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## FROM THE EDITOR



aterials for Architecture – the industry's event dedicated to celebrating the innovative application of materials in the design of buildings – presents its second edition later this month in London. The conference and exhibition brings together companies who are putting the development of materials for construction at the forefront, with the designers of projects, in order to discover new, effective thinking.

Architects are above all, interested in the holistic effect of their buildings, not only on the spaces around them, but on their users, from the tactile look and feel of a wall to the way that natural materials can improve the health of an interior. This is why an event which focuses on the distinctive properties of materials themselves, in conjunction with design approaches, has been well-received.

As well as reiterating the case for established materials such as aluminium, concrete and timber in new buildings, delegates will also hear from practices and manufacturers at the cutting edge of thinking which is harnessing innovation in order to meet challenges.

A key example is how the Carbon Free Group is working with Grimshaw and SAM Architects to deliver a monolithic, modular and sustainable alternative to housing made from glass composite panels. Neven Sidor from Grimshaw and Anthony Morgan of the Carbon Free Group will be providing insights into how their collaboration is producing results on the ground.

Another highlight will be Nick Ling, Technical Design Lead at Heatherwick Studio, a firm which exemplifies innovation with materials in design. This was embodied in recent projects such as Zeitz MOCAA gallery/Royal Portfolio Hotel project in Cape Town (reported on in *ADF* in October 2017), which carved out extraordinary interior spaces from the concrete material of existing grain silos. The practice's many other projects often couple a strongly artistic approach with an embracing of innovation, which makes Ling a great choice to open the event.

Other sessions focusing on innovative materials approaches include a look at phase change and auxetic materials – materials whose structure fundamentally changes in use – low carbon concrete, and using timber to construct supertall buildings.

Being held at the ILEC Conference Centre on 25 and 26 April, Materials for Architecture will provide a rich mix for architects wanting to learn something new as well as reconnect with peers and manufacturers. There's a full preview on page 43 – I look forward to seeing you at the event!

James Parker Editor



#### IN THE COVER...

Bloomberg's new European headquarters in London is a groundbreaking building with a modest yet handsome skin, and some very exciting interiors.

For the full report on this project, go to page 26.

Cover Image © James Newton

## REFURBISHMENT

# ZHA's Port House, Antwerp picks up MIPIM award

Port House in Antwerp, designed by Zaha Hadid Architects, was named 'Best Refurbished Building' at the MIPIM Awards 2018.

The project, for client the Port of Antwerp, repurposes, renovates and extends a derelict fire station into a new headquarters, "connecting the city with the vital activities of its port," commented the architects. Handling 26 per cent of Europe's container shipping, Antwerp is the continent's second largest port, and has ambitious expansion plans.

Working with heritage consultants Origin, ZHA's historic analysis of the fire station "revealed its unrealised tower". Port House, said the architects, is "a composition of a new volume that 'floats' above the old building, respecting each of the existing facades and completing the verticality of the original design's unbuilt central tower". The new extension points towards the city, connecting Antwerp with the port on which it was founded.

## The project renovates a derelict fire station and connects the city with the vital activities of its port

Surrounded by water, the new extension's facade is a glazed surface that ripples like waves and reflects the changing tones and colours of the city's sky. "This perception of a transparent volume, cut to give the new building its sparkling appearance, reinterprets Antwerp's moniker as the city of diamonds."

The project has "constant references to the River Scheldt, the city of Antwerp and the dynamics of its port, married with the successful renovation and reuse of a redundant fire station – wholly integrating the old firehouse as part of the new



headquarters". It has been designed to support the port through its planned expansion over coming decades.

Established in 1991, the MIPIM Awards recognise the most outstanding and accomplished projects across the globe.

### REDEVELOPMENT

## gpad beats tough competition to reach Old Street Roundabout redesign final

Architects gpad London have been confirmed as one of four practices to have their design chosen as a winning concept for the Old Street roundabout redevelopment in London.

Islington Council and judges selected the final four, whittled down from an initial 120 entries, for being "iconic and achievable" while creating "flexible and inclusive spaces".

The proposed design from the gpad team is for a 'Digital Garden' providing respite from the adjacent traffic by way of a "forest of lights" arranged around a leisure and event space. The existing digital display has been reformed into an interactive "totem" cycle store as the central feature to the landmark site.

Charles Bettes, director, gpad London, commented, "We're ecstatic that our concept has been selected from such a high calibre longlist of entries. We've beaten tough competition, and some big household names, to reach the final, which is a real achievement for our team and testament to everyone's hard work. Old Street is also our stomping ground. We can almost see the roundabout from our office, so our design really comes from the heart."

The four shortlisted designs – by gpad London, Dar Group, Nicholas Hare Architects and EPR Architects – were chosen following a public display of the 39 longlisted entries which also included concepts by Hawkins\Brown, Zaha Hadid Architects, AHMM + Derwent London and Coffey Architects.

gpad has also been shortlisted in this year's AJ Small Projects Awards for Charles Bettes' tiny six by seven metre former garage site which he turned into a compact two-bedroom home in 10 months. The small site enabled Bettes to break into the fiercely competitive and expensive inner-city London housing market while still allowing him to live comfortably.

The winner of the AJ Small Projects Award will be announced on Wednesday 18 April.

## **EVENTS**

### SEMINARS

RIBA Conservation Course 12-20 April, London www.architecture.com/WhatsOn

Designing for a Changing Population 19 April, Chelmsford www.architecture.com/WhatsOn

Is Off-Site the future of Construction? 26 April, Crawley www.architecture.com/WhatsOn

## FESTIVALS

London Festival of Architecture 01-30 June, London www.londonfestivalofarchitecture.org

## WORKSHOPS

Building Regs and Planning 18 April, Manchester www.architecture.com/WhatsOn

RIBA Future Leaders 2018: Coming to the fore 17 May, London www.architecture.com/WhatsOn

## **EXHIBITION**

Disappear Here 2 May - 7 October, London www.architecture.com/WhatsOn

## **TRADE SHOWS**

Materials for Architecture 25-26 April, London www.materialsforarchitecture.com

Clerkenwell Design Week 22-24 May, London www.clerkenwelldesignweek.com

Vision 21-22 June, London www.visionlondon.com

100% Design 19-22 September, London www.100percentdesign.co.uk

Healthcare Estates 09-10 October, Manchester www.healthcare-estates.com

## MATERIALS FOR ARCHITECTURE

## Heatherwick Studio's Nick Ling to open conference

Materials for Architecture 2018 – the conference and exhibition for materials innovation in architecture and construction – has announced that Nick Ling of Heatherwick Studio will give the opening address.

The technical design lead the practice, he will be giving insights from his extensive practical and on-site experience in large scale and complex projects, and will set the tone for the two-day conference. Featuring thought leaders and experts from architecture, academia and product research and development, Materials for Architecture is being staged on 25 and 26 April at the ILEC Conference Centre, West London.

Ling worked on the Zeitz MOCAA in Cape Town, and key current projects include Maggie's Yorkshire and a new residential scheme in New York. He was previously a partner at Foster + Partners and then later moved to Woods Bagot as European design leader.

Heatherwick Studio commented: "Through the lens of materiality, an integral part of the studio's work and design process, Nick will speak about the studio's



commitment to finding innovative design solutions, with a dedication to artistic thinking and the latent potential of materials and craftsmanship. He will also touch upon innovative materials and how the industry at large can look to these to help to inform construction challenges as well as aesthetics and design."

The event's overarching theme is innovation in application of materials for architecture, construction, and design.

Visit www.materialsforarchitecture.com to register free.

## BOOK

## New Essentialism: Material Architecture

A new book, 'New Essentialism: Material Architecture', published by Applied Research + Design Publishing, by explores the relationship between architecture and materials.

In this "handbook" author Gail Peter Borden examines how architecture engages material to "create effect through five critical historical thresholds, represented by analytical precedents coupled with projective experimental design project families."

Unpacking geometric, material, spatial, and effectual methodologies, each threshold "builds an examination that reveals the essential methods and processes of design, illustrating the basis for the argument for a New Essentialism: its characteristics, methods



and the sensibilities that mark its definition," say the publishers.

Borden is professor at the University of Houston Gerald D. Hines College of Architecture and Design.

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# **VIEW POINT**



Architect Rory Bergin previews a talk by his practice at Materials for Architecture later this month, weighing up the merits of the 'big six' offsite prefabrication materials

Glients often ask us, 'why should we use one material versus another, when construction'? 'How do we decide when one is more appropriate that another?' 'What pushes the decision in one way or another?'

The simple answer is usually: 'Money', apart from when it isn't, and then the answer is: 'Money, but in a complicated way'.

There are six main materials on offer in construction prefabrication when it comes to structures. Timber frame and mass timber, light gauge steel and hot rolled steel, precast concrete, and in-situ concrete. (There is another batch of materials based on waste processes which I'm not going to cover here.)

Each of the 'big six' has its benefits and problems, and each one has its fervent supporters (usually suppliers), who think their material is the best and that the others are rubbish, and won't hesitate to tell you this at great length. But architects are supposed to be independent, and give the client a disinterested view. Some architects openly adopt one material as their preferred option, and while there are good reasons for it, I don't think it's an ideal approach. Inevitably, as design practice exposes architects to experience in a particular material, where it's a successful building, it often leads to another similar building, and the practice gains a reputation for having skills and expertise in a particular material or construction methodology. But in the long term, the profession needs to keep a professional distance.

It helps to look at each material with an open mind and compare them to each other in terms of a number of attributes that demonstrate the differences between them. It is difficult to be generic, for every generalisation I can make, there will be a specific manufacturer or supplier who can demonstrate how their product or widget makes that benefit irrelevant or this problem relating to that material go away.



But generalisations are a good starting point, even if they don't get us to a final decision.

## **Dimensional accuracy**

Steel and precast concrete win the argument here, materials that won't shrink, swell, warp or twist and which can be machined with millimetre precision. The CLT (cross laminated timber) advocates will say that their favourite material can do the same, which is true, but it can change shape if not looked after properly.

## **Environmental impact**

Timber products win this argument, being renewable; even if there is some energy consumed in manufacture and transport it is still much less than for most other materials, there is no real contest here. Concrete is easily the worst, due to the environmental ravages imposed by material extraction and the  $CO_2$  produced in the curing process. 6 per cent of global  $CO_2$  output comes from concrete processing.

## Structural strength to weight ratio

Steel wins this argument, being the lightest material relative to the weight it can carry. You need very little steel to build a substantial structure. Comparing the environmental footprint of a kilogram of steel to a kilogram of concrete makes no sense, comparing the amount of steel you need to build a house with to the amount of concrete does make sense.

### Fire performance

Steel needs to be protected, concrete doesn't, and while timber products are obviously flammable, in practice they perform well due to charring. Concrete wins this one, being noncombustible, but most of the problems we have in construction have to do with human behaviour in buildings, and not the behaviour of the material. Any of the materials can be deployed successfully provided that they are detailed well for performance during construction and during the operational life of the building.

### Availability

In-situ concrete wins this argument, with concrete processing plants in many major towns and cities. Timber frame is more widely available than it has been in the past, with some large UK-based companies producing thousands of units per year. But much of the timber we use is imported. UK-produced timber is generally too soft for structural use, and has to be turned into another product to be useful. What will happen to that overseas supply chain if Brexit bites?

#### Skills

There is a general issue with skills in the UK industry, with a lot of experienced workers due to retire. Brexit will make it harder to attract lower skilled workers from overseas. After all, isn't that the main point of the whole sorry mess? To replace the lost workforce we need new skills to replace them, and I can't see scores of UK's youth willingly picking up a hod and trowel – so we need to be designing buildings to be manufactured, and enabling the prefabrication sector to grow to add capacity now, and to fill the gap in the workforce in the near future.

### Suitability for manufacturing

If we are going to major on prefabrication, where should we be putting our effort? The answer is: all of them! All of the 'big six' materials have different benefits, and all are major winners in some circumstances.

Timber frame is ideal for low-rise housing and is forgiving of a low-skilled workforce. Light gauge steel is also excellent for low rise, but it needs to be put together by a team that knows what it is doing. Precast concrete excels at putting up a robust structure quickly, and in situ is very forgiving of a complex building type, with a lot of variations in structure and layout. Hot rolled steel can go very high, without complaint, and leaves much of the floor plate free. It is also the best for prefabrication, being the basic material for most large construction factories worldwide. Even better, many of the materials can be put together - concrete cores with steel frames, mass timber walls with concrete floors, steel columns and concrete panels, etc.

We are at the beginning of an exciting period in the development of prefabrication worldwide, it's going to put architects under pressure to be more knowledgeable about manufacturing and construction than we

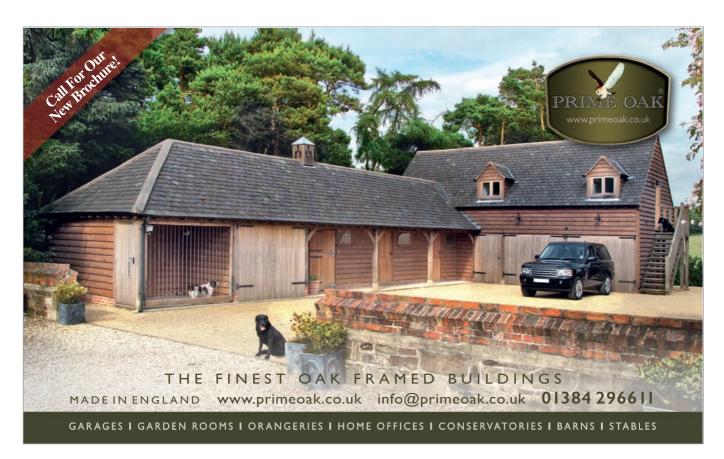
## We are at the beginning of an exciting period in the development of offsite prefabrication worldwide

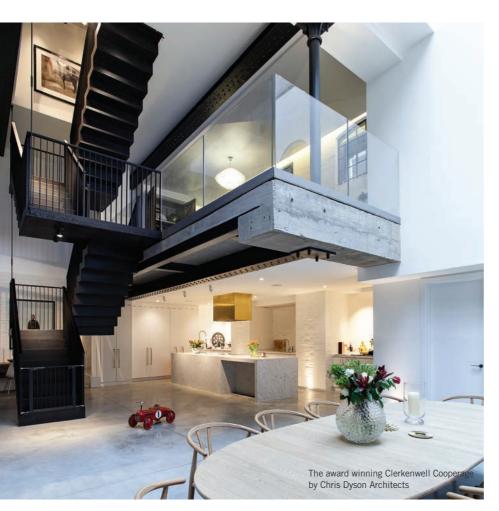
needed to in the past. It's a lot like the early days of Modernism where Le Corbusier recognised the possibilities of concrete construction in the Domino House.

Architects should embrace the opportunity now and use it to develop expertise in how buildings are made. This will lead to a new generation of practices skilled in designing for manufacture and assembly, whose expertise will be in demand for the foreseeable future.

Materials for Architecture is a conference and exhibition dedicated to innovation in the application of materials in building design. It's being held on 25-26 April at ILEC in London. For more information, visit: www.materialsforarchitecture.com

Rory Bergin is partner, Sustainable Futures, at HTA Design





## The George Clarke Medal

Homing in on design excellence

Inaugurated this year The George Clarke Medal will recognise and celebrate the UK's best architect designed home refurbishment / conversion or renovation scheme and is to be awarded annually in association with the National Home Improvement Council (NHIC) to the architect(s) recognised for the year's most outstanding home transformation.

It will demonstrate best practice and have resonance with UK homeowners, inspiring them to tackle home transformation projects using architects and SME builders adhering to strict standards and regulations.

The Medal will challenge conventional practice and champion innovation in home transformation, evidencing how social and technological aspirations can be met with intelligent design.

Historically, architecture has always responded to society's needs, creating new methods and materials that exploit the latest technical developments, all within the compass of affordable delivery. The George Clarke Medal will provide an opportunity for an inspirational step forward, perhaps for an experimental approach, certainly an unequivocally 21st Century solution for 21st Century occupants.

"I am delighted and honoured that this Medal has been founded in my name as I am totally committed to championing design excellence in all areas of home improvement. In association with the NHIC our aim is to influence both the home improvement sector and the general public in the direction of



better design. There is huge public interest in housing, yet the government strategy remains stoutly focused on the need to build more new homes, instead of also realizing the opportunities which will arise for community transformation and social mobility through home improvement and renovation. Hopefully The Medal will give greater profile to the home improvement sector and attain the repute and profile now enjoyed by the respected Manser Medal which recognizes and rewards bespoke oneoff new home design excellence and the talent of younger practitioners, many of whom launch their careers with domestic projects"

– George Clarke BA (Hons) UCL DIPL, ARB, RIBA

The inaugural Medal will be presented to the winning architect(s) at the Gladstone Library, One Whitehall Place, Westminster on Thursday 22 November as the focal point of the National Home Improvement Council annual awards (www.nhic.org.uk). As with the Manser Medal (www.mansermedal.co.uk) those George Clarke Medal winning designs will, over the years, create an archive of exemplars to inspire the wider home improvement industry.

Submissions for the 2018 Medal can be made online at: www.georgeclarkemedal.co.uk Closing date for entries: Friday 27<sup>th</sup> July 2018.









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## **PRACTICE PROFILE**



## **Niven Architects**

A small practice with big ideas, Niven Architects is harnessing cutting-edge working approaches such as agile and lean alongside BIM, making it a force to be reckoned with in the north east. Sébastien Reed reports

iven Architects is a collective of 12 located in the north east town of Darlington. Since its foundation in 1984, the practice has morphed and fluctuated in size between a modest four designers up to 22 at one stage in its lifespan.

Current owner Simon Crowe's move to Niven was motivated primarily by what he says was the long-overdue prospect of "getting things done" – with the hope that working in a smaller practice would afford him more opportunity to see projects through. Following the 2008 economic downturn, Crowe (pictured, centre with John Adams, director, left and Karen Crowe, head of marketing, right) took over the management of Niven with a belief in a "strong design ethos" that has helped the practice to maintain its presence.

"We work in all sectors," explains Crowe. "When one sector is buoyant, others will be down. We move with the tide." The firm has used the cyclic nature of procurement in the region to its own ends to develop resilience and hone skills across a range of different architectural typologies and clients.

## From strength to strength

Crowe outlines the tenets comprising Niven Architects' philosophy: "We believe in strong design, strong project management, and a strong technological lead". In applying these core values, the practice has produced an impressive total of 867 schemes since Crowe joined in 2003, ranging in cost from £500,000 up to £55m, with more currently in the pipeline.

Deviating from the 'two-track' concept-execution model more frequently employed in larger cities across the UK and globally, the architect explains that things "don't work like that in the north east." Tees Valley projects tend to be seen through from design concept right the way to completion, says Crowe. In light of these regional dynamics, Niven fiercely apply their savvy project management skills to deliver projects effectively. "Balancing the right design, at the right cost, within the right timescales is one of our strengths," explains Crowe.

The architects attribute their skill in overseeing projects to the way they approach a brief – characterised by making time for, listening to, and being empathic to the stakeholders involved, as well as culminating a comprehensive and mutual understanding



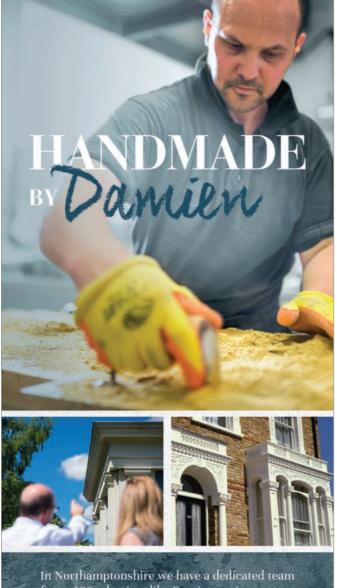
of the project among every individual working on the project. In Crowe's words, "there's no secret to it – if you listen to what they want, then you can deliver to the client what they're after."

### Ahead of the curve

"While I, personally, can find it difficult to keep up with the latest tech, the business certainly doesn't," Crowe laughs. Since 2010, led by a firm belief in the benefits of embracing change, Niven Architects have invested heavily in increasing their digital capabilities – including BIM.

2014 saw the launch of Niven Architects' sister practice and digital consultancy BIM Strategy, now helmed by director John Adams, who joined the operation two years later. Adams' background in product management for a 1000-strong multinational software house not only bolsters the practice's management capacities, it also provides leadership in its pursuit of cutting edge architectural solutions.

Adams has worked hard to transplant working methodologies from his tech-focused past such as agile and lean to reform design management processes at Niven. Agile encourages working groups to scale their time to accommodate unexpected changes in circumstance. Adams explains: "It's a robust, risk-averse, and fast way of delivering a project in a manner that's flexible to change – put it together with BIM and you have a really powerful model." Lean, on the other hand, is all about stripping out waste,



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condensing communication channels and streamlining workflows.

The strategic approach to BIM, for this practice, isn't about experimentation. It's about "investing in innovation, working with the standards, and making sure it's adding value." Adams states his mantra as follows: "Innovation isn't something that just happens, it's an activity that you engage in and do."

BIM and best practice is gradually being embedded into the Niven design process, with an increasing number of projects making use of the technology. "We've got Liam [Needham] working on data validation, James [Anderson] looking at point clouds and photogrammetry; we're looking at how to make the most of lumps of land, and working around employer information requirements."

Niven Architects' interest in future-oriented solutions has seen it spill into other areas such as offsite and modern methods of construction, and increase its profile. They have been working in partnership with Teesside University and the Ministry of Building Innovation & Education, to develop a series of courses around advanced homes and the future of residential construction.

### **Exemplars**

The firm's high-tech aspirations are countered by a keen sense of place, with the practice's feet planted firmly in the Tees Valley. Beyond collaborating with local educational institutions, Crowe has made a point of embedding the practice into the community, working on a number of advisory boards and key initiatives to share management best practice and digital strategy knowledge with other local SMEs.

Feethams, a leisure development in the town is proof of the architects' profound understanding of the local milieu and its

demands, as Crowe explains: "We realised that Darlington was in desperate need of a retail development project – a lot of people were going outside of town for those facilities." In 2011, the architects came up with a concept which doubled up on the number of parking spaces expected from the plot, proposed it to the council and developers, won through competitive tender, and saw the scheme constructed and fully complete by 2016. The development now provides a platform for growing the town's night-time economy and delivers the gravitational pull for graduates which Crowe says is so important to his region's success.

The architects' sensitivity to demand is coupled with a focus on sensitive design – as the project's form demonstrates. Tapping into Darlington's railway heritage, red brick railway arches were incorporated as a reference to the local vernacular, as well as providing a foundation to the floors above.

Even as the practice continues to push the envelope with technology, Niven Architects are great advocates of longestablished design principles, citing the greats such as Mies van der Rohe and Frank Lloyd Wright as key influences. "When you're designing a building of scale," says Crowe, "you need to create a strong base, a centrepiece, and a light top. Styles change but throughout you see this rhythm repeating itself." The massing rationale specified by Crowe is equally representative of his approach, working from a solid foundation of tested principles, and barring ego from creeping in.

Combining this appreciation of refined forms with technological ambition and a welcoming embrace of change, Niven Architects has an extensive toolbox which makes it fit for the future challenges and disruptions facing the profession.



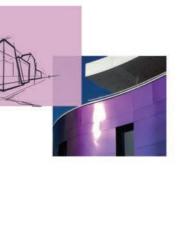
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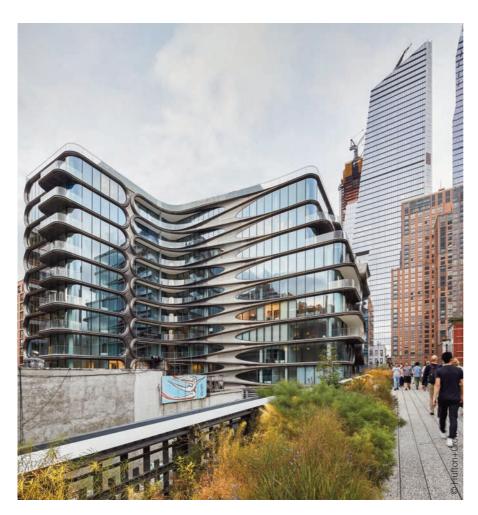
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## 520 WEST 28TH, NEW YORK CITY ZAHA HADID ARCHITECTS

Photographers Hufton+Crow have documented 520 West 28th, Zaha Hadid Architects' first project in New York City, which completed in 2017. The split levels of the design define varied living spaces and "echo the multiple layers of civic space on 28th Street and the High Line," said the architects. The levels are expressed within the interlocking chevrons of the steel facade which "carries the spirit of Chelsea's industrial past". The facade has been brushed and tinted by hand. The 11-storey building houses 39 residences with 11-foot coffered ceilings, and tailored interiors that incorporate Boffi kitchens by Zaha Hadid Design. Multiple cores give most residences private elevator lobbies, and a wellness level includes spa and 25-yard sky-lit lap pool, sculpture garden, and entertainment suite with IMAX theatre. **Ref: 5267** 



## YANGTZE RIVER BRIDGE, CHINA BENOY

Global architectural practice Benoy has been appointed to redevelop a new mixed-use "destination" on the banks of the Yangtze River in Nanjing, China. Working with developer MCC Real Estate Group, Benoy will regenerate a historic ice storage warehouse as part of a wider masterplan for the Yangtze River Bridge area. Situated along the riverfront in Nanjing, building will, said the architects, "be transformed into a unique commercial destination". Blending past with present, the scheme aims to "evoke the memory of the area's industrial heritage through a new mixed-use, retail and cultural experience for the community".

Ref: 1396



## TELLUS TOWERS, STOCKHOLM GERT WINGÅRDH

The City Planning Administration of Stockholm has announced a consultation for developing an area around central Telefonplan in Stockholm to provide two towers that will be among the tallest residential buildings in northern Europe. The planned Tellus Towers comprise 78 and 58 stories each and 1,200 homes. If approved, the entire project will consist of about 1,500 homes, plus parks and recreation facilities as well as changes to an existing subway station and a new bus communication hub. The buildings, which also include a seven-storey multi-dwelling unit, have been designed by award-winning architect Gert Wingårdh based on Hong Kong-based architect Gary Chang's concept of multi-use of space. Ref: 3452



## CENTRAL HUB, SHARJAH, UAE ZAHA HADID ARCHITECTS

Following the international competition, ARADA has appointed Zaha Hadid Architects (ZHA) to design the Central Hub, the centrepiece of Aljada, the developer's renowned masterplan in Sharjah, United Arab Emirates. Developed with environmental considerations integrated throughout the masterplan in order to minimise the consumption of resources, the proposal "conceptualises the moment a water droplet strikes the earth's surface," said ZHA. The central observation tower is surrounded by vibrant public squares with water features irrigated by recovered and recycled water. **Ref: 5452** 



## OSLO AIRPORT CITY HAPTIC/NORDIC - OFFICE OF ARCHITECTURE

Norwegian practices Haptic Architects and Nordic - Office of Architecture have unveiled their winning designs for the masterplan of Oslo Airport City, hailed as a new model for a sustainable smart city, located adjacent to Oslo Airport. The four million square metre city is set to be powered entirely by renewable energy, served by electric vehicles, and will take 30 years to build. The scheme is being developed by development vehicle Oslo Airport City. It aims to be the first 'energy positive' airport city with the capacity to sell surplus energy to surrounding buildings, communities and cities. It will also be able to provide facilities such as the de-icing of airplanes. **Ref: 7685** 



## VILLA SOLAIA WINERY, TUSCANY PIERATTELLI ARCHITETTURE

A new winery is to be built in the heart of Tuscany countryside, near Siena, to house the production of the Villa Solaia firm. The building is described by the architects as "cutting edge but at the same time deeply respectful of the natural scenario," and carries the signature of the Florentine studio. Entirely subterranean, the winery is designed to blend harmoniously into the winding hills. The structure, made of reinforced concrete, is in fact built inside the hill, but opens up to the surrounding environment through two large windows, from which a superb view of the Tuscan countryside can be enjoyed. The building contrasts organic, soft forms of the landscape with a rigid modular system, permitting "optimal management of spaces". While the outside of the building is distinguished by its large windows, concrete and exposed metal elements, the interior presents a huge open space in a "basic industrial style". **Ref: 8534** 



## ESS CAMPUS, LUND, SWEDEN HENNING LARSEN ARCHITECTS / COBE / SLA ARCHITECTS

The Nordic Investment Bank (NIB) and the special-purpose vehicle SKR Lager 106 AB have signed a 23-year loan agreement of €30m for the construction of 16 research laboratories and workshops to support what will be the world's most powerful neutron source yet constructed. Upon completion in 2020, it will provide research opportunities in the fields of life sciences, energy, environmental technology, telecommunications and fundamental physics. Office premises with up to 450 work places and a canteen for 200 people will be built.

## **CPD FOCUS**

#### RENOLIT LAUNCHES NEW RIBA APPROVED SURFACE DESIGN CPD



**RENOLIT** has launched a new CPD seminar on the flexibility and uses of thermoformable PVC as a decorative surface which illustrates the benefits of PVC films over other decorative surface materials. The seminar provides architects with an understanding about PVC and its common uses within interior construction projects. It informs how to recognize different types of surfaces films, their applications and raises awareness of some specialist applications. 01670 718222

www.renolit.com/design

#### NO SMOKE WITHOUT FIRE: UNDERSTANDING FIRE DAMPERS



This session, from Swegon Air Management, available as an in-person seminar or webinar, outlines the need to understand and comply with tested methods when selecting, installing and using fire and fire/smoke dampers. Attendees are educated in damper design, selection, installation, testing, analysis and performance. It aims to highlight and clarify the differences between fire and fire/smoke dampers. The seminar stresses the critical responsibility of all parties involved in the overall sequence from system specification through to compliant installation. Emphasis is placed on the need for all parties to work as a team in order to achieve this goal. 01746 761921 www.swegonair.co.uk

## SFS PUSHES THE ENVELOPE IN NEW RIBA-APPROVED CPD



SFS has launched a new **RIBA-approved** CPD seminar programme for building specification professionals, providing the latest technical insights into creating high quality and safe building envelopes. Five complementary CPD seminars are now available to book at the SFS webiste. With seminar topics including support systems for rainscreen cladding, envelope airtightness and thermal efficiency, fixing of warm roofs, designing roof safety systems and hinge technologyp. 0113 208 5500

www.sfsintec.co.uk

#### 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. 020 685 9685 www.comar-alu.co.uk

#### 'STEP ON IT!' SPECIFICATION OF ENTRANCE MATTING

The latest CPD courses, seminars and documents for architects



Quantum Flooring Solutions -RIBA approved CPD seminar STEP ON IT! is a presentation and discussion dealing with the subject of specifying safe and effective entrance matting. The CPD presentation includes: What entrance matting is designed to achieve and how to select the right one: How recent BRE guidelines affect the choices for specifiers; Environmental and health and safety considerations applicable to the manufacture. installation and maintenance of entrance matting. 0161 627 4222

www.quantumprofilesystems.com

#### AN INTRODUCTION TO AIR DISTRIBUTION



Designers, specifiers, contractors, consultants and building engineers looking to earn CPD hours, can now book their place on Waterloo Air Products PLC's 'An Introduction to Air Distribution' training. On the course, attendees will hear from one of Waterloo's air distribution experts. The session covers the basics of air distribution including typical air movement effects, cooling systems, the effect of heat gains, alternate systems and selection guidance. It also includes information about the importance of air flow in the internal environment. 01622 711500 www.waterloo.co.uk/technical/ cpd-and-training/

## WETROOM DESIGN & SPECIFICATION CPD



The popular Wetroom Design & Specification CPD from CCL Wetrooms, guides Architects through the process of designing and specifying a watertight wetroom. Run free of charge at a time to suit your practice, the 45 minute technical presentation comprehensively covers all aspects of wetroom design and specification. This includes wetroom design & layout, waterproofing, drainage, floor build up and installation. An informative section on how wetrooms can help meet the Lifetime Homes Standard is also covered within the session. 0844 327 6002 www.ccl-wetrooms.co.uk

#### TWO NEW RIBA APPROVED CPD'S FOR SPECIFIERS AND ARCHITECTS



record, has launched two new RIBA approved CPDs. Automatic Doors Standards and Considerations: Transport & Aviation, provides guidance on issues, danger points and standards when specifying automatic doors for transport and aviation projects, in particular specialist, security enhanced doors. Automatic Doors for Healthcare – Standards & Considerations focuses on key design considerations and relevant standards whilst looking at product solutions for the safe movement of people and goods within healthcare environments. 01922 669341 www.recorduk.co.uk



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James Jones & SONS LIMITED TIMBER SYSTEMS DIVISION

# **NEW ARRIVALS**



## POLLY DAMEN SAUNDERS

Polly Damen joins the firm as senior associate director, heading up the London studio. She has accumulated many years' experience working on mixed-use residential projects and urban regeneration along with older persons' housing. She led the masterplanning and delivery of 850 new homes, a school, and a marina in Lowestoft, as well as the detailed design of two residential towers in Croydon for Barratt Homes. Damen has also specialised in converting listed buildings and a number of specialist housing projects.



## CATHY MOCKE 3DREID

3DReid has expanded its senior team in Manchester with the appointment of Cathy Mocke as director. Cathy brings with her extensive experience of UK and international projects, largely in the hospitality and residential sectors, as well as considerable senior management experience. Most recently Mocke has worked as the in-house design director for a market leading North-west based developer, where she was responsible for defining the design for residential projects.



## ELIAS NIAZI HKR ARCHITECTS

International architecture and design practice, HKR Architects has appointed Elias Niazi as director. Niazi's portfolio includes large-scale complex mixed-use projects involving urban master planning along with award-winning higher education buildings. Elias brings a "unique mix of entrepreneurial spirit, strategic thinking and strong design leadership with a highly collaborative working style. Jerry Ryan, Director of HKR Architects comments, "We are delighted that Elias has joined HKR. He brings a wealth of experience as a talented and enthusiastic design architect and has worked on many challenging and award-winning projects. He will play a key role in contributing to the ongoing expansion of the company."

## Steelway Celebrate 90 Years of Trading



**Steelway** are celebrating 90 years of trading, supplying our products and services to a diverse range of clients and customers. Steelway's product range includes the design, manufacture and installation of safety critical access metalwork and architectural metalwork,

access covers and frames, fencing and gates to suit play areas, residential applications and parks and sports areas. They also have a range of security products including LPCB certified security access covers, doors, barsets, kiosks, cages and cabinets also available.

01902 451733 www.steelway.co.uk

## Norcros Adhesives' new appointment

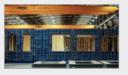


Norcros Adhesives, manufacturer of tiling adhesives, grouts and surface preparation products, has strengthened its technical department with the appointment of Sharon Barratt as technical advisor. Sharon joins Norcros Adhesives, following 31 years in the bathrooms sector, including working for Geberit, Twyford and Caradon. In these companies she held various

customer and technical support roles. Working alongside the customer service team, Sharon will be supporting existing customers and helping the company's expansion into new areas.

01782 524140 www.norcros-adhesives.com

## McAvoy announces record year



The McAvoy Group, one of the UK's leading offsite construction specialists, has announced a record financial year, achieving a 10 per cent growth in turnover to  $\pounds 60$ m. The business is on track to achieve its target of  $\pounds 100$ m

turnover by 2020 and its  $\pounds10m$  investment programme is now well underway. McAvoy has also announced it is working on over  $\pounds20m$ of new projects which includes office schemes for the Homes and Communities Agency in Northstowe, Cambridgeshire and projects for two pharmaceutical companies.

info@mcavoygroup.com

## Architects Datafile website



The Architects Datafile (ADF) website is an online provider of past and present products and news items for the architect or specifier. architectsdatafile.co.uk is a one-stop source for all the latest press releases providing any visitor with access to information about products and services that they may require. From the website, you can find links to digital

issues that have live links to advertisers' sites, as well as daily email alerts to keep you as informed as possible.

www.architectsdatafile.co.uk



RETURNING TO LONDON WITH EVEN MORE INNOVATION WED 25 - THU 26 APRIL 2018 ILEC CONFERENCE CENTRE

CONFERENCE EXHIBITION CPD SEMINARS INNOVATION

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## Specifying Bilco and Howe Green products for your next project



Bilco and Howe Green have recently launched a new website – www.bilcouk.co.uk. The website is designed to provide easy access to all the resources an architect, specifier or building services professional would need to include Bilco and Howe Green products in their next project. The significant investment in the new site acknowledges the importance that Bilco UK attributes to the role of the specification in the construction industry. The new website contains the full product range for both brands – Bilco roof access hatches, floor doors, smoke vents, ladders and roof safety products and Howe Green floor access covers, wall access panels, tree grilles and linear drainage. The website provides a wide range of resources including specifications, submittal drawings and technical data sheets in addition to links to external resources such as NBS specifications and BIM files. Managing Director, James Fisher, comments: "The new website helps us to present our full range of speciality access products in a way that is not confusing for customers who in the past may have only worked with either Bilco or Howe Green".

01284 701696 www.bilcouk.co.uk

## Get ready for the TTA Awards with a round of golf



The Tile Association has recently announced the finalists in the annual TTA Awards, which are available to view at www.ttaawards.com/2018-finalists/. Meanwhile what better way of getting set for the Awards than to take part in a vigorous round of golf at The Marriott Forest of Arden Golf & Country Club, Warwickshire? This year's TTA Golf Day will take place on Friday 18<sup>th</sup> May, with the Awards themselves being presented that evening. The Golf Day will be an excellent opportunity to meet up with industry colleagues for 18 holes of golf ahead of the big evening festivities. Over the years this course has played host to seven English Opens and five British Masters. Colin Montgomery, Thomas Bjorn and Darren Clarke have been amongst the illustrious winners here. And it is just 20 minutes away from the Awards venue. The Golf Day starts at 9am for tea, coffee and bacon butties, with first tee at 10.27am. There will be prizes for Nearest to the Pin and Longest Drive, as well as individual prizes and the TTA Trophy. Email to book places for the golf day, which are excellent value at £70 per person (incl VAT). Places are limited, so book early to guarantee your spot.

info@tile.org.uk www.ttaawards.com/2018-finalists

## Flat Roofing Catalogue now available



SFS has published a new catalogue for its flat roofing product range which is presented in a user-friendly format. The new 200+ page Flat Roofing Catalogue is a comprehensive update to the previous issue to reflect the extensive range of products and

systems offered by SFS. The catalogue details the innovative solutions available for the three main SFS systems – the isofast<sup>®</sup> fully metallic system, the isotak<sup>®</sup> thermal break fastening system and the isoweld<sup>®</sup> induction welding system.

0113 2085 500 www.sfsintec.co.uk

## The impact on wood-using industries



The popular website www.usewoodwisely.co.uk answers the demand for easily-digestible and understandable information on the contentious issue of UK power stations burning wood to generate electricity. Hosted by **Norbord**, a leader in panel products, the site explains the intricacies

of the argument which has seen industry confront government over the issue of subsidies provided to biomass power plants amongst other related topics. Government policy has created a market distortion, resulting in increased wood costs. Norbord continues to campaign for the best use of wood supplies via the Use Wood Wisely campaign.

www.norbord.co.uk



## 90 years of innovation

In 2018 Delabie, a European market leader for water controls and sanitary equipment, celebrates its 90th anniversary. The family-owned company based in the Somme has survived war and several economic crises and continues to grow stronger year after year.

#### A family concern

The founder Georges Delabie was born in 1889. He began his career on the shop floor, then decided to set up on his own in 1928, buying a foundry that was established in 1863. In 1947, he was joined by his son Jean and together they built the company's reputation selling mixer taps in the domestic sector. The major challenge was the wide variety of installation types so Georges and Jean Delabie focussed on the renovation market, manufacturing replacement mixer taps for the post-war era.

In 1971, Jean Delabie invented the universal tap head which brought cohesion to the disparate array of installations. By differentiating the commercial sector from the residential market, the company opened up new opportunities and was able to grow and develop the market in France. This ground-breaking policy inevitably led to an emphasis on the specification-led approach which characterises the sales strategy today.

### Market leader

The third generation, of the family – Jean-Claude, Gérard and Luc – joined the company in 1964, 1969 and 1987 respectively. Finally, Patrick, Jean-Claude's son and Georges' great-grandson, ensured succession in 1995. Through subsequent product innovation and acquisitions Delabie has become the European leader in sanitary equipment for Public and Commercial



buildings, a global concern exporting to 80 countries worldwide.

2006 saw the company acquire Chavonnet, the leading manufacturer of water controls for hospitals, and Sogeprove, a manufacturer of accessibility equipment and hygienic accessories. This allowed the company to expand its product expertise into the healthcare sector and replicate the success it experienced in the commercial sector.

## Championing design and innovation

Primarily designed to be functional, robust and easy to maintain, commercial sanitary controls and furniture have evolved,



gradually integrating an increasingly important element – aesthetics. Delabie has identified and championed this trend towards design and has reinforced its position firmly in the design sector with the acquisition in 2012 of German stainless steel manufacturer, Kuhfuss Sanitar, and a foundry in Portugal.

More recently, Delabie has been recognised for its innovations in the commercial sector. For two consecutive years, Delabie products have been awarded the prestigious German Design Award. The 2621EP healthcare mixer impressed judges in 2016 with its unique design which reduces bacterial proliferation and prevents patient scalding. In 2017, the TEMPOMATIC 4 recessed urinal valve was recognised thanks to its "intelligent" high-frequency mode allowing the flush valve to adapt to usage patterns to save water and improve hygiene.

Across its five product ranges - commercial, healthcare, accessibility and hygiene accessories, stainless steel sanitary ware and professional catering controls – Delabie continues to evolve in a demanding market place. As the company continues to innovate in terms of technology and design, the prospect for the next 90 years looks very positive.

01491 824449 www.delabie.co.uk

## EOS Facades – Celebrate Success at the Offsite Awards

The Offsite Construction Awards are a platform to showcase innovation, celebrate best practice and recognise overall expertise in offsite construction and with over 200 hundred entries – competition was fierce. EOS Facades reached the finals in no less than four categories and were delighted to collect two awards on the night.

Steve Thompson, MD of EOS Facades, said of the success: "The EOS team had an excellent evening and we are delighted to be presented with two awards on the night. It is a great accolade to have our work recognised by such a prestigious panel of judges."

The first award went Southwark Town Hall, highly commended in Commercial Project of the Year category.

"This was a challenging and complex project which called for some well thought through solutions," said Steve.

Transformed using offsite technology – the mixed-use commercial scheme offers leisure facilities including a theatre, café, artist



studios, whilst also housing student accommodation for Goldsmiths University. Cost and programme certainty, together with sustainability and versatility, were the key drivers for the specification of an offsite manufactured steel framing system for the Southwark Town Hall development. Speed of build to accommodate the students of Goldsmiths University in time for the new semester, was another crucial requirement behind the specification decision.

The second award went to EOS Facade's Brodick Ferry Terminal, highly commended in Infrastructure Project of the Year. The  $\pounds 18m$  development on the Isle of

Arran, enhances connectivity and ultimately tourism, between the mainland and the remote island. The adverse weather and the ground conditions presented major challenges for the design and construction teams. Built on solid rock, traditional foundations and construction methods were not an option – offsite technology offered the only viable solution.

The robust steel framing system, designed, manufactured and supplied by EOS Facades, is strong, resilient and developed to deal with the increased wind loads of the island location, whilst remaining a highly efficient solution. This striking ferry terminal demonstrates the immense capabilities of efficient offsite construction methods. EOS were able to meet the tight deadline with a rapid and robust predominantly offsite system, which provided the optimum solution to deliver this challenging project.

01325 303030 www.eos-facades.co.uk

## Backing the best of office architecture



GEZE UK is backing the very best in office architecture by sponsoring the Office Architect of the Year category in the BD Architect of the Year Awards for the third year running. The category was open to all architects working on the design of offices

including new developments and refurbishments. Entries showcase one project built in the last three years and another either built or unbuilt. The ceremony for the awards – now in their 14<sup>th</sup> year – will take place on 18<sup>th</sup> April 2018 at Westminster Park Plaza Hotel, London. For details of the awards see www.awards.bdonline.co.uk.

01543 443000 www.geze.co.uk

## New 'ultra matt' wood flooring designs



Kährs will be celebrating a 'Raw Design' theme at London's Clerkenwell Design Week, with the launch of new nature-inspired and sustainable 'ultra matt' wood flooring designs. Over the three days, visitors can meet the Kährs

team with refreshments on the roof top terrace, enjoy a themed workshop, and will have the chance to win one of the new flooring designs. Visit Kährs during the event (22-24 May) at the Kährs Design Studio, 5 Albemarle Way, Clerkenwell EC1V 4JB.

023 9245 3045 www.kahrs.com

## Contour from Luceco lights the way in Valencia



Contour from Luceco has been installed at the Valencia-Cabañal Railway Station located in the Cabañal-Cañamelar neighbourhood in the Spanish city of Valencia. Contour is the ideal linear fluorescent luminaire replacement where continuous runs of illumination are required in many commercial and service environments. The LED lighting system consists of connectable modules offered in 600 mm, 1200 mm, 1500 mm and 1800 mm lengths that can be surface mounted, suspended or recessed. Seamless lines of cost effective LED lighting can be created with interconnecting power and module connectors including corners, T junction and cross pieces. Other options include direct and indirect lighting distribution as well as DALI and emergency Self-Test variants. The original station of Cabañal was opened in 1862 with a new station built alongside in 1991. Current railway facilities owners Adif are now benefitting from over 50,000 hours operational life offered by Contour as well as no maintenance over the lifetime of the luminaire, an important factor when considering applications such as railway stations where 24 hours a day operation may be required.

01952 238100 www.luceco.com

## Coventry's Central Six Retail Park covers up with Encasement

Bespoke 'Forma' metal casings from Encasement are helping provide an aesthetic and practical environment for shoppers at Coventry's Central Six Retail Park by concealing structural support 00columns for a walkway canopy that runs the full length of the shopping area.

Central Six is a small out of town centre, which combines fashion retail, homeware and designer clothing stores with specialist shops, such as Hobbycraft and American Golf, as well as a fast food restaurant in 14 retail units.

As part of a recent refurbishment and facilities upgrade programme, Encasement supplied and installed 72 square column casings from its 'Forma' metal casing range, which were used to conceal the existing circular structural steelwork and provide a more contemporary look to the retail centre.

Manufactured from durable 3mm thick aluminium and measuring 235mm square, each casing stands 3350mm high and is finished with an RAC 7022 Umber Grey PPC coating to not only complement the retail park's colour scheme, but also provide additional resistance to weathering and accidental scuffing.

Encasement's Managing Director, Martin Taylor, commented: "Our Forma aluminium casings are widely used in the retail sector in both interior and exterior applications as they provide immense design versatility and colour options, as well as being durable and resistant to weathering when used in projects such as Central Six."





## National Tile Week celebrates tiles



Now in its third successful year, National Tile Week is back and set to make an impact in 2018. Sponsored by **British Ceramic Tile**, the weeklong campaign will celebrate tiles in all their glory and demonstrate how versatile they can be for many projects large or small. National Tile Week 2018 is fronted by interiors guru, Julia Kendell, best known for her work on DIY SOS

and 60 Minute Makeover. For the second year running, Julia is back to help give tiles the credit they deserve and put them firmly on the map when it comes to interiors.

0207 490 0338 www.britishceramictile.com

## Schöck appoints Robert Oakes



Robert Oakes is the new Technical Manager at the Schöck UK Head Office in Bicester. Robert comments: "Our focus is always on providing architects and engineers with the optimum solution for any project, combined with the best possible technical support". Robert, a Civil Engineer, has been with the company since 2014, most recently as a project engineer. He hands

over this former role to Diana Vega, a newcomer to the company. Diana, also a Civil Engineer, has a great deal of experience in the construction industry having worked previously for Sika and Hilti.

01865 290 890 www.schoeck.co.uk





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## BUILDING

## BLOOMBERG LONDON CITY OF LONDON

# **Open for business**

Bloomberg's new European headquarters is a big step away from recent landmark City buildings, with a highly bespoke, super-sustainable design whose disciplined exterior conceals a contrastingly open, dynamic interior. James Parker reports

In 2010, Michael Bloomberg, three-time New York Mayor and the owner of the financial information giant that bears his name, began constructing the company's European headquarters in London. One of the world's 10 richest people, he admitted at the building's launch late in 2017 that the decision to base the firm here might have been different if he'd been able to predict the result of the Brexit vote. Despite this, the legacy of a close collaboration with Foster + Partners is a groundbreaking building with a modest yet handsome skin, and some very exciting interiors.

Unlike most City office buildings, Bloomberg London is owner-occupied, and as a result the client has put an unusual amount of investment into pushing the design envelope of the interiors, for the benefit of both its employees and the wider community. This privately-owned firm has spared little when it comes to delivering high-quality materials and an open, collaborative place for staff – the build cost reportedly came to £1bn.

This building brings over 4000 Bloomberg employees, previously spread over four sites in London, under one roof. That includes 800 software engineers, nearly three times as many as the company had four years ago, with increased investment in artificial intelligence approaches to financial analysis. In addition there are countless media professionals working across the company's TV, radio and print channels, including in a state of the art TV studio.

## A good neighbour

BREEAM rated Outstanding with a score of 98.5 per cent - making it the world's most sustainable office building -Bloomberg London sits in a compact and triangular 3.2 acre site between Cannon Street and Bank stations - the pulsating heart of the City. It actually comprises two triangular buildings, the larger building to the north separated from the other by a covered pedestrian 'arcade.' This reinstates the Roman route of Watling Street, connecting through from Cannon Street to St Paul's Cathedral - at either end have been added public plazas plus a further one by the main entrance. The north building contains most of the current key functions, with the south building for expansion space, Bloomberg having taken two floors so far.

One of the major design drivers for Mike Bloomberg, who took a very hands-on approach as client, was that this building would not impose itself on its immediate environment. He commented at the launch: "We wanted to respect London's aesthetic traditions, as a company founded in the US we were conscious we were a guest in London." He continued: "Norman Foster recognised the opportunity this project presented to do something extraordinarily modern and eminently British".

The result is a civic-scaled building which, even though it's only 10 storeys, steps back both at ground floor and the two top two levels, presenting an





The building's structural frame is the same Derbyshire sandstone as the Magistrates Court, helping it sit comfortably in its surroundings unassuming face to its neighbours. These include another Foster + Partners office building, the more outwardly flamboyant The Walbrook – finished in 2007. Bloomberg's chunky Derbyshire sandstone frame combined with large bronze ventilation and shading fins covering its facades offers a simultaneously elegant, and polite addition to the streetscape.

In addition to its similar height to nearby buildings, such as the adjacent Magistrates' Court, the fact the building's structural frame is that same Derbyshire sandstone as that of the court also helps it sit comfortably in its surroundings. The client could have created a much higher glass edifice as commonly seen recently in the City, as project architect Michael Jones confirms. "If he'd wanted to, Mike could have built up to 22 stories over part of this site, it could have been a high rise." He adds: "He is a rare individual who practices what he preaches."

It was no small challenge to accommodate 1.1 million ft<sup>2</sup> of floor in such a modest building height – also constrained due to viewing corridors from St Paul's Cathedral. Despite this, as Michael Jones puts it, some "breathing space" was achieved. "Various interventions and cuts were made into the mass once we had achieved it, to deliver both public spaces and routes. There was a strong desire line through the site from commuters."

### **Building intrigue**

Rather than present a typical square corporate lobby, there are various stages of entering the building which unveil its nature in an intriguing way. There are two spaces for public and community events, in

addition to Bloomberg's own events. The 'pre-function' space is a white circular room with a woven artwork by Pae White with ancillary spaces off it. Adjacent is a 250-seat auditorium complete with a 'voice lift' system that enables free-flowing communication by avoiding the need to hold microphones. It also has Huddersfieldmade worsted wool panelling - generally, materials have been sourced and manufactured in the UK where possible. The spaces can be (and have already been) used for a variety of functions, from major political speeches, to events for the Mithraeum - the Roman Temple of Mithras restored by Bloomberg and now housed in the basement of the building as a free public amenity.

The sense of theatre is dialled up as you enter the spectacular lobby (pictured on facing page), which is a dramatic contrast to the somewhat sober exterior. The 'Vortex' is a double-height, exciting space with curving sides faced with American oak, the entire lobby being a 'reciprocal structure' whereby each of the timber shells "relies on the other to stand up," as Jones explains. It contains little apart from a set of turnstiles, a smallish reception desk, and a two-sided silvery artwork by Oliver Elisasson located in the oculus (its top side viewable from the atrium above).

Jones says that the finishes play off traditional English design. "It's literally a wood-panelled lobby with a twist, and continuing the referencing of classical English architecture, it's a Regency blue ceiling." He says it reinterprets some of the "quintessentially English ideas that you see around the City," one of which is to have a contrasting restrained exterior and flamboyant interior – which Bloomberg London emulates. He cites the 1920s Lutyen's bank now converted into The Ned, as an inspiration for the way Bloomberg's unveils a more dynamic personality the deeper you go.

The big 'reveal' still doesn't happen until you take a lift from the lobby up to the sixth floor, and step into The Pantry. This is a slightly misleading name (arising from its snack bar) for what is a cavernous communal area, and a feast for the senses. You are greeted by an amazing view of St Paul's through huge glazing units, and a green wall, and realise the ceiling is sparkling. That's because it's made up of two and a half million polished metal 'petals', reflecting light from the LEDs dotted around them. Above, a bronze ramp spirals up through the heart of the building.

#### **Passive impressive**

Its design inspired by New York pressed metal ceilings, a major part of Bloomberg London's passive low-energy strategy centres on its ceilings, and their design is a Foster + Partners creation which in its own right makes this building worthy of note. The aluminium 'petals', fabricated in Glamorgan, are shaped like open, slotted letter envelopes, and have been arranged into a carpet of flower-like formations. Their shape is bespoke-designed to not only reflect the light from half a million LEDs, but also to cool the air for the IT-heavy spaces below, with chilled water in copper coils behind each petal, and provide acoustic attenuation.

Michael Jones explains why the ceilings are central to the natural ventilation approach, developed with consultant Breathing Buildings: "If you had a normal chilled ceiling, and you were drawing summer air in, you would get condensation. So we needed to devise a ceiling that had a much greater surface area". Part of their visual effect is the fact the LEDs' light is 'washed' back upwards, giving a glowing effect.

The second key part of the strategy is the bronze fins, termed "gills" by Lord Foster, due to their shape and the fact that they enable the building to 'breathe'. When the outside air is at the correct temperature, "which is anticipated to be the majority of the year," says Jones, the back of the fins open, air passing over the glazing to smooth temperature peaks and troughs, and into the building through large vertical vents.

With their shapes designed to optimise air intake as well as shading, they have an attractive, organic curve, which needed to achieve a large draw of air given the relatively low building height. This was developed by Foster + Partners with the help of fluid dynamic analysis, and finally a 1:1 scale model in a Battersea warehouse, with simulated climate "from the coldest winter to the hottest summer". Jones notes that with the rapid moves to cleaner engines and electric cars, air pollution in the City is becoming less of a concern. While engines are also quieter, the fins' design helps moderate traffic noise.

Aesthetically, the fins' varying forms give each facade a subtly different look, and also a deceptive solidity. Michael Jones: "We were asked to deliver an all glass building that looks solid – a contradiction. So from afar they look quite solid, but locally they open up."

### Ramping up

Unadorned natural materials have largely been chosen for their 'self-finished' qualities in this project – stone, steel, aluminium, timber, wool, and in the case of the external fins but also the key circulation route internally, bronze. Spiralling up through the atrium to form a dramatic triple elliptical helix through three floors, is a 'step ramp'. This patinated bronze-clad hybrid of a wide-tread stair and a ramp provides a place wide enough to encourage workers to stop and chat while others can continue walking.

"They wanted it to be graceful, social, and a place of interaction," says Jones. It's an extremely effective, relaxed way to combine collaboration with circulation while opening up the floorplates, as well as fantastic views up and down the building through teardrop-shaped gaps, helping staff visually feel more connected. It also slightly overshadows the not-unimpressive achievement of the glass lifts being cantilevered off the stone exterior, developed alongside manufacturer Kone with minimal resulting steel frames.

#### An open plan

As Michael Jones puts it, "Open plan is very Bloomberg – it was a very good meeting of minds, because a lot of what drives them drives us, the openness, the idea of equality of workspace, and they were very willing to try and push the boundaries."

From generous landings on each of the seven office levels, you are presented with a sea of desks, and very few columns. The architects began with a standard column grid, and "effectively took every other column out," says Michael Jones, leaving a 13.2 m span triangular grid. Notably, in the Pantry there are no columns at all, with the structure suspended from the roof via a lot of design ingenuity. Jones says this was one of the outcomes of Mike Bloomberg's approach of "the fact that something is new and will take a lot of development is no reason not to do it."

Desks are a bespoke, curved (slightly boomerang-shaped) '120' design developed by Foster + Partners, generally arranged in circular clusters. That overarching idea of democratic equality extends to Mike Bloomberg himself having the same desk. Kate Murphy says: "We studied workplace trends, but realised that quite a lot of organisations are providing small desks. So we deliberately provided quite a generous desk to aid collaboration." The idea behind









#### **BRONZE SPIRAL**

The Pantry provides the first glimpse of the twisting bronze step ramp, as well as the aluminium petal-festooned ceiling All images © James Newton

#### **PROJECT FACTFILE**

Site area: 1.3 ha Floor area: 1.1 million ft<sup>2</sup> (office and cafe space) Number of workstations: 6,700 Volume of stone used: 84,000 m<sup>3</sup> Number of bronze external fins: 450 (600 tonnes) Number of ceiling LEDs: 500,000 Water conservation savings: 25 million litres pa (rainwater and greywater harvesting) Project savings from smart airflow sensors: 600-750 MWh of power per annum, CO<sub>2</sub> emissions reduced by 300 tonnes On-site CHP savings: 500-750 tonnes of CO<sub>2</sub> pa BREEAM score: 98.5 per cent

the clusters was that "you can spin round, have a quick meeting and spin back to your desk."

Despite the fact the architects researched current trends, she says "We didn't want to be clouded by them – Mike wanted to do what he thought was right for the organisation." For example, the designers didn't adopt the hot desking trend, preferring to let staff have their own space, however there are very few meeting rooms, which is more in line with current trends. There are a 'ring' of meeting spaces at the very top (tenth) level, under the skylight.

As ever on this project, workplace design was evidence-based - around 100 of the desks were tested out in Bloomberg's New York office. Says Murphy: "In order to deliver this amount of innovation we had to test everything." They even developed a phone app so people could find their way to their desk - no mean feat with the floors holding 600-700 people, although each floor is dedicated to a different discipline, whether it's software development or media. In a final twist of innovation, the office floors are made of precisely finished timber strips, each with a fridge magnet-type material on the underside which enables them to be individually lifted for maintenance purposes, and does not interfere with IT because placing a strip back in its position closes the magnetic field.

#### Conclusion

At the building's opening, Lord Foster said that once its hoardings came off, Bloomberg quickly became a "working part" of its neighbourhood, with people instantly using its plazas and colonnade. "It was an overnight phenomenon, one minute a building site, the next minute, alive with people and totally part of the public domain."

He applauded the "shared patronage" that characterised the project, with the client investing heavily in quality, public benefit, and sustainability, which has led to a justly celebrated result. "I pay tribute to that civic pride and social idealism, and the extraordinary collaboration between the public world and the private world."

This building, while a temple to finance, is also a shining example of sustainability that reflects a client with a very strong focus on philanthropic actions, and community outreach. It's a joyful, unpretentious and highly functional place, blending seamlessly into its context rather than loudly pronouncing its arrival. It's also a statement of belief in London's global importance – albeit one that was made before the winds changed regarding the UK's place in the EU. Bloomberg himself and others must be secretly hoping it will not turn out to be a spectacular monument to the City's heyday.



## Gilgen door gets the Royal approval

A specialist fully glazed automatic door from Gilgen Door Systems was recently chosen to create the right impression for Royal Standard Place in central Nottingham. The Gilgen SLX- PSF sliding door was chosen because its clean and contemporary appearance matched perfectly with the glazed facade. The full-glass design of the door helps create a visually appealing, clear view entrance with improved access. Gilgen installed the door within a steel 'goalpost' frame within a structural opening of 4.1m. The two sliding door leafs have a clear opening width of 1.8m to guarantee ease of access and are positioned in direct line with the structural glass installed above the door ensuring a seamless appearance. The drive system is concealed within an aluminium trim to optimise the clean lines of the entrance and comes with integral safety including auto-stop/reverse and emergency operating mode. The doors are activated through an access control panel on the outside and by infrared sensors on the inside.

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produced some of the UK's most successful and best loved comedies. The original Crittall Standard Metal windows, not having been galvanised, and single-glazed, had certainly passed the end of their useful life. They have been replaced with Crittall Homelight doubleglazed windows and Corporate W20 doors have also been installed.

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# 21<sup>st</sup> Century retrofit sound insulation for office

Sherborne House, Cannon Street is a multi-let property situated in the heart of London's financial district. The surrounding area was initially the place of residence of the candle-makers, so Cannon Street first appeared as 'Candelwrichstrete' in 1183. The name was shortened over 60 times as a result of the local cockney dialect and settled on Cannon Street in the 17<sup>th</sup> century.

Clad in Portland stone, this historic office building has been the subject of a recent transformation. The building has received a new internal fit-out and external renovations and improvements have been made.

The design for the office space on the second floor was entirely open plan and a major issue was the ingress of the outside noise emanating from one of London's busiest roads. It is often the case that offices are located near to transport links and in busy areas where outside noise levels are high, this can distract attention and make people less efficient at work. When there is a cavity of at least 100mm between the primary and secondary glazing a reduction of 45dB is achievable. An additional benefit of secondary glazing is thermal retention, with the use of high performance twin seals, it virtually eradicates unwanted drafts and a U-value of 1.8 is possible.

Twenty1 Construction contacted Selectaglaze, to provide them with a solution to improve the acoustic insulation of the existing primary windows, which could not be replaced.

On completion of the building works a survey was undertaken for 17 new secondary glazing units from the slimline range. Both series 10 horizontal sliding and series 20 vertical sliding units were used.

The newly refurbished second floor offices are now an ideal environment to house a new occupier, thanks to Selectaglaze soundproofing the space against the road traffic noise.



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## County Durham Hotel and Golf Club Benefit from BoilerMag XL and Water Treatment



A prestigious hotel and golf club in County Durham has recently been fitted with a new boiler, including a **BoilerMag** XL magnetic boiler filter by Enright Environmental Ltd. The heating system and boiler circuit was also treated with the BM1 inhibitor chemical to maintain the heating efficiency by preventing scale formulation and metal corrosion. The BM1 chemical inhibitor is a high performance formula that effectively maintains heating efficiency by preventing scale formulation and metal corrosion, without causing any detrimental effects on the plastic or rubber plumbing components such as seals. It is a Borate/Phosphate free formula that provides outstanding heating system protection with none of the adverse effects associated with traditional protection products. The BoilerMag XL commercial heating system filter is a cost effective option for heating efficiency and boiler protection in commercial, retail, or large residential properties. Compatible with 1 1/2" fittings and pressures up to 12 bar, the BoilerMag XL is easy to install and maintain.

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## Boss Design creates winning workplace



Boss Design's philosophy of 'workplace habitats' and furniture solutions has helped the Energy Systems Catapult scoop a Regional BCO Award for Midlands and Central England in the 'Fit out of Workplace' category for its new offices

located in Birmingham. In conjunction with leading Birmingham architectural and interior designers, Monteith Scott, Boss Design rose to the challenge of helping create a contemporary and non-corporate environment based on a series of habitats specifically designed to adapt and flex as the organisation grows and matures.

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BANG BANG ORIENTAL COLINDALE, LONDON

# More bang for your buck

Providing the authentic Asian streetfood dining experience, a new food hall in north London was also an intriguing dish for the architects to try, as Roseanne Field reports



pening a new restaurant in London is never an easy task, particularly given the vast number of competitors. But when it's the biggest Asian food hall in the capital, in the right area, and in a space conceived by leading architectural practices, worrying about the competition isn't likely to be such a problem.

Bang Bang Oriental Foodhall, which takes its name from the popular Chinese dish Bang Bang Chicken, is situated on the major thoroughfare of Edgware Road in Colindale, north London, an area of rich ethnic diversity. It replaces Oriental City, which like Bang Bang Oriental provided a food market and a variety of eateries, as well as a shopping complex. Food halls, combining varied and vibrant eating opportunities and retail, have been popping up all over the city in recent years – a costeffective solution for both tenants pooling rents, and customers.

Despite its popularity, Oriental City experienced financial struggles and was sold in the late 1990s after its owners declared bankruptcy. It was subsequently sold again in 2006 to a developer who planned to demolish it and build a housing development, school and DIY store on the site, but this was met with strong protest from both tenants of the building and the local east Asian community. "The whole food hall concept was very popular," says The colour palette was one of the most important aspects to the client – specifically they wanted to see black, gold and red



Richard Blandy, director at Stiff + Trevillion, the architects for the new eatery's interiors.

However despite the protestors' best efforts, the local authority was concerned over health issues and Oriental City remained open for only one more year before it was closed in 2008.

There was much debate about what would replace the building. The UK's financial crisis meant the owner's plans were no longer viable and finding a buyer would be difficult. Meanwhile, continued but fruitless protests occurred about the building's abandoned state.

Eventually, in 2013, planning permission was granted for a full redevelopment of the site to include a Morrisons supermarket, flats and, in order to retain the history of the site, an appropriately oriental food hall. It also stipulated that an Asian supermarket would be included, in order to allow the food hall customers to purchase the ingredients they were consuming. In 2014, the building was demolished and construction of the replacement development, designed by Sheppard Robson, began.

The architects designed the shell of each unit in the overall development, and that the interior would be taken care of by each respective tenant and their chosen architect or designer, in this case Stiff + Trevillion. "They'd put in a lift and the concrete staircase, but otherwise it was the original slab, blockwork walls," Blandy explains. "They had put it in all the glazing systems and the roof. So it was ready to fit out but it was a blank canvas." The new food hall is owned by Royal China Group, who were familiar with Stiff + Trevillion's work. "We were approached by them, having worked with them for years," says Blandy.

The opening of Bang Bang in July last year was a big event in Colindale, with Chinese dragon dancers performing and the local mayor and MP in attendance. With the area having been without its muchloved food hall for nine long years, its replacement was hungrily awaited.

#### Dining with a difference

Although Stiff + Trevillion have worked on many restaurants before, they'd never done a project quite like Bang Bang, and it was its unusual nature that was so appealing to the practice. "It was really exciting," Blandy says.

Stiff + Trevillion weren't the only ones new to the food hall concept however – although they own a lot of restaurants in the UK and China, the client had also never worked on one. "It was new to them but it's very common in east Asian countries, particularly China," explains Blandy. "Because it was their first venture into this they had no preconceived ideas. We were doing a lot of research together."

Although the food hall initiative is somewhat recognisable from the type of eating experience on offer in shopping centres, Bang Bang – which translates as 'good good' in Mandarin – takes this to a higher level. "Food halls in big shopping centres would be the usual suspects and where you sat was very much demarcated by particular restaurants," says Blandy.





"This is much more communal, you can sit wherever you like and pick up food from different kiosks. It's much freer."

Blandy is a firm believer that food halls are set to become increasingly popular around the world, with a wide range of consumers looking for something different. "I think people are very adventurous now, and they really want quality and a good price, but not everybody wants to eat the same thing," he says. "I think it's a big market – we're definitely seeing more people looking at that sector."

The exterior of the warehouse-style building features large diagrid cladding and glazing, designed by Sheppard Robson to echo the slanting roof – a much more contemporary aesthetic than its somewhatdated predecessor Oriental City.

The ground floor includes Royal China Group's Golden Dragon restaurant, and the food hall with multiple retailers is on the first floor, which then leads up to a mezzanine level.

The 2,000 m<sup>2</sup> food hall has a total of 27 different small 'restaurants' located in kiosks ranged along the walls, surrounding a central area of tables and chairs. There's a variety of seating, for a diner capacity of 450. While Chinese food dominates the kiosks, the offerings extend from Japanese through to Indian. "It's pretty broad," Blandy says. The largest kiosks are just over 20 m<sup>2</sup>, while the smallest are around 8 m<sup>2</sup>.

The Colindale area has an ethnically diverse community including 4 per cent Chinese residents. However, the appeal of the food hall has a wide reach. "Every nationality comes," says Blandy. "Many people have travelled a good deal and they know genuine Thai, Indian, Chinese food, so it's not new to them."

The Golden Dragon restaurant on the ground floor offers a "slightly more formal" experience. Royal China Group already operates a restaurant by the same name in Soho, which is very well known for its dim sum, especially among the Chinese community. Blandy explains that among the group's restaurants, Golden Dragon sits in the mid range. The restaurant can seat 200+ people, but was also designed to accommodate weddings with 300+ guests, as per the client's brief.

The first floor mezzanine was added to comply with a planning requirement for community space, and there's a room and a dance studio space which the community can rent out. The performers of regular dragon dances held in the food hall also use the rehearsal space, and there are plans to use further rooms on this level for therapies such as Chinese medicine and reflexology.

## **East Asian-inspired**

The designs for both the food hall and Golden Dragon were heavily influenced by traditional Far East architecture and design. "We did a timber-framed frontage to all the units that ties the entire facade together and that was influenced by Chinese and Japanese timber construction," explains Blandy. They used natural timber, expressed bolt joints and dark-stained timber. "When we did the initial mood board there were conceptual images of that type of construction in their houses and buildings and temples. So we've taken





#### **PROJECT FACTFILE**

Client: Royal China Group Shell architect: Sheppard Robson Interior architect: Stiff + Trevillion Opened: July 2017 Food hall floor area: 2,000 m<sup>2</sup> No. of covers (food hall): 450 No. of kiosks: 27 No. of restaurant covers: 200+



that forward and used that to influence the way we've constructed the shells to the kiosks."

The construction of the kiosk shells formed an important part of Stiff + Trevillion's work, as they wanted to minimise what each food retailer had to do in order to get up and running. "We'd put in the shop front, the front counter, the fascia, the side walls and the services, so they just had to put in the cooking equipment and a bit of lighting," Blandy explains. "We didn't want them to have too much influence on the front so the whole design was unified. Otherwise within no time at all we wouldn't know what it was going to look like, it could look chaotic." The only other element each tenant was responsible for was the signage.

The practice used a lot of black granite and polished brass throughout, again echoing the materials used in East Asian construction and interior design. "We've also used black and red fabric between some of the battens to conceal acoustic panels, but these are very much Asian colours," says Blandy. "Particularly in Chinese and Japanese cultures, there's a lot of red and black in their traditional architecture." The colour palette was one of the most important aspects to the client – specifically they wanted to see black, gold and red.

Contrary to the other choices made, one material deliberately chosen because it isn't typical of Asian design is polished concrete. "We didn't want to do something that was too much of a pastiche," explains Blandy. "We wanted it to look modern, but with hints of the history of Asian design. It's got a feeling of the Far East." Another influencing factor was the client's request that clean, robust materials were utilised in order to keep maintenance costs to a minimum.

As well as the building elements, Stiff + Trevillion directly appointed graphic design firm The Plant to take care of the project's graphic elements. They came up with the name Bang Bang and also did the logo, which in turn influenced the way Stiff + Trevillion specified the tiles. Blandy believes this "very important" collaboration was key to the project's success.

The authentic street food experience has been delivered, says Blandy: "That comes from the kiosks, by the very nature that you stroll around among the tables and in walkways to get everything."

The Chinese-themed interior of the Golden Dragon restaurant includes a

purpose-made carpet designed by textile designer Govindia Hemphill. One wall features 3 m x 1 m Chinese lacquered panels – brought over from China by the client – that can be folded back to reveal a large dragon. "The idea was that you could change the atmosphere in the room," Blandy says. Confident in the restaurant's popularity, the client "definitely wanted it to be suitable for big events."

#### Service at scale

Of course, working on a project of this scale doesn't come without its challenges. "The biggest problem is the number of outlets and the kitchen extract related to it – it's so huge," Blandy explains. "It's 1,200 m x 2 m – it's big enough that you could walk down it – and that has to be concealed so that the public aren't really aware of it. The servicing of something like this is very complicated."

The food hall comprising 27 kiosks, each with its own tenant, also proved somewhat difficult. "Fitting out something on that scale is relatively complicated," says Blandy. "We had lots of different operators coming in wanting to install their kitchen and each had their own contractor. As you can imagine, it gets quite tricky!"

Sustainability features include a system that collects all wet waste from each kiosk via a hopper, which dispenses it into a large 5 m x 3 m tank. "It's then pumped into a lorry and taken away to an anaerobic digester and turned into electricity," explains Blandy. "It means there's not huge amounts of wet waste creating smells onsite, making the whole place a lot cleaner."

Bang Bang Oriental also benefits from the huge amount of refrigeration required by the adjacent Morrisons (in fact located within the same building): "The heat is reclaimed and can be used for hot water," Blandy says. This makes a big difference to the building's energy usage, given the huge amount of washing up produced.

While Oriental City was extremely popular, the success of the food hall has surpassed expectations, and Blandy certainly believes it offers a model for the food industry. In particular he sees it as a great platform for launching new restaurants. "If someone decides to set up and open a restaurant, it's a huge investment, without properly knowing if it works," he remarks. "With a small kiosk they have a proper chance to test it out. I think the future is heading that way."

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### Interior retrofit

The careful restoration of its interior has seen many original features restored to their former glory. There are new additions too, including the expansion of the in-café bakery – enabling customers to see Bewley's pastry chefs and bakers create delicious treats.

Bewley's interior features mahogany panelling and mosaic floors which could generate distracting background noise, particularly when the café is busy. We advised Gilligan Architects on the most suitable acoustic ceiling to control reverberation and harmonise with the building's period features.

Architect Brendan Duffy commented, "The introduction of Rockfon acoustic ceilings throughout, direct fixed to the plasterboard ceilings minimised the visual impact on the building fabric, particularly the ceiling covings, allowing these to be expressed. In





addition, the spray applied finish to the Rockfon panels provides a seamless ceiling in keeping with the original plasterboard ceilings and concealing the use of a modern acoustic treatment."

### What is Rockfon Mono Acoustic?

This unique product combines the elegance of a seamless ceiling with Class A sound absorption, previously thought only possible with modular suspended ceilings. It can fit around curves and angled edges, making it ideal for retrofit. It also offers Class A2 fire protection for added peace of mind in any public building.

### How noise impacts on taste

Research shows there is a direct link between what we hear and what we taste – meaning dining out is not just about the food. Background noise can overwhelm our senses, impacting negatively on how we experience what we consume. To counter this, installing sound absorbent materials can control unwanted sound.

### Measuring reverberation

Irwin Carr Consulting Senior Consultant Acoustician, Malachy McAlister, advised on improvements to the acoustics at Bewley's, "We were able to determine the additional absorption provided by the new ceiling by undertaking acoustic tests before and after installation. The acoustic ceiling reduced the reverberation time (echo) by 35 per cent from 1.1 seconds to 0.7 seconds."

### **Client feedback**

The client is delighted with the ceiling and the atmosphere it helps create. Bewley's Assistant General Manager, Andrew Griffin, "Before the new ceiling, noise levels could get very high, making it difficult to hear what customers were saying. Now the feel of the café has changed; it is much calmer and more relaxed."

### Installation

We worked closely with the team at Reilly Ceiling & Drywall on installation. "Integrating services with new ceilings can be a headache. The Rockfon team were always available which made the process much easier. Rockfon Mono Acoustic is simple to work with and fits around the different elements with ease. There is no product on the market that can match it for acoustic performance and flexibility of design and installation."

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# Mapei ceramic products installed at the Adelphi Bank, London

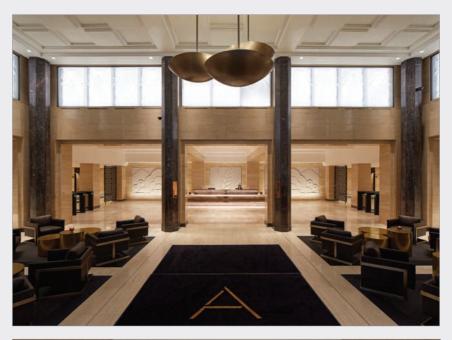
Apei products have been used for the redevelopment of the Adelphi building, working with Stone & Ceramic Ltd to install travertine stone floor and wall cladding within the reception and lobby area, covering approximately 700m<sup>2</sup>. Mapei products were also used throughout the toilet cores where approximately 850m<sup>2</sup> porcelain tiles were installed to both walls and floors.

The imposing Grade II Art Deco building located in London's West End, was built in 1938 and designed by Stanley Hamp. Heavily refurbished in the intervening years, Architects Aukett Swanke aimed to return the building back to a level of grandeur aligned with the vision of the original architect whilst improving upon existing office spaces. The development began with refurbishing the ground floor to 6<sup>th</sup> floor in Phase One in late 2012; Phase Two to redevelop levels 6-11 and Phase Three to redevelop levels 12 and 13 completed in quarter 2 2017. The building has remained operational throughout the works.

John Fuller, Contracts director at Stone and Ceramic commented "Due to careful planning between our design team and contractors we were able to complete the works with little disruption to the tenants. Stone & Ceramic found Mapei products extremely easy to use, and we would not hesitate in using them on further projects."

A redeveloped ground floor reception incorporates feature artwork and retains the building's original Art Deco history and style. Mapei products were used to prepare the floor before wall and floor coverings were installed. Mapei's Ultraplan Renovation screed 3240 is a fibre reinforced self-levelling compound designed for renovating existing floor substrates and can be used in both commercial and domestic situations. Keraquick adhesive in white, alongside Latex Plus and Ultracolor Plus Grout in shades White (100) and Cement Grey (113) were used in the reception area to install travertine flooring and Italian-sourced stone for wall coverings.

Porcelain tiling to the wall and floors in the bathroom and shower areas were also installed using Mapei's Keraquick adhesive together with Latex Plus admixture to obtain a high performance, fast setting, and





highly deformable adhesive. The bathroom areas were finished using Ultracolor plus grout in shades White (100) and Cement Grey (113).

Mapei's fast drying flexible liquid membrane Mapegum WPS was installed in the project for waterproofing internal surfaces. The flexible anti-fracture membrane was applied before the ceramic and stone tiles as a rapid waterproofing solution. The ready to use product waterproofs so that floor covering may be installed after only 12 hours, proving advantageous where a fast track system is required.

Mapei have a Specification Centre and showroom based in the heart of Clerkenwell, London. Visit us or call 0121 508 6970 for more information on Mapei's range of ceramic products and how they can be used in your project.

0121 508 6970 www.mapei.co.uk

# Powdertech – Spring (and all year) Collections



**Powdertech Corby** is looking forward to meeting visitors on April 25th and 26th at Materials for Architecture, ILEC, London. "The latest of our specialist collections, *Evolution*<sup>m</sup>, will be on display at the Powdertech stand – our closest equivalent to a catwalk," says Richard Besant, Director. "Visit us to see *Evolution*<sup>m</sup> up close and discuss your powder coating loves, hates, projects and requirements."

Specialists in architectural metal finishing, Powdertech Corby has four unique powder coating collections, alongside a full range of polyester and thermoplastic powders.

*Evolution*<sup>m</sup> reflects the patinas that occur naturally in metals. *Landscape*<sup>m</sup> offers eight colour palettes evoking natural and man-made environments. *Anomatch*<sup>m</sup>, provides the same lustre and appeal as anodising, in shades of bronze, blue/grey, golds and silvers, *PWF*<sup>m</sup> brings the texture and appeal of wood to metal constructions.

01536 400890 richard.b@powdertech.co.uk

MATERIALS FOR ARCHITECTURE STAND NO 45

# Interior Film in the Frame for Soho Pub Refurbishment



The Compton Cross formerly Molly Moggs, a legendary pub and cabaret venue in Soho, was refurbished by the new owners who wanted to retain its character while developing it into a more stylish cocktail bar. Specialist contractor T6 used Interior Film, an architectural film manufactured by LG Hausys and supplied by David Clouting, to 'wrap' around PVC board which had been cut into strips and used to frame the mirrored areas which featured throughout the bar and seating areas. Interior Film's flexibility ensured that even the rebated edges of the PVC frames did not present a problem, creating a seamless smooth finish. The use of Interior Film on projects like the Compton Cross cocktail bar demonstrates its versatility for use in a wide range of applications and illustrates why David Clouting are seeing an increasing demand from specialist contractors, shop fitters, architects and interior designers who are looking for cost effective solutions and innovative finishes for their refurbishment projects. Available in a wide range of designs and finishes, Interior Film which has a CE and IMO classification can be viewed on the BIMSTORE website.

marketing@davidclouting.co.uk

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> > MATERIALS FOR ARCHITECTURE STAND NO



Long Life Minimal Waste

# Better materials, better buildings

The construction industry is evolving fast and materials are at the forefront of the movement, with R&D pushing them to be tougher, lighter, healthier, and more sustainable. Materials for Architecture explores materials and applications for the built environment.

Aterials for Architecture will return to the ILEC Conference Centre, London from 25-26 April 2018. Once again it will combine a conference programme, exhibition, CPD seminars, material galleries and evening reception. Innovation will be a clear theme across every part of the event.

#### **Thought-leading conversation**

Nick Ling, Technical Design Lead at Heatherwick Studio will give the opening address for the event's conference programme. He has extensive practical and on-site experience and will harness both in his talk, setting the tone for the two-day conference programme which brings together a selection of thought leaders.

'Supertall timber: how to disrupt the construction sector with timber innovation over 80 storeys' will see Kevin Flanagan, partner at PLP Architecture, and Dr Michael Ramage, who leads the Centre for Natural Material Innovation at the University of Cambridge, host a collaborative talk on their 80-storey mass timber tower concept for London's Barbican.

Neven Sidor, partner at Grimshaw, and Anthony Morgan, co-founder of the Carbon Free Group, will discuss how a modular building system fabricated from glass composite panels could be a sustainable, long-term solution to housing shortage.

Speakers have also been confirmed from architectural practices dRMM, Studio Seilern Architects, and HTA Design plus engineering practices Buro Happold, Ramboll, and more. There will also be speaking contributions from top universities, manufacturers, and industry associations.

#### Hands-on

A diverse pool of exhibitors across an array of material types, from aggregates and bricks, through smart materials, to composites and metals, have been confirmed including Akzo Nobel, Aggregate Industries, Envirograf, and Maria Gasparian Studio.

Other attractions within the floorplan are a CPD seminar space, offering best practice approaches to using the latest products, and tactile materials display areas. All features are designed to provide the construction professional with optimal knowledge and insight to inspire specification choices.

The Materials for Architecture Wall will display a selection of globally-sourced materials that break new ground in terms of aesthetics, fabrication, performance, and sustainability. In addition, consultancies MaterialDriven and Material Lab will be on hand to guide individuals to new and exciting material opportunities.

### **Evening reception**

An evening reception on Wednesday 25 April will play host to a young researchers forum in which researchers in the field of architectural materials will pitch their ideas to a panel of expert judges. These include Manser Medal winners Cezary Bednarski of Studio Bednarski and Chris Loyn of Loyn + Co Architects, plus Elaine Toogood of the Concrete Centre. Refreshments will be provided to attendees to the evening reception, and the winning proposal will be awarded a prize of £500.

Those attending the event will be able to gain valuable insights on how to apply the latest thinking to materials for architecture, and are guaranteed to come away with inspiration to apply on their projects.



# Innovation will be a clear theme across every part of the event



For the first time, **Berry Systems** will be featuring at this year's Materials for Architecture 2018! This is to demonstrate its

spectrum of cladding and facade solutions that the company specialises in for the construction industry. Berry Systems has a wide range of materials and designs for you to choose from to meet your aesthetic aspirations. Come and visit the company at **Stand 41**.



# Your Cladding, Façade and Building Envelope Specialists

We have a whole spectrum of solutions available to help fulfil your aesthetic aspirations to deliver a building envelope that is both safe and stylish. Berry Systems have the experience and expertise to provide you with a complete design, supply and installation package, offering a wide range of finishes and material options. We will work with you through every stage of your project to complete your building envelope. Our portfolio of cladding and façade options

include: Corrugated Profiles

- Composite
- Perforated
- Rain Screen
- Stone Cladding
- Sto Glass
- Trapezoidal Profiles
- Vision Mesh





# materials for architecture

# Come and see us! Stand 41!

Berry Systems will be featuring for the first time at Materials for Architecture 2018 to exhibit our range of cladding and façade solutions that we supply to the construction industry. We will be more than happy to welcome visitors to our stand to discuss the products and services that we can provide.



# **Contact Us:**

Berry Systems are Trading Divisions of Hill & Smith Ltd

Address: Springvale Business & Industrial Estate Bilston, Wolverhampton WV14 0QL Telephone: (0)1902 491100 Email: sales@berrysystems.co.uk Website: www.berrysystems.co.uk



# Sky's the limit for Aspex doorsets



Aspex, one of the UK's leading architectural ironmongery and doorset companies, has recently secured a contract to supply its doorsets to The Atlas, a dynamic living development across London's prominent skyline. Aspex will be supplying more than 250 of its Novista Riser Steel doorsets to the iconic 38-storey residential tower in Shoreditch, which consists of 302 apartments, a business centre, a gym, a spa and much more. Ashley Burberry, Managing Director of Aspex UK, said: "Our doorsets provide a contemporary look and feel to create a suitable option for modern projects that require a seamless finish." The Novista Riser system is available with either a timber or steel door leaf and is suitable for a wide variety of projects with single, double, triple, and quadruple combinations available. It can be factory painted to any RAL colour or primed to allow on-site painting for precise colour matching with the adjacent wall. The doorsets are suitable for locations which require either a very high fire or acoustic rating, and are fire rated to up to FD120 and acoustic rated up to 40dB.

0116 278 3506 www.aspex-uk.co.uk

# New 3D BIM catalogue from Schiedel



Schiedel Chimney Systems has launched a new 3D BIM (Building Information Modelling) Catalogue, providing architects, specifiers and engineers an interactive and accurate way of choosing the best solutions from Schiedel's range of commercial and residential chimneys,

flues and associated equipment. Delivering comprehensive data on all components, the 3D BIM Catalogue is free to use, allowing those involved in the initial planning stages to confidently recommend Schiedel based on the latest industry modelling.

0191 4161150 www.schiedel.com/uk/bim

# Off-site construction to a higher level FP McCann has long-standing experien



FP McCann has long-standing experience within the hotel sector, providing architectural and structural precast concrete solutions to an extensive range of budget and luxury hotel chains including Ibis, Premier Inn, Ramada, Holiday Inn, Hilton, Crowne Plaza and Malmaison Hotels. They

offer a one-stop shop where you can expect to receive an estimate, design service, the manufactured product and installation service. Their off-site method of construction is the ideal solution where speed, quality, safety, programme times and budget are all key priorities.

sales@fpmccann.co.uk

# Icopal introduces Universal



Icopal has recently launched the Universal range, a flexible new collection that is ideal for flat or pitched roofs. Available in three different variations, the product is durable and environmentally friendly. With its high puncture resistance, the

company's new addition is long lasting with a life span of up to 30 years. The single layer roofing system contains POCB (polyolefine copolymerisate binder) and is further enhanced with glass fibre and polyester. Combined with UV protection, the Universal range is the most durable and versatile roofing material available.

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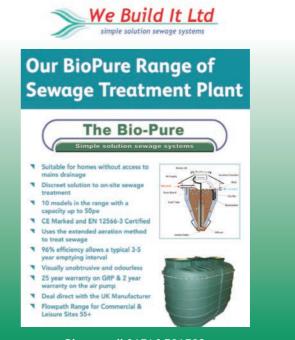
# Icopal provides vital protection



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selected to meet the on-site challenges and achieve a durable and reliable seal. The wet-on-wet application method meant that areas could be waterproofed quickly and completely, with the surface fully weatherproof after only 30 minutes. The seamless Enviroflex product allowed the material to be moulded to the shape of the vents.

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# The obstacles to getting fire safety right, post-Grenfell

James Butler of Pura Facades expresses his concern that despite the best intentions of the final Hackitt report following the Grenfell disaster, the fragmented nature of the industry could mean there are implementation challenges ahead

The long-awaited final report from Dame Judith Hackitt could bring about fundamental changes to the way architects consider the risks associated with design and the use of building materials.

Clearly, the UK's construction industry is not in a great place right now. Officially the sector is in recession; the collapse of Carillion was a body blow to the industry, and Grenfell continues to cast a long shadow over the whole market. With such low credibility right now, the outcome of the final Hackitt Report, due imminently, is vital. Not only do we need clear and robust recommendations, but also an appropriate response from architects, specifiers, contractors and safety organisations. And though Grenfell will leave a permanent scar, there's now a perceptible willingness to learn and adapt so a similar catastrophe could never happen again.

Since the dreadful events of 14 June 2017, architects and specifiers have had little guidance or clarity on fire safety with regards to cladding systems. Data suggests that the industry has become much more risk averse, using A2 or above fire retardant materials wherever possible. However, independent, clear guidance on which products conform to which fire rating standards has been complex and opaque for many specifiers.

Last year, we produced a comprehensive Fire Rating Guide, offering independent advice on fire-rated cladding systems. Choosing an approved cladding system shouldn't need to be so reliant on the customer doing their own research.

There is also strong anecdotal evidence to suggest that major suppliers to the cladding market are dropping non-tested components from their range, as demonstrated by Vivalda Group's recent decision to supply only A2 rated aluminium composite product on projects over 18 metres in height.

There are signs that there has been a rush to fire test products – with the likes of BBA and WinTech reporting full order books for their services over the past few months. The post-Grenfell period has led to much more open consultation within the industry which has led to architects and suppliers reaching out to build relationships with highly regarded testing organisations. Such engagement, albeit informal at this stage, is a good sign that the industry at large sees a need for more joined up thinking where cladding performance and safety is concerned.

As well as clear and robust regulations, the industry also wants to see strong and consistent enforcement from the Hackitt Report. However, as is often the case, the devil will be in the detail.

The complex, inevitably fragmented nature of cladding systems deserves specific attention. The regulations need to cover more than simply the panels. Attention needs to be given to complete cladding systems, including fixings, sub-frames and insulation. Systems are by their very nature not simple to regulate, given the hundreds of manufacturers that are potentially involved.

While widespread and comprehensive testing of all parts that make up cladding systems should be part of the solution, so should clarity and access to information for specifiers. We need to make safety paramount but also not onerous for those involved in recommending the right solution.

Retrospective testing is another potential area of concern, given the fact that 149 high rise buildings in the UK failed fire safety tests following Grenfell. Once the Hackitt report is published and a clear safety standard is made public, how will cash strapped councils afford such fundamental renovation work? How quickly should the work be done? And who will be responsible for checking the quality of the retro-fitted cladding? These are all questions that need to be answered as part of the report, which needs to take a detailed, holistic approach to regulations and safety.

James Butler is the director of Pura Facades



#### **BEST PRACTICE**

Working closely with main contractor Bouygues, Pura supplied Rieder GRC (glassfibre reinforced concrete) panels as a lightweight alternative to pre-cast or GRC concrete facades for Hallsville Quarter, Canning Town





# Crescent shape around an oak tree

tih over 12,800 undergraduate and 4,000 postgraduate students, the university's parkland campus is on the outskirts of the city of York in the North of England.

The building, a joint venture between the University of York and Kaplan International Colleges, houses the University's International Pathway College which provides foundation courses for international students, to assist their transition onto the University's degree courses. Based at the heart of the campus, the facility provides an excellent opportunity for international students to integrate into campus life, alongside their academic study.

The new building includes a 350 seat auditorium, flexible learning spaces, a learning resource centre, 350 seat restaurant, administrative facilities for the International Pathway College and space for student societies and activities.

Situated within a picturesque lakeside setting, the Piazza Learning Centre is both sympathetic to the natural landscape while also being fully accessible to the University of York's student population. The new threestorey building was designed as crescent shape to wrap around a retained oak tree in the courtyard, located to the south of Langwith College on the University campus.

To give the building an aesthetically pleasing and sharp look, ALUCOBOND<sup>®</sup> PLUS terra Pyrite was used on the facade cladding, roof edges and fascia. ALUCOBOND<sup>®</sup> terra unites the typical crystalline surface and velvety feel found in natural stone with many of the advantages of ALUCOBOND® composite panels. Unlike most natural stone, ALUCOBOND® composite panels are both very thin and light, but offer at the same time a high level of flexural and tensile strength. Large format panels can be easily and accurately fabricated, processed, transported, installed, and, in addition, three-dimensionally shaped by using folding and roll bending techniques. Unlike many stone surfaces, ALUCOBOND® terra is also weather resistant and colour fast.

The superstructure of the main building is steel frame construction with overall lateral stability achieved by a combination of hidden vertical bracing. The floors to the teaching accommodation wings are precast concrete, designed to act compositely with the steel frame.

"We are thrilled to have completed our third scheme for the University of York, and our second for this client with Interserve," said architect Dave Cottam. "Our design team worked closely with the University to develop the proposals, and the completed building is outstanding."

Jon Greenwood, Director of Commercial Services at the University of York said, "the Piazza Building has offered our clients, staff and students a fantastic new space for integration, innovation and creativity. This building inspires activity by its very design; throughout the Piazza Building you can find breakout spaces designed specifically for engaging work while simultaneously offering a peaceful atmosphere to work in. After watching the construction work, it's great to be so proud of the outcome. I'm looking forward to seeing what York Conferences' clients think of the new venue".

Paul Herbert, Specification Manager: 07584 680263 Richard Geater, Sales Manager: 07584 680262 Richard Clough, Business Development Manager: 07760 884369

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### **PROJECT DETAILS**

Project: Piazza Learning Centre Location: University of York, Heslington, York, UK Façade material: ALUCOBOND® PLUS terra Pyrite Construction system: Tray panels Building Owner: University of York Architects: Race Cottam / Interserve Construction Ltd Fabricator / Installer: AKV Architectural Facades Ltd / Chemplas Ltd Year of construction: 2017 Copyright pictures: AKV

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As any architect can testify, a city is not just about the buildings. The city is a landscape of aesthetics, emotions and ambitions. The city is an expression of human interaction and a crossroad of past, present and future. This makes the urban landscape a playground for ambitious architects and entrepreneurs who want to make their mark and to influence the shape of tomorrow.

Architects focus on new ways to design modern buildings and are on the look-out for materials that will contribute to their interpretation of city life. RMIG is a world specialist in perforated metal and leads the way in developing innovative solutions for creative urban design that are based on perforation in all shapes, sizes, colours and surfaces.

#### Versatility and functionality

Perforated metal offers a unique versatility and functionality when it comes to design, material and use. A good example is the use of perforated metal as decorative facade cladding, where it also serves as an efficient sun screen that does not require power or manual adjustment to work. It is a 'green' solution that creates a comfortable indoor atmosphere for the users of the building.

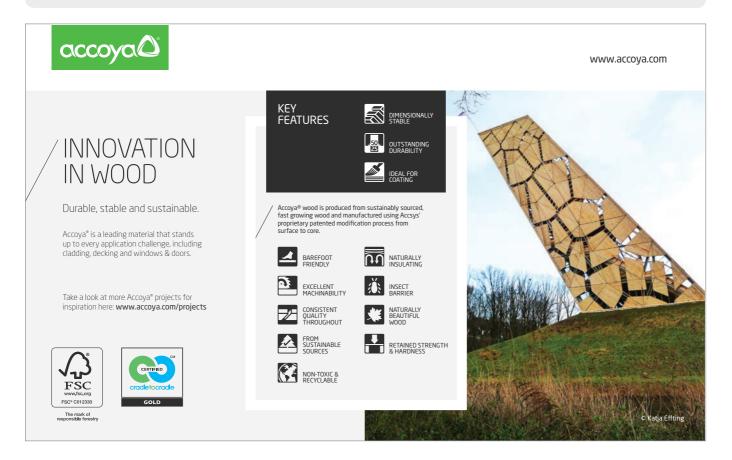
Sound absorption is an area where perforated metal can also be used to great advantage. When used for walls and ceilings in interior design, the perforation combined with sound absorbing fabric or batts ensures maximum noise reduction. This contributes to a better and safer environment for many, whether they are occupants in residential buildings, using public facilities or working in an open plan office.

Picture perforation, known as RMIG ImagePerf is yet another elegant solution to the challenges of architectural design. RMIG ImagePerf converts perforated metal into a 'projection screen' for art, photographs, illustrations and graphic designs. It provides



an inspiring level of creative freedom and strong expressive power for designers and architects. It can be used as a contrast to the other building materials, to highlight certain parts of the building, or to show those in the vicinity the purpose of the building.

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EQUITONE's most recent addition to the range, EQUITONE [materia], accentuates the beauty of fibre cement. The material encompasses the characteristics of cement whereas the fibres render its surface textured yet velvety. The ever-changing atmosphere gives the material natural subtle shade variations.



Project: Restaurant II Capriani Mechelen Architect: K Reubens & M Muylaert

EQUITONE [tectiva] offers elegant shades of natural colour which provides a unique aesthetic effect. Characterised by the fine sanded lines and naturally occurring hues within the material, these enhance the natural matt appearance which comes to life with the effects of light and shade.

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Project: Clerkenwell Architect: Studio Weave



Project: Meldrum Hotel Architect: Lipp Architects

# Designer selects steel entrance screen



Architects – and TV shows! – talk about using large scale glazing "to let the outside connect with the inside" of a property, but one design professional has specified a high-performance, triple glazed composite screen from a member of the **Steel Window Association** to ensure the

heat inside does not escape to the outside. And similarly, the stylish assembly was chosen to keep extraneous noise out of her beautifully refurbished and extended North London home. Members of the Steel Window Association are able to offer a selection of window and door types suitable for new-build as well as refurbishment projects.

www.steel-window-association.co.uk

# Schueco's new panoramic sliding door



Schueco UK has launched a new version of its highly successful ASS 77 PD panoramic door system. The new door provides minimal sightlines with an outer frame that remains concealed in the building structure. The Schueco ASE 67 PD door is available in two options with different outer frames: The slimmer of the two

options, which has a 57 mm frame, is especially suitable for use in renovation projects; The deeper 90 mm option caters for even greater weather performance as it delivers watertightness to 600 Pa while maintaining the aesthetics and sound insulation of the 57 mm system.

01908 282111 www.schueco.co.uk

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# New 80 page brochure



Architectural Bronze Casement's new brochure showcases its range of bronze windows, doors, screens and secondary glazing. This brochure includes over 190 photographs showing you examples of projects from historic renovations to striking contemporary new builds. Technical

pages guide you through each of their window and door systems and detail specific options for your own project. Bespoke, hand-made bronze windows and doors are aesthetically striking and an exciting alternative to steel and aluminium. 'Architectural bronze' is a manganese brass alloy which is extremely strong.

www.bronzecasements.com

# Rooflights transforms family home



Chris Dyson Architects chose Glazing Vision for its client's North London home due to the high quality of its products and its ability to create beautiful bespoke solutions. The entire framework of this super-sized RAL 9010 Dual Sliding Over Fixed Rooflight was supplied in a bronze finish,

which was a key part of the architectural design. With such a complex rooflight, with fixed and sliding sections, a quiet and efficient operation was fundamental to the specification. Electronically controlled at the touch of a button, each of the 2 sliding sections of glazing can be retracted easily, revealing generous openings, and sky-only views.

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# Metal Technology elevates Elgin Place



Metal Technology, have helped shaped iQstyle student living at Elgin Place in Glasgow. The development offers 330 rooms in various configurations over 14 floors, along with retail and social spaces. Metal Technology System 17 curtain walling was used in several variants: silicone pointed, concealed vent, flat

cap and capped. Systems 4-35Hi+ casement and 5-35Hi+ tilt-and-turn windows and System 5-20D doors were also used. Metal Technology and the fabricator also developed a bespoke value engineering solution for the glass box curtain walling at levels seven to 13.

028 9448 7777 www.metaltechnology.com

# Structural glass balconies add style

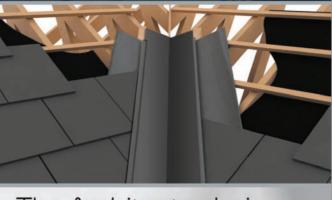


Neaco's structural glass balconies are adding beautiful minimalist looks in keeping with the impressive contemporary design of Oakapple Group's mixed-use development in the centre of Clapham. Designed by Harris Architects, the scheme comprises 10,000 sq ft of grade A

commercial space and 40 luxury apartments with communal external terraces on upper floors. With a choice of glass-fronted designs, Neaco's Clearview balcony range is renowned for its superior visual appeal and the free-standing structural glass option offers the ultimate in contemporary style with no supporting stanchions required.

neaco.co.uk/products/balustrade-and-balconies

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- · Excellent thermal insulation values

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# FAKRO sets new design standard



FAKRO Innoview windows and doors are manufactured in standard and non-standard sizes of up to 12 by 2.8 metres. Pine, oak or meranti hardwoods provide structural stability, airtightness and a distinctive visual aesthetic while various sash profiles, matt or satin finishes and any RAL Classic Palette

colour can be specified. Triple and quadruple-glazed Class RC1 units (or RC2 to special order) utilise a quadruple sealing system to provide U-values as low as 0.68/W/m<sup>2</sup>K. Innoview HST doors have no visible frame, concealed hinges and sliders, roller lifter and rotary cam.

01283 554755 www.fakro.co.uk

# New Promat SYSTEMGLAS® options



Striking the optimum balance between aesthetics and fire safety in glazed partitions is a reality with new additions to the SYSTEMGLAS® range from **Promat UK**. Two new Promat SYSTEMGLAS® options give designers and contractors the scope to create frameless, butt-jointed glazed screens that maximise light

transmission, whilst offering fire integrity and insulation fire protection for 30 or 60 minutes. SYSTEMGLAS® Celare is an EI30 and EI60 rated system that can be concealed in the floor, ceiling and side wall structures to give a virtually frameless result.

0800 588 4444 www.promat-glass.co.uk

# **GLASSOLUTIONS** brings light



The unique mullion-only VS-1 glazing system from GLASSOLUTIONS, which reduces sightlines and maximises interior brightness, has been installed at a new community hub in south-east London to create a light, bright social space with a welcoming ambience. GLASSOLUTIONS fitted a glazed building envelope comprising the flagship VS-1 curtain

walling system, supplemented with traditional curtain walling. GLASSOLUTIONS Commercial Manager John Foster said: "We are delighted that our flagship VS-1 system proved the ideal choice".

01904 610077 www.glassolutions.co.uk

# Roof protection for former WWII bunker



Originally built as a decoy target for German WWII bombers, *The Decoy Bunker* in Monmouthshire has been restored as a unique holiday home. A highly durable green roof waterproofing system gives the former bunker the desired camouflage effect and

provides full protection against water flowing down the hillside. Alumasc's registered contractor Span Roofing installed a Derbigum Black Anti-Root Built-Up System below the green roof to provide a reliable waterproofing solution, then Blackdown Greenroof Drainage Layers, Intensive Substrate and Washed Pebble Ballast.

0333 577 1500 www.alumascroofing.co.uk



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# Mapei launch Mapetherm Flex RP – a flexible, ready mixed skimming base coat



Mapetherm Flex RP, from Mapei, is a ready-mixed, cement-free flexible skimming base coat that is extremely elastic and due to added Bioblock technology, is resistant to the biological attack of mould and algae. Developed by Mapei's worldwide Research & Development laboratories, Mapetherm Flex RP is excellent for repairing deteriorated insulating systems and/ or micro-cracked render to form reinforced skim coats on insulating panels and thermal insulation systems. Mapetherm Flex RP contains versatile characteristics that have been successfully used to carry out repair and maintenance work that is efficient and has an aesthetically pleasing finish. An innovative use of resin ensures that Mapetherm Flex RP is highly elastic. It also adheres perfectly to insulating panels, old and new render, organic and cementitious skimming compounds, paint and coatings including those deteriorated – as long as they are sound, well bonded to the substrate and do not suffer from rising damp. A high impact strength also ensures that impact loads are dissipated by its elastic structure. Mapetherm Flex RP can also be tinted using the Mapei ColorMap automatic colouring system.

0121 508 6970 www.mapei.co.uk

# Kingspan specified for design museum



Roof and floor insulation products from one of the industry leading manufacturers – Kingspan Insulation – have formed an integral part of the iconic building envelope for Scotland's first museum of design. The building, rated 'Excellent' at its design stage BREEAM

assessment, combines renewable energy generating technologies with a highly insulated construction. To insulate the building's expansive flat roof, whilst also providing effective drainage, over 6,500 m<sup>2</sup> of Kingspan Thermataper TT46 LPC/FM was specified along with a further 1,000 m<sup>2</sup> of Kingspan Thermaroof TR26 LPC/FM.

01544 387 384 www.kingspaninsulation.co.uk

# Kingspan TEK joins the adventure



The Kingspan TEK Building System has been specified for a new restaurant at Chessington World of Adventures. The Structural Insulated Panels (SIPs) were erected in just two weeks to ensure the Smokehouse BBQ was restaurant-

ready for Easter. The 142 mm Kingspan TEK Building System forms the walls and roof of the single-storey restaurant. The Kingspan TEK Building System and the Kingspan TEK Cladding Panel are available in a 172 mm thickness, delivering U-values of 0.17 W/m<sup>2</sup>.K or better, without the need for additional insulation.

01544 387 384 www.kingspantek.co.uk

# Improving indoor air quality with Susurro



The new Susurro, a ceiling mounted heat recovery unit from **Airflow Developments**, has been designed to provide continuous decentralised ventilation for both office and educational environments. Featuring a new

generation of efficient, energy saving and ultra-quiet technologies, architects can be assured that the units meet all the necessary regulations, and provide a fresh and healthy indoor air quality for the occupants. Susurro is available with a three-year warranty, and energy efficient EC motors. For further information visit: www.airflow.com/ pdf/Susurro/susurro-detailed-product-specification.pdf

01494 525252 www.airflow.com

# Scottish school in insulation first



A primary school in Perthshire has become the first building in the UK to benefit from the outstanding thermal performance of **Kingspan Insulation's** OPTIM-R E Roofing System. Kingspan OPTIM-R E is the latest evolution

in vacuum insulation technology. It comprises a Kingspan OPTIM-R panel encapsulated within a high performance PIR insulation board, delivering a thermal conductivity of 0.009 W/m.K. The product's robust envelope provided complete protection for the vacuum insulation core during the installation, allowing the expert team from Advance Building Contracts to quickly fit the 80mm thick panels.

01544 387 384 www.kingspaninsulation.co.uk/optim-r



# Improved CRX2 wireless controller

Consort Claudgen's CRX2 wireless controller is now available with an optional open/close window detection feature which reacts intelligently to temperature changes in the area or room. Should a window or door be left opened, the CRX2 will recognise a sudden drop in temperature and will turn the heating off to save energy. Once the window or door is closed, the CRX2 will switch the heater on and resume its normal operation. The open window detection feature is fully automatic and, once enabled in the setup menu, it does not require further intervention to be activated. The detection time and temperature settings for this feature are also fully adjustable in the setup menu. With this feature active, heat loss is minimised, thus reducing energy wastage and saving money. For more information please contact Consort.

01646 692172 www.consortepl.com



# Sigma is VRF with flexibility built in

With its new Sigma-shaped heat exchanger, the Set Free Sigma VRF range is high efficiency even at low or partial load in cooling mode, achieving SEER up to 8.33 and a marketleading SCOP of up to 5.06.

- ✓ 5HP to 24HP in a single unit module up to 96HP with combinations
- Two pipe heat pump, three pipe heat recovery
- ✓ Off coil temperature control eliminates cold draughts
- ✓ Japanese technology, manufactured in Europe



# Better ventilated homes mean a healthier future

Paul Croughan of EnviroVent looks at how the new build sector is meeting ventilation requirements and improving the air quality in new home construction

Requirements for increased levels of air tightness and energy efficiency mean that around 25 per cent of new homes are now being specified with MVHR (Mechanical Ventilation with Heat Recovery) systems, according to research by the NHBC (National Housebuilding Council).

MVHR is proving to be the most effective way of achieving acceptable levels of indoor air quality and ventilation, while reducing the amount of energy used to heat a property.

These MVHR systems, which are situated in a central location, usually in the loft space of a house or a utility room in an apartment, provide both supply and extract ventilation, extracting warm and moisture-laden air from the bathroom, kitchen, WC and/or utility room of a property. Air is drawn into the main system and passes over a heat exchange cell, before being ducted outside to the atmosphere. At the same time, fresh air is drawn from outside into the system, the heat from the extract air is then transferred to the supply air through the heat exchanger. MVHR units can transfer over 90 per cent of the heat from the extracted air to the supply air as it passes through the heat exchange cell. This helps to reduce the overall energy requirement of the building, as well as its carbon footprint. This fresh, filtered and tempered air is then supplied into the living areas of the home, providing a good level of indoor air quality and preventing humidity which can lead to condensation and mould growth.

# Higher levels of air tightness

Where higher levels of air tightness (levels of 3 m<sup>3</sup>/h/m<sup>2</sup>@50Pa or below) are required, MVHR is often specified to secure a larger percentage reduction between the DER (Dwelling Emission Rate) and TER (Target



Emission Rate). A high performing MVHR system through SAP (Standard Assessment Procedure) may lower the DER.

For new homes, MVHR is helping to cost effectively contribute towards the improvements in  $CO_2$  emissions required by Building Regulations. With MVHR, the incoming air is filtered, improving internal air quality and it also negates the need for window trickle vents. In addition, MVHR is an attractive option for properties requiring acoustic measures as

#### **CONDENSATION PREVENTION**

MVHR units can prevent humidity which can lead to condensation and mould growth



#### INSTALLATION

Correct installation of MVHR systems is essential to ensure their effectiveness there is no requirement to open windows. For example, for homes located near busy roads or airports.

One of the main requirements with a ventilation system is to ensure it is correctly sized. If it is undersized, it could lead to under-performance of the unit and noise issues. This is the reason why we work closely with specifiers at design stage to ensure that new homes can meet the requirements for both ventilation and air tightness. Correct installation is also essential with MVHR systems to ensure their effectiveness.

Since 2010, revisions to Building Regulations Part F meant domestic ventilation became 'notifiable' work, requiring ventilation provision to be installed by a competent and qualified person. It is vital that the installation of any domestic ventilation system is correct and meets the minimum requirements set out in regulations and standards. Over 90 per cent of faults with ventilation systems are down to poor installation. More installers are therefore becoming NICEIC (The National Council for Electrical Installation Contracting) trained which means they can work with the latest types of domestic ventilation products efficiently, receiving technical information and advice plus practical support.

Building Regulations updates made in 2010 placed greater importance on the effective design, installation and operation of ventilation systems, along with the introduction of the Domestic Ventilation Compliance Guide and BPEC Accreditation. These revisions to Part L and Part F have paved the way towards ventilation becoming more of a 'controlled' service, which focuses on energy efficiency and correct installation to ensure that what is specified is fitted and works correctly. The aim of these updates was to maximise carbon reduction through correctly specified systems that are installed by competent engineers, therefore minimising energy losses.

The guidance also stated that instruction must be given to the homeowner as to how a ventilation system should be operated effectively. This is part of the NICEIC training we provide to installers.

Smart technology is also making MVHR units appeal more to homeowners and buyers. Apps such as myenvirovent offer greater control for the homeowner, as well as speeding up commissioning for the installer. It allows them to connect directly to the unit through the app without the need for a wireless internet connection. They can then access the dedicated installer mode to commission the airflow rates and select additional options in the unit's ventilation settings page. This makes the whole process much simpler and more efficient.

### Conclusion

The latest generation of MVHR systems are highly efficient and can recover over 90 per cent of the heat that would normally be lost to the outside via trickle vents or extract fans. This energy is then supplied back into the house as warmed, fresh air, ensuring that developers are able to reduce the overall energy requirement of the building. There are obvious benefits to homeowners who are looking to reduce their energy bills.

Installing mechanical ventilation systems is the most effective way that the new build sector can meet Part F requirements and improve SAP ratings. The trend towards fitting MVHR systems in new homes therefore looks set to continue as part of improving indoor air quality and achieving compliance.

Paul Croughan is head of sales – new build at EnviroVent

# A hot and efficient open gas fire



The best just got better! The much-loved Paragon One gas fire has been a firm favourite for over a decade now. The team at **Charlton & Jenrick** has recently been working on a round of updates for the fire and is pleased to announce the launch of the new improved, hotter and more

efficient Paragon One Evolution Natural Gas fire. The Evolution offers a toe warming 4.4kW output from its advanced technology firebox at a substantial net efficiency of 63 per cent. The fire is being launched in Manual, Slide and Remote for full versatility.

www.charltonandjenrick.co.uk

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# **COOL-FIT 2.0** passes its examination



Cambridge University's International Assessment Group is in the process of moving into spacious and stylish new premises, where the latest insulated pipework system from **GF Piping Systems** has been specified to help maintain a comfortable indoor environment. The COOL-FIT 2.0 pipe systems range from 32mm to 140mm in diameter and will

carry chilled or low temperature hot water around the five storey buildings. The lightweight nature meant that manual handling would be made easier and more manageable around a very busy site with multiple disciplines and trades working in close proximity.

024 7653 5535 www.gfps.com/uk

# Mobile App for Air Conditioning



AET Flexible Space, one of the leading providers of underfloor air conditioning (UFAC) systems can now offer even more personal user control with the newly launched "FlexApp". AET Flexible Space systems have featured personal user control for thirty years, highlighting the advanced and user led design of their underfloor systems and this latest feature only serves to improve comfort cooling for office workers by allowing

individuals to take control of their environment. The FlexApp has been designed with simplicity in mind and the user interface within the app has a strong visual display and powerful capability.

01342 310400 www.flexiblespace.com

# Vertical rads - top of the wish list..



The love affair with **Stelrad's** vertical radiators is well underway with many being a virtual extension of the towel warming radiators that most homes have in their bathrooms. But now, people want these vertical radiators in the kitchen, in the entrance hallway, in their main living rooms, in corridors and on

landings – with their smaller horizontal footprint making them easy to slot into spaces where a traditional horizontal radiator simply won't fit. Go to Stelrad's website to see the range of options available.

0844 543 6200 www.stelrad.com

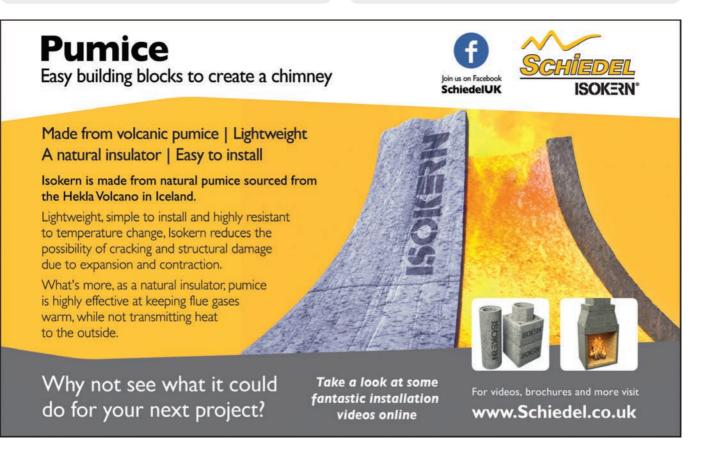
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issues that have live links to advertisers' sites, as well as daily email alerts to keep you as informed as possible.

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WWW.ARCHITECTSDATAFILE.CO.UK

# **Bioethanolfires' Planika's range**



**Bioethanolfires** is one of the UK's leading distributors of Planika's range of bioethanol fires. Bioethanol fires can be used to create a focal point in a residential or commercial space as well as provide a heat source. Planika's flagship burner, the

FireLine Automatic 3 XL, boasts burn times of up to 42 hours, wifi operation, bespoke lengths from 690 mm to 2900 mm plus casing and colour options. Bioethanolfires work closely with architects, developers and interior designers and can provide full installation and construction guidelines as well as design ideas and advice.

bioethanolfires.co.uk

# Fusing the options



Ventilation design and specification for multi-occupancy buildings is now as simple as A,B,C through an innovative approach pioneered by **Gilberts**. Gilberts, one of Britain's leading air movement specialists, is the first to develop a stock, single-unit hybrid solution focussed on

natural ventilation with heat recovery- its Mistrale Fusion System (MFS). The company's pioneering approach has continued, with the evolution of the system that now enables simple addition of extra elements. For more information contact Gilberts by calling.

01253 766911 www.gilbertsblackpool.com

# Designing a chimney system



Schiedel's Online Specialist Centre, has a number of useful CAD drawings, which are ideal for architects, installers and builders. They show various "typical" installations which should match an existing installation, or at least give you a strong idea of how to build the chimney system. It also has various CAD cells of its components available. A range of Schiedel

Products for Commercial and Residential are also now available within the company's new 3D BIM (Building Information Modelling) Catalogue. To register for access, simply visit the website, select Schiedel World on the top menu and then Specialist Centre.

0191 4161150 www.schiedel.co.uk

# 'Revolutionary concept' delivers solution



BAM Construction is utilising a revolutionary concept to simplify delivery of effective ventilation. With a series of new-build and refurbishments in the education sector, the company has chosen **Gilberts'** Mistrale Fusion System (MFS) as a 'one-stop shop' solution for the ventilation

strategies. Gilberts' MFS was the first primarily natural ventilation solution to evolve into a dynamic hybrid, by minimising heat loss via a low power fan and mixing damper rather than the conventional heat exchanger. It has continued its innovation, being the only such system that can be easily tailored to the specific project requirements.

01253 766911 info@gilbertsblackpool.com



# A Helping Hand with Underfloor Heating

T's an increasingly popular feature to specify, especially for tile and stone; but when it comes to underfloor and surface heating, one size does not fit all.

For this very reason, Schlüter-Systems offers a variety of solutions. The two system technologies available on the market today have differing benefits and features, so we've put together a brief overview to help in selecting the best complement to your project.

## Why use electric?

Electric systems are ideal for providing additional comfort in specific areas or rooms. There are a couple of reasons why electric systems are best used in this way, namely the cost of electricity and the characteristics of the heating experience. An electric system is designed to raise the temperature of the surface rather than the room, so is an enhancement to as opposed to a replacement for a primary heat source. They are generally cheap to install, quick to warm up and easy to retro-fit.

## Specify this: Schlüter<sup>®</sup>-DITRA-HEAT-E

Schlüter<sup>®</sup>-DITRA-HEAT-E is the perfect integrated electric solution for the heating and protection of tile and stone coverings. The uncoupling matting prevents cracks in the finished installation and eliminates the need for self-levelling, and its unique studded design means that the cable is easily pressed into place with no need for tape, glue or measurement.

The system can be specified with standard DITRA-HEAT or with DITRA-HEAT-DUO matting, the latter of which offers an integrated thermal break and impact sound reduction of up to 13dB.

# Why use hydronic?

Hydronic (or 'wet') systems are ideal for large scale coverage and 'whole-house' scenarios. Designed to heat the air within a room as well as the surface covering, they are a primary heat source and can therefore replace radiators, connecting directly to a boiler. Although installation is more expensive than with an electric system, running costs are cheaper. Hydronic systems can be powered by a number of different fuel sources, including ground source heat pumps, and as well as warming a space can also be used for gentle passive cooling.



# Specify this: Schlüter®-BEKOTEC-THERM

Schlüter<sup>®</sup>-BEKOTEC-THERM is the patented hydronic underfloor heating solution with an ultra-low construction height. A required screed height of just 8mm above the studs of the panels results in quicker warm-up times as well as considerable material and weight savings in comparison to other wet systems. A building can also be put into use more rapidly as there is no need to wait weeks for the screed to cure before tiles are installed.

BEKOTEC-THERM can be configured to work with Building Management Systems (BMS) and a number of variants suitable for retrofitting are available. Schlüter-Systems can also provide a full design service for all BEKOTEC-THERM installations.

All of Schlüter's products are designed to work together – you can use DITRA-HEAT-E in partnership with BEKOTEC-THERM, to further elevate the underfloor heating experience.

01530 813396 www.schluter.co.uk



# Polysafe bring wards to University campus



A variety of Polysafe safety flooring products from **Polyflor**, were chosen to create a new learning environment for health and social care students at the University of Derby's Chesterfield Campus. Polysafe Wood fx PUR vinyl safety flooring in Sun Bleached Oak was used alongside textile-effect Polysafe

Arena in Steelwool. Polysafe Wood fx is a hard-wearing sheet vinyl flooring which combines the authentic reproduction of wood with virtually invisible aggregates to provide traction for underfoot safety without compromising the high clarity look of the floor.

0161 767 1111 www.polyflor.com

# Way-finding just got easy with Duera



Modern flooring means a myriad of choice and finishes are now available with some beautiful results. However without an encyclopedic knowledge of installation methods it can be difficult to accommodate multi-flooring types into one design. With the new **Paragon** 

Carpets Duera luxury Vinyl Flooring the 5mm thickness allows the product to be installed alongside over 300 Paragon Carpet tile ranges, with no additional sub floor preparation. Create amazing way-finding flooring schemes with no seams or inlay strips.

01709 763 800 www.paragon-carpets.co.uk

# A space for Architecture students



SaarFloor Noppe Stud Tile flooring, from Polyflor, was recently used to help create an inspirational educational environment in the refurbished Keith Green Building, home to the School of Architecture at Loughborough University. Noppe stud

flooring is a hard wearing rubber tile with a low-profile studded surface for heavy commercial use, available in 12 colours with a 3.0mm or 4.0mm gauge. Noppe stud tiles were fitted throughout classrooms and the computer suite which are used by undergraduate and postgraduate students on the university's architecture courses.

0161 767 1111 www.polyflor.com

# Design, manufacture and installation



S+B UK Limited is one of the UK's longest established in the design, manufacture and installation of laboratory furniture, fume cupboards and associated services. S+B furniture systems have been developed by one of Europe's leading specialist industrial

designers to combine durability, function, ergonomics with a modern, clean, crisp and attractive appearance. S+B can supply everything from a single workstation or fume cupboard to a complete suite of state of the art research laboratories, serving R&D, Healthcare, Universities, Utilities, Food & Beverage and Industry.

www.splusb.co.uk



# A Uniform Refurbishment for GEZE UK

EZE UK responded to the call "to be the best" as part of a three-year, multi-million pound make-over, of the National Army Museum, in London – making it more accessible and providing enhanced visitor facilities.

The reconfiguration of its 1970 and 80's interior has transformed the museum in Chelsea. Its five themed galleries, laid out over four floors now centres around a light and airy atrium.

In addition to the permanent galleries, the museum includes temporary exhibition space, a study centre and education spaces, a café, shop and Play Base, for children up to the age of eight.

It is hoped that the  $\pounds 23.75$  million redevelopment – part-funded by the National Lottery – will open doors to new audiences enabled by GEZE products fitted around the building.

Included in the re-fit were five pairs of TSA 160 NT automatic swing door operators. These were fitted to the corridor and entrance to the museum's board room and the corridor and two doors to Play Base.



The TSA 160 NTs are electronically controlled, hydraulic swing door mechanisms which are ideal for heavy doors in high traffic areas, increasing accessibility. They are extremely reliable and require little maintenance.

There are also 10 TS 550 E floor springs and 60 Boxer integrated door closers fitted to manual doors throughout the building – from study areas and corridors to behind-thescenes facilities.

GEZE's architectural ironmongery was specified by Interior Hardware, of Aldridge, in the West Midlands. The museum was reconfigured to a design by architects BDP with exhibition fitout by design agency Event to create a more welcoming, accessible and flexible environment, enabling the National Army Museum to manage increasing visitor figures, predicted to reach 400,000 by 2026.

It is intended to act as a bridge between the British Army and wider society - encouraging greater public engagement and understanding of defence and security, both past and present. The new building now houses 2,500 objects - from the 17<sup>th</sup> century to present day. These include artefacts such as Lawrence of Arabia's original desert robes, Florence Nightingale's medals and the uniform worn by Her Majesty, The Queen, when as Princess Elizabeth she held the honorary commission of Brigadier in the Women's Royal Army Corps from 1949-52.

Andy Howland, GEZE UK's Sales and Marketing Director, said that he was delighted that GEZE products were used in the landmark building.

01543 443000 www.geze.co.uk

# Mapei launch Dursilite Gloss – A semi-gloss enamel paint



**Mapei** introduce Dursilite Gloss to the popular range of Dursilite water based paints for interiors. Dursilite Gloss is an internal enamel wall paint based on special acrylic and polyurethane resins and has a smooth, semi-gloss finish that enhances the brightness of colours. Dursilite Gloss allows you to create a high-end finish, is durable and resistant to yellowing and thanks to its polyurethane resin content, is highly resistant to staining and can cope with the most rigorous cleaning regimes and comes with a Class 1 wet scrub resistance, that conforms to EN ISO 11998. Dursilite Gloss bonds perfectly to all types of wall, plaster, skim coats and old paintwork that are sound and well-bonded; it also has good hiding power and is easy to apply. An elegant, high quality finish is achieved when using Dursilite Gloss in residential or commercial environments. Due to its hard wearing protection, excellent cleanability and low dirt pick up, Dursilite Gloss is recommended for use in areas that are used by the general public that are particularly exposed to high wear and dirt. Dursilite Gloss, along with all products within the Dursilite product family, can be tinted.

0121 508 6970 www.mapei.co.uk

# Blue City benefit from Baffle ceiling



The Hunter Douglas range of Luxalon aluminium ceilings has added an interesting dimension to the concourse areas of The Blue City shopping complex in Warsaw Poland. Split over four floors this huge shopping complex is famed for its wide uncluttered walkways and abundance of

light. The feeling of space has been further enhanced with the specification of Hunter Douglas's Luxalon V100 metal baffle ceiling system to the ceiling of each of the floors concourse and walkways. Luxalon V100 and V200 screen ceilings are ideal for such environments.

01604 648229 www.hunterdouglas.co.uk

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www.architectsdatafile.co.uk

# Eliminating the margin for error

Cath McLean from Promat UK explains the benefits of a whole-system approach for effective fire-resistant glazing

Uncertainty and confusion still prevail in the market around the design and installation of passive fire protection measures, particularly fireresistant glass and the associated framing systems.

In the pursuit of meeting numerous and sometimes competing project goals – such as value engineering, aesthetics, build schedule, security, noise control and energy efficiency – there must never be any compromise on fire safety. Plenty of technical resources are available online, plus in-depth CPD seminars, but what are the basic considerations when specifying fire-resistant glazing?

Fire resistant glass installed within approved systems withstands the conditions of high temperature, smoke and spread of fire. Various technologies are used, including a modified toughening process, intumescent interlayers and intumescent gels to provide tested levels of fire protection.

# Classifications

Fire resistant glazing will typically provide protection for a period of 30, 60, 120 or 180 minutes. This figure will be displayed next to the following types of protection: Integrity only (E – the most basic), Radiation control (EW – offering a barrier to flames and hot gases, plus some of the fire's heat), and Integrity and Insulation (EI – the highest level of protection, providing heat insulation as well as a barrier to flames and hot gases).

# Standards and testing

Approved Document B helps to determine where fire protection measures should be incorporated into a building, and the level of protection, but it is not specific enough to be more than a guide. This leaves the fire safety requirements open to interpretation and puts the onus on the specifier to get it right.

There are a number of important standards to look for when identifying an appropriate glazed fire protection product or system. However these many different standards illustrate the big issue. Standards, advice and legislation are well-intentioned, but how can we be sure that the installed systems will perform as intended in the event of a fire when there is so much room for interpretation and no requirement for the competency of the installer?

# **Design and construction**

Fire-resistant glass is one part of a tested construction, along with the framing materials. It is vital that the materials used at the point of installation are exactly those specified and tested together. This is the only way to ensure compatibility with the required performance. Substitution of similar products could lead to the systems being compromised in the event of a fire. We work with architects to design and specify systems to the appropriate requirement using tested systems.

# Aesthetics, light transmission & acoustics

With the right specification, glazed partitions enable designers to balance aesthetics, acoustics, energy efficiency and fire safety. Often there is a desire to increase the natural light levels in areas such as internal office spaces and atria. A butt-jointed glazing system is ideal in these situations, and these are available with EI passive fire protection system plus acoustic insulation. Promat Systemglas is one such solution, with combinations of glass available to increase flexibility and incorporate tinted, coated and patterned glasses. There are also options to include fire rated glass doors within these glazing systems to complete the package.

Acoustic challenges can also be addressed in combination with light transmission and fire safety. This can easily be achieved using a combination of acoustic and intumescent interlayers with the fire resistant glasses within a system.

Cath McLean is segment manager for glass at Promat UK



# Unique combination for ceilings and walls



Hunter Douglas Architectural Projects are renowned throughout the world for their innovative and imaginative use of creative techniques when it comes to ceiling design. No better example of this can be seen at the recently completed Lemieux Sports Complex and Medical

Facility in Pittsburg Pennsylvania. Home to the Pittsburg Penguins Ice Hockey team this 185,000sq ft building has installed to a stunning effect a combination of V100 and BXD Multi Panel Ceiling panels to the entrance hall, cafeteria and corridor areas.

01604 648229 www.hunterdouglas.co.uk

# For heavyweight fixtures and fittings



The new SterlingOSB StrongFix panel, from Norbord, has been designed to strengthen and provide secure anchorage areas in metal C-stud dry lining applications, for fixtures and fittings up to 400kg – such as cabinets, radiators, wash basins and railings. The pre-prepared panels boast the same inherent qualities as SterlingOSB3

which, unlike ply, has no knots or voids and a consistent density throughout that allows fixings to hold securely at any point across the board. It achieves excellent pull-out ratings and is capable of supporting heavy weights of up to 400kg with standard wood screws.

#### www.norbord.co.uk

# Put the mettle into cable management



Sleek, stylish and strong – meet Sterling Curve Aluminium, the latest product launch from British cable management specialist **Marshall**-**Tufflex**. This new triple compartment Cat 7a compliant trunking solution is gently curved at the edges to prevent clutter, make cleaning

easier and deliver a good-looking profile that is as strong as it is attractive; aluminum's mechanical strength, impact resistance and light weight makes it ideal for high traffic environments such as schools, hospitals, offices, factories, railway stations and airports.

#### 01424 856655

www.marshall-tufflex.com/sterling-aluminium-curve

# **Remmers Exhibits at Hayward Gallery**



Remmers restoration products were selected to complete extensive concrete repair and renovation works to the internal architectural concrete elements of the Hayward Gallery contemporary art gallery. Remmers 'Arte Mundit' was applied to remove the decades

of superficial dirt that had built up on the concrete walls and ceilings. Arte Mundit is a self-vulcanising cleaning paste that dries into a peelable natural latex. It provides thorough water-free removal of residues to varied substrates and there is no development of dust making it the ideal product for specialised restoration projects.

01293 594010 www.remmers.co.uk





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# CRL door hardware brochure is packed with inspiration

ith all-glass entrances, partitions and doors a trending design in architecture, the new Door Hardware and Office Partition Systems brochure from CRL is bursting with hundreds of products that make creating the look a simple process.

From CRL Langle office partition systems and glazing channels, door controls and patch hardware, sliding and bi-folding doors, to spider fittings, structural standoffs and glass awning systems, the brochure includes all the must-haves for creating a stylish, public or private environment.

A highlight of the range is the CRL Langle Office Partition Systems, available for single and double-glazed units that offer a creative and effective solution for modern interior designs. The dry-glazed system is easy to install and provides a maximum transparency thanks to it's thin profiles for ceilings, floors, walls and door frames. The system effectively closes the gaping joint between the glass door, side panel and top light and is acoustically viable too, with sound insulation tested to the ISO 10140 European standard.

With no wet sealing necessary and with fully height adjustable door hinges that require no drilling or milling, the office system is not only slimline but also easily assembled and installed producing maximum transparency.

The CRL door hardware range also includes patch hardware, such as the CRL380 Series Hydraulic Patch Fittings. With two adjustment screws to adjust the latching speed and the swing speed, the fitting is designed to remove the need to dig in the floor and to use any other floor or overhead closing devices, making it an easy, cost-effective, and versatile option for interior projects.

For compact situations, a sliding glass door offers the ideal solution and with CRL Compact-X, such a system is quick and easy to install, integrating seamlessly into any



design. Combining latest technology with an attractive minimalist design, the Compact-X conceals all of its sliding components within the top track, giving a pleasing aesthetic appearance. Suitable for glass panels of 8mm, 8.76mm, 10mm, and 10.76mm in thickness, the system is available for ceiling, glass, and wall mounted applications and it features a double softbrake system that provides an advanced sliding action.

With aesthetics being a key part of any interior design and particularly so with glass door systems, CRL offers hardware in many finishes including Matte Black, from profiles to door jambs and gaskets.

01706 863600 www.crlaurence.co.uk

# ENDLESS POSSIBILITIES WITH TOTAL ASSURANCE



Wet rooms used to be reserved for trendy boutique hotels and luxury developments, but over the last couple of years they are becoming the a-la-mode bathroom choice for homes in the UK. In wet room style bathrooms, the shower floor is being continued across the floors and walls of the entire room so sub-construction elements need to be selected with great care to avoid the simultaneous use of different brands/makes that could jeopardize the watertightness of the finish, resulting in extra labour, time, stress and costs.

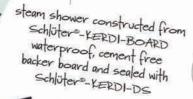
Why take the risk of specifying products which can't offer the same assurances for the whole floor to wall system? With over 30 years' experience, wedi provides precision engineered complete system solutions for wet environments. Thanks to their modular design, the perfectly coordinated wedi components allow for a particularly safe, time-saving installation and unlimited freedom in design.



On the current market, wedi offers the most extensive board formats and the widest range of board thicknesses that can be applied to practically any substrate and offer the strongest weight loading capacity of 120kgs/m<sup>2</sup> on vertical surfaces. wedi tile backer boards are named 'building boards' for their versatility in being commonly used for the construction of washstands, partition or separation walls, tileable shelving and other tailor-made storage solutions.

Partition shower walls made using glass, aerated concrete blocks or drywall construction however are usually not strong enough to support shower doors, radiators, shelves or tray elements. The wedi Moltoromo range allows for innovative interior designs - round shapes, angled solutions or sinuous lines can be installed quickly and easily. Thanks to the flexibility of wedi Construct boards and and the extraordinary widths (900mm & 1200mm) of standard wedi building boards, free-standing, stable, versatile wall configurations can be effectively created for different bath and wellness applications. *Whether standard or flexible, wedi building boards are simply the perfect medium for bathroom planners*.

f wedi UK 💟 wedi UK wedi Systems (UK) Ltd · Unit 4 Mercury Park · Mercury Way · Trafford Park · M417LY · Tel: 0161864:2336 · Fax: 0161864:1323 · technical@wedi.co.uk · www.wedi.co.uk



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# Academy Install Protection Products to Reduce Maintenance Costs

eoman Shield wall & door protection were able to provide a product to Quarrydale Academy to stop damage to newly decorated walls.

Quarrydale Academy caters for 1200 pupils aged 11 - 19 years. With a growing population, the academy has had to have constructed a new purpose built classroom block providing space for the History and English department.

The two storey building has 16 individual classrooms to each floor with the layout of the rooms seeing desks and chairs pushed up against the new and freshly painted walls. This over time will cause marks and scratches requiring constant re painting and cleaning down, becoming a drain on time and budgets. A solution was required to prevent this damage happening.

Yeoman Shield's new Rub Rail fitted the bill and was installed by the school's maintenance team at a height that would capture the persistent impact, along the left



and right hand walls of the classroom. The mid grey colour chosen was subtle enough to blend with the pale pink and pale green décor chosen by the academy.

The light weight yet hard wearing rail is strengthened by a PVCu backing track which is capable of absorbing impact. Coupled with robust rubber stop ends the Rub Rail is a perfect foil to impact damage.

"We are very happy with the look of the new Yeoman Shield Rub Rail and are confident that it will prevent the marking and



damage to the walls by the movement of furniture. It will also avoid the need for repetitive painting and repair, helping to reduce our maintenance costs over time." commented David Hutchinson, HR and Health & Safety Manager.

For more information on Yeoman Shield's new Rub Rail or any of their maintenance saving protection products please contact Yeoman Shield.

0113 279 5854 www.yeomanshield.com

#### Washroom Washroom makes off-site work



Commercial washroom designer and manufacturer, **Washroom Washroom**, has utilised its off-site service to deliver the perfect design solution for a high specification office washroom and changing area. Washroom Washroom

worked closely with Allies and Morrison and main contractor Wates Construction to create the unique washrooms and showers for 4 Kingdom Street, designed to complement the high specification interior of the building. Washroom utilised its off-site construction methods in order to fine-tune the design before installation on site.

www.washroom.co.uk

### Ten top tips from Lustrolite



The new **Abacus** video 10 Top Tips for working with Lustrolite Glass Effect Acrylic Panels, is broken down into ten sections to provide helpful advice for the installer who loves this amazing surface kitchen and bathroom product. Lustrolite is an advanced multi-layer acrylic panel that looks like glass

and is ideal for heavy-duty vertical applications. The product is quick and easy to install and with its gloss finish, ultra-hygienic, hard-coated non-stick surface, does not harbour mould or calcium. The video is available at www.youtube.com/watch?v=uuZD\_HKjRsA.

www.abacus-bathrooms.com

### **CP Electronics gives voice**



The new RAPID Scene Control solutions from CP Electronics, gives the ability to customise lighting in offices and commercial buildings on a room by room basis using voice recognition and through cloud-based apps via a tablet and smartphone. RAPID Scene Control can be used

in a wide range of applications, allowing users to set different lighting moods. Set up within each room through RAPID scene select plates or network Wi-Fi using a new cloud-based app created by CP Electronics. Compatible with Windows 10, iOS and Android devices, it gives end users instant scene control of their environment.

www.cpelectronics.co.uk/rapid

### Meisterstück Classic Duo Oval



Kaldewei brings a classic bath back into the modern bathroom. The freestanding Meisterstück Classic Duo Oval is an object of timeless beauty, with an oval contour and conical external lines, encased in seamless panelling of superior Kaldewei steel enamel. While gentle on

the skin, it is exceptionally robust and easy to clean. Two comfortable backrests guarantee relaxed bathing pleasure for two people. The new Classic Duo Oval is the starter model of the Meisterstück Collection representing excellent value for money. It can be combined with a wide range of washbasins and enamelled shower surfaces.

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### UltraTileFix is committed to quality



**Instarmac** is dedicated to finding the best solutions to meet industry needs and following the acquisition of Granfix in 2016, is has worked hard to improve its service levels, performance of its products and tried

to identify the best way to support its loyal customer base. With this in mind, Instarmac is delighted to announce the launch of its new and improved tiling brand – UltraTileFix. UltraTileFix will continue to deliver the products and services you know and love but bigger and better than ever before. UltraTile Fix will be available to order from 3rd April 2018. For further information, please contact Instarmac.

01827 254402 ultratilefix@instarmac.co.uk

### **Resiblock Tops the Ranks**



Resiblock, and the 'Legendary' Resiblock '22', have once again been selected as the Commercial Sealer of choice by a British Council for a Highways Project. Tameside

Metropolitan Borough Council (MBC), have utilised Resiblock '22' for joint stabilisation as part of their Hyde Taxi Rank project. Tameside MBC were first introduced to Resiblock products in 2016 when the Tameside MBC design team participated in the Resiblock CPD Seminar on 'The Prevention of Block Paving Failure'.

mail@resiblock.com



### East London Space Transformed

Charcon, the commercial hard landscaping division of Aggregate Industries, has helped transform a once disused area into a multi-use public space in the heart of Bethnal Green, East London. The Oval, which is just off Hackney Road, was once a hotspot for illegal car parking but thanks to a creative landscape design, the new space is now fully accessible with safe seating areas, attractive lighting and a versatile stage area, meaning The Oval can now host a wide range of events from performances to markets. Charcon recommended the best hard landscaping products to complete the aesthetics of the street scape, whilst ensuring the specified products would be suitable for a multi-use venue. A total of 300m<sup>2</sup> of Charcon's Andover Textured Block Paving in White, Silver Fleck and Light Grey was supplied, as well as 300m<sup>2</sup> of Andover Textured Paving in White Grey and White to complete the look. Both products were chosen due to their stylish appeal and exceptional durability.

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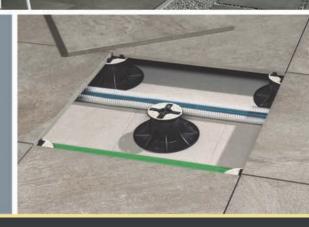
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- SURFACE

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# Going below decks

Stefan Holmes of Millboard explains why plastic is fantastic when it comes to creating effective sub-frames for decking

The selection of materials for creating a deck is not just a choice between timber and composite surface materials: there is also a choice to be made about the sub-frame material beneath.

Steel or aluminium is sometimes used, but the main problem with a metal sub-frame is the increased cost. More usually, sub-frames are made with either wood or plastic.

Each of these has its advantages and disadvantages. Timber is the more traditional material, familiar to all installers and typically the cheaper option at the point of installation. Its rigidity also enables it to span further than plastic, so it needs fewer support points. However, the problem with timber is that it decays. This can be due to the action of insect larvae, bacteria or - in particular - water damage. The speed at which timber rots, splits and warps will vary according to the quality of timber used, the treatments applied, the airflow provided and ambient dampness of the area in which it is installed. Whether the decay is fast or slow, though, all timber sub-frames will ultimately decay to a point where they cease to provide a viable structure.

This is not the case with plastic, which is largely unaffected by exposure to damp, or even complete immersion in water. This not only makes it a more durable material, but also has implications for how and where it can be used. Plastic sub-frames are clearly preferable to timber in wet environments, such as boardwalks over damp ground, sites affected by high tides or flooding, or anywhere where the sub-frame is actually standing in water.

Another, perhaps less obvious, situation where plastic offers significant advantages is in rooftop projects. Often, the key challenge to overcome when designing a rooftop terrace is the limited height available between the roof surface and the sills of the doors providing access to the roof area. A timber deck and frame will often together require a working height of at least 80 mm, largely due to the allowance that has to be made for airflow beneath the deck, without which damp could quickly compromise the structure. In many instances, this amount of height just isn't available, ruling out the use of timber entirely. Because there is no requirement for airflow when using plastic, it is possible to install decks where there is as little as 50-60 mm to work with.

In addition, there is no problem laying plastic directly on to waterproof membranes or, with inverted roofs, on to insulation – this contrasts with timber which shouldn't be laid directly onto either. Insulation on roofs often needs ballast added to reach the required weight load and, as plastic frames are typically heavier than timber, less ballast is required.

While plastic has clear advantages in the situations described above, there is a good case for it over wood in a whole host of situations. Although it costs more at installation, its durability represents better value in the long term, and provides complete confidence for the end customer that their decks will not usually need to be lifted to carry out maintenance on the sub-frame, nor collapse beneath their feet – plastic sub-frames will typically last at least as long as any deck laid over them.

In particular, where premium composite decking has been selected ahead of wood because of its greater durability, it seems illogical then to lay it over a wooden sub-frame that won't last as long as the decking itself!

Alongside bearers, battens and posts, plastic sub-frame systems also offer joist cradles and self-levelling pedestals to make installing and levelling decks very simple.

Last but not least, plastic sub-frames have a surprisingly good relationship with the environment. While the chemicals used to preserve wooden ones can leach into the surrounding area, plastic is chemically extremely stable and will cause no harm in this area. In addition, the plastic used is often from 100 per cent recycled sources, turning what was once a problematic waste material into a form where its resistance to decay is a positive benefit.

*Stefan Holmes is technical project specialist at Millboard* 



Plastic sub-frames have a surprisingly good relationship with the environment

# All-weather tiling solutions for balconies, terraces and roof terraces

Utdoor living areas including balconies, terraces and roof terraces are becoming increasingly popular as people expand their properties.

However, to have these areas available all year round requires coverings that are durable, hard-wearing and all-weather – and tiles are the perfect answer.

When specified with the correct system assemblies for tiling, many types of tile installations are possible externally. This includes the use of finishes such as ceramics, porcelain, some natural stone and pavers.

However without the correct tiling systems, tiled areas can be susceptible to cracking, efflorescence, or staining – all derived from water damage or fluctuations in temperature.

Water penetrating the lower levels of an external assembly can pose a serious risk to the structural integrity of any balcony, terrace or patio. Permeation of water through tile joints will eventually cause damage if no provision is made for water to drain away efficiently.

To protect tiles against this multitude of potential problems, BAL has introduced its new range of unique External Tiling Solutions in conjunction with sister company Gutjahr.

Simple to install and providing rapid, immediate and high volume drainage, water is drained down through the screed and rapidly expelled from the assembly through unique, patented drainage mats, grates and drip/drain edge profiles meaning no water staining, no freeze/thaw threat or efflorescence.



The new products represent a complete new range of solutions for the BAL portfolio and work as a system with current BAL preparation, adhesives, grouts and sealant products.

To ensure that moisture staining, frost damage and efflorescence do not become problems in the future, it is crucial to specify the right products. It is vitally important to remember that water sensitive tiles and slabs should not be used externally.

The correct combination of products and materials include:

- Appropriate drainage assemblies structures with effective falls, drainage and often with reduced thickness.
- Suitable backgrounds non-absorbent, rigid, fully cured and dry, unaffected by temperature fluctuations and preferably cementitious
- Correct selection of adhesive and grout rapid setting/low water demand i.e. white for light natural stone such as BAL Rapid-Flex One or BAL Pourable One.
- Tile/slab selection with low porosity, break-proof, suitable for external use i.e. frost resistant.

BAL offers three systems, each designed to meet the height and weight requirement of varying constructions and a number of different edge finishes, depending on screed thickness, tile size and thickness and the desired look.

Traditionally, external tiles have been fixed directly onto sand:cement screeds, into cement:sand mortar beds, thick drainage screeds, loosely laid gravel bed or by using cement based pedestal systems.

While each has their own benefits, such as ease of use and lower cost, they all fail to adequately deal with water effectively. For example while traditional sand:cement screeds, thick drainage screeds and gravel all absorb large volumes of water, and are prone to the problems highlighted above, water can also travel back up through the screed, gravel bed or adhesive pedestal causing water sensitive tiles and slabs to become stained.

The use of a drainage screed is the answer. Cavity rich, with lots of capillaries, the water drains through quickly and efficiently and also offers reduced shrinkage and



deformation. When combined with a quicksetting cement for fast-track installation, drainage mortar seems to be the ideal solution, however drainage screeds alone will not solve the problems with drainage alone. The use of a complete drainage system, including drainage matting, drip/drain edge profiles, drain grates and guttering – such as BAL's external tiling solutions – provide rapid and immediate drainage of water.

Among the systems on offer from BAL include Thin Drainage Assembly for direct point adhesion for break-proof coverings (complete construction height from 29mm), Standard Drainage Screed Assembly for the solid bed fixing of ceramic, porcelain and natural stone and concrete paving (from 68mm build-up), and a Thin, Lighter Weight Drainage Screed with an epoxy drainage screed for a strong but comparatively lightweight build-up compared to conventional systems (from only 43mm height build-up).

These new products represent a complete range of solutions from the BAL portfolio and work as a system in conjunction with current BAL preparation, adhesives, grouts and sealant products.

This means for the first time architects, designers and contractors are provided with a true 'one-stop-shop' for balcony, terrace and patio systems for a range of different coverings.

For more information and to request a demonstration visit the website

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# An Introduction to Hauraton DRAINFIX CLEAN

In recent years a lot has been talked about flood prevention and the need to deal with surface water.

There is also a growing acceptance that SUDS is not, as often labelled, just a green fad, about building a pond or putting a green roof on a garage. It's also not just an easy way to blow a hole in the construction budget.

A well-designed, robust SUDS scheme will be resilient, prevent and deal with flood water, create a better living space for us all, offers biodiversity to allow Mother Nature to flourish, can be affordable, and offer low ongoing maintenance costs.

All too often SUDS are just thought of to be constructing a pond or building a swale, whilst these have their place in any SUDS scheme, a sensible design approach makes use of a mix of vegetative, hard landscape and proprietary systems to create a robust and workable solution. There is a need to look at Creative SUDS and an acceptance that there is no one size fits all scheme. Hauraton DRAINFIX CLEAN has been developed as a proprietary drainage channel with the unique ability to collect, store, clean and then discharge surface water. During the cleaning process the product has been extensively tested and will remove of 99.5 per cent TSS (total suspended solids) 99.9 per cent TPH (total petrol hydrocarbons) 99.8 per cent Zinc and 99.8 per cent Copper.

It is widely accepted that the SUDS Manual produced by CIRIA is the go to guide for designing of SUDS, Hauraton DRAINFIX CLEAN is included in this guide under chapter 14 which deals with Proprietary Systems. Over several years trial sites were set up in Germany with DRAINFIX Clean, regular sampling and extensive testing has led to the product being awarded a converted Dibt certificate.

Maintenance requirements are minimised, given time a layer or cake will build up over the filter substrate, this offers several benefits by way of biological filtration. It is estimated

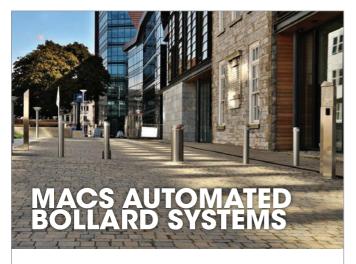


that on a well-designed system, maintenance will only be required every 10 years.

Recent UK installations have included retail car park's to ensure surface water is cleansed prior to discharge into the sewer network. Further installations have taken place for a national agency where there is a requirement to remove heavy metals and hydrocarbons from surface water prior to discharge.

Hauraton DRAINFIX CLEAN offers the unique ability to be able to be able to collect and clean surface water, has low ongoing maintenance costs and has been through onerous testing. It is included in the SUDS manual. It offers designers and contractors alike another option to help in developing a resilient, robust and assured SUDS scheme.

01582 501380 www.hauraton.co.uk



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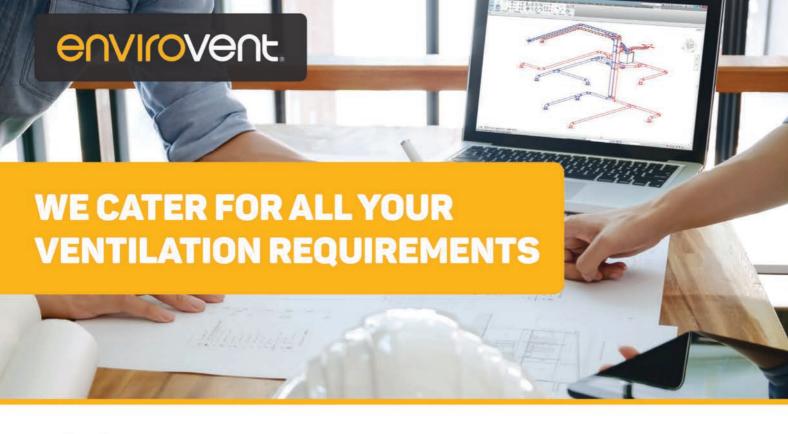
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