."

Professor Andy Neely, who is the pro-vice-chancellor for enterprise and business relations at the University of Cambridge, commented that the West Hub has created a "new heart for the West Cambridge Innovation District."

He further explained the importance of Jestico + Whiles' welcoming, social new building to the West Cambridge campus, adding that it "represents the start of the site's transformation into a more outward-facing campus, 'putting the science on show,' nurturing the entrepreneurial strengths of the Cambridge Cluster, and taking the university's research and technology to the next level." ■

### CLADDING

The building is clad in a 'veil' of folded and perforated aluminium which changes in appearance over the day, and by night is illuminated with integrated lighting

futurebuild

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## Forbo helps to create modern centre



Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust (CNTW) continuously strive to provide better education for the next generation of medical professionals. As such, with help from NTW Solutions they wanted to create a modern learning space for their medical education centre in Gosforth. Forbo Flooring Systems' Flotex, Modul'up and Allura Flex ranges all played a key role in bringing this project together. The project was finished in late 2021 and has received good responses from the students so far, who have commented on the durability and cleanliness of the flooring.

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

## Newton Waterproofing wins award



Newton Waterproofing, one of the UK's leading independent designers and suppliers of guaranteed waterproofing systems, has been named a winner in this year's celebrated National Building and Construction Awards, in recognition of the company's commitment to sustainability. Taking gold in the 'Green/Sustainability' category, which focuses on sustainable projects and their impact on the environment, Newton has been recognised for its extremely successful Recycling Service.

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

## ITP Ltd celebrates win at awards



Yorkshire-based building membrane specialist, Industrial Textiles & Plastics (ITP) Ltd, celebrated a major award win when the Stamisol Safe One breather membrane scooped Product of the Year in the Facade 2022 Design and Engineering Awards. ITP attended the finals at Hilton Park Lane, London, to accept

the award alongside the product's manufacturers, Serge Ferrari. Safe One's innovative design has been at the forefront of membrane development, representing the first breather membrane in the UK to combine a Euroclass A2 fire safety rating with W1 water repellence.

[info@itpltd.com](mailto:info@itpltd.com)

## Golden Giveaway for 50<sup>th</sup> RAG® Anniversary



F. Ball and Co. Ltd. is celebrating the launch of the 50th issue of its industry-acclaimed Recommended Adhesives Guide (RAG®) with a golden giveaway. Golden tickets have been hidden inside 50 copies of the 2023 edition of the guide, with the lucky recipients entitled to claim one of a range of prizes. Copies will automatically be sent to members of F. Ball's Ball Rewards scheme and can also be requested for free.

In addition to an A5 printed book, a constantly updated version of the guide is available on the F. Ball website, and as a mobile app, which is free to download from the Apple App store or Google Play.

01538 361633 [mail@f-ball.co.uk](mailto:mail@f-ball.co.uk)

## Advice on Part F of the Building Regulations



With the amended Part F of the Building Regulations coming into effect from 15th June 2022, Vent-Axia is offering advice on the changes for commercial and industrial clients. With Part F focusing heavily on health and wellbeing, a key addition to the document is a new section on monitoring indoor air quality (IAQ). Consultants,

contractors, developers and facilities managers who would like further information on how the amendments to Part F affect commercial and industrial building can contact Vent-Axia directly.

0344 856 0590 [www.vent-axia.com/building-regulations-webinars](http://www.vent-axia.com/building-regulations-webinars)

## Latest news, views and more



If you like to be kept informed of all the latest news, views, and promotions for the architectural community, the ADF email newsletters can offer you regular updates straight to your inbox. The weekly Editor's Choice newsletter includes top news stories curated by the ADF editorial team, while the monthly CPD Focus and fortnightly ADF Newsletter offer updates

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# ARDEX Group UK returns to SPATEX 2023

ARDEX Group UK is returning to SPATEX 2023 with new products and systems for swimming pools and wet leisure.

Taking place from Tuesday 31st January, to Thursday 2nd February 2023 at the Coventry Building Society Arena in Coventry, SPATEX is the UK's leading pool, spa and wellness exhibition.

ARDEX will be introducing AM 50 OCR – a new render system for internal pool surrounds, shower rooms and changing facilities, plus our specialist systems to ensure perfect wet leisure and pool tiling.

Visitors to their stand can also find out about ARDEX's sustainability and energy saving initiatives. Sustainability is a core corporate focus of the ARDEX Group UK is a critical launch factor in new product development. Several initiatives have been introduced to reduce carbon emissions and save energy in construction including:

- Lower life cycle costs through high-performance products with extended project warranties.
- Innovations to ensure less waste on site

with extended product working times but rapid-hardening for fast-track completion, saving energy through less mixing and working with larger batches.

- Pool systems that require less products for projects as well as high-yield products.
- New products providing increased performance with recyclable content.
- Localised raw material sourcing and more environmentally friendly packaging.
- Products tested to LEED protocol.

Working to achieve EN standard within BREAM (legislation still to be confirmed).

- EMICODE Approval: core products approved with remaining products in the process of EMICODE approval.
- EPD (Environmental Product Declaration) for all products.

With a Carbon Neutral (scope 1 & 2) target of 2030, the ARDEX Group UK recently worked with Achilles (Recognised Certified Body) to accurately reduce and measure their Carbon Footprints endorsed by verifiable commitment to reduce emissions and to continually improve

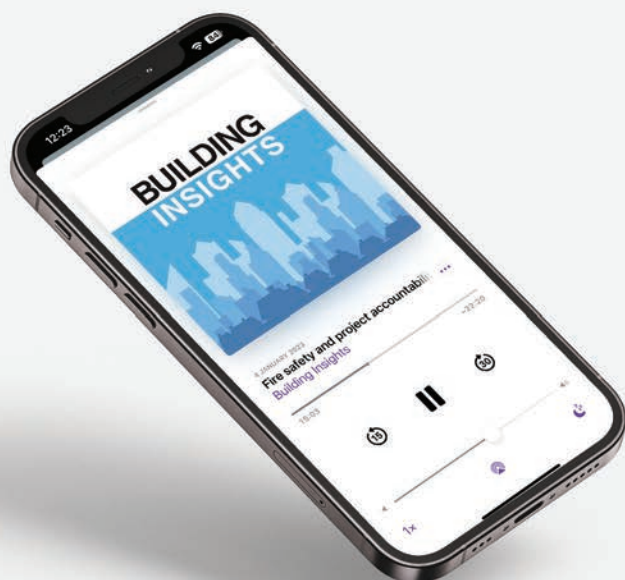


environmental performance.

Achilles' Carbon Reduce (powered by Toitu) scheme highlights the necessary data from all activities which is critiqued under the ISO 14064:1 scheme.

Measuring carbon output under ISO 14064-1 includes company vehicles, business travel, fuel and electricity, water and waste, to name a few. In return, this assists ARDEX Group UK to accurately identify areas of the business where they can reduce their emissions and consequent impacts on the environment.

01440 714939 [www.ardex.co.uk](http://www.ardex.co.uk)



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# SURFACE DESIGN SHOW

## Back up to the surface in '23

A well-established part of the design calendar for nearly 20 years, the Surface Design Show returns to London's Business Design Centre from 7-9 February to again showcase the best in materials innovation for specifiers

The Surface Design Show provides the perfect opportunity for material experts, and the architectural and design community to come together under one roof.

Visitors to the show will be inspired by new product launches running the gamut of colour, materiality and sustainability, plus diverse displays of surface-based installations and a comprehensive speaker programme featuring accomplished industry professionals who are passionate about the future of surface design.

### Features and highlights

There are over 150 exhibitors – of which 70 are new for 2023 – ensuring that the show will have the latest surface innovations on display. Supporting emerging materials designers has always been important to the Surface Design Show. That is why the New Talent section will, for the fourth year in a row, be held in partnership with Trendease International. Its chief creative director, Jennifer Castoldi, will be curating over 30 'New Talents' this year. The section will inspire and excite visitors with the 'Class of 23' showcasing a fascinating mix of biomaterials, natural materials, digital print, textiles, furniture, wallcovering, weaving and biopolymers.

This forthcoming edition will be the most international yet with new talents coming from as far afield as Sweden, the Netherlands, Lebanon, Malaysia, Korea and China, and will give them the opportunity to learn from each other and connect.

Located right in the heart of the exhibition, Surface Design Show welcomes



back Surface Spotlight Live (SSL), an area which gives visitors a chance to touch and compare the latest material prototypes. Centred around this year's theme, 'Shaping Communities', SSL will highlight the importance of new exchanges between surfaces, people and environments. From material transformation to inclusive design, co-creation to sensory wellbeing, SSL will present designs creating thoughtful solutions for interiors and architecture. This section of the show will again be curated by leading trend and colour expert, Sally Angharad.

Stone Gallery showcases the possibilities with one of the most sought-after materials



– this section of the show has attracted companies from the UK, Europe and further afield. It is officially supported by Stone Federation Great Britain, whose Knowledge Hub forms a focal point for its member companies. It will feature Stone Tapestry, meanwhile, an installation curated by leading London-based architectural practice Squire & Partners. It explores innovative textures, light, colour and pattern to create a tapestry of inspiring materials from around the world.

The talks programme is always a particular highlight of the Surface Design Show. The main stage, designed by Emily Skinner of recycling pioneers Smile Plastics, will host 18 different presentations and feature more than 40 speakers, to inspire the show's audience of architects and designers.

Over the two and a half days, the main stage will host a range of debates, panels, trend forecasts and insights into the latest surface design innovations. It will also be the venue for the Legends Live series of 'In Conversations' in partnership with Mix Interiors, where industry leaders have the chance to interview a figure they particularly admire.

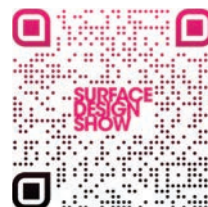


## The Awards

The Surface Design Awards are sure to again be a popular element of the show. Now in their 11th year, they continue to set a benchmark for architectural and design achievements across the world. More than 110 projects were entered into the 2023 Awards, coming from 24 different countries. The BAFTA Headquarters in London by Benedetti Architects, which won the Supreme Winner award in 2022 set the standard for excellence in surface design. Following the success of its debut last year, the Architectural Photography category returns once more for 2023.

This year the Awards judging panel is co-chaired by Jonathan Hagos, director of architects studio Freehaus and Nasim Koerting, head of design at The Office Group, and features a diverse mix of industry professionals who have made a name for themselves among their peers.

Readers can register now for the Surface Design Show 2023 by scanning this QR code...



## JACKON by BEWI – leading the drive for sustainability in construction



JACKON by BEWI welcomes the fact that the new Future Homes Standard is adopting a 'fabric first' approach in its drive to secure cuts in emissions of up to 80%. This is set to be a key part of the construction industry's framework going forward, underpinning the planned green recovery of the housebuilding market in particular. Achieving the lowest possible U-value is also a key criteria for a building to gain Passivhaus certification, since it is a requirement to achieve a 75% reduction in space heating requirements, compared to a standard UK new build. JACKON by BEWI is ready for the changes brought about by the Future Homes Standard and the new Part L of the Building Regulations which came in last year. The new targets are not a problem for JACKON by BEWI, since the company's THERMOMUR® 350 ICF in its standard EPS configuration achieves a U-Value of 0.17 W/m²K. By using upgraded THERMOMUR® 350 Super EPS that figure drops to 0.15 W/m²K. The next step up is THERMOMUR® 450 with a U-Value of 0.11 W/m²K, which puts the building on course to become a Zero Carbon build.

01204 221089 [www.jackon.co.uk](http://www.jackon.co.uk)

## Eco-conscious housebuilder adopts Thermoblock for its high spec developments



A housebuilder undertaking high specification developments in the Stockport and Tameside areas of Greater Manchester has incorporated Marmox Thermoblocks into its designs, to target improved energy performance and all-round higher build quality for its customers. Romiley based D. Woodman Developments' latest project is creating a total of nine dwellings at School Brow in Stockport where the former Cow & Calf pub is being converted to form three new homes, while a further four semi-detached dwellings and two detached homes are being built on the land adjoining what is a 'Non-designated Heritage Asset.' The new houses are being raised on conventional strip foundations using Eco Prime concrete and blockwork footings which then carry beam and block floors, along with the 100 mm x 600 mm x 65 mm Thermoblocks, 100 mm thick Celcon Solar aerated blocks then form the inner leaf to the insulated cavity exterior walls. Thermoblocks are available in widths of 100, 140 and 215mm and feature a unique design where two rows of high strength epoxy concrete mini-columns are encapsulated in sections of XPS (Extruded Polystyrene).

01634 835290 [www.marmox.co.uk](http://www.marmox.co.uk)



# The heritage is in the detail

Andy Sharlot, chief designer at IG Masonry Support, explains how a mixed use scheme in south London required a high level of detail to achieve an authentic brickwork look that complemented repurposed Victorian structures

**T**he restoration and transformation of Victorian brick railway viaducts and the creation of five new buildings, as part of an award-winning mixed use development adjacent to the historic Borough Market, required an exceptional level of detail and brickwork authenticity. We took on the challenge, playing a crucial role in the provision of a series of innovative brickwork solutions that successfully blend the old with the new, while retaining south London's Victorian railway heritage.

Built by Wates Group for developer MARK and designed by London-based architect SPPARC, Borough Yards features a number of transformed and repurposed railway arches, viaducts and warehouses along with five new buildings that weave their way from Borough Market to Clink Street. This new shopping and dining district also includes a cinema, art gallery and two new office buildings.

IG Masonry Support worked with brickwork contractor Lesterose, designing and supplying a number of complex prefabricated brickwork elements including welded masonry support (WMS), brick slip masonry support, and its own 'brick on soffit' system.

SPPARC created an architectural typology which started from the principle that there should be pedestrian lanes within the block linking the river to the market through a series of connecting yard spaces and streets weaved through a Victorian brick arched railway viaduct.

## Marrying old & new

In this key conservation area, the brickwork for the new buildings needed to complement the repurposed viaducts and warehouses' existing brickwork while presenting a unique character.

To meet these challenging design requirements, we manufactured and supplied a range of prefabricated



components that met the wider considerations around planning in this conservation area and all fire regs as well as Building Regulations.

As part of the complex design for Building Four, for example, the architect and design team required a 'floating' brick feature presenting a jagged design. The use of brick slips helped achieve the distinctive angled soffit design, offering a faithfully historic aesthetic in a modern, easy-to-install solution.

The distinctive 'spearheads' featured on Building Two were a separate challenge. Installed over the building's four level points, they were manufactured with glass reinforced concrete between the elements. Customisable to the architect's design

**The use of brick slips helped achieve the distinctive angled soffit design, in an easy-to-install solution**



## The use of masonry to realise the architect's vision was a fundamental part of the design ethos

wishes, the brick slip and masonry support were prefabricated units manufactured offsite and delivered complete with bricks mechanically fixed and bonded to them. Weight and size enabled the spearheads to be installed as one unit directly from a scaffold onsite.

Due to the type of brick being used on buildings two, three and four being of weaker composition, it necessitated pre-pointing the brick slips in dry, controlled conditions to create a high quality, finished surface.

Trevor Morriss, principal at SPPARC explained: "The use of masonry to realise our vision was a fundamental part of our design ethos. It was essential that the new buildings successfully cohabited with the heritage fabric. We wanted to ensure that each of the buildings had its own unique character while also harmonising with the surrounding area."

### Different support solutions for different buildings

The brick support system that was specified facilitated the architect's vision in relation to each building's brickwork design – and how this was done is outlined in the following paragraphs.

Building One features a luxury cinema; it required a WMS and brick on soffit system for the head of each window situated at the building's level. This achieved a floating brick effect, blending seamlessly with the surrounding traditional brickwork with an

easy-to-install solution.

Building Two has proved a particular challenge, due to the distance between the point of brickwork and the primary structure. A cantilevered solution was created that featured on the building's four levels. Each of these 'spearheads' were made up of a brick on soffit system bolted to its WMS. Also requiring a solution was the standout cantilevered brick soffit at the front of the building. These prefabricated systems offered a 70% weight-saving against an equivalent concrete product, negating the need for mechanical handling and onsite labour. These benefits proved particularly significant in this mixed-use development.

Building Three was the first – and smallest – building on this development. It featured brick on soffit system bracketry to support the soffits and fix back to the structural steel frame. Brick slip sills also formed the external brick facade, negating the need to build traditional brickwork walls. From street to roof level, the building features interventions utilising brick construction to reference the site's historic architecture. Being the first building undertaken on the development, a lot of product development was completed, providing a solid foothold for the design and engineering required for the rest of the buildings. The solutions developed for this building were ultimately scaled up to feature on Building Two.

Building Four features a complex structural steel frame, jagged design features were achieved with brick slip masonry support. This ensured a solution that met the architect's specific requirements. Due to the complex steel frame, there were many junctions and bolt connections. As a result, brick slip masonry support systems were designed and engineered with two courses of brickwork which easily bolted together and blended seamlessly with the surrounding brickwork.

An integral part of the street scene and conservation area, Borough Yard's new buildings stand aside the historic viaducts and warehouses. Fully opened in spring 2022, this newly transformed public realm restores and reinvents the area's lost medieval street pattern, ensuring its status long-term as one of south London's favourite destinations.

*Andy Sharlot is chief designer at IG Masonry Support*



# Delta Membrane Systems launches new Basement Drainage Distribution Hub

The new warehouse in Harlow, Essex will serve the firm's customers in more than 40 counties across England, Wales, Scotland, and Ireland.

Delta Membrane Systems Limited has invested in a new Pump Distribution Hub close to its Epping Headquarters to enhance the company's ability to serve their nationwide customer base.

Delta Membrane Systems Limited has grown rapidly over the last five years and launching the new Pump Distribution Hub will transform key elements of its business to consistently deliver on the businesses' values in being customer-centric and constantly moving forward, innovating, and adapting.

Having explored plans to create a new, dedicated pump and drainage warehouse, the company has now unveiled the new facilities, which is now stocked full of pumps, package pump stations, bespoke foul, surface, and groundwater chambers along with associated fixings and pipework, offices, and bespoke training facilities.

The warehouse comprises 3,500 ft<sup>2</sup> of space dedicated to basement drainage related products, from package pump stations, high water level alarms, control panels, battery backups to pipework and fittings, supporting the team's ability to meet the growing demand for quality basement drainage items. In addition to the increased space, the



warehouse features modern staff facilities, and a dedicated training and breakout space.

Kevin Dodds, managing director, said: "The investment will create new opportunities for Delta, our customers, and the local area."

He said: "Our UK head office has been based

in the area for 25 years and we are delighted to find the perfect space to accommodate our basement drainage division, just around the corner. Delta is committed to helping customers and we're thrilled to be able to take the lead on increasing our customer services in all things below ground related."

"In addition, moving our basement drainage section to its own dedicated hub allows us the ability to closely monitor deliveries and improved logistics. There is also space to further expand our training facilities to meet current and future demand and to ensure our commitment for encouraging best practice in the industry is being met."

"The new basement drainage distribution hub gives us better visibility of stock and truly represents the scale of the business to both staff and customers."

Whatever the needs of your project, you can rely on Delta's Technical Team to ensure you get the right advice, support, and practical help at exactly the right time its required.

01992 523 523  
info@deltamembranes.com



## Keeping a weather eye on CaberShieldPlus



A burgeoning new building company, based in the beautiful but often challenging surroundings of West Yorkshire, is making full and effective use of West Fraser's CaberShieldPlus to protect its floor installations from the worst of the country's notoriously variable weather conditions.

CaberShieldPlus is a durable, P5 flooring which features a permanent, waterproof coating on both sides. Almost exclusively preferred now to P4 boards – for both new-build and refurbishment applications, the P5 particleboard panels are able to withstand the unpredictable British climate without deterioration.

[uk.westfraser.com/housebuilders](http://uk.westfraser.com/housebuilders)

## New website dedicated to architects



Renowned roof window manufacturer, FAKRO, has launched a new website providing inspiration and resources to help make projects become a reality. Inspired. [fakro.co.uk](http://fakro.co.uk) provides architects with all the information they need to confidently specify

FAKRO products. The site gives you access to technical guides, product information and case studies – all in one place. Architects can also book CPD sessions, to help keep up to date with all relevant information relating to FAKRO's range. FAKRO understands how integral glazing is to a building's design and performance.

[www.inspired.fakro.co.uk](http://www.inspired.fakro.co.uk)

## Wraptite® selected for zero carbon affordable homes



The Wraptite® external air barrier system from A. Proctor Group has been selected as part of a new zero carbon affordable homes project at New Ferry on the Wirral. The superior airtightness performance of the Wraptite membrane from the A. Proctor Group is the perfect solution, delivering significant benefits to the combination of in-factory manufacture and on-site housing construction. Karl Ventre, Director at Starship, explains why Wraptite was chosen to achieve the airtightness solution and how it benefits off-site construction: "We have specified this product within our system offering for the last three years, and it has always performed well and helped contribute to good airtightness test results. The self-adhesive membrane is easily applied in the factory, bonded externally to the substrate, and ensures that the membrane is held firmly in place, even during transportation, maintaining the quality of the system from installation to build and completion. Wraptite is an excellent quality product, and the self-adhesive backing gives a very neat finish." The Wraptite air barrier system offers a safer and simplified membrane system.

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

## Cavity Wall Opening Protection Solution



The NHBC has announced Polythene Damp Proof Course made to BS 6515:1984 is not suitable to form cavity tray protection to window and door openings. The compliant solution is available from Cavity Trays Ltd. Preformed Type C Cavitrays are ready-shaped, self-supporting and cavity width biased to

protect the as-found cavity width. An interesting silent study presentation provides more information and some surprising data, it's essential viewing. Access via [www.directcontactexhibitions.com](http://www.directcontactexhibitions.com) select CPD academy, and select Cavity Trays 3.

01935 474769 [cavitytrays.co.uk](http://cavitytrays.co.uk)

## Standing out thanks to Vandersanden



Bastion House is a modern take on a castle-like structure with its multi-faceted walls, tiered form and variously sized openings. The choice of Vandersanden's Lima facing brick enhances this robust look while the brick's light colour contrasts with the black mortar joints

and recessed jet-black window frames and balcony soffits. Maria Patton, project lead at Goldrose Sharpe, explains: "The Lima bricks have this artisanal, handmade texture which is quite unique; they stood out compared to other brick samples."

[info@vandersanden.com](mailto:info@vandersanden.com) [www.vandersanden.com/en](http://www.vandersanden.com/en)

## Triton Systems solution successfully tanks basement pool room



When the owner of White Cross Farm, located on the outskirts of Broughton in Staffordshire, decided to build a new property on his land – consisting of a swimming pool – keeping water out of the underground structure presented more technical challenges than keeping it in. The solution, however, was presented by preservation and protection specialist, ProTen Services and its long-term working relationship with Kent based Triton Systems, who jointly designed and supplied an integrated package of waterproofing products to successfully tank the external perimeter wall forming the basement, which will house subterranean spa in very challenging ground conditions. As a long established manufacturer with a very successful track record, Triton Systems offers a wide range of well proven products to cover damp-proofing problems, timber protection, structural repairs, condensation control and the penetration of gases such as radon and methane. Its technical advisory service is also able to offer advice on specific Structural Waterproofing project requirements as well as guidance on relevant product compliances.

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



# Launch of world's first solution for post tensioned balcony connectors

Leading global lifting, connecting and anchoring company Leviat has launched the world's first insulated balcony connector element for post tensioning applications, which can be used alongside its industry renowned range of Halfen HIT Structural Thermal Breaks.

Hervé Poveda, Leviat's head of product excellence, reinforcement & building physics – Europe & APAC, said: "The development of this innovative solution was as a result of our customers looking to include balconies in the post tensioning process. Our new Halfen HIT Insulated Balcony Connector System allows balconies to be cast together with the main slab and then simultaneously stressed – something which has never been possible before with conventionally reinforced concrete balconies. Furthermore, formwork installation and removal on balconies and the main slab can take place all at the same time, driving significant efficiencies on construction sites,

enabling users to build better and faster which reduces costs."

Our range of balcony connectors provide continuity to both the concrete reinforcement and the thermal insulation of the building envelope, protecting against the effects of cold bridging, eliminating the risk of condensation and mould growth, and guaranteeing the comfort of the building's occupants.

Specifiers can be confident that the new Halfen HIT Insulated Balcony Connector system complies with the UK's latest guidance and building regulations, with particular reference to fire resistance. The innovative Halfen HIT Transition Piece is filled with mineral wool insulation for optimum thermal efficiency and fire resistance. The mineral wool specification is identical to that used for standard HIT insulated connection elements, which have an REI 120 fire resistance rating.

The Halfen HIT Insulated Connection system has recently been granted a UKTA by the British Board of Agrément, covering



compressive design resistance as required for post tensioning applications. Halfen HIT Transition Pieces are designed for use with all types and configurations of post tensioning cables currently available on the market, using either bonded or unbonded strands.

[info.uk@leviat.com](mailto:info.uk@leviat.com) [www.leviat.com/gb-en](http://www.leviat.com/gb-en)

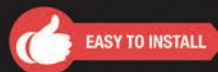
## SWIFIX Fixings



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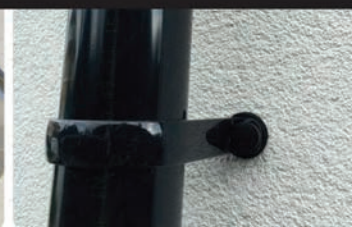
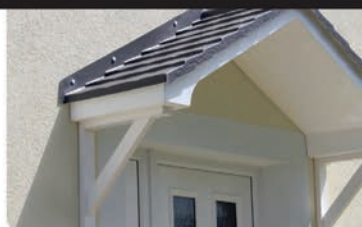


**SWIFIX fixings – the complete fixing solution for fitting items through EWI and MMC systems.**

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✉ [info@swifix.co.uk](mailto:info@swifix.co.uk)

☎ 01884 560477

#FollowTheBear  

# Sapphire's innovative solutions ensure rapidly installed, rigid balconies for development

As industry leaders in prefabricated balconies backed by the brand promise to be rigid, ready and right, Sapphire has overcome challenges posed by a new residential project in one of London's most notable suburbs. Phase 1 of the White City M&S development by leading property developer, St James, part of the Berkeley Group, features 342 balconies designed and manufactured using Sapphire's innovative offsite-manufactured Glide-On™ aluminium Cassette® system.

To complement the new apartment buildings' intricate façade detailing Sapphire created a bespoke balcony package with Crystal® frameless, structural glass balustrades. As well as meeting the project's design challenges, Sapphire's team maintained clear and frequent communication with the supply chain throughout. Additionally, the use of Sapphire's Balcony Passport System, a quality control app, provided a complete traceable history of each balcony, from assembly to final



quality acceptance, delivery and installation, thereby reducing the potential for snagging at the point of client handover.

The prestigious White City project specified Sapphire's Glide-On™ Cassette® balconies with clear toughened laminated structural glass, polyester powder coated aluminium fascia trim to conceal glass fixings/edge of the balcony frame, controlled draining soffits, and composite decking fixed with hidden clips. While the balcony units were preassembled offsite, cast-in anchors and incorporated

thermal break connections offering superior rigidity to the balconies, were cast into the building slab. Contractors working on site reported that the anchors were on a par with the best in the industry.

Sapphire's offsite manufacture and storage package, which meant balconies could be kept in storage for an extra six months due to project delays, was seen as a huge positive to the project. When they were required on site, the preassembled balconies, including balustrades, decking and soffits, were transported with balconies 'nested' onto each pallet, making transportation both cost-effective and safe. Balconies were pre-slung offsite and ready for fast and easy installation upon arrival. Once lifted into position, the Cassettes® simply Glide-On™ to the pre-erected galvanised steel support arms before completing the simple mechanical fixings.

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# Schöck expertise for semicircular balcony detailing

The Triptych Bankside development at 185 Park Street, in Southwark, adjacent to the Tate Modern and the Globe Theatre is nearing completion. This three tower, mixed-use development, will provide creative workspace in a 10-storey building sitting alongside two residential blocks. These are fifteen and nineteen storeys respectively, offering 170 new luxury homes. The striking design by architects Squire & Partners features unusual semicircular balconies throughout to maximise amenity space and sweeping panoramic views. The balcony specification is demanding though and the adaptable Schöck Isokorb T type SK is incorporated to meet the various challenges.

## A complete system thermal break

The special demands of the Triptych Bankside semicircular balcony profiling required bespoke Isokorb T type SK units designed with specific postional load capacities, using built-in steel reinforcement. The T type SK is a complete system structural thermal break for concrete-to-steel connectivity. At present, no other UK product for concrete-to-steel applications satisfies the necessary load-bearing requirements, or meets the current and future thermal performance required by building standards (Part L).

The entire project is built very much with sustainability in mind and minimising any risk of thermal bridging at the balcony detailing is critical for a number of reasons. Any local heat loss will result in more energy being required to maintain the internal temperature of the building. Also, low internal surface temperatures in the area of any thermal bridge can cause condensation and this in turn is likely to result in structural



integrity problems. Mould growth too is a possible risk, which in a residential situation can cause asthma and allergies.

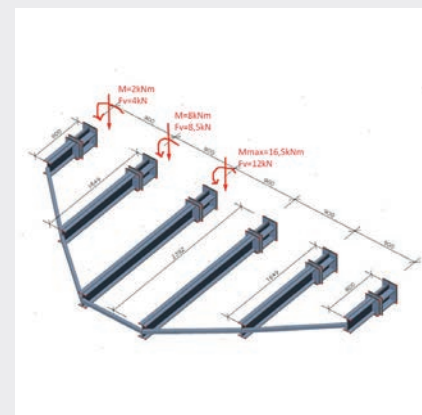
## A dependable and fully compliant product range

The Schöck Isokorb range of structural thermal break solutions is the largest in Europe and in the UK helps projects meet full compliance with the necessary Building Regulations (and the impending Future Homes Standard criteria where relevant). In addition to the Isokorb type used on this project, there are also solutions for concrete-

to-concrete, steel-to-steel, renovation projects – and even a maintenance free alternative to wrapped parapets. All products have the security of independent BBA Certification, which provides NHBC approval. The temperature factor requirement (fRSI) used to indicate condensation risk, which must be equal to, or greater than 0.75 for residential buildings, is also easily met by incorporating the Isokorb.

Please contact Schöck or visit the website for full details of the Isokorb range.

01865 290 890 [www.schoeck.com](http://www.schoeck.com)



# Cool Kampus project cottons on to timber windows & doors – Minto & Turner Building

Part of the Kampus project to regenerate Manchester's Canal Street and surrounding areas, the Minto & Turner Building, a former cotton warehouse, is a well known local landmark situated on the Rochdale canal in the centre of the city.

## A red brick grade II listed

A red brick grade II listed warehouse building, it is an award winning scheme converted under the watchful eye of ShedKM Architects into trendy apartments by Mount Anvil on behalf of Capital & Centric and HBD.

## Insta paradise

This Instagramers paradise has a real contemporary feel that manages to retain its past strong industrial heritage whilst making it suitable for today's modern lifestyle. Inside is exposed brickwork and cast iron columns with large open plan cloister living areas providing dual aspect views through the black/grey timber casement windows. Outside, cast iron fire staircases and hoists have been restored and retained.

## Grey/black windows and red cast iron staircase

The building also features matching smaller square pivot windows and simple timber doors providing residents with great views and access to the street scene and canalside bars below.

Having worked with George Barnsdale on its Nottingham Axis project, a conversion of the old co-operative building, Henry



Boot Development was no stranger to the Lincolnshire joinery manufacturer, which is one of the oldest surviving family companies still manufacturing high performance timber fenestration in the UK.

A mix of timber flush casement windows, pivot windows and timber doorsets were designed to incorporate high acoustic and thermal performance to ensure the perfect living conditions inside the building. Part of the aesthetic on the canal side elevation includes the use of louvres for privacy and to maintain the industrial feel.

There is also some nice arched work at the

courtyard end of the building.

In addition to the manufacture of the bespoke timber windows, doors and louvres, George Barnsdale also provided ongoing site surveying and project management as well as full installation using detailed interface drawings to ensure the perfect fit, taking into account the wonky openings typical of a project like this.

01775 823000  
[georgebarnsdale.co.uk](http://georgebarnsdale.co.uk)





# A fix for high performance

Paul Brown from Swifix looks at the development of new EWI solutions that avoid old timber methods and combine performance with aesthetic appeal



**T**he external wall insulation industry has accelerated in importance for architects, developers, contractors and consumers alike, and has been among the most rapidly growing sectors in the construction industry. However, the progress in techniques and solutions has been proportionately slower, with systems remaining unchanged for decades.

One such practice that has remained unchanged is the fitting and refitting of items back through external wall insulation systems. The growth in external wall insulation (EWI) and solid wall insulation (SWI) installations has increased in recent years; however the way that items are fixed through systems has only recently started to change.

There are still millions of UK properties that can benefit from the application of

external wall insulation and therefore it is advisable that this recurring issue for homeowners, tenants, social landlords and building owners of how to fix items to the system should be addressed. It is also equally important for new builds where render finishes have become increasingly popular in recent years, as discerning homeowners are looking for a clean and modern exterior finish.

Current practice dictates that large blocks of timber were fitted before the EWI system was installed, in order to be able to replace items using a screw. The use of timber instantly compromises the insulation system and is not an acceptable method within PAS2030 and PAS2035 regulations, introducing as it does areas of weakness and thereby preventing maximum gains in energy efficiency.

**The entire ethos behind EWI is to provide a continuous insulation layer to the whole building**



## There are still millions of UK properties that can benefit from the application of external wall insulation

The entire ethos behind EWI is to provide continuous insulation to the whole building, and technical and design teams are determined to avoid cold spots and thermal bridging at critical points on the wall. The use of timber to refit items instantly creates a cold spot – therefore potentially compromising the insulation system and reducing its thermal properties.

Though this has been best practice in the sector for quite some time, it is purely because there has never been a commercially suitable alternative. However, fixing solutions have started to be more available to overcome these issues having been specifically designed and engineered for the refitting of items back through EWI. The fixing system is capable of making a structure completely water-tight. Alongside maximum thermal efficiency and the accompanying savings on annual fuel bills, clients are also provided the assurance of a product which is long-term, non-degradable and flexible to repair and maintain.

It is important to be able to provide fixings that are compatible with the EWI system and will not compromise it in any way to ensure longevity. As well as being able to make available fixings to those who want to attach items to the external walls of their property, months or even years down the line.

Feedback was sought from EWI system designers – they said they welcomed the innovative fixing solutions and felt the products were simple and effective. Fixings are designed to be durable, and have been tested by the BRE for strength, compression

and achieved loading up to 130 kg, along with wind and thermal tests. They are also designed to be cleaner and easier to use than the current practice, minimising waste, and to be more sustainable. Providing an aesthetically pleasing appearance to enhance EWI installations, the fixings are compatible with a wide range of exterior finishes including render, brick slip and ‘spar dash’ to enable architects to realise their design without any compromise.

It is important that the re-fixing of items is considered as part of the tender process, with an approved product being used to protect guarantees and warranties. Therefore, it is important to ensure the fixings are incorporated into standard specifications instead of the previous issuing of standard drawings showing timber as a solution. Previously the specification of fixing solutions has fallen between installers and system designers causing ambiguity and confusion in the industry on who is responsible in the event of failure.

However, since the introduction of PAS2030 in 2017, there has been a change in the sector in considering the implications of the solutions currently used and there are now a number of EWI system designers who include the fixings as part of their systems, with many more recommending their use. With the introduction of PAS2035, we hope to see the complete elimination in the use of timber pattresses, and fixing systems becoming best practice.

*Paul Brown is managing director and founder of Swifix*



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## Professional Polishing Services are finalists



Lensi Photography

Professional Polishing Services were proud to see that two buildings featuring their finishes were finalists in the Best New Build Project category in the 2022 Façade Awards. Both Hotel La Tour and Kelaty House were nominated and both had facades that showcased how both stainless steel and aluminium are excellent material for architects and designers to work with on large build projects.

0121 555 6569 [www.professionalpolishing.co.uk](http://www.professionalpolishing.co.uk)

## SWA members dealing with demand



The predicted fall off for RMI work after the pandemic has failed to affect the order books of SWA members, as customers from both the commercial and residential sectors have continued to seek expert help in refurbishing their steel window systems across properties of all ages.

President of the SWA, Kris Bennell, confirmed: "The make-up of our membership ranges from those with the capacity to tackle very large-scale replacement programmes, as well as new-build contracts, to those who specialise in repair work. Across the country and across the sectors, they are reporting renewed demand from commercial and domestic clients seeking to maintain and improve their buildings."

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

## Sto Insulation makes its mark



Photo courtesy of Intersect Architects Ltd

One of the tallest new buildings recently added to the Bournemouth skyline has been completed with a combination of external wall insulation and render products supplied by Sto. The company's StoTherm Mineral M system, with Sto-Rotofix Plus mechanical fixings and StoSilco exterior render were all used on the new Skyline student accommodation building, which achieved a BREEAM 'Very Good' rating.

StoTherm Mineral is a highly durable external wall insulation system which uses mineral-fibre boards that provide outstanding thermal performance and unrivalled fire protection.

0330 024 2666 [www.sto.co.uk](http://www.sto.co.uk)

## ASWS overcomes access challenges

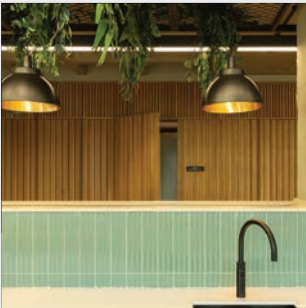


ASWS has successfully completed two very demanding phases of work in refurbishing the exterior facades to the ASOS premises in Watford; renewing a past working relationship with main contractor ISG, while demonstrating its ability to embrace contemporary contracting techniques as well as traditional trade skills.

Kris Bennell, contracts director for ASWS, explained: "Aside from having carried out past projects for ISG, we were awarded the ASOS contract on the basis of our overall capabilities and being able to show the ability to work in challenging circumstances as well as to tight programmes."

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

## (Lunch and) learn how to optimise healthy, flexible workspace



Changing trends in workspace design mean a growing need for technology that balances the demands of developers and occupants. AET Flexible Space – a global leader in underfloor air conditioning – UfAC – is responding by introducing a knowledge feast programme for specifiers. The scheme – lasting just an hour – will cover the key considerations and Regulations affecting indoor air quality for today's sustainable, flexible, healthy office environments, and how UfAC plays a role in delivery on those criteria. Explains Karl Strauss, head of sales at AET Flexible Space: "Time is precious, but in these changing times, we need to take the time to keep abreast of technologies that can help deliver. In return for your time and your ears, we will feed your stomach and your brain. We will open your eyes to freedom of design that feeds the soul of everyone involved in the office space you are designing- the developer, the contractor, the workers." AET Flexible Space is a global leader in, and undisputed authority on, UfAC, being the first company to take the system to market worldwide some 30 years ago. The UfAC knowledge feast can be booked by contacting AET Flexible Space.

01342 310400 [www.flexiblespace.com](http://www.flexiblespace.com)

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# Heating that's fit for the future

The radiator industry has responded to the challenge posed by lower temperature heating systems using renewable methods, as Chris Harvey from Stelrad Radiators explains

**T**he development of lower temperature heating systems, utilising renewable heating appliances – such as ground source and air source heat pumps – has given the heating industry another challenge, but it's one it has risen to.

However, the key points to remember are that radiators are compatible with all heating systems – traditional and renewable – when sized correctly. Whatever type of technology you choose to share heat, you need to consider upping the quality and scope of the insulation in the property to ensure the heat doesn't escape.

Despite what you might read in some magazines and on websites, radiators are very much able to provide the levels of comfort heating and hot water required in UK homes, when paired with heat pumps. But the arrival of the low temperature heating system has brought with it perhaps understandable questions that architects, building designers, specifiers and installers want answers to; can we still use products we use now with traditional boiler driven heating systems if the heat source is a heat pump? And, is there anything we need to consider that we currently take for granted?

The answer is, of course, yes – but we do need to look closely at how to ensure that the heat generated is shared effectively in the new home or property, or the existing home or building that is having its heating system upgraded.

In addition to developing aesthetically pleasing radiators that – far from simply being heating appliances – have become design features in a building, radiator manufacturers have developed products that meet specific requirements. These include offering additional robustness in certain applications, or additional rust resistance in areas of high humidity, as well as low surface temperature (LST).

## Renewable heating systems

But it's in the area of renewable heating systems – low temperature heating generated by environmentally friendly



heating options like heat pumps – that arguably, the radiator industry has achieved most. It has developed and enlarged the capacity of K3 radiators – three panels and three fins on a radiator footprint that is scarcely larger than a traditional K2 design – but which offers an additional 50% metal surface area over a K2 to share more heat from a similar area. It has added larger radiators to most of its ranges to allow the radiators everyone has grown used to, to be relevant to lower temperature systems and to operate comfortably with air source heat pumps in particular, which are having



## The arrival of the low temperature heating system has brought with it questions that architects, building designers, specifiers and installers want answers to

a major role to play as the heating system horizon changes to accept these renewable options over the next few years.

The radiator industry has developed a wider range of designs and sizes; this has helped to provide the larger radiators needed by the renewable heating options, but also vertical radiators for wall areas with a much reduced horizontal footprint.

### Upgraded Building Regulations

The arrival of the new upgrade to Building Regulations with effect from June 2022 in England (and from November in Wales) brings with it a realisation that the key figure to bear in mind is 55°C – the new maximum flow temperature for all new wet heating systems. The regulations also say that heating appliances and radiators should not be oversized. TRVs need to be fitted to every radiator except where there is a room thermostat fitted. The differential between the flow and return should be 10°C – giving a 45°C return, and a mean water temperature of 50°C. This will have an impact on radiators but simply means that sizing of radiators is more important than ever, and all the advice you could need is available through relevant websites to point installers and specifiers in the right direction with regard to using the right radiators in the right applications.

So do we need to ditch radiators altogether and look for alternatives as some are suggesting? The answer is a resounding ‘no.’

Radiators are very much ‘fit for the future,’ but as always, correct sizing will need to be undertaken to ensure that they work effectively. But can radiators work well with air source heat pumps? Absolutely – and the evidence is there, in a host of installations across the UK.

*Chris Harvey is head of marketing at Stelrad Radiators*







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## Rocksilk® Flexible Slab achieves fire resistance ‘first’



Knauf Insulation's Rocksilk® Flexible Slab is the first Mineral Wool insulation solution in the UK to have been tested to provide one hour of fire resistance to EN 1365 at both 400 mm and 600 mm centre widths within the separating floor of a loft conversion. "Insulation is critical in providing fire resistance within the separating floor of a loft conversion, but other manufacturers have only tested their products for this application at one centre width – 400 mm," said Luke Davies, product manager – Rock Mineral Wool, at Knauf Insulation. "Our product is the only one in the UK to also be tested to provide one hour of fire resistance within joists of 600 mm centre widths, which will give homeowners reassurance that it will perform as expected if a fire does occur." Rocksilk® Flexible Slab is a non-combustible, Rock Mineral Wool product with the best possible Euroclass A1 reaction to fire classification. It is designed to compartmentalise the building and preserve the escape routes by resisting and preventing the passage of fire and heat from its source to the other side of the building element. Thanks to its all-round performance, Rocksilk® Flexible Slab is a multi-application product.

01744 766 600 [www.knaufinsulation.co.uk/products/rocksilk-flexible-slab](http://www.knaufinsulation.co.uk/products/rocksilk-flexible-slab)

## modulyss opens London showroom



modulyss has opened its new London showroom for designers and architects needing sustainable textile flooring that create inspiring interiors. Installed with the new Artcore collection of gold standard carpet tiles, modulyss has officially opened the doors of its new London showroom. The Clerkenwell space lets the architecture and design community discover modulyss carpets that lead the way in sustainability and design, including over 30 Cradle to Cradle Certified Gold® products. Jose Hamp, sales director UK & Ireland says: "We're thrilled to be officially opening our Clerkenwell space and to share the occasion with colleagues from across the industry was a delight. The showroom is not only home to our carpet collections but will also give us the chance to hold workshops and events right in the heart of Clerkenwell." The showroom has been designed by Morgan Lovell, a leading design & build practice to be a collaborative space for the local design community and to reflect modulyss' mission to inspire architects and designers with modular flooring that matches the distinctive character of the space.

0800 096 2702 [www.modulyss.com](http://www.modulyss.com)

## A Not so Little Secret



Strata Technical Tiles, a product brand from Parkside, has been used to create a unique brand identity for a leading lingerie brand's concession at a retailer's flagship Watford store. Having established a partnership on multiple projects over the last 10 years, the store's design team turned to Strata Technical Tiles from Parkside for the solution. A striking, heavily veined marble-effect porcelain floor tile, Opera Accorto certainly brings an unmistakable look. The concession's floor layout uses black to highlight key merchandise points and frame areas across 250 m² of space, with contrasting white to give maximum impact to the retail displays and retain the high-quality, desirable aesthetic of the brand. Mark Hughes, technical specification manager, says: "Working with the design team to visualise the concession's unique look was a great opportunity and proved a smooth process. With a clear visual language and direction for design, we were confident we would be able to find the right solution with the team selecting its favourite marble effect floor tiles from our wide portfolio."

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

## Form something new with 3DForms



3DForms is the modular cork concept from Granorte that brings a unique aesthetic to walls. Designed by Alzira Peixoto and Carlos Mendonca of SimpleFormsDesign, 3DForms is a collection of three-dimensional cork wall tiles that can be arranged to bring a one-of-a-kind texture to walls and other vertical surfaces. Made entirely from 100% post-industrial recycled cork, already a sustainable and renewable raw material, 3DForms also captures cork's unique natural aesthetic for a distinct look. 3DForms tiles are available in different geometrical 3D designs that can be used together to bring a wide range of layout combinations. Ramp, Pyramid, Plain, Porto, Lisboa and Douro are available in 300 x 300 mm or 150 x 150 mm tiles and in a wide range of colours. With natural cork colours as well as shades like bluemoon, dark, smoke, pearl and terracotta, 3DForms offers extraordinary possibilities. To be suitable for use in commercial projects, Granorte has finished 3DForms with its proprietary Corkguard® protection. Making the wall tiles easy to wipe down, it ensures that 3DForms can be used in environments such as hotels, restaurants and offices.

01785 711131 [www.granorte.co.uk](http://www.granorte.co.uk)



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# A clear-cut case for glass

While the uninterrupted aesthetics of glass balustrades make them undeniably appealing, there are several considerations to be aware of from a safety and installation viewpoint, as Simon Boocock of CRL explains

Glass is a trending material for stairs and balustrades, due to its combination of versatility and visual appeal. Giving an uninterrupted view, glass creates a neat, minimal and uniform look which is a big advantage on building exteriors. Internally, glass staircases are an on-trend option, one which is able to elevate the interior design of a building to new levels.

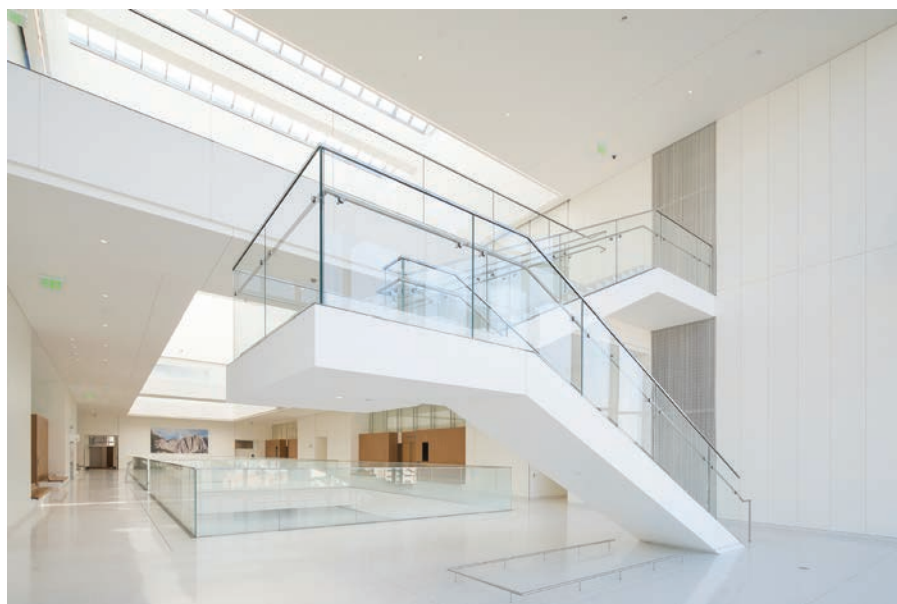
While the aesthetic qualities of glass balustrades and staircases are inarguable, their installation can raise challenges, not least because it so often needs to be carried out at height, with the involvement of a fragile material, making overall proceedings more challenging.

When fitting such systems, it is important to bear in mind issues of safety, for both the installer and the customer. For glass balustrades in particular, installers need to be mindful that the general Code of Practice for barriers in and around buildings conforms to BS6180:2011, and a system that can be fixed back to the stone or brickwork of the building will offer the best solution in terms of security.

## Safety first

Systems that need to be fitted from the outside in will require scaffolding, and are overall more challenging to install than those that can be fitted from an internal position. Traditional 'wet fit' balcony systems need to be held securely in place – usually with cement – to ensure a tight fit, which can be messy too, particularly when fitting the balcony retrospectively onto a building. Often the architectural hardware used for installation is heavy and cumbersome – particularly when working at awkward angles, and from height – and can even compromise the desired minimal aesthetic of the glass if poorly designed.

However, a dry-glaze railing system suitable for frameless glass balustrades offers a hassle-free alternative to the mess and awkwardness of working with cement.



This solution simplifies the fitting and maintenance process, enabling installation from the 'safe' side of the balustrade, which is particularly useful in retrofit projects or when a broken glass panel needs to be changed as it eliminates the need for expensive scaffolding, cuts installation times and provides safety and security for installer and end user.

A dry glazed CRL balustrade system can potentially reduce installation requirements significantly

## A Court case study

A good example of glass being used to maximum effect internally on a commercial project is the United States Courthouse in Los Angeles, a 10-storey, 633,000 ft<sup>2</sup> facility with 24 courtrooms and 32 justice chambers. The nature of the building's purpose and its location in downtown LA meant the contractors had to work to strict timelines for completion – and the finished result had to be of the highest specification. To meet these challenges, internally an all-glass dry-wall glazing system was used, practically halving installation time compared to a wet-glaze alternative. Circulating light throughout



Juliet balcony systems are a popular choice for architects in search of a modern, clean finish

the building due to its use on stairways, walkways and on floor ledges overlooking the atrium below, the dry wall system was straightforward to install with the minimum of disruption – and all while ensuring safety was maximised.

The finished structure features a distinct cube-shaped design, with a serrated glass and aluminium facade that adds aesthetic depth, while effectively mitigating solar heat gain. The all-glass aesthetics of the United States Courthouse ensure the flow of daylight is optimised and energy consumption is reduced while creating an open, collaborative working environment.

### Outside options

Juliet balconies made from glass are becoming particularly popular, especially for buildings where the interior is compact. This option creates a modern look, with sleek, clean lines creating the desired visual effect without being a headache to install.

Juliet balconies fall under BS6180:2011 – 5.3 Hazard Reduction & 6.1 Design Criteria, stipulating that gaps in any railings must not be more than 100 mm and that the top of the balcony must be at least 1,100 mm from standing floor level.

The balcony itself provides a safety barrier by means of the balustrades or railings, and unlike a bolt-on balcony or other types which have a deck, a Juliet balcony is often a suitable solution for refurbishment and renovation projects.

Once installed, the balconies are effectively maintenance free and can be suitable for even the most corrosive seaside or coastal properties if they are made of 316 Grade stainless steel and accordingly tested. Although glass infill panels are often perceived as a more expensive option than metal, glass isn't necessarily beyond the reach of projects with a limited budget.

Both dry glazed railing systems and Juliet balcony systems tap into the overwhelming current trend for frameless glass solutions. Less architectural hardware provides an improved aesthetic when compared to standard vertical posts. And what hardware is on show is available in several on-trend and attractive weather-proof finishes. All in all, specifiers can achieve a minimalistic, high-end look – but with no compromise on safety.

*Simon Boocock is managing director at CRL*



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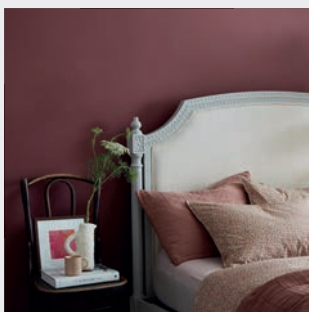
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## Fenix®; the high-tech material from Keller



Keller has added the hi-tech material, Fenix®, to the range for 2022. Available initially in black and white, Fenix® is used for door fronts and panels, thanks to the special technology built into this material, the super-matt finish is soft to the touch,

is anti-fingerprint proof and micro-scratches on the surface can be repaired by a simple thermal method. Perfect Sense (pictured) is a bold design which highlights black and white contrasts and features Fenix®. Keller is well known for offering the widest range of colours (1950 NCS) and finishes in the kitchen furniture market.

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## Resiblock score at the FIFA World Cup



This month, the eyes of the planet have been glued on Qatar for the FIFA World Cup. Hamad International Airport will act as one of the main arrival points, and the Qatar Civil Aviation Authority raised concerns as to whether the sudden influx of additional aircraft, the weight of their payloads and the increased volumes of football traffic could lead to paver destabilisation. Up stepped Resiblock, who were able to showcase the effectiveness, durability and longevity of Resiblock Sealers from the Ras Laffan Port Terminal project, also in Qatar, and as such Resiblock '22' was specified to be installed at the airport.

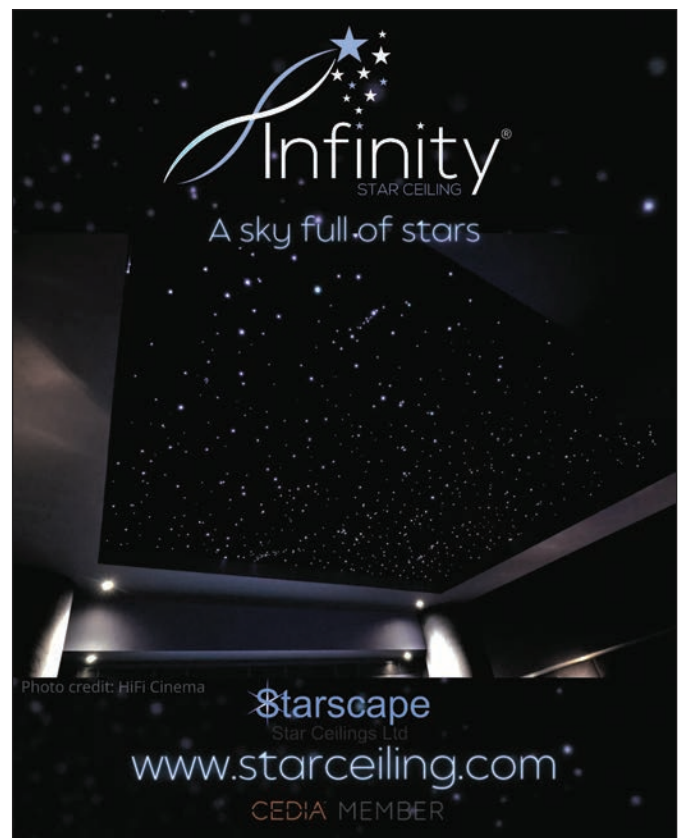
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## Hotel gets stunning stoneCIRCLE treatment

The award-winning transformation of the Cumberland Hotel into the Hard Rock Hotel London was completed using a stunning range of stone surfaces – fabricated and installed by stoneCIRCLE, for BECK, using Mapei preparation, fixing and finishing systems. Stone finishes were specified to bring an opulent look and feel throughout, in a mix of rich colour tones. They included Blue Lennon granite bar tops, Silestone Calacatta Gold quartz reception desks, porcelain floor tiles – which cover most of the 1500 m<sup>2</sup> floor area – and Noir St Laurent marble vanity tops and tiles throughout restrooms. During installation, the team used anti-facture membrane, Mapetex System, Keraquick S1 adhesive – a quick-setting, very low VOC deformable cementitious formulation and Latex Plus admixture. The installation was completed with Mapei Ultracolor Plus grout, in a variety of different shades; the polymer modified grout provides benefits including anti-efflorescence, a rapid set and features water-repellent DropEffect® and mould-resistant BioBlock®. Joints were then sealed with mould-resistant silicone sealant, Mapesil LM.

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# Beware the dark side

Johanna Elvidge from Marshalls explores new findings that reveal how users' perceptions of safety in public spaces change depending on the time of day, and how specifiers need to take this into account



**D**uring winter months, streets and public spaces can be plunged into darkness in late afternoon, meaning that many people find themselves doing everyday activities such as commuting and exercising in the dark. But new research Marshalls has undertaken highlights the significant difference between how the public view spaces at different times of the day. It reveals that four out of five people feel more unsafe when it's dark in public spaces, and are on average 12 times more likely to avoid such areas than in daylight hours.

## Areas of concern

As part of the 'Creating Safer Spaces' white paper we produced, we found that parks and gardens were considered the least safe spaces when it's dark, with 80% of people avoiding them during this part of the day – 40 times higher than in daylight. Waterways, such as canals, were seen as the least safe public spaces when it's light; 11% stated they actively avoided such places during this time, however, when it's dark, this figure increased almost seven times to 76%.

Residential streets were considered the safest of all public spaces, yet nearly a quarter (24%) said they still avoided them when it's dark. Beaches, transport hubs and town centres were also named as places people would avoid when it's dark.

On the back of this survey, the industry is being urged to consider how to approach 'designing for the dark,' so that people feel – and are – as safe accessing spaces in the dark, as when it's light. To achieve this, it has outlined a set of key design principles for architects, designers and planners, focused on wayfinding, lighting, acoustics and more, which – if put to use – would improve perceptions, and use, of public spaces during darker hours.

## Perceptions of safety

To help craft design principles on designing for dark hours, the survey also explored the reasons behind the public's heightened awareness of safety when it's dark, and any actions they take when they feel unsafe.

Respondents cited poor visibility as an issue, whereby potential dangers or hazards are concealed or out of sight. A lack of



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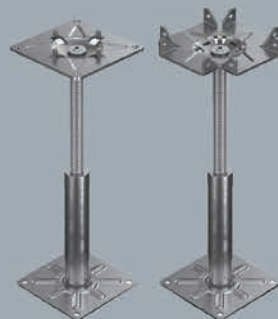
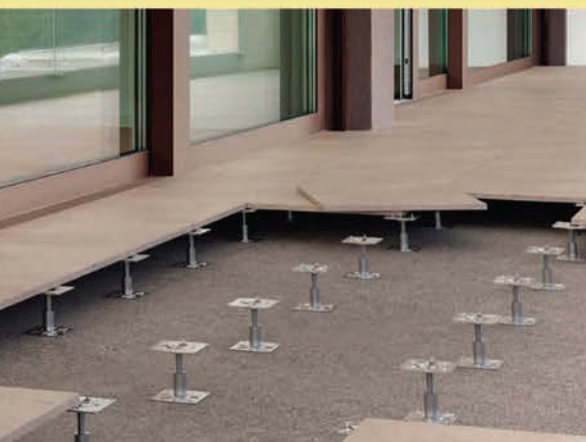
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‘social presence’ from reduced use of spaces by people when it’s dark was also raised as a reason for safety concern. The research also uncovered that people feel most at risk on a night out (31%), with waiting for public transport (22%), exercising outdoors (16%), walking the dog (12%) and commuting (10%) also creating feelings of a lack of safety.

The results also showed that people commonly change their behaviour to improve their perceived levels of safety when out in public. The most frequent modification was walking a longer route that is busier and/or better lit (64%), followed by crossing the street to avoid others (58%). Further changes included only wearing one earphone or listening at a lower volume (32%) and carrying a personal alarm (11%).

### Designing for the dark

To support the industry in creating safer spaces from day through to night, and to provoke fresh thinking and debate on how to approach designing for the dark, seven best practice design ‘pillars’ have been outlined within the white paper. The pillars – eyes on the street, vision and wayfinding, acoustics, accessibility, familiarity, technology and maintenance – should be considered during feasibility and concept stages of any public realm design as they can be seamlessly integrated, and even enhance other key principles – such as biodiversity and accessibility – with compelling results.

For example, designing wayfinding and acoustics for dark hours can often be overlooked when new schemes are in the planning phase. However, simple design choices such as the height of a hedge or the use of materials that better absorb echoes and rogue sounds can have a big impact on the perceptions of safety and therefore how much people use them throughout the day, and year.

Further findings within the survey showed that good security technology, in the form of CCTV cameras and other deterrents – like dynamic lighting – was considered very important by almost 60% of participants. As such, security experts should be engaged in the early design stages of a public space so that safety is ‘designed in.’ Research showed that more than half of people will call or text a friend or family member on their journey home as the remote presence of a familiar person



improves their feeling of safety. With this in mind, offering free public Wi-Fi, boosting local networks or providing areas like BT’s ‘StreetHubs’ should be a given in developing public realm spaces.

Finally, many survey respondents said that familiarity makes a difference to their overall feeling of security when interacting with a space. The use of recognisable design features – for example, using locally sourced building materials in heritage areas, helps to develop more of a connection with place and support users’ psychology. Plus, where ‘feature repetition’ is successfully integrated into the urban realm, users no longer need to be concerned with what ‘lies around the corner’ as a certain level of comfortable predictability takes effect.

The issue of public safety is a multifaceted one that requires multifaceted solutions, and making spaces feel safe in the dark won’t be achieved by thinking tactically. It requires a strategic approach that results in creating open, accessible spaces where people feel ‘seen.’ It’s about making spaces attractive and welcoming, thereby attracting more users, and fostering a sense of civic pride. This requires the industry to take a holistic, innovative approach to how we plan and create spaces. Our research demonstrates the time is now to begin working towards that goal, and the potential results could change the way we all live, work and interact forever.

For access to the full ‘Creating Safer Spaces’ white paper, please visit [marshalls.co.uk/saferspaces](http://marshalls.co.uk/saferspaces)

*Johanna Elvidge is head of design at Marshalls*

**The research shows that people are 12 times more likely to avoid public spaces in the dark than in daylight hours**

## Dymchurch coastal repairs

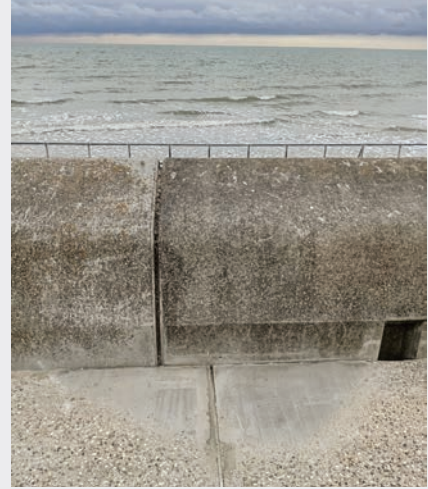
Resapol's Concrete Repair specialist Tom Brown was contacted by Invictacut in early May 2022 in order to recommend a suitable repair material for coastal repairs situated within Dymchurch, Kent. The project site featured several walkways that had become increasingly damaged, causing potential trip hazards for pedestrians.



Invictacut sought product advice and recommendations from Resapol in order to quickly and reliably fill several areas of damaged concrete, with the view of opening the walkways the very same day of applying the repair work.

Tom recommended rbs Rapid Concrete due to its high strength and rapid setting nature. rbs Rapid Concrete is a repair concrete that consists of a dry blend of modified Portland Cement and limestone aggregate. Its high performance exhibits a fast development of physical properties allowing early return to service making it especially suitable for this specific project. The material is diverse and has a multitude of applications, including concrete pavement thin bed and full depth, bridge deck repairs as it complies to the Department of Transport Standard BD27/86.

The project began on 10th June and was completed the very same day allowing early return to traffic. Invictacut were extremely happy with the product, alongside Resapol's quick delivery and technical support, which allowed the project to be



completed on time and within budget. Marc Walker, contracts manager at Invictacut, had this to say on Resapol's service: "rbs Rapid Concrete is a great product that we use regularly and is great for the price and very user friendly, we're always happy with the service Resapol provides and Tom in particular has been great."

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