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adf incorporating Building Projects magazine, architectsdatafile.co.uk and @architectsDF

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Annual subscription costs just £48 for 12 issues, including post and packing. Phone 01435 863500 for details. Individual copies of the publication are available at £5 each inc p & p. All rights reserved

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FROM THE EDITOR



As I write, the team at Architects' Datafile have just returned to the office after the Easter break, after a prolonged and very odd period of still producing magazines and online content, but being remote from colleagues. We, like I'm sure everyone else in a similar boat, are really looking forward to restoring some notion of 'normality,' however of course things will not be fully returning to complete normality for some time, given the ongoing threat of Covid.

We have to remain positive that the vaccines will consider to see off the virus, and one day maybe even force it into a permanently dormant state, however continued mutations and resulting variants will mean that not only booster jabs, but new vaccines, will need to be on the agenda. Architects' offices have been shut down to a large extent, and while a lot of tasks can be successfully conducted remotely, there's no replacement for face-to-face interaction when it comes to more complex, open-ended optioneering, for example. Reopening will mean a lot of caveats and adaptation.

As I've previously mentioned here, and maybe for better as well as worse, Covid is going to force changes in design which will mean work for architects. This will be true in healthcare but also perhaps sectors like education, to ensure that the buildings that form our lives to can continue to be the main venues for their functions, and not relegated to 'hubs' with an emphasis on remote/home 'spokes.'

Will hospitals, as BDP has suggested from recent experience, be likely to see much-reduced outpatient waiting space, with most consultations being done virtually, meaning more space for beds? This would help in allocating new Covid (or future pandemic) wards, which will take considerable footprint. There are other questions of course, such as can schools and pupils function just as well with many fewer classrooms, and children only attending part of the week?

The firm has also provided 'loose' fit rooms at its recent Southmead Hospital project, so that they provide maximum space flexibility for changing needs, while patient transfers can be minimised. However does this square with a need to potentially provide 'locked down' areas as standard in hospitals in future, ie is a continually changing use pattern Covid-friendly?

Personally, through the lockdowns I have been able to be creative while continuing work from home (as well as being furloughed for a substantial part of the last 12 months). This has largely meant, with encouragement from my partner and two year old, cobbling together a few items (such as a coffee table, garden bench, and mud kitchen) from wood pallets. This has been very satisfying, and has given me a new respect for carpenters, plus confirmation that I'd need a lot more practice to become remotely proficient.

All in all it's been a much better experience for us than many across the country. However, it's great to re-engage with our team and the industry, to collaborate on a host of interesting and new *ADF* content this year!

All the best for the rest of 2021.

James Parker Editor



ON THE COVER...

Set on the shores of Lake Lucerne, in the Swiss Alps, Chenot Palace is a grand hotel from the 'Belle Epoque' era. Davide Macullo Architects faced the highly sensitive challenge of dramatically increasing the footprint of the flagship hotel. Cover Image © Roberto Pellegrini For the full report on this project, go to page 34.







HEALTHCARE

Hospital scheme includes new 'village' medium secure unit

Construction has started on the £60m redevelopment of Northgate Hospital in Morpeth, designed by Medical Architecture, including a new mental health unit.

Designed around the concept of a 'village campus', the new medium secure hospital at the heart of the development provides "a wide variety of indoor and outdoor settings for relaxation and activity," said Medical Architecture.

The architects commented: "The new facility is the catalyst to allow all secure services across the trust to be brought together from currently dispersed sites, consolidated in a single, integrated secure centre of excellence."

The redevelopment will provide a total of 116 male inpatient beds, located in a combination of new and reconfigured existing buildings. The new-build element will provide inpatient accommodation for 74 male patients with a range of forensic mental health needs, including patients with complex personality disorders and/or learning disabilities.

The eastern part of the site is covered by a broad area of mature woodland, owned by the trust, with the masterplan organised so that trees surround the scheme on three sides. The steep topography has created "unique opportunities to exploit the visual interest of its natural setting," said the architects. There are land sale areas designated for future housing along the south-western and northern boundaries.

The 'village campus' concept "focuses on the individual patient and staff experience, breaking down the accommodation into several buildings arranged around the site." The architects added: "It is well recognised that in secure mental health units, boredom leads to challenging behaviours and poor physical health. The campus has therefore been designed to ensure that as many spaces as possible, both inside and out, offer opportunities for mitigating boredom and provide a meaningful day for patients."

The six wards are arranged in pairs around the large, shared recreation space. At the centre of each ward is a landscaped courtyard for relaxation, and

between each pair is an activity courtyard for exercise and sporting activities. "This arrangement offers close access to a variety of different types of space with a focus on mental and physical wellbeing," said the architects.

The visual appearance of the new facility has a "major role to play in reducing the stigma surrounding mental illness, as well as engendering pride in the building as a workplace for members of staff," said the architects. "A consistent and controlled palette of materials and architectural styles has been developed to integrate the building with the most recent additions to the site and to present a positive image for visitors and new arrivals."

Locally sourced Birtley brick has been used to provide "a shared point of character to the nearby buildings," said Medical Architecture. A deep red metal cladding "unites some areas of the facade and highlights entrance spaces, and provides a contrasting element of verticality in what is a strongly horizontal building."

SOCIAL HOUSING

Green light for Smethwick social housing scheme

Stephen George + Partners (SGP) has started construction of a new 24 dwelling social housing scheme on the site of a demolished pub in Smethwick, West Midlands.

Designing a mix of one and two-bedroom apartments and two and three-bedroom houses, SGP worked closely with developer Build Fifty5 Living, contractor Tricas Construction and Citizen Housing to create what the architects described as "an attractive group of affordable rental tenure homes that responded to local needs and fitted well within the site and its context."

Close to the local shopping centre and adjacent to two major bus routes, as well as being within walking distance of the train station into Birmingham, the "highly sustainable site was ideal for residential units," said SGP.

SGP's design "adopts a broadly traditional approach, with a new, modern, aesthetic, which will give the area an uplift." The architects added: "Simplicity is key to settling the development into its



surroundings, and stripped back palettes in terms of both colours and materials." The buildings feature red brick and off white render, with slate grey pitched tiled roofs and subtle grey windows and rainwater goods.

SGP collaborated with Build Fifty5 Living on a design that worked with the site's "challenging topography," creating a three-storey block on the lower part with two-storey houses stepped into the rising ground behind. The frontages face outwards, continuing the existing residential built form, set back, but creating an "active and attractive street experience."

Key consultants were brought into design discussions early in the process, including contractor Tricas Construction who "added significantly to the team's ability to develop buildable options, particularly in balancing a tight budget with the need for a good quality end product," said SGP.

The new development will be owned and managed by Citizen, a major provider of social housing in the West Midlands.

PRACTICE NEWS

HLM/Llewelyn Davies forms Employee Ownership Trust

HLM Architects, which encompasses practice Llewelyn Davies, has announced it has transitioned to an Employee Ownership Trust (EOT), which will house all of the company's shares.

HLM Architects chair Richard O'Neil commented: "Our practice has a special culture fostering our heritage and focusing on our future. So, it is a natural progression in transferring ownership for the benefit of the people who are committed to our success – our staff."

He added: "The trust enables everyone to play an even bigger role in shaping the future of our practice and share in our collective success. Our employee ownership is far more than just a business model. It's about creating a place where we can continue to channel ideas, be truly innovative and find solutions to ensure that we don't just do well, but that we also do good – for the benefit of each other, our clients and the communities we work with, as well as our environment."

Steve Featherstone, director of Llewelyn Davies, said: "Over the last few decades, we have been on a remarkable journey that now comes together as part of our evolution to an employee-owned trust, which will provide a platform for further growth and development. This people-centric approach is a natural next step that is exciting to see, and will no doubt result in a stronger, more resilient practice built around teamwork."

Last year, HLM Architects were crowned the 'Architecture Practice of the Year' at the Building Awards 2020, and named the AJ100 'Employer of the Year.' Llewelyn Davies has more than six decades of experience and in 2020 was successfully appointed lead architect for the 'Our Hospital' project in Jersey. It also recently scooped the 'International African and Arabia Best Public Service Architecture Award' for New Terminal West, Aeroport d'Alger in Algiers.

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CULTURAL BUILDINGS

Scott Brownrigg's Berkshire TV studio submitted for planning

Scott Brownrigg's design for a new purpose-built TV studio at the Thames Valley Science Park in Shinfield has been submitted to Wokingham Borough Council, on behalf of the University of Reading.

In December 2020 the university struck a deal with US film studios investor Commonwealth Real Estate to develop a major film studios and creative media campus, to be known as Shinfield Studios. Scott Brownrigg was commissioned to produce the masterplan and architecture for the new complex.

Conceptualised as 'Cine Valley,' the TV studio element is due to be operational in early 2022, and will host a range of popular TV shows. As such, it is being developed to accommodate the latest broadcast and media technology.



The architects commented: "Film and TV studios in their very nature are enclosed spaces, protected from the outside by an envelope that has to meet a high acoustic performance level. The concept embraces this with a simple, elegant facade that is broken up by a stylish cladding system."

The entrance to the building "emerges as a glass crystal appearing to twist, opening up and welcoming all." The first two floors are pushed back to create a protective canopy with the production facilities and 'talent room' above. The materials have been chosen to be sympathetic to the existing Gateway 1 building, aiding in "evolving the masterplan naturally," said Scott Brownrigg.

The development will also uphold values of environmental sustainability, supporting the university's aim to become carbon neutral by 2030.

The studio is the latest in a series of film and TV studios designed by Scott Brownrigg, which is actively growing its work and expertise within the digital, culture, media and sport sector.

FAITH BUILDINGS

SGP completes Leicester synagogue

Stephen George + Partners (SGP) has announced the completion of a £1.2m redevelopment and refurbishment of the Victorian Grade II listed Highfield Street Synagogue in Leicester.

SGP's design creates an expansive glazed foyer to link the existing synagogue and teaching building together, plus improving ancillary accommodation at the rear.

The new facade is glazed curtain walling within brick piers to provide a "cohesive transition between new and old," said SGP. The structure is predominantly steel, with concrete underpinning to the existing buildings.

Many elements of the building were specifically designed for the existing congregation, such as the Sukkah roof-light, which opens up fully to the elements as required to accommodate a gathering of people underneath during the Festival of Sukkot.

The M&E systems were programmed with elements such as timer switches to avoid manual use of electricity on the Sabbath and during certain festivals. Rainwater harvesting took on an additional importance as the Mikvah, the Jewish ritual bath, had to have a natural water feed.

Due to space restrictions, a platform lift had to be specified. To comply with aspects of the Jewish faith on certain occasions, SGP had to find a specialist in equipment suitable for religious requirements, one who could provide a lift that would operate without a person needing to touch it.

The site "added challenges to the build programme," said SGP, being "very restricted," with roads on two sides and a terrace and garages at the rear. The practice prepared the extensive risk register and health and safety file, as well as planning access for equipment



such as cranes and even negotiating with the neighbours to allow access by demolishing and rebuilding adjacent garages.

The project was delivered under a Heritage Lottery Funded scheme for 'Sharing Jewish Heritage in Leicester'.



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BOOK

How To Win Work by Jan Knikker

"You are a great designer, but no-one knows. Now what?" MVRDV partner Jan Knikker gives a practical answer to this question in the newly published RIBA book 'How To Win Work: The architect's guide to business development and marketing.' The book, said RIBA, "explains all aspects of PR and business development for architects through anecdotes, general information, and a list of practical tips in each chapter." It explains how PR relates to business development and features insights from a wide variety of architects, from multinational practices to small offices.

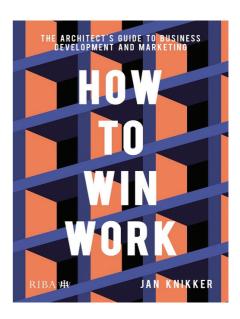
Knikker, who directs MVRDV's Strategy & Development Studio, aims to "demystify PR and marketing for all architects, whether in large practices or working as sole practitioners," said RIBA. "Even award-winning architects at the top of the architecture discipline cannot freely pick their favourite projects – a fight that starts

at the foundation of an architecture practice continues forever."

The book "bridges the gap between architects and marketing" by giving practical tips, best-practice advice, and anecdotes from an author with more than 20 years' experience in architecture marketing. 'How to's include how to write a good press release, make a fee proposal, and prepare for a pitch, plus examples and common pitfalls. The 'psychology of sales' is explored regarding artist impressions (renders) as well as how to master lectures, interviews, and a meaningful presence on social media.

"As marketing touches every aspect of architecture praxis, the book also discusses more general aspects which are linked to PR and business development, such as being a good employer, ethics for architects, sustainability, and the challenges in working abroad," commented RIBA.

Case studies are included in the



form of interviews, exploring how Carl Turner (Turner Works), Nanne de Ru (Powerhouse Company), Hazel Rounding (shedkm), James Crawford (Studio MUTT), and others have mastered their PR and marketing.

How To Win Work will also be accompanied by a series of workshops for RIBA Academy later this year, the first being held on 28 April; visit architecture.com for more information.

BOOK

Pre-Fab Living by Avi Friedman

"In rapidly changing social, environmental and economic landscapes, builders and housing authorities around the world are facing an urgent need to explore new practices in residential production. Chief among these is a renewed attention to factory-built pre-fab homes, which have the potential to address contemporary challenges of affordability and resource-efficiency."

So reads the introduction of a new book published by Thames and Hudson which surveys a wide range of international offsite-constructed homes to "explore the full range of possibilities" for architects, designers and self-builders. From net zero carbon houses to 'plug-and-play' dwellings and converted shipping containers, each chapter "explores the varied and exciting

ways that architects and designers are using pre-fabricated technology to address today's challenges," commented the publishers.

Fully illustrated, including floor plans, the book reveals the scope of the properties' designs, with accompanying text which "considers contemporary debates around this untraditional construction practice." A reference section includes in-depth essays, exploring manufacturing methods, trends and technologies, but also "drawbacks and solutions."

Friedman is a designer and a professor of architecture at McGill University, Canada and honorary professor at Lancaster University. In 2000 Wallpaper magazine included him in its list of '10 people most likely to change the way we live.'



The 230-page volume's chapters include 'Innovative Communities,' 'Narrow Designs,' 'Country Dwellings,' 'Apartment Buildings,' 'Adaptable Interiors' and 'Additions,' as a well as a focus on Japanese homes.

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VIEW POINT



Neal Maxwell explains how a trip to the Arctic led him to found Changing Streams, with a mission to persuade the construction industry to end its 'plastic pandemic'

You cannot solve the climate crisis unless you address the plastic pandemic. You also never foresee a trip to be 'life changing' in advance.

Before I went to the Arctic, like most of us, I had seen the TV and film version of the place, and had formed the image of a vast expanse of snow and ice, an abundance of wildlife, and very little else.

Once I got there, the reality was quite different. As one of 10 people who had the privilege of kayaking in the Arctic Ocean, I became very aware of not only my surroundings, but the part I was playing within that unique landscape. However, within the beauty of the Arctic setting, there was also the sad reality of the effects of plastic pollution.

I was accompanying great scientists and tapping into their knowledge of global warming and the impact plastic production has had on the natural world, and had first-hand experience of trying to collect the sheer amount of plastic washing out of the sea and onto the land. These two things really started the ball rolling in my journey into reassessing the role plastic played in my life, and that of the industry I had worked in for three decades.

Construction's plastic problem

I joined the construction industry in 1986, delivering high quality commercial fit out, refurbishments and associated works within the public and private sectors. This is an industry, I was shocked to later hear, which was responsible for a quarter of the plastic consumed in the UK. An industry that generates an estimated 50,000 tonnes of plastic packaging waste each year!

It is easy to understand why construction uses so much plastic, it is cheap, durable, lightweight, and it lasts. However, this same resilient material also takes up to 1000 years to decompose. Unfortunately, this means huge implications for the



environment, contaminating land and seas with greenhouse gasses and fossil fuels as it breaks down.

It's hard to ignore the facts when they are staring you in the face. I had seen the effects of plastic pollution first hand, and I had learned of the implications of plastic from experts. I saw plastic everywhere, in my home, in the workplace, in shops and also populating the sea at a larger rate than ever before. If we keep going the way we are, by 2025 the world's oceans will contain one tonne of plastic for every three tonnes of fish. The Ellen MacArthur Foundation suggests that by 2050, there could be more plastic in the ocean than fish.

It was from this that Changing Streams was born, a not-for-profit community interest company looking to globally reduce the use of – and our reliance on – plastics, starting with the construction industry. Its aim is to bridge the gap between industry

and academia and greatly reduce the use of plastic from the construction sector on a global scale.

The benefits of plastic-free business

As the threat of an environmental crisis becomes ever more likely, the Government has rolled out a number of initiatives to not only encourage the use of non-recyclable plastics, but to make them a less financially viable option for stakeholders in the UK. The 'Plastics Pact', for example, has set a target to eliminate unnecessary single-use plastic packaging, by encouraging manufacturers to make all plastic packaging reusable, recyclable or compostable by 2025.

This is achieved by higher taxes on landfill waste, and by the implementation of Enhanced Capital Allowance (ECA), a scheme which lets businesses claim 100 per

















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Changing Streams advocates for a number of long-term initiatives, including ending the use of plastic wrapping for building materials

cent first-year allowances to invest in environmentally friendly and efficient technologies. It is a step in the right direction and makes perfect sense from a business perspective: if as a company you are getting tax relief, as well as paying less on landfill tax and spending less on handling waste (the cost of skip hires and clearing and collection soon adds up), then the idea of using single-use plastics becomes a lot less attractive.

As well as this, the Government announced its Green Industrial Revolution in November 2020, including a 10-point plan to bolster and support hundreds of thousands of highly skilled jobs within sustainability and the green sector. This initiative has been backed by £12bn of Government investment, and is also

intended to produce around £36bn in private sector investment by 2030.

The role of the built environment in tackling plastic pollution

Changing Streams' expertise within the construction industry places it in a good position to be able to help support the industry in its efforts to reduce plastic. There is an overarching ambition to achieve net zero carbon emissions by 2050, but we need to be mindful that we should not be achieving these targets by increasing the amount of plastic, as this will also have a significant environmental impact. What is needed, therefore, is for us to recognise and help establish a link between carbon pollution and plastic pollution.

The creation of a charter to bring stakeholders together offers significant benefits to Changing Streams members. Regular communication and networking to share ideas and best practice, and access to accredited training schemes and bespoke action plans, will aid in the reduction of plastic usage on an individual company level.

In order to bring together experts from across the construction, scientific and

environmental communities, to successfully facilitate research that will ultimately lead to a reduction in plastics in buildings and throughout the industry's supply chain, we need the combined support of all stakeholders.

The mission of Changing Streams advocates for a number of long-term initiatives, including ending the use of plastic wrapping for building materials and the creation of a scientific-based accreditations system to access plastic content in products. However, this is only achievable if the entire industry commits to engaging and supporting it.

We have more resources at our disposal than ever before, and yet we are still not moving quickly enough. In every other area the construction industry has been solutions-focused – once we were aware of the damage asbestos does to our lungs we reframed our opinion on it – so why can't we do the same for the plastic pandemic?

For more information about membership, or other ways you can support Changing Streams, visit www.changingstreams.org

Neal Maxwell is the founder of Changing Streams



TRANS LEVEL

FRAMELESS GLASS BALUSTRADE



ASK THE ARCHITECT

Elif Tinaztepe of Schmidt Hammer Lassen – now part of global firm Perkins+Will – and known for her library designs, answers *ADF's* questions



Elif Tinaztepe, Schmidt Hammer Lassen

WHAT MAKES YOU HAPPIEST ABOUT BEING AN ARCHITECT?

Working in a multidisciplinary field with such range and richness – inspired by art, humanities, science, technology, and more. Creating environments that people develop an inexplicable emotional connection to, and are transformed by. Helping to move ideas, people, seemingly established norms, in a positive direction through the framework of dialogue and design. Architecture is about transformation to me – creating opportunity and meaning for people for the future.

WHERE HAVE YOU ENJOYED WORKING AS AN ARCHITECT THE MOST?

I started practicing in Los Angeles and have been in Denmark for the last 15 years. I love working in Denmark, a country where architecture is a discussion in everyday life, and where we share the understanding of its importance. With my base in Denmark at Schmidt Hammer Lassen, I have been fortunate to work on projects and with clients in diverse parts of the world. What makes it special is the engagement, immersing myself in the local culture and context and learning something new wherever I go. The golden light of southern California versus the cool platinum rays of Scandinavia all have a way of influencing the way we think and feel. The social code, the history, the social context, and local building cultures all provide a richness that continue to challenge and inspire the way I work. I will always look forward with fresh

eyes to the next adventure – it might just be outside my door.

HAS BALANCING WORK AND FAMILY BECOME MUCH HARDER IN THE CURRENT SITUATION?

My answer will probably not be significantly different from any other person/parent in a similar professional and social setup. It goes up and down, and I am not sure balance is a high priority item when everything around us is anything but. It's about patience, inevitable frustration alternating with acceptance, and on good days, a lot of joy. Not travelling as much has certainly allowed more time at home which has been a real eye-opener for me personally. Working from home as opposed to in the studio has its benefits and challenges. You adjust, you find ways to make it work. I am hoping to take what I learned with me moving forward, and I am looking very much forward to being able to travel again.

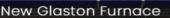
DID YOU DECIDE TO SPECIALISE IN LIBRARY TYPOLOGIES EARLY ON OR DID THIS HAPPEN ORGANICALLY?

It was really an organic development which started with Dokk1 in Aarhus, Denmark which represents a new generation of modern hybrid libraries. I still try to remain the generalist I was educated to be, with deep knowledge in certain areas that really interest me. Library typology is not a singular thing – neither spatially nor programmatically which is perhaps why I enjoy exploring it so much. There is an



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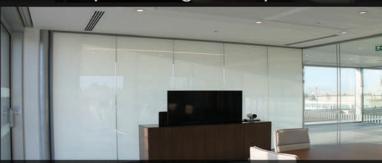
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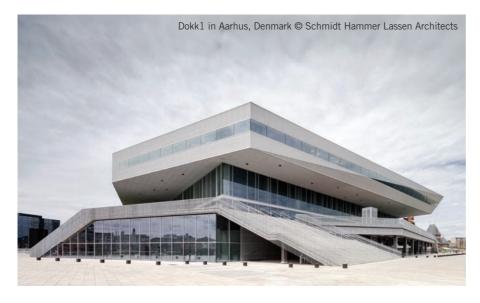


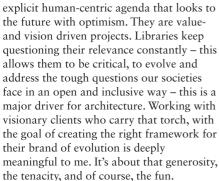
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WHAT'S YOUR FAVOURITE BUILDING OF YOUR OWN CURRENTLY?

Among Schmidt Hammer Lassen's buildings, I still learn from Dokk1 almost six years after its opening. And my favourite building is the one I am currently working on, wherever that is.

DO YOU HAVE A FAVOURITE BUILDING GLOBALLY?

Many. Architecture is a self-referential field so it would be hard not to appreciate other architects' ideas and works. Spending time in Jørn Utzon's Can Lis on Mallorca was a transformative experience for me. I wish I could do that again one day.

HOW IMPORTANT IS THE QUALITY OF A CLIENT BRIEF?

In my view, it's almost impossible to create a visionary project without a visionary client. Establishing respectful dialogue based on trust and the understanding that everyone has something important to bring to the table – experience, knowledge, creativity, intuition, etc – and joining

forces around a shared set of values and visions is essential and simply enriching. We move forward together and reach places none of us could have imagined reaching on our own. Getting quality, not only today, but 10, 20 years from now has to do with that shared ownership, otherwise it will be short-term and not sustainable. I am interested in the long game, that's why I love visiting projects five to 10 years after opening. I find that in projects where we had that shared vision, quality is still cherished and owned by all. I believe that is a trademark of sustainability.

HOW DO YOU FEEL ABOUT BIM?

I am interested in all tools that help us work smarter and release more time to think, collaborate and create – in the special way that the human mind can.

DO YOU THINK THAT WE NEED A MOVE AWAY FROM OVERTLY 'GLASS BUILDINGS'?

It's obvious that we must build more sustainably and in a way that's climate and geography appropriate. Not only because it is urgent and the right thing to do, but because we share this life that is so interconnected, and it is deeply humbling to contribute to the sustained existence of it in a meaningful way. I have never subscribed to a certain material aesthetic, and have always been interested in exploring the potential of an appropriate, local response—it's much more interesting and inspiring that way. Working in different parts of the world, these contrasting considerations come into sharp focus.



HAVE THINGS CHANGED FOR YOU AT ALL SINCE SHL WAS BOUGHT BY PERKINS AND WILL?

Yes and no. Certain operational mechanics have been streamlined and tailored to suit our organisational structure and focus markets. We are now connected to over 2000 colleagues from different parts of the world - this in itself represents a huge knowledge base we have access to and regularly engage with. Our focus at SHL, as always, is the evolution of our design process - being strategic about the future while not losing the curious, adventurous spirit that we all love. As with any change, this merger has encouraged us to deeply reflect on our heritage, our values, our architectural codex, and be very clear about the way we want to practice design and contribute as we move forward.

WHAT'S YOUR BIGGEST CHALLENGE IN 2021?

My focus is on winning the right kind of projects so that we maintain that sense of purpose which is so important in a creative environment. Life can throw you many curveballs – like this pandemic – but if you can see your purpose clearly, you can keep pushing forward with resilience and joy. After all, architecture is an optimistic profession like no other. Since our projects are major vehicles of growth, learning, and engagement at the studio, what we work on and how we do it matters.

Elif Tinaztepe is principal at Schmidt Hammer Lassen (Denmark)



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CPD FOCUS

The latest CPD courses, seminars and documents for architects

PARKSIDE GUIDES YOU THROUGH THE POWER OF PATTERN



Patterns' is a RIBA accredited CPD presentation by design-led tile specification company, Parkside, that introduces tiling patterns through the world of tessellations, looking at symmetry, repeat patterns and a handful of mathematical terms and rules. Now available as a virtual presentation, 'An Introduction to Tiling Patterns' initially takes a look at tessellations, giving an understanding of the etymology, terminology and types. Showing common examples of regular, semi-regular and irregular tessellations, the CPD then goes on to explore how these founding principles translate into tiling patterns. Tracing the history of tiles, as well as patterns found in nature and their psychological meaning, it then goes on to explore the impact of tiling patterns on interiors, as well as the creative possibilities of creating your own unique pattern. Brian Linnington, managing director of Parkside: "Reflecting on tiling patterns in the world all around us, we're hoping that teams will find an inspirational and ultimately informative exploration of how to integrate innovative tiling patterns in future projects." Including interview excerpts with famed designer and BIID director, Sue Timney, 'An Introduction to Tiling Patterns' can be presented to remote teams by one of Parkside's experienced consultants. It provides an opportunity to combine team wellbeing with RIBA approved professional development. 0116 276 2532 www.parkside.co.uk

CPD DEVELOPED IN RESPONSE TO FLAT ROOF FIRE RISK CHALLENGES



ROCKWOOL has launched a new CPD module to help roofing contractors and specifiers mitigate fire risk in flat roofs. The new module has been developed by the stone wool insulation manufacturer to enhance industry understanding following regulation changes and provide guidance on determining relevant non-combustible classifications in flat roofing systems. The 'Fifth Facade' CPD explores the role of the roof in the spread of fire and the potential risks when noncombustible roof insulation is not carefully considered, especially for multi-purpose flat roofs. 01656 868 400 www.rockwool.co.uk/fifthfacade

TWO NEW RIBA ASSESSED CPD SEMINARS FROM COMAR



In two RIBA assessed seminars, Comar outlines: 'Stand & Deliver: a Study of Curtain Walling' - the design of curtain walling, it's properties and how it is used by specifiers. This seminar aims to offer an understanding of the points of Hll in the NBS specification system, and how best to make use of it. 'Designing Functions & Reliability into *Entrances*' – the issues that influence the function of main entrance design and technology. This seminar aims to offer an understanding of how user expectation influences door design and links this with hardware selection, entrance configuration and floor finishes. 020 8685 9685 www.comar-alu.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

CHANGES TO RESIDENTIAL VENTILATION IN NEW BUILD SECTOR



Domus Ventilation, part of the Polypipe group, is pleased to announce the arrival of its newly updated and revised Continuing Professional Development (CPD) accredited course on 'Residential Ventilation Principles and Building Regulations'. The CIBSE accredited course focuses on the importance of ventilation in the residential new build industry. and lays clear the considerable changes to Part F - Ventilation of the Building Regulations. The aim of the short course is to clearly explain why ventilation is so important, not only for the health of the occupant but also for the fabric of the building. megan.bennett@domus

megan.bennett@domus ventilation.co.uk www.domusventilation.co.uk

WHY SPECIFYING THE RIGHT FLOOR IS CRITICAL



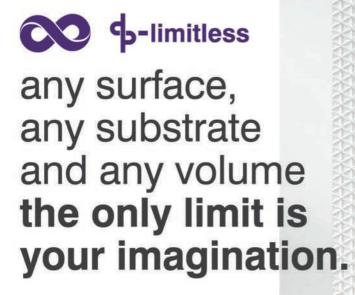
Architects and specifiers play a vital part when specifying the correct floor that is fit for purpose. Inspired by Harlequin's commitment to protecting the health and wellbeing of dancers and performers, the CPD explains why specifying the correct floor for dance and the performing arts is critical to the longevity of a performers career. Using comprehensive data and case studies, we outline the key considerations when specifying a performance floor, and look at the important contribution the floor makes to the performer health and safety. 01892 514 888 uk.harlequinfloors.com/en

INNOVATIVE WET ROOM SYSTEMS



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CPD FOCUS

SPECIFYING HARDWOOD TIMBER DOORSETS CPD



Urban Front are now presenting CPD webinars via Zoom. The objective is to enthuse and inform architects about specifying hardwood internal and external doors, it also includes information about Passivhaus doors. Seminars last an hour and count for double points for architects and architectural assistants. The CPD is full of photographs showing a variety of specifications and settings and includes demonstrations. Attendees will also have the opportunity to ask questions throughout the webinar. On completion, CPD certificates can be sent out via email. 01494 778 787 www.urbanfront.co.uk

CUPA PIZARRAS LAUNCHES ONLINE CPDS FOR ARCHITECTS & SPECIFIERS



CUPA PIZARRAS, a world leader in natural slate, is now hosting two online CPDs. The first of the CPDs will discuss the technical and design criteria for specifying slate, while the second will cover the benefits of using a natural slate rainscreen cladding system. Both are free to attend with tickets available via eventbrite. Terry Collins, specification manager at CUPA PIZARRAS commented: "We have developed the online CPDs to ensure specifiers can still access key information during the pandemic and for when they are working from home." www.eventbrite.co.uk/o/cupapizarras-world-leader-in-naturalslate-29672279119

BUILDINGS AS THEATRE



'Buildings as Theatre' is the brand-new curtain walling CPD from aluminium systems house AluK, available to book now via the company's dedicated learning portal. Exploring how innovation in framing and glazing technology have helped to create what it is calling a 'transparent stage of human life' in cities across the world, the CPD aims to inform and inspire with what is possible in the design and construction of curtain walling. It includes a whistle-stop guide to the history of curtain walling as well as an overview for specifiers of the different curtain walling system types available.

01291 639739 www.alukgb.com/learning/home

STELRAD LAUNCHES NEW CPD COVERING TOWEL RAIL RADIATORS



Stelrad Radiators has announced the launch of its latest CIBSE and RIBA approved CPD courses covering the subject matter of towel rail radiators. It can be found at www.stelrad.com. This new CPD course will help attendees understand the history and background behind the evolution of the central heating system and the use of tubular radiators. The UK market for tubular radiators is around the one million mark, so a not an unsubstantial slice of the marketplace - it's certainly more than simply a niche market nowadays. 01709 572279 www.stelrad.com

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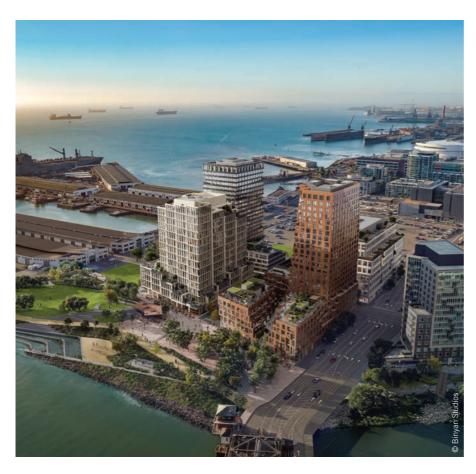
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INTERNATIONAL FOCUS

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MISSION ROCK MIXED USE, SAN FRANCISCO MVRDV

Construction has started on MVRDV's 23-storey mixed-use building at Mission Rock in San Francisco. The project is one of four buildings in Phase 1 of a multi-phase masterplan. It was designed as part of a collaborative design process, with four architecture firms designing their plot "in conversation" with the other three offices. Alongside MVRDV, the masterplan also includes designs by Studio Gang, Henning Larsen, and WORKac. MVRDV's block, 'Building A', occupies a prime location adjoining the "handshake plaza" that will greet visitors entering Mission Rock via the 3rd Street Bridge. Its internal, canyon-like street is an "essential part of a sequence of public spaces, extending the landscape from China Basin Park through the building itself and into the heart of the Mission Rock masterplan, connecting the different plots," said the architects. Undulating balconies extend up the tower's western facades, and the many setbacks and overhangs on each level create terraces "that add to the vibrant atmosphere of the pedestrian space." The 395,000 ft² project includes a diverse collection of apartments and approximately 58,000 ft² of office space with a private lobby and ground-floor retail. Roof terraces complement internal amenities for the inhabitants, while the 'canyon' is shared with people working in offices on the lower floors.



HOLY ROSARY CATHOLIC CHURCH, WASHINGTON D.C BEYER BLINDER BELLE

Beyer Blinder Belle has completed the restoration and expansion of Holy Rosary Catholic Church in the US capital. The restoration was co-ordinated with integral aspects to the construction of Capitol Crossing; a 2.2 million ft² mixed-use development comprising five new buildings in downtown Washington. Beyer Blinder Belle designed a five-story, 32,000 ft² limestone and brick addition to Holy Rosary Catholic Church that connects at multiple levels and locations. The new addition comprises a rectory, adult education classrooms, offices, and meetings spaces, and provides multiple new entrances into the church. Beyer Blinder Belle's design restores the layout of the parish prior to the construction of the I-395 motorway, and is punctuated by a large outdoor terraced garden.



INTERNATIONAL EXHIBITION CENTRE (PHASE II), BEIJING ZAHA HADID ARCHITECTS

Zaha Hadid Architects has won a design competition to build Phase II of the International Exhibition Centre in Beijing, China. The new 438,500 m² phase will significantly expand the centre's exhibition space, "enhancing the city's position as a leading centre of knowledge and international exchange." The architects commented: "The integrated relationships between the exhibition halls, conference centre and hotel are echoed in the centre's composition, arranged as a series of interconnecting lines and geometries that take inspiration from the textures of glazed tubular ceramic tile roofs within traditional Chinese architecture." The design's copper colour and large recessed windows "give further expression to the visually dynamic envelope."



ZHUHAI JINWAN CIVIC ART CENTRE, CHINA ZAHA HADID ARCHITECTS

Designed by Zaha Hadid Architects, the Zhuhai Jinwan Civic Art Centre will integrate four distinct cultural institutions for the city of Jinwan: a 1200-seat Grand Theatre; a 500-seat Multifunctional Hall, a Science Centre; and an Art Museum. Each venue incorporates unique characteristics to create engaging visitor experiences, yet all are united by a "coherent formal and structural logic" that spans 170 metres wide from east to west and 270 metres in length from north to south. Arranged symmetrically, the two larger and two smaller venues are connected by a central plaza that serves as a shared external foyer to each of the four cultural institutions. Glazed walls "enable visitors to determine the individuality and character of each venue." The Grand Theatre and Art Museum are "very light in their materiality," said the architects, while the Multifunctional Hall and Science Centre have a "much darker palette of materials."



ACCIONA OFFICE, SPAIN FOSTER + PARTNERS

Construction on a new office building designed by Foster+Partners for Acciona, the Spanish sustainable infrastructure and energy company, is in full swing. The project will conserve over 10,000 tonnes of brick, rehabilitating the building envelope and the soaring interior volume. The introduction of a series of stepped floors creates terraces sheltered under the historic roof. Made from timber sustainably sourced from local forests, the lightweight structure allows for spatial flexibility, while also integrating lighting, ventilation and other services within. The timber structure will save more than 1,000 tonnes of CO_2 and is recyclable and demountable. A central skylight brings natural light to the interior, reducing the need for energy consuming artificial light while also incorporating silicon plates that generate electricity.



HOUSE OF WISDOM, UNITED ARAB EMIRATES FOSTER+PARTNERS

The House of Wisdom, an iconic library and cultural centre in Sharjah, UAE, has opened to the public. The central focus of the 2019 UNESCO World Book Capital celebrations, the project seeks to be "the catalyst for a new cultural quarter in the city," said the architects. The two-storey building "embodies a sense of clarity and lightness," with a large floating roof cantilevering on all sides of a transparent rectilinear volume. The 15 metre-wide overhang shades the facades throughout the day, while fixed aluminium screens with differing densities filter the low sun in the evenings. Movable bamboo screens at low level are deployed by the building users, to provide privacy or to control glare. When not in use the bamboo screens are left open, preserving the visual connections with the landscaped gardens.

How to specify success with curtain walling

s the popularity of glazed curtain walling increases, particularly for large urban buildings, Dan Gleeson of Reynaers UK discusses the benefits of aluminium systems and considers the importance of working with experienced suppliers.

Forming an integral part of a building's identity and character, facades have the ability to transform how we see architectural spaces. In recent decades, as architectural styles have shifted to reflect modern expectations, glazed curtain walling systems have become increasingly popular – on commercial and residential buildings alike.

Curtain wall is typically a non-load bearing structure and transmits the applied loads arising from the wind, glass and framing (dead load) and occupant load back to the primary or secondary structure. On some projects, other load cases may also need to be considered such as barrier loads, maintenance loads, accidental loading, snow loads, blast or impact.

When it comes to the types of curtain wall used to clad buildings, there are two main types: stick and unitised facades. Enclosing the envelope of the building to protect from the weather, insulate and provide an air seal, these two types of curtain wall can be adapted from their standard design to create bespoke features which are engineered to emphasise geometry or a particular aesthetic appearance. As a result, curtain wall systems equip architects with the freedom to create an aesthetically led facade which meets the specific performance requirements of the building.

Performance

Spanning multiple floors and covering a large surface of the building, curtain wall forms a significant part of the envelope. As such, systems can directly impact cost, design and delivery programme, in addition to key performance considerations – particularly in terms of water tightness and thermal characteristics, daylighting, ventilation regimes and acoustics. Another fundamental part in selecting the correct curtain wall is the accommodation of building movement.

The taller a building gets, the more movement can be expected, creating the potential for a range of building movements such as windsway, inter-storey drift, differential slab deflections, settlement, creep and even seismic loads. Although some types

of movement are more typical outside the UK, it is important for every aspect of the building envelope to be designed to accommodate such movements.

Where movement is concerned, Reynaers recommends early engagement with a structural engineer to fully understand which system will be best suited. This allows deeper understanding of the movements and enables the correct façade system to be specified, helping to avoid budget implications, delays and even project re-designs further down the critical path. Failure to allow for building movement can lead to induced stress in the profiles or surrounding components, potentially leading issues around the opening of joints and water ingress.

Aside from building movement, aluminium curtain wall systems can support buildings to excel in other critical aspects. As urban areas become increasingly populated, controlling noise levels within a building increases comfort for occupants. Here, curtain wall systems have a part to play and can reduce noise concerns such as flanking sound transmission, which is particularly relevant for multiple-occupancy buildings. Accommodating the large glass thicknesses and glass weights associated with acoustic glazing, alongside the inclusion of profiles that stop direct transmission, Reynaers curtain wall can directly support acoustic performance.

The test data for our systems speaks for itself, with each different curtain wall type offering varying levels of performance, depending on characteristics like profile design, gaskets and openings. CW 50, for example – the leading curtain wall system from Reynaers – offers all-round performance having passed CWCT Sequence B testing, providing independent accreditation. Different technical variants can also accommodate specific fire resistance requirements where needed.

Elevating aesthetics

While the technical performance of curtain walling is a primary consideration for those specifying systems, there is one clear benefit to including them in a building's design – aesthetics. As a fast and cost-effective way of introducing large volumes of glazing into a building, these systems hold the potential to define a building's appearance.

For occupants, the benefits are clear to see. Large and often full height windows flood rooms with natural light, making spaces more comfortable, practical and modern.



Alongside the positive impact this can have on wellbeing, curtain wall systems can introduce greater connections between inside and outside spaces and maximise views, further elevating the appeal of buildings for occupants.

From the outside, curtain walling equips buildings with a distinctive appearance which defines their unique character. It can also help them to fit into their environment more easily. By reflecting the architectural styles which sit in a building's immediate vicinity, architects can ensure a level of consistency and appreciation of location aesthetics, while introducing a new layer of a city's architectural fabric. To achieve this, it is crucial for architects to specify systems which facilitate creative freedom, without compromising the performance benefits required.

Ensuring correct specification

To unlock the full suite of benefits which are made possible through curtain walling, it is crucial to work closely with suppliers and collaborate with design teams from the very outset of a project. Particularly on large scale projects, such as high-rise buildings where curtain walling is most in demand, this approach ensures success.

It is for this reason that, at Reynaers, we encourage direct collaboration between our partners. Through our Consult programme, our in-house team of specialist consultants, engineers and technicians work closely with architects and building professionals to offer technical assistance. This close collaboration facilitates understanding of a project's specific requirements and allows for the correct systems to be specified, including bespoke systems which are tailor-made to meet the specific demands of a project. Complementing this hands-on approach to working with our partners, Reynaers offers a broad selection of profiles and tested systems and has the capability to test systems in-house, ensuring every system performs as required.

0121 421 19990 www.reynaers.co.uk



BUILDINGPROJECTS

BELSIZE PARK FIREHOUSE LONDON

The art & craft of conservation

An Arts & Crafts Fire Station in North West London kept its original features in a sensitive residential conversion that saw architects Tate Harmer working adeptly within a strict conservation remit. James Parker reports

Built in 1915, the Belsize Fire Station in north London has been called "one of the most distinctive and original" fire stations of that era. Architects Tate Harmer have transformed the historic building into a characterful new residential development that hosts energy-efficient apartments while retaining and capitalising on its heritage elements.

The Grade 2* Listed building was completed in 1915 by architect Charles Canning Winmill at London County Council. With its steep roof and large dormers, the station is seen as a fine example of the Arts & Crafts style, and given its status, plus the fact it sits near a well-heeled 'village' area of London, the design and construction would take place under keen scrutiny.

ADF APRIL 2021 WWW.ARCHITECTSDATAFILE.CO.UK





"We haven't taken out any of the original features, we've tried to keep everything that was there"

The project combines a light-touch restoration, preserving original features to provide a 'boutique' range of apartments, alongside fundamental improvements to the fabric's thermal performance. Given there were already bedrooms within the unit (firefighters' 'bedsits' including space for chair and TV), the task of accommodating 19 apartments without drastically altering the building was made somewhat easier.

The station was shut in 2014, and being in a very desirable part of London, quickly picked up by developer Platinum Land, which has a contracting arm, Old House Developments. Another architect initially took the project to Stage 3, but Tate Harmer came on board to "relook at the planning and listing building consent, and try and get more out of the building," says Tate Harmer partner Rory Harmer. With strong heritage refurbishment experience, Tate Harmer ended up "redoing a load of stage 2, which was a headache to get listed building consent," and planning permission was finally granted in 2018.

The architects had worked successfully with Platinum Land's owner Andrew Gillick on the conversion of another important heritage building, a care home in Teddington, into nine townhouses. This

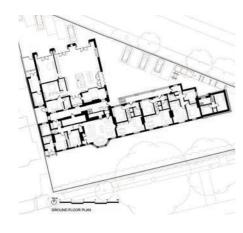
helped on the fire station conversion, given that "the listed building process is not straightforward," says Harmer. "There were times when it was a bit difficult. You have to get the conservation officer on board, submit lots of information; getting planning permission was a bit of a long process."

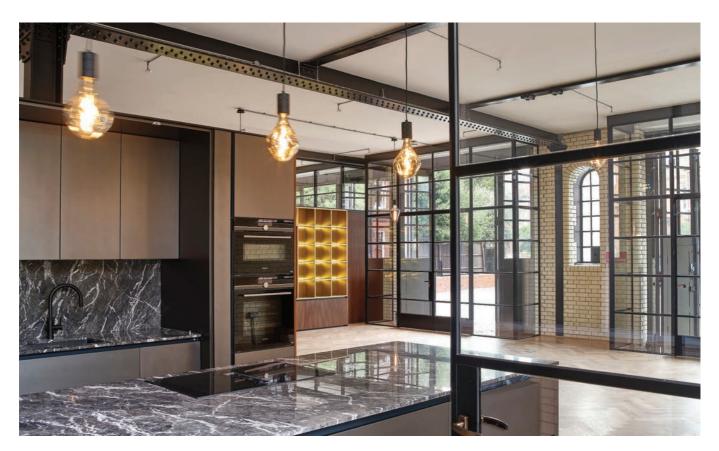
There are 19 flats in total, the project being split into two planning applications. One was for the main converted 'appliance hall' which previously housed the fire engines, and had a greater amount of heritage to protect, the other for the accommodation wing.

The impressive tower – used by firefighters to practice on small flights of stairs and drain hoses – has been retained, and there's an application to turn it into the 20th flat. Currently however, the structure, which sits at the corner of the L-shaped building, is inaccessible due to potential danger for occupants.

Form & layout

The design repurposes the open plan ground floor to provide tall apartments; one in the former appliance hall having the original trio of double doors leading out on the street to the north. A variety of rooms have been converted into flats in the main





building, such as a billiards room, and the former first floor gym, which is enhanced by exposed beams, tall dormer windows, and a spiral staircase to a mezzanine level.

One of the interventions done over the years by the fire service was a false ceiling to the converted gym space, removed as part of the project. The top of the space now effectively extends up to the apex. He adds that the developer "was a bit reluctant at first, because thought it wouldn't necessarily generate more value, but he was pretty happy once he saw those timbers."

Commenting on the dormer-heavy nature of the Arts and Crafts structure, Harmer says: "It's a complex building because there are all these little light wells and different roof levels, but there's loads of light coming in." The roof void over the former accommodation wing to the east, previously unlit storage, was made into three high quality apartments with 14 new dormer windows and reclaimed roof tiles. "We put in windows wherever we could."

While the layout remained similar in the eastern wing, the designers created some larger units by combining pairs of rooms, which did require some non-structural wall removal. The wing's dimensions and arrangement happily meant that no

internal corridors would be needed, meaning all units have dual aspect with windows north and south, allowing cross-ventilation. There are no internal corridors to the main building either, with the stairwell leading directly to apartments, and an external deck at first floor level. Three units lead onto an external courtyard to the south with private gardens.

There are two small extensions, which presented more design challenges than the conversion. The conservation officer wasn't keen on the architects' initial plans to create a distinct modern look for them, which would enable the building's history to be "read." Instead they had to source bricks and mortar that were "as close to the original as possible," and build sample walls onsite, as well as use reclaimed tiles. Their brickwork echoes the Victorian building's external detail of ventilation gaps between tiles.

The project's third level is a lowered basement, and permission was given to extend the arched windows down to the new level. The black-framed Crittall designs match the rest of the project, and new light wells created behind provide usable space for occupants.









Retaining character

"We wanted to try and retain as much character as possible," says Rory Harmer, "so you didn't step inside and feel you were in a brand new apartment, but that you were in Belsize Fire Station." To this end, the overarching goal was to ensure the interventions didn't harm the existing building's appeal, and external alterations were at a minimum, for example decorative clay tiles built into the brickwork above and below bay windows were preserved. The cobbled access roads to the north and gardens and hedging to the south have been retained.

The challenge in satisfying the conservation officer was around the "significant and interesting rooms," says Harmer. The double-height ground floor appliance bay is huge (239 m²), but the conservation officer was adamant it wouldn't be split into separate units. "The deal was that we would be able to convert it if we kept it one unit, and open plan." So no solid walls could extend to the ceiling, and the character and materials of the external walls had to be maintained. These included glazed bricks lining the interior and "amazing" metal hooks at high level, used to hold saddles in times past.

Harmer explains the challenge: "We've tried to keep everything that was there. Which was difficult, because you get to a point where Building Regs and statutory requirements don't meet the historic character of the building." He continues: "On Grade 2* Listed schemes, the conservation officer normally wins out;

you end up having to come to a compromise between them and Building Control." Harmer adds that "tricky discussions" can ensue, for example on fire compliance. Here a mist sprinkler system was specified, "so it doesn't ruin everything. You open the windows, and within a day everything dries out."

Most of the original window frames (the timber surrounds) were taken out, repaired and reused, with others replaced like for like. All of the metal inserts were in a good enough condition to be reused. Other features retained include original panelling to the former billiards room, and fireman poles.

Sustainability

As Rory Harmer says, "The most environmentally-friendly building is the one that already exists." As well as the inherent sustainability of reusing an existing building, the project aimed to "set an example in high-quality low-energy refurbishments of listed buildings," say Tate Harmer.

The 'fabric first' design approach saw improvements made to the building which avoided impacting the 'heritage fabric,' including insulation to the roof, basement (250 mm), and most external walls – those that didn't have any historic features. This was alongside improving air tightness of the entire building including doors and windows. Harmer said however that onerous performance requirements weren't the priority, due to the listed status: "There is a special dispensation on energy use and



U-values." This offset the heritage constraints on improving the building's thermal performance, such as on external walls: "where there were glazed bricks, we couldn't touch the walls."

One of the things that helped 'sell' adding insulation to the conservation officer, says Harmer, was that he was keen on not having services chased into the original walls, "even though the firemen had done that previously, destroying a lot of the previous fabric." So in many areas where there was no glazed brick, the architects created a service cavity, ran all services into it and applied a layer of insulation. "We extended things like window sills to conceal the fact there's a service cavity there."

Interiors

Living rooms are open plan, and these as well as kitchens are south facing. In the main appliance hall the folding doors have been refurbished and strengthened, and can still be opened. To obviate draughts, internal glazed Crittall screens are placed just inside them.

The building uses a communal heating system that has no individual gas connections or ventilation outlets, but individually metered controls in apartments. The previous central plant space was retained at the base of the main stair, so the architects had to find a way to provide two hour fire protection to this important escape route. A cost-effective solution – which avoided a fire curtain and other penetrations to the fabric – involves two doors, one on a magnetic 'hook' which shuts when an alarm goes off, providing a double layer between plant space and corridor.

Conclusion

In the words of the project architect, when refurbishing and changing the use of a Listed building to make it a sustainable asset for the future, "you have to do it as well as you can in terms of quality." Harmer adds: "If it's done badly and it's draughty and it's cold, people are going to soon want to mess around with it and change it, or not live there." This carefully-designed project demonstrates the converse of that, with all flats selling quickly despite Brexit and Covid's efforts, and a sensitively improved fabric which preserves this important building for its community.



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An Andrew Carnegie Library is brought back to life, where plum trees used to grow

his Grade II Listed Plumstead Library in the Royal Borough of Greenwich is of great architectural and historic interest. It is one of the earliest funded libraries by Andrew Carnegie, a Scottish/American philanthropist in the US and British empire in the time of Queen Victoria and Edward VII, which officially opened in 1904.

Following on from the Historic England listing in 2016, the Royal Borough of Greenwich decided to use the building as a champion for the Plumstead Urban Framework, making it one of the critical elements of the regeneration of the local High Street and surrounding area.

Occupying a corner plot on the busy A206, Plumstead High Street, with high volume traffic and London transport passing by, noise was of great concern. In addition, the single glazed metal framed original windows did little to prevent heat loss or draughts, which was going to hamper the sustainability of the



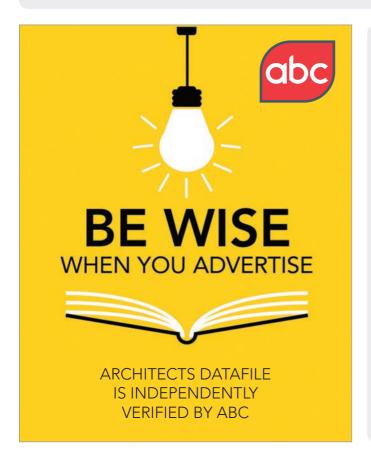
building and add to the on-going running costs. As the building is Grade II Listed, the original windows could not be changed, so a reversible adaptation had to be found. Hawkins Brown Associates decided that Selectaglaze secondary glazing would improve the thermal efficiency as well as dramatically reduce the noise ingress.

On the north elevation, the library has two magnificent sweeping bow windows, which occupy the majority of the ground floor. On the first floor and the return elevation facing east, where the offices and museum once were, there are a number of metal single glazed windows in various configurations.

63 Selectaglaze units across the two facades were installed, which included Series 10-3 pane horizontal sliders, Series 80-3 pane horizontal sliders and more. Each sweeping bay overlooking the high street were built up with seven Series 20 vertical sliders, transom coupled to seven Series 45 side hung casements. After months of highly skilled refurbishment works, the Library reopened in early 2020, providing the local community with spaces for health and fitness, sports, performing arts and library all under one roof.

With 50 years' experience, Royal Warrant Holder Selectaglaze has vast experience of working with the intricacies of Listed buildings.

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Innovative spa gets the Gilberts treatment

Gilberts of Blackpool is giving the ultimate treatment to an innovative relaxation development in Cheshire. To extend the £10m The Spa at Carden's four-star atmosphere to the smallest detail, the air movement specialist has even designed and hand- assembled a bespoke ventilation grille in the main reception area that appears to be floating in the air in a feature marble wall. The aesthetic challenge of the reception grilles was just one of many challenges Gilberts' faced in developing the tools to meet the ventilation strategy designed by Kimpton Ltd. Performance challenges included finding aesthetic solutions that addressed airflow rates ranging from as little as 15 l/s in the 14 treatment rooms through to 1000 l/s in the swimming pool/ hydrotherapy suite. "The marble wall is a focal point of the main reception, designed to make an impact and set the scene for the high quality throughout the Spa." explained Gilberts' sales director Ian Rogers. "Therefore, any ventilation inlets and extracts in the vicinity had to continue that aspirational, dramatic ambience. A linear bar grille was the obvious choice to ventilate the area, so we designed a bespoke version."

01253 766911 info@gilbertsblackpool.com

Encasement decorative casings for hotels and restaurants – a tasty solution

ithout decorative column casings, many hotels, restaurants, bars and leisure facilities would be considerably less attractive environments, but decorative casings from Peterborough based specialist, Encasement Ltd, go beyond aesthetics.

While a key function of the company's casing solutions is to provide a decorative finish that can blend in or contrast with a building's decor, column casings also perform an important practical role as they are primarily installed to conceal structural steelwork and building services.

As hotels, restaurants and other recreational facilities typically deal with large numbers of visitors and guests, often with high traffic areas in reception foyers, dining areas and other public spaces, this has an important influence on the casings' specifications, as durability is an essential requirement for most projects.

The ability to understand and meet these requirements from architects, specifiers, contractors and specialist leisure sector design teams, are key factors that have influenced the growth and development of Encasement's product range, which are widely used in hotel and leisure sector projects.

Encasement is probably best known for its extensive column casings range that includes pre-formed plywood and glass reinforced gypsum (GRG) exclusively for interior use, together with aluminium, stainless steel and glass reinforced polymer (GRP) casings, which are suitable for both interior and exterior applications due to their durability and inherent weather resistance.

Perhaps unsurprisingly, it is the company's 'Forma' metal casings and 'Polyma' GRP range that are used extensively in hotel, dining and recreational building projects, where their toughness, durability and wide choice of finishes make them an ideal





solution. Forma, in particular, provides specifiers with an exceptional scope of options and can be specified in a range of shapes including circular, up to 1000 mm diameter, or as square, rectangular, hexagonal or bespoke forms.



In addition to recent installations at The National Memorial Arboretum's events & banqueting facility and Premier Inn's flagship hotel in Cardiff Bay, further high-profile projects for Holiday Inn, The Mondrian London Hotel, Glyndebourne Opera House and Gateshead International Stadium's café bar have all exploited the practical and wideranging decorative properties of the 'Forma' and 'Polyma' ranges.

Encasement's 'Circa' and 'Quadra' ranges are designed specifically for interior projects and are used within a range of hotel restaurant and leisure projects. Both ranges are manufactured from FSC® certified plywood to comply with sustainability codes and environmental

procurement policies, the main difference between the two types is their shape.

'Circa' covers applications where round and extended circular forms are specified, while 'Quadra' provides designers with the option to use square and rectangular profiles. The unrivalled palette of finishes available include plain, textured and patterned laminates from specialists such as Formica and Polyrey, together with real wood veneers. Decorative laminates are also able to resist scuffs and scratches, making them the most popular option.

Farnborough 6th Form Centre's cafe and dining area, Scotland's Turnberry Hotel and the Jean Brown Indoor Arena are typical examples of how 'Circa' and 'Quadra' casings effectively conceal structural steelwork while their colourful and durable finishes enhance the interior design.

Encasement's managing director, Martin Taylor, commented: "Column casings provide a perfect mix of practicality and aesthetics, which are essential considerations for hotels, restaurants and all leisure sector buildings. Also, our wide product range, allows specifiers to source a range of specialised casing solutions from a single company with high levels of expertise and experience in this sector. We also have our own contracting arm, which enables us to offer a full supply and install service to support contractors."

01733 266 889 www.encasement.co.uk



BUILDING

CHENOT PALACE WEGGIS, SWITZERLAND

Swiss movement

A new addition to a prestigious lakeside wellness resort in the Swiss Alps produced a dynamic but discreet form, as part of a landscaped composition that gently enhances its setting. James Parker reports

Sitting on the shores of Lake Lucerne, in the Swiss Alps, is a grand hotel from the 'Belle Epoque' era of the turn of the 19th century – the Chenot Palace. In 2017, Turkish hotel developer Dogus Group decided to dramatically increase the footprint of the flagship '5-star plus' hotel of the long-established wellness group founded by Henri Chenot. However Davide Macullo Architects faced the challenge of a sensitive, highly visible, and hilly site, as well as ensuring the historic buildings were respected, and hitting a tight deadline.

Swiss architect Davide Macullo, based in Lugano, was familiar with Chenot and its values, having worked on several projects for them previously, including schemes for the Dogus Group. Further qualifying his practice for this timber-focused hotel project in the small, picturesque village of Weggis, were recent timber schemes completed nearby.

The practice is responsible for leadingedge projects from hotels, to healthcare and houses, globally and in Switzerland, including a striking multi-coloured and curvilinear house constructed of timber in the Calanca Valley. Further showing its fondness for the material, Davide Macullo completed a series of sculptural installations composed of wood planks in a forest close to the house.

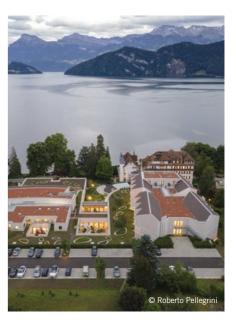
Macullo says that Chenot's ethos is to provide a "second home" rather than a traditional hotel, and the grouping of buildings now created around the original hotel (also including the company's administrative HQ) provides an elegant, understated addition to the lakeside. With neighbours' houses cheek-by-jowl with the

new hotel buildings, consultation with the community was a must. The architects put substantial effort into presenting plans and models and answering questions at various stages.

As well as refurbishing the 52 rooms of the existing hotel, the approximately 20,000 m² project doubled the existing footprint with a substantial new timber guest block of 45 rooms and three storeys, plus a connecting podium level which is partly below ground, having been built into the hillside. This houses a luxury spa with special facilities including a cryochamber, and medical analysis and 'anti-gravity' equipment, plus a 21 metre swimming pool. In addition there's a single storey, C-shaped office block for the client, as well as extensive landscaping and a car park. The project underwent the highest Swiss level of historic protection and scrutiny, abiding by the requirements of two bodies responsible for preserving local identity and that of the historic hotel, plus also the lake's conservation body.

Form

The architects' overriding precept for hospitality schemes was that in orders to create a feeling of wellbeing for guests, and answer the client's requirement to create a feeling of 'home,' a strong connection must be created between past and future. In this way, the architecture provides a "link between the DNA of a place and its future." Macullo says that what was "really important for us," was the "charm given by the existing hotel," and the design would have a gentle humility to ensure that the new additions didn't overshadow them, literally or figuratively.

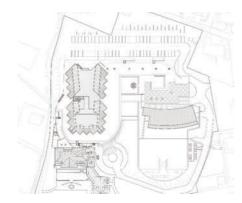








"On a project where you have to work so efficiently and fast, the first thing you do is to work on trust"





The project was very carefully planned to not encumber any of the existing views from the lake, and scaled such that the new building virtually disappears behind the old hotel. Taking advantage of the slope, the architects designed a new basement level into the hill using 5,000 m² of blocks, which, as Macullo says, preserved views from the lake to the hills behind.

To help it sit discreetly in the site, the new rectangular guest block was firstly therefore set back behind the original building although above a new entrance and podium level. When a visitor arrives at the new entrance, which is near the lake, the new building is virtually invisible. And, with most of the entire podium volume housing the spa hidden underground, "you don't really feel there is a built volume," says Macullo, "you see the landscape continuing up from the park by the lake to the top of the hill." He adds that this continuity makes the effect of the overall composition "very light."

The guest block's elevations have been staggered, creating deep terraces with generous outdoor space for guests. These offset balconies around three facades resemble teeth in plan, and are a result of angling all the rooms so they all have views of the lake. This also creates canopies viewed in section, that continue the roof

slope downwards over the terraces. The balconies are screened in pinkish white-painted planks on the north side, with gaps creating a "game of shadows" and allowing further light into rooms while giving guests privacy.

The language of the new building follows its function, but also "adopts the symbolic traits of the historic buildings," commented the architects, "recalling the proportions and character of the vernacular, but expressed in a contemporary way, combining the organic with the geometric." There is a clever drainage detail terminating the pointed canopies; square-profiled downpipes, painted off-white to blend with the timber screens, and providing a discreetly harmonious solution.

The choice of timber as the key material for the project was also important to help the building tie in to traditional Swiss architecture, and appealed to the architects as a means to help a somewhat abstract form blend with neighbouring buildings. The pale colours of the new volume, in addition to the roof's shape and material, have been carefully chosen to complement the existing buildings.

Davide sums up the effect of the whole (the new guest block, the landscaped spa podium level, and the new office building for the client, plus the historic hotel) as creating "not a building, but more a backdrop or scenery, more like a fence in a field." However this belies the complexity of addressing an existing site with various underground areas, and the resulting level changes and other structural challenges.

Super-fast construction

For the new guest building, timber's chief practical benefit was the speed facilitated by its offsite construction, meeting the client's stringent programme requirements. The offsite timber industry is highly developed in Switzerland, and construction was very swift, with each floor taking two days to erect, and the roof structure being completed within two weeks. The timber frame was under construction before the concrete basement slab for the podium level was dry. Structurally speaking, the building is all-timber, including lift cores, although the frame has been concealed internally, a "practical choice" of the client, says Macullo.

The architects put together a 'preconcept' scheme for a tight, 14 month construction programme, and this resulted in the building being handed over on time in January 2020, opening in June. The offsite method, while bringing considerable efficiencies, also meant a different set of challenges, reports the architect. "There was an extremely unusual amount of co-ordination and pre-planning, we've never seen that level before." He adds: "There were 12 site supervisors, and on a project where you have to work so efficiently and fast, the first thing you do is to work on trust."

He says that part of successfully meeting the demanding challenges was having "one of the best contractors." A large family firm who were new to the architects, Anliker AG impressed with the degree to which "all of their staff were highly professional, serious, and engaged."

This high-profile project for the local area was the source of a lot of pride for, but also scrutiny from, the community. One of the main objectives for the contractors was to minimise disruption to this affluent locality during the construction programme. Davide Macullo says that it's "amazing that in this expensive area, with small streets and many villas, that all the work over about a year didn't disturb anybody."

Arrival & spa level

Working closely with the landscape architect Christoph Fahrni, the architects focused on tree planting around the new



entrance, "so that when you arrive you are suddenly in a kind of village square which all the buildings face into, and you don't really perceive the size of the building." He says that guests are helped to feel they are going to "their own villa" after entering under the new canopy. "You never have the feeling you are in a huge structure, rather a cosy environment."

There is a very short distance to walk to any of the rooms in the new or existing building, thanks to moving the entrance to the centre of the new group of buildings, adjacent to the spa's curved frontage. Guests can walk to the private beach and spa via underground routes, without ever needing to pass the hotel reception.

The substantial spa level is daylit using beautifully landscaped sunken courtyards, with a Bonsai feel that complements the landscaping of the spa's grass-covered roof which is punctured by these spaces. "From the spa, you see the Japanese garden, then the mountains behind," says Macullo.

Connection challenges

Macullo says that the "most difficult work" in this project in terms of design, was not the refurbishment of the old hotel, or the new buildings, but "connecting the old to the new," as well as the groundworks required for the existing and









PROJECT FACTFILE

Architect: Davide Macullo Architects (Project architect: Aileen

Forbes-Munnelly)

Client: Dogus Group

Hotel operator: Chenot

Interior design: Davide Macullo

Architects

Contractor: Anliker AG

Interior contractor: Poliform Contract

Structural, M&E and acoustic consultant: Basler & Hofmann

new buildings. An addition to the historic hotel done around a decade and connecting its two volumes was demolished, but designing its replacement caused some serious headaches.

These ranged from "cutting the slab, and making the waterproofing and movement joints," but there were also two pre-existing underground concrete levels to contend, one of which runs across the entire site. The whole project is "supported by piles that go through the old buildings to the technical rooms below," says Macullo.

This extends to the otherwise lightweight new timber building. Working with the structural engineers, the designers included piles that go through the existing two basement storeys and terminate at the ceiling of the ground floor, supporting a "huge beam on which the new building is settled," says Macullo. He adds that in order to minimise costs, these structures had to be designed to go through the existing basement levels "without touching them." He adds: "It was like an archaeological intervention, very interesting, and very delicate, but also quite demanding."

Interiors

With the internal structural walls being made of 'mass timber,' acoustics were

another challenge, and the slab had to be separated from the walls in order to avoid sound but also vibration transmission. Further partition walls included 'sandwiches' of insulation, as well as integrated services, to further assist this.

Macullo says that in both the new and old buildings, the approach to interiors was one of "liberty," so that a certain 'boutique' look is achieved, with each room having a different feel, "like ancient palaces." He says that in this way, the old hotel's rooms have a connection with those of the new block, "you flow from the new to the old – we have played with the finishes and colours so you have an experience that is continuously changing in a way, but there is a smooth transition from one space to another." The challenge was to create spaces with different characters but "at the same time belonging to the same place."

The refurbishment of the old hotel was straightforward, with no major works, but upgrading all electrics and plumbing. The restaurant's verandah was closed off to provide an "arched space" however. In the new building, materials were kept simple; the circular ceilings are "handmade from gypsum board, and very well crafted," says Macullo, their forms "connecting to the surroundings, the lake." He designed the new carpets based on his own paintings, and the architects provided a collection of works from young Swiss artists to promote their work, alongside Macullo's drawings.

Conclusion

The success of this challenging project was about community involvement and engagement as well as sensitive, elegant architecture that blends with historic antecedents, and a highly co-ordinated level of construction efficiency. As its architect says, it was about ensuring that "everybody feels comfortable," adding that for a project on this scale, in a small village, "you don't only build for the owner, you build for the future of a community. What you do influences its life in a very important way."

Above all however, according to Davide Macullo, the most important thing on luxury hotel projects such as this is to "take care, and find a synthesis of all the elements that makes people feel at ease, externally as well as inside."

He says in his 30 years in practice, he's "remained friends with all my clients, and contractors," which is testament to his belief that his firm "really cares about the process," as was fully demonstrated on this project.

Axis EN Fire System protects Dubai's latest \$750 million Hotel Complex and Mall

A network of 19 Axis EN fire panels from UK manufacturer, Advanced, has been installed at the prestigious Wafi Hotel complex and Mall in Dubai.

Wafi City is a mixed-use development in Dubai, United Arab Emirates. The complex includes a mall, hotels, restaurants, residences, and a nightclub. The 'city' is styled in the theme of Ancient Egypt.

In total, 19 EN54-approved Axis EN fire panels, including integrated fire telephone system, and 7,500 devices have been installed across the US\$750 million Wafi Hotel and Mall development project. The site itself comprises of a 50-storey, 5-star hotel and serviced apartment tower, in addition to the mall which has undergone a 100,000 m² expansion that includes a hypermarket, retail spaces, 19-screen cinema complex and parking.

Installed at the hotel, which boasts 501 luxury guestrooms and 86 suites, a ballroom, numerous conference and hospitality facilities as well as a temperature-controlled pool deck, are 14 4-loop, 2-loop and 1-loop Axis EN fire panels and 5,500 devices. Included in the active fire protection measures for the Wafi Mall, cinema and cark park are a further five Axis EN fire panels of 4-loop and 2-loop variants, alongside an additional 2000 devices.

Advanced partners Cignetix Systems were responsible for the installation, testing and commissioning of the entire system. Due to the size of the 205,000 m² expansion project, Cignetix's client required a solution capable of delivering reliable and versatile protection across a site with a range of different area uses, and with appropriate false alarm management strategies applied where necessary.







Sunil Gopalkrishnan, managing director at Cignetix Systems, said: "Cignetix installs Advanced fire protection solutions across a number of high-rise commercial and residential buildings, retail premises and hotels in Dubai. We find Advanced products both simple to install and easy to configure, so they were the obvious choice when it came to specifying the fire alarm system for this project."

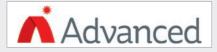
Axis EN is EN54 parts 2, 4 and 13 approved and its panels can be used in single-loop, single-panel format or easily configured into high-speed, multi-loop panels in 200 node networks covering huge areas. Advanced products' ease of installation and configuration as well as the range of peripherals available make it customisable to almost any application.

Steve Carroll, general manager for the Middle East at Advanced, said: "We're

thrilled to protect this fantastic addition to Wafi City. With hundreds of thousands of visitors to the Wafi Hotel complex and Mall each year, an Advanced solution provides Cignetix's client with the peace of mind of knowing that those living, working or relaxing on the development are safe from the threat of fire."

Advanced is a world leader in the development and manufacture of intelligent fire systems. Advanced's reputation for performance, quality and ease of use sees its products specified in locations around the world, from single-panel installations to large, multi-site networks.

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BUILDING

TAINAN XINHUA FRUIT & VEGETABLE MARKET TAIWAN

Levelling up food retail

Forming a new landmark with a tiered, cantilevered roof garden, a fruit and veg market in Taiwan will revitalise the concept of selling local food in a natural environment. Winy Maas, founding partner at MVRDV, spoke to Jack Wooler about the scheme

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A iming to reinvent the perception of wholesale food markets in Taiwan, the new Tainan Xinhua Fruit and Vegetable Market is set to offer users local produce in a modern facility that itself embraces nature.

Covering 80,000 m², with an 11,510 m² terraced and walkable green roof accessible from ground level on its eastern corner, the open-air market is intended not only to be an important hub for Tainan's food supply chain – containing 180 market plots alongside the relevant facilities – but also to serve as a destination for meeting, socialising, and taking in views of the surrounding landscape.

With "no boundary between building and landscape," the building is designed to be

used as a platform for locals to meet, as well as to bring local produce into the area in a more sustainable way. It also sits in a location with greater accessibility than its predecessor.

Inspired by the growing attention being paid in the area to food and its sourcing, the project also aims to teach adults and children alike about food safety and production, showing people how they can grow their own produce, as well as where the food they purchase comes from.

This innovative and nature-inspired design was completed by Dutch architectural firm MVRDV, in collaboration with LLJ and Wui Yi Ling Architects. Construction is already well underway, with completion expected in September 2021.

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The design's undulating green roof could only be achieved using multi-layer construction methods

An elevated form

Located to the east of Tainan, between the city and the mountains, the market takes "what is an often-prosaic" part of the food industry, and elevates it into a place for the public to experience food while appreciating the views of the landscape, says Winy Maas, founding partner of Dutch architectural firm MVRDV.

This design comprises a simple, open structure with high undulating ceilings that allow for plenty of natural ventilation. Above the flowing ceilings is a similarly "kinetic" terraced green roof that folds over the top of the building and reaches down to ground level.

The terraces provide an elevated platform from which visitors can "appreciate the landscape that characterises this part of Taiwan," with sheltered spots, benches and picnic tables included to increase use.

"At the same time," says Winy Maas, the building takes on the appearance of rolling green hills, "thus becoming a continuation of that landscape."

The terraces' planting has been planned to grow a different crop on each level – with terraces for pineapples, rice, roses, tea, and more. The level chosen for each

type of plant has been determined by its climatic requirements.

On one side is a simple four-storey structure puncturing the roof, which contains the market's remaining spaces, including its administrative offices, a restaurant, and an exhibition centre where agricultural products from the region can be displayed. This is "ideal for school visits," adds Winy Maas. The addition also provides a secondary access route to the landscaped roof - with an observation field on the balcony around the office on the second floor providing views of all activities within the market.

New proposition

This project was first proposed as an alternative to the existing wholesale market, which is located in the middle of nearby city Hsinhau and had created unwanted traffic in the area.

The central Government in Tainan City instead looked to find a new location on the east of Tainan, between the city and the mountains.

Thanks to its proximity to Highway 3 and public transport links, the site chosen is easily accessible from both the surrounding

farmland and the city, it being essential to the team that it be equally convenient for traders, buyers and visitors.

Alongside these gains in location, the new site will offer more functional benefits in terms of floorspace. It is hoped, for example, that the new market could increase the current trading volume of 50,000-60,000 metric tons per year to over 80,000 metric tons.

MVRDV were brought in to realise these aims due the success of its recent projects in Taiwan. These include the Tainan Axis, which revitalises central Tainan with improvements to two key streets and a new public square with a lush green lagoon, and the Taipei Twin Towers, a recently won competition for two skyscrapers which will become a focal point in the centre of the country's capital.

"Tainan, in my opinion, is one of those towns which is so beautiful to me because maybe most of its nature, agriculture fields, farms, sea, and mountains", comments Winy Maas.

Explaining the practice's overall goal for the project, Maas continues: "Tainan Market can become a building that symbolises this beauty as it compliments both landscape and its surrounding environment."

"It is completely functional and caters to the needs for auctioning, selling and buying goods, but its terraced roof with its collection of growing products will allow visitors to take in the landscape while escaping from bustle below."

Part of nature

Set in the countryside and surrounded by mango trees (the area hosts its own Mango Festival) the 8 acre rural plot was once a tree nursery, which the city managed to develop into the new market.

While the main internal auction and sales area is 10,000 m², the remaining 7 acres surrounding it are dedicated to support facilities such as a car park, garbage site, sewage system, refrigerator compartment, electric car recharging stalls, retention area and etc.

The construction for this large surrounding landscape construction amounts to a quarter of the total construction budget, with the rest of the main market building area costing only 35,000 NT dollars per square metre. (around €1,050/m²).

As the project takes up this natural space, it was important for the team that the market could be both a landmark and



function as a "part of nature" itself.

Surrounded by the natural and green environment, the concept of 'natural ecological compensation' and ecological 'island hopping' was introduced early in order to minimise the impact of development on the environment.

To achieve this, the entire park, including the necessary hard paving and even the roof, is permeable to some extent. This makes a huge contribution to the collection and retention of rain water, alleviating both drought and heavy rainfall.

The team were keen to avoid the overuse of concrete, which aided the level of drainage further. Instead, where possible, a priority was set on attaining recyclable, lightweight and simple materials, retaining the original appearance of such materials to keep the 'natural feel.'

Another benefit the green roof brings is that it reduces artificial metal reflection to the surrounding area, and lets birds and animals stop by on the roof to encourage wildlife.

Realisation

Achieving the combination of these elements was no simple process, however, and the market's undulating form has taken meticulous planning in both the construction and design stages.

The main volume is built around longspan steel column beams. These were vital to reach the structural resilience necessary for the geological conditions of the site. As the project takes up this natural space, it was important for the team that the market could be both a landmark and function as a "part of nature" itself



Even in its current state, the project has reportedly been "very well received" by both the media and the general public already But an unpleasant discovery for the team was that the beams themselves were not sufficient to hold up the market's unusual form.

The biggest challenge was that, because of cost constraints, it was impossible to directly achieve a curved structure using just these beams – they were inadequate to cope with both the stress of both the vertical office spaces and the horizontal, waved roof surfaces (which intermittently connect and disconnect at different points.)

The design's undulating green roof could only be achieved therefore using multi-layer construction methods - the curved roof ends and the stepped edges having to be carefully studied well in advance of construction as 3D models.

As a result, the bottom of the roof is supported by multi-angle steel beams and steel plates, and the middle layer is made of reinforced concrete to form the second thin arc.

The remaining construction methods chosen utilised a stick drywall system with PVDF galvanised corrugated metal plates (made in Taiwan), and connected to the side of the roof with a transparent skylight. This composition allows sunlight through the roof from the junction to the balconies around the office.

For the floor plan, the top-most hillside surface is shaped by a thin green layer, and the steep slope at the southeast corner uses stepped flower stands and green planters to complete the greening goal.

An inspiration

These hurdles overcome, and with construction nearing completion, it is hoped that the more modern facilities will make it easier for users to shop for local produce, and for vendors to adopt auctioning goods rather than bargaining. The latter is reportedly more commonly seen in traditional markets, but restricts profitability.

Even in its current state, the project has reportedly been "very well received" by both the media and the general public already.

It functions as a public project, "besides the market company under the roof," says Maas, He adds however that there's a hope the city will find an operator that can manage the roof before the opening in September 2021.

Above all else, the architect seems proudest of the building's connection to the outdoors - and its orientation towards people, their environment, and their connection with food above all else.

"We hope this will be a project that inspires people and other developments," says Maas. "Not just in this area or in this sector, but in architecture as a whole."

Bank of Scotland revisits its roots



Based in the heart of Glasgow, the Bank of Scotland's flagship branch required a makeover that would add personality to the brand, while reflecting the bank's proud Scottish roots. Specified by M Worldwide, an array of Forbo Flooring Systems solutions were installed throughout the building to help create a warm and welcoming space and provide the bank with its own identity. Forbo's Tessera In-Touch carpet tile planks in a variety of colourways, including a bespoke shade, and Allura Wood Luxury Vinyl Tiles (LVT) were chosen to create an integrated flooring scheme that would seamlessly connect the various areas of the space. Helen Shelley Alessia Crescentini of M Worldwide also created a bespoke feature using Forbo's Allura Wood LVT to mimic the Saltire of the Scottish Flag, which was used on the first floor in the Business Hub and on the lower ground as a central flooring design. Alessia concluded: "For us, we are delighted with the new design concept. We feel that the bank now has its own identity and DNA. It feels established. The colour palette, along with the warmth and richness of the finishes have all come together beautifully to create a memorable customer experience."

01773 744 121 www.forbo-flooring.co.uk/flyforbo

DOORS, WINDOWS & CONSERVATORIES SUPPLEMENT



Designed to last - hinged steel doors from Hörmann



Durable, secure, and of exceptional quality, multi-purpose steel doors from Hörmann are suitable for a wide variety of busy environments from industrial workplaces and warehouses, to offices, and public buildings. Constructed from an unrivalled 62 mm heavy duty steel, Hörmann STS/STU doors set the standard for long life and maintenance free operation. Available in either flush or thick rebated versions, the flush and fully bonded composite construction increases leaf rigidity, resulting in the door closing with a rich sound. Doors can be configured as either single or double-leaf versions, with the option of a fixed or removable top panel – available in a choice of solid panels, ventilation grilles or transom lights. The maximum door width for a single door is 1400 mm, increasing to 2700 mm for a double door and the maximum height being 3000 mm, increasing to 3350 mm with a top panel. To help keep noise pollution to a minimum, an acoustic infill provides sound insulation of up to 61 db reducing noise pollution both internally and from the outside. While security is ensured with high specification locking systems fitted as standard, break-in resistant doors are also available rated up to RC3.

 $01530\ 516868\ www.hormann.co.uk/industry-commerce-and-public-authorities/industrial-doors$

Helping to preserve an industrial landscape



Two former furniture factory buildings in East London have been transformed into high-end apartments with the help of Crittall windows. Long Street in the Hackney conservation area was a key component in Shoreditch's industrial heritage. The area was once the heart of the capital's furniture trade and, following the Second World War when large tracts of land were earmarked for comprehensive re-development, the then London County Council sought to preserve the district's characteristic built environment as well as local business by constructing what were termed 'flatted factories'. The two blocks now form part of a luxury residential development, Long and Waterson. Architects Fletcher Priest have taken their design cue from the industrial lineage of the area, retaining original external brickwork and window settings and adding two rooftop penthouse levels creating a total of 71 apartments. Crittall Corporate W20 and MW40 systems were specified, in fixed and opening format together with Crittall cold form tubular doors that meet the RC3 burglary resistance security standard; a choice that preserves both the original appearance and the industrial heritage of the area.

01376 530800 www.crittall-windows.co.uk



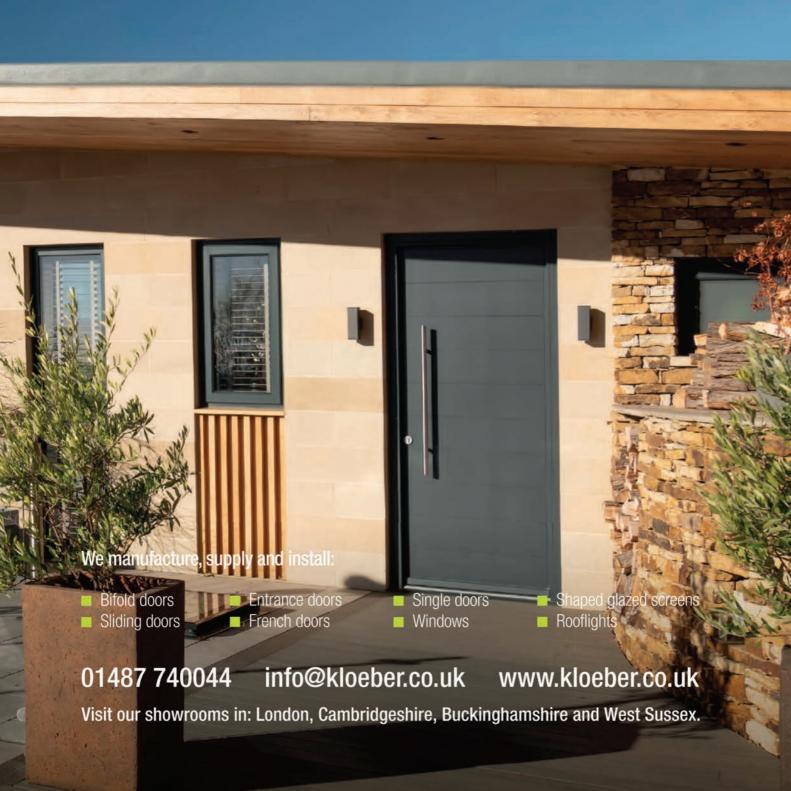
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Senior takes an active role in the leisure sector



With daylighting and natural ventilation having an important impact on physical and mental wellbeing, Senior Architectural Systems has seen an increase in demand for its aluminium fenestration systems in the leisure sector. Senior

has provided the full fenestration package for various contracts across the UK, with specifiers opting for the effective combination of energy-efficient and low maintenance aluminium curtain walls, windows and commercial doors. The Bulmershe Leisure Centre in Reading (pictured) benefits from attractive glazed facades that have been created using Senior's slimline SF52 aluminium curtain wall system.

01709 772600 www.seniorarchitecturalsystems.co.uk

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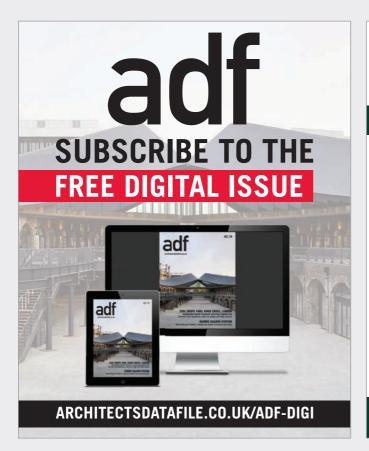
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SWA member replaces 203 steel windows



Steel Window Association (SWA) member, REA Metal Windows, has completed work on the Grade II listed Dantzic on the NOMA estate in Manchester. NOMA has been transformed into 45,000 ft² of office space. REA supplied 203 W20 steel windows; replicating the original window fenestration.

1600 individual frames were required for this project and each one of them was hot dipped, galvanised and polyester painted to a RAL 9001 semi-gloss (cream) finish. Once installed the frames were glazed with Part L compliant 16mm krypton gas filled double glazed units.

www.steel-window-association.co.uk

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monthly CPD Focus and fortnightly ADF Newsletter offer updates on products, services, events, and learning opportunities available from a wide variety of manufacturers and suppliers.

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Traditional timber windows and doors



The Sash Window Workshop specialise in the replacement and repair of timber windows and doors. They offer a supply only service nationwide, with an installation and repair service in London and Southern England. All new joinery is manufactured in-house from their workshop in Berkshire. They manufacture windows that are not only energy

efficient but also in keeping with the style of the property, selecting the highest quality materials to provide the best possible performance, combining minimum maintenance with maximum lifespan.

01344 868 668 www.sashwindow.com

POCKET DOORS and STUDWORK SIZES



With pocket doors becoming more and more popular around the UK, the difficulty of matching their pocket thickness up to the various studwork thicknesses has become a bit of a head-scratcher! Rocket Door Frames have solved this with pocket door systems of 70 mm and 90 mm. These

two dimensions solve virtually all of these problems and can be installed quicker and with much less hassle. For Example Whether it's timber CLS or steel stud Rocket systems have the answer.

info@rocketdoorframes.co.uk www.rocketdoorframes.co.uk



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Topps Tiles appoints new Head of Marketing - Commercial



As it continues to develop its position in the commercial tile market, the commercial business unit of Topps Tiles Plc has appointed Tina Hughan as head of marketing – responsible for its design-led specification and technical tile specialist brands Parkside and Strata. A highly experienced marketeer, Tina has a long track-record within the built environment sector, most recently as marketing director at Reynaers and prior to that ASSA ABLOY. Tina joins the commercial business unit at an exciting time of growth as it continues to develop its tile portfolio and service, including collections that look to reduce the impact of production and raw material consumption. Her success in developing marketing strategies to drive business growth will undoubtedly help the tile specification brands to continue to grow recognition. As head of marketing, Tina will be responsible for shaping the marketing strategy of both tile specification brands, managing change and linking strategic analysis to practical implementation across multi-media. Tina said: "I'm delighted to have joined at such an exciting time in the commercial business unit's development."

0116 276 2532 www.parkside.co.uk

Lathams launches new A&D Specification Team



A new team at materials supplier James Latham will connect architects, designers and specifiers with the most innovative and exciting products on the market today. Bringing together expertise and insight from around the company, the Lathams Specification Team has been launched as a one-stop solution for materials specifiers. There is a strong focus on products with unique benefits, including solid surfaces, hardwearing laminates, antimicrobial acrylics and robust exterior cladding. Aesthetics are well catered for too, with the team able to recommend a range of surfaces, finishes, colours and styles suitable for any project. These include products that mimic other materials, such as decors that replicate the look and feel of various stones, woods and linens. The team's knowledge incorporates a broad product portfolio including solid surfaces such as HI-MACS and Avonite and decorative laminates and veneers from manufacturers including Egger, Xylocleaf, Kronospan and Decospan. The team will support customers throughout the UK. To coincide with the announcement of the new team a solid surfaces website has also gone live, providing an additional detailed product resource.

www.lathamsolidsurface.co.uk www.lathamtimber.co.uk

Norbord invests in new recruits for Scheme



Norbord is pleased to introduce the latest recruits to the company's Engineering Graduate Scheme. Andrew Chapman, Grant McEwan, Deborah Ayebare and Luca Micheletti joined the scheme on 19 October 2020 and are based at Norbord's plants in

Cowie, South Molton and Inverness. For all the new recruits, the Norbord scheme is a continuation of their engineering training gained at university and they bring with them individual skills which will be put to good use. Norbord is proud of its history of training for young people and has run apprenticeship schemes for 40 years.

www.norbord.co.uk

Saniflo welcomes new Sales Director



In January, Saniflo UK welcomed new sales director, Simon Emmons. Based at the company's head office in Watford, Simon brings a wealth of senior level experience to the role. Simon will strengthen the distribution network for the domestic range and oversee growth of commercial pumps and lifting stations and the Kinedo range of showers, trays and

baths. Simon says: "I'm delighted to be a part of the Saniflo team. I look forward to strengthening the distribution network for the domestic range and overseeing growth of commercial pumps and lifting stations and the Kinedo range of showers, trays and baths."

020 8842 0033 www.saniflo.co.uk

Ensuring the long-term performance of timber



To provide the very best long-term endurance that further enhances the environmental credentials of using timber, Lonza Wood Protection has recently launched VACSOL 6118. VACSOL 6118 is a water-based, metal free low pressure preservative treatment. With BPR (Biocidal

Products Regulation) authorisation, it has an innovative booster technology (known as 'VAC-VAC') to provide long-term protection against fungal and insect attack around general building timbers and joinery components. VACSOL 6118 has been designed to treat timber to meet the requirements of Use Classes 1, 2 and 3 (coated).

01977 714000 www.trustvacsol.com

ROCKWOOL® launches flat roof zoning tool



ROCKWOOL has unveiled a new flat roof zoning tool designed to help specifiers and roofing contractors balance performance criteria, regulation compliance and design targets when choosing insulation. Hosted on the ROCKWOOL website, the tool has

been created in recognition of the increasing prominence of flat roofs in contemporary building design. The purpose of the tool is to simplify and optimise insulation design by zoning flat roofs according to how each area will be used. The tool recommends the best ROCKWOOL stone wool insulation for each roof zone.

01656 868 490 www.rockwool.com/uk



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Keystone brick slip feature lintels integral to Cheshire barn development

eystone Lintels has provided a range of innovative, prefabricated brickwork solutions as part of the restoration and conversion of a series of barns into new homes along with the creation of nine new build houses.

Church Farm Barns in the village of Acton in Cheshire is located in a conservation area near the market town of Nantwich. The scheme, delivered in two phases, has seen the restoration and conversion of three barns and a six-bed Grade II-listed Georgian farmhouse along with the construction of nine new-build two, three and four-bedroom homes. Built by Chamberlain Developments, the second phase of the project required brickwork design for the new-build homes, which was in keeping with the heritage sensitivity of the site and adjacent barns and farmhouse. The specification required a number of unique, one-piece brick slip feature lintels which were designed by Keystone's technical team and manufactured in a factory controlled environment negating the need for complex brick cutting on-site.

The nine new-build homes feature a combination of eighty bespoke Flat Gauge Brick Slip Feature Arches, as well as Bullseye and Parabolic Lintels, each requiring a flawless brick surround finish to match the brick being used on-site and in keeping with the appearance of the converted barns.

Fabricated off-site, Keystone's dedicated technical team ensured each bespoke lintel was manufactured to the size, shape and aesthetic requirements within the project build schedule.

Keystone collected a consignment of bricks from the developer to ensure the brick slips matched the ones being used on site. These were then cut and bonded onto load bearing lintels using a BBA approved construction adhesive.

The patented perforated design of a Keystone Brick Slip Feature Lintel allows the adhesive to squeeze through the perforations



and form a 'mushroom' on the inside, providing a mechanical lock between the steel lintel and the bricks.

The plans received from T G Builders Merchant originally included brick slip lintels for the front and rear elevations only however, Keystone's team were able to offer Chamberlain Developments a solution for the other more intricate brick details and the specification was therefore increased to include additional brick slip flat gauge arches and bullseye lintels for the side elevations.

01283 200 150 keystonelintels.com

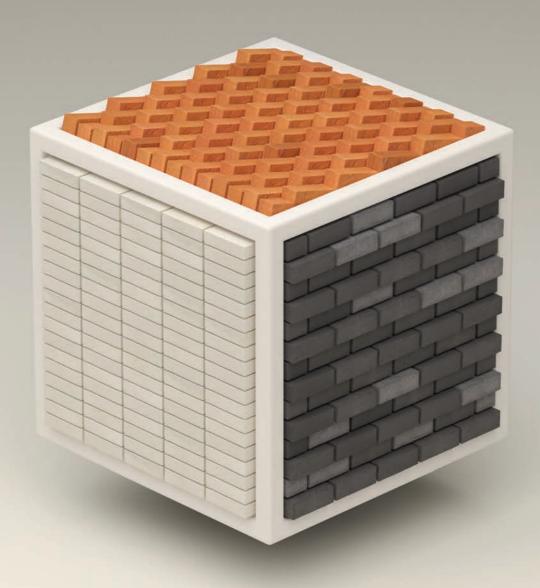




47 is the new 50 - have you switched yet?

To build safer, stronger structures requires more than just top quality joist hangers; equally important is choosing the correct sized joist hanger. Regularised timber is now the UK standard, which means 50mm hangers are yesterday's news. Unlike rough sawn timber, where the width of a joist can be anything up to 50 mm, regularised timber is planed down and the edges rounded for consistency, so regularised timber is always 45 mm. At Simpson Strong-Tie we know that size matters! Regulated hanger sizes have long been offered across our hanger ranges. National builders merchant sales manager Steve Allen explains: "Our 47 mm range provides the correct, secure fit. Using 50 mm wide hangers leaves a gap between the hanger and the joist, which not only requires structural packing in order to meet regulations, but can still result in twisting timber and squeaky floors. The wider the hanger, the more important it is to use regularised sizing - and Simpson offer it as standard. We have 47 mm hangers for singles joists, 91 mm for doubles and 137 mm for triple joist applications."

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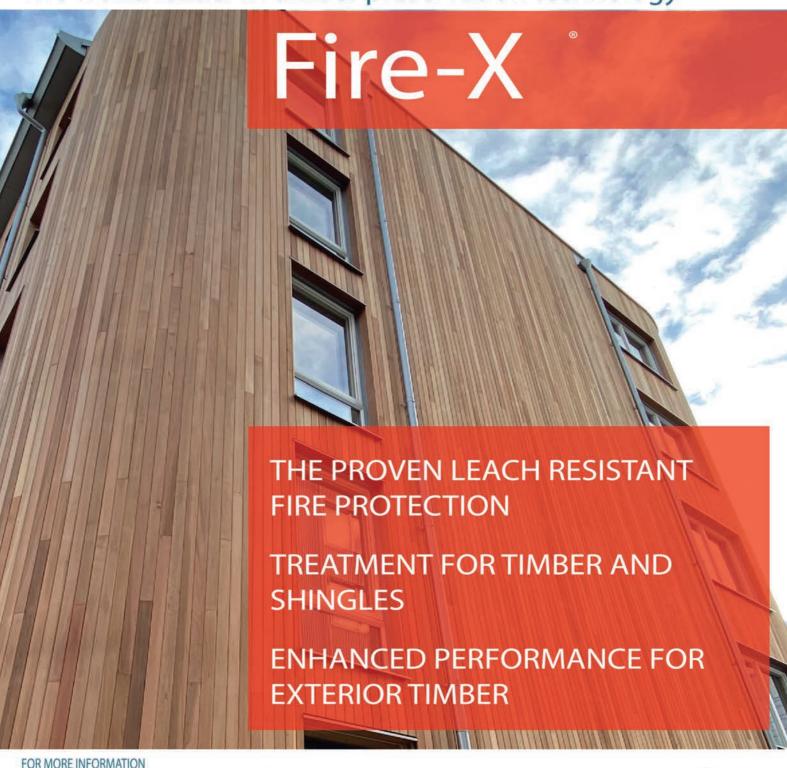








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Thermoblocks selected for sports complex



One of the largest structures so far to make use of Marmox Thermoblock's unique combination of load-carrying and insulating properties is currently taking shape at the White Oaks Leisure Centre, a new £20 million state-of-theart complex in Swanley, Kent. A total of 1,200

of the 65 mm deep, 600×140 mm Thermoblocks form a continuous thermal break overlapping the underside of the concrete floor, the soffit to which will then be covered with a spray-applied insulation layer to complete the thermal integrity of the sub-structure. Marmox Thermoblocks are available in widths of 100, 140 or 215 mm.

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

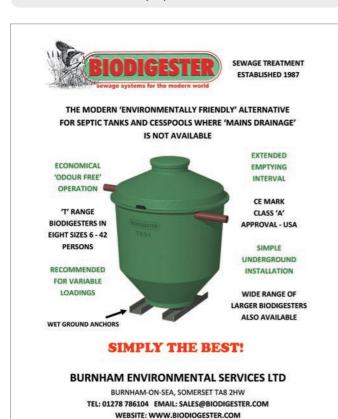
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no waste. Self-supporting – no need to build into inner skin option. Compare that with trying to cut and shape and support accurately using roll material on site. Cavitray Compliancy – Best Practice Every Time. For more information, please visit Cavity Trays' website.

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Pump priming

Darren George of Willow Pumps looks at recent developments in pump station design, to provide ease as well as efficiency

It's safe to say the aim at the outset of any project is the completion of a build on time and on budget. But most industry professionals will have experience of a construction project that has encountered problems – unforeseen issues that cause delays, extra cost, or breakdown of client relationships.

Services such as pump station design and installation, both for private and 'adoptable' stations, can be a fundamental part of a construction project where gravity fed drainage is unachievable, and this needn't be a problem if approached professionally and at an early stage. This can be of particular importance on adoptable stations so that all site constraints can be considered and assessed to help ensure that the pump station is designed and installed to a standard that would allow a water utility company to 'adopt' the asset in the future.

A pump station designed to adoptable standards is often preferred over a private one, as the eventual ownership and responsibility for upkeep and maintenance will transfer to a water utility company and no longer present a liability for those who built or rely on the pump station.

Get it right from the start

Even at concept stage - before drawings are completed and a build has begun answering key questions about Sewerage Sector Guidance (the replacement for SFA – Sewers for Adoption) or private pump stations can save future headaches. What size of pump station will be required for the planned build? How much space will this take up on site? Where on site will it be most efficient to place it? What will the specific requirements of the local water authority be? By directing these questions to your pump station designer as early as possible, all requirements are understood from the outset and designs can include optimal rather than substandard solutions, avoiding costly changes and corrections being made further down the line.



Every build is different, and pump station design should be considered as a bespoke solution for each specific project. Even between two similar projects (for example, two residential housing builds of roughly the same size), the specific requirements can vary. This might be something as simple as the size of space required for pumping facilities or unique limitations of a particular site.

By relying on precedent, or standard solutions from previous projects, groundworks crews can end up being instructed to create spaces that don't fit the ultimate need, and responsibility for this mistake can find its way back to initial engineering or architectural planning.

The process of integrating pump stations of adoptable standard or other pumping facilities can be viewed as a life cycle, from initial assessment through design, approval, installation and management, and





subsequent adoption of the station by the local water authority. Understanding this process from the start and being clear on which parties are responsible for each stage is crucial for a successful integration. This is where involving a provider who can cover the whole life cycle can be helpful – the fewer stakeholders there are to be co-ordinated, the more chance there is of a streamlined process.

Keep the process simple

Issues do occur, that's the reality of any project. But when they do, you want to be able to deal with them quickly and efficiently. Adopting one company for all aspects of the whole life cycle of your build means that unforeseen issues can be addressed easily without having to wait for communication between multiple parties. Problems can be assessed and immediately passed over to the relevant person in-house. Parts can be accessed quickly and repairs made without delay, saving both time and money.

A simple, but carefully managed maintenance and snagging period after installation can also help to eliminate any problems that could delay the adoption process. By working with a single provider, they will have full knowledge of the design and installation phase, meaning any issues during maintenance and snagging can be easily checked against the original requirements and discussed without having to wait for information from another source.

Experience pays, and any adoptable pump station designer with a history of successful projects across multiple water authority areas will have the industry relationships necessary to ensure a smooth process. This would include good working relationships with local water authority

Services such as pump station design and installation can be a fundamental part of a construction project where gravity fed drainage is unachievable

inspectors, trusted partnerships with suppliers, and up-to-date knowledge of the most recent industry regulations. When handover occurs, the pump station can be transferred without difficulty and without any key requirements being overlooked.

Consider the long term

The end goal should always be to deliver on time and on budget to allow timely sale of properties and maintain good client relationships. Ensuring that the inclusion of Sewerage Sector Guidance and other pumping facilities doesn't disrupt this goal comes down to keeping in mind the ultimate need – seamless and successful adoption of the pump station. This means being able to have faith in your provider to deliver all parts of the project to a high standard, and being able to keep open lines of communication with a small number of expert individuals along the way.

Keeping documentation flowing from one source throughout the adoption process enables projects to be handed over without confusion, allowing everyone involved to provide quality and efficiency, thereby keeping clients happy and laying the groundwork for future collaborations.

Darren George is technical design manager at Willow Pumps

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REA Awards 2020 Pioneer Award winner



Having not knowingly been nominated, the Pioneer Award came as a welcome surprise to H.D. Services – what better way to start off 2021! Rebecca Taylor, business development & compliance manager said: "We are delighted to have won the Pioneer Award at the REA Awards 2020. The last 10 years have seen us develop our renewable heat option, starting from a

belief that the water we regularly drill for can be used as a heat source. We are proud to be recognised as pioneers in our field."

01494 792000 www.hdservicesltd.co.uk

AliDeck launch balcony configurator tool



In keeping with their reputation for continually innovating, AliDeck have announced the launch of a new balcony configuration tool for architects and specifiers. Well known in the industry for their non-combustible aluminium decking range, AliDeck recently expanded

their product offering to include balcony soffit cladding and balustrade systems. The launch of their balcony configurator now allows specifiers to interrogate the full range of AliDeck balcony component systems, easily understand the available options, and receive datasheets and DWG files for simple specification.

www.balconycomponents.co.uk www.alideck.co.uk



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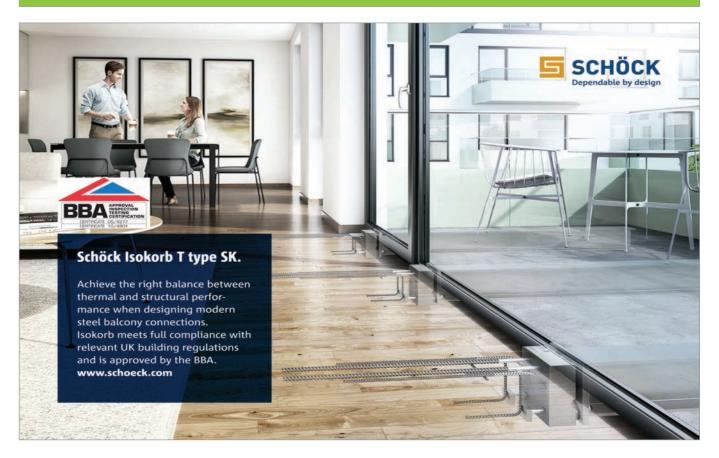


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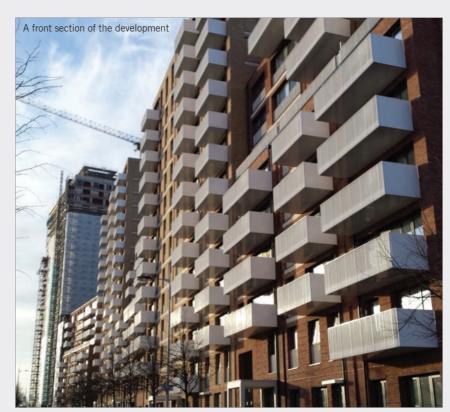


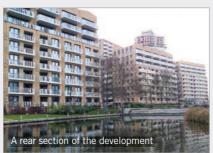
Schöck product solution is just dandy at Regency Heights

The Old Oak and Park Royal areas of West London are undergoing a massive transformation. A £26 billion masterplan to create a new district is taking shape in this part of London and it will see around 25,000 new homes built over the next 20 years. An already advanced scheme is the First Central development, part of which is the imposing Regency Heights. Built on the former site of the Sir Giles Gilbert Scott designed Guinness Brewery, it is a residentialled, mixed use scheme providing 807 residential units in three courtyard blocks wth a public plaza. The buildings range from five to twenty-seven storeys and the design is reminiscent of the Brewery's early modern industrial brick architecture. The southern block is anchored by a brick-clad residential tower, which when complete, will create a new 90m high local landmark. The majority of apartments are fitted with steel balconies. So it is vital that with the design detailing any risk of thermal bridging is minimised and a key consideration throughout is the use of effective structural thermal breaks.

Consequences of thermal bridging

Local heat loss is a major factor, resulting in more energy being required to maintain the internal temperature of the building. Also, low internal surface temperatures in the area of the thermal bridge can cause condensation. This can result in structural integrity problems with absorbent materials, such as insulation products or plasterboard. Mould growth is also a possible risk, which in a residential situation can cause asthma and allergies. The proven solution to any such problems is the Schöck Isokorb structural thermal break. In the case of Regency Heights, over 2500 units of the Isokorb T type SK are installed. This is a load-bearing thermal insulation element with an 80 mm insulation thickness for connecting cantilevered steel balconies to a reinforced concrete slab. The innovative fastening of the support beams makes any steel structure durable, safe and visually attractive, permits a high degree of prefabrication and minimises installation time on site. The T type SK transfers positive or negative moments and shear forces. And since it can bear heavy loads, it is ideal for resolving the





technical and structural issues of designing modern balconies.

Guaranteed performance

The Schöck Isokorb T type SK units guarantee totally verifiable performance standards, meet full compliance with all relevant UK building regulations and offer BBA Certification and LABC Registration. When incorporated into residential buildings, the required fRsi value, the temperature factor used to to indicate



condensation risk (that must be equal to or greater than 0.75) is always comfortably met. The range complies with the Government Standard Assessment Procedure, SAP 2012, concerning CO₂ emissions from buildings and respectively heat losses through non-repeating thermal bridges. The lambda values of the Isokorb also enables energy loss to be reduced by as much as 84 per cent to 91 per cent.

01865 290 890 www.schoeck.com





EGR roof terrace contributes to student health & wellbeing

roof top garden in the city centre of Birmingham has been proven to contribute towards student health & wellbeing.

Onyx, a 1025-bedroom student accommodation project developed, designed and built by McAleer & Rushe, was targeted to- and has achieved- BREEAM "very good". Part of the BREEAM achievement is directly attributable to the green roof and landscaped roof garden, attaining points in three of the five categories- Health & Wellbeing, Resource & Energy and Land Use & Ecology.

Located in Lancaster Circus, Onyx features two towers, 13 and 24 storeys respectively, connected by a ten-storey link. The scheme features an artificial grass area and paving on the top 24th floor and a similar grassed area, paved walkway, cobbles, planters and sedum green roof atop the ten-storey building, both supplied and installed by Eco Green Roofs Ltd (EGR) on behalf of waterproofing contractor Able Waterproofing. EGR also supplied and applied their bespoke soil to planters across the ground level courtyard.

The roof terrace was designed to a detailed specification, with angular areas reflecting the design aesthetics of the residential structures. Behind the enclosing glass screen, EGR created the asymetrical layout using a combination of pebbles, flagstones and ornamental bark between sections of artificial grass and plant beds encompassing low and medium height specimen shrubs, hedging and specimen trees. The trees were carefully planted and anchored to ensure they withstand wind loading at height.

EGR SB+ Sedum Blanket Green Roof System was installed, the first component fitted was the EGR DBR20 cuspated drainage board, added EGR F filter layer and then completed with the surface using EGR Extensive Substrate overlaid with EGR Sedum Blanket on coir matting. Sedum green roofs offer an aesthetically vibrant finish, offering colour all year round. EGR's system has a high water-holding capacity due to the EGR drainage/retention boards and the EGF specialist substrate. Sedums are succulents which hold water within their form which further enhances this system's performance. This helps mitigate urbanised flooding. Sedum blankets specifically offer at least 90 per cent coverage





from install, delivering instant effect and helping prevent invasive species from bedding during initial establishment.

James Foster, director at Able Waterproofing, explained: "The client brief was very exact and comprehensive to deliver due to the central city location. From experience that we could rely on Eco Green Roofs to deliver the green roof and hard landscaping efficiently and professionally, giving us a single point of contact for both, differing elements"

John Higgins, project manager for McAleer & Rushe added: "Under Birmingham's Design Plan, 'developments need to be supported by suitable green and social



infrastructure', so inclusion of green elements within the Onyx scheme was key to our ability to develop the project. The green roof and landscaping were also part of the BREEAM criteria. Their delivery, to specification, by Eco Green Roofs, was a fundamental element in achieving the BREEAM very good target for the scheme. Most importantly it delivered a living environment for students that, despite its highly urbanised setting still gives them a welcoming outdoor space on-site to relax beside nature."

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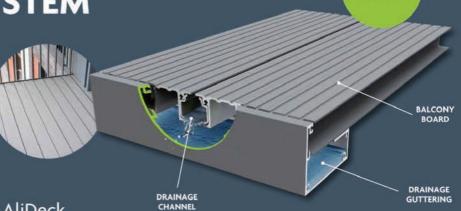
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Fireshield® chosen for Science Centre



The A. Proctor Group's Fireshield® vapour permeable membrane, which is designed specifically to improve the fire protection behind cladding has been chosen for a new Science Centre at Bevington Primary school in the Royal Borough of Kensington and Chelsea. SIP

Build UK was appointed as frame subcontractor for the project and chose the Fireshield membrane. Chris Duckworth from SIP Build UK explains: "We chose Fireshield as it provided the project with a number of really important benefits. Fireshield is a high-performance breather membrane which enables us to achieve the requirements in terms of fire protection without compromising on vapour control."

01250 872261 www.proctorgroup.com

Membranes protect Self Build Heroes



Motivation, adaptability, integrity and trustworthiness combined with nearly 50 years of construction experience is the description of an innovative service by Self Build Heroes, intended to support selfbuilders in achieving their dream of

building their own home with military veterans. In their latest project, the roofs and the building envelope has been fitted with highperforming protective membranes from the A. Proctor Group. Matthew Burrows, founder of Self Build Heroes explains: "We chose Roofshield because of its superior air permeability and breathability."

01250 872261 www.proctorgroup.com

CUPACLAD® 101 RANDOM used for museum



CUPA PIZARRAS' CUPACLAD® 101 RANDOM rainscreen cladding system has been used to create a geologically inspired exterior for the Sedgwick Museum of Earth Sciences' new £2 million Colin Forbes Building. The design of the exterior includes a mix of brickwork and slate cladding. CUPACLAD® 101 RANDOM consists of slates in sizes of 50×15 cm, 50×20 cm and 50×25 cm installed in

horizontal courses to create a varied and dynamic finish. The system is installed using specially selected stainless steel screws that are concealed behind the row of slates above to be invisible once installed.

020 3318 4455 www.cupapizarras.com/uk

Sherwin Williams' partnering skills



Dowsil sealants have been supplied by the Sherwin Williams Company to help facilitate the delivery of a unitised glazing and cladding package for a commercial office project in one of Manchester's key regeneration areas – 100 Embankment at Greengate, Salford. The facade's assembly and installation included the use of Dowsil 993 Structural Glazing Sealant to bond the glazing elements, as well as Dowsil 791 Weatherproofing Sealant for all of the

weather-sealing applications. All of the insulating glass units were assembled using Dowsil 3363 Insulating Glass Sealant.

0114 240 9409 specification.sherwin-williams.co.uk



SHERWIN-WILLIAMS.

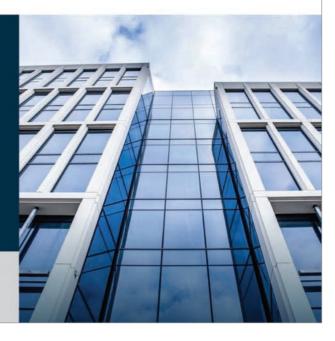
Sherwin-Williams and Dow assist you in defending your building against air and water infiltration with system-based, high performance building solutions.

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what really sets it apart is that it's barely visible from the inside. In fact, it's been so successful in independent testing, it even won the British Glass Focus award for Innovative Solutions.

See more at pilkington.co.uk/avisafe





Illuminating Nordic Copper

bespoke perforated solar screen, formed from Nordic Blue Living 3 pre-patinated copper, defines the new Senior Learning Centre building at Ravenswood School for Girls in Gordon on Sydney's North Shore, creating a fresh landmark along the Pacific Highway.

Architects BVN's design optimises a 6.5m level difference across the site, with extensive glazing to the lower two floors. The upper two floors are differentiated by Nordic Blue Living 3 copper screens, creating a transparent skin enwrapping the building and jettied out over the lower levels. To create the screens, a distinctive repeat pattern of perforations, inspired by the shape of gum tree seedlings found on site, were laser-cut into the copper.

Large window openings with deep, copperclad reveals 'punch' through the copper screen to break up the elevations, enable clear uninterrupted views across the grounds and introduce coloured light via glass bricks. Being set in front of the thermal envelope of the building, the copper screens mediate light



and thermal penetration, reducing cooling load whilst allowing the interiors to feel light and airy.

BVN senior associate Phillip Rowden commented: "Nordic Blue Living 3 pre-patinated copper was selected for the perforated screens because of its striking colour contrast with the predominantly masonry surroundings on Campus. Our material palette required high proportions of recycled content and low embodied energy. High quality materials, such as copper, were selected for the exterior with longevity a key



consideration – materials that are robust, beautiful and will stand the test of time."

Nordic Blue is a factory-applied patina developed with properties and colours based on the same brochantite mineralogy found in natural patinas all over the world. The Nordic Copper range of architectural copper products is available from Aurubis, part of the world's leading integrated copper group and largest copper recycler.

g.bell@aurubis.com 01875 812 144 www.nordiccopper.com

How to score multiple benefits from one upgrade



The Tangerines aka Blackpool FC have extracted optimum benefit from a comparatively small upgrade. The League 1 Club's stadium, built in 2010, has already needed to refurbish the exposed areas of the facade due to the extreme climatic conditions faced as a result of its proximity to the sea. The club management called up the premier player in the sector – Gilberts of Blackpool – to replace the now rusty plant screening and ventilation louvres. Now, two banks of Gilberts' WGK75 kit-form louvres each 10m x 3m either side of the Stadium merchandise shop, and a further 4m x 4m screen by the north stand, have been fitted. To optimise protection, the aluminium louvres have been powder coated marine grade – in tangerine. "Our nickname is The Tangerines. As I wanted to create a talking point, it seemed logical to choose such a bright colour for the louvres, especially as Gilberts as a company has been actively encouraging the use of colour to brighten our built landscape," observed Glynn Makin, Blackpool FC stadium manager. "I knew from Gilberts' reputation that the company would be on target for quality and price too, which was an added benefit."

01253 766911 info@gilbertsblackpool.com

Kalzip's FC rainscreen facade system



Kalzip has had its FC rainscreen facade system tested in accordance with BS 8414-1 and has successfully met the requirements of BR 135. Kalzip's FC rainscreen is a non-penetrative facade system that incorporates a fast-to-install lightweight flat rainscreen

panel and is suitable for both new build and refurbishment projects. Kalzip, Knauf Insulation, SFS Intec and Siderise partnered to have the FC rainscreen facade system tested to ensure compliance with BR 135 and provide peace of mind to specifiers and building occupants that the products used will perform as stated.

fcfacade@kalzip.com www.kalzip.com

A1 fire rated cladding used on regeneration



Tata Steel has supplied its leading steel standing seam wall cladding system, Urban Seam® Facade to a new award-winning development in Portsmouth. The Goldsmith Avenue project is among the first in the UK to benefit from the A1 fire rating of the system, as well as its modern

aesthetic and long-term durability. The exterior of the two buildings features a mix of red brick alongside Tata Steel's Urban Seam® Facade in Merlin Grey, which was selected for its aesthetics, increased fire performance and longevity. The Urban Seam® Facade system consists of a high-quality steel standing seam mounted on a profiled steel deck.

01244 892449 www.tatasteelconstruction.com





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ALUCOBOND® is the original aluminium composites material







- ALUCOBOND® A2 and PLUS have been in continuous production for over twenty years.
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- ALUCOBOND® A2 and PLUS were tested to BS8414 large scale tests pre June 2017.
- 3A Composites is member of the MCRMA and furthermore collaborating with National & European Authorities to enhance regulations and standards.
- 3A Composites has strategic partners enabling comprehensive training on design, fabrication and installation.

New Pier Wharf, London
ALUCOBOND® A2 Copper + C32
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ALUCOBOND® PLUS is a composite panel consisting of two aluminium cover sheets and a fire-retardant mineral-filled core (70%).

For rear-ventilated façades, we recommend ALUCOBOND® A2 (EN classes A2-s1, d0) or ALUCOBOND® PLUS (EN classes B-s1, d0) in combination with non-combustible mineral insulation. This combination shows no flame propagation or critical temperature rise, and even exceeds the requirements of BR135.



Pushing the envelope

John Nolan of Generix Facades looks at the importance of a robust approach to testing the structural integrity and capability of facade systems

aving a solid understanding of how a facade system will perform prior to construction is crucial for architects, consultants and building specifiers.

The Centre for Window and Cladding Technology (CWCT) is one of the UK's leading authorities in the field of glazing and building envelopes. Based in Bath, the centre helps to set and regulate industry standards in building envelope design and construction.

The centre offers a varied range of information which apply to different aspects of a building design. The CWCT Standard for systemised building envelopes was published in 2006 and is applicable to curtain walling, walls with ventilated rainscreens, and overhead glazing.

Notably, both the National Building Specification (NBS) and the National House Building Council (NHBC) standards use the centre's 'Standard for curtain walling' and 'Standard for walls with ventilated rainscreen.'

What is rainscreen CWCT testing?

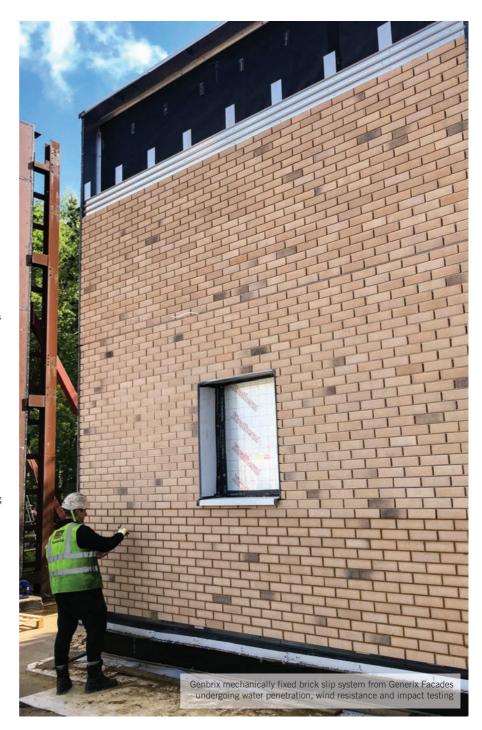
A rainscreen test – or as it's officially titled, a CWCT Sequence B Facade Test – is designed to test the serviceability and durability of a facade system in accordance with the appropriate standard (CWCT Standard for Walls with Ventilated Rainscreens).

A facade system is fixed to a full scale rig at a UKAS accredited testing site, and once the system has been installed it is put through a series of tests that determine serviceability. These tests focus on:

- air leakage
- dynamic pressure
- water penetration
- impact.

Test 1 – Water penetration – dynamic

To measure water penetration, water is sprayed continuously at the facade for 15 minutes. An aircraft engine is used to provide direct wind force.





The Centre for Window and Cladding Technology (CWCT) helps to set and regulate industry standards in building envelope design and construction



Once the test is completed, the system is fully dried, cleaned and all joints are sealed in preparation for the next test.

Test 2 – Wind resistance testing (serviceability & safety)

Test probes are positioned across the facade system to register panel deflection and the test rig is fully sealed. A fan is connected to the system void so either negative or positive pressure can be created.

First the test simulates the system being pushed against the wall, increasing in stages until the safety point is reached.

Following this, pressure is added to the void to test the system being pushed away from the wall. As before, pressure is increased in stages until the safety point is reached.

The serviceability test simulates changes in high winds and measures any deflection of the system.

The safety test is done at higher pressure – where the defections aren't considered.

Test 3 – impact resistance

In the impact resistance test a series of impacts are recorded using a steel ball

and a 50 kg leather bag of glass beads. These objects are swung from the pendulum to directly impact the facade system in several positions.

Impact resistance is one of the most important properties for a facade designer to consider. Not only the ability of the material under test to resist impact – factors including how that material is fixed, what material it is fixed with, and how it transfers its impact load to the building will impact on its overall resistance. It's imperative that impact testing is carried out prior to ensure the correct system is selected for the project.

Understanding the specific requirements of your project ahead of testing is crucial to evaluating what CWCT results are acceptable on any live project. Ultimately, full scale mock-up testing of a facade will save significant time and money by identifying how a facade will perform, and allow for any necessary amendments to be made to design and materials prior to the construction phase.

John Nolan is director at Generix Facades



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Aliva brings first A1 rated non-combustible clay brick slip system to market



Aliva, the UK leader in bespoke facades and interior finishes, has achieved A1 accreditation for its latest clay brick slip external wall insulation (EWI) system.

Backed by six decades of Italian flair from its parent company, Aliva UK offers architectural expertise to add verve to building developments across the country, with its design and engineering solutions complemented by a complete facade suite of specialist products.

The system has been developed to ensure the highest fire classification has been achieved based on testing to standard EN 13501-1:2019. To achieve A1 rating all individual components that make up the system are tested to this standard.

Aliva UK continue to develop solutions for the External Wall Insulation sector, which strictly accord with current Building Regulations and ensure testing of each entire system is undertaken and certified, which allows clients to be comfortable with specifying Aliva UK system solutions.

Testing was also undertaken on the clay slip bonding agents. The bonding agents used were tested to provide a load value, which delivers further comfort to the market. The tests provided results that exceed two tonnes per square metre. This kind of strength is equivalent to comfortably hanging an average family car off each square metre of wall.

James Ormerod, managing director for Aliva UK, said: "It's quite a coup to achieve an A1 rated EWI system in today's market and this product provides architects and developers a one of a kind



"It's quite a coup to achieve an A1 rated EWI system in today's market

and this product provides architects and developers a one of a kind solution to design and build schemes, safely and cost effectively"

James Ormerod, managing director for Aliva UK

solution to design and build schemes, safely and cost effectively."

The newly designed EWI system is fully non-combustible, and is fully monolithic meaning that it can be wholly and safely wrapped around any modern building structure.

Ormerod adds: "As modern methods of construction become increasingly accessible and commercially viable for construction projects around the world, fire safety remains of upmost importance."

"As such, we take our commitment to continually developing new EWI solutions extremely seriously; ensuring that our systems are always the safest that they can possibly be."



www.anvauk.com Twitter/Instagram: @AlivaUK T: 01183 240130

Innovative cladding combines the best



The Finish Line Collection from James Latham is the result of an exclusive partnership between the firm and Accoya Timber, timber engineering company Dresser Mouldings and Canadian coating specialist Sansin. The manufacturing

process sees the Accoya wood profiled, surface finished and coated by the team at Dresser Mouldings. This specialist process creates a key on the timber's face, with tiny variations in texture allowing Sansin's ultra-low VOC coating to penetrate beneath the surface of the timber. This helps to bind it to the cells and prevents peeling and cracking. The Finish Line Collection comes in 12 unique colours.

info@lathams.co.uk www.bit.ly/LathamsFLC-ADF

Clay brick system achieves A1 accreditation



Aliva UK has achieved A1 accreditation for its latest clay brick slip EWI system. Aliva UK's system is fully noncombustible and it has been developed to ensure the highest fire classification has been achieved based on testing to standard EN 13501-1:2019. James Ormerod, Aliva UK managing director,

said: "It's quite a coup to achieve an A1 rated EWI system and this product provides architects and developers a one of a kind solution to design and build schemes, safely and cost effectively."

01183 240130 www.alivauk.com

Sto brings acoustic balance to landmark



A major new landmark on the London skyline now benefits from a balanced acoustic environment thanks to the use of the StoSilent Distance system from Sto. The main lobby and Mezzanine Club area of The Stratford (formerly Manhattan Loft Gardens) have been fitted with StoSilent Distance, to create interiors which combine comfortable

acoustic surroundings with a clean and contemporary appearance. For this project, the StoSilent Distance system was finished with a grey-tinted StoSilent Decor M sound-permeable coating.

0141 892 8000 www.sto.co.uk

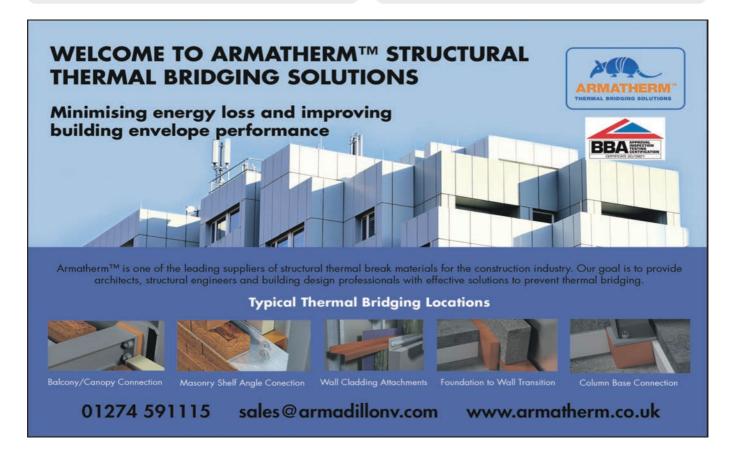
Sto system chosen to help new care centre



An external wall insulation system from Sto has been used to help a new care home building achieve an impressive BREEAM rating. The company's StoTherm Mineral system was specified for the Figbury Lodge Care Home in Poole, for its outstanding thermal insulation

performance. The StoTherm Mineral system was installed onto a lightweight steel frame using Sto's innovative Sto-Rotofix Plus fixings. These unique, spiral fixings allow the insulation boards to be installed quickly and easily, while retaining a high degree of flexibility. The insulation system was finished with StoSilco resin render.

0141 892 8000 www.sto.co.uk



Insulation creates healthier buildings

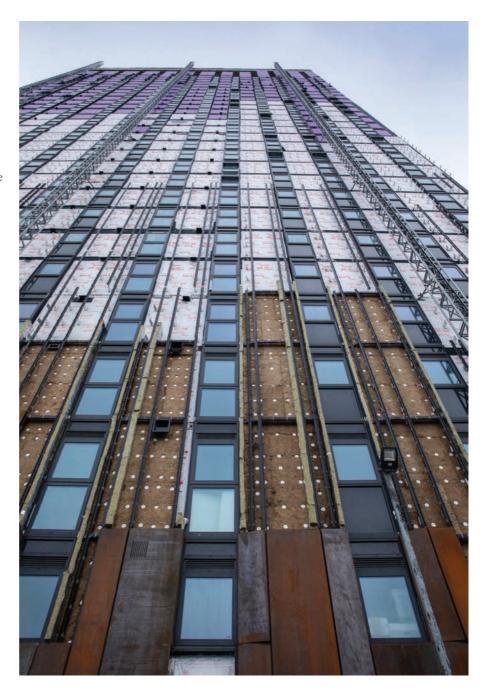
Matt Prowse of Knauf Insulation discusses how insulation can help combat the problems of sick building syndrome, including noise and indoor air quality, sustainably

he average adult spends 90 per cent of their time indoors – and this percentage has increased over the past year as people deal with Covid-19 restrictions. But what if the building you live or work in itself is making you sick? For many people, Sick Building Syndrome (SBS) is a reality. Insulation can play a role in making buildings, and occupants, healthier.

SBS was first identified in the 1970s and refers to symptoms experienced by someone only when they are within a specific building. These symptoms typically reduce when the person is elsewhere. There are a number of factors thought to contribute to SBS, ranging from specific equipment used indoors, to cleanliness and even stress levels. But for architects and specifiers, it's the building's fabric that's important. The way buildings perform, and the materials they are made from, has a significant impact on the internal environment and therefore the health of occupants.

Insulation is a good example. There are many health conditions exacerbated by low temperatures – such as pneumonia, circulatory disorders and arthritis – so high performing insulation is essential. Installed correctly, insulation creates a comfortable indoor environment, keeping buildings warm in cold weather and cool in warm weather. It also creates homes that are cheaper to run – leaving occupants with more money to spend on other things to keep them healthy – fresh food, exercise and dental treatment, for example.

For architects and specifiers, it's important to know how product choice affects the indoor environment. Beyond the thermal, fire and acoustic performance considerations, providing ease of correct installation should be top of mind. For example, during installation, mineral wool insulation products adapt to imperfections in the substrate. Other insulation products – such as rigid foam boards – can be





Beyond the thermal, fire and acoustic performance considerations, providing ease of correct installation should be top of mind. For example, during installation, mineral wool insulation products adapt to imperfections in the substrate

difficult to install correctly because they will pivot on these imperfections. This creates air gaps between the boards, reducing thermal performance and leading to cold spots.

And it is these cold spots that contribute to poor health because they allow mould spores to flourish, compromising indoor air quality. In fact, a 2019 study by Sustainable Homes and EnviroVent found that residents living in mouldy homes were 63 per cent more likely to suffer from respiratory conditions.

The study also found that new, well-insulated homes, and those with the best loft insulation, were the least likely to have mould. But remember, insulation should always be combined with a good ventilation strategy.

It's not just mould that affects indoor air quality. Chemical compounds such as formaldehyde are used in the manufacture of many construction products. These products then emit pollutants known as Volatile Organic Compounds (VOCs), which can lead to poor air quality. VOCs have been linked to a wide range of health conditions including headaches, asthma and cancer.

For this reason, many sustainability schemes such as BREEAM and LEED award points for construction products that contribute to good indoor air quality. BREEAM doesn't just look at

the indoor air quality of the finished building, it also requires an air quality plan for the construction site to safeguard installers' health.

There are third party certifications you can look for to assess the indoor air quality impact of insulation products you specify. Eurofins Indoor Air Comfort Gold Certification is a European-wide accreditation for low VOC products that go beyond the legislated minimum standards and contain no added formaldehyde or phenol.

Knauf Insulation's bio-based binder ECOSE Technology contains no added formaldehyde or phenol – a key factor in it achieving Eurofins Indoor Air Comfort Gold Certification.

With regards to Mineral Wool insulation, you can also look for the EUCEB trademark, which confirms compliance with stringent European requirements and regulations related to product health and safety.

Another key building health consideration is noise. There is growing recognition that noise can have long term health impacts, increasing a person's risk of suffering from headaches to depression, and even heart attacks.

Regulations such as Approved Document E for dwelling buildings in England and Wales set out minimum acoustic standards. However, with the recent changes in working practices, there is an argument for increased levels of soundproofing within the home too. For example, adding acoustic insulation to internal walls between the main living space and a home office – although not required by the regulations currently – would be extremely beneficial for home workers.

When it comes to reducing noise, insulation product choice is crucial. acoustic mineral wool is extremely absorbent and provides excellent levels of soundproofing. Other insulation types perform less well. For example, rigid foam boards absorb very little sound – external sound is transmitted directly through the material into the room, and internal sound is reflected back as echoes.

Mineral wool insulation can alleviate some of the most common symptoms of sick buildings. By specifying the right products, architects can create the warm, stable, quiet and comfortable environments people need in order to thrive.

Matt Prowse is director of housing and specification at Knauf Insulation

Thermal bridging issue must be crossed



Hard foam insulation products from Recticel, such as Eurowall Cavity or the full-fill version, Eurowall+, offer an effective, easy-to-fit solution to heat loss caused by thermal bridging in cavity walls. User-friendly, the Eurowall PIR

panels match the height of a wall's blockwork, eliminating the need for on-site cutting and resizing to result in a time and cost-effective installation. Eurowall+ panels feature a tongue and groove detail on all four sides. This means the panels not only slot together easily, they produce a tight-locking finish that minimises heat loss through thermal bridging and offer increased protection against wind-driven rain.

0800 085 4079 www.recticelinsulation.com/en-gb/eurowall-cavity

ROCKWOOL® creates Resource Hubs



Stone wool insulation manufacturer, ROCKWOOL has created a series of technical Resource Hubs to help specifiers access information and advice on specialist insulation solutions with ease. The new Resource Hubs span passive fire protection, HVAC, ventilated

facades, flat roofs and acoustics. Each hub has been developed to provide visitors with extra support on more complex insulation applications where multiple design conflicts may be at play. The online hubs also include the latest Building Regulation requirements for each application along with virtual product simulators.

01656 868 490 www.rockwool.com/uk

Fusing efficient ventilation



Effective, compliant ventilation of multi-occupancy rooms is simplified with an innovative concept from Gilberts of Blackpool. The air movement specialist's Mistrale Fusion (MFS)Terminal delivers optimum internal air control for less than £5.00/room/annum. The initial single-sided through-structure unit provides a one box, stand-alone solution, requiring no additional ductwork or plant. The Mistrale MFS is, says Gilberts, the first in a new series that revolutionises energy-efficient ventilation in non-domestic buildings. "There is nothing else like it on the market," says Gilberts' sales director Ian Rogers. "In one unit, it ticks all the boxes in terms of natural ventilation criteria in multi-occupancy rooms such as classrooms". Mistrale MFS mixes internal and external air to ventilate the internal space. A mixing damper within modulates airflow to allow the new, fresh air to mix with the warm exhaust air, thus extracting its heat without the need for an exchanger. The integrated low energy fan energises to blend the internal air, ensuring an even distribution of airflow, with control over temperature and CO_2 levels within, and maintenance of a comfortable internal environment for occupants.

01253 766911 info@gilbertsblackpool.com



=||=

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- Contemporary finish
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 - Carbon neutral
 - 5 year guarantee

UnderFloor Climate Management service launches to provide HVAC design expertise

A n experienced team of HVAC technical specialists is launching a new service to provide design expertise and systems for commercial developments.

UnderFloor Climate Management (UFCM), which is a part of the Polypipe group, will work with architects, developers and contractors to help deliver integrated underfloor heating systems for commercial projects including residential apartment buildings, hotels, student accommodation and office developments.

The service is headed up by Rachel Smith, UFCM managing director, who has a wealth of experience within the built environment sector. Andrew Coy, who has years of experience in developing heating products and systems for the residential and commercial heating market, joins the team as commercial director.

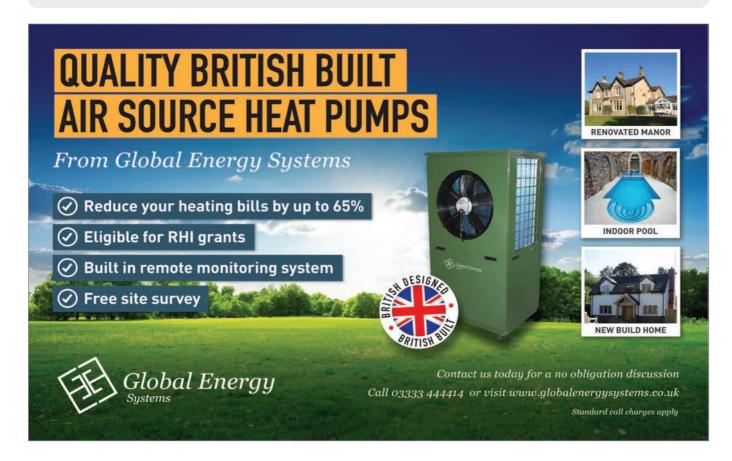
UFCM has been developed as a solution to the fast evolving landscape of the HVAC sector with Net Zero Carbon targets, a move towards more renewable energy sources and a changing building design process drastically affecting the demands on heating design. These elements will impact on the requirements of developers looking to maximise the opportunities of the population growth and fast evolving skylines across the UK's major city centres.

There is now a concerted move away from legacy heating systems that are offering diminishing performance towards systems compatible with the available smart control technology, renewable heating sources such as ground and air source heat pumps and the design demands of achieving the most living space for sale on increasingly small building footprints.

The UFCM team will work with architects, developers and contractors to advise on project design and specify the best design solution using a comprehensive range of underfloor heating systems for the project brief.

ufcminfo@polypipe.com www.ufcm.co.uk





Vital ventilation protects patients



Due to the pandemic dentists are not able to see as many patients as they used to since due to COVID restrictions there needs to be a gap between patient treatments to minimise the risk of virus transmission. However, there is a solution with effective ventilation vital to reduce the fallow time

between appointments, reduce the infection rates and keep patients safe by increasing fresh air circulation in dentist surgeries. Vent-Axia's T-Series commercial fan offers high performance ventilation with low running costs. With both window and wall options available, as well as Lo-Carbon models, it is both durable and reliable.

0344 856 0590 www.vent-axia.com/ventilation-in-dental-practices

Panasonic CO₂ condensing unit in Ireland



Nolan's Supermarket in Clontarf, Dublin, recently completed a major modernisation project. A focus of the project was to create a state-of-the-art refrigeration system operating on the 'Zero Ozone Depletion' plus

ultra-low GWP of 1 natural refrigerant CO2 and as part of the scheme, Tech RAC of Dublin installed Panasonic CO2 Cold Chain units and NX cassette systems fitted with the latest nanoe™ X technology. The Panasonic CO2 Cold Chain units are suitable for both refrigerated and freezer showcases, as well as walk-in freezers and cold rooms – offering a solution for all commercial refrigeration needs.

01344 853 393 www.aircon.panasonic.eu

Game-changing air conditioning for offices



Is air conditioning providing a way to spread viruses? There is no simple answer, as some systems work by recirculating the air in the space, whilst others help to introduce fresh air. Many HVAC manufacturers are now looking to upgrade their offerings, and AET Flexible Space is

no exception. AET Flexible Space systems introduce air vertically into the space via active fantile units in the floor, and so air (including possible infection) is pushed up and away from the occupants.

01342 310400 www.flexiblespace.com

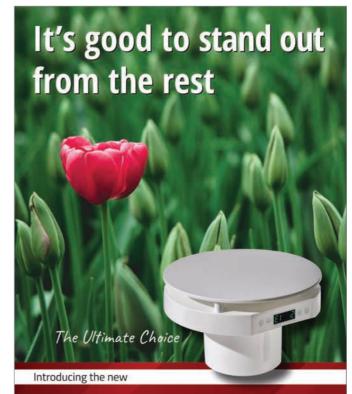
Next gen high performance MVHR systems



Domus Ventilation has launched its next generation, improved performance HRXE Mechanical Ventilation with Heat Recovery (MVHR) units for a wider range of residential properties. HRXE-HERA $^{\text{\tiny M}}$ and HRXE-AURA $^{\text{\tiny M}}$ high performance MVHR systems combine supply and extract

ventilation in one system. They efficiently recover the heat typically lost in waste, stale air and use it to temper the fresh air drawn into the building via a heat exchanger. The filtered, pre-warmed air is distributed to areas of the home such as living rooms and bedrooms, meeting part of the heating load in energy efficient dwellings.

www.domusventilation.co.uk



Titon Ultimate® dMEV

The new high performing Titon Ultimate* dMEV is an ultra quiet low profile fan, which is specifically designed for new build or refurbishment projects. One fan fits all and is ideal for bathrooms, kitchens and utility room applications.

With adjustable continuous and boost speed settings available, the Titon Ultimate* dMEV utilises an efficient DC motor and incorporates a uniquely designed impeller/guide vane combination to produce high flow rates and pressure.

- The best dMEV performing fan on the market
- Low specific fan power down to 0.11 W/l/s
- 3 configurable speed options (Trickle, Boost and High Boost)
- Constant flow to guarantee ventilation performance
 Meets stringent 20 Pa back pressure
- requirement

 Quiet rupping only 10 dR(A) at 3m
- Quiet running, only 10 dB(A) at 3m, low speed
- · Low profile aesthetic circular design
- 4 button and LED display to allow for simple control
- Quick and easy commissioning and set up
- · Extremely low running costs
- High performance brushless DC motor
- PCDB listed for inclusion within SAP
- Unique high performance impeller and guide vane design



www.titon.com/ultimate



NOT JUST DUCTING!

Domus MVHR range.

Key features

- ▶ Listed on SAP PCDB
- ▶ With low SFP of only 0.52 (W/l/s) for K+1
- ► Five years warranty!
- ▶ Included in the Domus Ventilation Continuing Professional Development (CPD) course

Looking for something for those larger developments? Check out the HRXE-AURA®

- ► With low SFP of only 0.50 (W/l/s) for K+1
- ► Compact size! Ideal for wall-mounted

Offering a full range of products and services, Domus Ventilation is the total solution.



YOUR

Q domusventilation_ in



The air quality route to net zero

With the deadline looming for net-zero carbon, buildings are being designed to be ever more airtight. Richard Paine of Vent-Axia explains how MVHR combines energy efficient ventilation with good indoor air quality

he road to net zero carbon has led to a focus on reducing energy use in new homes. But we have all witnessed the consequences of 'sealing up' homes and insulating them to make them more energy efficient. It has resulted in indoor air pollution. The most visible sign of this has been condensation and mould, but this is only the tip of the iceberg since homes can contain over 900 chemical and biological contaminants in the air, including viruses. And now the pandemic has further highlighted the importance of indoor air quality (IAQ) and ventilation in buildings, due to the airborne transmission of Covid-19 and extra build-up of moisture and pollutants from greater occupancy.

Although the pandemic has catapulted ventilation into the limelight, IAQ and health were already rising up the agenda in building design. Where pollution levels are high, local planning conditions put the responsibility on developers to ensure air to dwellings is filtered to increasingly high standards. There has also been a raft of research connecting health issues with poor IAQ in the home. In January 2020 the National Institute of Health and Care Excellence (NICE) guidance 'Indoor Air Quality at Home' provided detailed information and advice on how to reduce exposure to indoor pollutants and so help protect health. This guidance set in stone the importance of good IAQ, highlighting the significant part effective ventilation plays in helping combat indoor air pollution in the home.

The solution

Ventilation is vital in new build homes. It has always been essential, but until recently the focus has been on building energy efficient and airtight homes. But the focus now needs to be on providing energy efficient and healthy homes.

Therefore, energy saving tech such as mechanical ventilation with heat recovery (MVHR) should be central to future homes.

Anything that reduces energy loss while providing good IAQ and better ventilation rates has to be positive.

MVHR ticks all the boxes when it comes to balancing energy efficiency with good IAQ. It is energy efficient, recovers heat, and provides effective ventilation.

MVHR extracts warm, moist air from 'wet' rooms and passes it through the heat exchanger to preheat fresh incoming air to improve home comfort. Furthermore, MVHR not only extracts harmful pollutants but also allows the air coming into the home to be filtered, taking out pollen and dangerous contaminants.

Specification

When specifying MVHR, architects should in the first instance look for a unit that offers high efficiency combined with low sound levels, good heat recovery and sufficient airflow. Architects should refer to the BRE's Product Characteristics Database (PCDB) list for the best performing MVHR systems – some boast a specific fan power as low as 0.38 W/l/w with 93 per cent heat recovery and airflow of 100 l/s at 150 Pa, offering high pressure development. It's also possible to achieve the 'Holy Grail' of high efficiency and low sound levels, with the latest MVHR being not only efficient but also extremely quiet - with trickle settings up to 40 per cent staying below 20 dBA. This sort of MVHR therefore provides housebuilders with the efficiency and performance they require, offering valuable reductions in Dwelling Emission Rates.

MVHR isn't only suitable for larger homes either. For smaller dwellings where space is tight there are now units that combine a cooker hood with MVHR in one. This means there is no need for a loft or ceiling void since it fits discreetly within a 600 mm wide kitchen unit above a hob for a seamless finish with full accessibility for operation and maintenance.

Since it is vital that ventilation operates in the homes as set out in the original house



The threat of Covid-19 has brought renewed focus to filtration in buildings







design, MVHR systems are now being developed which are as simple as possible to install and commission. App-controlled functionality offers simplified installation and commissioning, saving time on site, reducing build length and improving build quality. It also encourages best practice, in turn ensuring efficient performance and adequate ventilation – minimising the chances of poor IAQ.

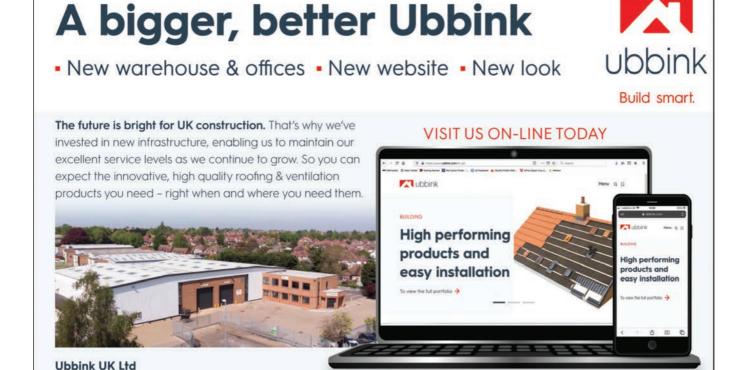
The threat of Covid-19 has brought renewed focus to filtration in buildings. Inside an MVHR unit, fresh incoming air passes through a filter to remove pollen, debris and products of pollution. This protects the heat exchanger from blocking and ensures the indoor air is cleaner and healthier than the air that would come in via a window. Filters up to ISO ePM2.5 70 per cent (F7 grade) ensure even homes in heavily urbanised areas can filter out most impurities, up to and including PM2.5 particles, for example diesel particulates. A filter check warning can alert households when filters need changing, thus helping to maintain the quality of incoming air. To go one step further to improve IAQ, there are filtration units now available that are fitted to

MVHR unit's intake airflow and incorporate two types of filtration – activated carbon and particulate filters to achieve even higher levels of filtration.

Meanwhile, in thermally efficient homes overheating can be an issue. Therefore, architects should consider MVHR units with 100 per cent Summer Bypass to help ensure thermal comfort, a significant issue in air-tight new build properties. Sophisticated summer bypass systems feature an evening or overnight purge, allowing occupiers to choose when to take advantage of cooler air during hot summer periods.

As buildings become more efficient, their air tightness will continue to improve making effective ventilation ever more important to help provide good IAQ for households, especially since Covid-19 could mean more home working from now on. MVHR not only provides good IAQ to make homes healthier, but as an energy efficient ventilation solution it is also the ideal choice for new build homes on the road to net-zero.

Richard Paine is marketing director at Vent-Axia



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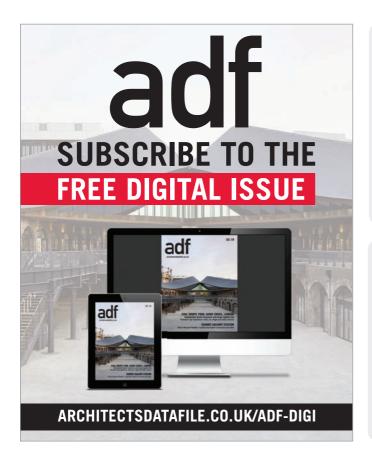
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Create a spectacular kitchen



Königstone, with an impressive reputation for high-quality surface materials and worktops, now supplies stunning semi-precious materials for spectacular kitchens. Königstone has access to beautiful materials from across the globe and these breath-taking surfaces

will truly set the kitchen apart from the rest. Whether homeowners opt for a bold splashback, a contrasting feature within a worktop or even a whole worktop or feature wall, the materials available are sure to transform the kitchen. Three unique and distinctive colours are available – Amethyst, Smoky Light and Smoky Dark (pictured).

info@konigstone.co.uk

Knightsbridge plays its smart hand



In a move to offer contractors and their customers the benefits of smart home technology, **Knightsbridge**, one of the UK's leading electrical brands, is launching a comprehensive range of intelligent wiring accessories and lighting products that can be controlled by its very own app, SmartKnight. At the heart of the range are

the two 13A, 2-gang, smart switched sockets, manufactured to match the designs of its existing square and curved edge range of moulded switches and sockets. For lighting applications, there is a range of smart LED downlights which can provide a raft of lighting scenarios.

sales@mlaccessories.co.uk







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The easy way to specify a loft ladder



Premier Loft Ladders have made it even easier to download NBS product data from their web site. Where available, the specification can now be copied directly from the main product pages, as well as from NBS Source. Furthermore, architects and specifiers can access NBS authored loft ladder BIM models in both Revit and IFC format. The BIM objects include a selection of the company's most popular products, covering a wide range of

requirements, from Passivhaus certified loft ladders through to highperformance fire rated models (such as the Isotec 200, pictured here).

0345 9000 195 www.premierloftladders.co.uk

Hygienically clean paint from Crown Paints



Crown Trade's Clean Extreme Anti Bacterial paint range offers the best of both worlds – a paint with added anti bacterial protection which will not diminish over time, no matter how many times it is scrubbed clean. Healthcare settings, workplaces, schools and hospitality venues all demand exceptional levels of cleanliness and need to be

able to withstand more intensive cleaning regimes than ever. Crown Trade's Clean Extreme Anti Bacterial paint, which is formulated to help create hygienically clean walls and ceilings, offers the solution. It also offers exceptional stain resistance for ease of maintenance.

0330 024 0310 www.crownpaintspec.co.uk



Luceco lights pharmaceutical giant – Hikma

Luceco has recently been specified as a key supplier of LED luminaires for Hikma Pharmaceutical's impressive facilities based in Bayader, Jordan. The company's headquarters, incorporating a four storey building with roof garden, terrace, water feature and landscaped grounds, has over 2000 Platinum Mini Downlighters specified via Luceco's local partner MEMCO. Platinum Mini is a recessed luminaire offering an efficacy up to 117 Llm/cW, with a unique swing tab design for quick and easy installation into a 152 mm cut-out. It's die-cast aluminium body is designed to provide optimal thermal control and a choice of gloss or matt reflectors. Both the Platinum and Platinum Mini luminaries share the same enviable design features as well as a host of bezel and reflector options including IP65 lenses as used at Hikma Pharmaceuticals. Standard, Dimmable & Emergency luminaires were part of the lighting design as well as a range of Luceco's popular LuxPanel LED lay in modules. Atlas luminaires with stylish AMG metal grilles were specified for the exterior lighting.

01952 238 100 www.luceco.com/uk



Housing development offers a touch of class with Polyflor luxury vinyl tiles





In 2015, Portabella was working on its St Winefride's development – a former art-deco hospital and annexed nurses' wing in Cardiff, which had been refurbished into 33 luxury one, two and three bedroom apartments. When developing its show home for the site, Portabella began searching for flooring products that would convey the quality of the designs, fixtures and fittings it





would apply to the upcoming development.

The development is set in the heart of Cardiff's popular suburb of Pontcanna, close to the parks, bars, cafes, restaurants and other amenities the area has to offer. Portabella wanted premium floor coverings which would reflect the community's assets but also look amazing to attract buyers – an essential role of the perfect show home.

It scoured the industry for suitable products and came across Polyflor's Camaro, Expona Commercial and Colonia ranges – luxury vinyl tiles that are designed to replicate the beauty of wood, natural timber and stone. While Expona Commercial is well suited to commercial settings, it is often used in residential developments. When used together with the Camaro and Colonia ranges, the trio offer a modern aesthetic and durability, particularly when used in kitchens and bathrooms, thanks to a polyurethane reinforcement, which protects the surface and makes it easier to maintain.

Available at competitive price points and offering the highest possible standards of manufacturing, the floor coverings were specified for the Portabella show home.

The luxury vinyl tiles retained their quality and proved to be highly durable during an extended period of high footfall in the show home. They also received praise from potential buyers who commented on the look and feel of the tiles. It was enough to convince Portabella's specifiers that Polyflor should be the flooring provider of choice for its St Winefride's development, as well as future projects.

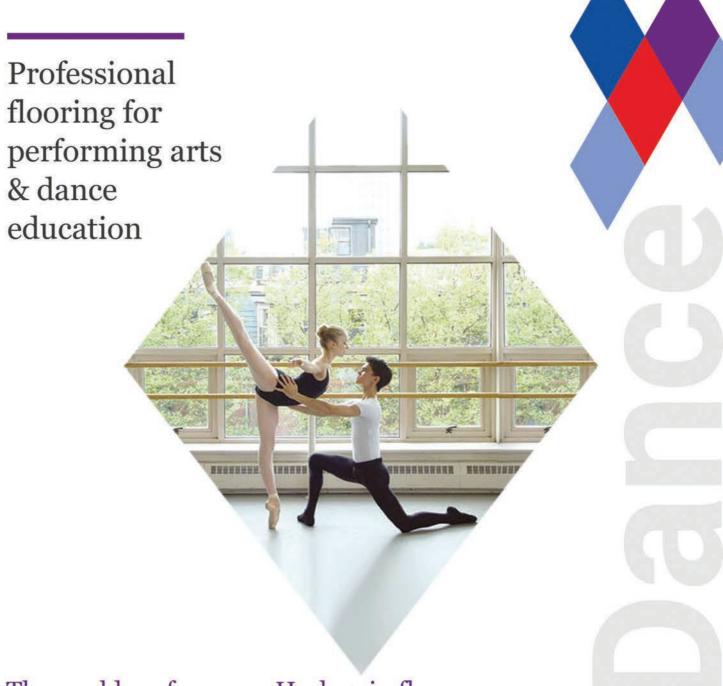
Since then, Polyflor's Camaro, Expona Commercial and Colonia ranges have been used in kitchens and bathrooms in over 200 properties across Portabella's Dixie, Churchill, Arbor Vale and Brickworks developments – the latter of which completed in 2019.

Peter Reilly, director at Portabella, said: "After seeing how Polyflor's products performed in our show home, we were convinced of their quality and performance, and the way the textures, colours and finishes were so complementary to the wider design schemes of our properties."

"Above all else, these luxury vinyl tile ranges are hard wearing and easy to maintain, which is what our buyers look out for."

"Polyflor's customer service, at every point of enquiry, has been excellent, with new samples sent out quickly and orders satisfied on time which means we have no delays in delivery. I'd highly recommend Polyflor to other developers."

0161 767 1111 www.polyflor.com



The world performs on Harlequin floors

Harlequin is the global leader in the manufacture, supply and installation of performing arts floors and studio equipment. Established as the industry choice for architects, building contractors and the world's most prestigious dance and performing arts companies and schools, we continue to carry out site visits in person or remotely and are working with our partners and clients to ensure we can carry out installations following government health and safety guidelines.

For information about specifying the correct floor for dance and performing arts download our RIBA approved CPD online at www.harlequinfloors.com or via the RIBA CPD page.

If you are interested in booking a CPD please contact cpd@harlequinfloors.com













Set the Tempo with IVC Commercial



Tempo is IVC Commercial's Heterogenous Vinyl floor with premium aesthetics. Tempo brings design integrity to projects that need the installation, cost, durability and maintenance advantages of Heterogeneous Vinyl floors from IVC Commercial. In authentic wood, concrete and terrazzo floor finishes, Tempo features a varied structure, crystal clear print, a super matt finish and sharp v-grooves to add definition. The look is impressively authentic and certainly raises the bar for sheet vinyl flooring. The result is a great looking floor that provides projects with a seamless solution that has excellent wear-resistance and ease of cleaning. Because of its multiple widths and sheet format, Tempo is a fast installation proposition. With IVC Commercial's Invisiweld technology, it can maintain its visual integrity with an imperceptible join that is also stronger and less prone to failure than hot weld installation. The Hyperguard+ finish reduces marks and allows for a simple care regime, ensuring that Tempo's premium aesthetics stay looking good even under heavy use. Tempo achieves a Class 33 usage rating and R10 slip-restraint. Available in two, three and four-metre widths, it is widely stocked in the UK.

01332 851 500 www.ivc-commercial.com

Quiet and colourful vinyl floors



IVC Commercial has updated the Optimise 70 Heterogeneous Vinyl collection, bringing a quiet and colourful floor to projects demanding great acoustics, durability and low maintenance. Reducing impact sound by 19dB, Optimise 70 is a hard wearing vinyl floor that makes commercial spaces quieter and more colourful, thanks to a refreshed colour and material palette. Now featuring 54 colour and material effects, Optimise 70 can be used to create floor designs that support activities in a broad range of projects. From encouraging learning and aiding concentration in education facilities to providing a comfortable and relaxing setting for care home residents, Optimise 70 is ready for the challenge of heavy traffic spaces. With bold new colours such as the lime of Ombra T20 and orange of Ombra T65, designers can create layouts focused on colour, or take a natural route to supporting the wellbeing of users through wood chevron looks such as Olympus T91. The introduction of the Cevennes terrazzo effect in four different shades also allows Optimise 70 to make a smart addition when a more architectural look is demanded. In short, there's an Optimise 70 look for any occasion.

01332 851 500 www.ivc-commercial.com

Magnetic Magna® - New finishes added to the Havwoods Collection



Offering the ultimate in wood flooring innovation, Havwoods is proud to announce the introduction of twelve new finishes to its Magna collection. A versatile solution for installations across commercial spaces, these statement new designs promise high-quality functionality without compromising on style. Ideal for workspaces and retail environments, the new Magna boards are also available in numerous natural wood finishes that work beautifully across all settings. From the warm honey hues of Cedro to the dark coffee tones of Quadro, interior designers have the option to create a statement surface that can be removed and replaced easily thanks to its state-of-the-art system. Exceptionally manufactured with a magnetised and foam-sealed construction, the advanced boards deliver a secure connection to the supporting pedestal, which can be smoothly disconnected using a suction lifter for easy access. Notably quicker to fit and install than traditional glue or underlay applications, Magna ensures reduced downtime during refurbishments. Alongside the latest introductions, the Magna boards are also available in any finish across the Havwoods range.

01524 737000 www.havwoods.com/uk

Introducing Forbo's new Acoustic Collection



With various studies documenting the negative effects unwanted noise can have on peoples' well-being, Forbo Flooring Systems has developed a new Acoustic Collection. Combining its well-established Sarlon acoustic vinyl range with its award-winning Modul'up adhesive free solutions, the new collection will

be the go-to reference point for any project where impact-sound needs to be minimised. What's more, with 94 contemporary designs to choose from, the aesthetics of an interior no longer need to be compromised when it comes to acoustic performance.

01773 744 121 www.forbo-flooring.co.uk/acousticcollection

Hunter Douglas gets 'Royal' seal of approval



An open wood ceiling and wall panelling, manufactured by Hunter Douglas Architectural, take pride of place at the new £4.8 million pavilion for the Royal Highland and Agricultural Society of Scotland (RHASS). Hunter Douglas Architectural was specified to supply 475 m²

of European Oak Veneer Linear cassettes for the sloping ceiling, enabling easy access to the services, as well as Topline perforated wall panels with European Oak Veneer. Acoustic fleece was also fitted behind the ceiling panels to help create a comfortable environment.

01604 648229 www.hunterdouglas.co.uk

Palettone helps provide sports lovers with a vibrant workplace designed for both work and play







zech technology company, Livesport, recently expanded their headquarters in the modern Aspira Business Center in Prague, where they occupy three floors and 7,319 ft² of office space to accommodate employees and other stakeholders.

Livesport is known in many countries for its FlashScore product providing instant sports results, table updates as well as live commentary and videos for over 35 sports. With sporting being such a fundamental part of their purpose, Livesport wanted to bring this into the interior of their new offices. Therefore, they made the decision to embark on a full renovation of the space, engaging Architects, Studio Reaktor to help them refine their vision.

Studio Reaktor created a space that was functional and attractive with a sporty vibe, accurately reflecting the company culture. It was important to Livesport that the environment promoted flexible working. Different zones were created for independent working, collaborative working, and phone booths were also installed to facilitate a space to comfortably take phone calls.

The spaces designed for independent working consisted of natural tones and carefully selected soft surfaces, perfectly suited for concentrated thinking. The rest of the interior was bright and dynamic and adopted the aesthetic of a running track. Some features included stadium seating and zones of artificial grass, designed for team working and collaborating, but the biggest statement was undoubtedly the colourful runways incorporated across the entire floor. using Polyflor's Palettone PUR Collection. This fun yet professional interior was exceptionally well executed, creating an engaging environment that will no doubt improve work quality and creativity amongst the team using it.

Palettone's rich palette of 50 shades made it the ideal solution for this project, where choice of colour was key. The bespoke floor design consisted of nine complementary shades which were cut into shape to accurately create the visual of a real running track. As well as visually adding to the space, Palettone is ideal for use in heavy traffic areas and features a polyurethane reinforcement

that protects the floor covering by resisting soiling and scuffing, easing flooring maintenance and keeping the floor coverings looking great for longer.

Livesport also made a sustainable choice when opting for Palettone across the space. Palettone achieves a BRE A+ rating and is certified as 'Excellent' under the BES 6001 responsible sourcing standard. It has achieved Eurofins Indoor Air Comfort Gold. This shows it emits exceptionally low levels of volatile organic compounds (VOCs) and is compliant with the most demanding voluntary indoor air quality standards. Palettone also features recycled content and is 100 per cent recyclable at end of life through the Recofloor scheme, supporting the circular economy. These properties mean that Polyflor products can contribute towards the projects BREEAM Score and prove that functionality, design, and sustainability can all be achieved with Polyflor products.

0161 767 1111 info@polyflor.com www.polyflor.com

All Round - The New Innovative Surface Solution from CTD Architectural Tiles

All Round collection from CTD Architectural Tiles provides designers, architects and specifiers with a full-coverage, striking surface solution. Offering a continuous flow from flat surface to corners and edging, the new collection is designed to make a statement while ensuring a flawless finish and ease of cleaning.



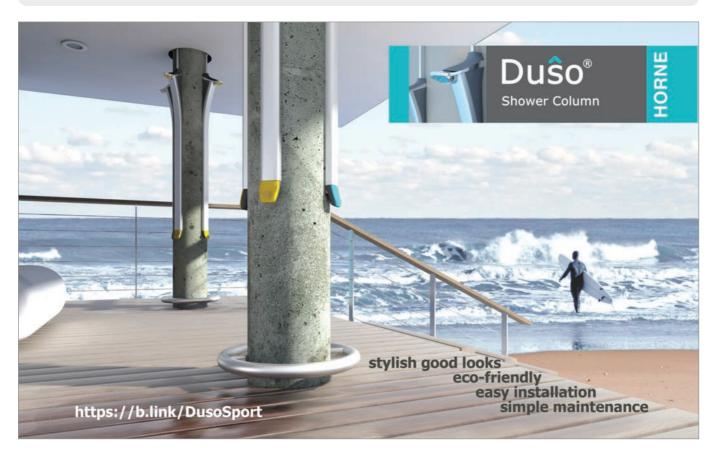
Ideal for all kinds of project types – from residential kitchens and leisure facilities to restaurants and bars, All Round is available in 4 monochromatic colourways in six shapes in a glazed porcelain gloss finish. Allowing for total flexibility in surface design, the intelligent modular system creates a seamless continuation across all edges and corners, moulding joins and angles resulting in a smooth and uninterrupted appearance. From integrated sinks to seating areas, All Round offers a modern twist on the metro tile trend, while delivering on practical and aesthetic levels.

Part of the Saint-Gobain family, CTD Architectural Tiles specialises in the supply of high quality ceramic tile finishes and tiling solutions across all sectors in the UK commercial specification market. With clients in a variety of sectors including the leisure, retail, hospitality industries, CTD Architectural Tiles is committed to bringing customers the latest innovations in



product and in service. With unparalleled expertise and technical knowledge, the team works with industry leading, innovative manufacturers to offer a complete portfolio of ceramic and porcelain tile ranges to suit the architect, interior designer, developer and specification professional.

0800 021 4835 www.ctdarchitecturaltiles.co.uk







Lecico Bathrooms products are now live on the NBS platform





For Lecico Bathrooms NBS is a powerful and targeted channel to promote their extensive product range. The BIM files are available in both IFC and Revit compatible formats across 86 products.



View Lecico's products on the NBS BIM Library:



View Lecico's brand new 2nd Edition Specification Guide:



HiB launches striking new Dusk cabinet



Leading bathroom supplier HiB has introduced a stunning new cabinet to its range. Featuring striking black glass side panels and ambient downlighting, Dusk is an eye-catching focal point. A touchless sensor activates the cabinet's top light and integrated colour changing technology allows the user to alter the tone from cool white to a warm glow.

But the stunning exterior isn't the only thing that sets HiB's new cabinet apart, as behind Dusk's soft-closing doors there are a number of features to enhance the users' experience. Toothbrushes and shavers can be charged easily using the cabinet's integrated two pin socket and USB point. A 'keep clean' mat is also included to maintain hygiene. Ample storage is available thanks to the adjustable shelving, with the central divide(s) on Dusk 60 and 80 offering even more useable space. Available in 50 cm, 60 cm and 80 cm widths, Dusk is a sophisticated and stylish cabinet for all bathrooms.

020 8441 0352 www.hib.co.uk

Hand hygiene remains crucial...



Although vaccines offer us all a welcome route back to normality from the Covid-19 pandemic, they will never be 100 per cent effective in preventing severe illness and transmission. The global distribution of the virus, its effective transmission and natural propensity to mutate also means that the vaccination programme could be playing catch-up for a very long time. Regular handwashing with soap and water remains one of the most effective means to reduce transmission of Sars-Cov-2, and many other pathogens that pose a risk to human health. As social-distancing measures are eased, regular hand decontamination and surface cleaning should continue to play a crucial role in reducing the spread of infections. The award-winning Optitherm thermostatic tap from Horne has been designed with healthcare in mind, for reliable clinical and surgical hand decontamination, but it is equally suited in food preparation and other hygienic industries. Delivering both thermostatically controlled warm water, and dedicated cold water, its novel levers allow for hands-free operation. Optimised and accurate temperature and flow control ensures a safe and comfortable hand wash experience.

01505 321455 b.link/Safehands

Cape Cod opens up world of design options



The hallmark of the Cape Cod bathroom program is the fusion of material and form designed to the highest aesthetic standards. The untamed nature of New England's Cape Cod region inspired Philippe Starck to create a bathroom range composed of elements that rejuvenate body and soul. The new additions to

the series open up a whole host of design options, especially for smaller bathrooms. Visit the **Duravit** website for more information.

01908 286680 www.duravit.co.uk

Cayono washbasin makes the perfect trio



The introduction of the of the Cayono washbasin, Kaldewei now offers the perfect solution for offices, hotels, commercial and residential construction; the under-counter washbasin with a mirrored overflow is ideal for hotel bathrooms.

Cayono is the economical design solution for every bathroom and offers a balanced harmony of quality, price and aesthetics.

01480 498053 www.kaldewei.co.uk

Multiboard finds its calling for conversion



The ease of installation and all round performance offered by Marmox Multiboard have led to a drylining contractor recommending the versatile tile-backer boards to a client engaged in the redevelopment of a former convent near Kettering. Conroy Dry Lining became converts after purchasing a pack for a trial installation and now they are making rapid progress employing large

quantities of the 12.5 mm x 1200 mm x 2400 mm boards, plus metal washers, for the bathrooms within the 60, three-storey town houses as well as the apartments being created in the old listed building.

01634 835290 www.marmox.co.uk

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Washroom hygiene without blowing the budget





s UK lockdown restrictions begin to ease, building owners and facilities managers need to ensure that all buildings – whether they are schools, offices, leisure centres or pubs – minimise the risk of infection for users, particularly their washroom facilities.

All public buildings are required to provide facilities for regular users and visitors to wash their hands frequently. This means more intensive use, higher consumption of water and soap and additional cleaning of all surfaces. As the pandemic has progressed, it is apparent that quick, low-cost options are no longer sustainable, and building owners and facility managers need durable and economical solutions to their hygiene challenges.

Built to last

Sensor-operated taps offer the perfect, hygienic solution. They operate without manual contact, preventing the spread of germs. The initial outlay plus installation and repair costs can seem prohibitive, especially with budgets under enormous DELABIE's pressure. However, TEMPOMATIC 4 tap is simple to install and built to last. When calculated over its lifetime, the savings on installation and maintenance costs are significant. Due to an integrated battery, the only connection is to the water supply, providing a straight swap for crosshead or time flow taps. Plus, all components are standardised and accessed via the body, so servicing is simple – saving time (and money) especially if several are installed. The battery life is three to six years (350,000 operations) depending on usage patterns, and its solid metal body with reinforced fixings will withstand intensive use and intentional misuse.



TEMPOMATIC 4 reduces water consumption by up to 90 per cent compared to a domestic-style tap, and the resulting savings on the water and energy bill will quickly offset the original investment. Thanks to the sensor, water flows only when hands are detected, closing automatically to avoid waste during soaping. The flow rate is pre-set at 3 litres/minute, but can be adjusted from 1.5 to 6 litres/minute to suit the system pressure and meet environmental targets. Moreover, a duty flush occurs if the tap is not used for 24 hours, refreshing the water in

the tap and pipes to prevent stagnation and bacterial development.

Hygiene without cutting corners

Choosing the right soap dispenser is also critical. A leaking, blocked or broken dispenser is ineffective and reflects badly on the overall hygiene standard of the building. At a time of heightened concern for personal safety and well-being, a negative experience due to poor washroom hygiene and maintenance has a detrimental impact.

For effective hand hygiene, dispensers must be reliable and easy to operate. DELABIE's electronic dispenser works with hand sanitiser (hydroalcoholic gel) and liquid soap. A measured dose is dispensed automatically, up to a maximum of seven doses to prevent waste. The mechanism and sensor are robust, able withstand intensive use and abuse. The one-piece casing is made from stainless steel, which is easy to clean. Bacterial retention rate after cleaning is up to 20-times lower than materials such as glass or plastic.

In the current climate, user safety and well-being are paramount. Building owners and facilities managers need sustainable and durable solutions for their washroom facilities. DELABIE's sensor taps and soap dispensers are cost-effective, reliable, hygienic and sustainable – ideal for washrooms facing intensive use.

01491 824449 www.delabie.co.uk



wedi Sanwell wall XL & XXL 900mm or 1200mm widths with integrated niche

Ready-to-use, robust, 100mm thick wall elements that are not only waterproof to the core, lightweight (from 16kg) but are also fully customisable: the height and width are easy to adjust to required dimensions and the size of the integrated niche can also be modified to suit.

TIP: Choose a ready-to-use wedi Top Wall design surface and a pre-formed wedi Sanwell Top for the niche as an antibacterial alternative to tiles.







wedi Systems (UK) Ltd. Tel: 0161 864 2336

wedi building board 600/900/1200mm widths

wedi boards offer a vertical weight load capability of 133kg/m² and are approved for use as shower partitions from 50mm thickness (50/60/80/100mm). They can be used for creating up to 1200mm wide partition walls without any additional support, however when using additional reinforcement such as a ceiling support or a change of direction in the form of a curve or corner, for example, the length of a wedi partition wall becomes limitless. By reducing the number of joints, they simplify the installation process enormously

TIP: Create a shower area with a practical shelf and adjoining wash stand.



...wedi®



Eco-friendly products with Environmental Product Declaration



Guaranteed system safety 100% waterproof to the core



Reduced project completion time thanks to fast installation



Occupational safety due to light weight & little dust production





www.wedi.de/en











wedi technical wall with integrated technical components

wedi also offers customised solutions from walls prefabricated in the factory, optionally with integrated recesses for pipes and other fittings, through to ready-assembled shower solutions and systems for wet areas. Position, install and connect.

TIP: Doors with a weight of up to 55kg and radiators with a weight of up to 80kg can also be installed quickly and safely.



You can count on us

nowing the true occupancy and the flow of people in and out of a store, office or building is now more important than ever.

As the figures for Covid remain high and the need for Lockdowns and Tier restrictions continue to be part of everyday life, government advice demands that retailers limit the numbers in store by "calculating the maximum number of customers that can reasonably follow social distancing guidelines."

Unsurprisingly this has led to queues forming outside many shops and so the need for queue management. So far this has meant a member of staff, sometimes two, standing at the door counting people in and then counting them out again - a time-consuming task which is liable to errors. And not the best use of staff that could be more profitably engaged elsewhere and not ideal for the poor staff member left standing in the cold!

A solution that provides queue management automatically can save money, make better use of staff and meet government requirements is what's required.

GEZE, a world leader in door and window

control technology, has introduced GEZE Counter, a customer flow control solution specifically addresses these challenges.

The two systems, GEZE Counter Plus and GEZE Counter Connect integrate with automatic doors to provide controlled admission by a simple but effective traffic light system and meets the need for social distancing.

GEZE Counter systems provide analytics by hour, day or week to give management greater control and ensure the health and safety of employees and customers.

The systems employ a simple traffic light arrangement – wait while the light is red and the doors are de-activated, and enter when the light is green. There are two versions available, meaning there is a system for every building – an internet or cloud based system for full analysis, control and management either locally or at head office, or a local network system to a designated PC or smart phone to view, control or manage analytics in store.

Customer flow control and successful store layout for maximising sales have always played an important role for retailers.



The coronavirus pandemic has brought these considerations increasingly into focus because customer flow control involves analysing the number of customers and the routes they take, and directing and controlling these correspondingly.

But now, the main task of flow control systems is to ensure that only the correct number of persons can enter a building or rooms under control and safely. This allows each customer to better socially distance themselves, they feel safer and retailers comply with government guidelines. Escape routes are unaffected. Customers easily identify that the retailer or site management have thought seriously about the issue and acted accordingly, with a visible solution, generally giving a much more pleasant experience once indoors.

01543 443000 www.geze.co.uk

UNILIN Panels steps outside the lines



Giving a broad playing field to fuel creativity, MOODS is a series of collaborative projects between UNILIN Panels and design studios. In the first of the series, Ghent-based Studio Woot Woot, delivers COLOURFUL CREATIVITY, a palette in-tune with the energy and dynamism of young start-ups, content agencies and techdriven businesses. "Colour has a profound impact on the atmosphere of a space," Karina Soors, Studio Woot Woot explains. "Bright, bold colours like yellow, orange and purple are known to stimulate creative thinking. Meanwhile, strong pop colours like red powder charge brainstorms and lead to out-of-the-box thinking. Blue, in contrast, soothes and calms – ideal for a breakfast nook." UNILIN Evola provides the surface finishes to express this bold approach to energising spaces. From sunshine and goldfish orange to candy red, purple jam, and persian blue; these bright and bold colours can bring COLOURFUL CREATIVITY to a single wall or on every surface in mood lifting contrasts that bring joy and stimulate creative processes. COLOURFUL CREATIVITY defines 21 colours in the UNILIN Evola collection.

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

Quantum Flooring Solution's Q-Fix



Q-Fix is the new cartridge adhesive from **Quantum Flooring Solutions**. It is a single solution for fitting the full range of Quantum Stair Nosings. Q-Fix has excellent adhesion properties, ensuring a strong and durable bond between Quantum Stair Nosings and almost any step surface.

In fact, the bond is so strong that, providing the application recommendations are followed, there is no need for mechanical fixing. This removes the need for unsightly screws and plugs. Q-Fix has been extensively trialled and tested, and is already proving to be a quality addition to Quantum's product range. In fact, Quantum has so much trust in Q-Fix that it is offering 10-year bond and Stair Nosing warranties.

Provided the application recommendations are followed, Q-Fix can be a long term solution for any project. To test the bonding capabilities of Q-Fix for yourself, email and request a sample.

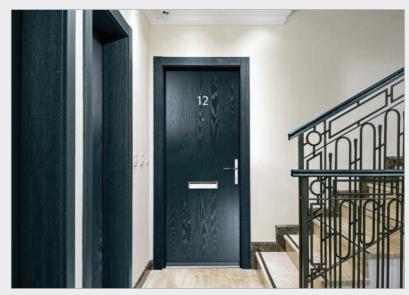
0161 627 4222 info@quantumflooring.co.uk

The next generation of composite fire doors









he Guardsman Fire Door from ODL Europe is a gamechanger for the fire door sector and gives architects and specifiers the fire safety credentials they require. ODL Europe's managing director Nathan Barr explains.

For architects and specifiers specifying a fire door for a project, the requirement on the face of it is simple: it must deliver the required level of fire protection. But beneath that headline requirement, there are a wealth of other factors at play. For example, the door should show consistency over a range of test results and across a range of fabricators. Only then can there be the confidence that the door that has been specified truly has the necessary credentials.

Our mission at ODL Europe is to build value into building products. So when we started to develop a 30-minute fire door two years ago, our aim was simple: a door that eliminated the unknown elements of a composite fire door's performance and delivered tried and tested, consistent test results. In other words, a fire door that was a gamechanger.

We partnered with the engineers at our partners Capstone, the world-leading supplier of composite door slabs, and a select number of experienced fire door fabricators who shared our ambitions. And we set the bar high.

Any 30-minute fire door we brought to the market would need to pass the European fire test standard of EN 1634, which is the more onerous test standard required by Part B of Building Regulations. We could have relied on British Standard test evidence, but while this ticks all the boxes legally, we knew it doesn't take a door out of its comfort zone so wouldn't meet the standards we had set for ourselves.

We also needed to eliminate the phenolic foam that forms the core of an industry-standard 30-minute composite fire door. We knew a solid core was the way forward and the material we are using is Agrifiber. It is a board material made from resin-bonded agricultural fibres and is a renewable source so has good environmental credentials. Unlike a foam, it is capable of delivering very consistent material densities and at the right density it has both superb structural properties and excellent fire resistance.

The result of our six-figure development investment is the Guardsman Fire Door.

It has been tested in glazed and unglazed versions. It has also been tested across multiple manufacturers. And in the most recent tests to EN 1634, we have achieved an average of 100 per cent overrun past the 30-minute mark. At the extreme, our 30-minute Guardsman fire door achieved over 70 minutes.



The doors have been tested as part of a doorset including our TriSYS glazing cassette and a TS008 letterplate. They have reached test ratings they have never achieved before, which demonstrates the importance of the solid core in the construction.

Of course, while safety is rightly the first priority for a fire door, day-to-day practicalities also matter.

As a Capstone door it has hardwood stiles and rails and a 2 mm GRP skin. It means it has all the pedigree you would expect from a composite door developed by a manufacturer with Capstone's credentials. It is a durable and robust door that is virtually maintenance-free and more than capable of withstanding the realities of everyday use while still maintaining a good-looking appearance.

We believe the Guardsman Fire Door is the first in the next generation of composite fire doors, a generation that delivers better, more reliable protection in the event of fire.

0151 933 0299 www.odleurope.com

The benefits of dual-certificated fire doorsets

A rchitects and specifiers selecting fire doors for residential buildings need to be confident that they will perform as they should. That is where third-party certification makes a difference.

Door-Stop International has launched its new Fire and Security Dual-Certificated Doorset; a timber core product with GRP facings that is third-party certificated using a robust base of primary test evidence as the foundation for certification.

How can Door-Stop help architects?

Full traceability of all doorset components

Door-Stop operate a strict, digital, factory production control system designed to provide complete control and traceability. Those same factory control processes are regularly audited by independent, UKAS accredited auditors.

Specifiers, purchasers and residents can easily access the key features of the specification and associated certification. The certificate details the doorsets' raw materials and components, the testing process and certification. Each doorset has a unique serial number that aids traceability of the product.

Independent third-party testing

Door-Stop only undertake fire tests on products that are manufactured under the witness and verification of an independent third-party. It means an accurate specification and certification for every door that is installed – not a 'golden sample' that has been engineered just to pass the test.

The Door-Stop Fire and Security Dual-Certificated Doorset is Certifire-accredited by Warringtonfire. Certisecure, a scheme recognised by Secured by Design, has been used to demonstrate its security credentials.

Multiple tests that make up primary test evidence

Furnace testing results are subject to variation, so Door-Stop runs multiple tests to make sure that the sample door passes in accordance with the specification and certification. The Door-Stop Fire and Security Dual-Certificated Doorset has been furnace tested from both directions (even though it is not a requirement for timber fire doors) in order to provide additional assurances to the building owners and occupants.





This primary test evidence forms the basis of the certification and demonstrates that the pass was not a 'one-off'.

Digital golden thread

Door-Stop manufacture each doorset from start to finish. No components are bought in pre-assembled and all components are constructed within the production control system. This means that the manufacturing process is tracked and monitored against a bespoke 'Critical to Safety framework' which has been designed to review the components we use and the manufacturing process. This creates a golden thread of information that aids traceability for all stakeholders in the chain; specifiers, installers, building owners and residents.



The most onerous designs in the doorset range have been tested and the entire doorset range is dual certificated for fire and security. Dual certification provides the assurance that the doorsets can perform to both standards.

Technical support and advice

Door-Stop International provide detailed instructions and training materials to ensure that doorsets can be installed in line with the certification. Competent installation means that the doorset should perform as designed and assists installers and building owners in meeting their legal responsibilities to ensure the safety of residents.

01623 446336 www.door-stop.co.uk/firedoors

Crown turns back the hands of time



A range of products from Crown Paints' portfolio of professional brands have been used to transform Cardiff's Roath Park Clock Tower, which dates back to 1915. The refurbishment of the landmark, which took approximately four weeks to complete, utilised products across Crown's extensive portfolio of professional brands, with Sandtex Trade 365 smooth masonry paint and Sandtex Trade X-Treme X-Posure®

used to repaint the main areas of the clock tower. Crown Trade Full Undercoat was used on the clock tower prior to the recoating, and the refurbishment was finished using Crown Trade Full Gloss.

0330 024 0310 www.crownpaintspec.co.uk

Resiblock is the perfect fix for Nexus Park

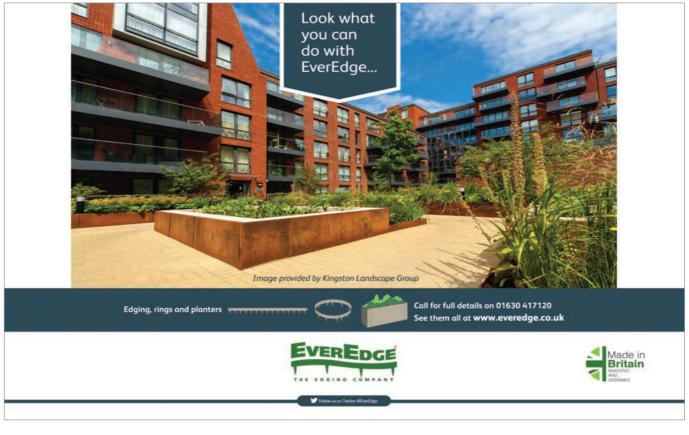


Resiblock has teamed up with Nexus Infrastructure to provide a joint stabilisation solution for Nexus Park, the new Head Office of Nexus Infrastructure plc. With the use Porcelain slabs, and an array of insufficient sealers in the marketplace (although not for much longer say Resiblock), Resiblock

recommended the use of Resiblock Resifix to ensure stabilisation of the jointing medium and prevention of paving failure. Resiblock Resifix is a proprietary self-binding jointing sand, that when activated with water forms an impermeable polymeric adhesive and was most famously used at The FA Headquarters at St Georges Park.

custserv@resiblock.com













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Top decking choices

Stefan Holmes of Millboard Decking discusses the main considerations for choosing between materials when it comes to specifying decking

hile timber was once the default option when it came to choosing decking material, that is now far from the case. Today, alternatives are available that will often provide better value and a closer fit with the client's needs.

Choosing between timber and an alternative comes down to three main considerations, ease of ownership, cost of ownership; and enjoyment of ownership.

The amount of time and effort required to maintain a deck is important for many clients. One reason why alternative materials were developed in the first place is that, left to its own devices, timber decking exposed to the elements is liable to split, warp and rot. This can be prevented through chemical treatments, both before and after installation. Pre-treated timber overcomes some of the problems, but even so requires regular care with application of protective oils or varnishes, and sometimes may require sanding down or replacement of damaged surfaces.

Whether a timber deck receives the care it needs will be down to a residential client's inclination to carry out the work themselves or pay somebody to do it. Unfortunately, in many cases, neither option is chosen, and the decking deteriorates quickly.

Modern composite materials usually require minimal maintenance. For entirely wood-free versions in particular there is nothing for algae to live on, so in most cases no chemical applications should be necessary, just a straightforward wash with standard detergents. In this regard, non-wood alternatives win hands down.

This is also true when it comes to the subframes beneath deck surfaces. These are much harder to get to, so if made of wood, they are going to be hard to maintain – especially if the wrong grade of timber is selected. Decking problems are often due to subframes deteriorating, rather than the deck's surface. Non-wood alternatives, including aluminium and plastic systems, are likely to last longer, and are much the best option in ground contact, and around water.



The cost of ownership

Wood tends to be cheaper than its alternatives so far as initial cost goes. However, once the whole cost of the deck and its subframe, plus any work or treatments over its lifetime are taken into account, alternative materials come out very favourably. Most clients expect their deck to be a once-only purchase, and with both timber and composites, initial cost-cutting can quickly turn out to be a false economy. Just as higher-grade timber will last longer, so too will the best composites outlast their budget competitors.

Enjoyment

Enjoyment is made up of a number of factors, and different factors will be more

Choosing between timber and an alternative comes down to three main considerations, ease of ownership; cost of ownership; and enjoyment of ownership





important for different customers.

The most important are usually aesthetic considerations. Timber scores heavily here – it looks good! There also is no doubt that some artificial options look...artificial. Even so, they may offer a cheap and cheerful option for some whose budgets don't stretch far and who appreciate the ease of maintenance. However, there are also manmade alternatives that offer a startling likeness to wood, with grain and texture carefully replicated. These true-to-wood looks come at a price, but the initial cost may be outweighed by the low maintenance and other advantages that accrue.

Non-wood materials are more predictable in terms of their consistency of colour. While timber can be stained or painted to the required shade, composites are available in a range of colours to complement any design.

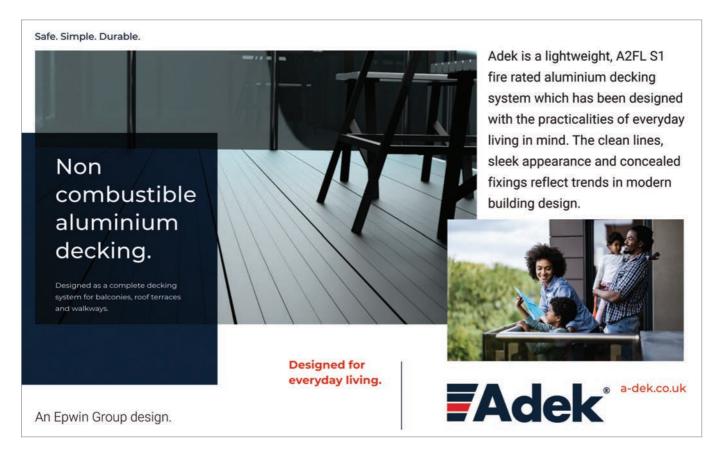
Safety is a high priority for many clients, especially in the commercial sphere. When it rains, timber becomes slippery, especially if it has any algal growth on the surface. Many clients will want to reduce the risks, especially to children and the elderly, and commercial clients will want to minimise the possibility of expensive legal claims

(which could massively increase the cost of ownership!) from people who slip and injure themselves. Grit-strips can be added, and provide excellent grip, but these compromise the appearance. Some composites can still be susceptible to algae, especially if the wood content is exposed on the surface or it has a smoother plastic finish, but varieties with an elastomeric surface provide excellent slip-resistance without modification, even in the wet.

The environmental credentials of the different materials are also important to many clients. Wood is self-evidently a 'natural' product, but the process of heattreating timber is very energy intensive. Many composite materials make a virtue of using recycled materials in their construction and – of course – there is no risk of their depleting precious hardwood forests.

The overall message is that while a 'timber deck' is what many clients have in mind when they aspire to decking, there are alternatives that may actually fit their needs better.

Stefan Holmes is technical product manager at Millboard Decking



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