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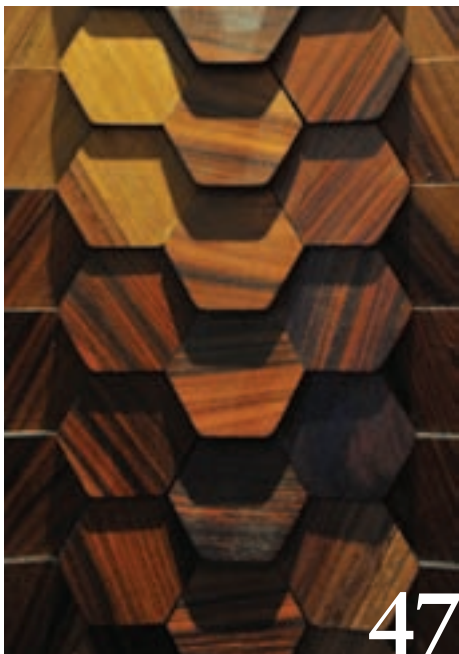


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FROM THE EDITOR



Now that the dust has settled following the annual winter festivities, it is time to confront the realities of what may well turn out to be another troubling year on many fronts, both inside and outside the architectural world. It is safe to say that it is certainly going to be 'interesting.'

We are grappling with another 'new normal' of uncertainty and political tumult, backed by a continual chorus of a thousand Tweeting voices from every part of the spectrum. And now it's also increasingly likely to be 'fake news' alongside genuine conjecture. Given the unsettling state of flux which characterises the backdrop to this year – and which we are supposed to take in our stride – it is reassuring to focus on some concrete examples of progress and success within the architectural community.

Opening for its first meetings of EU representatives this month is the much-maligned (and probably unfairly) new EU headquarters in Brussels, with its glowing 'lamp'-like core housing the ministers who will have to work out how to untangle the UK from the EU in the coming months. Let's hope the building is able to provide some consolation to those trying to forge some sort of arrangement that works for everyone (see page 8).

Despite the recent controversy surrounding Patrik Schumacher's provocative comments, ZHA's again proving that the proof of great ideas is in the pudding, with its Winton Gallery at the Science Museum (page 10) brilliantly juxtaposing airflow calculation-inspired curves with heritage aeroplanes. Architecture like this can be the catalyst for engaging future generations seemingly dry subjects such as maths, although it may be light years away from even drier subjects like tackling the housing crisis.

The healthcare project we feature on page 30 and on the cover from PV Devereux shows how designers can take the redevelopment of an old mental health hospital and produce something that truly breaks the mould. While subtly tackling all of the necessary security risks, they have delivered a building that is deinstitutionalised and even beautiful, with welcoming, pleasant spaces, thoughtful materials and good landscaping.

Lastly, look out for some new faces arriving in practices, as well as upwardly-mobile movers within firms, in our New Arrivals slot on page 17. Please get in touch if you have any new appointments who you'd like to be featured in ADF.

Enjoy the issue and I hope that 2017 treats you well!

James Parker
Editor



ON THE COVER...

Architects PM Devereux were set the daunting challenge of reinventing an old hospital to provide facilities for the 21st century while also helping break down the stigma of mental illness. go to page 30.

© NHS

RIBA HOUSE OF THE YEAR

Eccentric Edinburgh home named RIBA House of the Year

A house described as a “real box of tricks” has been named 2016 RIBA House of the Year.

Designed by Richard Murphy of Richard Murphy Architects, the Murphy House in Edinburgh claimed the accolade after all seven contenders were revealed in Channel 4's TV series *Grand Designs*.

The Murphy House, located in an awkward plot in the city's UNESCO-listed New Town, was designed by the architect for himself.

Murphy, inspired by the work of late Italian architect Carlo Scarpa, demonstrated a clever use of space with the design by creating a range of unique spaces. Those include a hidden bath in the master bedroom and a folding corner wall as well as sliding bookshelf ladders that glide around a subterranean library.

RIBA President Jane Duncan said: “The Murphy House is this year's best example of how to overcome challenging constraints – from planning restrictions and an awkward site in an urban location – to build a stunning house.

“Nearly a decade in the making, this house is a true labour of love for Richard. Part jigsaw puzzle, with its hidden and unexpected spaces, and part Wallace and Gromit with its moving pieces and disappearing walls, this is a model house of pure perfection and a worthy winner of the RIBA House of the Year 2016.”

Richard Murphy said: “We celebrated our 25th birthday last month and to receive this award is a wonderful present with such



astonishing levels of public interest. It's our 21st RIBA award, and takes its place in a long line of awards for buildings small and large and for whole variety of types including domestic, educational, health, arts and a new British Embassy. It emphasises yet again that the practice demonstrates both great versatility and consistently high quality in all its work current and past. It's been a huge pleasure to develop a lifetime's themes and now it gives me great pleasure to live there.”

Also announced was the seventh and final home shortlisted for the RIBA House of the Year: Tin House in west London by Henning Stummel Architects. The full short-

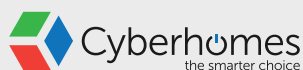
list for the 2016 RIBA House of the Year award was:

- Ansty Plum, Wiltshire by Coppin Dockray
- Covert House, Clapham, south London by DSDHA
- Garden House in Hackney, east London by Hayhurst and Co
- Modern Mews in central London by Coffey Architects
- Murphy House, New Town, Edinburgh by Richard Murphy
- Architects Outhouse, Forest of Dean by Loyn & Co Architects
- Tin House in west London, by Henning Stummel Architects

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EVENTS

SEMINARS

Briefing and evaluation: how to give clients what they want by learning from projects

26 January, Birmingham
www.architecture.com/WhatsOn

2017 Gold Medal Lecture

31st January, London
www.architecture.com/WhatsOn

Inclusive design: going beyond regulatory accessibility standards

02 February, London
www.architecture.com/WhatsOn

EXHIBITIONS

Robert Adam's London

Now - 11 March 2017
www.soane.org/whats-on/exhibitions

Curator-led tour: We live in the office

24 January 2017, London
www.architecture.com/WhatsOn

'From Rome to the Royal Crescent'

11 February - 04 June 2017, Bath
www.timothyrichards.com

CONFERENCES

Meeting London's School Needs

08 February 2017, London
www.newlondonarchitecture.org/programme/events/2017

TRADE SHOWS

ARCHITECT@WORK

25 - 26 January 2017, London
www.architect-at-work.co.uk

Surface Design Show

7 - 9 February 2017, London
[www.surfacedesignshow.com](http://www surfacedesignshow.com)

Ecobuild

07- 09 March 2017, London
www.ecobuild.co.uk

The UK Concrete Show

15 - 16 February 2017, Birmingham
www.concreteshow.co.uk

NEW HQ

EU's 'Space Egg' headquarters opens



Samyn and Partners architects & engineers (lead and design partner)

The new headquarters for the EU has been unveiled in Brussels – the €321m Europa Building – its architect saying it symbolises joy at a time of division in Europe.

An 11-storey atrium made of recycled window frames houses a glass lantern-shaped structure, which has led the futuristic project to be dubbed the “Space Egg.”

Within it is a chamber featuring multi-coloured carpets and ceiling tiles where leaders will hold summit meetings such as around Brexit in the months to come. The project has come under fire for rising costs and delays, but Belgian architect Philippe Samyn insisted his building symbolises the positives of the EU.

He commented: “I wanted to make a joyful meeting place where people entering with a lot of problems can get some breathing space.” He added that the symbolism of the “lamp” represented by the lantern structure is “fundamental to the story,” and was his solution to creating a “friendly” circular summit room in a square building.

The 3,750 windows on the facade reflect “diversity and unity” said Samyn because they have been sourced from multiple countries across the 28 nations of the EU.

I wanted to make a joyful meeting place where people entering with a lot of problems can get some breathing space

Philippe Samyn

He added that the building was also a “very clear message about transparency in the union: with all that is happening, people don’t realise the good that the EU is giving to people.”

The rear part of the Europa Building consists of the old Residence Palace, and a refurbished Art Deco block.

The construction saw difficulties due to the location over a major subway line, the discovery of oil pollution in the ground and a legal appeal. The project’s cost increased substantially from the original cost of €240m at its launch in 2004.

The European Council is due to hold its first full meetings in the new building this month and its first leaders’ summit in March.



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EVENT

The cutting edge of material solutions for architects – revealed at Materials 2017

Materials 2017 is the new conference and exhibition focused entirely on the cutting-edge of material solutions for architecture, construction and design.

Top materials manufacturers and industry experts will be on hand to offer architects, specifiers and developers a chance to meet face-to-face and expand their business relationships at this must-attend event. Held at the ILEC Centre, London on the 25 and 26 April 2017, Materials 2017 is free to attend for delegates and competitive prices are available for sponsor and exhibitor packages.

A wide range of materials – from ceramics, cement, stone, brick, and timber to glass, concrete, metal, and smart materials – will be showcased, looking not only at their use in creating striking aesthetic designs but also at alternative functionalities beyond their common purposes within building structures, envelopes, facades and finishes.

A line-up of speakers from industry-leading firms has been confirmed, including names from Aecom, Arup, Tata Steel, and Saint-Gobain. One conference and two



seminar areas at Materials 2017 provide huge potential for knowledge-sharing in a highly tailored and intimate environment.

Strong support of the exhibition has been demonstrated by a variety of trade partners including the Alliance for Sustainable Building Materials, the Chartered Institute of Architectural Technologists, and the Association for Environment Conscious Building.

Event director David Schindler said: “Architects and contractors need to consider the form, space and light of buildings, and in order to create these with optimal design and efficiency they need to specify the best possible materials for the structures

and facades of buildings.

“Materials are developing so fast in terms of innovation, sustainability, and performance, it is vital that materials specifiers have the best possible and most up-to-date information to guide their design and construction techniques. This is the case both in terms of the educational content in the conferences and seminars at Materials 2017, but also engaging directly with the product manufacturers within the exhibition.”

Materials 2017 has been developed to be the one-stop show for all construction materials needs – for both specifiers and manufacturers. Register free now at www.materials2017.co.uk/register

AWARD

Green Gown Award for ‘Outstanding’ Austin-Smith Lord Lanarkshire college building

A teaching facility designed by Austin-Smith:Lord won a Green Gown Award which recognises ‘exceptional sustainability initiatives’ undertaken by UK universities and colleges.

The South Lanarkshire College Low Carbon Teaching Building, which was the first UK facility to achieve a BREEAM ‘Outstanding’ rating for design and construction in Education, won in the Built Environment category.

The judges said the project “has inspired students and other users to adopt more sustainable behaviours and approaches” and had reflected the college’s philosophy to “mainstream sustainability”.

Austin-Smith:Lord partner Iain Wylie said: “With each new project we develop our knowledge and expertise in passive sustainable design, embracing and incorporating the latest technologies where appropriate.”

The low-carbon building features solar panels and solar chimneys, a ground source heat pump, recycled-paper insulation and an energy-efficient external envelope. There are also reused cycle racks from the 2014 Commonwealth Games and an integrated bicycle repair station.

The architects also announced that their BREEAM ‘Excellent’-rated secondary school in Carmarthenshire, south west Wales, is now open.



The £30m Bro Dinefwr school at Ffaifachn near Llandeilo caters for 1,200 pupils. It includes a 200-pupil sixth form and a 30-place specialist provision for children with additional learning needs.

The project was delivered in partnership with the Welsh Government through its 21st Century Schools programme.



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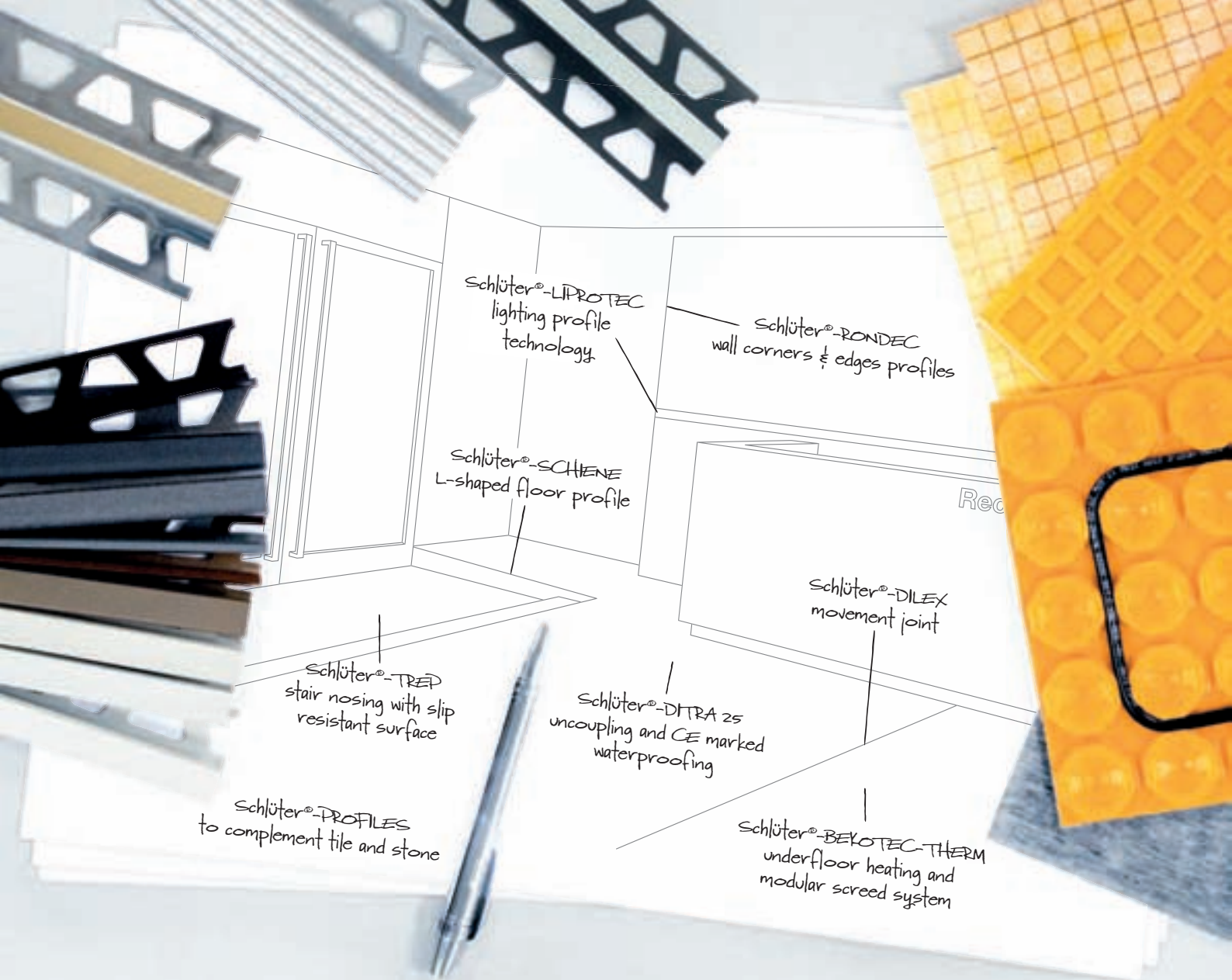
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NEW EXHIBIT

ZHA-designed Science Museum exhibit is a celebration of maths



A gallery designed by Zaha Hadid Architects that celebrates “transformational mathematical practice” has opened at the Science Museum in London.

In its first project to open in the UK since Zaha Hadid's death in March 2016, the practice created Mathematics: The Winton Gallery combining over 100 treasures from various museum collections to demonstrate how maths has shaped the world over the past 400 years.

This is the first permanent museum exhibition by the practice, who lodged the initial designs in 2014. The exhibition's centrepiece – a 1920s experimental aircraft the Handley Page ‘Gugnunc’ – influenced the gallery layout which features curved overarching structures representing the airflow around the plane.

The gallery also pays homage to Hadid's interest in geometry and maths from her university days. Dame Zaha was quoted saying: “When I was growing up in Iraq, maths was an everyday part of life. We would play with maths problems just as we would play with pens and paper to draw – maths was like sketching.”

Ian Blatchford, director of the Science Museum Group, said: “We were hugely impressed by the ideas and vision of the late Dame Zaha Hadid and Patrik Schumacher when they first presented their design for the new mathematics gallery over two years ago. I am sure that this gallery will be a lasting tribute to this world-changing architect and provide inspiration for our millions of visitors for many years to come.”

Curator Dr David Rooney added: “Mathematical practice underpins so many aspects of our lives and work, and we hope that bringing together these remarkable stories, people and exhibits will inspire visitors to think about the role of mathematics in a new light.”

Objects in the gallery include a 17th century Islamic astrolabe used to map the night sky, an early examples of the Enigma machine, an early artificial intelligence machine as well as archive photography and film.

The exhibition Mathematics: The Winton Gallery is free to visit and is open daily at the Science Museum.

AWARD

Annie Spink Award for Bartlett Prof Hawley

The Royal Institute of British Architects awarded the 2016 RIBA Annie Spink Award for excellence in architectural education to former Bartlett School of Architecture professor Christine Hawley.

Hawley was the Head of two Schools of Architecture and the Dean of the Bartlett and was also head of the University of East London School of Architecture.

Christine is a dedicated and talented teacher whose enthusiasm has helped inspire generations of young architects. She has long been a champion for excellence in architectural education throughout her career, and I am delighted to see her recognised through this award

Jane Duncan, RIBA president

Professor Christine Hawley commented on the award: “It is an absolute honour. I have been lucky enough to work with some of the most creative young students in architecture for the last four decades but the act of teaching has also been about learning – sometimes they are the teachers and I am the pupil. I have collaborated with truly great teachers so this award honours both the students and teachers I have worked with.”

DAVID ADJAYE

Architect knighted in New Year's Honours

Adjaye Associates principal David Adjaye was named on the New Year's Honours list and will be knighted for services to architecture.

Adjaye, who was awarded an Officer of the Order of the British Empire (OBE) in 2007, will receive the Knight Bachelor award and become a 'Sir.'

The Central Chancery of the Orders of Knighthood described the architect as "one of the leading architects of his generation and a global cultural ambassador for the UK."

Adjaye said he was "truly honoured and humbled," adding: "I see this not as a personal celebration, but as a celebration of the vast potential – and responsibility – for architecture to effect positive social change that we as architects have, to bring something positive to the world."

David Adjaye's designs include the Nobel Peace Centre in Oslo in the shell of a disused railway station and the Idea Stores



I see this not as a personal celebration, but as a celebration of the vast potential – and responsibility – for architecture to effect positive social change that we as architects have to bring something positive to the world

David Adjaye

in Tower Hamlets, London as well as the Museum of Contemporary Art in Denver. His most recent major achievement was

the Smithsonian National Museum of African American History and Culture in Washington DC.

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NEW ARRIVALS

Rounding up the latest movers and in-house appointments across the industry



MARK KOWALSKI & JACQUELINE KING HKS HOSPITALITY GROUP

Global architectural practice HKS Hospitality Group has continued its rapid growth in London with the appointments of Mark Kowalski and Jacqueline King. New vice president of the Group Mark was recruited from Turner & Townsend where he was associate director and senior design manager. He brings a wealth of international expertise gained from working on complex, large-scale luxury projects. The firm said: "From architectural design direction and consultant coordination to high-profile client and project management, he has widespread experience from projects including five-and-six-star hotels and resorts, lavish casinos and refined residences." Mark is currently involved in a hotel and residential project in Montenegro for Qatari Diar and re-masterplanning the Punta Scala Resort in Croatia for Morgan Stanley.

Newly promoted to associate, Jacqui King is "a creative architect whose strength lies in conceiving unique and innovative designs for luxury hotels, resorts and residences." Originally from South Africa, she completed her Part III studies in the UK and worked at HOK before joining WATG and Wimberly Interiors. Jacqui was promoted "in recognition of her inspired talents on projects such as the Mandarin Oriental in Bodrum, Turkey; the Four Seasons Resort Mauritius at Anahita; and the Plantation Hotel and Apartments, an urban development in the heart of Dubai". Since joining HKS, Jacqui has been working on the design for a hotel and residences at Plavi Horizonti, a new luxury destination in Montenegro.



FIVE NEW PARTNERS HENNING LARSEN ARCHITECTS

Henning Larsen Architects has expanded its board with the addition of five new partners. The newly appointed staff are architects Sarah Müllertz Gudiksen, Kasper Kyndesen, Nina La Cour Sell, Michael Sørensen and engineer Jakob Strømmand-Andersen. Mette Kynne Frandsen, CEO and partner, said: "The new partners represent five professional and talented profiles. They have already shown that they can contribute to the company's development, both commercially and professionally, and that will also be their task going forward. The new partners are an important step in our strategy and they will help to carry our culture and professionalism into all projects."



CHRIS HARDING BDP

Chris Harding has been elected as the new chair of BDP. He began his career at the firm's Sheffield office in 1989 and has been a company director for 14 years. He is currently head of architecture across the practice and was previously head of BDP's education sector. The firm commented that as an "active design thinker," he has "worked on some of the practice's best projects, and has been elected to stimulate the continuous development of the practice as a socially progressive integrated design firm." Harding is particularly passionate about creating people centred environments. The role of chair is re-elected by BDP's board every two years.



CATHERINE COPE LIPPE ARCHITECTS + PLANNERS

Architectural practice Lippe Architects + Planners has added experienced architect, Catherine Cope (nee McKeown), to its team of 17 employees. Catherine, who originally trained in Belfast, relocated to Edinburgh when she qualified to work on some key projects, including the Royal Veterinary School for the University of Edinburgh (£31m) and the New Dunfermline High School (£40m). Catherine commented: "I am really delighted to be joining such a long-standing and prestigious practice and I know I will gain a lot of further experience within this multi-disciplined office, getting the opportunity to work within a wide range of sectors."

INTERNATIONAL FOCUS

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NEW GATEWAY, NETHERLANDS BIG – BJARKE INGELS GROUP AND BARCODE ARCHITECTS

The City of Amsterdam has selected a team led by VORM/BESIX to develop the iconic Sluishuis in IJburg Steigereiland, a collection of artificial islands. The winning proposal has been announced, and is designed by BIG – Bjarke Ingels Group and Barcode Architects. The practice commented: "The classical courtyard building is revitalised by two transformations; it fully embraces the idea of living on the water and appears different from every vantage point." A promenade winds around the building and continues into the water, forming an archipelago of islands with houseboats, a sailing school, and floating gardens. A public passage climbs the cascading terraces of the building, serving as a small rooftop street that eventually loops onto the top of the building to create a viewing platform over the IJ Lake.

Ref: 20207



SOFITEL TAMUDA BAY, MOROCCO GM ARCHITECTS

The Sofitel Tamuda Bay is a luxury five star hotel which opened in June in M'diq. GM Architects, under the leadership of Galal Mahmoud, were commissioned as architects and interior designers for the resort. The exterior and interiors have been designed to blur the boundaries of indoors and outdoors, with a view to creating a "genuine experience of well-being for all guests."

The project is the "fusion of the opposing shores of the Mediterranean: on one side the French Riviera's world of contemporary art and glamour and on the other, Morocco's charming traditional crafts and authentic lifestyle." Said to be "resolutely contemporary" in his approach, Galal Mahmoud drew inspiration from twentieth century artists whose paintings were highly influenced by their stays in Morocco. The Sofitel Tamuda Bay won the World Luxury Hotel Award 2016.

Ref: 44199



SALÓN DE REINOS, SPAIN FOSTER + PARTNERS

Foster + Partners and Rubio Arquitectura have won the international competition to revitalise and refurbish the historic Hall of Realms (Salón de Reinos) as a new addition to the Museo del Prado campus in Madrid. The vision is to create a new public focus for the city by bringing together the various buildings that comprise the Prado with public spaces and underground links. Working within the outline of the original building envelope a new roof will harvest energy from integrated solar cells, give natural light to the galleries below and cantilever as a shade to protect the southern facade. It also heralds the rebirth of this historic monument.

Ref: 73864



THE AROS AARHUS ART MUSEUM DENMARK SCHMIDT HAMMER LASSEN

The ARoS Aarhus Art Museum's ambitious €40 million expansion plan, Next Level, was presented in 2015 and now the design of what will be the largest museum art project by world-renowned American artist James Turrell has been revealed. The new extension will contain several new facilities including a 1,200 m² subterranean gallery and the gigantic semi-subterranean art installation 'The Dome'. The new extension will allow visitors to make a journey in a completely new dimension. An experience in colour and light that brings the visitor into a string of galleries and exhibition spaces, stretching almost 120 metres below the surface to the Dome structure. The Dome will form one of the most spectacular spaces ever built into an art museum.

Ref: 73864



THE NATIONAL MUSEUM IN SZCZECIN, POLAND ROBERT KONIECZNY/KWK PROMES

The National Museum in Szczecin – Dialogue Centre Przelomy, Poland, was announced as the World Building of the Year 2016 at the World Architecture Festival. The scheme, designed by Robert Konieczny/KWK Promes, comprises an undulating public square with the museum placed below ground. The judges, chaired by Sir David Chipperfield, said: "This project enriches the city and the life of the city. It addresses a site with three histories, pre-World War II, wartime destruction, and post-war development, which left a significant gap in the middle of the city."

Ref: 22659



FINNISH MUSIC HALL OF FAME, HELSINKI ARKKITEHDIT SOINI & HORTO

The Finnish Music Hall of Fame, a museum showcasing the history of Finnish music as well as contemporary Finnish music, is set to open in Helsinki suburb Pasila in October 2019, simultaneously with the Mall of Tripla, parking facilities and the new Pasila station. The complex, covering nearly 1000 m², will offer a broad view into the Finnish music scene in an innovative, interactive and technologically advanced environment. Tripla offers the museum a unique setting. The museum can be entered either through the shopping mall or directly from outdoors, through the terrace square. The Mall of Tripla, a major retail scheme, will form the centre of Central Pasila. In terms of the number of retail spaces, it will be the largest in Finland.

Ref: 53521



FAIRMONT TAGHAZOUT BAY, MOROCCO HKS

Demonstrating a contemporary architectural expression new to this region of Morocco, the Hospitality Division of HKS has unveiled its concepts for Fairmont Taghazout Bay. Situated on 180,000 m² of beachfront along the Atlantic coast, the Fairmont will be part of the 615 hectare Taghazout Bay seaside resort located 18 km north of Agadir, which is scheduled to open in the first quarter of 2019. The architects have woven three "touch points" throughout the design concept to establish a natural, harmonious feel, fitting for the context of the site: "memories of space through the architecture; memories of place through the landscape; and memories for tomorrow through the guest experience." Alejandra de Cordoba Estepa, associate at HKS, said: "Our aim was to create a destination that speaks of times gone by, buildings that become elegantly wrapped pieces of history which linger in the mind."

Ref: 69381

CPD FOCUS

The latest CPD courses, seminars and documents for architects

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Quantum Flooring Solutions' CPD looks at the guidelines for the specification of a safe stairway. The presentation deals with the subject of how to make commercial stairways safe and meet with all current building regulation guidelines. The CPD presentation includes: What stair nosings are designed to achieve and how to select the right one; Key Legislation and Industry Standards; How recent BRE and Equality Act guidelines affect specifications; Environmental and Health and Safety considerations; Examples of best practice. The seminar lasts 45-60 minutes including time for a Q and A. All seminars are part of the RIBA core curriculum and earn double CPD points for those attending. 0161 627 4222 www.quantumflooring.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

TRIDONIC EXTENDS CPD OFFERING WITH THREE NEW MODULES



Tridonic, a leader in the provision of LED lighting control and technology, has announced the availability of three new CPD modules. This brings the total number of modules available to nine, all of which have been certified by CIBSE. The company is currently offering the chance for architects and specifiers to book their staff on to one or more these modules free of charge. Any organisation interested in taking up this offer/booking modules should contact Tridonic directly. The three new modules are: *Emergency Battery technology*; *LED handling and precautions* and *LED Terminology*. 01256 374319 www.tridonic.com

WETROOM DESIGN AND SPECIFICATION FROM CCL



The popular 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 is a comprehensive seminar covering all aspects of wetroom design and specification. The seminar includes a 15 minute question and answer session and all participants will receive a certificate upon completion. The face to face session enables the presenter to respond immediately with advice on current wetroom projects that the architects may be working on. 0844 327 6002 www.ccl-wetrooms.co.uk

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ASK THE ARCHITECT

EPR director Tiffany Neller tells Norman Hayden what motivates her – including inspiration from set design

WHY DID YOU BECOME AN ARCHITECT?

I didn't set out to do so. I studied architecture at university because it suited my maths and physics A-levels and my passion for art. I was originally planning to branch out into set design, which is, in many respects, a precursor for architectural design in terms of both feasibility and fashion. This is always an inspiration, and I went on to discover an interest in hotel design, and so everything came together. Now, I wouldn't do anything else.

WHAT DO YOU LIKE SO MUCH ABOUT HOTEL DESIGN?

It is one big stage set. I enjoy working with all the personalities and love the fantasies that we create for guests. Hotel design has evolved so much over the past 20 years. A few decades ago there were very few hotels you would choose as a destination, but now they are often the place to go and be seen. I also enjoy the logistical challenge of hotels – bringing all the different functions together to form one efficient, operational building. There are elements of residential, retail, office, leisure and conference all with their own functional and operational requirements, but all still needing to work in unison.

WHAT INSPIRES YOU MOST ABOUT HOTELS?

Answering the client's brief, and even surpassing it, is always the aim. We are fortunate to work with some very creative clients who are willing to take a certain degree of risk and push the boundaries to create something new. Alex Calderwood, the late founder of Ace Hotels, was a huge inspiration in this respect. In the design of Ace Hotel in Shoreditch, we along with Universal Design Studios 'tore up the rule book.' The

bar and restaurant do not have any street presence and the design was allowed to evolve even while on site. Creating a hotel is not just about fostering aesthetics using materials and finishes, but also about creating an environment with soul and spirit. Above all, the guest needs to have a good night's sleep – even so, hotels are also buildings for entertainment, work and leisure.

WHAT ARE YOU WORKING ON CURRENTLY?

We have a hotel team of over 50 architects, designers and technicians with a broad range of knowledge and experience in the sector. Thanks to this, we always have a diverse mix of hotel projects – including new builds, refurbishments and conversions. Our current projects include a conversion of the Edwin Lutyens-designed former Midland Bank building in Manchester and, in London, the old War Office in Whitehall and the Russell Hotel, Bloomsbury. My particular focus at the moment is the extensive refurbishment of the Russell Hotel – a Grade II listed German Renaissance-style building designed by Charles Fitzroy Doll, the designer of the Titanic. It was one of the



Things have improved massively for female architects, but there is still a long way to go in all areas of the construction industry

Tiffany Neller, EPR

first hotels in London with en suite bathrooms but has undergone many refurbishments over the years and lost a lot of its original historic grandeur. We are working with Tara Bernerd & Partners and Russell Sage Studio to combine the building's rich heritage with a contemporary scheme that incorporates its history.



Ace Hotel, Shoreditch
Photo: Andrew Meredith



Russell Hotel, central London

Creating a hotel is not just about fostering aesthetics using materials and finishes, but also about an environment with soul and spirit

HOW IS HOTEL ARCHITECTURE CHANGING?

Hotel exteriors are not always given as much consideration as their interiors, but we are hopefully starting to see a change in that. Hotels are part of the community and more than ever they need to respond to their location and attract custom – and not just from their guests. They are becoming more multi-functional and appealing to a much wider audience using the hotel. At the same time however, guests are becoming increasingly discerning and operators now have to respond to an increasingly diverse demand. With an ageing population and travel available to more and more people, this development is happening in all sectors from hostels to boutique and lifestyle through to high-end luxury.

WHAT ARE YOUR FAVOURITE CONSTRUCTION MATERIALS?

With so many refurbishment projects, I get to work with a lot of materials we may not otherwise consider. Currently, we are working with terracotta in refurbishing the Russell Hotel, in Russell Square. It is always interesting to use traditional materials in a more contemporary way. At Ace Hotel, we incorporated a variety of brick bonds and

It is good that there are so many developments now attempting to make construction more sustainable and affordable

mortar joints with a very contemporary outcome. The layering of modern and traditional materials creates a richness of texture and warmth that can be very expressive.

WHAT INNOVATIONS IN MATERIALS MOST EXCITE YOU?

We are lucky at EPR to work alongside the Materials Council, which allows us to stay informed about the innovations which are occurring in building materials. We have recently been looking at Rockwool as a cost-effective, efficient cladding material on budget new builds and we are keen to try out some of the bricks which are made from recycled waste. It is good that there are so many developments now underway which are attempting to make construction more sustainable and affordable.

ARE THERE LIMITS TO THE PART TECHNOLOGY CAN PLAY?

Technology is a very important factor within hotel design: used in the right way it allows far more flexibility in design. Most guests generally don't want an over-complicated system, but there can be a place for high technology too. The whole check-in process has progressed enormously – while remote check-in may suit one guest, a personal one-to-one service might be favoured by another. There is now a hotel to suit most tastes and needs and so design and the level of technology ultimately have to respond to the individual brief for that particular hotel and location.

HOW DO YOU FIND BEING A WOMAN IN ARCHITECTURE?

It is not easy to be a working mother in any profession. However, things have massively improved for female architects, but there is still a long way to go in all areas of the construction industry. EPR supports the Architectural Review's Women in Architecture programme, which aims to get more women into the industry. And, more importantly, we must ensure that they stay there – and progress. ■

FUTURE WATCH

A strong contender: graphene

Graphene burst onto the scene recently amid claims that the ‘wonder material’ can revolutionise future buildings, but will it really prove a game-changer for architecture? Norman Hayden investigates

Some 13 years ago two University of Manchester scientists carrying out a laboratory experiment using standard sticky tape made a pivotal breakthrough which could have far-reaching results for architecture.

After decades of frustrating research into making very thin films of graphite, experts from the university successfully invented graphene – a material that may cause a rethink in the form and function of design and construction.

Now, this ‘wonder product’ – with all its exciting possibilities – is viewed as one of the scientific building blocks of the future, changing the way things will be done in tomorrow’s world.

How it came about

So, what is graphene? It’s a nano-material – so-called because it’s ‘wafer’-thin and has startling properties: it’s super-light, super-strong and super-conductive.

Scientists had long been aware that one-atom-thick crystal graphene existed, with its strength potential apparent in a simple form – the durability of graphite lead in pencils.

But the real groundwork came in 1947 when British physicist Philip Wallace researched the electronic properties of graphite. The lingering problem, however, was that he and others who followed, could not work out how to extract graphene – i.e. incredibly thin layers – from that graphite.

Finally, in October 2004, Andre Geim and Konstantin Novoselov (who later received the Nobel Prize for their work) removed some flakes from a lump of bulk graphite. By separating the graphite fragments they created flakes that were one-atom-thick – and thus they had isolated graphene for the first time.

To make graphene paper, raw graphite is milled and purified using a chemical bath, which reshapes its structure, allowing it to be pressed into thin sheets.

Graphene is a slim, flat layer of pure carbon, the atoms of which are tightly packed into a two-dimensional hexagonal, honeycomb-type lattice. At one atom thick, it is:

- the thinnest known compound;
- the lightest known material;
- the strongest compound discovered – up to 300 times stronger than steel and stronger and stiffer than a diamond;
- the best conductor of heat at room temperature and of electricity – up to 1,000 times more than copper;
- unique levels of light absorption;
- highly flexible – up to 20 per cent more than copper and can be stretched by a quarter of its length, like rubber. Its surface area is the largest known for its weight and it can even be folded.

These qualities makes graphene an important nano-material

essentially because it is an organic solution that creates a stepping stone to bigger things.

Potential design applications

How might all this benefit architecture? Firstly, there is the potential to enhance surfaces. Graphene could be used to form interactive skins and facades for buildings. Windows and walls could be fitted with microchips to do everything from reading out data to transmitting energy.

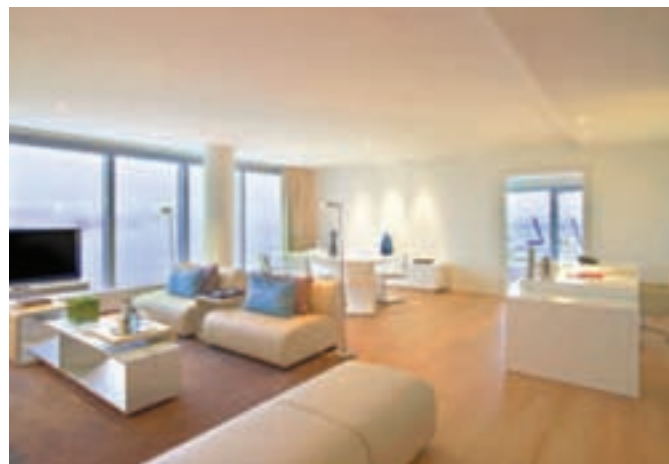
This could see a future with glass walls, display walls, energy-collecting walls, and radiators integrated into glass walls. In addition, building skins, both interior and exterior, will need fewer repairs and will likely be antibacterial.

All in all, such a skin could be used for responsive design solutions that perform a wider variety of functions and take a smaller amount of space.

Secondly, there are possibilities to manipulate and work with light. The ultra-thin sheets can effectively capture light. By growing graphene around a textured metallic surface, light can be localised into the narrow spaces between the material’s surface, enhancing absorption by about 90 per cent.

Having remarkable electrical conductivity and mechanical strength, graphene could be applied in buildings as “smart wallpaper” to generate electricity from waste light or heat.

Thirdly, graphene can play a role in construction. In theory it is an excellent building material, as it is incredibly lightweight while being



Hotel Vela, Barcelona



New hospital, Shanghai

stronger and stiffer than steel and carbon fibre. Potentially, it could be combined with more traditional materials to create stronger beams and cables, allowing for more impressive structures.

Finally, graphene can strengthen other materials. It provides paints and coatings with flexibility, strength and homogeneity while adding extraordinary electrical and thermal conductivity and corrosion protection. Thus, it offers greater durability, less building maintenance and energy savings. A company very active internationally in this field is Graphenstone, which incorporates graphene technology in 'organic products' including paints, coatings, mortars, adhesives, and insulation.

The position today

While research has quickened in the past few years, production and application have been limited. With Manchester the birthplace, it has quite naturally become graphene's home too, marked by the opening of the National Graphene Institute in 2015. Its unique design saw the building crowned Major Building Project of the Year at the annual British Construction Industry Awards.

The institute is considered fundamental to the continuation of world-class graphene research. A feature of its work is to accelerate the commercialisation of its applications, in conjunction with some of the world's leading companies.

To date, the material's use in construction has been impractical because creating high-quality graphene has been expensive and complex. It has also proved difficult to 'grow' graphene layers on a large scale.

In the United States, builders have not been able to use more than a few flakes of it on projects. But a new more effective method of producing graphene, using a technique known as chemical vapour deposition, has now been developed.

It is thought that once graphene can be produced on very thin pieces of metal or other arbitrary surfaces, as production techniques become faster, more simplified and cost-effective, there will be much wider uptake.

The prospects

In addition to production problems, there is concern in the UK that politics might also hold things back. The Government has been urged to back Britain's world-leading research amid fears that Manchester University is set to lose £1m a year in EU funding after the UK's vote for Brexit last summer.

Scientists warn that by exiting the European Union, Britain is likely to lose its place in the EU's ground-breaking Graphene Flagship project, the biggest research scheme of its kind.

With carbon being the chemical basis for all known life on earth, graphene could well be an ecologically friendly, sustainable solution for an almost limitless number of applications. Ultimately, it is expected that the material will be integrated into plastics – such as epoxy – to create a substance that can replace steel.



As graphene is still a 'product of tomorrow,' bodies such as RIBA, the Construction Industry Council and the Chartered Institute of Building have, understandably, had little to officially say on the subject.

But assuming production problems are gradually overcome, graphene will surely come into its own in building design and construction. And, eventually, it could become commonplace, in the same way that plastic is today.

All in all, from its birth thanks to a strip of sticky tape, graphene is now a material that could change our lives in the 21st century. ■

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Gavin Coster joins GEZE UK sales team



Gavin Coster is the man chosen to step into some very big shoes as GEZE UK's area sales manager for the South West. He is taking on the role previously undertaken by industry stalwart Peter Haywood who is retiring after a 48-year career. Gavin will be joining the

sales team focusing on manual door control systems as well as the sale of automatic doors and window technology. Said Gavin: "I am delighted to be joining GEZE UK which I have always admired as a manufacturer, they lead the way in the development of new products and technology and have a great reputation in the industry."

01543 443000 www.geze.co.uk

EPIC moves to mobile



Respected industry body, EPIC, is making it easier for specifiers and contractors to access a wealth of information about insulated panel systems with the launch of a new, fully mobile-optimised website. Over recent years there has been a massive increase in the use of mobile

devices to research and view material online. Visitors to the website will be able to read about the benefits and uses of insulated panels, they can download the latest versions of the EPIC Guides such as the regulatory requirements for the conservation of energy, fire performance, and end of life, as well as the Sustainability Charter and Report.

020 8786 3619 www.epic.uk.com

PushPull launches new website



PushPull is very excited to launch its new handle website which offers #doorjewellery for the contemporary home. PushPull specialises mainly in pull handles in bronze and stainless steel and also sell a few other accessories for the entrance of your home. All of PushPull handles are of the highest quality and come from all over the world. Some of PushPull's products are stocked and others are on order depending on where the item comes from.

PushPull can also do some bespoke items by request.

01494 778 787 www.pushpull.co.uk

BES 6001:3.1 certification awarded



The impact of our purchasing decisions has never been more critical. Our global economy is now bringing to bear the Butterfly effect. Comar Architectural Aluminium Systems is pleased to announce that it is certified through BRE's new BES 6001:3.01 Responsible Sourcing of Construction Products, receiving a 'Good' rating. This ensures that its

architectural and contractor partners can rest assured, that in contracting with Comar its aluminium windows, doors and curtain walling systems have been sourced responsibly with a company that holds the ethics of good supplier management at its heart.

020 8685 9685 www.comar-alu.co.uk

New Sto website delivers inspiration



Sto has unveiled a new version of its international website that is aimed specifically at architects, designers, planners and developers who are involved in construction projects at a very early stage. The site has been specially designed to provide this target group

with a rich source of inspiration and design ideas that can be incorporated into their projects, and illustrates how the many products in the Sto range can help translate their designs into reality. The new website reflects Sto's leading position in many different fields and its ability to provide reliable products, systems and guidance.

0141 892 8000 www.sto.com

Another day at the office for Novus



Staff from maintenance, refurbishment and new build contractor Novus Property Solutions have completed work on its own brand new headquarters in Stoke-on-Trent. Five Towns House is the new home to more than 100 employees. One of the key features

is the main entrance extension adding a vibrant welcome into the building. The steel framed addition features full height glazing to all external elevations and has been fitted out in a stylish homage to the company branding including the Novus logo being subtly represented in the ceiling and floors as well as a bespoke reception furniture.

www.novussolutions.co.uk



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Novus brings sparkle back to mansion



Maintenance, refurbishment and new build contractor, Novus Property Solutions, has revived eight apartments in a converted 12th century mansion, providing country club visitors with new and improved facilities. Set in a 30-acre estate, Grade I

listed Thurnham Hall is a stunning country club owned by Diamond Resorts. The team from Novus' Preston office carried out the project, which comprised a full internal refurbishment of eight apartments, in just over two months. This included the installation of new kitchens, bathrooms and bedrooms which are already proving popular.

www.novussolutions.co.uk

Ruskin joins Swegon Group



Ruskin Air Management Ltd (RAML) has been rebranded Swegon Air Management Ltd (SAML) following its acquisition by the 60-year-old Swedish air handling, cooling and ventilation specialist Swegon AB from Johnson Controls International (JCI). The former Ruskin brands – Actionair; Air Diffusion; Naco; and Airolution – will now operate alongside Swegon's existing UK businesses. SAML will continue as a sales agent for the other two UK-based brands Enviroco and Trion, which remain under the ownership of JCI, but it is simultaneously launching a new venture in the air filtration marketplace called Airfiltrera.

01746 761921 www.swegonair.co.uk

GEZE UK maintains its support

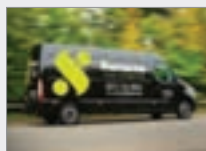


GEZE UK is holding the door wide open for talented architects to take their place in the spotlight by sponsoring an award at the BD Architect of the Year Awards for the second year running.

The Office Architect of the Year category is open to all architects working on the design of offices – be they new developments or refurbishments. Entries must include one project built in the last three years and another either built or unbuilt. One project may be international. Judges will be looking for evidence of all-round design excellence and fitness for purpose over a body of work.

01543 443000 www.geze.co.uk

Saracen 'gains' a win



Saracen Interiors has been awarded a contract to provide office fit out and move management services for leading customer engagement software provider, eGain. The project, valued at £130,000, started in November and is expected to be completed within six weeks by the award-winning

workplace consultant. Work at the office in Oxford Square includes the installation of power and data, including new CAT cabling, AV, monitor arms, fibre links and server room framework. eGain's new offices will incorporate approximately 5000 sq ft of space.

enquiries@saraceninteriors.com

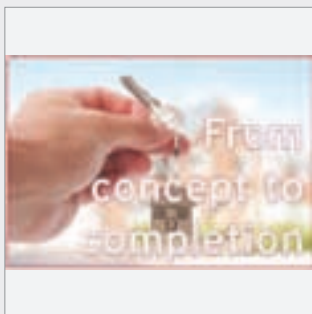
Vandersanden Group acquires Hoskins Brick



Belgian brick and pavers manufacturer, Vandersanden Group, has announced its acquisition of Hoskins Brick Limited, the company's exclusive UK distribution partner. Vandersanden Group is one of the largest brick manufacturers in Europe, with a total annual production capacity of approximately 370 million bricks. The company consists of Vandersanden Belgium with two factories in Spouwen and Lanklaar employing approximately 210 employees, and Vandersanden Netherlands with two factories in Hedikhuizen and Spijk, employing approximately 120 employees. There are also five members of staff working at a sales office in Northern France (Halluin). Jean-Pierre Wuytack, Chief Executive Officer of Vandersanden Group commented; 'Our company has been active in the UK for over 20 years using Hoskins Brick as its exclusive business partner.' Both companies are family-owned, share a mutual respect and hold similar values and philosophy for doing business. Both also strive towards excellent results for customers, with an emphasis on honesty and integrity and the importance of maintaining a positive attitude at work.

01954 268075 www.vandersandengroup.co.uk

From concept to completion



Brexit has pushed the UK Government into new and uncharted territory, causing political and economic instability, and until Article 50 is triggered the housebuilding sector may stay in limbo. On the other hand, a record half a million homes in England now have planning permission granted, so for many housebuilders it's business as usual. As a leading PVC-U & PVC-UE building product manufacturer Freefoam Building Products are committed to providing help and support with a comprehensive package of specification and supply to ensure projects run smoothly from concept to completion. Freefoam manufactures and supplies the ultimate fit and forget low maintenance PVC-U & PVC-UE product range. From fascia and soffit guaranteed to last for 50 years to rainwater systems designed to give leak free performance, Freefoam products offer life-long benefits and peace of mind for housebuilders and clients alike. With a CAD Library, technical accreditation and compliance certification, Freefoam provides products that are 'specification ready' – designed and tested to meet exacting standards every time.

01604 683862 www.freefoam.com

Biggest ever modular build in the UK



Premier Modular Limited, a leading East Yorkshire based manufacturer and constructor of modular buildings, celebrating their 60th year in business, is pleased to announce that its appointment as the contractor providing a series of modular building complexes at Hinkley Point C in Somerset has been confirmed following EDF Energy's Final Investment Decision. The complex will deliver offices and site welfare facilities required for the construction phase of the new nuclear power station. Hinkley Point C will provide reliable, low carbon electricity to meet UK demand.

0800 3160888 www.premiermodular.co.uk

Call for entries for the Roofing Awards



Hosted by the National Federation of Roofing Contractors, and taking place at the Park Plaza Westminster Bridge on 19 May, the The UK Roofing Awards are the highlight of the roofing industry calendar and serve to recognise and reward outstanding standards of workmanship and technical excellence across the roofing industry. Once again, entries can be submitted through an improved online system. Aimed at making the experience more user friendly and seamless for busy contractors, architects and others, there is also an instructive video providing top tips. Please visit www.nfrc.co.uk/uk-roofing-awards/awards-home

020 7448 3187 www.nfrc.co.uk

VELUX® Modular Skylights win Archiproducts Award



VELUX® has been selected as Best in Category – Building Shell – for its VELUX Modular Skylights (VMS). VMS products are designed in collaboration with Foster + Partners and with architects in mind. They offer innovative, modular and sustainable solutions for glass roofs in larger building spaces. Modular Skylights can be combined in a number of rooflight configurations, creating perfect solutions for a wide variety of building types. VMS products have high sustainability credentials, with exceptional energy performance, an expected life of 40 years or more. Lotte Kragelund, VMS marketing director at VELUX Group said: “VELUX Modular Skylights allow architects to spend more time designing solutions and less time specifying. We are very happy to receive this award, which recognizes the groundbreaking approach to skylights and glass roof structures that we're taking at VELUX.” The Archiproducts Design Awards bring together some of the best new designs in a range of architectural categories. They were created to recognise companies who believe in the value of a project, and to spread the best of design around the world, as a sign of innovation and progress.

01592 778 225 www.velux.co.uk

Teknos acquires Drywood Coatings



Industrial coatings specialist, Teknos, has completed the acquisition of Dutch company, Drywood Coatings and is now the sole supplier of Drywood products in mainland UK. By including Drywood products in the established range, Teknos has widened their already comprehensive offering for professionals in the joinery and construction industry. The new Drywood portfolio features products which are highly durable, give a smooth, high gloss finish and, just like Teknos' own paints, they are environmentally-friendly, water-based and contain minimal or no solvents. The Drywood products complement Teknos' paints and coatings products for both interiors and exteriors which are in demand due to their durability, superior quality and environmental credentials. Managing Director of Teknos GBI, Michelle Alcock, explains “This is an exciting time for Teknos GBI and the business as a whole. Drywood is an excellent strategic acquisition for the brand and offers customers even greater choice in protective wood coatings. We are looking forward to advising customers of the benefits of Drywood products and assisting them in selecting the perfect coatings for their projects.”

01608 683 494 www.teknos.co.uk

Peter leaves his pivotal partner



GEZE UK has been pivotal in the career of Peter Haywood who is set to retire from his role as an area sales manager after 48 years in the industry. The company ‘opened the door’ to a number of opportunities in Peter's career – spring boarding him into a glamorous role in the Middle East before joining the firm itself on his return to the UK. He has spent a total of 16 years working for GEZE UK, overseeing sales in London, and the south east and latterly in the south west, and is due to retire at Christmas. During his time with GEZE UK he has been involved in a number of exciting projects including work on the Royal School of Music and the Royal Albert Hall, in London, the creation of the Madjeski Stadium – home of Reading Football Club, Glasgow Velodrome and a 600-ton ship for the Jubilee Sailing Trust which teaches disabled and able-bodied people to crew tall ships. Said Kaz Spiewakowski, managing director of GEZE UK: “We are very sorry to be losing Peter. He has been a stalwart of the sales team. He has won and managed many important contracts for the company over the years, developing strong relationships and providing advice and expertise.”

01543 443000 www.geze.co.uk

Mapei UK expands Eco Adhesive range with Ultrabond Eco V4SP

The range of Mapei flooring adhesives produced in the UK expands with the introduction of Ultrabond Eco V4SP to Mapei's Eco range.

Ultrabond Eco V4SP is a multi-purpose high performance professional adhesive for the installation of resilient floor and wall coverings. In commercial projects, Ultrabond V4SP can be used in the installation of PVC and rubber flooring, as well as in interior applications for LVT, linoleum and indoor sports flooring.

Ultrabond Eco V4SP is a low VOC product and can be used in residential and commercial environments such as hospitals, shopping centres and airports. One recent installation was at the Victorian Comprehensive Cancer Centre (VCCC) in Melbourne, Australia. 60,000m² of vinyl flooring was installed using Ultrabond V4SP throughout the hospital.

Mapei UK's Resilient Product Manager John Monaghan commented, "Ultrabond Eco

V4SP gives a good initial tack and provides a very high peel strength, couple this with the product's extended open time, it is found to be extremely easy to apply."

Ultrabond Eco V4SP is a solvent free, synthetic polymer-based adhesive in water dispersion. Due to its particular formulation and extended open time, it can be used as wet-bed adhesive for all kinds of floorings on absorbent substrates, as well as a transitional pressure-sensitive adhesive for bonding

dimensionally stable floor coverings on impervious, non-absorbent substrates.

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Ultrabond Eco V4SP, available in 8kg & 16kg



Courtesy of The Royal Melbourne Hospital

Vent-Axia shortlisted in CIBSE Awards

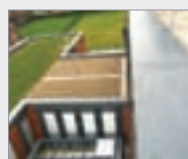


Vent-Axia is delighted to announce that it has been shortlisted in the CIBSE Building Performance Awards 2017. The company's award-winning Sentinel Kinetic Advance has been named as a finalist in the 'Energy Efficient Product or Innovation of the Year' category. Vent-Axia's Sentinel Kinetic Advance is a new breed of

Mechanical Ventilation with Heat Recovery (MVHR) unit. With best in class performance and offering near silent, energy efficient and high pressure operation, it is perfect for care homes and student accommodation. It is the first web-enabled App-controlled MVHR unit.

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Bespoke designs with Marley Alutec



In partnership with Associated Architects Birmingham and leading commercial roofing company Briggsamasco, Marley Alutec has supplied a unique rainwater solution for the cascading roofs of Leicester's Centre for Medicine. Marley Alutec worked very closely with the architects and roofing contractor,

providing all flow calculations and matrices for the complicated cascading roof system. Complementing the high quality ethos of the build, all of Marley Alutec's products installed are made of marine grade aluminium and have a life expectancy of 50 years or more.

01234 359438 www.marleyalutec.co.uk

Copper for the Crick

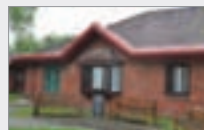


The prestigious Francis Crick Institute research facility in London has incorporated Allgood's Contego range of antimicrobial ironmongery in its laboratory and visitor areas. Specified for use within a series of laboratory environments and in high traffic areas including the auditorium doors is Allgood's Contego antimicrobial copper alloy

ironmongery pull handles, push plates and electromagnetic locks. In addition, Contego lever handles and bathroom turns have also been used for WC doors and storage cupboards throughout the building.

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New anti-climb systems provide



'Eavesline', a new heavy duty anti-climb fascia system, designed to protect rooflines from unauthorised access and vandalism is now available from Contour. With 'bullnose' panels manufactured from 3mm thick aluminium, the fascia is particularly

suitable for installation in environments such as mental health facilities. Key features of the system include an integrated internal framework ensuring a robust solution and a wide range of standard components allowing easy specification. A case study is available to download from the Contour website.

01952 290498 www.contourcasings.co.uk

BUILDING
PROJECTS

FARNHAM ROAD HOSPITAL
GUILDFORD

Transforming mental health care

Architects PM Devereux were set the daunting challenge of reinventing an old hospital to provide facilities for the 21st century while also helping break down the stigma of mental illness. Jess Unwin finds out if they succeeded



So here's the brief: design a modern facility that helps to reduce the stigma connected to mental illness – but also retain at the same location a Grade II-listed Victorian building.

Tricky? Yes. Now, bear in mind that this is within a prominent residential area, and is a site with varied topography that's just 2.6 hectares in size. Furthermore, fundamental to the £30m project which has transformed the Farnham Road Hospital in Guildford was persuading the local planning authority to demolish a dozen or so existing buildings.

Despite the size of the challenge, feedback from NHS staff and patients, plus visiting friends and relatives, suggests that architects PM Devereux – who have a considerable healthcare pedigree – have succeeded.

The new 24/7 mental health treatment and assessment facility – run by the Surrey and Borders Partnership NHS Foundation Trust for people in Surrey and north-east Hampshire – has been fully operational since November 2015.

It includes a wide range of shared therapy spaces and four adult wards, one of which provides psychiatric intensive care, that are contained within a two-storey development adjacent to the old main hospital building.

Challenges of Design for Manufacture and Assembly

The story of the new facility's construction began in earnest in autumn 2013. Mark Carter, senior director at PM Devereux, says winning planning approval to get to that point was one of the project's chief challenges.

He explains that the brief “was always clear” that removal of existing ancillary structures and extensions connected to the listed building was key to providing space for new, modern facilities.

However, some of the buildings earmarked to go had some limited planning protection (locally and curtilage listed). Furthermore, the look of the redevelopment would have to fit in with the surrounding urban landscape and enhance the setting of the ‘heritage’ asset, i.e the retained buildings.

Carter says: “There were sensitive negotiations – the planners wanted a new building of quality to replace the mixed-age and mismatched buildings already on the site. Following design development and taking these concerns into account, the planners ultimately felt able to recommend demolition.”

One interesting point in those discussions

**ABOVE LEFT**

Patients are able to have access to fresh air through secure terraces at first-floor level
© NHS

ABOVE RIGHT

Double-height linking spine and staircase
© PM Devereux



The hospital is the first Design for Manufacture and Assembly project of its kind yet seen in the mental health sector

was the Design for Manufacture and Assembly (DfMA) construction method to be used by main contractor Laing O'Rourke – meaning various components of the new building would be prefabricated offsite.

Carter explains further: “The planners originally wanted us to use Bargate stone, which is used in the listed building, but that didn't fit with the DfMA system.” He continues: “Various sample prefabricated panels were made up to convince them we were creating something substantial, robust and of quality.”

Concrete panels were produced that create stone-effect facades, while elsewhere on the project aluminium rainscreen panels feature colours that echo the yellow tint of Bargate stone and red brick quoining that appears at the corners of the listed building.

'Contemporary and inviting'

The result, says Carter, is a development designed to complement the old building without being a pastiche of it, and offering “something more contemporary and inviting.” The difference in external treatment between ward (typically stone effect) and non-ward areas (aluminium) helps to “normalise the living environment”. He adds: “When you go from your house to your office or gym, the building styles are different...so this is about saying through design that this isn't one big institution.”

Carter, who has many years' experience working on healthcare architecture, believes Farnham Road Hospital is the first DfMA project of its kind in the mental health sector, which meant thought had to be put into ensuring the prefab construction

methods used, especially inside the facility, aligned with the particular needs of mental health services.

“You need robust environments because the fabric of the building does get attacked but you also need an environment that limits opportunities for self-harm; for example, panel joints that are always flush. Otherwise, you can create projections from which someone can fix a ligature, creating a safety risk.”

Breaking down the stigma

The wider brief given to PM Devereux was to design a facility for modern inpatient services but also to integrate them into the community – “breaking down the stigma of mental health,” as Mark Carter says. As a main public entrance to the site, the listed building didn't have capacity for a large welcome area. This was addressed by creating a spine access link through the existing building to a new reception and main entrance area.

Carter says: “Locating reception in the contemporary setting of the new building was a key aspect. If you're driving you come into the back of the site and the new development is what you see first.” Those arriving by foot at the old building progress through a glazed link structure and on into the reception area, which, like most of the new building, also makes use of lots of glass to let in plenty of light. It also hosts a cafe where patients can meet friends and relatives. “It is very important that the first impressions of the service are modern and welcoming,” says Carter.

The glazing here also gives a view of a

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**ABOVE LEFT**

Novel tree-themed wayfinding
© NHS

ABOVE RIGHT

Interior spaces have been designed to create as normalised an environment as possible
© NHS

OPPOSITE PAGE

(Top) Aluminium rainscreen features colours that echo the stone and red brick of listed building
© PM Devereux

(Bottom) Patients have access to a landscaped courtyard at the centre of the new building
© NHS

The wards are set out in a traditional 'T' shape and follow the principle of 'progressive privacy'

large open external courtyard, which is dominated by a substantial tree. This is just part of a completely reimagined and joined-up landscaping plan that replaces “little dark alleyways” in Carter’s words, and includes an outdoor courtyard at ground-floor level at the centre of the new building. Patients on wards at this level can access the courtyard, while those at first-floor level can still have access to fresh air through secure terraces – open to the sky but enclosed.

Dual benefits of a linking spine

The two-storey link that connects the listed building to reception is the beginning of a spine or corridor that runs through the heart of the new building. It’s not just the main circulation route but also a transitional zone that overcomes the difference in levels across the site by using half-level staircases to access wards or therapy spaces.

“Although accessibility is intrinsic to the internal design, there are clear boundaries,” says Carter, “between the secure areas of the wards, the therapy spaces, and areas the public can access.”

The wards are set out in a traditional ‘T’ shape and follow the principle of ‘progressive privacy.’ Mark explains: “You come into the ward from the linking spine and you have all the front-of-house spaces like offices, patient laundry and patient possessions stores. Beyond that are the spaces where patients will spend most of their time interacting – the lounge, the dining area – at the centre of the ward. Off



those main day spaces are the two gender segregated bedroom zones, which are of course the most private areas.”

While interior layout must allow staff to be able to observe patients, Mark stresses the aim is “respecting the privacy and dignity of patients, optimising the therapeutic quality of the spaces through best use of daylight and making it as normalised a living environment as possible”.

Enabling a normalised environment

That therapeutic but normalised living environment is supported by a simple wayfinding scheme. Each ward is named after a different species of tree and representations of those trees, sometimes wall height, make it easy for patients to find their way around. Being able to see the site’s green landscaping and, where appropriate, views towards Guildford Cathedral from first floor windows is significant too. “Connection with nature and society outside is important,” says Mark.

Feedback since the facility opened has been positive. Mark comments: “I gave a talk earlier this year with a colleague from Surrey and Borders Partnership NHS Foundation Trust who helped us with the design at Farnham Road. We both spoke about how the principles used in the design of Farnham Road – open-plan day spaces that encourage interaction between patients but which are also observable by staff – are really working.

“She cited one patient who was benefiting because the open-plan design and



unobtrusive observation has given them the confidence to participate in ward life for the first time.”

NHS and public reaction

Tracey Hayes represents the interests of people who use mental health services on the NHS trust’s Council of Governors. She describes the new facilities as being “in a different league to anything else I have seen.” She adds: “I am sure it will improve people’s outcomes and lead to shorter stays in hospital.”

Andy Erskine, director of mental health

and social care at Surrey and Borders Partnership NHS Foundation Trust, says: “We’ve been fully involved in the design of the project through various trust personnel, clinicians, former patients and carers. Of course, that’s how the trust has approached similar projects in the past, but I think it has been particularly successful this time.”

He continues: “We’ve got what we wanted – a feeling of light and space, a less restrictive and more therapeutic feeling, a comfortable place in which to provide these services to the community.” ■

FACTFILE

- The Grade II-listed hospital building was designed by local architect Edward Lower, with advice from Florence Nightingale, and opened in 1866 as the Royal Surrey County Hospital.
- The structure of the new building is a prefabricated concrete system of columns, supporting walls and cladding panels. This is complemented by a coloured aluminium rainscreen. The internal linings are composed of cementitious, robust plasterboard on a Metsec frame.
- BREEAM Excellent was achieved as a result of features including LED lighting inside and outside, a sedum roof and several ‘brown’ roofs – the latter comprising demolition material like timber and rubble to create habitat for insects and plant life.
- Facilities within the therapy area of the new building include a gym, physiotherapy room, art and craft room and assisted daily living kitchen.

LEAD CONTRACTORS

Main contractor: Laing O’Rourke
Mechanical, electrical and public health engineers: Hoare Lea
Structural engineers: WSP

PRODUCTS

External walls: Explore
Manufacturing: Laing O’Rourke
Internal walls: Smartwall
Windows (anti-ligature): Britplas
Curtain walling and external doors: Kawneer
Sanitaryware for patient areas: Wallgate / Dart Valley Systems
Sanitaryware for public areas: Twyford
Internal doors: GE Doors

New nelson health centre utilised all areas of BHC Furniture's expertise



As experts in modernising NHS health facilities, BHC Furniture was able to rise to the challenge and furnish the new Nelson Health Centre, in Merton, meeting its diverse needs and varied different uses. The initial brief was to merge two local NHS practices in order to bring a wider range of services to the local community and to reduce hospital visits. The Canon Hill Lane Medical Practice and Nelson Practice were to be under one roof, with approx. 1000 employees. Merton CCG was responsible for the procurement and commissioning of the clinical services to be provided within the new Nelson Centre. For BHC, working sympathetically with the contemporary style of the building was an important aspect of the brief at the same time as facilitating the diverse needs of the services on offer. Furniture requirements had to fit the visual framework of the architecture and the interior as well as offering a turnkey solution to the project. Requirements had to meet services from outpatient appointments to minor surgery procedures. The completed project offers the community a high end healthcare facility, one that meets its growing needs at the same time as being functional and modernised.

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RAINBOX® provides first class drainage for school sports surface



RAINBOX® Attenuation Solutions from water management specialists JDP has helped to create a first class multi purpose games area (MUGA) for Bookwell Primary School in Egremont, Cumbria. Synthetic Turf Management, a leading installer of artificial grass surfaces for sports, schools, landscape design and commercial use, approached water management specialists JDP to design and supply an effective stormwater drainage management solution to protect the impressive new facility. Effective drainage is recognised as an essential part of the design and construction of sports and recreation grounds, eliminating waterlogging, reducing compaction and maintaining a good playing surface. The JDP technical team designed a system incorporating their RAINBOX® Attenuation Solutions. RAINBOX® 3S modular crates were chosen for the project, providing the most suitable option, typically used for light, non traffic applications such as sports pitches, camp sites and caravan parks. A total of 200 RAINBOX® 3S crates were supplied and delivered flat-packed for quick and easy assembly on site.

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Knauf AMF delivers feel good design



Knauf AMF specialist acoustic ceiling solutions are installed throughout one of the largest leisure complexes in London, Waltham Forest Feel Good Centre. The flagship leisure centre is part of the council's ambitious multi-million-pound sports venue investment programme. Knauf

AMF Sonic rafts are suspended from the corrugated metal ceiling in the 132-station fitness suite to absorb sound, help improve speech intelligibility and create a relaxed atmosphere. The rafts have a highly absorbent acoustic fleece that offers Class A sound absorption.

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www.architectsdatafile.co.uk

Creating a healthy ambience



A specialist school in the South of England educates children and young people with special needs including autism and learning difficulties. Set in stunning grounds, the school has recently completed a major construction project, designed by Lee Evans Partnership, to ensure that all its buildings are suited to pupils with their wide range of neurological and developmental disorders. Insulating Structura's Kalwall was specifically chosen by the architects because of its unique ability to convert and diffuse daylight, as well as providing privacy. It also eliminates brightness, glare and shadows which are common with normal glass. This is particularly important as it helps students with visual problems such as hypersensitivity to light, or those affected by glare, colour contrast or brightness. Unlike glass, the translucent system resists solar gain so air-conditioning costs can be reduced without the need for external shading devices or internal blinds. Kalwall structural panels can be used for walls, roofs and skylights and are increasingly specified for the refurbishment of cladding or rooflights in older buildings. At night when viewed externally, the panels exude a gentle and attractive glow.

Kalwall@structura.co.uk

**BUILDING
PROJECTS****CLYDEBANK LEISURE CENTRE
CLYDEBANK, GLASGOW**

A shining future on the Clyde

Scotland's dockyards may have all but vanished but a distinctive new leisure centre in Clydebank reflects the area's heritage to ensure it won't be lost, writes Steve Menary

Shipbuilding has been a part of Scotland's industrial heritage on the River Clyde since the late 19th century. The first ships were built in Clydebank – located to the west of the City of Glasgow – in 1871, and the John Brown shipyards took over the site in 1899.

On 20 September 1967, the Queen Mary was launched from the John Brown shipyards – but now that industry has largely vanished. Today, the only shipbuilding left on the Scottish River Clyde is BAE Systems' operation at Scotstoun, but thanks to some new schemes, that history is not being lost.

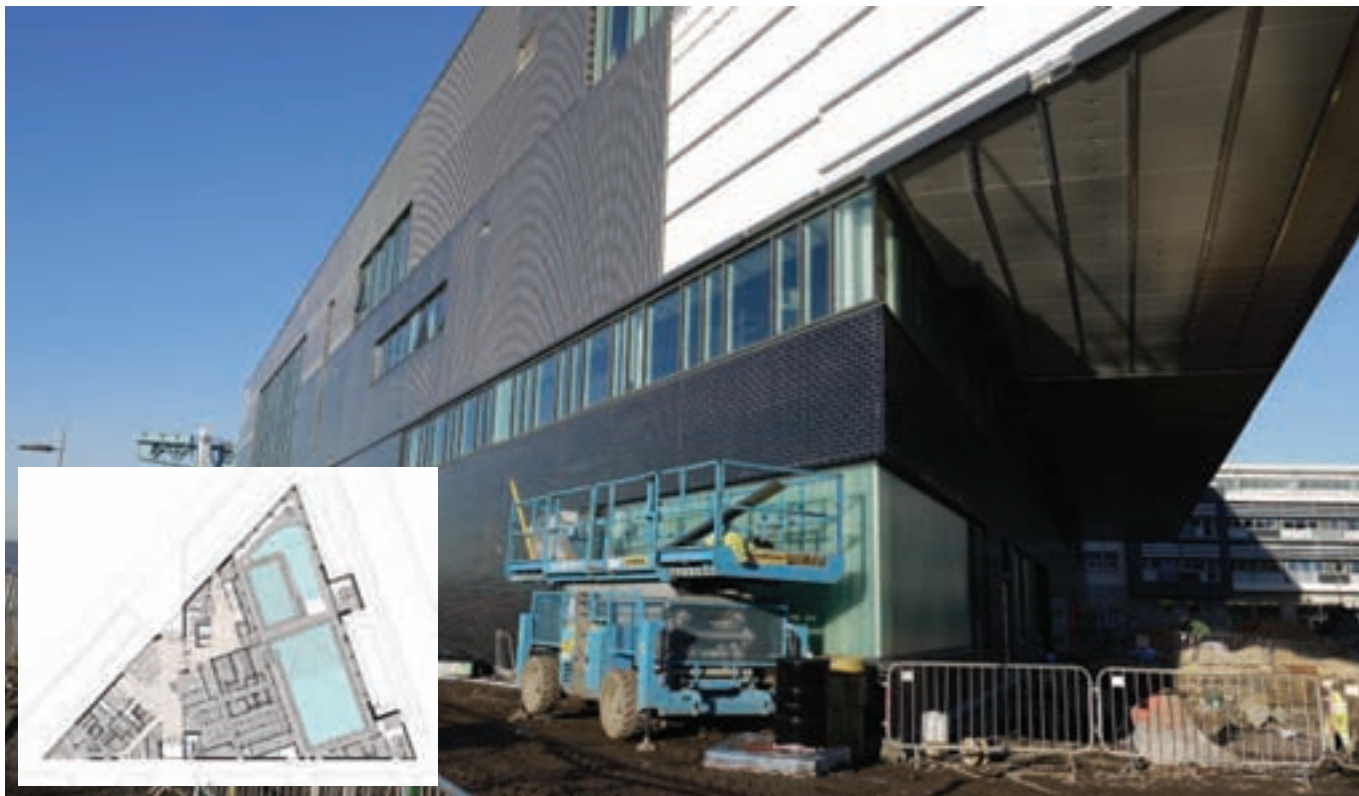
Clydebank's industrial heyday on the Clyde at Queen's Quay has been a major influence behind Kennedy Fitzgerald's design for a new leisure centre on the site of the former John Brown shipyard.

"The intention was that from the river the building would look like the prow of a ship to reflect the industrial heritage," explains Brian Linden, construction manager on the scheme for BAM Construct, which is building the project out under a Design & Build contract.

The Dutch-owned contractor also has its own history in both Clydebank and the John Brown site. BAM Construct began the regeneration of the area back in 2007, when the company built a new block for West College Scotland and more recently constructed an Asda supermarket across the A814 Dumbarton Road in the centre of Clydebank. Linden adds: "There's a general intention to regenerate this area and bring the town centre down here."

At Queen's Quay, West Dunbartonshire Council has also committed to investing £15.6m in infrastructure works including new roads to prepare for further developments on the site, which will include an 84-bed care home and day care centre.





TRIANGULAR SITE

The four-storey building is located on a difficult site on the banks of the Clyde

Located on the River Clyde, the leisure centre offered an opportunity to make a flagship architectural statement for this wider regeneration and also created challenges for the design and construction team.

Gareth McKnight, the associate at Kennedy Fitzgerald who designed the scheme, explains: “It was a very complex brief for a sports centre on a triangular site. An eight-court sports hall shouldn’t really fit on that site, so it was a pragmatic approach but the architectural language was looking back at the old industrial buildings.”

The building itself occupies virtually the entire site and West Dunbartonshire Council needed to lease another plot due for development that bordered the site to provide BAM Construct with space for a site office and goods yard.

A complex history

“The only elevation that is flush is Ossian Way, which is on the river,” says Linden, who also had to get to grips with another historical element of the site prior to BAM Construct starting work.

With the Singers Munitions factory located in Clydebanks, the area was subjected to heavy bombing by the German Luftwaffe during the Blitz.

An eight-court sports hall shouldn’t fit on this site, so we had to take a pragmatic design approach

Gareth McKnight

Before BAM Construct could begin sinking the five concrete cores to accommodate elements such as the lift shafts and the sheet piling used around the perimeter of the pool, the site had to be surveyed for World War Two bombs.

No unexploded ordnance was found, but the design and construction team had to work around another key vestige of the site’s shipbuilding heritage that the council was willing to retain – the slipway.

With the council keen to keep as many links with the site’s shipbuilding past, Kennedy Fitzgerald used the restrictions of the tight site and need to retain the slipway to create an interesting architectural effect.

The corner of the triangular building facing the River Clyde resembles a prow. This was created by the side of the building facing the slipway featuring a cantilevered first floor, which hangs over the slipway, as a ship would have done a century ago.



“These long overhanging elements hark back to the days of the shipbuilding,” says McKnight, who adds: “It’s quite an elemental building, there’s a lot of life in the design.”

The Belfast-based practice used both design and the specification of interesting materials to try and create a feeling of life and heritage on the external facade. Marshalls paving slabs have been brought in, but the main focus for realising this design intent was via the facade. This features a mixture of glazed brick specified for the ground and first floor with an aluminium anodised rainscreen cladding system of tongue and groove panels used on the upper levels.

McKnight adds: “The cladding was about having just two interlocking elements with cladding on the top and bricks on the bottom. The old Victorian industrial buildings only had two separate materials externally and the cladding was powder coated so had some life to it. For the bricks, we also liked the idea of a material that had a bit of life in it. On a sports hall, you can get big walls that are blank and the glazed brickwork brings a richness and life to the exterior and also harks back to old Victorian buildings, such as swimming baths.”

This specification of glazed brick-

work was the subject of lengthy early discussions between the design and construction teams.

BAM’s Brian Linden explains: “Early on we carried out a value engineering exercise and identified the bricks as a potential saving. You can only lay a few courses at a time, which makes them time-consuming.” Kennedy Fitzgerald won that debate, and Linden admits: “It certainly looks good now.”

Facilities

Internally, the specification includes British Gypsum plasterboard insulated with Kingspan Kooltherm FM board and Rockwool Firepro but many areas are left exposed, while an intricate steel roof hangs over the sports hall area.

The building was on the drawing board and in the development pipeline for nine years before work actually started on site. In comprising four floors, the building’s form is also different to most traditional new leisure centres.

Linden says: “Traditionally, leisure centres are flat and low level. This has been squeezed into a triangular site and stacked up.”

The ground level features a six-lane 25-metre competition swimming pool, a learner pool, a wave pool, a children’s pool

BRINGING LIFE TO THE EXTERIOR

A combination of glazed brick to the ground and first floor facades and aluminium anodised rainscreen cladding to upper levels has been used





All photos © Steve Menary

and a flume. Initially, there was no use specified for the first floor. Uses floated included a library, until the client, West Dunbartonshire Council, opted to turn the first floor into an interactive activities zone.

This pushed the price up from an initial figure of £22m to the current value of £23.8m but also gives the Clydebank centre a key selling point ahead of other local leisure centres.

Standout

BAM Construct has built three leisure centres for Renfrewshire Council in Paisley, Linwood and Johnstone. All three, to one extent or another, will be a rival to Clydebank's new leisure centre but internally and externally the scheme will stand out.

The design for the second floor, which features a multi-purpose eight-court sports hall with retractable seating, fitness suite and a dance studio, will also help make sure of that. This floor is a square box within a rectangular building and creates the cantilevered exterior.

With the brief to create a building using lightweight construction methods, internally, the Games Hall features Fermacell wallboards on metal stud walls. "This was to keep the weights and structural loads down," says Linden.

The building's structure is a steel frame, which was designed, manufactured and

erected by local firm JD Pierce. Two cranes had to be used to erect the frame and the intricate roof spans across the roof of the Sports Hall.

"That was a logistical issue bringing in the big trusses and designing for the cantilevers and the deflections caused by the overhangs," Linden reflects.

The third floor features a mezzanine fitness suite with dances studios, while the fourth floor is a plant room. The specification for the roof was a structural deck with a torch-applied felt roof system.

"There was no drive for a specific roofing system, but we looked at options with the client," explains Linden. "You can get single ply systems but the client preferred this because it was more robust."

A topping-out ceremony was held in September 2016 to mark the completion of structural work and BAM Construct is due to finish overall construction in February 2017.

The centre, which will be operated by an arms-length council-controlled company called West Dunbartonshire Leisure, will open the following month as a replacement for Clydebank's ageing Play Drome on Abbotsford Road.

As the regeneration of Clydebank continues apace with new homes, offices and a health centre in the pipeline, the leisure centre project will ensure that the area's industrial past still has a place in the future. ■

PROJECT

Project: Clydebank Leisure Centre

Location: Clydebank, Scotland

Value: £23.8m

Client: West Dunbartonshire Council

Architect: Kennedy Fitzgerald

Project manager: Gardiner & Theobald

Structural engineer: Woolgar Hunter

Quantity surveyor: RLF

Mechanical & electrical consultant: TUV-SUD

(formerly Wallace Whittle)

Contractor: BAM Construct

Brickwork: Lester Rose

Groundworks: WH Malcolm

Steelwork: JD Pierce

M&E: Vaughan Engineering

Partitioning, screeding and drylining: SCS

School receives first class protection



Facadeshield UV, which was developed by the A. Proctor Group to maintain the building fabric behind rainscreen cladding, has been successfully installed as part of an impressive new school sports complex at St Aloysius' College in Glasgow. The design included an attractive rainscreen clad finish. Facadeshield

UV is the culmination of leading research to produce a nonwoven breathable membrane that combines exceptional water resistance and UV resistance with the aesthetically pleasing dark colour to provide a "shadow" appearance within open rainscreen facades.

01250 872261 www.proctorgroup.com

Gilberts breathe new life into stadium



Visitors to the former Olympic Stadium, now the home of West Ham United and UK Athletics, will enjoy a comfortable internal environment, thanks to British engineering expertise. Main contractor Balfour Beatty has spent two years transforming the iconic building. Leading air movement specialist Gilberts Blackpool has worked closely with English Architectural Glazing to engineer the facade ventilation solutions. A combination of standard and bespoke louver designs has been utilised, to accommodate, and mirror, the form and lines of the stadium.

01253 766911 www.gilbertsblackpool.com

Luceco – the healthy choice at Selby Leisure Village



Luceco provided an LED lighting solution to Selby Leisure Village, a £5.7m project recently completed by Selby District Council for Wigan Leisure & Culture Trust (WLCT). The Leisure Village provides activities such as indoor skiing, a ski simulator, adventure climbing, ten pin bowling, play area experiences as well as food outlets. Installed by T Clarke, Luceco supplied 200w Titan High Bay LED luminaires for the Urban Gym and Extreme Skate facilities. Titan provides over 50,000 hours of maintenance free operation as does the IP65 Climate luminaire used in the Ski Area, Aerial Trek, kitchens, and plant areas. Fire rated and dimmable, the Atom LED downlight was used in the Café Raft and Carbon Downlights were installed in lobbies and reception areas as well as changing rooms and WC's. Versatile IP65 rated Atlas luminaires were used both externally with decorative attachments as well as in stairwells internally. The new facilities on offer at Selby Leisure Village inspires fun and adventure as well as healthy lifestyles and will be a major benefit to the community for generations to come.

01952 238100 www.luceco.co.uk

Mapei exhibits at Architect@Work



Mapei is delighted to announce they will be attending Architect@Work. Mapei specification managers and product specialists will be on hand to offer advice, showcasing Mapei's innovative Mapefloor Comfort Flooring Systems at Stand 21. Mo Aljan, National Specification Manager at Mapei commented

"We anticipate another excellent event and look forward to exhibiting at Architect@Work again. We will be showcasing Mapei's new comfortable seamless flooring solution, Mapefloor Comfort AR/X system, discussing project requirements, and providing technical advice."

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ARCHITECT@WORK STAND NO 21

Knauf AMF launch wall absorbers



Knauf AMF is at the forefront of new technology, developing acoustic ceiling and wall solutions that help transform buildings into healthy environments. The company is excited to showcase one of its latest innovations, Heradesign wall absorbers, at the 2017 Architects at Work show. Heradesign

high-performance wall absorbers are specified to create a bold architectural statement. Manufactured using sustainable materials and technologies, Heradesign wall absorbers have a distinctive textured surface that is available in five face patterns.

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ARCHITECT@WORK STAND NO 84

SIMONSWERK at ARCHITECT@WORK



Leading hinge manufacturer SIMONSWERK will again be exhibiting at ARCHITECT@WORK Olympia London on 25-26th January. SIMONSWERK will be showcasing on Stand No. 55 the latest developments to its comprehensive hinge portfolio and visitors will be able to view the company's full range of hinge applications and also take advantage of one-to-one demonstrations of the SIMONSWERK online advanced PRODUCT SELECTOR information system created specifically for architects, ironmongers, specifiers, and interior designers. Demonstrations will include the award winning TECTUS completely concealed hinge system, TECTUS "Energy" option with integrated permanent power transfer and the increasingly popular CE marked TRITECH fire rated solid brass hinge with concealed bearings, 25 year performance guarantee and seven designer finials. This hinge is also available with PVD corrosive resistant finishes which can stand up to the most aggressive conditions, still maintain their original good look and have high temperature resilience, good impact strength and excellent abrasion resistance.

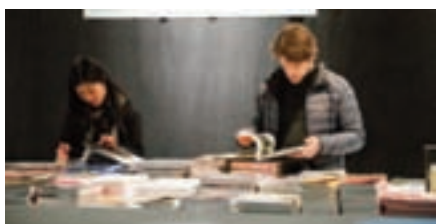
0121 522 2848 www.simonswerk.co.uk

ARCHITECT@WORK STAND NO 55



Water theme for 2017 event

The trade fair aimed at architects, designers and specifiers, ARCHITECT@WORK returns to London's Olympia this month, with a focus on the critical issue of water



A total of 120 leading European suppliers to architecture will be showcasing new products and innovations in surface solutions, lighting technology and interior and exterior fixtures and fittings at ARCHITECT@WORK at Olympia on 25 and 26 January.

All of these companies have gone through a "rigorous selection process," say the organisers, with an external judging panel overseeing the product selection "to ensure that the event is one of the most highly respected of its kind in the UK."

Water theme

The theme for 2017 is water. As part of this the SCIN Gallery will present an exhibition focusing on four aspects.

The Material Source: Materials that come from Water will examine the use of natural elements that come from water such as seaweed and shells as well as solutions to material waste such as Bionic Yarn.

The Physical Connection: Interacting with Water will explore how water is incorporated into design, from tiles that redirect water to prevent flooding to how water can create a weathered look.

The Chemical Reaction: Hydrophilic

and Hydrophobic will look the benefits of materials that repel or absorb water, from coatings and paints to meltable bio-plastics, expanding resins and dissolvable paper.

Lastly, The Aesthetic Inspiration: Looking like Water will show how water's shine, bubbles and waves are imitated in design from glass and acrylic to fabric and marble.

Exhibition: use your 'grey matter'

Another key feature at this year's edition is the exhibition Matière grise: Grey matter, Materials, Reuse, Architecture by Pavillon de l'Arsenal. Architects Julien Choppin and Nicola Delon from the Encore Heureux architectural design agency explore the reuse of building materials at a time when architecture is aspiring to reinvent itself but is restricted by economic and environmental constraints. The exhibition urges the construction trade to use more 'grey matter' so as to use fewer raw materials.

The exhibition will showcase global projects which were built, in full or in part, with reclaimed building materials. In Brussels, second-hand bricks are used to build modern-day homes. In Massachusetts, the gantries of a motorway viaduct were used to build a villa. In Saint-Denis, rejected cladding for a shopping centre now envelops the prestigious National Academy of Contemporary Circus Arts. 75 projects, 14 essays and 13 interviews combine to show the potential of the recovery and reuse of materials and the possibilities for giving reclaimed materials a new lease of life.

TALKS

Wednesday 25 January:

15:00: A bridge too far?

Roger Ridsdill Smith (Foster+Partners), Jonathan McDowell (Matter Architecture), Julia Barfield (Marks Barfield), Ben Addy (Moxon Architects)

16:15: Design driven by natural forces

Chair: Eleanor Young (RIBA), Ana Abram (Gustafson Porter), Jerry Tate (Tate Harmer), Michael Pawlyn (Exploration Architecture)

17:30: The British Land interview

Chair: Peter Murray (NLA)

Thursday 26 January:

15:00: The amphibious city

Chris Romer-Lee (Studio Octopi), Carl Turner (Carl Turner Architects)

16:15: Waterway development

Chair: Phineas Harper (Architecture Foundation), Alex Ely (Mae Architects), Peter Chowns (Canal and River Trust), Steve Webb (Webb Yates)

17:30: The Argent interview

David Michon (Journalist), Tom Goodall (Argent), Anthony Peter (Argent)

ARCHITECT@WORK UK runs on 25 and 26 January 2017 at Olympia National Hall. Register at www.architect-at-work.co.uk using code 7950

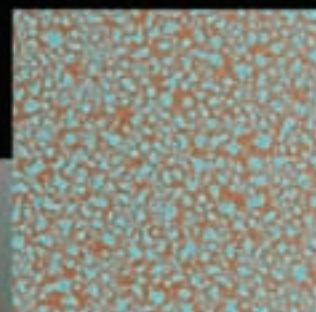


PATINACOLLECTION

for architectural design



TURQUOISE COPPER



SCIENCE BUILDING - UNIVERSITY OF HERTFORDSHIRE (UK)

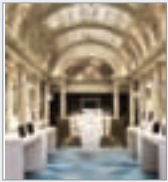


96 CHROMATIC EFFECTS TO MIMIC THE NATURAL OXIDATION OF METALS, INCLUDING WET EFFECTS

A NEW FOCUS ON INNOVATION
www.adaptacolor.com

ARCHITECT@WORK STAND NO 104

Tarkett's LVT collections set to inspire



Tarkett has introduced even more Luxury Vinyl Tile options (LVT) into its iD Inspiration range to further inspire creative expression. Colour plays an important part in the new LVT offer, with numerous new hues and shades available, as well as innovative designs such as 'Metal Frame', an original metallic effect mixed on top of pastel colours. Ideally suited to create impactful flooring, the designs are perfect for a range of sectors. Tarkett is showcasing the new LVT options and exploring 'Poetic Technology' at the Architect@Work event.

01622 854000 www.tarkett.co.uk

ARCHITECT@WORK STAND NO 13

Connecting architects and designers



Stone Federation Great Britain are the official trade association for the natural stone industry with over 100 years' experience in

connecting architects and designers with the finest natural stone professionals and materials.

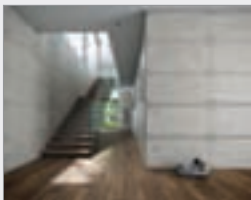
Come and find Stone Federation Great Britain in The Stone Knowledge Hub in The Stone Gallery.

For more information, contact Stone Federation Great Britain directly or visit the company website.

enquiries@stonefed.org.uk

SURFACE DESIGN SHOW STONE GALLERY

Solus Ceramics to exhibit at SDS 2017



Solus Ceramics are thrilled to be exhibiting at the Surface Design Show, and will be located at stand 102.

The highlight of its showcase, Raw, is a porcelain range inspired by the look and feel of concrete slabs. With an incomparable raw touch, the tiles feature evocative crevices, bubbles

and imperfections. For more information about the exhibit or the Raw porcelain range, contact Solus Ceramics directly.

sales@solusceramics.com

SURFACE DESIGN SHOW STAND NO 102

Osmo returns to Surface Design Show



Osmo UK, is delighted to announce that it will be exhibiting at the Surface Design Show 2017. Visitors to stand 128 will have the chance to see Osmo wooden flooring and high quality wood finishes. With wood flooring one of the most sought after show products in 2016, and looking to build on

the success of 2016, Osmo returns to the Surface Design Show to exhibit its ESCO wood flooring range, as well as its renowned wood finishing product, Polyx®-Oil. ESCO offers bespoke European oak wood flooring, which is pre-finished with Osmo Polyx®-Oil.

info@osmouk.com

SURFACE DESIGN SHOW STAND NO 128

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THE COMPLETELY CONCEALED HINGE SYSTEM

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 e: sales@simonswerk.co.uk
www.simonswerk.co.uk

Olympia, London
 25-26th January 2017
 Stand number 55



Call 0121 753 0777

Email sales@solusceramics.com

Visit www.solusceramics.com

**SURFACE
DESIGN
SHOW**

7-9 Feb 2017
Stand 102



An amazing concrete experience

Raw is a range of porcelain tiles that authentically simulates the look and feel of concrete slabs.

Incomparable to what has come before, Raw is the future of concrete tile design.

It's all about the surface in 2017

The Surface Design Show – claimed to be the only UK event focusing solely on interior and exterior surfaces – returns to London on 7 - 9 February



From hand-carved stone to the latest technological advances in architectural lighting, designers and architects will be able to see over 170 exhibitors showcasing the best in surface design at the Business Design Centre in February.

Key exhibitors include wood flooring specialists Osmo with bespoke European oak wood flooring, Grestec Tile showcasing ceramic tile ranges and textile surfaces manufacturer Rug-Maker showing a new award-winning flat weave Indian rug.

Packed programme

The Surface Design Show 2017 will once again be packed with events designed to inspire and engage, with new ideas added to firm favourites providing the specifier audience with a “unique visiting experience.”

Event highlights include the Preview Evening Live Debate and the ever popular PechaKucha Evening – an informal and fun presentation of inspirational slides hosted by Phil Coffey of Coffey Architects, and featuring Chris Dyson of Chris Dyson Architects and Threefold Architects’ Matthew Driscoll.

Architects and designers will be able to see advanced materials in Surface Spotlight Live, an event that debuted last year. Its 2017 edition will focus on Hospitality and Education with trend and colour expert Sally Angharad curating.

Stone Gallery returns

First seen at last year’s show, Stone Gallery reflects the rapidly growing stone market in the UK and the important relationship between stone and surface design. Officially supported by Stone Federation GB, Stone Gallery 2017 has attracted exhibitors from Europe and beyond, looking to link up

architects and designers at the event.

Exhibitors include Skarlis Marble, Building Adhesives, Marmoles Serrat, Consorio Pimar, Fontanili Marble UK – launching a range of stylish natural stone products plus a modular cladding system for creating a seamless veneer finish. UK exhibitors include Lovell Stone, a family-run business delivering high-quality British stone products with a bespoke service.

Light is a vital partner to surface design, changing interior and exterior surfaces dramatically – the Light School presented by The Light Collective and supported by the Institute of Lighting Professionals will help attendees take away learnings on new lighting design. It includes Light Talks from a range of experts in the field, and Product School offering a “comprehensive review of lighting innovation and technology.”

The Product School will include technologies such as dichroic materials which appear to change colour depending on the viewing angle, and LED hybrid technology to offer lower energy use with greater light production. In addition Factorylux will be hosting a series of lighting workshops where attendees make, test and certify a complete luminaire to BS EN 60598.

Surface Design Awards

The Surface Design Awards are taking place on the third day of the show, Thursday 9 February. The 13 awards recognise “progressive design and the use of innovative surfaces” in projects both in the UK and internationally. They span seven categories including interior and exterior surfaces, and each project is judged on a range of criteria. Last year, IPT Architects was Supreme Winner for Howe Farm.



TOP
Beyond Wood
BOTTOM
Barkanska Design

Visitor registration for the Surface Design Show is now live at www.surfacedesignshow.com

Increased presence for James Latham at SDS17



Timber distributor James Latham is gearing up for the Surface Design Show in February, where it is set to have its biggest presence yet at the UK's only annual show to focus on interior and exterior surfaces for the built environment.

As well as an impactful, eye-catching stand at its usual position on the ground level (stand 208) – where it will show a number of new additions to its range for 2017 – for the first time, this year, Lathams will also be utilising its Product Specification Showroom which is located on the Gallery level of the Business Design Centre at Suite 301.

The new showroom, which only opened in September, has given James Latham a permanent presence in the Capital and is already proving to be a major success with the architect and design community. It will give visitors to the show, the opportunity to

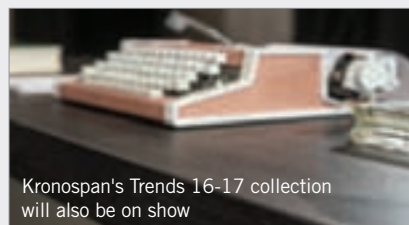


Accoya® Cladding will feature on Latham's stand

see an even wider range of Latham's massive portfolio of products – many of them exclusive and semi-exclusive – and all under one roof.

As well as Latham's highly experienced team of product specialists, during the show, the newly created A&D specification team will be on hand to discuss the company's extensive range of products, providing expert advice to architects and designers and helping them to keep abreast of the latest trends and developments in surface solutions.

This year, among others, the products



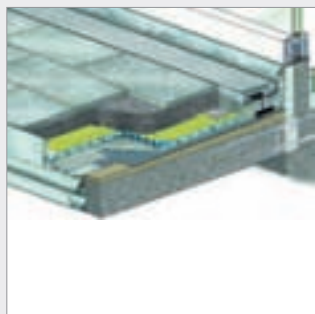
Kronospan's Trends 16-17 collection will also be on show

on show will include new decor launches for Egger, Kronospan and XyloCleaf, Valchromat, the innovative and highly popular, engineered coloured high density fireboard, HI-MACS solid surface, UPM composite decking, Lathams new range of fire resistant products, KYDEX thermoplastic sheet, which is proving particularly popular within the retail sector, Accoya cladding and window sections, WoodEx, Moralt & Flamebreak door blanks and the new generation of OSB board from Smartply.

0116 257 3415 www.lathamtimber.co.uk

SURFACE DESIGN SHOW STAND NO 208

Red Sky Thinking with BAL External Tiling Solutions – find out more at the SDS17



Connecting the inside with the outdoors is the latest trend in design, with an increased need for balconies, roof terraces and ground floor terraces and patios to be incorporated in blueprints for commercial and domestic projects. To have these areas available all year round requires coverings that are durable, hard-wearing and all weather – and tiles are the perfect answer, provided that assemblies are properly constructed. BAL – one of the market leaders in full tiling solutions – are returning to Stand 616 at the Surface Design Show at London's Business Design Centre to demonstrate its new technology and present informative RIBA-approved CPDs for fail-safe external tiling installations. Introduced to the market this year, BAL's new range of external tiling systems in conjunction with sister company Gutjahr, protects outdoor covering from the unpredictable British weather. BAL's patented system, including drainage matting, edge profiles, drain grates and guttering, is simple to install and provides rapid, immediate and high volume drainage. Water is drained down through the screed and rapidly expelled from the assembly, meaning no water staining, no freeze/thaw threat or efflorescence.

01782 591120 www.bal-adhesives.com

SURFACE DESIGN SHOW STAND NO 616

Timbertherm launches in the UK



Timbertherm – a new innovation in wood flooring – has been launched in the UK. Harnessing integral Far Infrared technology, the new engineered wood floor conducts heat through built-in nano-carbon conductors. The all-in-one solution provides a stylish – and cost effective – alternative to a 'wood floor and underfloor heating' specification. Simple to lay, healthy and eco-friendly, Timbertherm is suitable for residential and commercial application – in new builds, renovations and retrofits. Timbertherm wood flooring is available in a wide range of on-trend finishes, in sustainable hard maple, elm and walnut. Its high performance engineered construction comprises eight individual layers; below the hard wood surface layer the nano-carbon conductors are embedded into plywood core layers. A gloss or satin lacquer prefinish, tested to IP67 (Ingress Protection), provides a water resistant surface. All boards measure 1.2m/0.6m in length x 160mm x 15mm. Like sunlight, Far Infrared heat gently warms objects within a room, rather than the air. Timbertherm holds the heat created by the conductors and slowly releases it without creating air currents or raising dust particles.

0330 120 0380 www.timbertherm.co.uk

SURFACE DESIGN SHOW STAND NO 526

Modelling Abet's Laminates

Abet Laminati is delighted to announce that, as part of its ongoing drive to ensure ease of specification, Building Information Modelling (BIM) is now available across its core ranges in the UK.

The BIM Objects are now available for the Doors Collection as well as the complete ranges of compact grade high pressure laminates. This includes the Cubicles, Lockers and Labgrade Collections as well as MEG, the exterior grade self-supporting laminate. All Objects are compatible with both Autodesk Revit® and IFC programs.

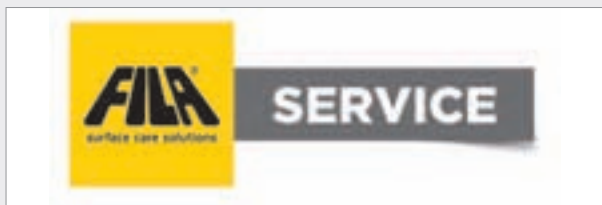
Abet's UK & Ireland compact grade solutions are available in different thicknesses and a variety of sizes in a range of plain colours, speckled finishes, woodgrains and textured surfaces. The compact grade's solid core construction, available from 6mm to 12mm thick, makes it a perfect choice for areas prone to high moisture and humidity. This particularly applies to leisure centres,



swimming pools and changing rooms and where there is no risk of peeling, cracking or delamination. The fully self-supporting boards are also easy to work with for cutting and fabrication and are widely used in situations where high quality performance and design can be carefully crafted together to create an attractive visual experience.

The BIM Objects will shortly be available from the NBS National BIM Library website and are also available direct from the Abet website. Further information and support is also available from Abet, please contact them directly or visit the website.

020 7473 6915 www.abetuk.com



Fila focus turns to Support Division for SDS 2017

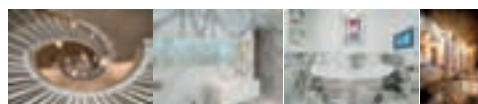
Surface care specialist, Fila is set to focus on its growing support division – FILASERVICE – at the Surface Design Show 2017. Set up to provide continual assistance to manufacturers, planners, contractors and builders, the division offers services spanning from advice on daily cleaning regimes to extraordinary maintenance. Recent global case studies will be visually presented on-stand, giving examples of recent projects where Fila solutions have been specified, along with expert advice and support. FILASERVICE delivers a turnkey service for site management. Working alongside clients, Fila treatment specialists assist in identifying the best solutions for cleaning, protection and maintenance of any surface. Support spans from feasibility study to analysis of materials through laboratory tests, and from on-site technical assistance, to management of ordinary and extraordinary maintenance. Visitors will also get a sneak preview of a new anti-etching treatment that will be launched by Fila later in the year – and can find out more about surface treatment at Fila's presentations within The CPD Hub and as part of the Stone Gallery seminars.

01584 877286 www.filasolutions.com



Come and see us in
The Stone Knowledge Hub
at Surface Design Show 2017

We are your source point for
all things stone



[@StoneFederation](https://twitter.com/StoneFederation)

www.stonefed.org.uk

SURFACE DESIGN SHOW STAND NO 368

Sika Sarnafil branches out with unique garden room project

In possibly the only building of its kind in the UK, Sika Sarnafil single ply membrane has been used to waterproof a garden room with a live tree growing through it.

Hackney-based architect, Andrew Leckenby, specialises in working with private clients to improve their homes. But when it came to extending his family home, Andrew became his own client. Living in an urban area meant imagination was required to increase his living area.

Deciding to make the most of his home's outdoor space, Andrew settled on a garden room. However, the rear of the garden contained a beautiful false acacia tree, which he did not want to remove. Thinking outside the box, Andrew drew up plans for a room that would incorporate the tree, making it the focal point of the space.

Andrew had specified Sika Sarnafil on



many extensive commercial projects during his career working with larger architectural practices, so knew that the product would meet his requirements.

The finished article is a striking, yet homely

multi-functional space, used as a garden room that extends the summer season, a home office – and not to mention a unique sleepover location for Andrew's son.

A member of the Sika Sarnafil technical team inspected the project once complete and awarded a 15 year guarantee on the roof. The low maintenance membrane means Andrew only has to check the waterproofing once a year to ensure the detailing around the tree is still sound. A small price to pay, says Andrew, for such a fantastic family space.

For more information on Sika Sarnafil's products and services, call, email or visit the company.

Visit the Leckenby Architecture website for more details on Andrew Leckenby's architectural design and consultancy services.

01707 394444 www.sarnafil.co.uk

Free BIM rainwater modelling package



North West based **Guttermaster** has made available a complete interactive suite of BIM level 2 objects and COBie files covering its rainwater systems, fascias and copings. Used with project modelling software such as Revit, specifiers can rest assured that all the

drainage elements within the project are where they should be, resulting in improved information handover and the delivery of consistent and structured asset information – a key BIM objective. You can call Guttermaster's BIM hotline for your own free BIM USB Drive or simply request it online quoting ref: NMJ17

01706 869550 www.guttermaster.co.uk

Roofing system sucks



A unique flat roofing system is giving contractors peace of mind that however windy, the roof will stay put... **Protan's** innovative vacuum system is the only single ply roofing method to harness natural air movement to provide adhesion. The fully warranty covered system optimises air

movement across the roof to create suction and hold the membrane in place. As air moves across the roof, any air between the membrane and airtight substrate below is sucked out, causing the single ply to 'stick' to the roof. The stronger the wind blows, the greater the suction effect and corresponding grip of membrane to roof.

01925 658001 www.protan.co.uk

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

Norbord's CaberWood MDF



Norbord's CaberWood range of Medium Density Fibreboard (MDF) is one of the most versatile modern building materials. Norbord boasts one of the widest ranges of MDF products currently available with key features and benefits of the board including finish, routing capability and screwholding.

Five grades are available from the basic lightweight general purpose grade, CaberWood MDF Trade, to the top-of-the-range, CaberWood MDF Industrial, a hard-working, deep routing, moisture-resistant product with uniform density all the way through the board.

www.norbord.co.uk

Natural routes to restoration

Two case studies in Wales and central London have recently seen the use of natural slate roofing to provide the right result for their respective renovation needs

Two prestigious heritage projects have recently benefitted from major refurbishments employing natural slate to deliver the requirements of architect and client. Slate roofing in addition to walling and flooring was supplied for the redevelopment of Cardigan Castle in mid Wales, and in London's Kings Cross a refurbishment of a 19th century gymnasium used substantial amounts of slate for its authentic replacement roof.

The £12.5m redevelopment of Cardigan Castle was essential to prevent this 13th century piece of national heritage being lost forever. Penrhyn Heather Blue slates from Welsh Slate's quarry at Bethesda, Gwynedd, were used to re-roof the main building within the castle walls, Castle Green House (Ty Castell) plus The Stables, while 200 m² of dark blue grey cleaved walling from the company's Cwt-y-Bugail quarry clads the interior and exterior walls of a new contemporary restaurant, '1176,' whose structure cantilevers over the castle walls.

The materials were specified by Purcell architects who worked on the repair and regeneration for 10 years. Project architect Izaak Hudson comments: "With this being one of the most significant historic building projects recently completed in Wales, all of the project team were very keen to be able to use local materials where we could."

WEFO (Welsh European Funding Office) funding for the project from the European Union, administered by the Welsh Government, was granted with the aim of using Welsh materials and contractors. This, says Hudson, was one reason Welsh Slate was selected, as well as to match the existing slate on site, and "because it was historically appropriate and good quality."

Castle Green House's large-format, wet-laid diminishing course roof was "expertly re-laid by skilled roofers from Tree and Sons of Milford Haven," says Hudson. "The wet laying took some time as due to the weight of the huge Penrhyn slates we had to wait for the lime mortar of lower courses to carbonate before laying more,

but it was a key existing feature and Cadw were very keen to reinstate it."

Despite the castle's designation as a Scheduled Ancient Monument and the six buildings within its walls being listed Grade II or Grade II*, by the end of the 20th Century the site was derelict and its buildings open to the weather. The curtain walls were propped up with great raking shores to prevent collapsing onto the town's main road.

Following Ceredigion County Council's acquiring the site from its elderly owner a group of local people set up the Cadwgan Trust to fund restoration and Purcell architects were commissioned in 2005 to carry out an options appraisal. Future potential uses identified included heritage interpretation, a restaurant, holiday accommodation, restored gardens and open air events.

Phase one of the redevelopment was the £1m repair of the curtain walls; Phase two being the conservation and upgrading of the six buildings within the castle walls plus restoration of the Regency gardens. The comprehensive conservation works ranged from structural carpentry repairs, to slate roofing, leadwork, masonry repairs, external joinery repairs and lime rendering.

Purcell carried out careful research, along with trials and testing of materials and finishes, to ensure the building would be an exemplar for innovative conservation practice. The decision was taken to locate the new restaurant building above a section of the castle walls which had collapsed in the 1970s. The striking cantilevered design provides views, via large glazed elevations, across the quayside and the river below and inwards across the castle gardens.

Solid external and internal walls were constructed of coursed Welsh Slate laid by specialist stonemasons, echoing the Cilgerran slate garden walls that form the backdrop to the site.

Izaak Hudson concludes: "It was a very challenging and interesting project – and we learned a lot about slate."



New cantilevered restaurant at Cardigan Castle
© Phil Boorman

Restoring the German Gymnasium

Natural roof slates are a key part of a refurbishment at the heart of the regeneration of Kings Cross, which recently picked up a top award in the 2016 Restaurant and Bar Design Awards.

Some 6,400 natural slates from Welsh Slate have helped restore the roof of the German Gymnasium, the first purpose-built gym in England now converted to a high-end restaurant – to its former glory. Designed by Edward Gruning and built in the 1860s and funded solely by the German community in London, the Grade II listed Gymnasium was created with the intention of promoting strength-based gymnastics for adults. The indoor events of the first Olympic Games were held there in 1866, continuing until the 1908 Games.

Converted to offices for the Great Northern Railway after the First World War, the emerging regeneration of Kings Cross together with the demolition of surrounding buildings have changed the building's context. The surrounding public realm has become a more dynamic space, and the building is now both a way-finding



German Gymnasium, London

landmark and a destination in its own right.

More than 600 m² of 500 mm x 300 mm Penrhyn Heather Blue County-grade slates were used on the main and clerestory roofs and flank roofs of the dormer windows of the Grade II listed building. They were specified by architects Allies and Morrison after the original Welsh Slate roof (also an important early example of the use of laminated timber to enable broad spans) was removed and the building was left with only a bituminous felt covering the structure. They also match the slate roofs of the adjacent St Pancras Station and Great Northern Hotels.

The new roof, over trusses up to 20 metres wide, was installed over four months by Attleys Roofing. They needed multiple, small deliveries due to the tight site, lack of storage and range of materials required – including insulation, vapour control layer, counter battens, felt, and battens.

After a 17-month rebuild the renovated building was officially opened to the public by restaurant group D&D London in November 2015. Allies and Morrison were commissioned by developer Argent to restore and repair the fabric of the building to a shell and core finish to enable subsequent fit out by Conran and Partners,

who established the restaurant concept design which includes a new steel mezzanine and staircases.

Andrew Rixson of Allies and Morrison comments: “The design of the roof is complicated by the increased depth of the new roof build-up which sets the new slate tiles above the level of the brickwork details of the existing gable parapets.

To resolve this, the design separates the slates from the brickwork by introducing hidden gutters, valleys and leadwork detailing around the perimeters. “These details are adapted into various different forms due to the variety of conditions found within the existing roof and the deformation of the timber roof structure over time, but reconcile the precisely constructed new roof elements with the unevenness of the Victorian brickwork.”

He adds: “The slates could be used in a consistent tile size with even colour and their fixings hidden by the overlapping of each tile. We were also able to resolve design problems using the integrated and unobtrusive service penetrations, which are pleasing architecturally and from a conservation perspective, by avoiding the need for a proprietary vent pipe.”

CUPA R4 slates on show at gallery



A private art gallery in Betws Y Coed has been roofed using CUPA R4 natural Spanish slate, selected by the client and their contractor on the basis of appearance, performance and cost, as well as their ready availability through local stockists.

Work on The Galeri begun some three years ago, with locally based Willparr Roofing being tasked with sourcing and installing the thousands of new slates. Crucially, CUPA R4 from CUPA PIZARRAS, is one of the few such materials approved by the Snowdonia National Park authority for use in this unique location.

01312 253 111 www.cupapizaras.com/uk

Klober underlay for low pitch roofs



On building extensions, existing windows or pipework may preclude the steeper pitch needed for coverings such as plain tiles. Klober Permo® extreme RS SK² enables profiled tiles to be laid as low as 12.5° and flat tiles and slates at 15°. It has high tear resistance, a monolithic, thermoplastic polyurethane (TPU)

coating and double self-adhesive strips which provide a permanent seal at laps and immediate weatherproofing. Laid on 12mm ply board or OSB sarking board, the underlay is simple to position prior to the edge tapes being peeled off for laps to be pressed into place.

01332 813050 www.klober.co.uk

Eurocell delivers astronomical event

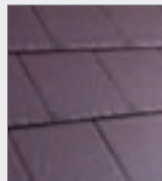


Strong technical support and advanced design has enabled Ludlow builder Terry Angell to build what is thought to be the largest ever Equinox tiled roof to be erected in the UK – despite never before having worked with the innovative roof system devised by Eurocell.

The roof itself is the largest that the company has ever supplied, measuring 12.5m x 6.5m at its widest, and forms a distinctive P-shape using five hips and a valley for which the company's own design engineers undertook the structural calculations to ensure that the roof was strong enough to meet Building Regulations.

0800 988 3049 www.eurocell.co.uk

Clay leads the way – new Rivius roof tile



Following a growing demand for the Rivius slate range, Wienerberger has continued its product innovation with the development of a new colour to replicate Heather Slate – a product that boasts all the aesthetic beauty of slate, while featuring key benefits of clay. The new Rivius Heather Slate adds to the range developed by the leading supplier of wall, roof and landscaping innovations. The new product features a riven surface and dressed edges, which provides the roof tile with an authentic appearance of a natural slate, while being made from natural alluvial clay.

0161 491 8200 www.wienerberger.co.uk

Kemper System hits the right note at Yehudi Menuhin School

Installation of a Stratex Warm Roof System at Yehudi Menuhin School's new practice rooms scheme as part of a green roof build up.

Amongst those who aspire to reach the highest standards of excellence in classical music, the Yehudi Menuhin School near Cobham in Surrey is almost as famous as the globally recognised violin virtuoso who established the school in 1964 and from whom it takes its name.

Set in spacious rural grounds with 'Music House', a former mansion, at its heart, the school provides expert tuition for musically gifted students from around the world between the ages of eight and 19.

In addition to the practical considerations for the building's function – such as the extensive acoustic wall build ups that isolate the sound within each practice room – the scheme's Brighton-based architect, Miller Bourne, also had to consider the project's rural location; right on the periphery of the school's campus, adjacent to a neighbouring farm. The BREEAM 'Very Good' practice rooms development has been constructed as a contemporary building that blends in with its leafy surroundings with a modular green roof and rainscreen cladding and timber. It also delivers high standards of thermal performance thanks to its Stratex warm roof system from Kemper System, and these sustainability credentials are further enhanced by its solar PV panels.

Specification Considerations

Constructed by Sunninghill Construction, the 800m² single storey music block comprises 11 practice studios, along with a teaching area, a library, offices, storage, toilets and a kitchen area. The flat roofed building has an 18mm ply roof with numerous rectangular roof lights and Miller Bourne specified the Kemper System warm roof having used the same combination of insulation boards and Kemperol cold applied liquid membranes on other projects. The design team worked closely with Kemper System's technical department to determine the optimum specification for the roof that will provide a BBA accredited 25 year service life.

While all of the roof is flat, various sections have been constructed at different levels, providing a terracing effect that works well

with the finished green roof and, along with the glulam timber and glass canopy which reaches out from the main roof over the entrance, adds interest to the building.

The level changes were amongst the key drivers for specification of the Kemperol cold applied system as the liquid membrane cures to provide a seamless, monolithic and elastomeric membrane that adheres permanently to the substrate and cannot delaminate. As a result, any potential vulnerability to water ingress where the roof steps up or down has been avoided and the system's proven root resistance as a base for green roof installations provided the client with further assurances that it would offer a robust solution for this application.

Warm Roof Build Up

Roofing contractor, Imperial Roofing, installed the warm roof on behalf of main contractor, Sunninghill Construction, applying a primer to the plywood substrate before laying a Kempershield vapour control layer (VCL). Kempershield is a reinforced aluminium, cold-applied, self-adhesive VCL, which can be used on concrete, profiled metal or timber deck substrates.

The installation team then fitted the standard 150mm Kempertherm insulation board, cutting various boards to size on site to fit the exact dimensions of the roof, including the apertures for the roof lights. The rigid PIR insulation board has a dense, closed cell structure that gives excellent compressive strength, along with low thermal conductivity, adding to the robust roof build up. The sections of Kempertherm were adhered to roof using Kemperfix adhesive, which has been especially designed to offer an exceptionally strong bond when used as part of the Stratex warm roof build up.

With the insulation in place and fully bonded to the substrate, Imperial Roofing could move on to installation of the Kemperol V210 membrane. Kemper System's D Primer was used to prepare the surface. The Kemperol V210 membrane was then applied in a single wet-on-wet process, comprising the cold applied liquid resin and a 200g flexible reinforcement fleece, which is manufactured using a 25 per cent recycled plastic bottle content. This combination ensures both durability and flexibility of the cured membrane.



For the details, including the rectangular roof lights, the installation team cut the fleece to size during the installation process, enabling the system to be tailored to the exact dimensions before application of the resin.

Imperial Roofing began installation of the membrane by applying the Kemperol V210 resin to the substrate. The reinforcement fleece was then laid onto the wet resin, with more resin immediately applied on top and rolled to ensure complete saturation of the fleece and removal of any air bubbles or creases before the system was allowed to cure to ensure complete encapsulation of the roof with the reinforced membrane.

Pleasing Appearance

Once the waterproofing membrane was installed on the roof, Imperial Roofing was able to install the green roof elements.

The planting had been agreed early in the design process and had included research of local species to ensure that the roof was in keeping with its local landscape. Consequently, the prepared green roof planting was already at a mature stage of growth when the modules were installed, creating an aesthetically pleasing effect from completion.

The practice rooms building is now fully operational, helping to nurture the next generation of musical talent and provide an informal outdoor venue at this very special school.

01925 445 532 www.kempersystem.co.uk

Bauder delivers largest solar array in higher education sector

The University of the West of England (UWE) in Bristol has recently quadrupled its solar generating capacity through the installation of 1,731 solar panels, which will enable it to produce over 400 MWh of electricity each year and making it the largest solar panel array in the UK university sector.

The new solar array has been installed on the roof of the University Enterprise Zone (UEZ) and the Bristol Robotics Laboratory, which have both undergone extensive refurbishment as part of the required works. Prior to the solar panels being installed, approved contractor Mitie Tilley Roofing overlaid the original failing single ply waterproofing with over 12,000m² of Bauder's lightweight, robust PVC single ply waterproofing system Thermofol. The solar modules, which weigh just 12Kg/m², were then fitted onto the waterproofing using a unique penetration-free, welding method by renewable energy specialists Dulas. This



installation technique means that the roof is not compromised by penetrations for fixings nor is it ballasted, which would add additional weight loading to the roof.

The new photovoltaic system will generate at least 74.32 Megawatt Hours of solar power each year which should; cover half of the energy consumed within the building, save around 200 tonnes of carbon and provide annual savings of over £50,000 a year. The university is highly committed to

sustainability and energy efficiency, and this solar project is just part of a much wider plan to achieve its carbon reduction goals and enhance local renewable energy capacity.

Fabia Jeddere-Fisher, Energy Engineer at UWE, stated, "From its conception, we chose a roofing system that would mean the flat roof would not need to be strengthened if we chose to add solar panels. Normally, panels placed on flat roofs require either weighing down or fixings that penetrate the roof membrane, which can introduce the risk of leaks. The system we have chosen means that the panels are welded into place, reducing load, and reducing the need for roof penetrations. The University will use 100 per cent of the power generated by the PV array, which will be equal to the amount generated by nearly 200 homes with solar panels. As a large organisation we want to set an example for others to undertake similar projects."

01473 257671 www.bauder.co.uk

Wraprite delivers airtightness



The design and transformation of a derelict barn into a thermally efficient house and home is being achieved thanks to the Wraprite system from the A. Proctor Group. Designed to cost effectively replace traditional airtightness methods, Wraprite is a low-resistance vapour permeable air

barrier, which is durable, flexible and lightweight, allowing for easy installation, with the added benefit of providing temporary protection against the elements during construction. Wraprite-SA, the only self-adhering vapour permeable air barrier certified by the BBA.

01250 872261 www.proctorgroup.com

SterlingOSB gets the thumbs-up!



SterlingOSB is valued for its structural qualities, sustainability and excellent value; and more and more customers are choosing SterlingOSB for its visual appeal. One such is Edinburgh-based architects ISA. The practice, which has a diverse workload, has chosen SterlingOSB for its new

head office in Blenheim Place. This in itself is nothing new; SterlingOSB is a very popular material. But, whereas in most projects, the OSB is subsequently concealed beneath other finishes, ISA has deliberately chosen to leave the board's distinctive texture exposed.

www.norbord.co.uk

Ibstock showcases winning design



When the Brick Development Association's Awards took place in November, the inspirational magazine 'Design' from Ibstock, was showcasing a number of cutting-edge projects using Ibstock bricks, which had been shortlisted for the prestigious accolades. The

issue offers a multitude of advice and recommendations for creating curved brickwork, and featured projects where such techniques have been applied to maximum effect. The issue also offers an in-depth look at Incurvo, a private house in Oxfordshire, where the use of radial brickwork has been used to create striking aesthetics.

0844 800 4575 www.ibstock.com

Waterproofing simplified with Remmers



MB 2K is a new, flexible, mineral based waterproofing product from Remmers which has all the performance properties of older technology polymer-modified thick bitumen emulsions, while being 'bitumen free'. Using unique rubber granulate filler technology MB 2K has a crack-bridging

capacity which is five times more effective than standard flexible mineral-based waterproofing systems. The versatility of the product allows it to be used to waterproof below ground externally and internally offering excellent resistance to ground or water pressure.

sales@remmers.co.uk

Triton's Fastcoat delivers fast track elastomeric waterproofing

Triton's elastomeric, liquid applied TWS-Fastcoat, has provided a rapid drying waterproofing solution for the floor slabs of the subterranean light wells at the Material Store housing development in Hayes.

The material Store development is part of the £250 million regeneration of The Old Vinyl Factory in Hayes, West London, where thousands of people worked for EMI, pressing and packaging vinyl records and making everything from radio sets to bicycles.

The slabs were constructed approximately 1.5m below ground level and although the new concrete incorporated a watertight concrete admixture would have remained gas and vapour permeable. Two coats of Triton's TWS-Fastcoat, (which can be applied effectively in ambient temperatures even when substrate temperatures are as low as 0°), therefore provided an impervious barrier

which will also lower the potential risks of corrosion of the steelwork in the slabs as well as protecting the outer surfaces.

TWS-Fastcoat is a single pack, moisture curing, elastomeric resin. The membrane cures in a continuous and elastic form, as a totally adhered layer. It guarantees total water tightness and withstands minor building movements and vibrations. TWS-Fastcoat can be used as a base coat, a reinforcing layer or a top-coat. Other typical applications include podium decks, low pitch and flat roof areas with pedestrian traffic, wet rooms, lightly trafficked flooring, water channels and ponds. In green roof applications, the addition of Triton's geotextile fleece between the two coats of TWS-Fastcoat provides an effective root barrier and waterproofing layer.

At the Material Store development, as part of the preparation for the application of TWS-Fastcoat, Triton's Fillet Seal was applied



in 25mm beads to all internal angles that eliminates 90° angles at wall/floor transitions and minimises the risk of leaving gaps or holes unsealed. It was also important to ensure that the concrete surface was clean and dust free. On porous or friable surfaces, Triton's TWS-PU Primer should be applied before the application of TWS-Fastcoat.

The slabs will receive raised access floors over the TWS-Fastcoat layer, allowing any potential water/rain ingress to enter the drainage systems of the individual dwellings beneath the raised floor.

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New light on ventilation



New light is being shed on ventilation options for non-domestic buildings. **Gilberts Blackpool** has continued its reputation for innovation by now combining a roof light into its rooftop penthouse terminal. The option is available with their standard or bespoke designs, and encompasses glass or polycarbonate glazing to the roof top of the turret. It can be fitted in both new build and refurbishment schemes. The development means build and operational costs, and potential weak points on the roof, are all reduced, whilst the internal environment below still benefits from natural daylight and natural ventilation.

01253 766911 www.gilbertsblackpool.com

Three-metre-wide house wins award



Tim de Graag's comprehensive renovation of a three-metre-wide house in Zierikzee is an outstanding showcase of how to maximise light to enhance space. Instrumental in helping the young Dutch architect to realize his vision for this exceptionally narrow property were **Glazing Vision's** rooflights. Indeed the jury, in presenting the 2016 Daylight Award to de Graag, credited the rooflights as creating "extraordinary and subtle differences in light and shadow in the heart of the house". To find out more about design considerations for your project, please visit glazingvision.co.uk/request-cpd.

01379 353 741 www.glazingvision.co.uk

Bespoke Lumen Rooflights help transform modest traditional London apartment



Lumen Rooflights has supplied five stunning bespoke rooflights for an exciting conversion in South West London. The project is unique in that the apartment spans the entire top floor of its mid-Victorian building in Putney. The roof was rebuilt with flat roof mansard structures, various dormers and old plastic rooflights. The low budget rooflights, which sat proud of the roof plane drew the eye unnecessarily to the unsightly mansard roof. By reducing the number of rooflights and using a cleaner design with minimal frames set within the plane of the slate roof the client, Zachary Pulman Design Studio, was able to both reduce their visual impact externally while dramatically improving the order and special quality within the flat. The ambitious project has completely re-imagined the internal layout and external aesthetics of the property. The thoughtful use of high quality materials and bespoke finishes were an integral aspect of the project throughout. This was particularly true of the rooflights. The project has been a resounding success and with the help of Lumen bespoke rooflights, Zach Pulman has transformed what was a modest traditional apartment into a luxurious modernist home.

0330 300 1090 www.lumenrooflight.com

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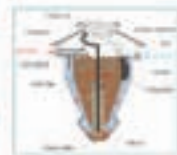


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Environmentally friendly

Checking out at the library

The new library at the University of Birmingham is wrapped in cladding that offers an interesting new variation on granite in four different finishes. Brian Newell of Shackerley looks at the aesthetics and function

The University of Birmingham's landmark Edgbaston campus holds one of the most distinctive pieces of architecture in the city – the historic Aston Webb Building. With its great curved facade, it frames the landscaped Chancellor's Court, home to the iconic clock tower 'Old Joe' which was named after the university's first chancellor Joseph Chamberlin.

The university's estate is currently undergoing the biggest campus regeneration since the first phase of the Edgbaston campus was completed over a century ago. The development programme, worth close to £500m, is set to include various teaching facilities, residences and sports facilities that will be delivered over the next five years. However, a centrepiece new library has already been unveiled following 10 years in the planning.

Adjacent to its former 1950s incarnation which will be demolished, the £44m library is a landmark scheme that will be at the heart of the new 'Green Heart' landscaped parkland. Due to its specific location, the library's architects, Associated Architects, had to address the practical demands of the building – such as layout, IT networks and provision for 40 miles of shelving – but also design a scheme that will sit comfortably within the existing architectural context and the new parkland surrounding the new building.

Use of ceramic granite cladding alongside curtain walling and anodised aluminium fins has been instrumental in creating a statement building that answers

Ceramic granite contributed to the building's BREEAM 'Excellent' rating for materials





those aesthetic demands while also offering a robust and sustainable facade.

Creating contrast

The architects were asked to come up with a concept for a building that was “of its time, confident and expressive.” The response from the design team at Associated Architects was to design a contemporary structure that referenced the geometry of its predecessor. Extensive glazing maximises the views and provides a reflective surface, while natural texture and patina of ceramic granite create visual contrast with colour and texture that is juxtaposed against the sheen of the anodised aluminium fins.

Used for the stair core areas and the rear of the tower to differentiate these sections of the building, the ceramic granite helps to break up the facade while providing a solid contrast to the lighter areas.

To achieve this eye-catching effect, the architects specified SureClad ceramic granite in four different finishes including black panels in both highly polished and natural finishes, unpolished grey panels and unpolished panels with a marbled/variegated black and grey finish. This combination creates dark areas on the facade and adds a tonal variation when approaching the edifice.

Sustainability

The contribution of the ceramic granite cladding system was not only aesthetic; its ventilation offers breathable protection for the building fabric and low maintenance durability to boost the structure’s green credentials and service life expectancy.

The large format 1198 x 598 mm ceramic granite panels used are thinner and lighter, yet stronger than traditional cladding materials, thus minimising loadings on the substructure and the building. The design team arranged the panels in a ‘best-fit’ configuration, setting out the ceramic granite in alignment with the windows and floor-to-floor heights to maximise impact and cut waste.

Ceramic granite contributed to the building’s BREEAM ‘Excellent’ rating for materials. It also contributed to the EPC A rating that was achieved from the Part L model in a building designed to achieve a 50 per cent reduction in energy consumption compared to its predecessor.

The cladding system was fixed to the concrete cores around the fire escapes, creating a 350 mm cavity off the facade that was used to ‘super-insulate’ the

The panels are unaffected by climatic extremes and conform to all international standards for freeze thaw resistance

building. The interface of the primary support brackets with the concrete structure was thermally broken to prevent cold bridging, further enhancing the cladding’s contribution to the building’s thermal performance.

At the same time, the cladding’s ventilation and impermeability features allow continuous airflow between the outer facade and the internal envelope, preventing moisture build-up and the risk of interstitial condensation.

Fully vitrified, with virtually zero porosity, ceramic granite panels are designed to be unaffected by climatic extremes and conform to international standards for freeze thaw resistance. They are developed to resist algae growth and are also resistant to acids, alkalis and airborne pollution so avoiding staining or discolouration over time. They are also designed to not fade or degrade in UV light. These factors all combine to provide a durable, long lasting, low-maintenance solution that will retain its looks for decades.

Each ceramic granite panel was supplied fully-prefabricated with fixings securely anchored to the rear of each panel ready for installation on site. The patented design of the facade system allows individual panels to be removed and replaced for maintenance purposes if required in the future, without disturbing the rest of the facade.

Traditions and modernity

The University of Birmingham’s estate development programme will expand and update the Edgbaston campus creating an environment that combines new buildings with academic heritage to meet changing student and research requirements. The use of a ceramic granite ventilated cladding system mirrors this combination of traditional and contemporary, with an update on the inherent properties of granite for the 21st century built environment.

Brian Newell is founder and chief executive of ventilated cladding specialist Shackerley

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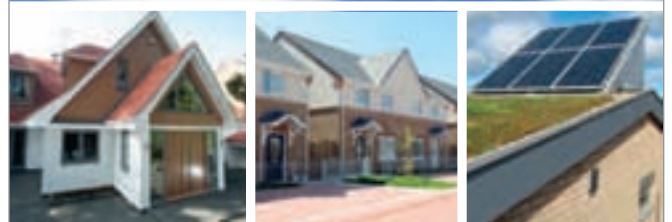
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Rising UK construction output drives demand for Hueck UK's aluminium systems

A new survey has reported an increase in activity in the UK construction sector, despite current political uncertainty.

The Market/CIPS Purchasing Managers' Index (PMI) for the sector moved up to 52.6 from 52.3 in September 2016.

UK construction companies saw a rise in business activity in October, largely driven by residential housing activity.

Leon Friend, project development director at aluminium building systems manufacturer Hueck UK, says the firm has seen an increase in domestic and commercial construction projects this year.

Leon says that with a rise in new construction projects has come increased demand for Hueck's aluminium building systems.

A lot of challenges have faced the aluminium market in 2016 including Brexit, the China slowdown, sluggish pricing, the commodity super cycle and interest rates.

But, globally, aluminium demand has surprised on the upside in most regions so far



this year and is seen growing five percent in 2016.

In Europe, demand is set to remain stable long-term, despite political uncertainty. Reforms to the London Metal Exchange's global warehouse network have cut the amount of metal trapped in storage and, despite uneasy trading on the LME, aluminium in construction is doing well.

Leon comments: "Aluminium is a light, strong, long life material. It is also a green

material as it is 100 per cent recyclable, with re-melting only requiring five per cent of the energy required to produce the metal in the first place.

"As such, it is ideal for many building and construction applications and our high-performance systems meet the stringent requirements for functionality, energy efficiency, architectural flexibility and design that are in demand at the luxury end of this market."

Hueck is one of Europe's largest manufacturers and suppliers of aluminium window, door and facade solutions, specialising in both standard systems, as well as and bespoke applications.

The company offers a wide choice of profiles, all of which are designed to integrate with each other. In addition to the Lambda and Trigon ranges, Hueck also manufactures the innovative Volato suite of sliding systems, as well as a range of fire protection systems.

01217 671344 www.hueck.com

VIVIX® revitalises housing scheme



Briefed to renovate a tired sheltered housing scheme, John McCall Architects proposed to invert Shallcross Court by constructing a new outward-facing communal block. Having experimented with a variety of finishes and colours, the

specification of VIVIX® panels from Formica Group permitted the creation of a strong identity for the scheme. A mix of eye-catching green strips complemented the bank of existing trees, while the larger format monolithic two-tone grey panels offset the busy facade below; delineating private spaces from the communal area on the ground.

0191 259 3512 www.formica.com

VMZINC interlocking panel facade



An eye-catching, contemporary facade has been achieved on Majestic House, part of the Altitude development in Poole, through use of VMZINC® interlocking panels in natural zinc, QUARTZ-ZINC® and ANTHRA-ZINC®. Terence O'Rourke Architects' design of the £6m first phase entailed conversion of a disused, five-storey office building into one encompassing 21 luxury apartments, offices

and extensions to the ground floor and rooftop. Zinc was chosen together with other modern facade materials to provide a subtle distinction between residential and commercial spaces.

01992 822288 www.vMZinc.co.uk

Panels are a sound feature of airport



Sheffield-based Panel Systems, a leading manufacturer of decorative and composite panels, has recently supplied aluminium faced Aluglaze panels in metallic silver for London City Airport's Terminal Building refurbishment. Panel Systems manufactured 170m² of Aluglaze panels, which feature powder coated

or anodised aluminium bonded to an insulated core. In addition to the high performance insulated core material, the Aluglaze panels contained a sound reducing layer to achieve the acoustic reduction and wind loading criteria required for the refurbishment.

sales@panelsystems.co.uk

Colourful panels add finishing touches



Sheffield-based architectural panel manufacturer Panel Systems has played its part in ensuring that pupils at the new Goldthorpe Primary School receive an inspiring and enlightening educational journey, thanks to the colourful Trespa panels it fabricated and supplied. Panel Systems supplied 80m² of Trespa panels in six bright colours to

create a unique rainbow design. The panels were 3mm thick and Panel Systems bonded them to a Styrofoam core, providing a high level of insulation for the building, enhancing its energy efficiency and meeting the architect's specification for thermal performance.

sales@panelsystems.co.uk

Laminates create a colourful campus

Abet Laminati's MEG exterior grade laminate has been used to colourful effect at a new Academy in Birmingham which specialises in preparing students for careers in Health & Social Care, Enterprise and Creative Technology.

Designed by international design practice Scott Brownrigg, with the exterior supplied by SIG Building Systems, the new purpose built premises spans several buildings all clad in grey and orange laminate from Abet Laminati's exterior grade high pressure laminate collection.

MEG is a perfect choice for this kind of high demand environment where durability meets design. Carrying a BBA Agrément Certificate, MEG is a self-supporting high pressure laminate (HPL) for cladding the exterior of buildings, balconies and other applications. It features high resistance to temperature, climate shock, weathering, UV



light and impact. Furthermore, its chemical resistant nature and closed structure do not allow paint in spray cans, various inks, emulsion paints, lipstick or pastel paints to penetrate into the decorative layer negating the need for any anti-graffiti treatment and making the surface easy to clean.

The range is available in over 91 colours in a mix of traditional plain colours, wood finishes and simulated-concrete colours Metal. MEG is also able to incorporate Abet's digital printing technology. This means that almost any design, photograph or pattern can be reproduced in stunning detail to give architects and designers unparalleled freedom to create unusual and dramatic building facades.

Samples and technical literature are available from Abet Ltd's sample line on the website.

020 7473 6915 www.abetuk.com

Contemporary aesthetic to 90's office



Linthorpe Developments, a commercial North-East property company, is rejuvenating a 26-year-old office block in Middlesbrough using embossed pearl grey PVC-U cladding from Deeplas, a leading UK manufacturer and supplier of calcium organic PVC-U roofline products and

building plastics. The colour, pearl grey, is a big factor because it provides the right upmarket facelift for a property that is being transformed into the Cleveland Business Centre, a high-specification serviced office space for up to 55 start-ups and expanding enterprises.

0800 988 7309 www.deeplas.co.uk

Bespoke design adds elegance



Motorised folding shutters manufactured by Hunter Douglas have provided deluxe private villas overlooking the Mediterranean Sea with a stunning visual effect as well as practical solar glare reduction. The challenge for Hunter

Douglas, was to create a curved facade of motorised folding shutters that closed at 180 degrees and concealed the runners to ensure that a clean, flat uniform surface is created when the shutters are closed. The aluminium profiles can be coated with polyester powder, while powder coating is applied according to the Qualicoat standard.

01604 766251 www.hunterdouglas.co.uk

Getting on top at the Crick



The Francis Crick Institute in central London is a world-leading centre of biomedical research and innovation. It's research groups are now beginning to move into a new state-of-the-art building, featuring an extraordinary roof screening solution from Levolux. This striking new building, designed to achieve a BREEAM 'excellent' rating by architects from HOK with PLP Architecture, is one of Europe's largest biomedical research centres. Once complete, it will accommodate some 1500 staff including 1250 scientists. Levolux worked collaboratively with the project design team to develop a custom roof screening solution, to satisfy unique and challenging project-specific requirements. The resulting solution is impressive in scale; extending 160m in length and 80m in width, and reaching up to more than 43m above street level. The enormous roof screening structure resembles a modern vaulted roof, divided into two interlocking shells. Each shell is formed from a variety of screening fins, or louvres, that combine to create an attractive, yet multifunctional enclosure. Solid, perforated and twisted aluminium fins all feature, along with glass fins.

info@levolux.com

Too much of a good thing?

John Godley, technical manager for Hambleside Danelaw explains the importance of manufacturers providing relevant, specific and independent transmission values for rooflights



The provision of natural daylight within the built environment can deliver genuine, positive benefits to the finished construction; benefits that can enhance the financial and environmental performance of the building in service, benefits that can improve the internal environment and make it a better, more pleasant place to be. Benefits that can make a real, measurable contribution to the Government's original target of project carbon neutrality for non-domestic buildings by 2019.

While considering the daylighting plan of any building, particularly relatively lightweight buildings such as those with metal clad envelopes, designers need to remain aware of the potential for overheating caused by excessive solar gain where there is no adequate ventilation strategy, or where there are significant heat gains due to internal processes. The design of the building and provision of rooflights has to balance several factors, in particular the perceived conflict between providing daylight and the associated energy savings together with the risk of overheating.

For any building, there is an optimum target percentage of rooflights which will deliver the optimum level of natural daylight into the building, making the optimum saving in energy usage and costs. Beyond that point, solar gain can add to the energy consumption if powered cooling systems become necessary. In high internal volume industrial buildings, the most appropriate, but uncontrolled action, to counter overheating in the building will often be to increase the ventilation by opening doors.

The 'g-value' is a measure of the total solar heat energy that passes through a window or rooflight, most of which is directly transmitted through the material or construction in the visible light spectrum. Total solar heat gain includes directly transmitted solar heat and absorbed solar radiation, which is then re-radiated and conducted into the space. For this reason, the solar heat transmission correlates closely with light transmission. If properly considered at the design stage and well managed during the building's service life, in a relatively temperate climate such as the UK, passive solar gain usually provides a benefit for most of the year, with the overheating effects only being a consideration for the hottest few weeks of the summer months.

A study by De Montfort University concluded that the optimum rooflight area for minimum energy consumption is generally in the region of 15 per cent to 18 per cent of the buildings floor area, for a large single storey industrial type building. If wall-lights are being considered, then the figure can be increased to 20 per cent. A National Association of Rooflight Manufacturers (NARM) study commissioned with Oxford Brookes University concluded that evenly distributed rooflights up to 20 per cent of the roof area can be used without significant solar overheating.

Section 12: Lighting of HM Government's Non-Domestic Building Services Guide 2013 edition states that for a space below rooflights to be classed as 'daylit', the rooflight area should be at least 10 per cent of the floor area with light transmittance at least 70 per cent. If the transmittance is below 70 per cent then the rooflight area should be increased proportionately.

Notwithstanding this, Criterion 3 in Building Regulations Approved Document L2A requires the effects of heat gains in summer to be limited

to reduce the need for air-conditioning, or the energy consumption of any air-conditioning system that is installed. For buildings defined in the National Calculation Methodology database as 'top lit', those whose zone height is less than 6m, a total of 10 per cent rooflight area with a framing factor of 25 per cent and a g-value of 68 per cent is recommended. For buildings whose zone height is greater than 6m, the rooflight area increases to 20 per cent with a framing factor of 15 per cent and a g-value of 46 per cent to go some way into taking account the effects of stratification, or the effect of internal temperatures being cooler at lower level occupied spaces.



These recommended rooflight areas are calculated making certain assumptions on a limited range of light, thermal and solar transmission values for rooflights, whereas the designer has the freedom to specify a wider variation of product to meet the specific needs of the building. It is therefore recommended that the designer uses the data provided from the manufacturer, obtained through responsible independent physical testing. In the absence of any specific BS or EN standard governing the measurement of solar energy transmission through 'plastic' type rooflights, there is a clear need to ensure that the information provided on this issue by rooflight manufacturers, is relevant and specific. Hambleside Danelaw use full solar spectrum transmission data from physical testing by The National Physical Laboratory calculated in accordance with BS EN 410 for all rooflight assembly data produced

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fitted in-line PVC-U patio door that, when fabricated to PAS24 standards, automatically conforms to Part Q.

0800 988 3049 www.eurocell.co.uk

Kawneer launches THE architects guide



A new specification guide to its portfolio of architectural aluminium glazing systems has been published by Kawneer. The ultimate specification guide is presented as 380 individual and easily updated pages within a ring binder that is then housed within a slip

case to give it additional presence and longevity on architects' library shelves. The new specification guide details Kawneer's peerless portfolio of traditional 'stick' and unitised curtain walling systems, door and window systems, door and window sliding systems, framing systems, Brise Soleil, and blast enhanced and fire resistant systems.

01928 502500 www.kawneer.co.uk

Protecting against the elements

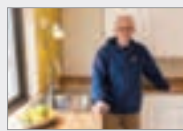


Seaside destinations have become the most popular overnight holiday locations for Brits. With this in mind, it is important that proprietors and builders safeguard the security, weather tightness and corrosion risks of their buildings by utilising door hardware

systems that are hard wearing against the elements. P C Henderson offers a range of sliding and folding door hardware systems ideal for such use, protecting against conditions such as salt spray and sea air. Coastal suitable products such as Soltaire, Securefold and Stainless Steel, have been designed and extensively tested to last.

0191 377 0701 www.pchenderson.com

NorDan on Channel 4's Amazing spaces



The latest development of the Cube Project – QB3 has appeared on Channel 4 television in *George Clarke's Amazing spaces*. The building was designed by Dr Mike Page of the University of Hertfordshire. QB3, is a simple building, on one level. Its only 18m² which is

highly energy efficient, with its NorDan Passivhaus standard triple glazed windows, air source heat pumps, moving walls and everything else you would expect in an incredible building. NorDan supplied top swing timber window and a three handled 'Stormguard' picture window with thermally broken frame to increase energy efficiency.

01452 883131 www.nordan.co.uk

PUR^e® windows check in a hotel



The sympathetic refurbishment of a Grade II Art Deco building in the heart of Newcastle to create a new Premier Inn hotel has benefitted from Senior Architectural System's innovative PUR^e® aluminium windows. With the comfort of guests a key consideration, the

exceptional acoustic and thermal properties of Senior's PUR^e® aluminium casement windows were key to its specification. Offering some of the lowest U-values available to the UK market, the innovative construction of the PUR^e® window features an enhanced thermal barrier manufactured from expanded polyurethane foam (PUR).

info@seniorarchitectural.co.uk

New Eurocell cills adapt to fit



Eurocell has expanded its PVC-U window cill range with two new models measuring 125mm and 225mm deep. The wider model is specially designed for the new build sector because of the increase in larger wall cavities intended to achieve lower U-values. Furthermore, the 225mm item has the flexibility to accommodate surveying discrepancies by fitting a cill extender – alongside a standard range of frame extension trims – to create a cill up

to 275mm in depth. Guaranteed for 10 years, the cills are available in a variety of colours and with a choice of reinforcement.

0800 988 3049 www.eurocell.co.uk

NorDan windows contribute to energy efficiency in Broomhill Glasgow



A new £5.5m development funded by the Scottish Government, Glasgow City Council and private finance has just been completed at Broomhill Gate Glasgow for Partick Housing Association. Designed by Glasgow firm MAST architects and built by Cruden Building and Renewables, the development features NorDan's timber windows. The project consists of 47 units including construction of fourteen townhouses, eighteen common close flats and a care home for people with severe and enduring mental health issues. The latter was built as a supported accommodation block with 14 bedsits and one staff sleepover room. NorDan is one of the biggest Scandinavian producers of high quality, high performance timber windows and doors. NorDan UK Ltd opened a new headquarters in Livingston, Central Scotland close to the M8 motorway. A new showroom is planned for January 2017. MAST architects are based in Glasgow. The firm specialises in designing housing for families, the elderly and people with disabilities for registered social landlords and developers. NorDan is constantly innovating and developing its products.

01452 883131 www.nordan.co.uk

Laidlaw goes top of the class



Laidlaw, a market leader of premium bespoke handrails and balustrade systems, has completed a project at one of the oldest buildings on the University of Staffordshire campus. It supplied and installed a continuous glass balustrade, totalling 40 linear metres, for an accessible walkway outside the Cadman Building in Stoke-on-Trent. Tailor-made to the exact specifications, the balustrade comprised an aluminium base track with brushed stainless steel cladding, plus 900-1100mm high, 15mm thick, clear glass, toughened to EN12150.

01902 600400 www.laidlaw.co.uk

High rise perfection at Hilton

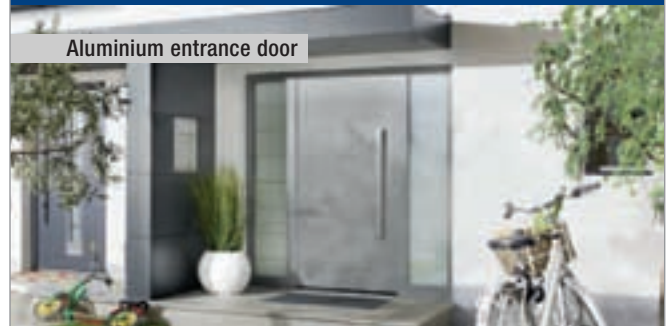


Hilton Bournemouth, the latest property in the Hilton Hotels & Resorts brand, has achieved its soaring glass facade with panoramic views to the coast and across the popular seaside town thanks to extensive use of architectural aluminium systems from Metal Technology. The extensive glazed facade with its eye-catching curves is underpinned by Metal Technology's System 17 high rise curtain walling, complemented by a suite of systems from the company's THERMAL range: System 4-35 Hi+ casement windows, System 5-20D Hi+ doors and System 25 Hi+ lift-and-slide sliding doors.

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Comet ELECTRIC COMBI BOILER

NEW



The latest innovative design from EHC combines the award winning Comet Electric Boiler with a Stainless Steel Indirect Unvented Cylinder housed in an elegant enclosure. It is a complete pre-plumbed/pre-wired Electric Heating & Hot Water solution that eliminates unnecessary plumbing and unsightly pipework. To maximise space and minimise installation the unit has top entry pipework.

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Stainless Steel Cylinder & System Features

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An Inlet Control Set and Tandem are also provided and should be installed external to the unit.

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The Comet Electric Boiler carries a 2 year guarantee and the Stainless Steel Cylinder 10 year guarantee subject to the Manufacturers Terms & Conditions.



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Designing out noise

Building acoustics can affect building users' health and productivity, so controlling noise from HVAC systems is key, says Graham Laws

Loud noise is an unavoidable part of modern life, from the alarm going off to the sound of the neighbours' TV at night. In fact, according to a survey by the Department for Environment, Food & Rural Affairs, 48 per cent of people in the UK reported their home life was spoilt to some extent by noise.

Buildings are a major contributor to this widespread issue – not just during their construction, but also in their day-to-day operation. As awareness of the problems grows, architects are becoming increasingly focused on improving acoustics.

Noise and vibration in building services are caused by a wide range of mechanical and electrical systems.

From fan coil units, variable air volume systems, and grilles and diffusers to rooftop units, chillers, compressors and condensers, pumps and stand-by generators, boilers and cooling towers, systems can cause significant noise pollution and make the workplace uncomfortable and therefore less productive.

On the back of increased requirements for energy efficiency, buildings are now better insulated thermally and acoustically. However, this further drives the need for ventilation and thermal management, which can in turn create noise.

Common issues

Breakout noise is sound moving through walls of ductwork and into the space around it. Noise travelling through ductwork ('in-line' noise), can create a significant background nuisance if not properly managed. This can raise stress levels, harm communication and concentration and increase fatigue. A poorly-designed acoustic solution can potentially exacerbate issues by causing regenerative noise and affecting airflow.

An additional issue is cross-talk, whereby speech privacy is compromised by room-to-room noise transmission via the ventilation system. A good example is in an office building where employees on one



floor might hear conversations via the return grille.

Meeting noise levels

Different building types present unique challenges, whether they are offices, schools, hospitals or commercial structures. In the education sector, acoustics are paramount, and there will be both separation requirements and background noise level requirements for a project to achieve. These may be provided as a single-figure rating or noise rating (NR) value, and it's vital to know rooms' function and the desired speech privacy level.

These levels are used in the measurement of noise from mechanical sources such as air conditioning systems in spaces like

On the back of increased requirements for energy efficiency, buildings are now better insulated thermally and acoustically



hotels, cinemas and schools. Most buildings will have an 'in-room' NR level requirement, based on the room's function. For example, typical noise rating values for a concert hall or church would be NR25 while a school or hotel would be NR35, significantly lower than an engineering environment for example. To ensure these levels are achieved, a given Sound Power Level (LwA) for the HVAC unit is required.

Noise transmission

In terms of system design, air velocity within a duct system is a significant factor in noise levels. Transition pieces, bends, dampers, grilles and diffusers can create regenerated noise. This can be reduced by limiting the air velocities within the duct system, by easing transitions in the system design and by ensuring that internal acoustic treatments contain chamfers where appropriate to reduce the turbulent effect of sudden changes in of opening or direction.

When two adjacent or closely positioned rooms are sharing the same ductwork, sound travels within ducts and will decrease the room-to-room sound insulation dramatically. This can impact speech privacy and negatively affect the working environment.

Since vibration and sound from HVAC operation can transmit to the building and cause problems, isolating systems from the structure is one solution. This can be done

via isolation mounts or through flexible linkages from the structure via the noise source and the duct runs.

Sound control

When it comes to HVAC noise control treatments, a range of solutions are available, tailored to project-specific requirements. Components manufactured from open-cell acoustic foam for example are designed to ease airflow and lower regenerative noise, with lining treatment engineered to deliver a low Sound Power (LwA) figure. Modern solutions can offer exceptional noise absorption, yielding reduced airborne noise at inlets and outlets, and lowering case-radiated noise.

Lining kits from Siderise for example are Class 0 fire-rated to EN 13501-1 to comply with Building Regulations Approved Document B. Solutions are supplied as a pre-cut kit, backed with modified acrylic adhesive for rapid installation.

Remedial treatment

For an existing building with an 'in-line' noise problem in ductwork, open-cell melamine resin foams are an easy and cost-efficient way to introduce noise control. At the terminal ends, where air is being delivered to the occupied spaces, the grille can be removed to install the foam inserts. Inherently flexible, they are ideally suited to retrofit installation, particularly when there is minimal access or if work has to be carried out with minimum disruption.

For 'duct noise breakout', another solution which contributes well to quiet air-handling, is externally-applied acoustic treatments. Easy to install without affecting the HVAC system, they reduce breakout noise through a combination of acoustic absorption and sound reduction via an inherently damped flexible mass membrane.

Promoting comfort

We live in a very noisy world, but by proactively considering potential acoustic problems at the design stage of an HVAC system and adding sound control measures to minimise unwanted noise, building owners can benefit from a quieter system which can go a long way towards promoting comfort and productivity. Solutions are available to provide a holistic treatment for all areas of HVAC noise, for a peaceful, stress-free and more productive future.

Graham Laws is business development officer at Siderise Group

SIX-POINT CHECKLIST FOR ACOUSTIC CONTROL:

- Understand the legislative requirements of the building
- Understand the design requirements of the building
- Optimise noise control treatments at source
- Optimise system design for airflow and regenerative noise
- Minimise noise from ducts and air handling units
- Minimise structure-borne noise

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01264 356415 www.airventtechnology.co.uk

UFAC at 20 Soho Square on track



AET Flexible Space, a provider of underfloor air conditioning has recently completed the supply and commissioning of underfloor air conditioning equipment at 20 Soho Square in London’s West End. The 6,000m² neo-classical building has a stunning Portland stone facade;

the most prominent in Soho Square and the iconic colonnade extends across the ground and first floors. AET has supplied a total of twenty five CAM-C (DX) downflow units along with associated Daikin heat pumps and around 360 TU4-EC fan terminals; with the underfloor system installed throughout most of the building’s seven floors.

01342 310400 www.flexiblespace.com

Best selling ‘floor mounted pump station’ gets a ‘major’ update



The DrainMajor is Aldermaston based Pump specialists **Pump Technology**’s best selling waste water and hot water, floor mounted pump system. It now has a completely new and re-designed tank. Custom manufactured from Polyethylene, the new recyclable tank features a sealed lid that can be simply removed via four screws for easy service and maintenance access. It is extremely tough and rugged and, unlike many other waste water pumping systems, has been specially designed to withstand hot water from combination ovens, washing machines, glass washers, dishwashers or commercial sinks. The interior has been built to take a range of pumps, making it an extremely flexible option for offices, schools, shops, pubs, restaurants, factories, hospitals and warehouses. For specifiers and installers, the unit offers tremendous flexibility since there is no pre-formed invert allowing it to be positioned to suit each particular application. The DrainMajor is a fully automatic waste water pumping system suitable for domestic and commercial installations where gravity drainage is not possible and waste water needs to be collected and pumped to the drainage system.

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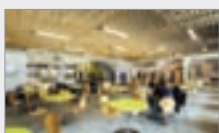
Fusing efficient ventilation & heating



Strategic thinking inside the box is enabling specifiers to fuse efficient ventilation and heating all in one.... Gilberts (Blackpool) Ltd, has developed a natural ventilation unit that also features both heat reclamation and space heating. The unique Mistrale MFS Fusion unit can now be optioned with an integrated LPHW coil, which provides a complete solution for both morning warm-up and any boost heating requirements. The stand-alone unit is installed as normal through the building facade.

01253 766911 www.gilbertsblackpool.com

Grill ceiling completes the look



A West Sussex college has been enhanced with a stunning grill ceiling, manufactured by Hunter Douglas. Hunter Douglas Architectural, which manufactured 300m² ceilings for the Northbrook College's first two developments, supplied a further 300m² of solid timber grill in 4-90-15-45 module in African Ayous for the common areas and reception in the newest scheme. The solid wood grill panels are constructed using black aluminium dowels, which are clipped onto a black grid system, making an unobtrusive suspension system but allowing easy access into the void.

01604 766 251 www.hunterdouglas.co.uk

Marshall-Tufflex in pole position



Marshall-Tufflex PowerPoles and PowerPosts are the easy, good-looking and cost-effective solution for delivering power, data and communication services to island work stations in offices, schools, healthcare facilities. The elegant and practical systems are manufactured in lightweight aluminium with PVC-U covers and accessories to give maximum strength and rigidity and available in either an anodised or white powder coated body. Specifiers can select from three designs – with single or double-sided versions offering between six and 14 accessory boxes.

01424 856655 www.marshall-tufflex.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

Lyndon – a tale of two coffee tables



An exciting coffee table duo named 'Pause and Wait' is one of the flagship ranges to be unveiled in Lyndon Design's inspiring new 'Tables Edit'. Boasting the uncompromising quality standards that characterise all of Lyndon Design's collections, both tables feature a solid timber underframe and circular top in European Oak with square leg detail that oozes elegance and enduring appeal. Pause and Wait can be used individually to highlight their unique qualities, or can stand side by side to create a stunning design statement.

sales@lyndon.co.uk

Footballer's hotel chooses Vicaima for winning team



A project made possible by the partnership of football player, Cristiano Ronaldo and the Pestana hotels Group has inspired the transformation of the Hotel Pestana CR7 in Lisboa, Lisbon. The renovation of this historic building has led to the selection of Vicaima door products for their outstanding performance and design appeal. The boutique hotel, inspired by the charismatic footballer, is distinguished by the sophisticated décor for which the carbon grey colour of the Dekordor HD Colours Vicaima range has been selected, creating striking and harmonious spaces in the lifestyle concept of the project. Among the many technical and integrated solutions the project demanded, were the installation of Vicaima's Portaro system, which provides a completely matching door and frame and were used for the entrance to rooms. These were required to have high levels of technical performance, with fire resistance, up to 30 minutes, and acoustic insulation, up to 40 decibels. In addition the project also demanded integrated communicating doors between suites and sliding doors in various locations, thus enhancing the maximum optimization of the space.

01793 532333 www.vicaima.com



Stairways to design efficiency

Phil Waind of Waind Gohil + Potter Architects describes how the firm has developed a 'design for manufacture' approach to optimise the creation of staircases as a key element of buildings for users

Waind Gohil + Potter Architects believes it's not just what it looks like, it is how you design it that counts. We are particularly interested in design for construction/fabrication processes, or as product designer would term it, 'design for manufacture,' where the design optimises procurement and manufacturing processes, assembly and testing, delivery and use.

Taking this principle and applying it to the design and construction of buildings excites us – it broadens design optimisation to include site context, planning, statutory regulation and appropriate construction process. We retain the key influences of fabrication, assembly and material efficiency to deliver the best possible outcome at the best price.

In this 'design for manufacture' context, stairs are a particularly important structural building element, with a close experiential/tactile relationship with building users in achieving vertical circulation, and visually, as an object within space. Stairs should be expressive of function and the process that makes them, as well as being appropriate to their context.

The design for fabrication of the bespoke stair has become a key thread of work and research development within our studio. We've established a rigorous design process, whereby the constraints and opportunities of a stair construction are established and rough concept sketches are tackled with our go-to structural and fabrication consultants, Webb Yates Engineers and Pipsqueak Developments. At this initial stage the appropriate fabrication processes are identified, and as the design is developed, reduced scale physical models and 3D CAD models are constructed, before full scale prototypes of sections of the stair are tested.

Staircase studies

Recent stair designs for three different residential projects in London demonstrate our approach and the advanced outcome of this research. For the Ardilaun project (a private residential conversion in Islington), the stair design was evolved whereby identical laser cut/folded steel pieces form the handrail and balustrade, appearing to cantilever but with each interconnecting. The efficiency of repetition of identical components and the visual trick of connecting them provides a rhythm akin to that of the adjacent timber Victorian newel and balusters and a sense of lightness. The use of a natural material, waxed raw steel, is in keeping with the honest use of finishes elsewhere, and the cost was comparable with a proprietary timber stair.

A staircase in a Grade II Listed building, Montagu, in Marylebone, central London was not as constrained by economics, however the Local Planning Authority dictated that the stair could not touch an adjacent listed wall. The logarithmic curved form of the string provides the structural integrity, from which the treads are cantilevered. The string and treads were again fabricated from laser cut and folded steel, forming a complex steel plate structure where each element is used to add support and stiffen.

The handrail forms the main support using the crossing lattice of vertical and horizontals to span like a beam between the floors. From this the treads cantilever out towards the wall, using the fanning triangular steel plates to provide structural depth and stiffness. The tapered form of the treads, which are under lit, and elegant lattice form of the balustrade take reference from the Georgian detailing and fenestration of the existing house.



TOP

Ardilaun – private residential, Islington

BOTTOM

Montagu, Grade II conversion, Marylebone

Stairs should be expressive of function and the process that makes them, as well as being appropriate to their context

The stair was pre-fabricated and brought to site in sections then assembled and welded together. The steel plates were set out and overlapped to allow the majority of the welds to be on the back edges, hidden from direct view. Full penetration fillet welds were visible but subsequently ground down to leave a neat, crisp edge.

Every detail was discussed and refined with the fabricator to ensure buildability and structural integrity, including a concealed slot to hide wires for integrated lighting. The treads were inlaid with oak, and sections of white leather clad the hand rail, albeit it was suggested that an anaconda skin would not

require stitched joints!

Lastly, Frithville, a private residential conversion in Shepherds Bush saw a stair fabricated from Tintab plywood within a light stair well space with generous roof lights. The solid ply wood treads and balustrade/stringer provide a sculptural form, with the lamination of the plywood sheets expressed including a twisted interpretation of the newel post.

We continue to push boundaries with our research and development of stair design and fabrication with new findings, including material efficiency and the appropriateness of different fabrication process in terms of logistics, context, acoustics, function, and form.

Perhaps the most satisfying outcome is the realisation that designing for fabrication yields the unique decoration and elegance that characterise the completed installation via the fabrication process itself. This seems an appropriate, modern progression from the craftsmanship of the skilled wood turner and their lathe.

Phil Waind is a founding director of Waind Gohil + Potter Architects



Frithville, a residential project in Shepherds Bush

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Schlüter-Systems gives feature staircase the edge with illuminated profiles

Industrial Sensor Specialist Longvale Ltd, have selected Schlüter®-LIPROTEC illuminated profile technology in conjunction with Schlüter®-TREP stair nosing profile to give their feature staircase a unique lighting design with a modern, slip resistant finish, within the entrance to their brand new facility.

Longvale supply products such as Mechanical Switches and Special Sensors from manufacturers around the world; however, their new facility now allows them to design and produce bespoke solutions for customers themselves.

Schlüter introduced the new range of illuminated profiles to add a fourth dimension to architecture, with lighting playing an essential role when it comes to inspired design. Schlüter®-LIPROTEC is an intelligent lighting concept that combines lighting and profiles within the tile and stone covering. A choice of indirect or direct light is available, with Schlüter profile



technology, allowing you to emphasise curtain walls and illuminate stairways, foyers, bathrooms and more, all with an innovative, unique appearance.

Intelligent receivers control the LED strips with power supply units that convert the mains voltage to the 24 V required. Pre-programmed colour changes can be selected using the control system, where you decide the mood with the touch of a button. If the client is looking for a particular ambiance or to bring brand colours into the design, then the system can be programmed

from 16 million colours.

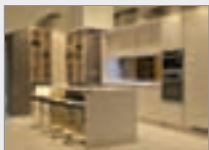
Suitable for moisture-rich rooms, the LED strips are completely encapsulated and conform to IP65, allowing subtle detail to be incorporated into the smallest rooms.

For this particular project Schlüter®-LIPROTEC-PB with indirect and direct light was combined with the high quality Schlüter®-TREP-E stair nosing profile in a brushed stainless steel finish, turning the staircase into a stunning focal point with an illuminated subtle accent. The Schlüter®-TREP range also improves safety on staircases, maintaining and protecting installations to keep the edges of the tile or natural stone covering intact, while also offering DDA compliant solutions

Maurice Parker, tiling contractor chosen for the project carried out the installation of the Schlüter®-LIPROTEC and -TREP profiles on to each of the 19 steps.

01530 813396 www.liprotec.co.uk

BLANCO supplies in inspirational space

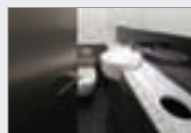


The Home Space from Express is a unique 27,000 square foot showroom space featuring three full-sized display homes along with inspiring room sets. As the leader in sink, tap, and waste technology and design, BLANCO was a natural partner. Included in the BLANCO

products on show in eight kitchen displays are undermount sinks, the BLANCO ELON and CLARON sinks and the CARENA tap, along with innovative waste solutions. Each customer, however, has the option to choose from BLANCO's entire range.

info@vandersanden.com

Super creative office washrooms



Washroom designer and manufacturer, Washroom Washroom, has installed new 'superloos' at the iconic Heal's building in London. The building, once home to Heal's department store, has been completely refurbished throughout to provide Grade A office

space. During the project Washroom worked closely with interior fit-out specialist square metre to install the new washrooms. As each level had a limited floorplan area, new unisex 'superloos', which are self-contained cubicles each with its own vanity unit and hand drying facilities, were installed to make the most of the space available.

sales@washroom.co.uk

Harmer introduces new stainless steel range for vinyl floors



Harmer Building Drainage part of Alumasc Water Management Solutions (AWMS) adds to its high performance stainless steel floor drains with a new vinyl floor option, ideal for industrial and commercial kitchens. The innovative drains are also suitable for wash down and wet rooms and compliment Harmer's existing stainless steel range. Specifiers and contractors can now benefit from a versatile solution for vinyl floor applications with the choice of two models – fixed or fully adjustable; a vertical or horizontal outlet; and two styles of grate finishes – square or circular. An easy fit clamp ring helps to secure the vinyl sheet. The vinyl floor drains also lead in flow rate achieving 3.0L/s against the standard 1.4L/s, and comfortably exceeding the BS EN 1253 minimum required capacity for a ground floor 100mm outlet of 1.8L/s at 20mm head of water. Harmer Drainage Sales Manager Wayne Willmott says: "Our new stainless steel drains for vinyl floors fit perfectly with our channel system and provide excellent performance against corrosion." For more information please contact the company directly or visit the website.

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Artisan panel doors grace luxury Surrey mansion

Specialist door manufacturer, Ahmarra Door Solutions have supplied bespoke panel doors for 'Westbourn', a newly-built luxury mansion in the Surrey countryside by leading luxury property developer, Hencan.

Ahmarra worked closely with the developer, Hencan to select Blenheim 2-panel doors in an Ebony Ash stain from their Artisan Panel Door Collection. This bespoke



range of panel doors includes stunning designs from Ahmarra's latest projects which have featured in some of the most prestigious residential developments in the UK.

The Artisan range has been designed specifically for architects, developers and interior designers working in the luxury residential sector and offers a wide choice of door and panel designs and additional joinery components.

Westbourn is set in four acres of landscaped grounds on the famous Wentworth Estate in Virginia Water. Features include a magnificent entrance hall and a further four reception rooms.

Artisan panel doors have been tailor-made for a number of luxury homes for property developers including Octagon Developments, Berkeley Group, Royalton and St Francis Group, as well as for homes and apartments



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in some of London's most prestigious addresses and leading 5-star London hotels.

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Polyflor adds colour to Hopwood Hall



High performance commercial flooring from two of Polyflor's sheet vinyl flooring collections were recently used to create a vibrant environment for students at Hopwood Hall College to dine and enjoy their break times in. The flooring design

chosen for this canteen area features Polyflor's XL PU product cut into circles and semi circles, laid into a background of Polysafe Wood fx PUR safety flooring in the Rustic Oak design. XL PU flooring in the Tanzanite Blue, Citrine and Connemara Green shades was chosen to add splashes of bold colour around the servery and seating areas.

0161 767 1111 www.polyflor.com

Coopers Fire's new smoke curtain



Coopers Fire has added to its range of smoke and fire curtains with the release of the innovative new SmokeStop Concertina smoke curtain barrier system. The unique features of the SmokeStop Concertina allow it to be used in place of traditional smoke control features,

allowing architects, fire engineers and specifiers to create open plan designs which meet all the requirements of a building's smoke control strategy. Barriers remain invisibly retracted until activated by an alarm or detector signal, at which time they descend safely to their operational position to control smoke and assist with smoke channelling.

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Charcon helps railway stay on track



Charcon, the commercial hard landscaping division of Aggregate Industries, has supplied Leighton Buzzard Railway with 800m² of block paving, helping the heritage railway stay on track to open its brand new station building. Charcon supplied 800m² of Europa block paving for the local

project in a warm red hue, complementing the white station building and providing a highly attractive landscaped frontage and surrounding pathway. Europa offers a high level of durability and good grip. It can be easily lifted to access services.

01335 372222 www.charcon.com

Halestem Steel landscape edging



EverEdge Halestem steel landscape edging in an L shaped edge which is ideally suited for use in hard landscaping projects including the laying of tarmac, resin bonded surfaces and paving. Made from high tensile galvanised steel, the edging has a 6mm wide top edge which provides strength but also a clear divide between surfaces. EverEdge Halestem

offers a versatile solution for straight lines or curves anywhere where an L shaped edge is required.

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Bradite have introduced a tough, fast drying new protective coating system for the commercial and industrial sectors that allows contractors to complete a job in just 48 hours from start to finish – allowing clients to be back in business fast. Part One of the system is high performance he

two-pack, water-based ES40 Floor Primer designed for use on interior dense, power floated, non porous concrete, ceramic and terracotta tiled floors. Rapid PW74 can also be used be used clear as a floor sealer.

01248 600315 www.bradite.com

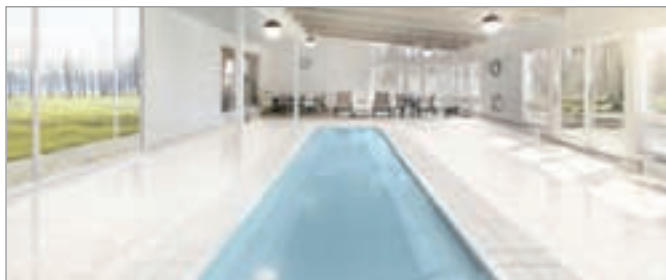
Neaco chosen for another landmark



Neaco's aluminium decking has been specified for another landmark bridge project at Bécon-les-Bruyères train station which forms part of the extensive redevelopment of the Zac des Bruyeres Courbevoie in Paris. The striking new

footbridge is the key feature of first phase of modernisation carried out by contractors, Groupe GCC. It now facilitates access to routes for travelers and allows residents the passage of Asnieres-sur-Seine at Courbevoie. Bécon-les-Bruyères is one of the busiest stations in the suburbs, with more than 20,000 passengers per day.

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Portsmouth Uni doubles up cycle parking



Cycle-Works recently improved the cycle parking at several sites around The University of Portsmouth, by installing 80 new Josta 2-tier racks under modern and stylish Kennet shelters, as part of a larger programme to improve facilities for cycling around the campus. These custom made shelters

have an aluminium composite roof and steel frame. Cycle-Works Ltd supply and install a range of cycle parking products including secure lockers, high capacity solutions, shelters, compounds and racks.

info@cycle-works.com

Platform drainage at Historic Railway Station

The original York Railway Station was built within the City Walls, adjacent to where the current station now stands. Opened in 1839 by the North Midland Railway, the structure only served trains to and from the south and the northern coalfields. However by 1873, as more passenger and goods lines were built into York, a larger station, from which trains could gain access from all directions, was needed.

Opening in 1877, the new York Station took three years to rebuild. Designed by the North Eastern Railway's architect Thomas Prosser, the curved 800ft-long train-shed roof, supported by iron columns, arched 42ft above the platforms. The station was immediately hailed as one of the great buildings in Victorian era. At the time, it was the largest railway station in the world with four massive arches and thirteen platforms.

Today, the structure still impresses. Serving



the busy East Coast mainline route, primarily between Glasgow Aberdeen, Edinburgh and London it is also a vital cross-route link between Glasgow, Manchester and Liverpool. The station currently copes with around 800 trains and thousands of passengers each week. With so many passengers using the station, the extended platforms, which project out from the original arched structure, are as

busy as ever. The platform surfaces have been designed to gently slope inward away from the track so any surface water naturally drains towards their centre. Effective drainage of these roofed and un-roofed "outer" areas was a major safety consideration.

Hauraton RECYFIX® STANDARD 100 channels were chosen for the slightly curving platforms. The 271 metres of channelling installed were made from the company's tough recycled Polyethylene-Polypropylene (PE-PP), all fitted with Class C 250 ductile iron "heel-safe" gratings finished in a Black anti-oxidisation coating. As each one metre unit only weighs just over 6kg, including the grating, contractor C. Spencer Limited was impressed with the ease and speed of installing the channels as all the units used easily complied with manual lifting regulations.

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